REPORT

First Quarter 2023 Monitoring Report

Mosaic Potash Carlsbad – Stage 1 Abatement Plan

Submitted to:

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Attachment 2: Laboratory Results

Attachment 3: Updated S1AP Project Schedule

Attachment 4: S1AP Data Gap Analysis Report

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1.0 INTRODUCTION

WSP USA Inc. (WSP) is providing herein the first quarter (1Q) 2023 Stage 1 Abatement Plan (S1AP) monitoring report for the Mosaic Potash Carlsbad, Inc. (Mosaic) Facility. This report is intended to meet the reporting requirements presented in Task 12 of the Modified Stage 1 Abetment Plan (S1AP), approved by the New Mexico Environment Department (NMED) Ground Water Quality Bureau (GWQB) on November 18, 2022.

This report summarizes activities related to the S1AP during the 1Q 2023. This report represents the first quarterly report under the S1AP scope of work. Groundwater and surface water monitoring and sampling were performed by WSP in January 2023, and the results of this quarterly monitoring event are presented in this letter report. Additionally, this report presents the results of two S1AP tasks completed during the 1Q 2023, the Task 1 Data Gap Analysis (Attachment 3), and the Task 2a Well Inventory (Attachment 4).

2.0 FIRST QUARTER 2023 MONITORING SUMMARY

The monitoring network covered under the first quarterly 2023 monitoring event is presented in Figure 1. The following summary of activities related to the S1AP scope of work occurred during the first quarter of 2023:

- Water level and groundwater quality monitoring of 16 groundwater monitoring wells and three piezometers: LG-1, LG-5, LG-23, LG-25, LG-26, LG-28, LG-29, LG-30, LG-31, LG-32, LG-33, LG-34, LG-35, LG-36, LG-37, LG-38, P-East, P-West, and P-Center.
- Surface water quality monitoring of four surface water locations on the Pecos River: River-1, River-2, River-3, and River-4.
- Water quality monitoring of the brine effluent and the surface water runoff culverts to Laguna Grande.
- Installation of three new staff gauges within Laguna Grande to record continuous surface water level measurements.

2.1 Monitoring Activities

The first quarterly groundwater and surface water monitoring event was conducted between January 23 and January 25, 2023. The quarterly groundwater and surface water monitoring event included the measurement of groundwater levels and the collection of water quality samples for laboratory analyses from sixteen groundwater monitoring wells and three piezometers: LG-1, LG-5, LG-23, LG-25, LG-26, LG-28, LG-29, LG-30, LG-31, LG-32, LG-33, LG-34, LG-35, LG-36, LG-37, LG-38, P-East, P-West, and P-Center. Surface water quality samples were also collected for laboratory analyses at four locations along the Pecos River (River-1 through River-4). Additionally, water quality samples were collected from the 24” brine pipeline effluent to Laguna Grande and at the natural surface runoff culvert to Laguna Grande. All monitoring activities were completed in accordance with the project Quality Assurance Plan (QAP), which was submitted to the NMED GWQB on January 23, 2023, and subsequently conditionally approved by the GWQB on March 17, 2023.

WSP personnel measured field parameters with a water quality meter during purging and / or prior to sampling of the sixteen groundwater monitoring wells, three piezometers, four river sample points, brine pipeline, and surface runoff culvert. The pH, specific conductivity, specific gravity, and temperature of the purged ground water at each monitoring well and piezometer were measured and recorded on Groundwater Field Parameter Forms. The water quality meter was calibrated and/or checked against a standard in accordance with manufacturer’s specifications each day prior to use. The completed Groundwater Field Parameter Forms associated with the first quarter monitoring event in 2023 are included in Attachment 1.

Water quality samples were collected from each of the sixteen (16) monitoring wells, three (3) piezometers, four (4) river sample points, brine pipeline, and surface runoff culvert and stored in sterile containers provided by Cardinal Laboratories (Cardinal). The samples were delivered to Cardinal in Hobbs, New Mexico under chain-of-custody immediately following the quarterly monitoring event. All samples collected were analyzed for the parameters listed in Condition C105.G of the Draft DP-1399 Renewal. These analyses included calcium (Ca), magnesium (Mg), sodium (Na), potassium (K), sulfate (SO4), chloride (Cl), boron (B), alkalinity (reported as CaCO3), specific conductivity (at 25°C), pH, and total dissolved solids (TDS). Additional parameters not specifically required in DP-1399 include specific gravity (SG), bromide (Br^-), and selenium (Se). Finally, additional analyses required by the S1AP include total suspended solids (TSS) from the brine pipeline and the surface runoff culvert, and fecal coliform and total nitrogen from the brine pipeline. (Please note, due to limited groundwater availability at monitoring well LG-36, the sample could only be analyzed for a single analyte, TDS, in January 2023.) The signed analytical laboratory report and associated chain-of-custody form associated with the 1Q 2023 monitoring event is provided in Attachment 2. In compliance with the approved QAP, WSP collected one concurrent duplicate sample and one equipment rinsate field blank to perform laboratory and field quality control checks during the 1Q 2023 monitoring event, which are listed as “GOL-04” and “RINSATE SAMPLE” on the laboratory reports.

As an additional task during the 1Q monitoring event, WSP installed three new staff gauges within Laguna Grande on January 25, 2023. The previously monitored staff gauge locations within Laguna Grande (LG-1, LG-2, LG-3) remained dry for part or all the monitoring period between April 2020 and January 2023. Due to the low water levels at the previously monitored locations, WSP installed three new staff gauges in Laguna Grande Pond 4 where surface water is present for prolonged periods of time. The locations of the new Laguna Grande staff gauges were proposed to the NMED and approved on December 6, 2022. The new locations were named LGSG-4, LGSG-5, and LGSG-6 and their locations can be seen in Figure 1. This effort will further contribute to Task 8 (*Water Balance Analysis Within a Portion of Nash Draw*) of the S1AP.

WSP recorded continuous groundwater levels using submersible pressure transducers installed within the monitoring wells located between Laguna Grande and the west side of the Pecos River: LG-1, LG-5, LG-23, LG-25, LG-26, LG-28, LG-29, LG-30, LG-31, LG-32, LG-33, LG-34, LG-35, LG-36, LG-37, and LG-38. WSP verified transducer data against manual groundwater levels measurements and calibrated sensors as needed to correlate with the manual measurements taken during the first quarter monitoring event. Additionally, there are eight (8) automated camera staff gauges within the monitoring network that recorded surface water levels along the Pecos River and within Laguna Grande: PR-1, PR-2, PR-3, PR-4, LGSG-4, LGSG-5, LGSG-6 and SWLGD. Per the reporting requirements of Condition C105.H of the DP-1399 Permit, hourly groundwater level measurements from the transducers and hourly surface water level measurements from the staff gauges will be presented in the DP-1399 semi-annual reports and are therefore not included in this quarterly report.

2.2 Groundwater Levels and Groundwater Flow Results

Groundwater levels were gauged using an electric water level sounder at the sixteen (16) monitoring wells and three (3) piezometers within the DP-1399 monitoring network. Table 1 contains the groundwater levels recorded during the 1Q 2023 monitoring event as well as historic groundwater level measurements. A potentiometric map of the area between Laguna Grande and the Pecos River was prepared for the 1Q 2023 and is presented in Figure 2. The potentiometric surface map is based on measured groundwater levels within the Mosaic groundwater monitoring network in January 2023 and are adjusted for fluid density to determine the equivalent freshwater heads at each well location using methods presented in Post et al. (2007). The potentiometric surface

map shows a general southwesterly groundwater flow direction in the area between Laguna Grande and the Pecos River, flowing parallel to the primary axis of Nash Draw from northeast to southwest. This map also indicates that groundwater flow direction transitions to a southerly-southeasterly in the vicinity of the Pecos River (quasi-parallel to the axis of the Pecos River). Overall groundwater gradients for wells southwest of Laguna Grande appear to be nearly flat, with gradients on the east side of the Pecos River ranging between approximately 0.003 and 0.007 foot per foot [3 mm to 7 mm (delta horizontal) / 1 m (delta linear)].

2.2.1 Projected Water Levels

Projected groundwater and surface water levels have been calculated to provide additional characterization of the potential hydrogeologic connection between the Pecos River and groundwater discharging from the Site (covered under Task 2e of the S1AP).

Groundwater levels along the Pecos River were estimated from the measured groundwater level measurements associated with wells nearest the Pecos River (wells LG-25, LG-26, LG-30, and LG-35). The groundwater levels directly adjacent to the Pecos River were estimated at locations downgradient, upgradient, or cross gradient of each of these wells by projecting the corresponding potentiometric surfaces using the groundwater elevation map (Figure 2). The potentiometric map was used to determine the hydraulic gradients near each of the four monitoring wells. The measured groundwater levels at each well were then multiplied by the hydraulic gradient near each well (i.e., slope of the water table) and the distances directly downgradient, upgradient, or cross gradient to the Pecos River to estimate the groundwater levels directly adjacent to the Pecos River. The projected groundwater level point locations can be seen in Figure 2.

Surface water elevations at each of the projected points downgradient of the four individual wells were estimated by first determining the surface water gradient between the corresponding DP-1399 automated staff gauges (existing Pecos River Staff Gauges 1 through 4) and then multiplying the surface water gradient by the distance between the nearest staff gauge and the associated projected point downgradient of each well. This provides an estimate of the total change in the surface water elevation in feet between the nearest staff gauge and the projected groundwater elevation point based on the four monitoring wells. This number was then either added to (if upgradient) or subtracted from (if downgradient) the measured surface water elevation at the nearest staff gauge to provide an estimate of the surface water elevation at each of the four projected groundwater elevation points.

The projected surface water levels and projected groundwater levels at each of the four points along the Pecos River are shown graphically in Figure 3. As Figure 3 shows, the stretch of the Pecos River near wells LG-25 and LG-35 appears to be gaining, where groundwater within the underlying shallow water-bearing unit is flowing toward the river (i.e., projected groundwater levels at the Pecos River near wells LG-25 and LG-35 are higher than the water level of the river). In contrast, the stretch of Pecos River near LG-30 appears to be a losing stretch where the surface water in the Pecos River is higher than groundwater level in the underlying shallow water-bearing unit in the area. The water level in the Pecos River in the area near well LG-26 appears to be approximately equal to the projected groundwater level.

2.3 Water Quality Results

Results of the laboratory analyses and field monitoring conducted during the first quarter of 2023 are summarized in Table 2. Figures 4 through 11 present the concentrations of various water quality parameters over time observed within the groundwater monitoring network and the surface water sample points. Figures 12 through 29 present concentrations of various water quality parameters over time observed at each monitoring well. Figures

30 through 33 present concentrations of various water quality parameters over time observed at each of the four Pecos River sampling points (River-1, River-2, River-3, and River-4). Water quality results for the first half of 2023, along with notable water quality trend discussions, will be presented in the *First 2023 Semi-Annual Monitoring Report* which will be submitted to the GWQB in July 2023.

3.0 ADDITIONAL REPORTING REQUIREMENTS

As part of the 1Q 2023 S1AP reporting requirements, WSP has prepared the Data Gap Analysis (Task 1 of the S1AP) and the Well Inventory (Task 2a of the S1AP) letter reports. Due to the extensive amount of information already available for the Site, the first step in the S1AP was an assessment of the existing information and identification of data gaps for purposes of an abatement plan. Attachment 3 provides the *Stage 1 Abatement Plan Data Gap Analysis Report*. Following the data gap analysis, the next stage is the collection and evaluation of additional data, to be coordinated with studies already required under DP-1399 and other ongoing S1AP studies at the Site.

The *Stage 1 Abatement Plan Well Inventory Report* is provided in Attachment 4. The well inventory includes a summary of available information associated with all groundwater wells located inside and within a one-mile perimeter of the three-dimensional body of water where measured constituents are present in excess of the numerical standards of 20.6.2.3103 NMAC, and all groundwater wells actually or potentially affected by the groundwater quality exceedances. The well inventory results will also be included as an attachment to the Final Site Investigation Report detailing the results of the S1AP.

4.0 ONGOING WORK / PROJECT SCHEDULE

The most recent S1AP schedule is provided as Attachment 5. The updated S1AP Program schedule presented in this report was submitted to the NMED GWQB on February 24, 2023, and subsequently approved by the agency on March 3, 2023. There are currently no anticipated changes to project schedule. WSP and Mosaic will inform the GWQB of any planned schedule changes if they should be necessary in the future. A review meeting between WSP, Mosaic, and the NMED to discuss the results presented in this *First Quarter 2023 S1AP Monitoring Report* is currently scheduled for May 1, 2023. The 2Q 2023 monitoring event is tentatively scheduled for the week of May 22, 2023. Please note, field events are subject to change due to weather events and/or WSP staffing availability. The next quarterly S1AP report will be submitted by July 31, 2023 in accordance with the approved S1AP schedule.

5.0 CLOSING

WSP submits this report to meet all the quarterly report requirements set forth in the approved S1AP. If you have any questions or need further clarification, please do not hesitate to contact the undersigned.

Signature Page

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REFERENCES

Post V, Kooi H, and Simmons C. 2007. Using Hydraulic Head Measurements in Variable-Density Ground Water Flow Analyses. Ground Water, 45 (6), 664-671.

Tables

TABLE 1

GROUNDWATER LEVELS, DENSITIES, AND EQUIVALENT FRESHWATER HEADS

Well	Date	Depth to Water (feet below top of casing)	Top of Casing Elevation[1] (feet amsl)	Measured Water Level Elevation (feet amsl)	Screen Mid-point Elevation (feet amsl)	Measured Density[2,4] (g/cm^3)	Temp. of Density Measurement (°C)	Freshwater Density at Temp of Measurement (g/cm^3)	Equivalent Freshwater Head[3] (feet amsl)	Comments
LG-1										
LG-1	05/19/09	21.45	2966.78	2945.33	2932.68	1.060	26.0	0.9968	2946.13	
LG-1	08/31/09	20.50	2966.78	2946.28	2932.68	1.057	22.5	0.9976	2947.09	
LG-1	11/02/09	21.20	2966.78	2945.58	2932.68	1.057	20.4	0.9981	2946.34	
LG-1	01/11/10	21.00	2966.78	2945.78	2932.68	1.057	21.0	0.9980	2946.56	
LG-1	05/11/10	20.70	2966.78	2946.08	2932.68	1.055	25.0	0.9971	2946.86	
LG-1	08/03/10	20.10	2966.78	2946.68	2932.68	1.060	23.1	0.9975	2947.56	
LG-1	11/16/10	20.30	2966.78	2946.48	2932.68	1.062	19.2	0.9983	2947.36	
LG-1	01/26/11	20.80	2966.78	2945.98	2932.68	1.060	12.3	0.9994	2946.79	
LG-1	05/02/11	21.40	2966.78	2945.38	2932.68	1.054	25.0	0.9971	2946.11	
LG-1	07/05/11	22.20	2966.78	2944.58	2932.68	1.054	25.1	0.9970	2945.26	
LG-1	10/12/11	22.65	2966.78	2944.13	2932.68	1.048	22.7	0.9976	2944.71	
LG-1	01/31/12	22.30	2966.78	2944.48	2932.68	1.042	19.9	0.9982	2945.00	
LG-1	04/24/12	22.40	2966.78	2944.38	2932.68	1.036	22.0	0.9978	2944.83	
LG-1	07/18/12	22.60	2966.78	2944.18	2932.68	1.030	22.6	0.9976	2944.55	
LG-1	11/26/12	22.00	2966.78	2944.78	2932.68	1.024	22.7	0.9976	2945.10	
LG-1	02/26/13	21.9	2966.78	2944.88	2932.68	1.064	21.1	0.9979	2945.69	
LG-1	04/29/13	22.2	2966.78	2944.58	2932.68	1.066	23.7	0.9974	2945.40	
LG-1	08/01/13	21.75	2966.78	2945.03	2932.68	1.062	22.0	0.9978	2945.83	
LG-1	10/30/13	21.70	2966.78	2945.08	2932.68	1.070	20.2	0.9981	2945.97	
LG-1	02/12/14	21.70	2966.78	2945.08	2932.68	1.032	20.1	0.9981	2945.50	
LG-1	04/28/14	21.78	2966.78	2945.00	2932.68	1.060	21.9	0.9978	2945.77	
LG-1	07/22/14	22.40	2966.78	2944.38	2932.68	1.070	21.9	0.9978	2945.23	
LG-1	10/28/14	17.53	2966.78	2949.25	2932.68	1.066	20.3	0.9981	2950.38	
LG-1	01/13/15	17.51	2966.78	2949.27	2932.68	1.060	19.3	0.9983	2950.30	
LG-1	05/04/15	17.45	2966.78	2949.33	2932.68	1.066	22.4	0.9977	2950.47	
LG-1	07/09/15	18.80	2966.78	2947.98	2932.68	1.072	25.5	0.9970	2949.13	
LG-1	10/15/15	18.12	2966.78	2948.66	2932.68	1.066	21.8	0.9978	2949.75	
LG-1	01/07/16	17.91	2966.78	2948.87	2932.68	1.089	15.6	0.9989	2950.33	
LG-1	04/07/16	17.68	2966.78	2949.10	2932.68	1.079	15.6	0.9989	2950.42	
LG-1	08/09/16	18.63	2966.78	2948.15	2932.68	1.072	22.5	0.9976	2949.30	
LG-1	12/05/16	18.41	2966.78	2948.37	2932.68	1.077	19.2	0.9983	2949.61	
LG-1	03/14/17	18.75	2966.78	2948.03	2932.68	1.070	15.6	0.9989	2949.12	
LG-1	05/12/17	19.13	2966.78	2947.65	2932.68	1.055	15.6	0.9989	2948.49	
LG-1	07/28/17	19.67	2966.78	2947.11	2932.68	1.056	21.7	0.9978	2947.95	
LG-1	11/11/17	19.39	2966.78	2947.39	2932.68	1.058	20.6	0.9980	2948.27	
LG-1	02/21/18	19.60	2966.78	2947.18	2932.68	1.056	20.5	0.9981	2948.02	
LG-1	04/06/18	19.70	2966.78	2947.08	2932.68	1.058	21.2	0.9979	2947.95	
LG-1	07/27/18	20.10	2966.78	2946.68	2932.68	1.058	21.2	0.9979	2947.52	

TABLE 1

GROUNDWATER LEVELS, DENSITIES, AND EQUIVALENT FRESHWATER HEADS

Well	Date	Depth to Water (feet below top of casing)	Top of Casing Elevation[1] (feet amsl)	Measured Water Level Elevation (feet amsl)	Screen Mid-point Elevation (feet amsl)	Measured Density[2,4] (g/cm^3)	Temp. of Density Measurement (°C)	Freshwater Density at Temp of Measurement (g/cm^3)	Equivalent Freshwater Head[3] (feet amsl)	Comments
LG-1	10/05/18	19.79	2966.78	2946.99	2932.68	1.060	21.5	0.9979	2947.88	
LG-1	01/12/19	19.04	2966.78	2947.74	2932.68	1.060	19.9	0.9982	2948.67	
LG-1	04/05/19	19.23	2966.78	2947.55	2932.68	1.056	20.9	0.9980	2948.41	
LG-1	07/26/19	19.98	2966.78	2946.80	2932.68	1.055	21.4	0.9979	2947.61	
LG-1	11/02/19	20.05	2966.78	2946.73	2932.68	1.060	20.2	0.9981	2947.60	
LG-1	01/29/20	20.20	2966.78	2946.58	2932.68	1.064	20.2	0.9981	2947.50	
LG-1	04/28/20	20.10	2966.78	2946.68	2932.68	1.056	22.7	0.9976	2947.50	
LG-1	07/29/20	20.90	2966.78	2945.88	2932.68	1.060	21.3	0.9979	2946.70	
LG-1	10/29/20	20.84	2966.78	2945.94	2932.68	1.032	22.4	0.9977	2946.40	
LG-1	01/27/21	20.93	2966.78	2945.85	2932.68	1.060	23.0	0.9975	2946.67	
LG-1	04/27/21	21.16	2966.78	2945.62	2932.68	1.062	23.5	0.9974	2946.46	
LG-1	07/27/21	20.70	2966.78	2946.08	2932.68	1.064	23.4	0.9974	2946.97	
LG-1	10/26/21	21.06	2966.78	2945.72	2932.68	1.070	23.9	0.9973	2946.67	
LG-1	01/19/22	20.52	2966.78	2946.26	2932.68	1.082	17.7	0.9986	2947.39	
LG-1	04/27/22	20.00	2966.78	2946.78	2932.68	1.074	22.6	0.9976	2947.86	
LG-1	07/26/22	21.10	2966.78	2945.68	2932.68	1.070	26.7	0.9967	2946.64	
LG-1	11/01/22	20.90	2966.78	2945.88	2932.68	1.072	22.3	0.9977	2946.86	
LG-1	01/24/23	20.62	2966.78	2946.16	2932.68	1.070	16.4	0.9988	2947.12	
LG-2										
LG-2	02/25/09	19.13	2974.52	2955.40	2942.77	1.029	21.8	0.9978	2955.79	
LG-2	05/19/09	19.55	2974.52	2954.97	2942.77	1.028	25.8	0.9969	2955.35	
LG-2	08/25/09	17.03	2974.52	2957.49	2942.77	1.029	23.0	0.9975	2957.95	
LG-2	11/02/09	18.07	2974.52	2956.45	2942.77	1.030	20.0	0.9982	2956.89	
LG-2	01/11/10	17.09	2974.52	2957.43	2942.77	1.030	21.0	0.9980	2957.90	
LG-2	05/11/10	17.45	2974.52	2957.07	2942.77	1.031	24.6	0.9972	2957.56	
LG-2	08/03/10	16.30	2974.52	2958.22	2942.77	1.036	21.3	0.9979	2958.81	
LG-2	11/16/10	16.70	2974.52	2957.82	2942.77	1.033	15.4	0.9989	2958.33	
LG-2	01/26/11	17.00	2974.52	2957.52	2942.77	1.038	17.6	0.9986	2958.10	
LG-2	05/02/11	17.65	2974.52	2956.87	2942.77	1.032	20.1	0.9981	2957.35	
LG-2	07/05/11	18.95	2974.52	2955.57	2942.77	1.032	22.1	0.9977	2956.01	
LG-2	10/12/11	19.60	2974.52	2954.92	2942.77	1.040	19.6	0.9982	2955.43	
LG-2	01/31/12	17.70	2974.52	2956.82	2942.77	1.038	20.5	0.9981	2957.38	
LG-2	04/24/12	16.20	2974.52	2958.32	2942.77	1.042	21.0	0.9980	2959.01	
LG-2	07/18/12	14.20	2974.52	2960.32	2942.77	1.040	24.7	0.9971	2961.07	
LG-2	11/26/12	12.20	2974.52	2962.32	2942.77	1.030	24.2	0.9973	2962.96	
LG-2	02/27/13	10.50	2974.52	2964.02	2942.77	1.028	21.1	0.9979	2964.66	
LG-2	04/29/13	10.55	2974.52	2963.97	2942.77	1.024	22.0	0.9978	2964.53	
LG-2	07/31/13	11.10	2974.52	2963.42	2942.77	1.022	23.8	0.9974	2963.93	
LG-2	10/29/13	10.20	2974.52	2964.32	2942.77	1.024	23.0	0.9975	2964.89	

TABLE 1

GROUNDWATER LEVELS, DENSITIES, AND EQUIVALENT FRESHWATER HEADS

Well	Date	Depth to Water (feet below top of casing)	Top of Casing Elevation[1] (feet amsl)	Measured Water Level Elevation (feet amsl)	Screen Mid-point Elevation (feet amsl)	Measured Density[2,4] (g/cm^3)	Temp. of Density Measurement (°C)	Freshwater Density at Temp of Measurement (g/cm^3)	Equivalent Freshwater Head[3] (feet amsl)	Comments
LG-2	02/12/14	11.45	2974.52	2963.07	2942.77	1.020	20.5	0.9981	2963.52	
LG-2	04/28/14	13.00	2974.52	2961.52	2942.77	1.022	22.2	0.9977	2961.98	
LG-2	07/22/14	14.20	2974.52	2960.32	2942.77	1.024	21.4	0.9979	2960.78	
LG-2	10/27/14	9.96	2974.52	2964.56	2942.77	1.020	21.6	0.9978	2965.04	
LG-2	01/12/15	10.81	2974.52	2963.71	2942.77	1.022	20.5	0.9981	2964.21	
LG-2	04/29/15	11.25	2974.52	2963.27	2942.77	1.020	20.4	0.9981	2963.72	
LG-2	07/08/15	12.32	2974.52	2962.20	2942.77	1.020	21.1	0.9979	2962.63	
LG-2	10/15/15	12.60	2974.52	2961.92	2942.77	1.023	15.6	0.9989	2962.38	
LG-2	03/01/16	12.21	2974.52	2962.31	2942.77	1.028	15.6	0.9989	2962.88	
LG-2	04/07/16	12.33	2974.52	2962.19	2942.77	1.203	15.6	0.9989	2966.16	
LG-2	08/09/16	14.48	2974.52	2960.04	2942.77	1.032	22.2	0.9977	2960.63	
LG-2	12/05/16	13.76	2974.52	2960.76	2942.77	1.039	20.2	0.9981	2961.50	
LG-2	03/15/17	14.32	2974.52	2960.20	2942.77	1.030	15.6	0.9989	2960.74	
LG-2	05/13/17	14.82	2974.52	2959.70	2942.77	1.044	15.6	0.9989	2960.46	
LG-2	07/28/17	15.60	2974.52	2958.92	2942.77	1.041	23.6	0.9974	2959.63	
LG-2	11/11/17	15.16	2974.52	2959.36	2942.77	1.048	21.2	0.9979	2960.19	
LG-2	02/21/18	15.48	2974.52	2959.04	2942.77	1.048	20.5	0.9981	2959.85	
LG-2	04/07/18	15.63	2974.52	2958.89	2942.77	1.048	20.4	0.9981	2959.70	
LG-2	07/28/18	15.98	2974.52	2958.54	2942.77	1.050	20.8	0.9980	2959.36	
LG-2	10/06/18	14.97	2974.52	2959.55	2942.77	1.056	21.6	0.9978	2960.53	
LG-2	01/12/19	14.32	2974.52	2960.20	2942.77	1.060	20.7	0.9980	2961.28	
LG-2	04/05/19	14.55	2974.52	2959.97	2942.77	1.060	20.8	0.9980	2961.04	
LG-2	07/26/19	15.47	2974.52	2959.05	2942.77	1.064	20.9	0.9980	2960.13	
LG-2	11/02/19	15.82	2974.52	2958.70	2942.77	1.062	21.1	0.9979	2959.72	
LG-2	01/29/20	15.85	2974.52	2958.67	2942.77	1.070	20.9	0.9980	2959.82	
LG-2	04/28/20	15.62	2974.52	2958.90	2942.77	1.068	23.2	0.9975	2960.04	
LG-2	07/29/20	16.95	2974.52	2957.57	2942.77	1.068	21.3	0.9979	2958.61	
LG-2	10/29/20	17.35	2974.52	2957.17	2942.77	1.068	21.6	0.9978	2958.18	
LG-5										
LG-5	02/25/09	15.10	2972.42	2957.32	2933.18	1.252	21.1	0.9979	2963.47	
LG-5	05/20/09	15.90	2972.42	2956.52	2933.18	1.246	25.7	0.9969	2962.35	
LG-5	08/31/09	14.90	2972.42	2957.52	2933.18	1.251	23.0	0.9975	2963.70	
LG-5	11/03/09	14.95	2972.42	2957.47	2933.18	1.255	20.7	0.9980	2963.72	
LG-5	01/12/10	14.63	2972.42	2957.79	2933.18	1.255	21.0	0.9980	2964.13	
LG-5	05/12/10	15.10	2972.42	2957.32	2933.18	1.257	24.7	0.9971	2963.61	
LG-5	08/04/10	14.20	2972.42	2958.22	2933.18	1.262	24.2	0.9973	2964.87	
LG-5	11/16/10	14.20	2972.42	2958.22	2933.18	1.264	20.9	0.9980	2964.89	
LG-5	01/26/11	12.50	2972.42	2959.92	2933.18	1.266	19.8	0.9982	2967.09	
LG-5	05/03/11	16.25	2972.42	2956.17	2933.18	1.263	18.6	0.9984	2962.26	

TABLE 1

GROUNDWATER LEVELS, DENSITIES, AND EQUIVALENT FRESHWATER HEADS

Well	Date	Depth to Water (feet below top of casing)	Top of Casing Elevation[1] (feet amsl)	Measured Water Level Elevation (feet amsl)	Screen Mid-point Elevation (feet amsl)	Measured Density[2,4] (g/cm^3)	Temp. of Density Measurement (°C)	Freshwater Density at Temp of Measurement (g/cm^3)	Equivalent Freshwater Head[3] (feet amsl)	Comments
LG-5	07/05/11	16.70	2972.42	2955.72	2933.18	1.265	31.5	0.9953	2961.83	
LG-5	10/13/11	16.53	2972.42	2955.89	2933.18	1.266	22.1	0.9977	2962.00	
LG-5	02/01/12	16.70	2972.42	2955.72	2933.18	1.264	21.1	0.9979	2961.73	
LG-5	04/25/12	16.90	2972.42	2955.52	2933.18	1.260	22.6	0.9976	2961.40	
LG-5	07/18/12	16.52	2972.42	2955.90	2933.18	1.262	24.9	0.9971	2961.94	
LG-5	11/28/12	16.70	2972.42	2955.72	2933.18	1.260	19.3	0.9983	2961.63	
LG-5	02/26/13	16.80	2972.42	2955.62	2933.18	1.260	21.5	0.9979	2961.52	
LG-5	04/30/13	17.05	2972.42	2955.37	2933.18	1.260	24.7	0.9971	2961.22	
LG-5	08/01/13	16.17	2972.42	2956.25	2933.18	1.258	23.3	0.9975	2962.28	
LG-5	11/11/13	16.10	2972.42	2956.32	2933.18	1.258	21.5	0.9979	2962.35	
LG-5	02/14/14	15.48	2972.42	2956.94	2933.18	1.250	21.4	0.9979	2962.94	
LG-5	05/06/14	15.50	2972.42	2956.92	2933.18	1.248	23.1	0.9975	2962.88	
LG-5	07/23/14	16.20	2972.42	2956.22	2933.18	1.238	22.6	0.9976	2961.77	
LG-5	10/29/14	11.12	2972.42	2961.30	2933.18	1.235	20.8	0.9980	2967.98	
LG-5	01/14/15	11.16	2972.42	2961.26	2933.18	1.228	19.9	0.9982	2967.73	
LG-5	04/29/15	12.71	2972.42	2959.71	2933.18	1.224	23.6	0.9974	2965.74	
LG-5	04/29/15	12.71	2972.42	2959.71	2933.18	1.212	21.4	0.9979	2965.40	
LG-5	07/08/15	15.40	2972.42	2957.02	2933.18	1.212	20.6	0.9980	2962.13	
LG-5	10/21/15	16.01	2972.42	2956.41	2933.18	1.270	15.6	0.9989	2962.71	
LG-5	10/21/15	16.01	2972.42	2956.41	2933.18	1.249	15.6	0.9989	2962.23	
LG-5	03/03/16	16.48	2972.42	2955.94	2933.18	1.202	22.0	0.9978	2960.60	
LG-5	04/08/16	16.71	2972.42	2955.71	2933.18	1.268	19.6	0.9982	2961.80	
LG-5	08/10/16	16.05	2972.42	2956.37	2933.18	1.264	15.6	0.9989	2962.52	
LG-5	12/02/16	15.06	2972.42	2957.36	2933.18	1.251	15.6	0.9989	2963.46	
LG-5	03/14/17	15.22	2972.42	2957.20	2933.18	1.200	21.8	0.9978	2962.07	
LG-5	05/12/17	15.17	2972.42	2957.25	2933.18	1.200	20.5	0.9981	2962.12	
LG-5	07/28/17	14.65	2972.42	2957.77	2933.18	1.200	21.8	0.9978	2962.75	
LG-5	11/10/17	15.29	2972.42	2957.13	2933.18	1.200	20.5	0.9981	2961.98	
LG-5	02/20/18	16.04	2972.42	2956.38	2933.18	1.200	20.8	0.9980	2961.08	
LG-5	04/06/18	15.77	2972.42	2956.65	2933.18	1.264	21.3	0.9979	2962.91	
LG-5	07/27/18	15.59	2972.42	2956.83	2933.18	1.268	21.7	0.9978	2963.23	
LG-5	10/05/18	15.43	2972.42	2956.99	2933.18	1.266	21.7	0.9978	2963.39	
LG-5	01/11/19	15.15	2972.42	2957.27	2933.18	1.266	20.8	0.9980	2963.74	
LG-5	04/05/19	15.65	2972.42	2956.77	2933.18	1.270	20.5	0.9981	2963.20	
LG-5	07/26/19	14.73	2972.59	2957.86	2933.18	1.262	22.0	0.9978	2964.40	
LG-5	11/02/19	14.49	2970.94	2956.45	2933.18	1.258	21.3	0.9979	2962.51	
LG-5	01/28/20	14.55	2970.94	2956.39	2933.18	1.264	20.4	0.9981	2962.57	
LG-5	04/27/20	14.44	2970.94	2956.50	2933.18	1.270	23.1	0.9975	2962.87	
LG-5	07/28/20	15.21	2970.94	2955.73	2933.18	1.272	21.6	0.9978	2961.92	

TABLE 1

GROUNDWATER LEVELS, DENSITIES, AND EQUIVALENT FRESHWATER HEADS

Well	Date	Depth to Water (feet below top of casing)	Top of Casing Elevation[1] (feet amsl)	Measured Water Level Elevation (feet amsl)	Screen Mid-point Elevation (feet amsl)	Measured Density[2,4] (g/cm^3)	Temp. of Density Measurement (°C)	Freshwater Density at Temp of Measurement (g/cm^3)	Equivalent Freshwater Head[3] (feet amsl)	Comments
LG-5	10/28/20	15.44	2970.94	2955.50	2933.18	1.266	19.8	0.9982	2961.49	
LG-5	01/26/21	15.86	2970.94	2955.08	2933.18	1.240	18.2	0.9985	2960.37	
LG-5	04/26/21	16.35	2970.94	2954.59	2933.18	1.262	16.6	0.9988	2960.23	
LG-5	07/26/21	15.45	2970.94	2955.49	2933.18	1.264	26.1	0.9968	2961.47	
LG-5	10/25/21	15.91	2970.94	2955.03	2933.18	1.263	24.2	0.9973	2960.85	
LG-5	01/19/22	16.10	2970.94	2954.84	2933.18	1.268	21.0	0.9980	2960.70	
LG-5	04/26/22	16.44	2970.94	2954.50	2933.18	1.268	23.2	0.9975	2960.28	
LG-5	07/25/22	16.05	2970.94	2954.89	2933.18	1.268	26.5	0.9967	2960.80	
LG-5	10/24/22	15.11	2970.94	2955.83	2933.18	1.264	19.1	0.9983	2961.85	
LG-5	01/23/23	15.10	2970.94	2955.84	2933.18	1.260	23.2	0.9975	2961.80	
LG-23										
LG-23	02/26/09	20.10	2973.22	2953.12	2910.83	1.226	21.0	0.9980	2962.78	
LG-23	05/20/09	20.40	2973.22	2952.82	2910.83	1.230	25.6	0.9969	2962.64	
LG-23	08/31/09	15.50	2973.22	2957.72	2910.83	1.200	22.8	0.9976	2967.23	
LG-23	11/04/09	16.25	2973.22	2956.97	2910.83	1.238	25.7	0.9969	2968.13	
LG-23	01/12/10	16.40	2973.22	2956.82	2910.83	1.230	19.7	0.9982	2967.50	
LG-23	05/12/10	16.82	2973.22	2956.40	2910.83	1.240	21.9	0.9978	2967.46	
LG-23	08/04/10	16.41	2973.22	2956.81	2910.83	1.240	22.2	0.9977	2967.98	
LG-23	11/16/10	16.80	2973.22	2956.42	2910.83	1.240	20.8	0.9980	2967.47	
LG-23	01/26/11	17.00	2973.22	2956.22	2910.83	1.243	19.0	0.9983	2967.34	
LG-23	05/03/11	20.20	2973.22	2953.02	2910.83	1.243	18.6	0.9984	2963.36	
LG-23	07/05/11	18.80	2973.22	2954.42	2910.83	1.246	32.5	0.9950	2965.41	
LG-23	10/13/11	21.37	2973.22	2951.85	2910.83	1.242	22.1	0.9977	2961.89	
LG-23	02/01/12	21.10	2973.22	2952.12	2910.83	1.242	20.6	0.9980	2962.21	
LG-23	04/25/12	21.20	2973.22	2952.02	2910.83	1.240	23.2	0.9975	2962.03	
LG-23	07/19/12	21.20	2973.22	2952.02	2910.83	1.236	22.0	0.9978	2961.86	
LG-23	11/28/12	21.00	2973.22	2952.22	2910.83	1.260	20.2	0.9981	2963.08	
LG-23	02/26/13	21.00	2973.22	2952.22	2910.83	1.240	21.8	0.9978	2962.27	
LG-23	04/30/13	21.20	2973.22	2952.02	2910.83	1.240	22.9	0.9976	2962.03	
LG-23	08/01/13	21.00	2973.22	2952.22	2910.83	1.328	22.8	0.9976	2965.93	
LG-23	11/11/13	20.80	2973.22	2952.42	2910.83	1.210	22.0	0.9978	2961.27	
LG-23	02/14/14	20.29	2973.22	2952.93	2910.83	1.233	22.2	0.9977	2962.86	
LG-23	05/05/14	20.25	2973.22	2952.97	2910.83	1.224	24.9	0.9971	2962.56	
LG-23	07/23/14	20.55	2973.22	2952.67	2910.83	1.218	23.0	0.9975	2961.92	
LG-23	10/29/14	15.64	2973.22	2957.58	2910.83	1.200	21.5	0.9979	2967.05	
LG-23	01/14/15	16.55	2973.22	2956.67	2910.83	1.206	19.8	0.9982	2966.21	
LG-23	05/06/15	16.92	2973.22	2956.30	2910.83	1.200	21.7	0.9978	2965.51	
LG-23	07/07/15	18.67	2973.22	2954.55	2910.83	1.198	22.4	0.9977	2963.33	
LG-23	10/21/15	19.74	2973.22	2953.48	2910.83	1.200	20.8	0.9980	2962.11	

TABLE 1

GROUNDWATER LEVELS, DENSITIES, AND EQUIVALENT FRESHWATER HEADS

Well	Date	Depth to Water (feet below top of casing)	Top of Casing Elevation[1] (feet amsl)	Measured Water Level Elevation (feet amsl)	Screen Mid-point Elevation (feet amsl)	Measured Density[2,4] (g/cm^3)	Temp. of Density Measurement (°C)	Freshwater Density at Temp of Measurement (g/cm^3)	Equivalent Freshwater Head[3] (feet amsl)	Comments
LG-23	03/03/16	20.07	2973.22	2953.15	2910.83	1.246	15.6	0.9989	2963.62	
LG-23	04/08/16	20.20	2973.22	2953.02	2910.83	1.238	15.6	0.9989	2963.12	
LG-23	08/10/16	20.64	2973.22	2952.58	2910.83	1.230	22.1	0.9977	2962.30	
LG-23	12/02/16	19.61	2973.22	2953.61	2910.83	1.247	19.6	0.9982	2964.27	
LG-23	03/14/17	19.51	2973.22	2953.71	2910.83	1.251	15.6	0.9989	2964.53	
LG-23	05/12/17	19.61	2973.22	2953.61	2910.83	1.234	15.6	0.9989	2963.68	
LG-23	07/28/17	19.51	2973.22	2953.71	2910.83	1.200	22.4	0.9977	2962.41	
LG-23	11/10/17	19.47	2973.22	2953.75	2910.83	1.200	20.6	0.9980	2962.44	
LG-23	02/20/18	19.95	2973.22	2953.27	2910.83	1.200	21.1	0.9979	2961.86	
LG-23	04/06/18	20.07	2973.22	2953.15	2910.83	1.244	21.1	0.9979	2963.58	
LG-23	07/27/18	20.90	2973.22	2952.32	2910.83	1.246	22.0	0.9978	2962.64	
LG-23	10/05/18	20.47	2973.22	2952.75	2910.83	1.242	22.2	0.9977	2963.01	
LG-23	01/11/19	19.33	2973.22	2953.89	2910.83	1.242	20.8	0.9980	2964.42	
LG-23	04/05/19	19.74	2973.22	2953.48	2910.83	1.246	20.6	0.9980	2964.08	
LG-23	07/26/19	17.25	2973.22	2955.97	2910.83	1.234	21.6	0.9978	2966.65	
LG-23	11/01/19	19.00	2973.22	2954.22	2910.83	1.238	21.0	0.9980	2964.66	
LG-23	01/28/20	19.08	2973.22	2954.14	2910.83	1.240	20.2	0.9981	2964.64	
LG-23	04/27/20	19.07	2973.22	2954.15	2910.83	1.242	22.2	0.9977	2964.76	
LG-23	07/28/20	19.65	2973.82	2954.17	2910.83	1.245	21.6	0.9978	2964.91	
LG-23	10/28/20	19.81	2973.82	2954.01	2910.83	1.244	19.7	0.9982	2964.65	
LG-23	01/26/21	19.97	2973.82	2953.85	2910.83	1.242	20.4	0.9981	2964.37	
LG-23	04/26/21	20.18	2973.82	2953.64	2910.83	1.242	20.2	0.9981	2964.11	
LG-23	07/26/21	19.97	2973.82	2953.85	2910.83	1.244	25.4	0.9970	2964.51	
LG-23	10/25/21	19.99	2973.82	2953.83	2910.83	1.241	22.9	0.9976	2964.33	
LG-23	01/19/22	20.11	2973.82	2953.71	2910.83	1.242	21.2	0.9979	2964.20	
LG-23	04/26/22	20.21	2973.82	2953.61	2910.83	1.244	21.5	0.9979	2964.17	
LG-23	07/25/22	20.35	2973.82	2953.47	2910.83	1.244	26.4	0.9967	2964.05	
LG-23	10/24/22	19.30	2973.82	2954.52	2910.83	1.238	19.4	0.9983	2965.02	
LG-23	01/23/23	19.47	2973.82	2954.35	2910.83	1.240	19.3	0.9983	2964.89	
LG-25										
LG-25	02/25/09	22.40	2972.92	2950.52	2953.61	1.002	21.8	0.9978	2950.51	
LG-25	05/19/09	22.54	2972.92	2950.38	2953.61	1.001	25.4	0.9970	2950.37	
LG-25	08/25/09	22.00	2972.92	2950.92	2953.61	1.002	23.0	0.9975	2950.91	
LG-25	11/02/09	22.50	2972.92	2950.42	2953.61	1.001	20.2	0.9981	2950.41	
LG-25	01/11/10	22.04	2972.92	2950.88	2953.61	1.001	20.9	0.9980	2950.87	
LG-25	05/11/10	22.40	2972.92	2950.52	2953.61	1.001	25.0	0.9971	2950.51	
LG-25	08/03/10	22.25	2972.92	2950.67	2953.61	1.000	21.4	0.9979	2950.66	
LG-25	11/16/10	21.30	2972.92	2951.62	2953.61	1.000	12.2	0.9994	2951.62	
LG-25	01/26/11	21.90	2972.92	2951.02	2953.61	1.000	19.3	0.9983	2951.02	

TABLE 1

GROUNDWATER LEVELS, DENSITIES, AND EQUIVALENT FRESHWATER HEADS

Well	Date	Depth to Water (feet below top of casing)	Top of Casing Elevation[1] (feet amsl)	Measured Water Level Elevation (feet amsl)	Screen Mid-point Elevation (feet amsl)	Measured Density[2,4] (g/cm^3)	Temp. of Density Measurement (°C)	Freshwater Density at Temp of Measurement (g/cm^3)	Equivalent Freshwater Head[3] (feet amsl)	Comments
LG-25	05/02/11	22.15	2972.92	2950.77	2953.61	1.000	25.0	0.9971	2950.76	
LG-25	07/05/11	22.72	2972.92	2950.20	2953.61	1.000	25.0	0.9971	2950.19	
LG-25	10/12/11	21.84	2972.92	2951.08	2953.61	1.002	22.4	0.9977	2951.07	
LG-25	01/31/12	21.10	2972.92	2951.82	2953.61	1.000	20.4	0.9981	2951.82	
LG-25	04/24/12	21.10	2972.92	2951.82	2953.61	1.000	21.4	0.9979	2951.82	
LG-25	07/18/12	21.20	2972.92	2951.72	2953.61	1.000	22.7	0.9976	2951.72	
LG-25	11/26/12	21.00	2972.92	2951.92	2953.61	1.000	24.3	0.9972	2951.92	
LG-25	02/27/13	21.80	2972.92	2951.12	2953.61	1.000	19.4	0.9983	2951.12	
LG-25	04/29/13	21.90	2972.92	2951.02	2953.61	1.000	22.0	0.9978	2951.01	
LG-25	07/31/13	21.55	2972.92	2951.37	2953.61	1.002	22.9	0.9976	2951.36	
LG-25	10/30/13	21.00	2972.92	2951.92	2953.61	1.000	20.9	0.9980	2951.92	
LG-25	02/12/14	21.80	2972.92	2951.12	2953.61	1.000	20.5	0.9981	2951.12	
LG-25	04/28/14	22.10	2972.92	2950.82	2953.61	1.000	22.5	0.9976	2950.81	
LG-25	07/22/14	22.35	2972.92	2950.57	2953.61	1.002	22.6	0.9976	2950.56	
LG-25	10/27/14	19.95	2972.92	2952.97	2953.61	1.000	22.2	0.9977	2952.97	
LG-25	03/11/15	20.89	2972.92	2952.03	2953.61	1.000	18.2	0.9985	2952.03	
LG-25	05/04/15	21.25	2972.92	2951.67	2953.61	1.000	22.5	0.9976	2951.67	
LG-25	07/09/15	21.54	2972.92	2951.38	2953.61	1.002	21.9	0.9978	2951.37	
LG-25	10/21/15	21.00	2972.92	2951.92	2953.61	1.000	21.7	0.9978	2951.92	
LG-25	03/01/16	21.32	2972.92	2951.60	2953.61	1.006	15.6	0.9989	2951.59	
LG-25	04/14/16	21.67	2972.92	2951.25	2953.61	1.001	15.6	0.9989	2951.25	
LG-25	08/09/16	21.66	2972.92	2951.26	2953.61	1.060	21.6	0.9978	2951.11	
LG-25	12/05/16	21.57	2972.92	2951.35	2953.61	1.003	20.7	0.9980	2951.34	
LG-25	03/14/17	21.73	2972.92	2951.19	2953.61	0.989	15.6	0.9989	2951.22	
LG-25	05/12/17	21.77	2972.92	2951.15	2953.61	1.000	15.6	0.9989	2951.15	
LG-25	07/29/17	21.85	2972.92	2951.07	2953.61	1.000	22.6	0.9976	2951.06	
LG-25	11/11/17	21.91	2972.92	2951.01	2953.61	1.000	21.2	0.9979	2951.00	
LG-25	02/21/18	21.81	2972.92	2951.11	2953.61	1.000	21.0	0.9980	2951.10	
LG-25	04/07/18	22.00	2972.92	2950.92	2953.61	1.000	20.6	0.9980	2950.91	
LG-25	07/29/18	22.05	2972.92	2950.87	2953.61	1.000	21.9	0.9978	2950.86	
LG-25	10/06/18	21.99	2972.92	2950.93	2953.61	1.000	21.9	0.9978	2950.92	
LG-25	01/12/19	21.76	2972.92	2951.16	2953.61	1.002	20.9	0.9980	2951.15	
LG-25	04/06/19	21.72	2972.92	2951.20	2953.61	1.000	20.2	0.9981	2951.20	
LG-25	07/27/19	21.79	2972.92	2951.13	2953.61	1.000	21.6	0.9978	2951.12	
LG-25	11/02/19	22.07	2972.92	2950.85	2953.61	1.000	20.7	0.9980	2950.84	
LG-25	01/29/20	21.66	2972.92	2951.26	2953.61	1.000	20.9	0.9980	2951.26	
LG-25	04/28/20	21.75	2972.92	2951.17	2953.61	1.000	23.9	0.9973	2951.16	
LG-25	07/29/20	22.00	2972.92	2950.92	2953.61	1.000	21.6	0.9978	2950.91	
LG-25	10/29/20	22.26	2972.92	2950.66	2953.61	1.000	21.9	0.9978	2950.65	

TABLE 1

GROUNDWATER LEVELS, DENSITIES, AND EQUIVALENT FRESHWATER HEADS

Well	Date	Depth to Water (feet below top of casing)	Top of Casing Elevation[1] (feet amsl)	Measured Water Level Elevation (feet amsl)	Screen Mid-point Elevation (feet amsl)	Measured Density[2,4] (g/cm^3)	Temp. of Density Measurement (°C)	Freshwater Density at Temp of Measurement (g/cm^3)	Equivalent Freshwater Head[3] (feet amsl)	Comments
LG-25	01/27/21	22.08	2972.92	2950.84	2953.61	1.000	20.8	0.9980	2950.83	
LG-25	04/27/21	22.12	2972.92	2950.80	2953.61	1.000	23.1	0.9975	2950.79	
LG-25	07/27/21	21.83	2972.92	2951.09	2953.61	1.002	24.6	0.9972	2951.08	
LG-25	10/26/21	22.28	2972.92	2950.64	2953.61	1.000	24.5	0.9972	2950.63	
LG-25	01/20/22	22.22	2972.92	2950.70	2953.61	1.000	20.9	0.9980	2950.69	
LG-25	04/26/22	22.19	2972.92	2950.73	2953.61	1.000	23.8	0.9974	2950.72	
LG-25	07/26/22	22.39	2972.92	2950.53	2953.61	1.000	26.0	0.9968	2950.52	
LG-25	10/25/22	22.21	2972.92	2950.71	2953.61	1.000	20.3	0.9981	2950.70	
LG-25	01/24/23	22.00	2972.92	2950.92	2953.61	1.000	20.1	0.9981	2950.91	
LG-26										
LG-26	02/25/09	16.70	2952.61	2935.91	2913.72	1.038	21.0	0.9980	2936.80	
LG-26	05/19/09	17.02	2952.61	2935.59	2913.72	1.053	25.1	0.9970	2936.82	
LG-26	08/25/09	16.80	2952.61	2935.81	2913.72	1.056	22.5	0.9976	2937.10	
LG-26	11/02/09	16.90	2952.61	2935.71	2913.72	1.057	20.4	0.9981	2937.01	
LG-26	01/11/10	16.70	2952.61	2935.91	2913.72	1.061	21.0	0.9980	2937.31	
LG-26	05/11/10	16.58	2952.61	2936.03	2913.72	1.060	24.6	0.9972	2937.44	
LG-26	08/03/10	16.30	2952.61	2936.31	2913.72	1.060	21.7	0.9978	2937.72	
LG-26	11/16/10	15.61	2952.61	2937.00	2913.72	1.054	19.7	0.9982	2938.30	
LG-26	01/26/11	16.20	2952.61	2936.41	2913.72	1.044	21.5	0.9979	2937.46	
LG-26	05/02/11	16.70	2952.61	2935.91	2913.72	1.044	21.0	0.9980	2936.93	
LG-26	07/06/11	17.50	2952.61	2935.11	2913.72	1.046	22.4	0.9977	2936.15	
LG-26	10/12/11	17.80	2952.61	2934.81	2913.72	1.030	20.3	0.9981	2935.48	
LG-26	02/01/12	17.30	2952.61	2935.31	2913.72	1.060	21.0	0.9980	2936.65	
LG-26	04/25/12	17.40	2952.61	2935.21	2913.72	1.030	23.0	0.9975	2935.91	
LG-26	07/19/12	17.80	2952.61	2934.81	2913.72	1.058	22.1	0.9977	2936.08	
LG-26	11/26/12	17.40	2952.61	2935.21	2913.72	1.044	21.1	0.9979	2936.20	
LG-26	02/27/13	17.10	2952.61	2935.51	2913.72	1.050	21.0	0.9980	2936.65	
LG-26	05/01/13	17.20	2952.61	2935.41	2913.72	1.040	21.9	0.9978	2936.33	
LG-26	08/02/13	16.90	2952.61	2935.71	2913.72	1.058	21.3	0.9979	2937.03	
LG-26	10/30/13	16.44	2952.61	2936.17	2913.72	1.048	21.9	0.9978	2937.30	
LG-26	02/18/14	16.44	2952.61	2936.17	2913.72	1.040	22.2	0.9977	2937.12	
LG-26	04/28/14	16.80	2952.61	2935.81	2913.72	1.042	21.7	0.9978	2936.79	
LG-26	07/21/14	17.25	2952.61	2935.36	2913.72	1.042	22.4	0.9977	2936.32	
LG-26	10/27/14	14.86	2952.61	2937.75	2913.72	1.040	22.1	0.9977	2938.77	
LG-26	03/11/15	15.20	2952.61	2937.41	2913.72	1.060	19.0	0.9983	2938.87	
LG-26	05/05/15	15.00	2952.61	2937.61	2913.72	1.042	21.4	0.9979	2938.67	
LG-26	07/02/15	15.34	2952.61	2937.27	2913.72	1.048	21.9	0.9978	2938.46	
LG-26	10/09/15	14.57	2952.61	2938.04	2913.72	1.065	23.8	0.9974	2939.69	
LG-26	02/15/16	14.33	2952.61	2938.28	2913.72	1.073	15.6	0.9989	2940.10	

TABLE 1

GROUNDWATER LEVELS, DENSITIES, AND EQUIVALENT FRESHWATER HEADS

Well	Date	Depth to Water (feet below top of casing)	Top of Casing Elevation[1] (feet amsl)	Measured Water Level Elevation (feet amsl)	Screen Mid-point Elevation (feet amsl)	Measured Density[2,4] (g/cm^3)	Temp. of Density Measurement (°C)	Freshwater Density at Temp of Measurement (g/cm^3)	Equivalent Freshwater Head[3] (feet amsl)	Comments
LG-26	04/14/16	16.87	2952.61	2935.74	2913.72	1.049	15.6	0.9989	2936.84	
LG-26	08/08/16	15.83	2952.61	2936.78	2913.72	1.082	23.3	0.9975	2938.73	
LG-26	11/30/16	15.34	2952.61	2937.27	2913.72	1.086	20.6	0.9980	2939.35	
LG-26	03/15/17	15.39	2952.61	2937.22	2913.72	1.075	15.6	0.9989	2939.01	
LG-26	05/12/17	15.72	2952.61	2936.89	2913.72	1.100	15.6	0.9989	2939.23	
LG-26	07/28/17	16.16	2952.61	2936.45	2913.72	1.080	21.3	0.9979	2938.32	
LG-26	11/11/17	15.95	2952.61	2936.66	2913.72	1.084	20.3	0.9981	2938.63	
LG-26	02/20/18	15.95	2952.61	2936.66	2913.72	1.082	20.4	0.9981	2938.59	
LG-26	04/06/18	16.11	2952.61	2936.50	2913.72	1.089	20.7	0.9980	2938.58	
LG-26	07/28/18	16.59	2952.61	2936.02	2913.72	1.088	20.8	0.9980	2938.03	
LG-26	10/06/18	16.45	2952.61	2936.16	2913.72	1.090	20.9	0.9980	2938.23	
LG-26	01/11/19	15.64	2952.61	2936.97	2913.72	1.092	20.3	0.9981	2939.16	
LG-26	04/05/19	15.73	2952.61	2936.88	2913.72	1.092	20.2	0.9981	2939.06	
LG-26	07/26/19	16.15	2952.61	2936.46	2913.72	1.094	21.2	0.9979	2938.65	
LG-26	11/02/19	16.35	2952.61	2936.26	2913.72	1.100	20.1	0.9981	2938.56	
LG-26	01/28/20	15.98	2952.61	2936.63	2913.72	1.102	20.1	0.9981	2939.01	
LG-26	04/27/20	16.06	2952.61	2936.55	2913.72	1.102	22.4	0.9977	2938.94	
LG-26	07/28/20	16.83	2952.61	2935.78	2913.72	1.102	21.1	0.9979	2938.08	
LG-26	10/28/20	16.81	2952.61	2935.80	2913.72	1.098	19.5	0.9983	2938.01	
LG-26	01/26/21	16.40	2952.61	2936.21	2913.72	1.098	18.6	0.9984	2938.45	
LG-26	04/26/21	16.50	2952.61	2936.11	2913.72	1.102	21.9	0.9978	2938.45	
LG-26	07/27/21	15.89	2952.61	2936.72	2913.72	1.100	23.7	0.9974	2939.09	
LG-26	10/25/21	16.50	2952.61	2936.11	2913.72	1.140	21.7	0.9978	2939.30	
LG-26	01/20/22	16.19	2952.61	2936.42	2913.72	1.106	17.0	0.9987	2938.86	
LG-26	04/26/22	16.18	2952.61	2936.43	2913.72	1.106	21.8	0.9978	2938.89	
LG-26	07/26/22	16.66	2952.61	2935.95	2913.72	1.108	25.8	0.9969	2938.43	
LG-26	11/01/22	15.84	2952.61	2936.77	2913.72	1.108	21.4	0.9979	2939.31	
LG-26	01/24/23	15.50	2952.61	2937.11	2913.72	1.110	19.6	0.9982	2939.73	
LG-28										
LG-28	02/25/09	9.30	2962.52	2953.22	2928.25	1.208	21.3	0.9979	2958.48	
LG-28	05/20/09	9.61	2962.52	2952.91	2928.25	1.202	25.0	0.9971	2957.98	
LG-28	08/31/09	8.82	2962.52	2953.70	2928.25	1.205	22.5	0.9976	2958.99	
LG-28	11/03/09	9.51	2962.52	2953.01	2928.25	1.206	20.4	0.9981	2958.17	
LG-28	01/12/10	9.20	2962.52	2953.32	2928.25	1.204	21.0	0.9980	2958.50	
LG-28	05/11/10	8.80	2962.52	2953.72	2928.25	1.202	24.7	0.9971	2958.95	
LG-28	08/03/10	7.80	2962.52	2954.72	2928.25	1.210	23.2	0.9975	2960.36	
LG-28	11/16/10	8.35	2962.52	2954.17	2928.25	1.202	20.8	0.9980	2959.47	
LG-28	01/26/11	9.00	2962.52	2953.52	2928.25	1.204	19.7	0.9982	2958.73	
LG-28	05/03/11	9.50	2962.52	2953.02	2928.25	1.204	20.4	0.9981	2958.13	

TABLE 1

GROUNDWATER LEVELS, DENSITIES, AND EQUIVALENT FRESHWATER HEADS

Well	Date	Depth to Water (feet below top of casing)	Top of Casing Elevation[1] (feet amsl)	Measured Water Level Elevation (feet amsl)	Screen Mid-point Elevation (feet amsl)	Measured Density[2,4] (g/cm^3)	Temp. of Density Measurement (°C)	Freshwater Density at Temp of Measurement (g/cm^3)	Equivalent Freshwater Head[3] (feet amsl)	Comments
LG-28	07/05/11	10.10	2962.52	2952.42	2928.25	1.210	28.4	0.9962	2957.61	
LG-28	10/12/11	10.34	2962.52	2952.18	2928.25	1.210	23.2	0.9975	2957.28	
LG-28	01/31/12	9.60	2962.52	2952.92	2928.25	1.210	21.4	0.9979	2958.16	
LG-28	04/25/12	9.60	2962.52	2952.92	2928.25	1.210	21.3	0.9979	2958.16	
LG-28	07/18/12	18.10	2962.52	2944.42	2928.25	1.240	23.3	0.9975	2948.35	
LG-28	11/28/12	9.30	2962.52	2953.22	2928.25	1.260	21.0	0.9980	2959.78	
LG-28	02/27/13	9.30	2962.52	2953.22	2928.25	1.220	19.4	0.9983	2958.77	
LG-28	04/29/13	9.10	2962.52	2953.42	2928.25	1.210	24.1	0.9973	2958.79	
LG-28	08/01/13	8.36	2962.52	2954.16	2928.25	1.200	21.7	0.9978	2959.41	
LG-28	11/11/13	9.36	2962.52	2953.16	2928.25	1.200	22.8	0.9976	2958.21	
LG-28	02/13/14	9.30	2962.52	2953.22	2928.25	1.260	23.3	0.9975	2959.79	
LG-28	04/30/14	9.50	2962.52	2953.02	2928.25	1.200	20.0	0.9982	2958.03	
LG-28	07/22/14	9.71	2962.52	2952.81	2928.25	1.206	24.0	0.9973	2957.95	
LG-28	10/28/14	NM	NS	NS	NS	NS	NS	NS	NS	Inaccessible
LG-28	01/13/15	NM	NS	NS	NS	NS	NS	NS	NS	Inaccessible
LG-28	04/28/15	NM	NS	NS	NS	NS	NS	NS	NS	Inaccessible
LG-28	07/01/15	NM	NS	NS	NS	NS	NS	NS	NS	Inaccessible
LG-28	10/21/15	NM	NS	NS	NS	NS	NS	NS	NS	Inaccessible
LG-28	03/03/16	1.28	2962.52	2961.24	2928.25	1.216	15.6	0.9989	2968.41	
LG-28	04/14/16	3.14	2962.52	2959.38	2928.25	1.192	15.6	0.9989	2965.40	
LG-28	08/09/16	4.72	2962.52	2957.80	2928.25	1.204	23.4	0.9974	2963.92	
LG-28	12/02/16	4.75	2962.52	2957.77	2928.25	1.208	19.3	0.9983	2963.97	
LG-28	03/14/17	5.33	2962.52	2957.19	2928.25	1.216	15.6	0.9989	2963.48	
LG-28	05/12/17	5.70	2962.52	2956.82	2928.25	1.217	15.6	0.9989	2963.06	
LG-28	07/28/17	5.65	2962.52	2956.87	2928.25	1.200	22.4	0.9977	2962.67	
LG-28	11/10/17	5.57	2962.52	2956.95	2928.25	1.200	20.7	0.9980	2962.76	
LG-28	02/20/18	6.10	2962.52	2956.42	2928.25	1.220	21.6	0.9978	2962.69	
LG-28	04/06/18	6.17	2962.52	2956.35	2928.25	1.220	21.4	0.9979	2962.60	
LG-28	07/28/18	6.05	2962.52	2956.47	2928.25	1.218	21.5	0.9979	2962.70	
LG-28	10/05/18	5.58	2962.52	2956.94	2928.25	1.210	21.8	0.9978	2963.04	
LG-28	01/11/19	4.55	2962.52	2957.97	2928.25	1.218	20.6	0.9980	2964.52	
LG-28	04/05/19	5.08	2962.52	2957.44	2928.25	1.222	20.7	0.9980	2963.99	
LG-28	07/26/19	5.07	2962.52	2957.45	2928.25	1.212	21.6	0.9978	2963.72	
LG-28	11/01/19	6.11	2962.52	2956.41	2928.25	1.220	21.2	0.9979	2962.68	
LG-28	01/28/20	6.67	2962.52	2955.85	2928.25	1.218	20.3	0.9981	2961.93	
LG-28	04/27/20	6.29	2962.52	2956.23	2928.25	1.220	23.8	0.9974	2962.48	
LG-28	07/28/20	9.23	2963.46	2954.23	2928.25	1.222	21.8	0.9978	2960.06	
LG-28	10/28/20	9.25	2963.46	2954.21	2928.25	1.202	19.4	0.9983	2959.50	
LG-28	01/26/21	9.69	2963.46	2953.77	2928.25	1.200	18.0	0.9985	2958.91	

TABLE 1

GROUNDWATER LEVELS, DENSITIES, AND EQUIVALENT FRESHWATER HEADS

Well	Date	Depth to Water (feet below top of casing)	Top of Casing Elevation[1] (feet amsl)	Measured Water Level Elevation (feet amsl)	Screen Mid-point Elevation (feet amsl)	Measured Density[2,4] (g/cm^3)	Temp. of Density Measurement (°C)	Freshwater Density at Temp of Measurement (g/cm^3)	Equivalent Freshwater Head[3] (feet amsl)	Comments
LG-28	04/26/21	9.92	2963.46	2953.54	2928.25	1.220	22.8	0.9976	2959.17	
LG-28	07/26/21	8.54	2963.46	2954.92	2928.25	1.201	25.4	0.9970	2960.38	
LG-28	10/25/21	8.42	2963.46	2955.04	2928.25	1.221	24.0	0.9973	2961.04	
LG-28	01/19/22	8.69	2963.46	2954.77	2928.25	1.222	20.3	0.9981	2960.71	
LG-28	04/26/22	8.97	2963.46	2954.49	2928.25	1.222	23.2	0.9975	2960.39	
LG-28	07/26/22	8.66	2963.46	2954.80	2928.25	1.224	24.1	0.9973	2960.83	
LG-28	11/01/22	8.07	2963.46	2955.39	2928.25	1.222	21.7	0.9978	2961.48	
LG-28	01/23/23	7.30	2963.46	2956.16	2928.25	1.222	19.5	0.9983	2962.41	
LG-29										
LG-29	02/25/09	17.25	2976.14	2958.89	2952.8	1.105	21.1	0.9979	2959.54	
LG-29	05/20/09	17.70	2976.14	2958.44	2952.8	1.102	25.0	0.9971	2959.03	
LG-29	08/31/09	17.60	2976.14	2958.54	2952.8	1.115	22.5	0.9976	2959.22	
LG-29	11/04/09	17.45	2976.14	2958.69	2952.8	1.106	20.2	0.9981	2959.33	
LG-29	01/12/10	17.03	2976.14	2959.11	2952.8	1.108	21.0	0.9980	2959.81	
LG-29	05/12/10	17.30	2976.14	2958.84	2952.8	1.109	24.7	0.9971	2959.52	
LG-29	08/03/10	16.52	2976.14	2959.62	2952.8	1.112	22.4	0.9977	2960.40	
LG-29	11/16/10	16.90	2976.14	2959.24	2952.8	1.110	21.6	0.9978	2959.96	
LG-29	01/26/11	17.20	2976.14	2958.94	2952.8	1.100	19.4	0.9983	2959.57	
LG-29	05/03/11	17.85	2976.14	2958.29	2952.8	1.090	18.0	0.9985	2958.79	
LG-29	07/05/11	18.20	2976.14	2957.94	2952.8	1.098	28.2	0.9963	2958.46	
LG-29	10/13/11	18.50	2976.14	2957.64	2952.8	1.150	21.2	0.9979	2958.38	
LG-29	01/31/12	17.80	2976.14	2958.34	2952.8	1.180	21.3	0.9979	2959.35	
LG-29	04/25/12	18.00	2976.14	2958.14	2952.8	1.120	20.3	0.9981	2958.79	
LG-29	07/18/12	17.83	2976.14	2958.31	2952.8	1.120	24.0	0.9973	2958.99	
LG-29	11/28/12	17.90	2976.14	2958.24	2952.8	1.122	19.5	0.9983	2958.91	
LG-29	02/26/13	18.00	2976.14	2958.14	2952.8	1.120	20.5	0.9981	2958.79	
LG-29	04/30/13	18.20	2976.14	2957.94	2952.8	1.214	20.5	0.9981	2959.05	
LG-29	08/01/13	17.75	2976.14	2958.39	2952.8	1.130	21.9	0.9978	2959.13	
LG-29	11/11/13	17.60	2976.14	2958.54	2952.8	1.122	22.7	0.9976	2959.26	
LG-29	02/13/14	17.62	2977.14	2959.52	2952.8	1.122	22.2	0.9977	2960.36	
LG-29	05/07/14	17.66	2976.14	2958.48	2952.8	1.130	19.8	0.9982	2959.23	
LG-29	07/24/14	17.95	2976.14	2958.19	2952.8	1.132	21.3	0.9979	2958.91	
LG-29	10/29/14	14.10	2976.14	2962.04	2952.8	1.14	20.9	0.9980	2963.35	
LG-29	01/14/15	13.62	2976.14	2962.52	2952.8	1.146	19.6	0.9982	2963.96	
LG-29	04/29/15	14.04	2976.14	2962.10	2952.8	1.090	21.2	0.9979	2962.96	
LG-29	07/08/15	14.66	2976.14	2961.48	2952.8	1.114	21.4	0.9979	2962.49	
LG-29	10/21/15	15.20	2976.14	2960.94	2952.8	1.120	21.2	0.9979	2961.94	
LG-29	03/01/16	15.65	2976.14	2960.49	2952.8	1.172	15.6	0.9989	2961.82	
LG-29	04/14/16	15.10	2976.14	2961.04	2952.8	1.160	15.6	0.9989	2962.37	

TABLE 1

GROUNDWATER LEVELS, DENSITIES, AND EQUIVALENT FRESHWATER HEADS

Well	Date	Depth to Water (feet below top of casing)	Top of Casing Elevation[1] (feet amsl)	Measured Water Level Elevation (feet amsl)	Screen Mid-point Elevation (feet amsl)	Measured Density[2,4] (g/cm^3)	Temp. of Density Measurement (°C)	Freshwater Density at Temp of Measurement (g/cm^3)	Equivalent Freshwater Head[3] (feet amsl)	Comments
LG-29	08/10/16	17.60	2976.14	2958.54	2952.8	1.162	21.3	0.9979	2959.48	
LG-29	12/02/16	17.15	2976.14	2958.99	2952.8	1.173	20.3	0.9981	2960.07	
LG-29	03/14/17	17.36	2976.14	2958.78	2952.8	1.164	15.6	0.9989	2959.77	
LG-29	05/12/17	17.52	2976.14	2958.62	2952.8	1.161	15.6	0.9989	2959.56	
LG-29	07/28/17	17.46	2976.14	2958.68	2952.8	1.150	22.1	0.9977	2959.58	
LG-29	11/10/17	17.24	2976.14	2958.90	2952.8	1.152	20.9	0.9980	2959.84	
LG-29	02/20/18	17.34	2976.14	2958.80	2952.8	1.152	21.0	0.9980	2959.73	
LG-29	04/06/18	17.42	2976.14	2958.72	2952.8	1.154	20.5	0.9981	2959.64	
LG-29	07/27/18	17.55	2976.14	2958.59	2952.8	1.154	22.3	0.9977	2959.50	
LG-29	10/05/18	17.30	2976.14	2958.84	2952.8	1.155	22.8	0.9976	2959.79	
LG-29	01/11/19	17.11	2976.14	2959.03	2952.8	1.158	20.6	0.9980	2960.03	
LG-29	04/05/19	17.54	2976.14	2958.60	2952.8	1.160	19.6	0.9982	2959.54	
LG-29	07/26/19	17.53	2976.14	2958.61	2952.8	1.158	21.2	0.9979	2959.54	
LG-29	11/01/19	17.43	2976.14	2958.71	2952.8	1.156	22.2	0.9977	2959.65	
LG-29	01/28/20	17.41	2976.14	2958.73	2952.8	1.218	20.3	0.9981	2960.04	
LG-29	04/27/20	17.26	2976.14	2958.88	2952.8	1.160	22.4	0.9977	2959.87	
LG-29	07/28/20	17.59	2976.14	2958.55	2952.8	1.160	21.5	0.9979	2959.48	
LG-29	10/28/20	17.82	2976.14	2958.32	2952.8	1.156	20.7	0.9980	2959.19	
LG-29	01/26/21	18.02	2976.14	2958.12	2952.8	1.154	15.9	0.9989	2958.95	
LG-29	04/26/21	18.00	2976.14	2958.14	2952.8	1.150	22.5	0.9976	2958.96	
LG-29	07/26/21	17.16	2976.14	2958.98	2952.8	1.160	26.1	0.9968	2959.99	
LG-29	10/25/21	17.35	2976.14	2958.79	2952.8	1.160	26.3	0.9968	2959.77	
LG-29	01/19/22	17.52	2976.14	2958.62	2952.8	1.162	20.4	0.9981	2959.58	
LG-29	04/26/22	17.72	2976.14	2958.42	2952.8	1.164	22.3	0.9977	2959.36	
LG-29	07/26/22	17.65	2976.14	2958.49	2952.8	1.166	25.2	0.9970	2959.45	
LG-29	11/01/22	17.15	2976.14	2958.99	2952.8	1.164	21.6	0.9978	2960.02	
LG-29	01/23/23	16.80	2976.14	2959.34	2952.8	1.170	18.5	0.9984	2960.46	
LG-30										
LG-30	03/02/09	27.80	2968.55	2940.75	2923.7	1.075	21.5	0.9979	2942.07	
LG-30	05/20/09	28.12	2968.55	2940.43	2923.7	1.073	25.0	0.9971	2941.70	
LG-30	08/31/09	27.70	2968.55	2940.85	2923.7	1.076	22.5	0.9976	2942.20	
LG-30	11/03/09	27.95	2968.55	2940.60	2923.7	1.079	20.5	0.9981	2941.97	
LG-30	01/11/10	27.90	2968.55	2940.65	2923.7	1.077	20.9	0.9980	2941.99	
LG-30	05/11/10	27.63	2968.55	2940.92	2923.7	1.081	24.7	0.9971	2942.37	
LG-30	08/03/10	27.21	2968.55	2941.34	2923.7	1.082	25.5	0.9970	2942.84	
LG-30	11/16/10	27.10	2968.55	2941.45	2923.7	1.082	18.9	0.9984	2942.94	
LG-30	01/26/11	27.60	2968.55	2940.95	2923.7	1.080	17.1	0.9987	2942.35	
LG-30	05/02/11	28.20	2968.55	2940.35	2923.7	1.082	25.0	0.9971	2941.77	
LG-30	07/05/11	27.72	2968.55	2940.83	2923.7	1.082	27.0	0.9966	2942.30	

TABLE 1

GROUNDWATER LEVELS, DENSITIES, AND EQUIVALENT FRESHWATER HEADS

Well	Date	Depth to Water (feet below top of casing)	Top of Casing Elevation[1] (feet amsl)	Measured Water Level Elevation (feet amsl)	Screen Mid-point Elevation (feet amsl)	Measured Density[2,4] (g/cm^3)	Temp. of Density Measurement (°C)	Freshwater Density at Temp of Measurement (g/cm^3)	Equivalent Freshwater Head[3] (feet amsl)	Comments
LG-30	10/12/11	29.10	2968.55	2939.45	2923.7	1.084	20.9	0.9980	2940.81	
LG-30	01/31/12	28.70	2968.55	2939.85	2923.7	1.090	21.0	0.9980	2941.34	
LG-30	04/24/12	29.7	2968.55	2938.85	2923.7	1.090	23.0	0.9975	2940.25	
LG-30	07/18/12	30.7	2968.55	2937.85	2923.7	1.090	28.6	0.9962	2939.18	
LG-30	11/26/12	31.70	2968.55	2936.85	2923.7	1.090	21.3	0.9979	2938.06	
LG-30	02/26/13	28.50	2968.55	2940.05	2923.7	1.090	20.8	0.9980	2941.56	
LG-30	04/29/13	28.82	2968.55	2939.73	2923.7	1.090	23.8	0.9974	2941.22	
LG-30	08/01/13	26.30	2968.55	2942.25	2923.7	1.090	21.6	0.9978	2943.96	
LG-30	10/30/13	28.32	2968.55	2940.23	2923.7	1.090	20.7	0.9980	2941.75	
LG-30	02/13/14	28.20	2968.55	2940.35	2923.7	1.092	20.5	0.9981	2941.92	
LG-30	04/28/14	28.40	2968.55	2940.15	2923.7	1.092	22.1	0.9977	2941.70	
LG-30	07/22/14	28.90	2968.55	2939.65	2923.7	1.090	23.2	0.9975	2941.13	
LG-30	10/28/14	26.00	2968.55	2942.55	2923.7	1.086	21.0	0.9980	2944.21	
LG-30	01/13/15	26.30	2968.55	2942.25	2923.7	1.090	20.1	0.9981	2943.96	
LG-30	05/04/15	26.10	2968.55	2942.45	2923.7	1.090	22.6	0.9976	2944.19	
LG-30	07/08/15	26.46	2968.55	2942.09	2923.7	1.092	23.2	0.9975	2943.83	
LG-30	10/21/15	26.10	2968.55	2942.45	2923.7	1.090	21.4	0.9979	2944.18	
LG-30	01/07/16	26.33	2968.55	2942.22	2923.7	1.107	15.6	0.9989	2944.22	
LG-30	04/07/16	26.26	2968.55	2942.29	2923.7	1.093	15.6	0.9989	2944.04	
LG-30	08/09/16	17.11	2968.55	2951.44	2923.7	1.102	22.2	0.9977	2954.34	
LG-30	12/05/16	26.65	2968.55	2941.90	2923.7	1.112	19.2	0.9983	2943.97	
LG-30	03/14/17	26.90	2968.55	2941.65	2923.7	1.112	15.6	0.9989	2943.68	
LG-30	05/12/17	27.21	2968.55	2941.34	2923.7	1.114	15.6	0.9989	2943.37	
LG-30	07/28/17	27.50	2968.55	2941.05	2923.7	1.108	21.6	0.9978	2942.97	
LG-30	11/11/17	27.13	2968.55	2941.42	2923.7	1.108	20.6	0.9980	2943.37	
LG-30	02/20/18	27.30	2968.55	2941.25	2923.7	1.130	20.8	0.9980	2943.57	
LG-30	04/06/18	27.46	2968.55	2941.09	2923.7	1.112	21.3	0.9979	2943.08	
LG-30	07/28/18	27.85	2968.55	2940.70	2923.7	1.116	21.6	0.9978	2942.71	
LG-30	10/05/18	27.63	2968.55	2940.92	2923.7	1.114	21.6	0.9978	2942.92	
LG-30	01/12/19	27.11	2968.55	2941.44	2923.7	1.110	20.7	0.9980	2943.43	
LG-30	04/05/19	27.22	2968.55	2941.33	2923.7	1.110	20.8	0.9980	2943.31	
LG-30	07/26/19	27.75	2968.55	2940.80	2923.7	1.116	21.6	0.9978	2942.82	
LG-30	11/01/19	27.87	2968.55	2940.68	2923.7	1.115	20.4	0.9981	2942.67	
LG-30	01/28/20	27.75	2968.55	2940.80	2923.7	1.120	20.5	0.9981	2942.89	
LG-30	04/28/20	27.69	2968.55	2940.86	2923.7	1.114	22.9	0.9976	2942.86	
LG-30	07/29/20	28.32	2967.15	2938.83	2923.7	1.115	21.9	0.9978	2940.61	
LG-30	10/29/20	28.04	2967.15	2939.11	2923.7	1.110	21.4	0.9979	2940.84	
LG-30	01/27/21	28.02	2967.15	2939.13	2923.7	1.110	19.9	0.9982	2940.86	
LG-30	04/27/21	28.02	2967.15	2939.13	2923.7	1.100	23.9	0.9973	2940.72	

TABLE 1

GROUNDWATER LEVELS, DENSITIES, AND EQUIVALENT FRESHWATER HEADS

Well	Date	Depth to Water (feet below top of casing)	Top of Casing Elevation[1] (feet amsl)	Measured Water Level Elevation (feet amsl)	Screen Mid-point Elevation (feet amsl)	Measured Density[2,4] (g/cm^3)	Temp. of Density Measurement (°C)	Freshwater Density at Temp of Measurement (g/cm^3)	Equivalent Freshwater Head[3] (feet amsl)	Comments
LG-30	07/27/21	27.56	2967.15	2939.59	2923.7	1.094	23.6	0.9974	2941.13	
LG-30	10/26/21	27.70	2967.15	2939.45	2923.7	1.096	22.9	0.9976	2941.00	
LG-30	01/19/22	25.87	2967.15	2941.28	2923.7	1.072	18.2	0.9985	2942.57	
LG-30	04/26/22	24.65	2967.15	2942.50	2923.7	1.028	22.0	0.9978	2943.07	
LG-30	07/26/22	26.28	2967.15	2940.87	2923.7	1.020	26.1	0.9968	2941.27	
LG-30	11/01/22	26.15	2967.15	2941.00	2923.7	1.020	22.1	0.9977	2941.39	
LG-30	01/24/23	26.03	2967.15	2941.12	2923.7	1.017	17.1	0.9987	2941.44	
LG-31										
LG-31	02/19/14	47.90	2984.72	2936.82	2888.31	1.022	24.0	0.9973	2938.02	
LG-31	05/07/14	48.15	2984.72	2936.57	2888.31	1.020	23.7	0.9974	2937.66	
LG-31	07/24/14	49.83	2984.72	2934.89	2888.31	1.022	24.4	0.9972	2936.05	
LG-31	10/27/14	45.92	2984.72	2938.80	2888.31	1.020	24.2	0.9973	2939.95	
LG-31	01/16/15	45.90	2984.72	2938.82	2888.31	1.008	21.8	0.9978	2939.33	
LG-31	05/08/15	45.01	2984.72	2939.71	2888.31	1.022	22.8	0.9976	2940.97	
LG-31	07/07/15	45.70	2984.72	2939.02	2888.31	1.020	23.3	0.9975	2940.16	
LG-31	10/08/15	46.70	2984.72	2938.02	2888.31	1.020	23.8	0.9974	2939.15	
LG-31	03/01/16	45.09	2984.72	2939.63	2888.31	1.208	15.6	0.9989	2950.37	
LG-31	04/06/16	45.16	2984.72	2939.56	2888.31	1.017	15.6	0.9989	2940.49	
LG-31	08/08/16	47.56	2984.72	2937.16	2888.31	1.030	24.5	0.9972	2938.77	
LG-31	12/01/16	46.01	2984.72	2938.71	2888.31	1.008	22.6	0.9976	2939.23	
LG-31	03/14/17	45.66	2984.72	2939.06	2888.31	1.021	15.6	0.9989	2940.18	
LG-31	05/12/17	46.10	2984.72	2938.62	2888.31	1.025	15.6	0.9989	2939.93	
LG-31	07/28/17	47.39	2984.72	2937.33	2888.31	1.016	22.4	0.9977	2938.23	
LG-31	11/11/17	46.31	2984.72	2938.41	2888.31	1.018	20.9	0.9980	2939.41	
LG-31	02/20/18	47.32	2984.72	2937.40	2888.31	1.016	20.8	0.9980	2938.28	
LG-31	04/06/18	47.61	2984.72	2937.11	2888.31	1.018	21.9	0.9978	2938.10	
LG-31	07/27/18	48.03	2984.72	2936.69	2888.31	1.018	22.5	0.9976	2937.68	
LG-31	10/05/18	47.90	2984.72	2936.82	2888.31	1.016	22.3	0.9977	2937.71	
LG-31	01/11/19	45.62	2984.72	2939.10	2888.31	1.016	21.0	0.9980	2940.02	
LG-31	04/05/19	45.65	2984.72	2939.07	2888.31	1.018	22.0	0.9978	2940.10	
LG-31	07/26/19	46.69	2984.72	2938.03	2888.31	1.018	22.2	0.9977	2939.04	
LG-31	11/02/19	48.30	2984.72	2936.42	2888.31	1.012	21.2	0.9979	2937.10	
LG-31	01/29/20	47.95	2984.72	2936.77	2888.31	1.019	20.8	0.9980	2937.79	
LG-31	04/27/20	46.81	2984.72	2937.91	2888.31	1.017	23.3	0.9975	2938.88	
LG-31	07/28/20	49.30	2984.72	2935.42	2888.31	1.018	22.8	0.9976	2936.38	
LG-31	10/28/20	50.22	2984.72	2934.50	2888.31	1.015	20.0	0.9982	2935.28	
LG-31	01/26/21	49.94	2984.72	2934.78	2888.31	1.013	19.1	0.9983	2935.46	
LG-31	04/26/21	50.35	2984.72	2934.37	2888.31	1.012	24.5	0.9972	2935.05	
LG-31	07/26/21	49.24	2984.72	2935.48	2888.31	1.012	25.2	0.9970	2936.19	

TABLE 1

GROUNDWATER LEVELS, DENSITIES, AND EQUIVALENT FRESHWATER HEADS

Well	Date	Depth to Water (feet below top of casing)	Top of Casing Elevation[1] (feet amsl)	Measured Water Level Elevation (feet amsl)	Screen Mid-point Elevation (feet amsl)	Measured Density[2,4] (g/cm^3)	Temp. of Density Measurement (°C)	Freshwater Density at Temp of Measurement (g/cm^3)	Equivalent Freshwater Head[3] (feet amsl)	Comments
LG-31	10/25/21	50.56	2984.72	2934.16	2888.31	1.015	24.4	0.9972	2934.98	
LG-31	01/19/22	50.56	2984.72	2934.16	2888.31	1.014	19.7	0.9982	2934.88	
LG-31	04/26/22	50.70	2984.72	2934.02	2888.31	1.012	23.6	0.9974	2934.69	
LG-31	07/25/22	51.23	2984.72	2933.49	2888.31	1.022	25.4	0.9970	2934.62	
LG-31	10/24/22	49.85	2984.72	2934.87	2888.31	1.018	18.1	0.9985	2935.78	
LG-31	01/23/23	48.40	2984.72	2936.32	2888.31	1.014	20.7	0.9980	2937.09	
LG-32										
LG-32	02/13/14	20.17	2963.80	2943.63	2886.7	1.068	20.6	0.9981	2947.62	
LG-32	04/30/14	20.35	2963.80	2943.45	2886.7	1.070	21.5	0.9979	2947.55	
LG-32	07/22/14	20.60	2963.80	2943.20	2886.7	1.074	22.1	0.9977	2947.52	
LG-32	10/28/14	16.32	2963.80	2947.48	2886.7	1.070	20.9	0.9980	2951.87	
LG-32	01/13/15	16.58	2963.80	2947.22	2886.7	1.078	19.1	0.9983	2952.05	
LG-32	05/05/15	16.17	2963.80	2947.63	2886.7	1.070	21.2	0.9979	2952.03	
LG-32	07/08/15	16.76	2963.80	2947.04	2886.7	1.074	23.4	0.9974	2951.67	
LG-32	10/09/15	16.71	2963.80	2947.09	2886.7	1.067	21.1	0.9979	2951.27	
LG-32	01/07/16	16.29	2963.80	2947.51	2886.7	1.080	15.6	0.9989	2952.45	
LG-32	04/08/16	16.30	2963.80	2947.50	2886.7	1.073	15.6	0.9989	2952.01	
LG-32	08/09/16	17.33	2963.80	2946.47	2886.7	1.082	22.3	0.9977	2951.52	
LG-32	12/05/16	16.71	2963.80	2947.09	2886.7	1.080	19.9	0.9982	2952.04	
LG-32	03/14/17	17.21	2963.80	2946.59	2886.7	1.078	15.6	0.9989	2951.33	
LG-32	05/12/17	17.40	2963.80	2946.40	2886.7	1.067	15.6	0.9989	2950.47	
LG-32	07/28/17	17.65	2963.80	2946.15	2886.7	1.076	22.2	0.9977	2950.82	
LG-32	11/10/17	17.32	2963.80	2946.48	2886.7	1.074	19.9	0.9982	2951.02	
LG-32	02/20/18	17.72	2963.80	2946.08	2886.7	1.074	20.6	0.9980	2950.60	
LG-32	04/06/18	17.82	2963.80	2945.98	2886.7	1.076	20.7	0.9980	2950.61	
LG-32	07/29/18	18.05	2963.80	2945.75	2886.7	1.080	21.1	0.9979	2950.61	
LG-32	10/05/18	17.73	2963.80	2946.07	2886.7	1.080	21.0	0.9980	2950.95	
LG-32	01/11/19	17.22	2963.80	2946.58	2886.7	1.078	20.3	0.9981	2951.37	
LG-32	04/05/19	17.40	2963.80	2946.40	2886.7	1.080	20.4	0.9981	2951.30	
LG-32	07/26/19	17.73	2963.80	2946.07	2886.7	1.082	21.0	0.9980	2951.07	
LG-32	11/01/19	18.00	2963.80	2945.80	2886.7	1.080	20.3	0.9981	2950.65	
LG-32	01/28/20	18.00	2963.80	2945.80	2886.7	1.082	20.0	0.9982	2950.76	
LG-32	04/27/20	17.85	2963.80	2945.95	2886.7	1.082	23.0	0.9975	2950.97	
LG-32	07/28/20	18.30	2963.80	2945.50	2886.7	1.082	21.0	0.9980	2950.45	
LG-32	10/28/20	18.26	2963.80	2945.54	2886.7	1.078	18.5	0.9984	2950.23	
LG-32	01/27/21	18.55	2963.80	2945.25	2886.7	1.078	19.2	0.9983	2949.92	
LG-32	04/27/21	18.51	2963.80	2945.29	2886.7	NA	NA	NA	NA	Inaccessible
LG-32	07/27/21	18.09	2963.80	2945.71	2886.7	1.082	24.5	0.9972	2950.73	
LG-32	10/25/21	18.30	2963.80	2945.50	2886.7	1.082	22.9	0.9976	2950.48	

TABLE 1

GROUNDWATER LEVELS, DENSITIES, AND EQUIVALENT FRESHWATER HEADS

Well	Date	Depth to Water (feet below top of casing)	Top of Casing Elevation[1] (feet amsl)	Measured Water Level Elevation (feet amsl)	Screen Mid-point Elevation (feet amsl)	Measured Density[2,4] (g/cm^3)	Temp. of Density Measurement (°C)	Freshwater Density at Temp of Measurement (g/cm^3)	Equivalent Freshwater Head[3] (feet amsl)	Comments
LG-32	01/19/22	18.07	2963.80	2945.73	2886.7	1.080	19.6	0.9982	2950.57	
LG-32	04/26/22	17.92	2963.80	2945.88	2886.7	1.080	22.8	0.9976	2950.77	
LG-32	07/26/22	18.00	2963.80	2945.80	2886.7	1.080	25.4	0.9970	2950.72	
LG-32	11/01/22	17.51	2963.80	2946.29	2886.7	1.080	21.5	0.9979	2951.20	
LG-32	01/23/23	16.80	2963.80	2947.00	2886.7	1.080	16.9	0.9987	2951.91	
LG-33										
LG-33	01/27/21	27.68	2969.52	2941.84	2938.6	1.000	20.2	0.9981	2941.84	
LG-33	04/27/21	28.20	2969.52	2941.32	2938.6	1.000	23.5	0.9974	2941.32	
LG-33	07/27/21	27.87	2969.52	2941.65	2938.6	1.002	23.5	0.9974	2941.66	
LG-33	10/26/21	28.21	2969.52	2941.31	2938.6	1.000	22.4	0.9977	2941.31	
LG-33	01/20/22	28.38	2969.52	2941.14	2938.6	1.000	19.7	0.9982	2941.14	
LG-33	04/27/22	28.53	2969.52	2940.99	2938.6	1.000	25.7	0.9969	2940.99	
LG-33	07/26/22	28.50	2969.52	2941.02	2938.6	1.000	25.9	0.9969	2941.02	
LG-33	11/01/22	28.20	2969.52	2941.32	2938.6	1.000	22.2	0.9977	2941.32	
LG-33	01/24/23	28.05	2969.52	2941.47	2938.6	1.000	19.3	0.9983	2941.47	
LG-34										
LG-34	01/27/21	19.91	2974.70	2954.79	2954.5	1.000	20.5	0.9981	2954.79	
LG-34	04/26/21	19.60	2974.70	2955.10	2954.5	1.000	21.2	0.9979	2955.10	
LG-34	07/27/21	19.53	2974.70	2955.17	2954.5	1.002	24.3	0.9972	2955.17	
LG-34	10/26/21	20.11	2974.70	2954.59	2954.5	1.002	24.4	0.9972	2954.59	
LG-34	01/20/22	20.00	2974.70	2954.70	2954.5	1.002	18.8	0.9984	2954.70	
LG-34	04/27/22	19.85	2974.70	2954.85	2954.5	1.002	23.1	0.9975	2954.85	
LG-34	07/26/22	20.14	2974.70	2954.56	2954.5	1.000	26.1	0.9968	2954.56	
LG-34	10/25/22	20.14	2974.70	2954.56	2954.5	1.000	21.6	0.9978	2954.56	
LG-34	01/24/23	19.60	2974.70	2955.10	2954.5	1.000	17.7	0.9986	2955.10	
LG-35										
LG-35	01/27/21	35.64	2979.80	2944.16	2945.8	1.024	19.8	0.9982	2944.12	
LG-35	04/27/21	35.80	2979.80	2944.00	2945.8	1.024	24.6	0.9972	2943.95	
LG-35	07/27/21	35.34	2979.80	2944.46	2945.8	1.030	25.5	0.9970	2944.41	
LG-35	10/26/21	35.67	2979.80	2944.13	2945.8	1.028	23.6	0.9974	2944.08	
LG-35	01/20/22	35.77	2979.80	2944.03	2945.8	1.024	18.5	0.9984	2943.98	
LG-35	04/27/22	35.85	2979.80	2943.95	2945.8	1.022	24.4	0.9972	2943.90	
LG-35	07/26/22	36.02	2979.80	2943.78	2945.8	1.022	26.8	0.9966	2943.73	
LG-35	10/25/22	35.85	2979.80	2943.95	2945.8	1.022	19.0	0.9983	2943.90	
LG-35	01/24/23	35.65	2979.80	2944.15	2945.8	1.020	19.4	0.9983	2944.11	
LG-36										
LG-36	01/20/22	DRY	3007.78	< 2942.77	2950.6	NA	NA	---	< 2942.77	Dry Well
LG-36	04/27/22	63.50	3007.78	2944.28	2950.6	NA	NA	---	---	
LG-36	07/25/22	63.12	3007.78	2944.66	2950.6	1.004	25.8	0.9969	2944.61	Bailed Dry

TABLE 1

GROUNDWATER LEVELS, DENSITIES, AND EQUIVALENT FRESHWATER HEADS

Well	Date	Depth to Water (feet below top of casing)	Top of Casing Elevation[1] (feet amsl)	Measured Water Level Elevation (feet amsl)	Screen Mid-point Elevation (feet amsl)	Measured Density[2,4] (g/cm^3)	Temp. of Density Measurement (°C)	Freshwater Density at Temp of Measurement (g/cm^3)	Equivalent Freshwater Head[3] (feet amsl)	Comments
LG-36	10/24/22	63.20	3007.78	2944.58	2950.6	1.002	18.60	0.9984	2944.55	Bailed Dry
LG-36	01/23/23	63.37	3007.78	2944.41	2950.6	1.029	17.70	0.9986	2944.22	Bailed Dry
LG-37										
LG-37	01/20/22	21.18	2977.41	2956.23	2951.5	1.010	17.1	0.9987	2956.28	
LG-37	04/27/22	21.17	2977.41	2956.24	2951.5	1.008	22.8	0.9976	2956.29	
LG-37	07/25/22	21.71	2977.41	2955.70	2951.5	1.008	25.3	0.9970	2955.75	
LG-37	10/24/22	21.07	2977.41	2956.34	2951.5	1.007	21.7	0.9978	2956.39	
LG-37	01/24/23	20.70	2977.41	2956.71	2951.5	1.010	17.1	0.9987	2956.77	
LG-38										
LG-38	01/20/22	8.48	2963.89	2955.41	2937.5	1.154	19.2	0.9983	2958.20	
LG-38	04/27/22	8.65	2963.89	2955.24	2937.5	1.152	22.1	0.9977	2957.98	
LG-38	07/25/22	8.80	2963.89	2955.09	2937.5	1.152	26.2	0.9968	2957.82	
LG-38	10/24/22	8.06	2963.89	2955.83	2937.5	1.150	21.9	0.9978	2958.62	
LG-38	01/24/23	7.71	2963.89	2956.18	2937.5	1.150	16.8	0.9987	2959.00	
P-West										
P-West	02/12/14	60.10	3070.96	3010.86	2999.4	--	--	--	--	
P-West	07/24/14	61.00	3070.96	3009.96	2999.4	--	--	--	--	
P-West	12/19/14	59.11	3070.96	3011.85	2999.4	--	--	--	--	
P-West	01/14/15	58.30	3070.96	3012.66	2999.4	--	19.9	0.9982	--	
P-West	04/28/15	59.20	3070.96	3011.76	2999.4	--	21.1	0.9979	--	
P-West	07/14/15	59.56	3070.96	3011.40	2999.4	--	28.1	0.9963	--	
P-West	10/15/15	59.93	3070.96	3011.03	2999.4	--	22.5	0.9976	--	
P-West	01/05/16	59.72	3070.96	3011.24	2999.4	--	20.0	0.9982	--	
P-West	04/07/16	59.94	3070.96	3011.02	2999.4	--	24.0	0.9973	--	
P-West	08/10/16	61.15	3070.96	3009.81	2999.4	--	25.3	0.9970	--	
P-West	12/06/16	60.84	3070.96	3010.12	2999.4	--	19.5	0.9983	--	
P-West	03/15/17	61.80	3070.96	3009.16	2999.4	--	22.0	0.9978	--	
P-West	05/13/17	62.40	3070.96	3008.56	2999.4	--	25.6	0.9969	--	
P-West	07/29/17	62.97	3070.96	3007.99	2999.4	1.140	24.5	0.9972	--	
P-West	11/11/17	61.81	3070.96	3009.15	2999.4	1.102	21.2	0.9979	3010.16	
P-West	02/21/18	60.58	3070.96	3010.38	2999.4	1.124	20.0	0.9982	3011.76	
P-West	04/07/18	60.66	3070.96	3010.30	2999.4	1.124	20.9	0.9980	3011.67	
P-West	07/29/18	59.82	3070.96	3011.14	2999.4	1.108	23.6	0.9974	3012.44	
P-West	10/06/18	62.67	3070.96	3008.29	2999.4	1.112	21.7	0.9978	3009.30	
P-West	01/12/19	62.85	3070.96	3008.11	2999.4	1.114	20.5	0.9981	3009.12	
P-West	04/06/19	61.70	3070.96	3009.26	2999.4	1.114	22.3	0.9977	3010.41	
P-West	07/27/19	62.81	3070.96	3008.15	2999.4	1.104	23.6	0.9974	3009.08	
P-West	11/02/19	61.37	3070.96	3009.59	2999.4	1.106	21.2	0.9979	3010.69	
P-West	01/29/20	60.55	3070.96	3010.41	2999.4	1.110	20.8	0.9980	3011.64	

TABLE 1

GROUNDWATER LEVELS, DENSITIES, AND EQUIVALENT FRESHWATER HEADS

Well	Date	Depth to Water (feet below top of casing)	Top of Casing Elevation[1] (feet amsl)	Measured Water Level Elevation (feet amsl)	Screen Mid-point Elevation (feet amsl)	Measured Density[2,4] (g/cm^3)	Temp. of Density Measurement (°C)	Freshwater Density at Temp of Measurement (g/cm^3)	Equivalent Freshwater Head[3] (feet amsl)	Comments
P-West	04/28/20	60.59	3070.96	3010.37	2999.4	1.119	22.5	0.9976	3011.70	
P-West	07/29/20	62.05	3070.96	3008.91	2999.4	1.116	22.8	0.9976	3010.04	
P-West	10/29/20	63.22	3070.96	3007.74	2999.4	1.124	20.1	0.9981	3008.79	
P-West	01/27/21	64.98	3070.96	3005.98	2999.4	1.118	18.6	0.9984	3006.77	
P-West	04/27/21	65.73	3070.96	3005.23	2999.4	1.122	23.0	0.9975	3005.95	
P-West	07/27/21	66.61	3070.96	3004.35	2999.4	1.118	25.1	0.9970	3004.95	
P-West	10/26/21	65.24	3070.96	3005.72	2999.4	1.116	22.7	0.9976	3006.47	
P-West	01/20/22	64.92	3070.96	3006.04	2999.4	1.118	15.2	0.9990	3006.83	
P-West	04/27/22	65.56	3070.96	3005.40	2999.4	1.112	22.0	0.9978	3006.08	
P-West	07/25/22	64.75	3070.96	3006.21	2999.4	1.122	27.6	0.9964	3007.07	
P-West	11/01/22	62.56	3070.96	3008.40	2999.4	1.098	20.0	0.9982	3009.30	
P-West	01/24/23	60.63	3070.96	3010.33	2999.4	1.050	15.6	0.9989	3010.89	
P-Center										
P-Center	02/12/14	18.00	3034.84	3016.84	3015.1	--	--	--	--	
P-Center	07/24/14	18.27	3034.84	3016.57	3015.1	--	--	--	--	
P-Center	12/19/14	9.72	3034.84	3025.12	3015.1	--	--	--	--	
P-Center	01/14/15	16.21	3034.84	3018.63	3015.1	--	19.5	0.9983	--	
P-Center	04/28/15	16.78	3034.84	3018.06	3015.1	--	20.5	0.9981	--	
P-Center	07/09/15	16.70	3034.84	3018.14	3015.1	--	24.6	0.9972	--	
P-Center	10/15/15	16.02	3034.84	3018.82	3015.1	--	21.5	0.9979	--	
P-Center	01/05/16	16.51	3034.84	3018.33	3015.1	--	20.2	0.9981	--	
P-Center	04/07/16	17.08	3034.84	3017.76	3015.1	--	23.3	0.9975	--	
P-Center	08/10/16	16.50	3034.84	3018.34	3015.1	--	24.2	0.9973	--	
P-Center	12/06/16	16.31	3034.84	3018.53	3015.1	--	NA	#VALUE!	--	
P-Center	03/15/17	17.47	3034.84	3017.37	3015.1	--	22.0	0.9978	--	
P-Center	05/13/17	17.20	3034.84	3017.64	3015.1	--	24.2	0.9973	--	
P-Center	07/29/17	17.49	3034.84	3016.93	3015.1	1.196	23.0	0.9975	--	
P-Center	11/11/17	17.15	3034.84	3017.27	3015.1	1.204	21.5	0.9979	--	
P-Center	02/21/18	18.62	3034.84	3016.22	3015.1	1.202	20.5	0.9981	3016.44	
P-Center	04/07/18	18.96	3034.84	3015.88	3015.1	1.202	20.9	0.9980	3016.03	
P-Center	07/29/18	18.37	3034.84	3016.47	3015.1	1.212	23.0	0.9975	3016.76	
P-Center	10/06/18	17.90	3034.84	3016.94	3015.1	1.218	21.8	0.9978	3017.34	
P-Center	01/12/19	18.44	3034.84	3016.40	3015.1	1.218	21.0	0.9980	3016.68	
P-Center	04/06/19	18.58	3034.84	3016.26	3015.1	1.216	22.1	0.9977	3016.51	
P-Center	07/27/19	15.41	3034.84	3019.43	3015.1	1.212	22.2	0.9977	3020.35	
P-Center	11/02/19	17.82	3034.84	3017.02	3015.1	1.219	21.2	0.9979	3017.44	
P-Center	01/29/20	18.43	3034.84	3016.41	3015.1	1.220	20.7	0.9980	3016.69	
P-Center	04/28/20	18.76	3034.84	3016.08	3015.1	1.218	22.3	0.9977	3016.29	
P-Center	07/29/20	18.98	3034.84	3015.86	3015.1	1.225	22.3	0.9977	3016.03	

TABLE 1

GROUNDWATER LEVELS, DENSITIES, AND EQUIVALENT FRESHWATER HEADS

Well	Date	Depth to Water (feet below top of casing)	Top of Casing Elevation[1] (feet amsl)	Measured Water Level Elevation (feet amsl)	Screen Mid-point Elevation (feet amsl)	Measured Density[2,4] (g/cm^3)	Temp. of Density Measurement (°C)	Freshwater Density at Temp of Measurement (g/cm^3)	Equivalent Freshwater Head[3] (feet amsl)	Comments
P-Center	10/29/20	18.93	3034.84	3015.91	3015.1	1.218	18.9	0.9984	3016.08	
P-Center	01/27/21	19.28	3034.84	3015.56	3015.1	1.208	19.0	0.9983	3015.65	
P-Center	04/27/21	19.20	3034.84	3015.64	3015.1	1.204	22.7	0.9976	3015.75	
P-Center	07/27/21	18.78	3034.84	3016.06	3015.1	1.214	23.3	0.9975	3016.26	
P-Center	10/26/21	19.14	3034.84	3015.70	3015.1	1.180	23.0	0.9975	3015.80	
P-Center	01/20/22	19.59	3034.84	3015.25	3015.1	1.202	17.5	0.9986	3015.27	
P-Center	04/27/22	20.29	3034.84	3014.55	3015.1	1.200	22.0	0.9978	3014.43	
P-Center	07/25/22	19.68	3034.84	3015.16	3015.1	1.214	26.7	0.9967	3015.17	
P-Center	11/01/22	18.57	3034.84	3016.27	3015.1	1.210	20.3	0.9981	3016.51	
P-Center	01/24/23	19.45	3034.84	3015.39	3015.1	1.214	15.2	0.9990	3015.45	
P-East										
P-East	02/12/14	50.35	3110.60	3060.25	3035.6	--	--	--	--	
P-East	07/24/14	51.55	3110.60	3059.05	3035.6	--	--	--	--	
P-East	12/19/14	47.71	3110.60	3062.89	3035.6	--	--	--	--	
P-East	01/14/15	50.40	3110.60	3060.20	3035.6	--	19.0	0.9983	--	
P-East	04/28/15	49.75	3110.60	3060.85	3035.6	--	21.4	0.9979	--	
P-East	07/14/15	50.90	3110.60	3059.70	3035.6	--	26.7	0.9967	--	
P-East	10/15/15	50.10	3110.60	3060.50	3035.6	--	22.8	0.9976	--	
P-East	01/05/16	51.40	3110.60	3059.20	3035.6	--	19.8	0.9982	--	
P-East	04/07/16	52.27	3110.60	3058.33	3035.6	--	23.2	0.9975	--	
P-East	08/10/16	53.76	3110.60	3056.84	3035.6	--	24.0	0.9973	--	
P-East	12/06/16	52.51	3110.60	3058.09	3035.6	--	NA	#VALUE!	--	
P-East	03/15/17	53.77	3110.60	3056.83	3035.6	--	21.7	0.9978	--	
P-East	05/13/17	53.12	3110.60	3057.48	3035.6	--	23.4	0.9974	--	
P-East	07/29/17	53.45	3110.60	3057.15	3035.6	1.172	23.4	0.9974	--	
P-East	11/11/17	54.63	3110.60	3055.97	3035.6	1.172	21.3	0.9979	--	
P-East	02/21/18	55.80	3110.60	3054.80	3035.6	1.164	20.9	0.9980	3058.00	
P-East	04/07/18	56.22	3110.60	3054.38	3035.6	1.180	21.7	0.9978	3057.81	
P-East	07/29/18	56.99	3110.60	3053.61	3035.6	1.164	26.0	0.9968	3056.63	
P-East	10/06/18	56.05	3110.60	3054.55	3035.6	1.164	22.1	0.9977	3057.71	
P-East	01/12/19	55.52	3110.60	3055.08	3035.6	1.166	20.5	0.9981	3058.36	
P-East	04/06/19	56.02	3110.60	3054.58	3035.6	1.166	20.9	0.9980	3057.78	
P-East	07/27/19	56.70	3110.60	3053.90	3035.6	1.164	21.7	0.9978	3056.95	
P-East	11/02/19	57.45	3110.60	3053.15	3035.6	1.158	21.2	0.9979	3055.97	
P-East	01/29/20	58.23	3110.60	3052.37	3035.6	1.165	18.6	0.9984	3055.17	
P-East	04/28/20	58.55	3110.60	3052.05	3035.6	1.170	21.4	0.9979	3054.89	
P-East	07/29/20	59.14	3110.60	3051.46	3035.6	1.152	23.1	0.9975	3053.92	
P-East	10/29/20	60.00	3110.60	3050.60	3035.6	1.219	16.5	0.9988	3053.91	
P-East	01/27/21	59.99	3110.60	3050.61	3035.6	1.172	18.0	0.9985	3053.22	

TABLE 1

GROUNDWATER LEVELS, DENSITIES, AND EQUIVALENT FRESHWATER HEADS

Well	Date	Depth to Water (feet below top of casing)	Top of Casing Elevation[1] (feet amsl)	Measured Water Level Elevation (feet amsl)	Screen Mid-point Elevation (feet amsl)	Measured Density[2,4] (g/cm^3)	Temp. of Density Measurement (°C)	Freshwater Density at Temp of Measurement (g/cm^3)	Equivalent Freshwater Head[3] (feet amsl)	Comments
P-East	04/27/21	59.39	3110.60	3051.21	3035.6	1.216	22.0	0.9978	3054.63	
P-East	07/27/21	59.69	3110.60	3050.91	3035.6	1.148	22.7	0.9976	3053.22	
P-East	10/26/21	59.38	3110.60	3051.22	3035.6	1.180	20.8	0.9980	3054.07	
P-East	01/20/22	60.26	3110.60	3050.34	3035.6	1.180	15.6	0.9989	3053.01	
P-East	04/27/22	60.76	3110.60	3049.84	3035.6	1.200	21.4	0.9979	3052.73	
P-East	07/25/22	60.69	3110.60	3049.91	3035.6	1.190	26.0	0.9968	3052.69	
P-East	11/01/22	60.59	3110.60	3050.01	3035.6	1.190	19.2	0.9983	3052.78	
P-East	01/24/23	63.11	3110.60	3047.49	3035.6	1.190	16.4	0.9988	3049.77	

Notes:

1. Top of casing elevations were surveyed by Pyeatts on May 5, 2009. The well casing at LG-5 was damaged in July 2019 and repaired in August 2019. The top of casing elevation was re-surved by Pettigrew & Associates on October 30, 2019. Monitoring wells LG-33 though LG-35 were surveried by Pettigrew & Associates on December 21, 2020, and wells LG-36 through LG-38 were surveyed by Pettigrew & Associates on Febuary 2, 2022.

2. From February 2009 through May 2010 densities in the table were measured by ENC Labs in Albuquerque, NM. After August 2010 densities were measured in the field by Mosaic or WSP.

3. Equivalent freshwater heads were calculated using methods presented in Post et al. (2007).
4. Measured Density values were not collected prior to July 2017
- NA: Not Analyzed

TABLE 2
WATER QUALITY MONITORING RESULTS

Date[1]	Well / Sampling Location	FIELD MEASUREMENTS						LABORATORY ANALYSES															
								DP-1399 Reporting Requirements									S1AP Reporting Requirements						
		Depth to Water (feet)	TOC Elevation[2] (feet amsl)	WL Elevation (feet amsl)	Specific Conductivity (mS/cm)	pH (std. units)	Temperature (°C)	TDS (ppm)	Sodium (ppm)	Calcium (ppm)	Magnesium (ppm)	Potassium (ppm)	Chloride (ppm)	Sulfate (ppm)	Alkalinity (ppm as $CaCO_3$)[6]	Specific Conductivity (mS/cm)	pH (std. units)	Boron (ppm)	Bromine (ppm)	Selenium (ppm)	TSS (ppm)	Fecal Coliform (MPN/100 mL)	Total Nitrogen (ppm)
LG-1																							
1/26/04	LG-1	24.12	2966.78	2942.66	NA	NA	20	65,300	19,000	1,490	2,820	1,131	34,700	5,800	568	135.5	7.28	---	---	---	---	---	---
4/19/04	LG-1	22.82	2966.78	2943.96	8.56	6.57	21	65,000	18,800	1,490	2,790	1,086	34,600	5,900	568	135	7.07	---	---	---	---	---	---
7/6/04	LG-1	23.52	2966.78	2943.26	8.4	6.58	21	65,800	19,000	1,480	2,810	1,126	35,000	6,000	568	135	7	---	---	---	---	---	---
10/21/04	LG-1	NA	2966.78	NA	NA	NA	NA	65,900	19,100	1,500	2,810	1,118	35,200	5,800	568	135.5	7.01	---	---	---	---	---	---
2/2/05	LG-1	21.67	2966.78	2945.11	8.55	6.35	20.2	65,600	19,100	1,580	2,270	1,118	35,400	5,800	568	135	7.12	---	---	---	---	---	---
4/11/05	LG-1	21.21	2966.78	2945.57	8.53	6.34	20.7	65,800	19,200	1,610	2,160	1,084	35,800	5,600	568	135	7	---	---	---	---	---	---
7/12/05	LG-1	21.68	2966.78	2945.10	8.72	6.26	20.3	66,100	19,200	1,580	2,210	1,115	35,800	5,800	568	138.5	7.26	---	---	---	---	---	---
10/13/05	LG-1	20.60	2966.78	2946.18	8.92	6.25	19.4	68,300	19,900	1,700	2,590	1,102	36,600	6,100	559	137.5	6.98	---	---	---	---	---	---
1/20/06	LG-1	20.22	2966.78	2946.56	NA	NA	NA	69,630	20,640	1,690	2,600	1,170	37,400	5,800	549	139.5	6.87	---	---	---	---	---	---
4/2/06	LG-1	20.45	2966.78	2946.33	9.21	6.89	20	70,730	20,750	1,850	2,580	1,130	38,200	5,900	538	142	6.94	---	---	---	---	---	---
7/18/06	LG-1	21.76	2966.78	2945.02	9.38	6.44	21.4	72,810	21,400	1,710	2,710	1,250	39,720	5,700	529	149.5	7.03	---	---	---	---	---	---
10/23/06	LG-1	20.49	2966.78	2946.29	9.27	6.59	19.9	73,265	21,260	1,690	2,806	1,200	39,690	6,300	529	150	6.97	---	---	---	---	---	---
1/31/07	LG-1	21.05	2966.78	2945.73	9.49	6.61	19.8	73,307	21,390	1,810	2,740	1,320	39,880	5,850	529	151	6.98	---	---	---	---	---	---
4/10/07	LG-1	20.78	2966.78	2946.00	9.68	6.58	21.3	75,349	22,150	1,870	2,975	1,320	40,700	6,020	524	155.3	6.92	---	---	---	---	---	---
8/10/07	LG-1	20.00	2966.78	2946.78	9.85	6.9	20.1	77,345	22,400	1,635	3,156	1,236	42,400	6,200	530	158.5	7.04	---	---	---	---	---	---
10/10/07	LG-1	20.40	2966.78	2946.38	9.8	7.06	20.4	77,742	22,580	1,676	3,249	1,325	42,098	6,500	524	160	7.18	---	---	---	---	---	---
1/2/08	LG-1	20.10	2966.78	2946.68	9.92	6.54	20.4	76,383	21,820	1,670	3,291	1,361	41,815	6,100	543	160	7.11	---	---	---	---	---	---
4/28/08	LG-1	20.50	2966.78	2946.28	10.05	6.71	19.9	77,476	21,560	1,682	3,543	1,385	42,750	6,236	534	165.0	7.36	---	---	---	---	---	---
8/6/08	LG-1	21.20	2966.78	2945.58	10.12	7.16	21.0	78,102	22,231	1,576	3,403	1,471	42,897	6,204	533	170.0	7.12	---	---	---	---	---	---
11/17/08	LG-1	20.60	2966.78	2946.18	133.4[3]	6.40	20.5	83,682	23,140	1,630	3,528	1,534	46,590	6,925	558	175.0	7.04	---	---	---	---	---	---
2/25/09	LG-1	21.00	2966.78	2945.78	58.5[3]	6.46	21.3	83,764	23,505	1,589	3,572	1,552	46,731	6,488	545	174.8	6.92	---	---	---	---	---	---
5/19/09	LG-1	21.45	2966.78	2945.33	120.4	6.31	22.3	83,308	22,900	1,590	3,787	1,570	46,635	6,490	561	174.5	6.80	---	---	---	---	---	---
8/31/09	LG-1	20.50	2966.78	2946.28	115.5	6.36	21.4	80,726	22,443	1,596	3,729	1,493	45,226	5,910	548	173.3	6.88	---	---	---	---	---	---
11/2/09	LG-1	21.20	2966.78	2945.58	114.1	6.39	21.0	78,574	21,350	1,682	3,572	1,435	44,434	5,997	540	170.2	6.93	---	---	---	---	---	---
1/11/10	LG-1	21.00	2966.78	2945.78	112.6	6.39	19.9	80,026	22,064	1,564	3,634	1,607	44,577	6,256	540	166.7	6.84	---	---	---	---	---	---
5/11/10	LG-1	20.70	2966.78	2946.08	110.9	6.40	21.8	78,863	21,141	1,591	3,661	1,761	44,395	6,002	520	166.7	6.84	---	---	---	---	---	---
8/3/10	LG-1	20.10	2966.78	2946.68	103.7	6.47	22.0	88,019	22,642	1,604	3,491	1,887	50,000	7,075	264	170.0	7.41	---	---	---	---	---	---
11/16/10	LG-1	20.30	2966.78	2946.48	NA	6.60	19.4	80,979	24,482	1,883	3,766	2,166	54,614	6,968	264	160.0	6.93	---	---	---	---	---	---
1/26/11	LG-1	20.80	2966.78	2945.98	NA	6.17	12.3	84,340	22,642	1,698	3,491	1,981	50,943	6,887	264	160.0	6.93	---	---	---	---	---	---
5/2/11	LG-1	21.40	2966.78	2945.38	NA	6.19	25.0	81,594	21,822	1,708	3,321	2,087	51,233	6,546	256	160.0	7.03	---	---	---	---	---	---
7/5/11	LG-1	22.20	2966.78	2944.58	NA	6.24	25.1	85,104	22,770	1,898	3,890	2,467	51,233	7,116	256	180.0	6.91	---	---	---	---	---	---
10/12/11	LG-1	22.65	2966.78	2944.13	109.2	6.56	21.3	82,827	20,873	1,708	3,226	2,087	48,387	6,072	256	160.0	7.31	---	---	---	---	---	---
1/31/12	LG-1	22.30	2966.78	2944.48	110	6.37	19.9	88,962	24,528	1,792	3,774	2,830	48,113	6,509	--	160.0	7.18	---	---	---	---	---	---
4/24/12	LG-1	22.40	2966.78	2944.38	108.1	6.31	21.3	82,453	21,698	764	3,585	2,736	49,057	6,981	256	150.0	7.01	---	---	---	---	---	---
7/18/12	LG-1	22.60	2966.78	2944.18	110.2	6.49	22.6	95,865	23,496	1,880	3,853	3,008	54,511	6,955	263	170.0	6.98	---	---	---	---	---	---
11/26/12	LG-1	22.00	2966.78	2944.78	114	6.45	22.7	93,985	25,376	1,692	3,853	3,289	56,391	6,861	263	170.0	7.03	---	---	---	---	---	---
11/26/12	LG-1	22.00	2966.78	2944.78	114	6.45	22.7	90,856	23,810	1,761	4,381	3,368	50,708	6,516	521	199.2	7.10	---	---	---	---	---	---
02/26/13	LG-1	21.90	2966.78	2944.88	115.2	5.60	21.1	92,575	25,376	1,786	4,229	3,665	60,150	7,895	263	170.0	6.84	---	---	---	---	---	---
02/26/13	LG-1	21.90	2966.78	2944.88	115.2	5.60	21.1	92,847	23,872	1,735	4,441	4,108	51,831	6,543	529	200.0	6.82	---	---	---	---	---	---
04/29/13	LG-1	22.20	2966.78	2944.58	114.6	6.00	23.7	101,313	22,514	1,970	4,315	4,034	48,780	6,848	273	180.0	7.05	---	---	---	---	---	---
04/29/13	LG-1	22.20	2966.78	2944.58	114.6	6.00	23.7	92,896	24,151	1,845	4,391	3,708	51,816	6,669	527	200.8	6.94	---	---	---	---	---	---
08/01/13	LG-1	21.75	2966.78	2945.03	115.2	5.85	21.6	92,958	24,095	1,790	4,320	3,812	52,076	6,533	553	204.2	6.99	---	---	---	---	---	---
10/30/13	LG-1	21.70	2966.78	2945.08	117.4	6.18	20.7	94,335	24,985	1,743	4,282	4,153	52,237	6,616	532	192.5	7.20	---	---	---	---	---	---
02/12/14	LG-1	21.70	2966.78	2945.08	121.4	6.13	20.1	95,838	25,037	1,771	4,364	4,106	53,390	6,840	550	210.8	6.93	---	---	---	---	---	---
04/28/14	LG-1	21.78	2966.78	2945.00	121.4	6.15	21.9	103,774	23,585	1,509	3,962	3,868	55,660	7,453	274	140.0	6.79	---	---	---	---	---	---
07/22/14	LG-1	22.40	2966.78	2944.38	117.6	5.82	21.9	98,113	28,302	1,792	4,340	4,057	48,113	6,698	274	140.0	7.21	---	---	---	---	---	---
10/28/14	LG-1	17.53	2966.78	2949.25	NA	NA	20.3	97,170	17,925	1,038	2,925	2,925	57,547	7,358	283	180.0	7.20	---	---	---	---	---	---
01/13/15	LG-1	17.51	2966.78	2949.27	123.1	7.04	17.2	86,509	22,642	1,887	4,057	3,962	48,113	6,321	255	170.0	6.98	---	---	---	---	---	---
05/04/15	LG-1	17.45	2966.78	2949.33	128.1	6.32	22.4	101,313	21,576	854	3,752	3,752	60,976	7,598	255	170.0	7.23	---	---	---	---	---	---
05/04/15	LG-1	17.45	2966.78	2949.33	128.1	6.32	22.4	96,623	24,484	1,707	4,493	4,343	55,347	9,475	328	150.0	6.43	---	---	---	---	---	---
07/09/15	LG-1	18.80	2966.78	2947.98	123.1	6.29	22.6	81,801	23,358	1,848	4,409	4,146	51,595	6,023	285	166.0	6.69	---	---	---	---	---	---
10/15/15	LG-1	18.12	2966.78	2948.66	138.6	6.32	21.8	105,214	28,119	1,825	5,149	5,484	56,797	5,782	298	168.0	6.46	---	---	---	---	---	---
01/07/16	LG-1	17.91	2966.78	2948.87	106.1	NA	20.1	114,784	23,691	1,359	4,353	5,014	63,361	6,116	303	166.0	6.92	---	---	---	---	---	---
04/07/16	LG-1	17.68	2966.78	2949.10	106.3	NA	21.4	113,994	28,452	1,724	5,134	5,978	63,021	4,198	343	146.0	7.41	---	---	---	---	---	---
08/09/16	LG-1	18.63	2966.78	2948.15	192.3	NA	22.5	103,545	24,813	1,931	4,646	4,767	58,769	5,765	272	160.0	6.52	---	---	---	---	---	---
12/05/16	LG-1	18.41	2966.78	2948.37	197.7	NA	19.2	93,779	20,891	1,653	3,751	4,234	53,853	6,500	249	166.0	6.68	---	---	---	---	---	---
03/14/17	LG-1	18.75	2966.78	2948.03	111.44	6.63	20.3	83,458	20,561	1,832	3,850	3,897	50,467	6,028	239	164.0	6.72	---	---	---	---	---	---
05/12/17	LG-1	19.13	2966.78	2947.65	82.03	6.39	20.6	68,246	14,502	2,009	3,033	1,972	38,863	4,057	216	125.0	6.56	---	---	---	---	---	---
07/28/17	LG-1	19.67	2966.78	2947.11	99.71	6.45	21.6	81,345	19,508	1,970	3,636	3,371	48,769	4,754	246	179.0	7.27	---	---	---	---	---	---
11/11/17	LG-1	19.39	2966.78	2947.39	118.22	6.37	20.6	83,081	22,117	2,108	4,140	4,036	56,711	7,221	261	117.0	6.53	---	---	---	---	---	---
02/21/18	LG-1	19.60	2966.78	2947.18	123.15	6.40	20.5	90,800	21,700	2,090	4,140	3,860	63,000	5,940	272	117.0	6.81	---	---	---	---	---	---
04/06/18	LG-1	19.70	2966.78	2947.08	106.93	6.49	21.2	89,300	21,200	2,090	4,030	3,640	49,000	7,040	288	111.0	7.10	---	---	---	---	---	---
07/27/18	LG-1	20.10	2966.78	2946.68	109.62	6.71	21.2	91,300	21,700	2,120	3,990	3,640	52,000	4,370	256	110.0	6.49	---	---	---	---	---	---
10/05/18	LG-1	19.79	2966.78	2946.99	122.505	6.97	21.5	95,700	23,900	2,230	4,100	3,880	59,000	5,660	268	120.0	6.80	---	---	---	---	---	---
01/12/19	LG-1	19.04	2966.78	2947.74	152.89	6.59	19.9	101,000	25,100	2,170	4,370	4,150	56,500	6,250	280	125.0	6.69	---	---	---	---	---	---
04/05/19	LG-1	19.23	2966.78	2947.55	141.255	6.39	20.9	99,400	25,800	2,220	4,440	3,790	56,000	5,470	317	121.0	6.64	---	---	---	---	---	---
07/26/19	LG-1	19.98	2966.78	2946.80	108.352	6.59	21.4	92,400	20,200	1,820	3,380	2,700	53,000	5,710	244	107.0	7.12	---	---	---	---	---	---
11/02/19	LG-1	15.82	2966.78	2950.96	105.619	6.54	20.2	92,000	23,800	2,230	4,280	3,280	49,500	4,710	244	123.0	6.62	---	---	---	---	---	---
01/29/20	LG-1	20.20	2966.78	2946.58	85.986	6.78	20.8	94,000	23,800	2,250	4,320	3,120	56,000	5,720	<1	122.0	6.97	---	---	---	---	---	---
04/28/20	LG-1	20.10	2966.78	2946.68	86.19	6.79	22.7	91,700	22,600	2,030	4,230	2,900	54,000	5,210	<1	117.0	6.81	---	---	---	---	---	---
07/29/20	LG-1	20.90	2966.78	2945.88	102.323	6.28	21.3	88,300	24,800	2,140	4,790	2,910	52,000	5,130	<1	113.0	6.47	---	---	---	---	---	---
10/29/20	LG-1	20.84	2966.78	2945.94	99.87	6.59	22.4	99,100	24,000	2,000	4,340	3,100	67,000	6,720	<1	126.0	6.68	---	---	---	---	---	---
01/27/21	LG-1	20.93	2966.78	2945.85	105.802	6.44	19.7	99,600	25,100	2,330	4,920	3,380	55,000	6,900	<1	125.0	6.69	---	---	---	---	---	---
04/27/21	LG-1	21.16	2966.78	2945.62	118.669	6.81	23	96,300	29,900	2,700	5,930	3,730	58,000	5,050	<1	124.0	6.60	---	---	---	---	---	---
07/27/21	LG-1	20.70	2966.78	2946.08	73.793	6.53	23.4	101,000	25,000	2,120	5,210	3,250	64,000	4,750	<1	127.0	6.64	---	---	---	---	---	---

TABLE 2
WATER QUALITY MONITORING RESULTS

Date[1]	Well / Sampling Location	FIELD MEASUREMENTS						LABORATORY ANALYSES															
								DP-1399 Reporting Requirements									S1AP Reporting Requirements						
		Depth to Water (feet)	TOC Elevation[2] (feet amsl)	WL Elevation (feet amsl)	Specific Conductivity (mS/cm)	pH (std. units)	Temperature (°C)	TDS (ppm)	Sodium (ppm)	Calcium (ppm)	Magnesium (ppm)	Potassium (ppm)	Chloride (ppm)	Sulfate (ppm)	Alkalinity (ppm as $CaCO_3$)[6]	Specific Conductivity (mS/cm)	pH (std. units)	Boron (ppm)	Bromine (ppm)	Selenium (ppm)	TSS (ppm)	Fecal Coliform (MPN/100 mL)	Total Nitrogen (ppm)
10/26/21	LG-1	21.06	2966.78	2945.72	40.262	6.38	23.9	98,400	24,000	1,970	4,910	2,980	60,000	5,620	<1	130.0	6.41	---	---	---	---	---	---
01/19/22	LG-1	20.52	2966.78	2946.26	97.567	6.77	18.2	115,000	24,500	1,720	4,940	3,370	64,000	7,750	<1	136.0	6.60	---	---	---	---	---	---
04/27/22	LG-1	20.00	2966.78	2946.78	140.121	6.36	22.6	119,000	27,100	2,040	5,970	3,460	66,000	6,530	<1	140.0	6.49	---	---	---	---	---	---
07/26/22	LG-1	21.10	2966.78	2945.68	141.124	6.40	26.7	114,000	26,600	1,940	5,710	3,470	64,000	6,170	<1	135.0	7.11	---	---	---	---	---	---
11/01/22	LG-1	20.90	2966.78	2945.88	140.61	6.46	22.3	118,000	27,100	2,090	6,090	3,600	65,000	6,050	<1	122.0	6.49	---	---	---	---	---	---
01/24/23	LG-1	20.62	2966.78	2946.16	123.971	6.89	16.4	96,900	27,200	1,930	5,990	3,620	58,000	5,510	<1	132.0	6.61	<36.0	36.6	<12.0	NA	NA	NA
LG-2																							
1/26/04	LG-2	25.77	2974.52	2948.75	NA	NA	21.0	9,400	1,900	640	430	49	3,300	2,800	520	17.0	7.11	---	---	---	---	---	---
4/19/04	LG-2	24.41	2974.52	2950.11	1.26	6.77	21.0	9,200	1,900	640	400	44	3,100	2,800	510	16.5	7.23	---	---	---	---	---	---
7/6/04	LG-2	24.95	2974.52	2949.57	1.25	6.69	21.0	9,400	1,900	610	400	46	3,200	2,900	520	16.5	7.17	---	---	---	---	---	---
10/21/04	LG-2	NM	2974.52	NM	NA	NA	NA	9,400	1,900	650	420	47	3,300	2,800	530	16.8	7.23	---	---	---	---	---	---
2/2/05	LG-2	23.18	2974.52	2951.34	1.34	6.68	20.6	9,800	2,000	700	470	46	3,400	2,900	510	17.1	7.21	---	---	---	---	---	---
4/11/05	LG-2	22.55	2974.52	2951.97	1.39	6.81	20.4	10,000	2,100	650	480	45	3,700	2,700	510	17.9	7.17	---	---	---	---	---	---
7/12/05	LG-2	19.40	2974.52	2955.12	1.7	6.65	20.2	12,200	2,500	720	530	62	4,900	3,200	483	21.9	7.22	---	---	---	---	---	---
10/13/05	LG-2	18.21	2974.52	2956.31	2.11	6.55	19.9	14,400	3,100	960	710	81	6,300	3,000	485	26.2	7.1	---	---	---	---	---	---
1/19/06	LG-2	17.93	2974.52	2956.59	NA	NA	NA	16,255	3,545	1,100	825	92	7,100	3,300	490	29.1	7.00	---	---	---	---	---	---
4/2/06	LG-2	17.89	2974.52	2956.63	2.37	7.12	19.9	16,805	3,650	1,060	840	104	7,550	3,300	500	30.3	7.02	---	---	---	---	---	---
7/18/06	LG-2	20.10	2974.52	2954.42	2.38	6.97	20.7	16,560	3,660	980	835	107	7,580	3,100	498	30.0	7.20	---	---	---	---	---	---
10/19/06	LG-2	18.75	2974.52	2955.77	2.26	6.98	20.9	16,185	3,600	950	795	107	7,240	3,200	490	30.0	7.07	---	---	---	---	---	---
1/31/07	LG-2	18.63	2974.52	2955.89	2.3	6.82	20.6	16,123	3,520	950	759	110	7,210	3,280	490	29.4	7.03	---	---	---	---	---	---
4/10/07	LG-2	17.80	2974.52	2956.72	2.54	6.52	21.7	17,413	3,890	1,184	876	117	8,110	3,080	500	32.5	7.00	---	---	---	---	---	---
8/10/07	LG-2	17.80	2974.52	2956.72	3.34	7.13	19.8	23,711	5,350	1,712	1,003	127	12,220	3,020	466	45.3	7.06	---	---	---	---	---	---
10/10/07	LG-2	18.30	2974.52	2956.22	4.16	7.30	23.2	29,159	6,715	2,120	1,350	144	15,455	3,110	442	60.0	7.22	---	---	---	---	---	---
1/2/08	LG-2	17.95	2974.52	2956.57	4.79	6.51	20.8	32,705	7,605	2,311	1,467	177	17,920	2,960	442	70.0	6.96	---	---	---	---	---	---
4/28/08	LG-2	17.95	2974.52	2956.57	5.19	6.85	19.7	35,395	8,620	2,376	1,686	103	19,350	2,990	451	73.6	7.34	---	---	---	---	---	---
8/4/08	LG-2	19.53	2974.52	2955.00	5.61	7.50	20.8	37,791	9,339	2,395	1,650	249	21,137	2,750	452	78.6	7.10	---	---	---	---	---	---
11/17/08	LG-2	19.35	2974.52	2955.17	65.8[3]	6.40	20.7	41,004	10,351	2,432	1,640	350	23,203	2,758	450	84.5	6.91	---	---	---	---	---	---
2/25/09	LG-2	19.13	2974.52	2955.40	75.2[3]	6.42	20.5	41,164	10,456	2,370	1,710	388	23,211	2,763	443	85.1	6.85	---	---	---	---	---	---
5/19/09	LG-2	19.55	2974.52	2954.97	67.8	6.42	20.9	41,545	10,660	2,348	1,861	413	23,310	2,685	447	85.5	6.78	---	---	---	---	---	---
8/25/09	LG-2	17.03	2974.52	2957.49	70	6.30	23.3	42,628	10,778	2,290	1,773	465	24,130	2,917	459	86.7	6.81	---	---	---	---	---	---
11/2/09	LG-2	18.07	2974.52	2956.45	70.8	6.22	21.0	44,938	11,610	2,401	1,761	539	25,494	2,864	448	93.2	6.72	---	---	---	---	---	---
1/11/10	LG-2	17.09	2974.52	2957.43	71.3	6.24	20.3	45,786	11,962	2,350	1,793	585	25,757	3,068	452	93.2	6.73	---	---	---	---	---	---
5/11/10	LG-2	17.45	2974.52	2957.07	73.3	6.33	20.1	47,611	11,921	2,299	1,855	730	27,490	3,042	457	98.9	6.74	---	---	---	---	---	---
8/3/10	LG-2	16.30	2974.52	2958.22	68.5	6.40	20.2	53,185	13,514	2,606	1,834	840	28,958	3,475	232	99.0	7.42	---	---	---	---	---	---
11/16/10	LG-2	16.70	2974.52	2957.82	NA	5.84	18.1	55,663	13,553	2,227	1,549	968	31,946	3,582	242	100.0	6.85	---	---	---	---	---	---
1/26/11	LG-2	17.00	2974.52	2957.52	NA	6.10	17.6	50,578	14,451	2,216	1,541	963	34,862	3,565	241	100.0	6.82	---	---	---	---	---	---
5/4/11	LG-2	17.65	2974.52	2956.87	NA	6.12	20.1	55,039	12,597	2,326	1,647	1,163	33,915	3,779	242	110.0	6.93	---	---	---	---	---	---
7/5/11	LG-2	18.95	2974.52	2955.57	NA	6.15	22.1	60,078	14,535	2,229	1,647	1,163	31,008	3,585	242	120.0	6.78	---	---	---	---	---	---
10/12/11	LG-2	19.60	2974.52	2954.92	79.6	6.53	21.6	58,624	15,504	2,132	1,744	1,357	33,915	3,682	242	110.0	7.35	---	---	---	---	---	---
1/31/12	LG-2	17.70	2974.52	2956.82	86.1	6.14	20.5	65,029	16,378	2,505	1,927	1,638	35,645	3,854	NA	120.0	7.21	---	---	---	---	---	---
4/24/12	LG-2	16.20	2974.52	2958.32	91.7	6.23	20.5	64,491	18,234	1,536	1,823	2,015	42,226	4,415	250	120.0	6.96	---	---	---	---	---	---
7/18/12	LG-2	14.20	2974.52	2960.32	77.5	6.5	24.7	60,385	15,385	2,212	1,731	1,827	34,615	3,942	250	110.0	7.00	---	---	---	---	---	---
11/26/12	LG-2	12.20	2974.52	2962.32	62.1	6.54	24.2	45,437	12,621	1,650	1,359	1,456	25,243	3,689	233	88.0	7.01	---	---	---	---	---	---
11/26/12	LG-2	12.20	2974.52	2962.32	62.1	6.54	24.2	45,662	12,086	1,715	1,605	1,377	25,156	3,443	468	93.3	7.16	---	---	---	---	---	---
02/27/13	LG-2	10.50	2974.52	2964.02	59.7	5.10	21.1	44,066	11,673	1,556	1,265	1,265	20,428	3,405	224	77.0	6.90	---	---	---	---	---	---
02/27/13	LG-2	10.50	2974.52	2964.02	59.7	5.10	21.1	41,422	10,969	1,575	1,449	1,468	22,320	3,371	450	84.3	6.92	---	---	---	---	---	---
04/29/13	LG-2	10.55	2974.52	2963.97	54.5	6.15	22.0	39,844	8,496	1,758	1,270	1,270	18,555	3,223	225	80.0	7.13	---	---	---	---	---	---
04/29/13	LG-2	10.55	2974.52	2963.97	54.5	6.15	22.0	39,242	10,436	1,543	1,396	1,187	21,081	3,330	448	81.4	7.09	---	---	---	---	---	---
07/31/13	LG-2	11.10	2974.52	2963.42	56.7	5.84	22.0	37,739	9,944	1,515	1,262	1,295	20,206	3,229	481	78.4	7.08	---	---	---	---	---	---
10/29/13	LG-2	10.20	2974.52	2964.32	52.1	6.02	21.9	35,299	9,408	1,397	1,121	1,124	18,658	3,228	456	68.5	7.40	---	---	---	---	---	---
02/12/14	LG-2	11.45	2974.52	2963.07	53.3	6.11	20.5	35,190	9,096	1,593	1,148	1,122	18,678	3,268	475	70.0	7.07	---	---	---	---	---	---
04/28/14	LG-2	13.00	2974.52	2961.52	52	6.02	22.2	36,399	8,708	1,370	969	2,055	18,591	3,425	225	41.0	6.89	---	---	---	---	---	---
07/22/14	LG-2	14.20	2974.52	2960.32	50.1	6.02	21.4	34,489	9,538	1,445	1,060	963	14,451	2,794	222	51.0	7.33	---	---	---	---	---	---
10/27/14	LG-2	9.96	2974.52	2964.56	NA	NA	21.6	34,104	7,514	1,252	925	751	16,378	2,794	231	54.0	7.27	---	---	---	---	---	---
01/12/15	LG-2	10.81	2974.52	2963.71	49.9	6.67	19.9	37,476	8,611	1,566	1,076	939	16,634	3,229	235	56.0	7.12	---	---	---	---	---	---
04/29/15	LG-2	11.25	2974.52	2963.27	47.5	6.40	20.4	33,922	7,941	1,471	1,078	882	21,569	3,039	231	57.0	7.29	---	---	---	---	---	---
04/29/15	LG-2	11.25	2974.52	2963.27	47.5	6.40	20.4	30,980	7,902	1,412	1,088	837	17,059	2,510	247	42.7	6.41	---	---	---	---	---	---
07/08/15	LG-2	12.32	2974.52	2962.20	49.8	6.38	21.1	34,412	8,157	1,412	1,108	873	18,431	2,755	247	46.7	6.90	---	---	---	---	---	---
10/15/15	LG-2	12.60	2974.52	2961.92	41.5	6.65	22.8	36,755	9,189	1,623	1,183	972	18,573	3,187	255	54.1	6.67	---	---	---	---	---	---
10/15/15	LG-2	12.60	2974.52	2961.92	41.5	6.65	22.8	33,786	9,155	1,621	1,155	949	17,184	2,913	255	53.9	6.67	---	---	---	---	---	---
03/01/16	LG-2	12.21	2974.52	2962.31	42.1	NA	22.8	39,202	10,214	1,780	1,304	1,060	20,914	2,802	253	52.7	7.02	---	---	---	---	---	---
04/07/16	LG-2	12.33	2974.52	2962.19	42.4	NA	20.3	34,115	10,459	1,769	1,349	1,046	21,505	3,715	262	69.9	6.98	---	---	---	---	---	---
08/09/16	LG-2	14.48	2974.52	2960.04	99.9	NA	22	50,678	11,822	1,957	1,560	1,250	25,872	3,401	252	79.0	6.64	---	---	---	---	---	---
12/05/16	LG-2	13.76	2974.52	2960.76	110.5	NA	20.2	50,241	11,357	1,790	1,473	1,261	28,874	3,705	246	102.0	6.64	---	---	---	---	---	---
03/15/17	LG-2	14.32	2974.52	2960.20	79.95	6.48	20.9	53,689	12,718	1,748	1,670	1,583	30,097	3,913	268	103.0	6.75	---	---	---	---	---	---
05/13/17	LG-2	14.82	2974.52	2959.70	83.5	6.25	23.9	54,119	13,506	1,753	1,724	1,801	31,609	3,851	272	107.0	6.42	---	---	---	---	---	---
07/28/17	LG-2	15.60	2974.52	2958.92	73.92	6.31	23.6	58,598	15,370	1,892	1,921	2,113	32,949	3,852	269	117.0	7.16	---	---	---	---	---	---
11/11/17	LG-2	15.16	2974.52	2959.36	105.91	6.33	21.2	72,996	17,748	1,775	2,071	2,920	45,802	5,162	317	101.0	6.58	---	---	---	---	---	---
02/21/18	LG-2	15.48	2974.52	2959.04	110.79	6.38	20.5	77,800	20,300	1,980	2,410	3,600	52,000	5,180	300	103.0	6.64	---	---	---	---	---	---
04/07/18	LG-2	15.63	2974.52	2958.89	100.23	6.36	20.4	77,600	18,900	1,780	2,220	3,360	42,000	6,680	352	99.0	6.96	---	---	---	---	---	---
07/28/18	LG-2	15.98	2974.52	2958.54	108.85	6.62	20.8	83,500	21,300	1,850	2,470	4,090	46,000	3,990	304	104.0	6.42	---	---	---	---	---	---
10/06/18	LG-2	14.97	2974.52	2959.55	125.002	6.80	21.6	95,500	23,700	1,900	2,590	4,950	50,000	5,460	292	116.0	6.81	---	---	---	---	---	---
01/12/19	LG-2	14.32	2974.52	2960.20	157.667	6.73	20.7	91,100	24,700	1,910	2,790	5,840	51,000	6,270	344	121.0	6.66	---	---	---	---	---	---
04/06/19	LG-2	14.55	2974.52	2959.97	148.372	6.49	20.8	94,200	24,900	1,820	2,690	5,820	52,000	6,020	371	118.0	6.50	---	---	---	---	---	---
07/26/19	LG-2	15.47	2974.52	2959.05	116.849	6.48	20.9	95,800	25,200	1,770	2,630	6,170	52,000	6,210	356	110.0	7.10	---	---	---	---	---	---
11/02/19	LG-2	15.82	2974.52	2958.70	111.409	6.50	21.1	99,900	26,000	1,770	2,790	6,550	52,500	5,820	316	128.0	6.63	---	---	---	---	---	---

TABLE 2
WATER QUALITY MONITORING RESULTS

Date[1]	Well / Sampling Location	FIELD MEASUREMENTS						LABORATORY ANALYSES															
								DP-1399 Reporting Requirements									S1AP Reporting Requirements						
		Depth to Water (feet)	TOC Elevation[2] (feet amsl)	WL Elevation (feet amsl)	Specific Conductivity (mS/cm)	pH (std. units)	Temperature (°C)	TDS (ppm)	Sodium (ppm)	Calcium (ppm)	Magnesium (ppm)	Potassium (ppm)	Chloride (ppm)	Sulfate (ppm)	Alkalinity (ppm as $CaCO_3$)[6]	Specific Conductivity (mS/cm)	pH (std. units)	Boron (ppm)	Bromine (ppm)	Selenium (ppm)	TSS (ppm)	Fecal Coliform (MPN/100 mL)	Total Nitrogen (ppm)
01/29/20	LG-2	15.85	2974.52	2958.67	93.085	6.95	20.9	101,000	28,300	1,980	3,120	7,370	56,000	6,910	<1	130.0	6.95	---	---	---	---	---	---
04/28/20	LG-2	15.62	2974.52	2958.90	90.04	6.45	23.2	105,000	26,700	1,550	2,800	6,960	57,000	6,600	<1	131.0	6.74	---	---	---	---	---	---
07/29/20	LG-2	16.95	2974.52	2957.57	105.641	6.31	21.3	108,000	25,200	1,670	2,680	6,550	57,000	6,860	<1	128.0	6.44	---	---	---	---	---	---
10/29/20	LG-2	17.35	2974.52	2957.17	110	6.45	21.6	109,000	27,600	1,480	2,780	7,280	69,000	6,950	<1	138.0	6.50	---	---	---	---	---	---
LG-5																							
1/26/04	LG-5	18.80	2972.42	2953.62	NA	NA	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
4/19/04	LG-5	15.43	2972.42	2956.99	off scale	7.11	21.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
7/6/04	LG-5	16.11	2972.42	2956.31	17.64	6.49	21.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
2/2/05	LG-5	14.35	2972.42	2958.07	35.64	6.52	21.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
4/11/05	LG-5	14.37	2972.42	2958.05	30.72	6.44	21.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
6/8/05	LG-5	NM	2972.42	NM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
7/11/05	LG-5	15.88	2972.42	2956.54	34.9	6.3	21.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
9/2/05	LG-5	16.01	2972.42	2956.41	33.14	6.9	20.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
10/13/05	LG-5	16.57	2972.42	2955.85	35.2	6.43	20.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
11/14/05	LG-5	17.12	2972.42	2955.30	35.4	6.38	20.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
12/23/05	LG-5	17.28	2972.42	2955.14	34.4	6.51	20.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
1/19/06	LG-5	NM	2972.42	NM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
2/7/06	LG-5	17.48	2972.42	2954.94	34.68	6.89	20.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
3/10/06	LG-5	17.62	2972.42	2954.80	35.28	6.94	20.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
4/2/06	LG-5	17.81	2972.42	2954.61	35.20	6.94	20.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
5/12/06	LG-5	18.01	2972.42	2954.41	23.48	6.93	25.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
7/25/06	LG-5	16.02	2972.42	2956.40	33.78	6.49	23.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
10/20/06	LG-5	18.60	2972.42	2953.82	NA	6.28	21.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
1/31/07	LG-5	16.54	2972.42	2955.88	17.52	6.63	20.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
2/1/07	LG-5	NM	2972.42	NM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
3/16/07	LG-5	18.68	2972.42	2953.74	17.00	6.74	20.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
4/10/07	LG-5	16.80	2972.42	2955.62	13.64	6.61	19.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
5/4/07	LG-5	17.10	2972.42	2955.32	34.18	6.62	21.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
8/2/07	LG-5	17.10	2972.42	2955.32	34.10	7.27	20.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
10/12/07	LG-5	17.20	2972.42	2955.22	34.80	6.55	21.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
1/7/08	LG-5	17.50	2972.42	2954.92	34.48	6.58	21.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
4/28/08	LG-5	18.00	2972.42	2954.42	34.72	6.84	21.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
8/8/08	LG-5	NM	2972.42	NM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
11/25/08	LG-5	15.00	2972.42	2957.42	380[3]	6.30	20.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
2/25/09	LG-5	15.10	2972.42	2957.32	off scale	6.52	21.8	304,900	55,900	11	15,570	41,560	160,100	31,276	878	747.5	6.77	---	---	---	---	---	---
5/20/09	LG-5	15.90	2972.42	2956.52	490.8	6.36	21.8	303,000	54,400	10	16,306	41,265	159,600	30,910	865	745.1	6.75	---	---	---	---	---	---
8/31/09	LG-5	14.90	2972.42	2957.52	357.2	6.43	22.3	308,300	54,800	13	19,704	40,568	159,600	33,110	858	761.1	6.8	---	---	---	---	---	---
11/3/09	LG-5	14.95	2972.42	2957.47	389.8	6.42	21.1	309,600	54,600	9	20,009	42,298	158,800	33,322	893	727.0	6.8	---	---	---	---	---	---
1/12/10	LG-5	14.63	2972.42	2957.79	396.2	6.33	19.4	311,400	53,400	8	21,042	41,678	158,300	36,377	957	738.2	6.81	---	---	---	---	---	---
5/12/10	LG-5	15.10	2972.42	2957.32	380	6.41	21.1	311,800	51,900	8	21,997	41,965	158,700	36,580	1,004	761.7	6.75	---	---	---	---	---	---
8/4/10	LG-5	14.20	2972.42	2958.22	182.7	6.61	22.3	307,448	53,883	32	26,149	34,073	174,326	42,789	555	650.0	6.75	---	---	---	---	---	---
11/16/10	LG-5	14.20	2972.42	2958.22	NA	6.67	20.9	325,949	53,006	33	28,481	31,646	189,873	47,468	617	600.0	6.63	---	---	---	---	---	---
1/26/11	LG-5	12.50	2972.42	2959.92	NA	6.16	19.8	307,267	48,183	9	26,856	30,016	221,169	49,763	632	700.0	6.67	---	---	---	---	---	---
5/3/11	LG-5	16.25	2972.42	2956.17	NA	6.38	18.6	330,116	49,089	<50	27,712	29,295	229,612	49,089	428	660.0	7.69	---	---	---	---	---	---
7/5/11	LG-5	16.70	2972.42	2955.72	NA	6.28	31.5	340,711	54,545	25	29,249	34,783	158,103	43,478	664	740.0	6.59	---	---	---	---	---	---
10/13/11	LG-5	16.53	2972.42	2955.89	189.2	6.32	22.1	313,043	NA	NA	NA	NA	NA	NA	NA	710.0	NA	---	---	---	---	---	---
2/1/12	LG-5	16.70	2972.42	2955.72	184.9	6.46	21.1	252,463	NA	NA	NA	NA	NA	NA	NA	640.0	6.61	---	---	---	---	---	---
4/25/12	LG-5	16.90	2972.42	2955.52	186.1	6.38	21.7	303,175	NA	NA	NA	NA	NA	NA	NA	630.0	6.56	---	---	---	---	---	---
7/18/12	LG-5	16.52	2972.42	2955.90	185.7	6.44	24.9	342,314	NA	NA	NA	NA	NA	NA	721	610.0	6.54	---	---	---	---	---	---
11/26/12	LG-5	16.70	2972.42	2955.72	181.60	6.55	19.30	310,317	NA	NA	NA	NA	NA	NA	738	660.0	6.52	---	---	---	---	---	---
11/26/12	LG-5	16.70	2972.42	2955.72	181.60	6.55	19.30	314,700	NA	NA	NA	NA	NA	NA	1,381	765.0	6.75	---	---	---	---	---	---
02/26/13	LG-5	16.80	2972.42	2955.62	181.4	5.62	21.5	309,524	NA	NA	NA	NA	NA	NA	746	630.0	6.55	---	---	---	---	---	---
02/26/13	LG-5	16.80	2972.42	2955.62	181.4	5.62	21.5	318,600	NA	NA	NA	NA	NA	NA	1,369	776.7	6.72	---	---	---	---	---	---
04/30/13	LG-5	17.05	2972.42	2955.37	183	5.68	24.7	320,635	NA	NA	NA	NA	NA	NA	746	660.0	6.54	---	---	---	---	---	---
04/30/13	LG-5	17.05	2972.42	2955.37	183	5.68	24.7	312,700	NA	NA	NA	NA	NA	NA	1,395	775.0	6.75	---	---	---	---	---	---
08/01/13	LG-5	16.17	2972.42	2956.25	186.3	6.24	22.3	311,500	NA	NA	NA	NA	NA	NA	1,464.0	767.5	6.73	---	---	---	---	---	---
11/11/13	LG-5	16.10	2972.42	2956.32	189.4	5.91	21.3	319,300	NA	NA	NA	NA	NA	NA	1,450	741.0	6.80	---	---	---	---	---	---
02/14/14	LG-5	15.48	2972.42	2956.94	188.2	6.02	21.4	317,000	NA	NA	NA	NA	NA	NA	1,403	803.3	6.73	---	---	---	---	---	---
05/06/14	LG-5	15.50	2972.42	2956.92	173.1	6.00	23.1	353,365	NA	NA	NA	NA	NA	NA	705	460.0	6.61	---	---	---	---	---	---
07/23/14	LG-5	16.20	2972.42	2956.22	180.3	5.97	22.6	317,447	NA	NA	NA	NA	NA	NA	679	390	6.68	---	---	---	---	---	---
10/29/14	LG-5	11.12	2972.42	2961.30	NA	NA	20.8	319,838	NA	NA	NA	NA	NA	NA	672	660	6.61	---	---	---	---	---	---
01/14/15	LG-5	11.16	2972.42	2961.26	214	6.58	18.0	316,775	28,502	33	27,687	31,759	171,010	45,603	651	620.0	6.61	---	---	---	---	---	---
04/29/15	LG-5	12.71	2972.42	2959.71	219	6.40	23.6	344,855	32,958	34	27,331	30,547	176,849	43,408	641	650.0	6.56	---	---	---	---	---	---
04/29/15	LG-5	12.71	2972.42	2959.71	219	6.40	23.6	325,563	49,920	31	26,447	31,833	157,556	34,405	740	508.0	6.30	---	---	---	---	---	---
07/08/15	LG-5	15.40	2972.42	2957.02	213	5.62	21.4	330,033	53,465	34	27,640	33,086	204,620	38,696	677	416.0	6.47	---	---	---	---	---	---
10/21/15	LG-5	16.01	2972.42	2956.41	217	5.99	20.6	311,410	49,128	32	24,802	34,073	153,724	38,035	776	454.0	6.44	---	---	---	---	---	---
10/21/15	LG-5	16.01	2972.42	2956.41	217	5.99	20.6	343,083	49,802	33	25,296	34,387	161,265	40,870	792	523.0	6.47	---	---	---	---	---	---
03/03/16	LG-5	16.48	2972.42	2955.94	157.3	NA	21.7	287,402	41,969	35	24,646	30,630	170,079	33,465	732	364.0	6.48	---	---	---	---	---	---
04/08/16	LG-5	16.71	2972.42	2955.71	NA	NA	NA	314,652	50,761	26	24,500	30,504	152,122	75,260	817	439.0	6.45	---	---	---	---	---	---
08/10/16	LG-5	16.05	2972.42	2956.37	334	NA	21.8	332,779	53,827	30	24,709	33,195	173,045	37,271	882	521.0	6.42	---	---	---	---	---	---
12/02/16	LG-5	15.06	2972.42	2957.36	337	NA	19.6	288,644	46,924	32	21,530	28,233	151,420	37,934	670	623.0	6.46	---	---	---	---	---	---
03/14/17	LG-5	15.22	2972.42	2957.20	207.75	6.46	21.7	314,873	49,051	23	22,152	31,092	155,063	36,392	672	572.0	6.54	---	---	---	---	---	---
05/12/17	LG-5	15.17	2972.42	2957.25	203.73	6.51	23.8	325,340	48,441	22	20,464	29,576	153,477	37,570	703	562.0	6.42	---	---	---	---	---	---
07/28/17	LG-5	14.65	2972.42	2957.77	209.16	7.28	21.8	325,833	56,167	42	21,500	33,000	170,000	34,750	667	755.0	6.90	---	---	---	---	---	---
11/10/17	LG-5	15.29	2972.42	2957.13	217.18	6.40	20.5	315,833	51,250	21	21,167	31,000	171,667	47,333	725	246.0	6.49	---	---	---	---	---	---
02/20/18	LG-5	16.04	2972.42	2956.38	200.15	6.27	20.8	392,000	60,200	35	30,900	44,300	210,000	49,800	920	293.0	6.49	---	---	---	---	---	---

TABLE 2
WATER QUALITY MONITORING RESULTS

Date[1]	Well / Sampling Location	FIELD MEASUREMENTS						LABORATORY ANALYSES															
								DP-1399 Reporting Requirements										S1AP Reporting Requirements					
		Depth to Water (feet)	TOC Elevation[2] (feet amsl)	WL Elevation (feet amsl)	Specific Conductivity (mS/cm)	pH (std. units)	Temperature (°C)	TDS (ppm)	Sodium (ppm)	Calcium (ppm)	Magnesium (ppm)	Potassium (ppm)	Chloride (ppm)	Sulfate (ppm)	Alkalinity (ppm as $CaCO_3$)[6]	Specific Conductivity (mS/cm)	pH (std. units)	Boron (ppm)	Bromine (ppm)	Selenium (ppm)	TSS (ppm)	Fecal Coliform (MPN/100 mL)	Total Nitrogen (ppm)
04/06/18	LG-5	15.77	2972.42	2956.65	193.45	6.33	21.3	384,000	52,300	27	28,600	34,200	192,000	62,200	1,050	268.0	6.65	---	---	---	---	---	---
07/27/18	LG-5	15.59	2972.42	2956.83	200.28	6.43	21.7	409,000	55,500	<50	31,700	43,300	192,000	42,900	970	266.0	6.40	---	---	---	---	---	---
10/05/18	LG-5	15.43	2972.42	2956.99	209.662	5.89	21.7	401,000	60,200	36	34,700	45,900	204,000	46,400	940	286.0	6.47	---	---	---	---	---	---
01/11/19	LG-5	15.15	2972.42	2957.27	235.577	5.81	20.1	406,000	57,600	40	34,700	42,700	214,000	54,000	1,250	282.0	6.44	---	---	---	---	---	---
04/05/19	LG-5	15.65	2972.42	2956.77	218.748	6.10	20.5	397,000	57,200	40	33,900	43,200	208,000	49,600	1,280	281.0	6.44	---	---	---	---	---	---
07/27/19	LG-5	14.73	2972.42	2957.69	192.158	6.43	22.0	398,000	58,400	40	28,500	41,200	212,000	54,100	860	256.0	6.47	---	---	---	---	---	---
11/01/19	LG-5	14.49	2970.94	2956.45	174.703	6.36	21.3	406,000	57,500	36	30,000	41,600	198,000	45,800	1,620	290.0	6.58	---	---	---	---	---	---
01/28/20	LG-5	14.55	2970.94	2956.39	181.76	6.39	20.4	385,000	53,500	37	38,000	39,400	190,000	52,600	<1	280.0	6.44	---	---	---	---	---	---
04/27/20	LG-5	14.44	2970.94	2956.50	191.00	6.30	23.1	394,000	50,300	33	38,800	41,400	198,000	48,900	<1	283.0	6.37	---	---	---	---	---	---
07/28/20	LG-5	15.21	2970.94	2955.73	180.27	6.31	21.6	384,000	47,400	30	39,900	37,400	190,000	51,700	<1	275.0	6.34	---	---	---	---	---	---
10/28/20	LG-5	15.44	2970.94	2955.50	180.30	6.34	19.8	401,000	47,800	36	39,200	34,800	200,000	49,500	<1	272.0	6.61	---	---	---	---	---	---
01/26/21	LG-5	15.86	2970.94	2955.08	163.99	6.02	19.8	397,000	53,400	39	48,400	39,600	196,000	46,800	<1	277.0	6.45	---	---	---	---	---	---
04/26/21	LG-5	16.35	2970.94	2954.59	167.47	6.17	24.6	389,000	55,800	38	42,200	43,200	180,000	49,400	<1	274.0	6.33	---	---	---	---	---	---
07/26/21	LG-5	15.45	2970.94	2955.49	114.41	5.66	26.1	399,000	50,600	49	42,400	39,600	200,000	55,300	<1	271.0	6.30	---	---	---	---	---	---
10/25/21	LG-5	15.91	2970.94	2955.03	142.45	6.16	24.2	395,000	41,100	31	42,800	30,300	184,000	53,600	<1	275.0	6.39	---	---	---	---	---	---
01/19/22	LG-5	16.10	2970.94	2954.84	26.37	6.02	21.0	383,000	52,200	38	47,500	37,100	196,000	72,200	<1	290.0	6.28	---	---	---	---	---	---
04/26/22	LG-5	16.44	2970.94	2954.50	171.23	5.81	23.2	396,000	45,300	30	44,400	35,500	210,000	69,200	<1	274.0	6.20	---	---	---	---	---	---
07/25/22	LG-5	16.05	2970.94	2954.89	77.22	5.98	26.5	382,000	44,200	34	53,900	36,300	180,000	52,000	<1	274.0	6.25	---	---	---	---	---	---
10/24/22	LG-5	15.11	2970.94	2955.83	174.70	5.91	19.1	396,000	42,300	<50	39,600	33,800	208,000	53,800	<1	263.0	6.15	---	---	---	---	---	---
01/23/23	LG-5	15.10	2970.94	2955.84	332.82	6.25	23.2	403,000	44,500	34	42,500	34,200	194,000	81,100	<1	267.0	6.18	<42.0	491	<14.0	NA	NA	NA
LG-23																							
1/26/04	LG-23	23.11	2973.22	2950.11	NA	NA	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
4/19/04	LG-23	22.64	2973.22	2950.58	off scale	7.06	21	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
7/6/04	LG-23	22.71	2973.22	2950.51	16.18	6.43	21.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
2/2/05	LG-23	16.31	2973.22	2956.91	32.06	6.32	20.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
4/11/05	LG-23	16.32	2973.22	2956.90	28	6.17	20.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
6/8/05	LG-23	16.85	2973.22	2956.37	NA	6.12	20.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
7/11/05	LG-23	17.77	2973.22	2955.45	28.8	6.15	20.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
9/2/05	LG-23	18.48	2973.22	2954.74	32.74	6.68	20.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
10/13/05	LG-23	18.88	2973.22	2954.34	33.4	6.05	19.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
11/14/05	LG-23	19.21	2973.22	2954.01	33.28	6.19	19.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
12/23/05	LG-23	19.44	2973.22	2953.78	33.4	6.33	19.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
1/19/06	LG-23	NM	2973.22	NM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
2/7/06	LG-23	19.78	2973.22	2953.44	32.90	6.49	19.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
3/10/06	LG-23	19.97	2973.22	2953.25	33.70	6.83	19.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
4/2/06	LG-23	20.04	2973.22	2953.18	33.52	6.84	20.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
5/12/06	LG-23	20.29	2973.22	2952.93	33.10	6.80	25.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
7/25/06	LG-23	20.11	2973.22	2953.11	9.36	7.17	24.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
10/26/06	LG-23	18.45	2973.22	2954.77	NA	7.04	20.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
1/31/07	LG-23	21.48	2973.22	2951.74	23.98	6.51	19.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
2/1/07	LG-23	NM	2973.22	NM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
3/16/07	LG-23	21.45	2973.22	2951.77	16.38	6.51	19.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
4/10/07	LG-23	20.70	2973.22	2952.52	13.40	6.58	19.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
5/4/07	LG-23	21.40	2973.22	2951.82	33.30	6.54	20.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
8/2/07	LG-23	21.50	2973.22	2951.72	33.48	7.21	19.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
10/12/07	LG-23	21.50	2973.22	2951.72	34.10	6.58	21.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
1/7/08	LG-23	21.70	2973.22	2951.52	32.46	8.22	20.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
4/28/08	LG-23	22.10	2973.22	2951.12	32.54	6.90	21.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
8/8/08	LG-23	22.00	2973.22	2951.22	33.80	6.79	20.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
11/25/08	LG-23	20.20	2973.22	2953.02	37.36[3]	6.30	20.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
2/26/09	LG-23	20.10	2973.22	2953.12	off scale	6.33	22.6	279,200	59,000	48	12,800	31,505	153,100	22,430	579	697.5	6.66	---	---	---	---	---	---
5/20/09	LG-23	20.40	2973.22	2952.82	360	6.22	22.0	284,500	57,400	34	13,629	33,065	156,000	23,995	595	696.7	6.60	---	---	---	---	---	---
8/31/09	LG-23	15.50	2973.22	2957.72	369	6.25	22.4	276,700	57,000	60	15,451	31,762	150,100	21,987	602	663.3	6.66	---	---	---	---	---	---
11/4/09	LG-23	16.25	2973.22	2956.97	386.2	6.22	21.5	283,500	58,300	36	15,825	32,405	152,100	24,509	605	681.7	6.65	---	---	---	---	---	---
1/12/10	LG-23	16.40	2973.22	2956.82	376.6	6.22	20.1	289,200	58,900	31	16,271	33,051	155,200	25,412	609	695.4	6.64	---	---	---	---	---	---
5/12/10	LG-23	16.82	2973.22	2956.40	382	6.24	20.8	291,100	57,700	27	17,015	33,918	155,700	26,324	624	704.1	6.61	---	---	---	---	---	---
8/4/10	LG-23	16.41	2973.22	2956.81	331.8	6.39	21.3	289,516	62,903	105	19,355	33,871	185,484	26,613	339	650.0	6.72	---	---	---	---	---	---
11/16/10	LG-23	16.80	2973.22	2956.42	NA	6.55	20.8	318,548	61,290	97	19,355	33,065	217,742	31,452	363	590.0	6.56	---	---	---	---	---	---
1/26/11	LG-23	17.00	2973.22	2956.22	NA	6.11	19.0	304,103	51,488	17	17,699	29,767	193,081	31,376	378	680.0	6.61	---	---	---	---	---	---
5/3/11	LG-23	20.20	2973.22	2953.02	NA	6.25	18.6	304,103	56,315	100	17,699	29,767	185,036	30,571	378	690.0	6.57	---	---	---	---	---	---
7/5/11	LG-23	18.80	2973.22	2954.42	NA	6.13	32.5	327,448	60,995	88	21,669	36,116	160,514	28,892	401	730.0	6.55	---	---	---	---	---	---
10/13/11	LG-23	21.37	2973.22	2951.85	351.2	7.06	22.1	295,345	NA	NA	NA	NA	NA	NA	NA	680.0	NA	---	---	---	---	---	---
2/1/12	LG-23	21.10	2973.22	2952.12	347	6.32	20.6	330,113	NA	NA	NA	NA	NA	NA	NA	640.0	6.61	---	---	---	---	---	---
4/25/12	LG-23	21.20	2973.22	2952.02	349.6	6.26	21.9	314,010	NA	NA	NA	NA	NA	NA	510	590.0	6.55	---	---	---	---	---	---
7/19/12	LG-23	21.20	2973.22	2952.02	334	6.44	22.0	424,000	NA	NA	NA	NA	NA	NA	510	600.0	6.54	---	---	---	---	---	---
11/28/12	LG-23	21.00	2973.22	2952.22	356.8	6.29	20.2	388,000	NA	NA	NA	NA	NA	NA	530	640.0	6.51	---	---	---	---	---	---
11/28/12	LG-23	21.00	2973.22	2952.22	356.8	6.29	20.2	294,900	NA	NA	NA	NA	NA	NA	787	725.9	6.70	---	---	---	---	---	---
02/26/13	LG-23	21.00	2973.22	2952.22	344.6	5.79	21.8	312,097	NA	NA	NA	NA	NA	NA	530	620.0	6.50	---	---	---	---	---	---
02/26/13	LG-23	21.00	2973.22	2952.22	344.6	5.79	21.8	232,200	NA	NA	NA	NA	NA	NA	796	733.3	6.67	---	---	---	---	---	---
04/30/13	LG-23	21.20	2973.22	2952.02	337.2	5.86	22.9	304,032	NA	NA	NA	NA	NA	NA	540	630.0	6.54	---	---	---	---	---	---
04/30/13	LG-23	21.20	2973.22	2952.02	337.2	5.86	22.9	295,300	NA	NA	NA	NA	NA	NA	810	723.3	6.71	---	---	---	---	---	---
08/01/13	LG-23	21.00	2973.22	2952.22	340.2	6.28	22.5	291,800	NA	NA	NA	NA	NA	NA	837	726.7	6.71	---	---	---	---	---	---
11/11/13	LG-23	20.80	2973.22	2952.42	349	5.77	21.1	294,500	NA	NA	NA	NA	NA	NA	873	704.5	6.84	---	---	---	---	---	---
02/14/14	LG-23	20.29	2973.22	2952.93	359.4	5.89	22.2	298,200	NA	NA	NA	NA	NA	NA	821	750.0	6.73	---	---	---	---	---	---
05/05/14	LG-23	20.25	2973.22	2952.97	164.7	6.17	24.9	330,882	NA	NA	NA	NA	NA	NA	441	460.0	6.54	---	---	---	---	---	---
07/23/14	LG-23	20.55	2973.22	2952.67	321.8	5.83	23	339,901	NA	NA	NA	NA	NA	NA	443	420.0	6.5	---	---	---	---	---	---

TABLE 2
WATER QUALITY MONITORING RESULTS

Date[1]	Well / Sampling Location	FIELD MEASUREMENTS						LABORATORY ANALYSES															
								DP-1399 Reporting Requirements									S1AP Reporting Requirements						
		Depth to Water (feet)	TOC Elevation[2] (feet amsl)	WL Elevation (feet amsl)	Specific Conductivity (mS/cm)	pH (std. units)	Temperature (°C)	TDS (ppm)	Sodium (ppm)	Calcium (ppm)	Magnesium (ppm)	Potassium (ppm)	Chloride (ppm)	Sulfate (ppm)	Alkalinity (ppm as $CaCO_3$)[6]	Specific Conductivity (mS/cm)	pH (std. units)	Boron (ppm)	Bromine (ppm)	Selenium (ppm)	TSS (ppm)	Fecal Coliform (MPN/100 mL)	Total Nitrogen (ppm)
10/29/14	LG-23	15.64	2973.22	2957.58	NA	NA	21.5	270,833	NA	NA	NA	NA	NA	NA	400	570.0	6.73	---	---	---	---	---	---
01/14/15	LG-23	16.55	2973.22	2956.67	234	6.98	18.6	339,138	27,363	91	20,730	31,509	157,546	30,680	406	610.0	6.62	---	---	---	---	---	---
05/06/15	LG-23	16.92	2973.22	2956.30	226	7.03	21.7	331,667	34,167	92	22,500	29,167	175,000	37,500	425	560.0	6.64	---	---	---	---	---	---
05/06/15	LG-23	16.92	2973.22	2956.30	226	7.03	21.7	311,667	55,833	84	22,000	34,333	156,667	25,917	425	508.0	6.30	---	---	---	---	---	---
07/07/15	LG-23	18.67	2973.22	2954.55	224	5.98	22.4	308,013	55,342	81	22,287	32,805	190,317	23,957	534	506.0	6.45	---	---	---	---	---	---
10/21/15	LG-23	19.74	2973.22	2953.48	231	6.01	20.8	301,932	53,462	81	20,290	31,804	170,692	20,612	228	495.0	6.42	---	---	---	---	---	---
03/03/16	LG-23	20.07	2973.22	2953.15	164.1	NA	21.8	292,135	41,493	103	26,565	41,172	149,278	26,404	457	376.0	6.50	---	---	---	---	---	---
04/08/16	LG-23	20.20	2973.22	2953.02	166.4	NA	20.2	274,637	54,927	75	20,113	32,229	151,858	12,682	493	430.0	6.47	---	---	---	---	---	---
08/10/16	LG-23	20.64	2973.22	2952.58	347	NA	21.8	286,179	56,992	70	21,057	33,415	165,854	27,398	488	555.0	6.48	---	---	---	---	---	---
12/02/16	LG-23	19.61	2973.22	2953.61	347	NA	19.6	291,099	53,007	138	19,166	30,313	153,970	30,473	417	594.0	6.43	---	---	---	---	---	---
03/14/17	LG-23	19.51	2973.22	2953.71	211.48	6.46	22.2	278,977	51,559	69	19,424	30,376	150,280	31,655	448	547.0	6.54	---	---	---	---	---	---
05/12/17	LG-23	19.61	2973.22	2953.61	207.98	6.54	24.6	294,976	49,109	65	17,909	30,470	149,109	32,172	454	548.0	6.41	---	---	---	---	---	---
07/28/17	LG-23	19.51	2973.22	2953.71	208.7	6.52	6.52	300,833	56,250	68	20,750	34,167	165,000	31,500	467	634.0	6.92	---	---	---	---	---	---
11/10/17	LG-23	19.47	2973.22	2953.75	220.63	6.31	20.6	303,333	50,583	57	18,250	30,833	180,000	48,917	608	238.0	6.44	---	---	---	---	---	---
02/20/18	LG-23	19.95	2973.22	2953.27	226.12	6.31	21.1	359,000	65,400	82	24,700	40,300	192,000	40,100	610	280.0	6.48	---	---	---	---	---	---
04/06/18	LG-23	20.07	2973.22	2953.15	207.51	6.25	21.1	382,000	61,600	74	23,000	37,500	174,000	46,200	600	266.0	6.74	---	---	---	---	---	---
07/27/18	LG-23	20.90	2973.22	2952.32	217.19	6.38	22	379,000	61,300	88	24,200	37,700	196,000	36,400	620	270.0	6.32	---	---	---	---	---	---
10/05/18	LG-23	20.47	2973.22	2952.75	218.463	6.15	22.2	369,000	67,400	82	24,900	41,600	184,000	31,600	590	285.0	6.51	---	---	---	---	---	---
01/11/19	LG-23	19.33	2973.22	2953.89	246.477	5.53	20.8	383,000	66,000	94	26,200	41,000	184,000	39,100	840	255.0	6.48	---	---	---	---	---	---
04/05/19	LG-23	19.74	2973.22	2953.48	227.1	5.77	20.63	367,000	62,700	103	24,400	45,700	176,000	38,000	1,120	291.0	6.46	---	---	---	---	---	---
07/26/19	LG-23	17.25	2973.22	2955.97	205.463	6.39	21.6	363,000	58,500	141	21,200	42,600	220,000	34,300	990	250.0	6.55	---	---	---	---	---	---
11/01/19	LG-23	19.00	2973.22	2954.22	183.795	6.38	21	375,000	55,400	78	21,700	33,700	180,000	31,600	1,050	286.0	6.46	---	---	---	---	---	---
01/28/20	LG-23	19.80	2973.22	2953.42	201.178	6.31	20.2	368,000	57,100	75	23,900	35,700	180,000	38,000	<1	283.0	6.48	---	---	---	---	---	---
04/27/20	LG-23	19.07	2973.22	2954.15	218.1	6.35	22.2	364,000	59,600	73	26,700	37,800	190,000	35,300	<1	289.0	6.47	---	---	---	---	---	---
07/28/20	LG-23	19.65	2973.824	2954.17	202.873	6.43	21.6	359,000	69,600	84	26,900	44,200	190,000	39,700	<1	254.0	6.41	---	---	---	---	---	---
10/28/20	LG-23	19.81	2973.824	2954.01	199.8	6.33	19.7	377,000	58,700	83	27,000	37,500	198,000	33,900	<1	284.0	6.72	---	---	---	---	---	---
01/26/21	LG-23	19.97	2973.824	2953.85	157.399	5.69	19.4	367,000	67,200	87	28,100	43,300	186,000	41,800	<1	283.0	6.41	---	---	---	---	---	---
04/26/21	LG-23	20.18	2973.824	2953.64	177.22	6.04	22.9	377,000	72,300	90	34,400	46,400	180,000	41,200	<1	281.0	6.43	---	---	---	---	---	---
07/26/21	LG-23	19.97	2973.824	2953.85	117.808	5.49	25.4	368,000	67,500	89	31,700	42,700	194,000	46,400	<1	280.0	6.41	---	---	---	---	---	---
10/25/21	LG-23	19.99	2973.824	2953.83	204.88	6.20	22.9	381,000	56,500	74	28,900	36,000	182,000	41,000	<1	293.0	6.46	---	---	---	---	---	---
01/19/22	LG-23	20.11	2973.824	2953.71	79.571	5.91	21.2	375,000	58,100	72	31,000	38,000	190,000	48,400	<1	288.0	6.34	---	---	---	---	---	---
04/26/22	LG-23	20.21	2973.824	2953.61	189.005	5.23	21.5	376,000	57,600	70	28,900	37,600	196,000	38,400	<1	289.0	6.27	---	---	---	---	---	---
07/25/22	LG-23	20.35	2973.824	2953.47	199.549	5.73	26.4	383,000	57,500	73	28,900	38,100	172,000	34,900	<1	290.0	6.57	---	---	---	---	---	---
10/24/22	LG-23	19.30	2973.824	2954.52	231.922	5.96	19.4	377,000	57,900	94	28,500	38,000	174,000	44,100	<1	271.0	6.30	---	---	---	---	---	---
01/23/23	LG-23	19.47	2973.824	2954.35	383.61	6.63	19.3	378,000	57,300	79	29,800	37,000	194,000	35,700	<1	272.0	6.31	<60.0	342	<20.0	NA	NA	NA
LG-25																							
1/26/04	LG-25	24.26	2972.92	2948.66	NA	NA	20.0	5800	1000	490	300	28	1600	2100	470	10.1	7.20	---	---	---	---	---	---
4/19/04	LG-25	23.64	2972.92	2949.28	0.704	6.88	22.0	4800	800	420	230	9	1400	1700	436	9.0	7.33	---	---	---	---	---	---
7/6/04	LG-25	dry	2972.92	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	---	---	---	---	---	---
10/21/04	LG-25	dry	2972.92	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	---	---	---	---	---	---
2/2/05	LG-25	23.12	2972.92	2949.80	0.68	6.89	19.8	4700	800	420	220	7	1400	1600	390	8.9	7.31	---	---	---	---	---	---
4/11/05	LG-25	22.71	2972.92	2950.21	0.658	6.95	20.9	4600	800	390	230	7	1400	1500	390	8.5	7.32	---	---	---	---	---	---
7/12/05	LG-25	23.09	2972.92	2949.83	0.682	6.92	20.2	4800	800	370	220	8	1400	1800	410	8.9	7.41	---	---	---	---	---	---
10/13/05	LG-25	23.05	2972.92	2949.87	0.669	6.77	20.0	4800	800	380	230	8	1400	1700	400	8.5	7.37	---	---	---	---	---	---
1/19/06	LG-25	21.46	2972.92	2951.46	NA	NA	NA	4650	800	400	210	8	1400	1600	390	8.2	7.37	---	---	---	---	---	---
4/5/06	LG-25	22.30	2972.92	2950.62	0.707	7.27	20.4	5095	880	420	236	9	1500	1800	420	9.1	7.20	---	---	---	---	---	---
7/18/06	LG-25	22.73	2972.92	2950.19	0.728	7.08	21.6	5290	890	400	260	11	1580	1900	416	9.4	7.36	---	---	---	---	---	---
10/23/06	LG-25	22.36	2972.92	2950.56	0.733	7.04	20.9	5450	925	460	267	13	1570	1960	425	9.8	7.24	---	---	---	---	---	---
1/31/07	LG-25	22.43	2972.92	2950.49	0.718	7	20.5	5190	880	404	232	12	1513	1900	416	9.2	7.21	---	---	---	---	---	---
4/10/07	LG-25	21.76	2972.92	2951.16	0.721	6.9	20.7	5213	890	516	251	12	1510	1900	410	9.5	7.16	---	---	---	---	---	---
8/10/07	LG-25	22.40	2972.92	2950.52	7.3	7.39	20.3	5482	885	542	264	11	1580	1948	420	9.5	7.31	---	---	---	---	---	---
10/10/07	LG-25	22.30	2972.92	2950.62	7.4	7.54	21.4	5579	902	604	280	11	1584	1940	430	10.0	7.47	---	---	---	---	---	---
1/2/08	LG-25	22.00	2972.92	2950.92	7.38	7.02	20.4	5454	870	618	273	12	1613	1810	430	10.0	7.29	---	---	---	---	---	---
4/28/08	LG-25	22.25	2972.92	2950.67	7.64	7.3	19.9	5,711	870	634	293	7	1,607	2,037	438	10.0	7.66	---	---	---	---	---	---
8/6/08	LG-25	22.50	2972.92	2950.42	7.67	7.73	21.7	5,587	901	625	270	8	1,610	1,906	446	8.0	7.33	---	---	---	---	---	---
11/17/08	LG-25	21.90	2972.92	2951.02	8.16[3]	6.8	20.4	5,847	868	676	260	8	1,655	2,111	448	10.4	7.18	---	---	---	---	---	---
2/25/09	LG-25	22.40	2972.92	2950.52	9.8[3]	6.83	21.1	5,764	860	695	257	8	1,695	1,985	441	10.0	7.17	---	---	---	---	---	---
5/19/09	LG-25	22.54	2972.92	2950.38	16.65	6.69	27.5	6,014	898	671	309	9	1,743	2,120	441	9.9	7.21	---	---	---	---	---	---
8/25/09	LG-25	22.00	2972.92	2950.92	8.38	6.8	25.9	5,561	887	463	300	7	1,688	1,958	431	9.5	7.16	---	---	---	---	---	---
11/2/09	LG-25	22.50	2972.92	2950.42	8.08	6.78	21.7	5,684	876	647	282	7	1,686	1,929	428	9.5	7.13	---	---	---	---	---	---
1/11/10	LG-25	22.04	2972.92	2950.88	8.03	6.77	19.4	5,764	914	660	287	8	1,685	1,952	430	9.5	7.12	---	---	---	---	---	---
5/11/10	LG-25	22.40	2972.92	2950.52	8.25	6.86	21.4	5,795	868	644	286	7	1,729	1,997	441	9.6	7.14	---	---	---	---	---	---
8/3/10	LG-25	22.25	2972.92	2950.67	8.28	6.91	20.9	6,050	970	720	290	<25	2,000	2,200	210	7.5	7.71	---	---	---	---	---	---
11/16/10	LG-25	21.30	2972.92	2951.62	NA	7.01	10.0	5,920	950	700	280	8	2,100	2,200	220	12.0	7.17	---	---	---	---	---	---
1/26/11	LG-25	21.90	2972.92	2951.02	NA	6.57	19.3	6,010	990	700	280	10	2,000	2,300	220	9.5	7.14	---	---	---	---	---	---
5/2/11	LG-25	22.15	2972.92	2950.77	NA	6.64	25.0	6,230	900	640	260	<10	2,000	2,300	220	7.9	7.28	---	---	---	---	---	---
7/5/11	LG-25	22.72	2972.92	2950.20	NA	6.64	25.0	6,210	1,000	670	270	8	1,900	2,200	220	7.9	7.18	---	---	---	---	---	---
10/12/11	LG-25	21.84	2972.92	2951.08	4.94	6.88	22.4	6,400	1,000	650	270	<10	2,000	2,400	220	6.4	7.59	---	---	---	---	---	---
1/31/12	LG-25	21.10	2972.92	2951.82	5.09	6.74	20.4	6,670	1,100	770	310	9	2,000	2,200	NA	8.7	7.51	---	---	---	---	---	---
4/24/12	LG-25	21.10	2972.92	2951.82	5.03	6.86	21.9	6,650	1,100	740	300	8	2,000	2,300	200	8.4	7.37	---	---	---	---	---	---
7/18/12	LG-25	21.62	2972.92	2951.30	4.82	7.02	22.7	6,520	1,000	720	260	6	1,900	2,300	180	7.7	7.32	---	---	---	---	---	---
11/26/12	LG-25	21.80	2972.92	2951.12	4.72	6.78	24.3	6,010	950	630	260	19	1,700	2,400	180	7.9	7.35	---	---	---	---	---	---
11/26/12	LG-25	21.80	2972.92	2951.12	4.72	6.78	24.3	5,933	848	668	297	8	1,661	2,229	370	9.7	7.45	---	---	---	---	---	---
02/27/13	LG-25	21.80	2972.92	2951.12	4.52	6.52	19.4	6,090	890	590	240	ND	1,700	2,200	180	7.3	7.21	---	---	---	---	---	---
02/27/13	LG-25	21.80	2972.92	2951.12	4.52	6.52	19.4	5,778	900	641	292	7	1,572	2,141	375	9.5	7.24	---	---	---	---	---	---
04/29/13	LG-25	21.90	2972.92	2951.02	4.39	6.61	22.0	5,930	800	610	230	7	1,600	2,000	190	8.3	7.41	---	---	---	---	---	---

TABLE 2
WATER QUALITY MONITORING RESULTS

Date[1]	Well / Sampling Location	FIELD MEASUREMENTS						LABORATORY ANALYSES															
								DP-1399 Reporting Requirements										S1AP Reporting Requirements					
		Depth to Water (feet)	TOC Elevation[2] (feet amsl)	WL Elevation (feet amsl)	Specific Conductivity (mS/cm)	pH (std. units)	Temperature (°C)	TDS (ppm)	Sodium (ppm)	Calcium (ppm)	Magnesium (ppm)	Potassium (ppm)	Chloride (ppm)	Sulfate (ppm)	Alkalinity (ppm as $CaCO_3$)[6]	Specific Conductivity (mS/cm)	pH (std. units)	Boron (ppm)	Bromine (ppm)	Selenium (ppm)	TSS (ppm)	Fecal Coliform (MPN/100 mL)	Total Nitrogen (ppm)
04/29/13	LG-25	21.90	2972.92	2951.02	4.39	6.61	22.0	5,770	893	619	295	7	1,557	2,171	380	9.5	7.50	---	---	---	---	---	---
07/31/13	LG-25	21.55	2972.92	2951.37	4.33	6.09	21.8	5,606	848	660	279	8	1,508	2,062	402	9.3	7.35	---	---	---	---	---	---
10/30/13	LG-25	21.00	2972.92	2951.92	4.2	6.67	21.3	5,588	819	638	291	9	1,491	2,105	392	9.0	7.63	---	---	---	---	---	---
02/12/14	LG-25	21.80	2972.92	2951.12	4.27	6.90	20.8	5,557	829	643	271	10	1,488	2,080	394	9.0	7.39	---	---	---	---	---	---
04/28/14	LG-25	22.10	2972.92	2950.82	4.02	6.86	21.1	5,260	790	540	210	8	1,500	1,900	200	5.7	7.18	---	---	---	---	---	---
07/22/14	LG-25	22.35	2972.92	2950.57	3.85	6.21	22.6	5,090	808	569	220	7	1,297	1,697	200	5.3	7.33	---	---	---	---	---	---
10/27/14	LG-25	19.95	2972.92	2952.97	NA	NA	22.2	5,370	760	520	190	9	1,400	1,900	200	6.0	7.46	---	---	---	---	---	---
03/11/15	LG-25	20.89	2972.92	2952.03	7.5	7.35	18.2	5,371	808	628	277	8	1,492	1,933	376	9.0	7.19	---	---	---	---	---	---
05/04/15	LG-25	21.25	2972.92	2951.67	7.71	6.76	22.5	5,950	910	650	250	51	1,700	2,000	198	6.9	7.74	---	---	---	---	---	---
05/04/15	LG-25	21.25	2972.92	2951.67	7.71	6.76	22.5	6,080	906	614	259	11	1,520	1,580	268	7.4	7.27	---	---	---	---	---	---
07/09/15	LG-25	21.54	2972.92	2951.38	8.03	7.01	21.9	6,128	938	656	280	ND	1,697	1,996	248	7.8	7.24	---	---	---	---	---	---
10/21/15	LG-25	21.00	2972.92	2951.92	8.54	6.54	21.7	5,669	1,031	725	280	11	1,804	1,774	224	8.3	7.07	---	---	---	---	---	---
03/01/16	LG-25	21.32	2972.92	2951.60	7.07	NA	20.5	6,590	1,153	753	343	69	1,958	2,107	207	7.7	7.49	---	---	---	---	---	---
04/14/16	LG-25	21.67	2972.92	2951.25	7.13	NA	21.2	6,773	1,219	743	305	<200	1,998	2,478	216	10.7	7.43	---	---	---	---	---	---
08/09/16	LG-25	21.66	2972.92	2951.26	13.33	NA	21.6	6,866	1,066	678	281	8	1,774	1,840	219	9.2	7.20	---	---	---	---	---	---
12/05/16	LG-25	21.57	2972.92	2951.35	13.53	NA	20.7	6,487	1,047	632	269	50	2,164	2,193	211	12.4	7.13	---	---	---	---	---	---
03/14/17	LG-25	21.73	2972.92	2951.19	10.99	7.02	21.9	6,555	1,184	698	293	20	1,801	2,458	231	12.1	7.02	---	---	---	---	---	---
05/12/17	LG-25	21.77	2972.92	2951.15	9.71	7.31	22.4	6,940	1,100	646	272	<10	2,200	2,100	228	8.5	6.89	---	---	---	---	---	---
07/29/17	LG-25	21.85	2972.92	2951.07	10.84	6.78	22.6	6,720	1,160	685	286	50	1,900	2,150	212	8.6	7.70	---	---	---	---	---	---
11/11/17	LG-25	21.91	2972.92	2951.01	11.74	6.97	21.2	6,760	1,050	607	249	20	2,020	2,430	264	9.2	6.47	---	---	---	---	---	---
02/21/18	LG-25	21.81	2972.92	2951.11	10.85	7.08	21.0	6,600	1,180	680	305	48	2,000	2,310	236	9.1	7.00	---	---	---	---	---	---
04/07/18	LG-25	22.00	2972.92	2950.92	9.67	6.94	20.6	6,530	1,090	640	270	<50	2,040	2,500	268	8.8	7.54	---	---	---	---	---	---
07/29/18	LG-25	22.05	2972.92	2950.87	9.42	7.00	21.9	6,690	1,110	646	275	8	1,880	1,600	220	8.8	7.15	---	---	---	---	---	---
10/06/18	LG-25	21.99	2972.92	2950.93	10.44	7.02	21.9	6,550	1,200	699	289	124	1,860	2,210	216	9.1	7.36	---	---	---	---	---	---
01/12/19	LG-25	21.76	2972.92	2951.16	12.314	6.94	20.9	6,410	1,140	696	294	18	1,840	2,260	224	8.9	7.22	---	---	---	---	---	---
04/06/19	LG-25	21.72	2972.92	2951.20	11.196	6.96	20.2	6,120	1,130	678	280	11	2,000	2,680	322	8.7	7.22	---	---	---	---	---	---
07/27/19	LG-25	21.79	2972.92	2951.13	9.238	7.11	21.6	6,370	1,150	681	278	22	1,600	1,980	248	7.8	7.54	---	---	---	---	---	---
11/02/19	LG-25	22.07	2972.92	2950.85	7.94	7.23	20.7	6,490	1,070	608	266	7	1,880	1,970	220	9.0	7.15	---	---	---	---	---	---
01/29/20	LG-25	21.66	2972.92	2951.26	6.719	7.92	20.9	6,500	1,150	754	307	9	1,920	2,030	<1	9.1	7.38	---	---	---	---	---	---
04/28/20	LG-25	21.75	2972.92	2951.17	5.926	9.42	23.9	6,600	1,100	627	272	12	1,970	1,980	<1	9.0	7.09	---	---	---	---	---	---
07/29/20	LG-25	22.00	2972.92	2950.92	7.821	6.90	21.6	6,650	1,050	677	257	8	1,870	2,210	<1	8.9	6.95	---	---	---	---	---	---
10/29/20	LG-25	22.26	2972.92	2950.66	11.66	7.11	21.9	6,420	1,050	595	247	16	1,830	1,900	<1	8.8	7.03	---	---	---	---	---	---
01/27/21	LG-25	22.08	2972.92	2950.84	7.448	6.96	20.8	6,510	1,060	667	279	11	1,740	1,820	<1	8.9	7.19	---	---	---	---	---	---
04/27/21	LG-25	22.12	2972.92	2950.80	8.987	7.52	23.1	6,510	1,040	619	259	10	1,620	1,950	<1	8.8	7.06	---	---	---	---	---	---
07/27/21	LG-25	21.83	2972.92	2951.09	4.93	7.57	24.6	6,220	1,160	730	310	10	2,020	1,850	<1	8.6	7.21	---	---	---	---	---	---
10/26/21	LG-25	22.28	2972.92	2950.64	6.421	7.00	24.5	6,260	1,010	599	255	<10	1,960	1,830	<1	8.8	6.87	---	---	---	---	---	---
01/20/22	LG-25	22.22	2972.92	2950.70	4.236	7.09	20.9	5,970	1,010	621	262	10	1,740	2,120	<1	8.4	7.11	---	---	---	---	---	---
04/27/22	LG-25	22.19	2972.92	2950.73	8.46	6.96	23.8	5,990	974	609	254	8	1,780	2,070	<1	8.2	7.01	---	---	---	---	---	---
07/26/22	LG-25	22.39	2972.92	2950.53	9.576	6.99	26.0	6,370	966	568	244	<8	1,940	1,850	<1	8.8	7.59	---	---	---	---	---	---
10/25/22	LG-25	22.21	2972.92	2950.71	7.124	7.01	20.3	6,050	903	541	230	<10	1,700	1,710	<1	8.5	7.12	---	---	---	---	---	---
01/24/23	LG-25	22.00	2972.92	2950.92	6.133	7.08	20.1	5,400	890	539	225	<10	1,820	1,790	<1	8.5	7.07	<3.0	1.12	<1.0	NA	NA	NA
LG-26																							
1/26/04	LG-26	17.35	2952.61	2935.26	NA	NA	20	9,300	2,400	400	390	43	3,700	2,100	510	17.1	7.35	---	---	---	---	---	---
4/19/04	LG-26	15.63	2952.61	2936.98	1.37	6.99	20.5	9,200	2,300	400	370	43	3,700	2,100	480	17.1	7.46	---	---	---	---	---	---
7/6/04	LG-26	17.08	2952.61	2935.53	1.37	7.01	21	9,200	2,300	400	390	43	3,700	2,100	505	17.1	7.31	---	---	---	---	---	---
10/21/04	LG-26	NM	2952.61	NM	NA	NA	NA	7,900	1,900	400	350	40	2,900	2,000	480	14.5	7.36	---	---	---	---	---	---
2/2/05	LG-26	15.87	2952.61	2936.74	1.94	6.71	20.2	13,900	3,600	630	570	56	6,100	2,600	500	26.7	7.45	---	---	---	---	---	---
4/11/05	LG-26	32.39	2952.61	2920.22	3.68	6.8	20.8	25,200	6,800	880	800	92	12,400	3,900	510	50.4	7.25	---	---	---	---	---	---
7/11/05	LG-26	16.30	2952.61	2936.31	6.07	6.64	20.3	43,700	12,000	1,330	1,710	165	23,100	5,100	476	88.3	7.29	---	---	---	---	---	---
10/13/05	LG-26	16.19	2952.61	2936.42	7.26	6.55	19.7	53,800	15,100	1,650	2,330	191	29,000	5,300	448	110.0	7.06	---	---	---	---	---	---
1/20/06	LG-26	15.63	2952.61	2936.98	NA	NA	NA	44,680	12,340	1,360	1,850	155	23,400	5,300	456	90.0	7.25	---	---	---	---	---	---
4/2/06	LG-26	16.19	2952.61	2936.42	7.45	6.99	20.0	56,200	16,500	1,650	2,224	212	29,750	5,600	437	110.5	7.08	---	---	---	---	---	---
7/19/06	LG-26	17.21	2952.61	2935.40	6.99	6.69	20.1	54,550	15,180	1,370	2,170	208	29,950	5,400	451	105.0	7.20	---	---	---	---	---	---
10/19/06	LG-26	16.30	2952.61	2936.31	6.72	6.64	19.7	50,195	14,640	1,500	2,085	194	26,000	5,500	461	100.0	7.12	---	---	---	---	---	---
1/31/07	LG-26	16.28	2952.61	2936.33	8.17	6.79	20.0	61,987	18,250	1,700	2,421	270	33,160	5,920	443	128.5	7.05	---	---	---	---	---	---
4/10/07	LG-26	16.60	2952.61	2936.01	5.2	7.2	21.1	34,270	9,673	1,165	1,421	136	17,350	4,260	483	70.0	7.13	---	---	---	---	---	---
8/10/07	LG-26	16.60	2952.61	2936.01	6.01	7.05	19.6	39,828	11,300	1,203	1,620	149	20,870	4,410	461	80.0	7.23	---	---	---	---	---	---
10/10/07	LG-26	16.80	2952.61	2935.81	8.26	7.28	20.8	65,065	19,249	1,621	2,762	273	34,620	6,280	433	131.0	7.10	---	---	---	---	---	---
1/2/08	LG-26	16.50	2952.61	2936.11	6.32	7.38	20.2	47,014	13,232	1,375	1,990	183	24,560	5,400	457	95.0	7.11	---	---	---	---	---	---
4/30/08	LG-26	16.80	2952.61	2935.81	10.62	6.86	20.7	62,090	18,019	1,573	2,710	267	33,580	5,670	452	136.0	7.51	---	---	---	---	---	---
8/8/08	LG-26	17.55	2952.61	2935.06	8.01	7.28	20.5	61,021	17,605	1,474	2,493	275	33,010	5,900	440	129.0	7.17	---	---	---	---	---	---
11/17/08	LG-26	16.10	2952.61	2936.51	7.12[3]	6.55	20.4	46,974	13,756	1,198	1,680	192	24,610	5,260	463	96.0	7.16	---	---	---	---	---	---
2/25/09	LG-26	16.70	2952.61	2935.91	38.8[4]	6.66	20.7	51,544	14,672	1,335	2,019	210	27,645	5,387	460	107.8	7.11	---	---	---	---	---	---
5/19/09	LG-26	17.02	2952.61	2935.59	118.8	6.61	21.1	76,751	22,810	1,678	2,985	407	42,209	6,423	398	158.2	6.94	---	---	---	---	---	---
8/31/09	LG-26	16.80	2952.61	2935.81	109.9	6.51	21.1	76,554	22,652	1,596	3,025	406	42,411	6,224	400	159.5	6.97	---	---	---	---	---	---
11/4/09	LG-26	16.90	2952.61	2935.71	111.4	6.53	20.7	76,378	22,981	1,582	2,903	410	42,251	6,011	400	159.1	6.95	---	---	---	---	---	---
1/12/10	LG-26	16.70	2952.61	2935.91	111.7	6.51	19.7	79,136	23,535	1,598	3,031	453	44,197	6,088	391	160.5	6.94	---	---	---	---	---	---
5/12/10	LG-26	16.58	2952.61	2936.03	116.4	6.44	20.6	81,409	24,079	1,550	3,066	548	45,722	6,214	383	173.3	6.92	---	---	---	---	---	---
8/3/10	LG-26	16.30	2952.61	2936.31	106.4	6.51	20.7	79,340	26,415	1,698	3,019	575	53,744	7,170	189	180.0	7.46	---	---	---	---	---	---
12/1/10	LG-26	15.61	2952.61	2937.00	NA	6.75	19.7	70,209	20,873	1,518	2,562	474	37,002	6,736	209	130.0	7.13	---	---	---	---	---	---
1/26/11	LG-26	16.20	2952.61	2936.41	NA	6.3	21.5	66,954	19,157	1,553	2,490	441	38,314	6,513	220	130.0	7.14	---	---	---	---	---	---
5/3/11	LG-26	16.70	2952.61	2935.91	NA	6.38	21.0	67,912	20,115	1,437	2,299	469	45,977	6,992	144	150.0	7.02	---	---	---	---	---	---
7/6/11	LG-26	17.50	2952.61	2935.11	NA	6.23	22.4	65,679	21,989	1,530	2,390	516	40,153	6,405	220	150.0	7.25	---	---	---	---	---	---
10/12/11	LG-26	17.80	2952.61	2934.81	90.5	6.68	20.3	63,958	20,076	1,434	2,390	402	42,065	6,214	220	130.0	7.31	---	---	---	---	---	---
2/1/12	LG-26	17.30	2952.61	2935.31	104	6.52	21.0	80,472	23,585	1,604	2,736	519	42,453	6,792	NA	160.0	7.34	---	---	---	---	---	---
4/25/12	LG-26	17.40	2952.61	2935.21	91.2	6.52	21.9	66,990	21,359	913	2,330	427	41,748	6,893	230	130.0	7.16	---	---	---	---	---	---
7/19/12	LG-26	17.80	2952.61	2934.81	106.6	6.77	22.1	88,469	24,575	1,701	2,647	510	51,040	7,656	208	160.0	7.08	---	---	---	---	---	---
11/26/12	LG-26	17.40	2952.61	2935.21	96	6.57	21.1	77,969	22,989	1,437	2,490	546	40,230	5,556	220	140.0	7.03	---	---	---	---	---	---

TABLE 2
WATER QUALITY MONITORING RESULTS

Date[1]	Well / Sampling Location	FIELD MEASUREMENTS						LABORATORY ANALYSES															
								DP-1399 Reporting Requirements									S1AP Reporting Requirements						
		Depth to Water (feet)	TOC Elevation[2] (feet amsl)	WL Elevation (feet amsl)	Specific Conductivity (mS/cm)	pH (std. units)	Temperature (°C)	TDS (ppm)	Sodium (ppm)	Calcium (ppm)	Magnesium (ppm)	Potassium (ppm)	Chloride (ppm)	Sulfate (ppm)	Alkalinity (ppm as $CaCO_3$)[6]	Specific Conductivity (mS/cm)	pH (std. units)	Boron (ppm)	Bromine (ppm)	Selenium (ppm)	TSS (ppm)	Fecal Coliform (MPN/100 mL)	Total Nitrogen (ppm)
11/26/12	LG-26	17.40	2952.61	2935.21	96	6.57	21.1	73,990	21,725	1,539	2,790	447	40,977	6,256	427	157.5	7.05	---	---	---	---	---	---
02/27/13	LG-26	17.10	2952.61	2935.51	103	5.24	21	81,333	25,714	1,429	2,571	600	46,667	7,143	210	150.0	7.02	---	---	---	---	---	---
02/27/13	LG-26	17.10	2952.61	2935.51	103	5.24	21	78,340	23,119	1,560	2,915	653	43,500	6,351	403	169.8	7.02	---	---	---	---	---	---
05/01/13	LG-26	17.20	2952.61	2935.41	88	5.88	21.9	69,327	NA	NA	NA	NA	NA	NA	221	130.0	7.26	---	---	---	---	---	---
05/01/13	LG-26	17.20	2952.61	2935.41	88	5.88	21.9	67,082	19,920	1,455	2,577	444	36,527	5,898	435	140.0	7.06	---	---	---	---	---	---
08/02/13	LG-26	16.90	2952.61	2935.71	104	6.35	20.8	78,660	23,291	2,227	2,821	641	43,025	6,393	437	167.5	7.18	---	---	---	---	---	---
10/30/13	LG-26	16.44	2952.61	2936.17	93.5	6.03	21	68,905	20,687	1,415	2,522	482	37,285	6,260	423	140.0	7.35	---	---	---	---	---	---
02/18/14	LG-26	16.44	2952.61	2936.17	86.8	5.25	22.2	62,623	18,128	1,401	2,348	392	34,383	5,699	453	137.0	7.09	---	---	---	---	---	---
04/28/14	LG-26	16.80	2952.61	2935.81	89.2	6.26	21.7	60,940	19,194	1,344	2,111	576	26,871	5,470	221	100.0	7.03	---	---	---	---	---	---
07/21/14	LG-26	17.25	2952.61	2935.36	84.5	6.10	22.4	66,411	19,194	1,344	2,111	441	30,710	5,374	221	89.0	7.10	---	---	---	---	---	---
10/27/14	LG-26	14.86	2952.61	2937.75	NA	NA	22.1	54,808	17,308	1,250	1,923	442	28,846	5,288	231	94.0	7.36	---	---	---	---	---	---
03/11/15	LG-26	15.20	2952.61	2937.41	119.1	6.92	18.6	60,724	17,839	1,380	2,332	534	33,048	5,315	461	129.5	6.97	---	---	---	---	---	---
05/05/15	LG-26	15.00	2952.61	2937.61	91.9	6.07	21.4	69,866	18,234	1,344	2,111	710	33,589	6,046	227	120.0	7.43	---	---	---	---	---	---
05/05/15	LG-26	15.00	2952.61	2937.61	91.9	6.07	21.4	67,850	19,290	1,276	2,274	681	35,509	5,019	246	111.0	6.65	---	---	---	---	---	---
07/02/15	LG-26	15.34	2952.61	2937.27	125.5	6.29	21.9	67,271	18,798	1,326	2,281	709	37,214	4,924	252	85.4	6.80	---	---	---	---	---	---
10/09/15	LG-26	14.57	2952.61	2938.04	132	6.08	22.5	97,856	29,916	1,603	3,364	1,603	55,918	6,477	231	166.0	6.61	---	---	---	---	---	---
10/09/15	LG-26	14.57	2952.61	2938.04	132	6.08	22.5	97,106	30,065	1,578	3,324	1,569	56,022	6,508	250	157.0	6.57	---	---	---	---	---	---
02/15/16	LG-26	14.33	2952.61	2938.28	90.6	NA	22.8	90,308	26,002	1,454	3,038	1,594	51,258	6,617	252	125.0	6.97	---	---	---	---	---	---
04/14/16	LG-26	16.87	2952.61	2935.74	92.3	NA	21.7	91,611	28,503	1,497	3,203	1,849	56,244	6,511	252	138.0	7.16	---	---	---	---	---	---
08/08/16	LG-26	15.83	2952.61	2936.78	208	NA	23.5	109,982	34,196	1,645	4,113	2,754	60,074	6,414	233	203.0	6.62	---	---	---	---	---	---
11/30/16	LG-26	15.34	2952.61	2937.27	173.8	NA	20.6	64,641	18,232	1,308	2,247	1,050	36,832	5,773	236	117.0	6.78	---	---	---	---	---	---
03/15/17	LG-26	15.39	2952.61	2937.22	140.72	6.63	20.9	116,279	31,814	1,507	4,149	3,005	64,186	7,600	227	212.0	6.84	---	---	---	---	---	---
05/12/17	LG-26	15.72	2952.61	2936.89	37.7	6.61	22.8	108,182	29,364	1,309	3,709	2,909	65,455	7,427	244	211.0	6.49	---	---	---	---	---	---
07/28/17	LG-26	16.16	2952.61	2936.45	141.65	8.20	21.3	103,704	33,426	1,435	4,176	3,130	68,519	8,185	248	250.0	7.09	---	---	---	---	---	---
11/11/17	LG-26	15.95	2952.61	2936.66	151.26	6.30	20.3	117,159	31,089	1,328	3,856	3,017	73,801	9,317	240	149.0	6.72	---	---	---	---	---	---
02/20/18	LG-26	15.95	2952.61	2936.66	158.51	6.40	20.4	131,000	36,300	1,590	4,790	3,870	91,000	8,680	272	154.0	6.98	---	---	---	---	---	---
04/06/18	LG-26	16.11	2952.61	2936.50	146.63	6.35	20.7	131,000	33,500	1,450	4,440	3,500	68,000	10,100	276	146.0	7.07	---	---	---	---	---	---
07/28/18	LG-26	16.59	2952.61	2936.02	153.27	6.44	20.8	136,000	37,200	1,550	4,930	4,000	76,000	6,890	268	147.0	6.54	---	---	---	---	---	---
10/06/18	LG-26	16.45	2952.61	2936.16	167.902	6.52	20.9	136,000	38,200	1,570	4,940	4,290	75,000	9,310	252	158.0	6.82	---	---	---	---	---	---
01/11/19	LG-26	15.64	2952.61	2936.97	189.986	6.20	20.3	143,000	39,300	1,670	5,570	4,720	76,000	10,500	312	161.0	6.72	---	---	---	---	---	---
04/05/19	LG-26	15.73	2952.61	2936.88	196.68	6.24	20.19	150,000	50,600	1,960	6,960	6,100	89,000	9,260	337	160.0	6.57	---	---	---	---	---	---
07/26/19	LG-26	16.15	2952.61	2936.46	157.116	6.42	21.2	155,000	43,000	1,490	5,720	5,930	91,000	9,030	312	152.0	7.00	---	---	---	---	---	---
11/02/19	LG-26	16.35	2952.61	2936.26	149.882	6.47	20.1	159,000	40,100	1,350	5,570	5,360	93,000	8,590	292	174.0	6.55	---	---	---	---	---	---
01/28/20	LG-26	15.98	2952.61	2936.63	160.712	6.75	20.1	157,000	41,900	1,480	5,930	5,690	85,000	10,500	<1	172.0	6.86	---	---	---	---	---	---
04/27/20	LG-26	16.06	2952.61	2936.55	146.80	6.34	22.4	157,000	40,100	1,310	5,870	5,840	87,000	9,440	<1	163.0	6.74	---	---	---	---	---	---
07/28/20	LG-26	16.83	2952.61	2935.78	167.62	6.45	21.1	174,000	40,500	1,300	5,890	5,930	88,000	10,300	<1	169.0	6.38	---	---	---	---	---	---
10/28/20	LG-26	16.81	2952.61	2935.80	160.20	6.37	19.5	158,000	42,100	1,380	5,950	6,080	85,000	9,990	<1	174.0	6.53	---	---	---	---	---	---
01/26/21	LG-26	16.40	2952.61	2936.21	119.28	6.57	18.6	127,000	33,000	1,590	4,880	3,980	71,000	7,950	<1	147.0	6.69	---	---	---	---	---	---
04/26/21	LG-26	16.50	2952.61	2936.11	163.00	6.81	21.9	165,000	41,700	1,310	6,100	6,490	94,000	9,220	<1	353.0	6.53	---	---	---	---	---	---
07/27/21	LG-26	15.89	2952.61	2936.72	18.55	6.51	23.7	157,000	40,900	1,440	6,360	6,040	91,000	8,840	<1	171.0	6.67	---	---	---	---	---	---
10/25/21	LG-26	16.50	2952.61	2936.11	29.21	6.67	21.7	168,000	40,500	1,220	5,930	6,430	94,000	7,900	<1	181.0	6.47	---	---	---	---	---	---
01/20/22	LG-26	16.19	2952.61	2936.42	101.24	6.48	17	169,000	42,000	1,330	6,470	7,200	92,000	11,000	<1	186.0	6.53	---	---	---	---	---	---
04/26/22	LG-26	16.18	2952.61	2936.43	173.45	6.51	21.8	169,000	43,100	1,260	6,430	7,520	94,000	9,340	<1	182.0	6.41	---	---	---	---	---	---
07/26/22	LG-26	16.66	2952.61	2935.95	192.32	5.97	25.8	177,000	40,800	1,150	5,900	7,400	96,000	9,800	<1	184.0	6.86	---	---	---	---	---	---
11/01/22	LG-26	15.84	2952.61	2936.77	189.59	6.09	21.4	178,000	44,600	1,330	6,740	8,200	94,000	10,400	<1	163.0	6.51	---	---	---	---	---	---
01/24/23	LG-26	15.50	2952.61	2937.11	162.45	6.73	19.6	175,000	43,800	1,240	6,640	8,220	110,000	10,800	<1	199.0	6.54	<48.0	67.8	<16.0	NA	NA	NA
LG-27																							
1/26/04	LG-27	33.24	2959.40	2926.16	NA	NA	20	12,200	3,600	380	320	55	5,000	2,200	1,111	22.5	7.58	---	---	---	---	---	---
4/19/04	LG-27	32.57	2959.40	2926.83	1.72	7.16	20.5	11,600	3,400	360	280	50	4,700	2,200	1,011	21	7.53	---	---	---	---	---	---
7/6/04	LG-27	34.65	2959.40	2924.75	1.69	7.1	21	11,700	3,500	350	270	49	4,700	2,200	1,051	21.1	7.52	---	---	---	---	---	---
10/21/04	LG-27	NM	2959.40	NM	NA	NA	NA	11,500	3,400	380	300	54	4,800	1,900	1,067	21	7.6	---	---	---	---	---	---
2/2/05	LG-27	32.92	2959.40	2926.48	1.77	7.09	20.2	11,700	3,400	370	270	50	4,800	2,200	981	21.6	7.46	---	---	---	---	---	---
4/11/05	LG-27	32.92	2959.40	2926.48	1.72	7.16	20.4	11,700	3,400	380	250	50	4,900	2,100	1,056	21.6	7.69	---	---	---	---	---	---
7/11/05	LG-27	32.65	2959.40	2926.75	1.74	6.96	20.3	11,800	3,500	370	260	51	4,800	2,200	1,031	21.1	7.62	---	---	---	---	---	---
10/13/05	LG-27	32.43	2959.40	2926.97	1.72	7.21	19.6	11,700	3,500	370	280	49	4,800	2,100	1,051	21	7.61	---	---	---	---	---	---
1/20/06	LG-27	31.90	2959.40	2927.50	NA	NA	NA	11,730	3,450	360	253	50	4,500	2,500	1,031	21	7.69	---	---	---	---	---	---
4/2/06	LG-27	NM	2959.40	NM	NA	NA	NA	lost	lost	lost	lost	lost	lost	lost	lost	lost	lost	---	---	---	---	---	---
7/19/06	LG-27	33.23	2959.40	2926.17	1.758	7.07	21.6	11,765	3,460	370	275	54	4,900	2,100	1,011	21.3	7.55	---	---	---	---	---	---
10/19/06	LG-27	32.18	2959.40	2927.22	1.691	6.97	19.6	12,175	3,500	380	275	55	4,835	2,500	1,051	21.3	7.6	---	---	---	---	---	---
1/31/07	LG-27	31.20	2959.40	2928.20	1.742	7.21	19.7	12,473	3,660	420	294	69	5,570	1,800	1,100	23.1	7.4	---	---	---	---	---	---
4/10/07	LG-27	31.17	2959.40	2928.23	1.709	7.43	20.9	11,797	3,440	395	262	52	4,735	2,300	1,022	21	7.47	---	---	---	---	---	---
8/10/07	LG-27	31.90	2959.40	2927.50	17.14	7.54	20.6	11,850	3,450	380	280	49	4,840	2,275	960	21.3	7.37	---	---	---	---	---	---
10/10/07	LG-27	32.00	2959.40	2927.40	18.86	7.58	28.5	13,135	3,909	409	361	58	5,576	2,254	947	24	7.42	---	---	---	---	---	---
4/30/08	LG-27	30.80	2959.40	2928.60	17.98	7.36	22.4	11,912	3,450	396	324	62	4,970	2,134	961	22.4	7.73	---	---	---	---	---	---
8/8/08	LG-27	32.90	2959.40	2926.50	17.56[4]	7.99	21.3	11,880	3,480	402	280	59	4,872	2,199	981	22.4	7.36	---	---	---	---	---	---
11/17/08	LG-27	32.90	2959.40	2926.50	18.19[3]	7.18	20.8	11,804	3,268	390	268	55	4,970	2,261	988	22.1	7.46	---	---	---	---	---	---
2/26/09	LG-27	30.50	2959.40	2928.90	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
5/20/09	LG-27	30.99	2959.40	2928.41	17.89	7.15	20.1	11,797	3,369	317	295	52	4,971	2,155	1,064	21.9	7.59	---	---	---	---	---	---
8/25/09	LG-27	31.24	2959.40	2928.16	18.7	7.15	23.6	12,204	3,516	402	319	56	5,294	1,959	1,098	22.0	7.55	---	---	---	---	---	---
11/4/09	LG-27	31.40	2959.40	2928.00	18.16	7.27	21.3	11,875	3,356	382	293	52	5,021	2,134	1,063	22.0	7.53	---	---	---	---	---	---
1/12/10	LG-27	30.46	2959.40	2928.94	17.87	7.21	19.8	11,965	3,397	390	296	52	5,047	2,145	1,064	22.0	7.59	---	---	---	---	---	---
5/12/10	LG-27	30.10	2959.40	2929.30	18.33	7.25	21.3	11,722	3,100	388	295	52	5,067	2,174	1,077	22.1	7.62	---	---	---	---	---	---
8/3/10	LG-27	30.10	2959.40	2929.30	18.22	7.32	21.1	12,575	3,194	389	259	<50	5,589	2,495	519	24.0	8.02	---	---	---	---	---	---

TABLE 2
WATER QUALITY MONITORING RESULTS

Date[1]	Well / Sampling Location	FIELD MEASUREMENTS						LABORATORY ANALYSES															
								DP-1399 Reporting Requirements										S1AP Reporting Requirements					
		Depth to Water (feet)	TOC Elevation[2] (feet amsl)	WL Elevation (feet amsl)	Specific Conductivity (mS/cm)	pH (std. units)	Temperature (°C)	TDS (ppm)	Sodium (ppm)	Calcium (ppm)	Magnesium (ppm)	Potassium (ppm)	Chloride (ppm)	Sulfate (ppm)	Alkalinity (ppm as $CaCO_3$)[6]	Specific Conductivity (mS/cm)	pH (std. units)	Boron (ppm)	Bromine (ppm)	Selenium (ppm)	TSS (ppm)	Fecal Coliform (MPN/100 mL)	Total Nitrogen (ppm)
11/17/10	LG-27	30.50	2959.40	2928.90	NA	7.36	21.2	11,577	3,593	419	269	55	6,088	2,395	549	25.0	7.69	---	---	---	---	---	---
1/26/11	LG-27	29.70	2959.40	2929.70	NA	7.05	21.2	12,874	3,693	429	289	57	5,788	2,196	559	42.0	7.73	---	---	---	---	---	---
5/3/11	LG-27	30.35	2959.40	2929.05	NA	7.18	21.5	12,475	3,493	459	289	53	5,489	2,196	768	25.0	6.67	---	---	---	---	---	---
7/6/11	LG-27	31.90	2959.40	2927.50	NA	7.15	22.5	12,724	3,678	408	268	68	5,865	2,286	577	24.0	7.79	---	---	---	---	---	---
10/12/11	LG-27	32.55	2959.40	2926.85	10.54	7.34	21.5	11,630	NA	NA	NA	NA	NA	NA	NA	24.0	NA	---	---	---	---	---	---
2/1/12	LG-27	31.10	2959.40	2928.30	10.47	7.07	20.6	11,321	3,491	406	264	51	4,906	1,981	NA	24.0	7.80	---	---	---	---	---	---
4/25/12	LG-27	31.00	2959.40	2928.40	10.64	7.08	22.0	12,375	3,693	429	279	60	5,888	2,295	550	23.0	7.71	---	---	---	---	---	---
7/19/12	LG-27	32.19	2959.40	2927.21	10.61	7.40	21.3	12,004	3,671	466	278	50	5,853	2,183	546	25.0	7.62	---	---	---	---	---	---
11/26/12	LG-27	31.40	2959.40	2928.00	10.45	7.31	21.7	11,377	3,693	399	269	57	4,990	1,996	559	19.0	7.56	---	---	---	---	---	---
11/26/12	LG-27	31.40	2959.40	2928.00	10.45	7.31	21.7	12,255	3,402	394	320	52	5,298	2,128	1,102	23.2	7.66	---	---	---	---	---	---
02/27/13	LG-27	30.70	2959.40	2928.70	10.43	5.18	20.9	12,673	3,564	406	277	56	6,040	2,376	554	19.0	7.58	---	---	---	---	---	---
02/27/13	LG-27	30.70	2959.40	2928.70	10.43	5.18	20.9	12,370	3,413	428	309	56	5,298	2,206	1,100	23.0	7.66	---	---	---	---	---	---
05/01/13	LG-27	30.55	2959.40	2928.85	10.58	6.24	22.7	11,881	3,564	446	267	64	5,050	2,079	554	25.0	7.81	---	---	---	---	---	---
05/01/13	LG-27	30.55	2959.40	2928.85	10.58	6.24	22.7	12,513	3,582	399	323	62	5,308	2,178	1,103	23.1	7.72	---	---	---	---	---	---
08/02/13	LG-27	30.24	2959.40	2929.16	10.55	7.14	22.1	12,464	3,509	422	305	57	5,328	2,167	1,127	23.0	7.67	---	---	---	---	---	---
10/30/13	LG-27	31.25	2959.40	2928.15	10.63	6.57	22.1	12,294	3,452	424	319	55	5,326	2,085	1,056	22.1	7.69	---	---	---	---	---	---
10/27/14	LG-27	31.43	2959.40	2927.97	NA	NA	21.8	11,806	3,671	417	278	57	5,754	2,083	565	19.0	7.80	---	---	---	---	---	---
03/11/15	LG-27	28.58	2959.40	2930.82	19.67	8.06	19.9	10,582	2,930	374	278	45	4,576	1,815	940	20.7	7.42	---	---	---	---	---	---
05/08/15	LG-27	27.80	2959.40	2931.60	18.61	7.39	22.7	12,974	3,593	419	279	69	6,088	1,697	589	19.0	8.05	---	---	---	---	---	---
05/08/15	LG-27	27.80	2959.40	2931.60	18.61	7.39	22.7	12,275	3,503	397	282	68	5,589	1,557	609	17.8	7.30	---	---	---	---	---	---
07/01/15	LG-27	28.66	2959.40	2930.74	19.65	6.75	25.6	11,933	3,590	396	287	60	6,213	1,440	621	17.7	7.32	---	---	---	---	---	---
10/21/15	LG-27	28.50	2959.40	2930.90	20.1	6.99	21.3	13,807	3,787	468	298	61	5,720	1,627	661	21.2	7.35	---	---	---	---	---	---
03/01/16	LG-27	27.63	2959.40	2931.77	14.29	NA	22.3	12,525	3,629	465	287	59	5,424	2,110	542	16.9	7.56	---	---	---	---	---	---
04/06/16	LG-27	27.58	2959.40	2931.82	14.32	NA	23.6	12,475	3,912	449	295	<200	6,287	2,295	579	18.6	7.59	---	---	---	---	---	---
08/08/16	LG-27	29.36	2959.40	2930.04	26.4	NA	22.9	10,556	3,370	412	265	64	5,185	1,491	496	21.8	7.43	---	---	---	---	---	---
11/30/16	LG-27	27.60	2959.40	2931.80	27.2	NA	19.5	11,144	3,274	372	254	63	5,473	1,861	547	20.8	7.29	---	---	---	---	---	---
03/14/17	LG-27	27.13	2959.40	2932.27	18.77	7.44	20.9	11,920	3,031	339	231	54	5,455	1,980	546	21.8	7.21	---	---	---	---	---	---
LG-28																							
02/02/06	LG-28	9.48	2962.52	2953.04	33	7.14	18.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
03/10/06	LG-28	9.68	2962.52	2952.84	33	6.57	20.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
04/02/06	LG-28	9.79	2962.52	2952.73	33	6.65	20.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
05/11/06	LG-28	9.98	2962.52	2952.54	24	6.58	20.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
07/19/06	LG-28	10.47	2962.52	2952.05	31	6.34	21.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
10/26/06	LG-28	10.75	2962.52	2951.77	NA	6.45	19.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
01/31/07	LG-28	9.65	2962.52	2952.87	25	6.28	20.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
02/01/07	LG-28	NA	2962.52	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
03/16/07	LG-28	9.70	2962.52	2952.82	16	6.37	20.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
04/10/07	LG-28	9.12	2962.52	2953.40	17	6.05	17.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
05/04/07	LG-28	7.60	2962.52	2954.92	33	6.08	20.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
08/02/07	LG-28	9.60	2962.52	2952.92	33	6.93	20.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
10/11/07	LG-28	9.80	2962.52	2952.72	33	6.50	20.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
01/04/08	LG-28	10.10	2962.52	2952.42	33	6.51	19.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
04/28/08	LG-28	10.20	2962.52	2952.32	33	6.54	20.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
08/06/08	LG-28	10.00	2962.52	2952.52	33	6.77	21.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
11/25/08	LG-28	8.90	2962.52	2953.62	361[3]	6.13	20.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
02/25/09	LG-28	9.30	2962.52	2953.22	OR	6.17	21.2	263,600	70,500	155	7,808	21,956	148,300	14,594	414	639.0	6.68	---	---	---	---	---	---
05/20/09	LG-28	9.61	2962.52	2952.91	392	5.89	21.1	260,600	68,300	133	8,010	21,804	147,600	14,530	414	631.7	6.53	---	---	---	---	---	---
08/31/09	LG-28	8.82	2962.52	2953.70	326	6.04	23.3	265,800	71,900	239	9,174	21,660	148,200	14,426	417	642.2	6.53	---	---	---	---	---	---
11/03/09	LG-28	9.51	2962.52	2953.01	259	6.19	20.6	263,600	70,600	181	9,146	22,098	146,600	14,743	417	635.8	6.52	---	---	---	---	---	---
01/12/10	LG-28	9.20	2962.52	2953.32	398	6.01	19.0	265,000	71,600	368	9,279	21,615	147,600	14,311	424	633.3	6.52	---	---	---	---	---	---
05/11/10	LG-28	8.80	2962.52	2953.72	361	6.04	23.4	263,600	70,300	180	9,530	22,088	147,000	14,263	423	625.0	6.47	---	---	---	---	---	---
08/03/10	LG-28	7.80	2962.52	2954.72	333	6.21	22.1	268,777	66,942	405	9,091	19,835	165,298	14,876	215	570.0	6.86	---	---	---	---	---	---
12/01/10	LG-28	8.35	2962.52	2954.17	NA	6.33	20.8	268,719	77,371	483	10,815	23,295	216,306	16,639	233	440.0	6.58	---	---	---	---	---	---
01/26/11	LG-28	9.00	2962.52	2953.52	NA	6.02	19.9	267,442	68,937	482	10,797	21,595	182,724	16,611	233	610.0	6.62	---	---	---	---	---	---
05/03/11	LG-28	9.50	2962.52	2953.02	NA	6.02	20.4	271,595	71,429	374	9,967	19,934	199,336	16,611	241	590.0	6.66	---	---	---	---	---	---
07/05/11	LG-28	10.10	2962.52	2952.42	NA	6.00	28.4	281,818	66,116	405	9,917	19,835	157,025	15,702	248	630.0	6.52	---	---	---	---	---	---
10/12/11	LG-28	10.34	2962.52	2952.18	328	6.58	23.2	276,033	NA	NA	NA	NA	NA	NA	NA	620.0	NA	---	---	---	---	---	---
01/31/12	LG-28	9.60	2962.52	2952.92	344	6.10	21.4	269,421	NA	NA	NA	NA	NA	NA	NA	560.0	6.64	---	---	---	---	---	---
04/25/12	LG-28	9.60	2962.52	2952.92	328	6.15	20.8	282,645	NA	NA	NA	NA	NA	NA	248	470.0	6.62	---	---	---	---	---	---
07/18/12	LG-28	18.10	2962.52	2944.42	335	6.20	23.3	285,484	NA	NA	NA	NA	NA	NA	242	490.0	6.57	---	---	---	---	---	---
11/27/12	LG-28	9.30	2962.52	2953.22	349	6.16	21.0	265,079	NA	NA	NA	NA	NA	NA	246	580.0	6.49	---	---	---	---	---	---
11/27/12	LG-28	9.30	2962.52	2953.22	349	6.16	21.0	264,800	NA	NA	NA	NA	NA	NA	495	641.7	6.55	---	---	---	---	---	---
02/27/13	LG-28	9.10	2962.52	2953.42	323.8	5.16	19.4	278,689	NA	NA	NA	NA	NA	NA	254	560.0	6.43	---	---	---	---	---	---
02/27/13	LG-28	9.10	2962.52	2953.42	323.8	5.16	19.4	269,600	NA	NA	NA	NA	NA	NA	497	650.0	6.54	---	---	---	---	---	---
04/29/13	LG-28	9.10	2962.52	2953.42	338.6	5.33	24.1	272,727	NA	NA	NA	NA	NA	NA	264	570.0	6.66	---	---	---	---	---	---
04/29/13	LG-28	9.10	2962.52	2953.42	338.6	5.33	24.1	266,900	NA	NA	NA	NA	NA	NA	502	645.8	6.61	---	---	---	---	---	---
08/01/14	LG-28	8.36	2962.52	2954.16	334	6.01	21.6	263,600	NA	NA	NA	NA	NA	NA	498	650.0	6.71	---	---	---	---	---	---
11/11/14	LG-28	9.36	2962.52	2953.16	347.6	5.46	21.3	268,500	NA	NA	NA	NA	NA	NA	516	631.6	6.92	---	---	---	---	---	---
02/13/14	LG-28	9.30	2962.52	2953.22	356.8	5.63	23.3	267,300	NA	NA	NA	NA	NA	NA	520	668.4	6.62	---	---	---	---	---	---
04/30/14	LG-28	9.50	2962.52	2953.02	340	5.66	20	284,167	NA	NA	NA	NA	NA	NA	267	420.0	6.61	---	---	---	---	---	---
07/22/14	LG-28	9.71	2962.52	2952.81	318.6	5.77	24	253,731	NA	NA	NA	NA	NA	NA	274	470.0	6.53	---	---	---	---	---	---
10/28/14	LG-28	Inaccessible		--	--	--	--	--	--	--	--	--	--	--	--	--	--	---	---	---	---	---	---
01/13/15	LG-28	Inaccessible		--	--	--	--	--	--	--	--	--	--	--	--	--	--	---	---	---	---	---	---
04/28/15	LG-28	Inaccessible		--	--	--	--	--	--	--	--	--	--	--	--	--	--	---	---	---	---	---	---
07/01/15	LG-28	Inaccessible		--	--	--	--	--	--	--	--	--	--	--	--	--	--	---	---	---	---	---	---
10/21/15	LG-28	Inaccessible		--	--	--	--	--	--	--	--	--	--	--	--	--	--	---	---	---	---	---	---

TABLE 2
WATER QUALITY MONITORING RESULTS

Date[1]	Well / Sampling Location	FIELD MEASUREMENTS						LABORATORY ANALYSES															
								DP-1399 Reporting Requirements									S1AP Reporting Requirements						
		Depth to Water (feet)	TOC Elevation[2] (feet amsl)	WL Elevation (feet amsl)	Specific Conductivity (mS/cm)	pH (std. units)	Temperature (°C)	TDS (ppm)	Sodium (ppm)	Calcium (ppm)	Magnesium (ppm)	Potassium (ppm)	Chloride (ppm)	Sulfate (ppm)	Alkalinity (ppm as $CaCO_3$)[6]	Specific Conductivity (mS/cm)	pH (std. units)	Boron (ppm)	Bromine (ppm)	Selenium (ppm)	TSS (ppm)	Fecal Coliform (MPN/100 mL)	Total Nitrogen (ppm)
03/03/16	LG-28	1.28	2962.52	2961.24	178.1	NA	21.9	265,625	60,609	375	9,786	18,586	149,671	15,049	271	391.0	6.54	---	---	---	---	---	---
04/14/16	LG-28	3.14	2962.52	2959.38	180.3	NA	19.3	270,973	63,507	362	10,235	19,044	151,007	15,352	344	374.0	6.52	---	---	---	---	---	---
08/09/16	LG-28	4.72	2962.52	2957.80	371.0	NA	23.2	250,000	67,442	364	11,794	20,266	159,468	16,944	332	520.0	6.30	---	---	---	---	---	---
12/02/16	LG-28	4.75	2962.52	2957.77	368.0	NA	19.3	261,589	62,169	362	10,762	18,709	144,040	19,205	290	449.0	6.46	---	---	---	---	---	---
03/14/17	LG-28	5.33	2962.52	2957.19	228.3	6.28	20.9	273,849	61,513	337	9,951	17,352	146,382	16,201	250	494.0	6.55	---	---	---	---	---	---
05/12/17	LG-28	5.70	2962.52	2956.82	219.7	6.49	22.9	248,151	59,244	330	9,285	17,256	149,548	16,270	263	505.0	6.31	---	---	---	---	---	---
07/28/17	LG-28	5.65	2962.52	2956.87	221.9	6.97	22.4	257,500	68,250	352	10,083	18,583	153,333	15,167	308	556.0	6.94	---	---	---	---	---	---
11/10/17	LG-28	5.57	2962.52	2956.95	236.7	6.14	20.7	267,500	61,833	315	8,917	17,333	146,667	17,917	317	236.0	6.48	---	---	---	---	---	---
02/20/18	LG-28	6.10	2962.52	2956.42	243.3	6.16	21.6	319,000	76,500	429	12,600	22,800	174,000	19,100	348	262.0	6.72	---	---	---	---	---	---
04/06/18	LG-28	6.17	2962.52	2956.35	224.6	6.12	21.4	328,000	78,900	401	12,300	23,200	180,000	21,900	450	256.0	6.6	---	---	---	---	---	---
07/28/18	LG-28	6.05	2962.52	2956.47	231.5	6.17	21.5	331,000	76,600	399	12,600	23,700	186,000	18,000	370	261.0	6.26	---	---	---	---	---	---
10/05/18	LG-28	5.58	2962.52	2956.94	252.9	6.35	21.8	330,000	82,700	414	13,700	26,200	190,000	20,600	370	275.0	6.4	---	---	---	---	---	---
01/11/19	LG-28	4.55	2962.52	2957.97	280.3	5.97	20.6	329,000	82,300	411	14,700	27,400	178,000	21,700	900	276.0	6.44	---	---	---	---	---	---
04/05/19	LG-28	5.08	2962.52	2957.44	267.9	6.18	20.69	347,000	81,100	492	18,200	33,800	194,000	22,100	366	282.0	6.34	---	---	---	---	---	---
07/26/19	LG-28	5.07	2962.52	2957.45	222.6	6.31	21.6	335,000	75,300	436	13,300	27,300	188,000	19,500	508	246.0	6.67	---	---	---	---	---	---
11/01/19	LG-28	6.11	2962.52	2956.41	201.7	6.34	21.2	358,000	80,600	346	12,200	24,600	172,000	17,700	420	283.0	6.38	---	---	---	---	---	---
01/28/20	LG-28	6.67	2962.52	2955.85	220.3	6.59	20.3	343,000	83,700	374	13,300	25,500	196,000	22,300	<1	280.0	6.47	---	---	---	---	---	---
04/27/20	LG-28	6.29	2962.52	2956.23	219.7	6.24	23.8	349,000	84,600	363	13,300	26,000	188,000	20,900	<1	285.0	6.39	---	---	---	---	---	---
07/28/20	LG-28	9.23	2963.455	2954.23	231.9	6.31	21.8	344,000	80,000	318	12,700	22,600	184,000	22,000	<1	280.0	6.26	---	---	---	---	---	---
10/28/20	LG-28	9.25	2963.455	2954.21	250.7	6.64	19.4	328,000	82,100	334	13,800	23,300	188,000	20,100	<1	278.0	6.39	---	---	---	---	---	---
01/26/21	LG-28	9.69	2963.455	2953.77	185.3	6.38	18	334,000	81,200	350	14,900	23,400	210,000	21,600	<1	278.0	6.52	---	---	---	---	---	---
04/26/21	LG-28	9.92	2963.455	2953.54	217.3	6.50	22.8	350,000	83,500	342	15,400	23,700	172,000	27,800	<1	277.0	6.27	---	---	---	---	---	---
07/27/21	LG-28	8.54	2963.455	2954.92	130.8	6.02	25.4	348,000	98,700	436	21,200	28,500	188,000	19,000	<1	272.0	6.29	---	---	---	---	---	---
10/25/21	LG-28	8.42	2963.455	2955.04	56.4	6.18	24	340,000	72,000	292	16,000	21,800	170,000	25,100	<1	277.0	6.28	---	---	---	---	---	---
01/19/22	LG-28	8.69	2963.455	2954.77	19.6	6.02	20.3	346,000	71,700	290	16,600	22,900	188,000	29,000	<1	295.0	6.26	---	---	---	---	---	---
04/26/22	LG-28	8.97	2963.455	2954.49	213.6	5.64	23.2	353,000	75,300	351	21,100	28,500	190,000	24,200	<1	278.0	6.03	---	---	---	---	---	---
07/26/22	LG-28	8.66	2963.455	2954.80	163.8	5.18	24.1	363,000	79,500	340	20,500	27,100	186,000	23,300	<1	286.0	6.55	---	---	---	---	---	---
11/01/22	LG-28	8.07	2963.455	2955.39	231.8	6.85	20	340,000	99,300	436	26,400	33,300	178,000	22,700	<1	279.0	6.23	---	---	---	---	---	---
01/23/23	LG-28	7.30	2963.455	2956.16	410.3	6.61	19.5	356,000	72,800	387	24,400	29,900	188,000	26,500	<1	278.0	6.11	<60.0	230	<20.0	NA	NA	NA
LG-29																							
02/01/06	LG-29	18.83	2976.14	2957.31	13.26	7.10	20.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
03/10/06	LG-29	19.07	2976.14	2957.07	13.65	6.93	19.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
04/02/06	LG-29	19.28	2976.14	2956.86	14.49	7.02	20.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
05/11/06	LG-29	19.54	2976.14	2956.60	13.85	7.10	19.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
07/19/06	LG-29	19.30	2976.14	2956.84	15.52	6.63	22.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
10/26/06	LG-29	18.75	2976.14	2957.39	8.80	7.07	21.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
01/31/07	LG-29	18.59	2976.14	2957.55	13.92	6.52	20.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
02/01/07	LG-29	NM	2976.14	NM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
03/16/07	LG-29	18.61	2976.14	2957.53	13.88	6.73	19.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
04/10/07	LG-29	18.65	2976.14	2957.49	11.74	6.71	17.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
05/04/07	LG-29	17.10	2976.14	2959.04	9.76	6.86	19.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
08/02/07	LG-29	18.90	2976.14	2957.24	8.43	7.90	19.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
10/11/07	LG-29	14.80	2976.14	2961.34	14.68	6.77	21.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
01/07/08	LG-29	18.90	2976.14	2957.24	14.94	6.74	20.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
04/28/08	LG-29	15.50	2976.14	2960.64	10.92	6.98	19.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
08/06/08	LG-29	18.90	2976.14	2957.24	13.76	7.13	20.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
11/25/08	LG-29	17.30	2976.14	2958.84	209.4[3]	6.36	20.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
02/25/09	LG-29	17.25	2976.14	2958.89	90.4[3]	6.34	20.5	140,400	43,600	2,039	4,031	3,045	82,800	4,741	282	320.2	6.86	---	---	---	---	---	---
05/20/09	LG-29	17.70	2976.14	2958.44	183.70	6.28	20.9	138,900	41,200	2,173	4,281	3,075	83,200	4,815	272	317.3	6.72	---	---	---	---	---	---
08/31/09	LG-29	17.60	2976.14	2958.54	190.40	6.22	26.1	156,700	47,900	1,857	4,465	4,603	92,700	4,970	308	358.0	6.79	---	---	---	---	---	---
11/04/09	LG-29	17.45	2976.14	2958.69	188.40	6.24	22.6	144,700	44,400	2,066	4,036	3,611	85,500	4,882	288	318.0	6.74	---	---	---	---	---	---
01/12/10	LG-29	17.03	2976.14	2959.11	187.10	6.20	19.4	148,900	46,300	1,007	4,242	3,928	88,100	5,113	290	333.2	6.69	---	---	---	---	---	---
05/12/10	LG-29	17.30	2976.14	2958.84	186.30	6.14	19.0	148,900	44,700	1,992	4,277	4,112	88,500	5,108	284	340.0	6.67	---	---	---	---	---	---
08/03/10	LG-29	16.52	2976.14	2959.62	173.60	6.37	21.2	156,475	48,561	1,978	4,047	4,676	98,921	5,935	144	330.0	7.14	---	---	---	---	---	---
11/16/10	LG-29	16.90	2976.14	2959.24	NA	6.47	21.6	140,541	40,541	2,162	3,423	3,423	117,117	5,135	135	270.0	6.85	---	---	---	---	---	---
01/26/11	LG-29	17.20	2976.14	2958.94	NA	6.03	19.4	150,000	44,545	2,545	4,091	3,818	90,909	5,091	145	290.0	6.78	---	---	---	---	---	---
05/03/11	LG-29	17.85	2976.14	2958.29	NA	6.12	18.0	134,862	37,615	2,661	3,211	2,202	91,743	4,037	211	270.0	7.25	---	---	---	---	---	---
07/05/11	LG-29	18.20	2976.14	2957.94	--	6.07	25.0	142,987	45,537	2,186	3,188	2,914	109,290	4,463	146	320.0	6.86	---	---	---	---	---	---
10/13/11	LG-29	18.50	2976.14	2957.64	172.9	6.06	21.2	158,470	46,448	2,004	3,734	4,098	100,182	5,100	146	300.0	7.11	---	---	---	---	---	---
01/31/12	LG-29	17.80	2976.14	2958.34	223.6	6.00	21.3	155,085	NA	NA	NA	NA	NA	NA	NA	310.0	6.89	---	---	---	---	---	---
04/25/12	LG-29	18.00	2976.14	2958.14	238.6	6.02	19.8	156,780	NA	NA	NA	NA	NA	NA	NA	300.0	6.86	---	---	---	---	---	---
07/18/12	LG-29	17.83	2976.14	2958.31	182.9	6.52	24.0	175,893	NA	NA	NA	NA	NA	NA	161	320.0	6.79	---	---	---	---	---	---
11/28/12	LG-29	17.90	2976.14	2958.24	188.3	6.33	19.5	169,340	NA	NA	NA	NA	NA	NA	160	340.0	6.81	---	---	---	---	---	---
11/28/12	LG-29	17.90	2976.14	2958.24	188.3	6.33	19.5	169,700	NA	NA	NA	NA	NA	NA	306	405.0	6.63	---	---	---	---	---	---
02/26/13	LG-29	18.00	2976.14	2958.14	246.8	5.50	20.5	179,464	NA	NA	NA	NA	NA	NA	161	340.0	6.67	---	---	---	---	---	---
02/26/13	LG-29	18.00	2976.14	2958.14	246.8	5.50	20.5	172,800	NA	NA	NA	NA	NA	NA	332	400.0	6.65	---	---	---	---	---	---
04/30/13	LG-29	18.20	2976.14	2957.94	183.0	5.22	20.5	163,921	NA	NA	NA	NA	NA	NA	148	350.0	6.94	---	---	---	---	---	---
04/30/13	LG-29	18.20	2976.14	2957.94	183.0	5.22	20.5	174,300	NA	NA	NA	NA	NA	NA	321	390.0	6.74	---	---	---	---	---	---
08/01/13	LG-29	17.75	2976.14	2958.39	251.2	5.90	21.6	178,700	NA	NA	NA	NA	NA	NA	322	408.5	6.83	---	---	---	---	---	---
11/11/13	LG-29	17.60	2976.14	2958.54	199.2	5.61	22	178,300	NA	NA	NA	NA	NA	NA	324	398.0	7.06	---	---	---	---	---	---
02/13/14	LG-29	17.62	2976.14	2958.52	196	5.68	22.2	177,000	NA	NA	NA	NA	NA	NA	326	428.0	6.75	---	---	---	---	---	---
05/07/14	LG-29	17.66	2976.14	2958.48	187.3	5.19	19.8	195,575	NA	NA	NA	NA	NA	NA	159	270.0	6.91	---	---	---	---	---	---
07/24/14	LG-29	17.95	2976.14	2958.19	242.8	5.62	21.3	214,000	NA	NA	NA	NA	NA	NA	320	190.0	6.82	---	---	---	---	---	---
10/29/14	LG-29	14.10	2976.14	2962.04	NA	NA	20.9	219,000	NA	NA	NA	NA	NA	NA	380	190.0	6.98	---	---	---	---	---	---
01/14/15	LG-29	13.62	2976.14	2962.52	268.8	6.95	19.6	197,208	49,738	1,483	5,236	9,599	122,164	6,719	166	400.0	6.91	---	---	---	---	---	---
04/29/15	LG-29	14.04	2976.14	2962.10	169.5	6.33	21.2	141,026	27,473	1,923	3,480	3,663	76,007	3,938	128	230.0	7.03	---	---	---	---	---	---

TABLE 2
WATER QUALITY MONITORING RESULTS

Date[1]	Well / Sampling Location	FIELD MEASUREMENTS						LABORATORY ANALYSES														
								DP-1399 Reporting Requirements									S1AP Reporting Requirements					
		Depth to Water (feet)	TOC Elevation[2] (feet amsl)	WL Elevation (feet amsl)	Specific Conductivity (mS/cm)	pH (std. units)	Temperature (°C)	TDS (ppm)	Sodium (ppm)	Calcium (ppm)	Magnesium (ppm)	Potassium (ppm)	Chloride (ppm)	Sulfate (ppm)	Alkalinity (ppm as $CaCO_3$)[6]	Specific Conductivity (mS/cm)	pH (std. units)	Boron (ppm)	Bromine (ppm)	Selenium (ppm)	TSS (ppm)	Fecal Coliform (MPN/100 mL)	Total Nitrogen (ppm)
04/29/15	LG-29	14.04	2976.14	2962.10	169.5	6.33	21.2	134,615	40,110	2,592	3,810	3,874	79,670	3,370	187	208.0	6.53	---	---	---	---	---	---
07/08/15	LG-29	14.66	2976.14	2961.48	113.5	6.64	22.6	150,808	42,639	2,298	3,923	4,919	94,255	3,923	172	217.0	6.65	---	---	---	---	---	---
10/21/15	LG-29	15.20	2976.14	2960.94	315.6	6.02	21.2	170,667	48,444	1,947	4,044	6,747	95,111	5,093	167	259.0	6.34	---	---	---	---	---	---
03/01/16	LG-29	15.65	2976.14	2960.49	172.3	NA	19.6	226,109	58,362	1,067	5,452	12,543	122,867	8,003	222	270.0	6.56	---	---	---	---	---	---
04/14/16	LG-29	15.10	2976.14	2961.04	176.0	NA	19.3	208,621	62,931	1,086	5,526	12,759	132,759	8,879	267	335.0	6.77	---	---	---	---	---	---
08/10/16	LG-29	17.60	2976.14	2958.54	363.0	NA	21.2	219,449	60,241	947	5,516	12,478	134,251	7,427	207	432.0	6.36	---	---	---	---	---	---
12/02/16	LG-29	17.15	2976.14	2958.99	365.0	NA	20.3	212,276	48,338	810	4,399	10,060	122,762	8,448	188	374.0	6.52	---	---	---	---	---	---
03/14/17	LG-29	17.36	2976.14	2958.78	226.6	NR	21.1	204,467	60,052	997	5,481	12,285	121,993	7,457	196	428.0	6.58	---	---	---	---	---	---
05/12/17	LG-29	17.52	2976.14	2958.62	213.1	6.48	22.5	212,748	55,211	939	4,918	11,628	127,476	7,339	301	390.0	6.21	---	---	---	---	---	---
07/28/17	LG-29	17.46	2976.14	2958.68	214.8	6.82	22.1	219,130	60,696	1,043	5,243	11,913	125,217	7,235	243	420.0	6.91	---	---	---	---	---	---
11/10/17	LG-29	17.24	2976.14	2958.90	225.8	5.96	20.9	202,257	54,948	955	4,714	11,024	121,528	9,115	181	224.0	6.47	---	---	---	---	---	---
02/20/18	LG-29	17.34	2976.14	2958.80	232.0	6.28	21	240,000	66,500	1,180	6,060	14,000	150,000	8,620	244	230.0	6.7	---	---	---	---	---	---
04/06/18	LG-29	17.42	2976.14	2958.72	217.7	6.39	20.5	248,000	63,200	1,070	5,680	13,100	148,000	9,660	360	211.0	6.8	---	---	---	---	---	---
07/27/18	LG-29	17.55	2976.14	2958.59	213.9	5.94	22.3	255,000	67,200	1,110	6,130	14,000	146,000	7,910	250	219.0	6.72	---	---	---	---	---	---
10/05/18	LG-29	17.30	2976.14	2958.84	248.7	6.47	22.8	238,000	72,600	1,160	6,580	15,700	136,000	9,030	260	228.0	6.41	---	---	---	---	---	---
01/11/19	LG-29	17.11	2976.14	2959.03	279.3	6.14	20.6	257,000	71,700	1,120	6,940	15,900	144,000	9,740	228	233.0	6.52	---	---	---	---	---	---
04/05/19	LG-29	17.54	2976.14	2958.60	259.2	6.30	19.56	258,000	69,400	1,070	6,370	14,300	150,000	8,600	303	241.0	6.39	---	---	---	---	---	---
07/26/19	LG-29	17.53	2976.14	2958.61	219.0	6.44	21.2	260,000	72,200	1,080	6,160	15,600	174,000	8,660	384	208.0	6.82	---	---	---	---	---	---
11/01/19	LG-29	17.43	2976.14	2958.71	199.5	6.55	22.2	254,000	70,400	1,100	6,610	15,200	142,000	6,330	244	237.0	6.38	---	---	---	---	---	---
01/28/20	LG-29	17.41	2976.14	2958.73	215.7	6.75	20.7	255,000	69,100	1,140	6,850	15,100	144,000	9,540	<1	232.0	6.63	---	---	---	---	---	---
04/27/20	LG-29	17.26	2976.14	2958.88	210.3	6.25	22.4	254,000	78,100	1,220	7,440	17,200	146,000	8,920	<1	227.0	6.47	---	---	---	---	---	---
07/28/20	LG-29	17.59	2976.14	2958.55	223.4	6.25	21.5	246,000	67,600	1,070	6,330	14,200	142,000	10,500	<1	226.0	6.18	---	---	---	---	---	---
10/28/20	LG-29	17.82	2976.14	2958.32	241.2	6.24	20.7	242,000	64,800	1,130	6,360	13,900	144,000	8,880	<1	232.0	6.39	---	---	---	---	---	---
01/26/21	LG-29	18.02	2976.14	2958.12	188.0	6.46	15.9	249,000	73,700	1,300	7,220	16,100	144,000	9,460	<1	234.0	6.44	---	---	---	---	---	---
04/26/21	LG-29	18.00	2976.14	2958.14	211.1	6.58	22.5	247,000	67,600	1,110	6,620	14,600	140,000	9,010	<1	231.0	6.25	---	---	---	---	---	---
07/26/21	LG-29	17.16	2976.14	2958.98	161.5	6.09	26.1	255,000	67,200	1,010	7,190	15,200	148,000	7,360	<1	232.0	6.32	---	---	---	---	---	---
10/25/21	LG-29	17.35	2976.14	2958.79	203.1	6.33	26.3	274,000	65,200	895	6,790	15,000	144,000	9,200	<1	234.0	6.2	---	---	---	---	---	---
01/19/22	LG-29	17.52	2976.14	2958.62	21.9	6.04	20.4	267,000	64,200	833	6,780	15,700	168,000	11,200	<1	252.0	6.37	---	---	---	---	---	---
04/26/22	LG-29	17.72	2976.14	2958.42	226.3	6.23	22.3	270,000	68,600	907	7,200	16,600	148,000	9,770	<1	238.0	5.9	---	---	---	---	---	---
07/26/22	LG-29	17.65	2976.14	2958.49	236.1	5.62	25.2	272,000	68,900	858	7,370	17,600	150,000	19,100	<1	237.0	6.7	---	---	---	---	---	---
11/01/22	LG-29	17.15	2976.14	2958.99	244.3	6.45	21.6	280,000	68,400	836	7,620	17,600	154,000	11,800	<1	240.0	6.28	---	---	---	---	---	---
01/23/23	LG-29	16.80	2976.14	2959.34	438.9	6.49	18.5	275,000	71,500	798	8,120	18,500	146,000	12,300	<1	268.0	6.11	<72.0	115	<24.0	NA	NA	NA
LG-30																							
07/18/06	LG-30	28.06	2968.55	2940.49	11.3	6.70	21.7	89,240	28,520	1,815	2,050	1,040	49,550	6,000	443	183.0	7.12	---	---	---	---	---	---
10/23/06	LG-30	27.03	2968.55	2941.52	11.3	6.57	20.2	91,845	29,450	1,916	2,130	1,070	50,550	6,450	463	190.0	6.96	---	---	---	---	---	---
01/31/07	LG-30	27.37	2968.55	2941.18	11.5	6.66	20.2	91,323	29,180	1,927	1,988	1,070	50,349	6,540	448	191.0	6.99	---	---	---	---	---	---
04/10/07	LG-30	27.20	2968.55	2941.35	11.6	6.78	21.5	92,475	29,586	1,950	2,098	1,075	51,200	6,300	444	192.5	6.94	---	---	---	---	---	---
08/10/07	LG-30	28.70	2968.55	2939.85	11.8	6.73	20.2	94,996	30,580	1,630	2,180	1,065	52,900	6,375	444	198.0	7.08	---	---	---	---	---	---
10/10/07	LG-30	27.40	2968.55	2941.15	11.8	6.99	21.6	96,924	31,370	1,636	2,302	1,122	53,450	6,780	440	201.0	7.24	---	---	---	---	---	---
04/28/08	LG-30	27.55	2968.55	2941.00	12.2	6.92	21.4	97,600	31,600	1,610	2,422	1,187	53,700	6,809	440	210.5	7.43	---	---	---	---	---	---
03/02/09	LG-30	27.80	2968.55	2940.75	69.8[3]	6.56	20.3	100,700	32,200	1,499	2,152	1,340	56,207	7,067	433	211.5	6.93	---	---	---	---	---	---
05/20/09	LG-30	28.12	2968.55	2940.43	140.8	6.33	23.1	102,200	32,400	1,494	2,409	1,348	57,246	7,035	446	214.5	6.93	---	---	---	---	---	---
08/31/09	LG-30	27.70	2968.55	2940.85	141.7	6.43	21.5	103,900	33,300	1,505	2,540	1,392	58,115	6,815	444	219.0	6.99	---	---	---	---	---	---
11/03/09	LG-30	27.95	2968.55	2940.60	142.4	6.35	20.6	103,100	32,700	1,475	2,496	1,456	57,559	7,183	451	226.0	6.86	---	---	---	---	---	---
01/11/10	LG-30	27.90	2968.55	2940.65	142.1	6.36	19.9	106,100	33,800	1,470	2,597	1,554	59,110	7,310	446	220.0	6.86	---	---	---	---	---	---
05/11/10	LG-30	27.63	2968.55	2940.92	143.7	6.30	22.3	106,100	33,000	1,426	2,683	1,650	59,527	7,508	451	223.8	6.84	---	---	---	---	---	---
08/03/10	LG-30	27.21	2968.55	2941.34	132.4	6.54	23.1	120,148	32,348	1,386	2,495	1,664	80,407	8,226	222	230.0	7.42	---	---	---	---	---	---
11/16/10	LG-30	27.10	2968.55	2941.45	NA	6.61	19.3	121,996	35,120	1,479	2,773	1,941	75,786	8,410	240	210.0	7.00	---	---	---	---	---	---
01/26/11	LG-30	27.60	2968.55	2940.95	NA	6.31	17.1	113,889	32,407	1,481	2,870	2,037	69,444	8,333	241	220.0	6.92	---	---	---	---	---	---
05/02/11	LG-30	28.20	2968.55	2940.35	NA	6.24	25.0	116,451	37,893	1,386	2,865	2,033	70,240	9,507	250	240.0	7.03	---	---	---	---	---	---
07/05/11	LG-30	27.72	2968.55	2940.83	NA	6.21	25.0	118,299	36,969	1,479	3,235	2,495	66,543	7,948	259	250.0	6.93	---	---	---	---	---	---
10/12/11	LG-30	29.10	2968.55	2939.45	140.4	6.42	20.9	115,527	37,893	1,386	3,235	2,680	76,710	8,318	259	230.0	7.23	---	---	---	---	---	---
01/31/12	LG-30	28.70	2968.55	2939.85	144.2	6.43	21.0	126,606	35,780	1,284	3,486	3,028	70,642	8,165	NA	230.0	7.22	---	---	---	---	---	---
04/24/12	LG-30	28.90	2968.55	2939.65	147.2	6.31	21.9	121,101	30,275	624	3,761	3,394	73,394	8,165	268	190.0	7.08	---	---	---	---	---	---
07/18/12	LG-30	29.00	2968.55	2939.55	141.8	6.46	28.6	121,101	41,284	1,560	3,945	3,670	70,642	9,083	266	230.0	7.06	---	---	---	---	---	---
11/26/12	LG-30	28.65	2968.55	2939.90	141.6	6.47	21.3	124,771	39,450	1,284	3,486	3,578	77,982	8,532	275	240.0	6.84	---	---	---	---	---	---
11/26/12	LG-30	28.65	2968.55	2939.90	141.6	6.47	21.3	122,600	35,992	1,391	3,888	3,674	68,992	8,389	527	276.3	6.86	---	---	---	---	---	---
02/26/13	LG-30	28.50	2968.55	2940.05	147.3	5.53	20.8	126,606	38,532	1,284	3,670	3,761	77,064	8,532	275	230	6.89	---	---	---	---	---	---
02/26/13	LG-30	28.50	2968.55	2940.05	147.3	5.53	20.8	124,300	36,784	1,368	3,890	3,639	69,647	8,639	534	277.5	6.85	---	---	---	---	---	---
04/29/13	LG-30	28.82	2968.55	2939.73	145.5	5.65	23.8	131,193	33,945	1,651	4,220	4,587	73,394	8,349	275	250	7.06	---	---	---	---	---	---
04/29/13	LG-30	28.82	2968.55	2939.73	145.5	5.65	23.8	124,900	36,795	1,308	3,945	3,932	69,986	8,652	539	277.5	6.91	---	---	---	---	---	---
08/01/13	LG-30	26.30	2968.55	2942.25	147.3	6.16	21.8	123,700	36,349	1,352	3,901	4,228	68,919	8,575	565	277.5	7.00	---	---	---	---	---	---
10/30/13	LG-30	28.32	2968.55	2940.23	153.7	6.18	20.7	127,100	37,295	1,311	4,057	4,465	70,700	8,928	524	277.5	7.26	---	---	---	---	---	---
02/13/14	LG-30	28.20	2968.55	2940.35	153.8	5.62	20.5	127,800	37,904	1,306	4,073	4,583	70,060	9,030	562	291.9	6.91	---	---	---	---	---	---
04/28/14	LG-30	28.40	2968.55	2940.15	147.2	6.02	22.1	131,193	27,523	853	2,936	3,578	79,817	9,174	275	190	6.80	---	---	---	---	---	---
07/22/14	LG-30	28.90	2968.55	2939.65	145.60	5.94	23.2	129,358	37,615	1,193	3,853	4,587	51,376	6,697	284	190	6.94	---	---	---	---	---	---
10/28/14	LG-30	26.00	2968.55	2942.55	NA	NA	21	129,834	33,149	1,197	4,236	4,972	72,744	8,748	285	250	7.19	---	---	---	---	---	---
01/13/15	LG-30	26.30	2968.55	2942.25	165.60	6.87	18	141,284	37,615	1,284	4,128	4,862	75,229	9,083	284	250	7.12	---	---	---	---	---	---
05/04/15	LG-30	26.10	2968.55	2942.45	165.10	6.30	22.6	136,697	29,358	780	4,312	5,046	64,220	7,339	278	230	7.21	---	---	---	---	---	---
05/04/15	LG-30	26.10	2968.55	2942.45	165.10	6.30	22.6	131,193	37,156	1,211	4,459	5,156	71,560	14,037	319	218	6.41	---	---	---	---	---	---
07/08/15	LG-30	26.46	2968.55	2942.09	164.20	6.25	23.2	125,458	38,004	1,310	4,670	5,321	81,502	9,341	341	214	6.65	---	---	---	---	---	---
10/21/15	LG-30	26.10	2968.55	2942.45	165.40	5.92	21.4	140,741	36,481	1,287	4,370	5,528	80,556	8,981	319	262	6.52	---	---	---	---	---	---
10/21/15	LG-30	26.10	2968.55	2942.45	165.40	5.92	21.4	135,904	37,190	1,359	4,573	5,647	71,625	8,687	312	208	6.48	---	---	---	---	---	---
01/07/16	LG-30	26.33	2968.55	2942.22	118.60	NA	19.1	124,661	34,779	1,256	4,327	5,357	74,074	9,575	325	170	6.93	---	---	---	---	---	---
04/07/16	LG-30	26.26	2968.55	2942.29	121.90	NA	21.9	132,662	39,616	1,363	4,904	6,221	71,363	9,973	366	187	6.87	---	---	---	---	---	---
08/09/16	LG-30	17.11	2968.55	2951.44	298.00	NA	22.1	127,949	37,750	1,270	4,927	6,289	80,762	8,330	319	256	6.63	---	---	---	---	---	---

TABLE 2
WATER QUALITY MONITORING RESULTS

Date[1]	Well / Sampling Location	FIELD MEASUREMENTS						LABORATORY ANALYSES															
								DP-1399 Reporting Requirements									S1AP Reporting Requirements						
		Depth to Water (feet)	TOC Elevation[2] (feet amsl)	WL Elevation (feet amsl)	Specific Conductivity (mS/cm)	pH (std. units)	Temperature (°C)	TDS (ppm)	Sodium (ppm)	Calcium (ppm)	Magnesium (ppm)	Potassium (ppm)	Chloride (ppm)	Sulfate (ppm)	Alkalinity (ppm as $CaCO_3$)[6]	Specific Conductivity (mS/cm)	pH (std. units)	Boron (ppm)	Bromine (ppm)	Selenium (ppm)	TSS (ppm)	Fecal Coliform (MPN/100 mL)	Total Nitrogen (ppm)
12/05/16	LG-30	26.65	2968.55	2941.90	267.00	NA	19.2	133,993	33,453	1,043	4,496	5,854	76,439	9,892	302	248	6.65	---	---	---	---	---	---
03/14/17	LG-30	26.90	2968.55	2941.65	166.65	6.41	20.6	134,892	37,860	1,160	5,198	6,853	77,338	10,072	309	267	6.69	---	---	---	---	---	---
05/12/17	LG-30	27.21	2968.55	2941.34	165.30	6.44	20.6	144,524	35,278	1,014	4,749	6,598	84,381	9,515	309	270	6.40	---	---	---	---	---	---
07/28/17	LG-30	27.50	2968.55	2941.05	126.97	6.26	21.6	140,794	40,162	1,119	5,442	7,509	85,740	10,379	325	304	7.02	---	---	---	---	---	---
11/11/17	LG-30	27.13	2968.55	2941.42	182.18	6.21	20.6	153,430	36,823	948	4,829	6,977	83,032	11,372	329	179	6.57	---	---	---	---	---	---
02/20/18	LG-30	27.30	2968.55	2941.25	189.10	6.28	20.8	171,000	46,200	1,250	6,460	8,960	100,000	11,500	388	185	6.97	---	---	---	---	---	---
04/06/18	LG-30	27.46	2968.55	2941.09	174.20	6.29	21.3	181,000	43,300	1,120	5,980	8,700	96,000	12,400	392	174	6.66	---	---	---	---	---	---
07/28/18	LG-30	27.85	2968.55	2940.70	184.08	6.36	21.6	180,000	45,400	1,160	6,180	8,960	102,000	9,030	376	174	6.36	---	---	---	---	---	---
10/05/18	LG-30	27.63	2968.55	2940.92	197.70	6.69	21.6	178,000	48,100	1,220	6,440	9,870	96,000	10,300	360	185	6.48	---	---	---	---	---	---
01/12/19	LG-30	27.11	2968.55	2941.44	233.33	6.25	20.7	177,000	46,800	1,250	6,530	9,730	101,000	12,200	388	186	6.64	---	---	---	---	---	---
04/05/19	LG-30	27.22	2968.55	2941.33	207.47	6.28	20.8	175,000	56,700	1,430	7,510	11,100	100,000	10,700	449	182	6.47	---	---	---	---	---	---
07/26/19	LG-30	27.75	2968.55	2940.80	177.33	6.41	21.6	177,000	47,900	1,150	6,030	10,000	100,000	11,200	400	168	7.02	---	---	---	---	---	---
11/01/19	LG-30	27.87	2968.55	2940.68	161.69	6.43	20.4	189,000	48,300	1,160	6,310	9,840	96,000	12,600	600	192	6.51	---	---	---	---	---	---
01/28/20	LG-30	27.75	2968.55	2940.80	175.37	6.80	20.5	179,000	46,600	1,150	6,160	9,740	96,000	12,100	<1	188	6.82	---	---	---	---	---	---
04/28/20	LG-30	27.69	2968.55	2940.86	180.20	6.40	22.9	177,000	45,400	1,080	5,930	9,430	99,000	10,900	<1	184	6.65	---	---	---	---	---	---
07/29/20	LG-30	28.32	2967.15	2938.83	160.01	6.17	21.9	184,000	49,500	1,120	6,570	10,000	96,000	12,200	<1	183	6.33	---	---	---	---	---	---
10/29/20	LG-30	28.04	2967.15	2939.11	158.20	6.49	21.4	180,000	47,700	1,040	5,990	9,870	98,000	11,700	<1	192	6.40	---	---	---	---	---	---
01/27/21	LG-30	28.02	2967.15	2939.13	154.92	6.15	19.9	173,000	48,300	1,170	6,540	10,200	96,000	11,100	<1	191	6.61	---	---	---	---	---	---
04/27/21	LG-30	28.02	2967.15	2939.13	168.70	6.56	23.9	169,000	42,100	1,100	5,490	8,660	82,000	13,900	<1	180	6.56	---	---	---	---	---	---
07/27/21	LG-30	27.56	2967.15	2939.59	18.11	6.46	23.6	157,000	50,600	1,550	6,890	10,200	89,000	10,600	<1	170	6.74	---	---	---	---	---	---
10/26/21	LG-30	27.70	2967.15	2939.45	16.77	6.47	22.9	148,000	42,200	1,250	5,470	8,350	80,000	7,840	<1	173	6.41	---	---	---	---	---	---
01/19/22	LG-30	25.87	2967.15	2941.28	96.31	6.77	18.2	117,000	26,800	1,040	3,280	5,570	61,000	9,280	<1	139	6.78	---	---	---	---	---	---
04/26/22	LG-30	24.65	2967.15	2942.50	60.43	6.96	22.0	48,600	13,300	1,040	1,600	2,500	26,800	5,180	<1	66.0	6.96	---	---	---	---	---	---
07/26/22	LG-30	26.28	2967.15	2940.87	56.04	6.96	26.1	36,000	8,780	821	1,020	1,580	17,200	2,270	<1	50.8	7.47	---	---	---	---	---	---
11/01/22	LG-30	26.15	2967.15	2941.00	47.99	6.65	22.1	33,300	7,780	850	993	1,410	16,000	4,130	<1	40.1	7.07	---	---	---	---	---	---
01/24/23	LG-30	26.03	2967.15	2941.12	43.39	7.13	17.1	33,800	8,060	873	1,040	1,420	17,000	4,160	<1	53.2	7.06	<15.0	9.7	<5.0	NA	NA	NA
LG-31																							
02/19/14	LG-31	47.90	2984.5	2936.60	86.8	5.25	22.2	26,355	5,690	2,431	1,184	24	14,900	1,986	234	55.7	7.30	---	---	---	---	---	---
05/07/14	LG-31	48.15	2984.5	2936.35	41.9	6.07	19.8	33,627	5,588	2,451	1,176	431	16,667	1,961	107.8	32.0	7.22	---	---	---	---	---	---
07/24/14	LG-31	49.83	2984.5	2934.67	42.1	5.89	24.4	33,855	5,479	2,250	1,076	32	15,656	1,859	107.6	38.0	7.39	---	---	---	---	---	---
10/27/14	LG-31	45.92	2984.5	2938.58	NA	NA	34.2	30,588	5,784	2,451	1,176	27	15,686	1,863	107.8	47.0	7.44	---	---	---	---	---	---
01/16/15	LG-31	45.90	2984.5	2938.60	42.2	7.85	22.3	30,556	5,556	2,480	1,190	70	14,881	1,786	109.0	57.0	7.42	---	---	---	---	---	---
05/08/15	LG-31	45.01	2984.5	2939.49	41.8	7.15	22.8	34,344	5,577	2,446	1,174	32	17,613	2,055	106.0	47.0	7.44	---	---	---	---	---	---
05/08/15	LG-31	45.01	2984.5	2939.49	41.8	7.15	22.8	28,963	5,744	2,554	1,311	30	15,264	1,663	51.0	38.7	6.81	---	---	---	---	---	---
07/07/15	LG-31	45.70	2984.5	2938.80	41.5	6.60	23.3	29,412	5,588	2,353	1,216	21	15,882	1,765	275.0	39.2	6.97	---	---	---	---	---	---
10/08/15	LG-31	46.70	2984.5	2937.80	41.5	7.32	23.8	26,851	5,726	2,507	1,194	31	15,795	1,885	122.0	47.0	7.2	---	---	---	---	---	---
03/01/16	LG-31	45.09	2984.5	2939.41	30.4	NA	23.5	29,864	5,438	2,383	1,138	32	15,759	1,897	112.8	39.6	7.24	---	---	---	---	---	---
04/06/16	LG-31	45.16	2984.5	2939.34	30.8	NA	27.1	29,105	5,221	2,163	1,052	24	15,929	1,878	129.8	48.1	7.19	---	---	---	---	---	---
08/08/16	LG-31	47.56	2984.5	2936.94	61.1	NA	24.5	27,184	5,524	2,359	1,146	30	15,825	1,767	120.4	50.0	7.19	---	---	---	---	---	---
12/01/16	LG-31	46.01	2984.5	2938.49	62.2	NA	22.6	27,083	5,317	2,302	1,101	99	16,071	2,034	115.1	48.1	6.85	---	---	---	---	---	---
03/14/17	LG-31	45.66	2984.5	2938.84	166.65	6.41	20.6	26,249	5,563	2,380	1,166	31	15,475	2,067	117.5	52.1	7.09	---	---	---	---	---	---
05/12/17	LG-31	46.10	2984.5	2938.40	165.3	6.44	20.6	24,976	5,327	2,244	1,083	<50	15,805	1,922	113.2	39.3	6.96	---	---	---	---	---	---
07/28/17	LG-31	47.39	2985.5	2938.11	37.6	7.36	22.4	26,772	5,571	2,333	1,122	98	16,142	1,831	161.4	49.3	7.43	---	---	---	---	---	---
11/11/17	LG-31	46.31	2985.5	2939.19	42.17	6.60	20.9	29,862	5,334	2,171	1,051	98	15,914	2,161	196.5	41.8	7.06	---	---	---	---	---	---
02/20/18	LG-31	47.32	2984.718	2937.40	43.51	6.97	20.8	27,400	5,620	2,390	1,150	70	16,000	2,010	128.0	42.0	7.33	---	---	---	---	---	---
04/06/18	LG-31	47.61	2984.718	2937.11	40.24	6.96	21.9	30,200	5,400	2,270	1,090	<100	15,800	2,360	180.0	40.0	7.22	---	---	---	---	---	---
07/27/18	LG-31	48.03	2984.718	2936.69	41.92	6.95	22.5	28,600	5,550	2,340	1,130	34	14,800	1,530	116.0	40.0	6.86	---	---	---	---	---	---
10/05/18	LG-31	47.90	2984.718	2936.82	45.833	6.94	22.3	28,100	5,830	2,530	1,210	48	16,200	1,900	116.0	42.2	7.06	---	---	---	---	---	---
01/11/19	LG-31	45.62	2984.718	2939.10	50.152	6.68	21.0	28,200	6,060	2,720	1,270	61	17,400	2,050	192.0	42.3	7.22	---	---	---	---	---	---
04/05/19	LG-31	45.65	2984.718	2939.07	44.828	6.79	22.0	29,800	5,770	2,210	1,160	26	16,400	2,030	146.0	41.1	7.18	---	---	---	---	---	---
07/26/19	LG-31	46.69	2984.718	2938.03	40.082	6.95	22.2	30,000	6,190	2,630	1,220	62	16,600	1,880	148.0	37.8	7.52	---	---	---	---	---	---
11/02/19	LG-31	48.30	2984.718	2936.42	36.843	7.08	21.2	26,700	5,700	2,450	1,160	31	16,400	2,030	124.0	42.7	7.14	---	---	---	---	---	---
01/29/20	LG-31	47.95	2984.718	2936.77	30.546	7.61	20.8	27,100	5,580	2,470	1,130	38	16,600	1,950	<1	42.1	7.29	---	---	---	---	---	---
04/27/20	LG-31	46.81	2984.718	2937.91	38.71	6.93	23.3	28,000	5,570	2,370	1,140	40	15,000	1,790	<1	39.7	7.16	---	---	---	---	---	---
07/28/20	LG-31	49.30	2984.718	2935.42	40.14	7.06	22.8	27,300	5,370	2,270	1,130	50	16,000	1,980	<1	38.3	7.06	---	---	---	---	---	---
10/28/20	LG-31	50.22	2984.718	2934.50	38.92	7.07	20.0	27,700	5,420	2,420	1,130	32	15,200	1,800	<1	41.9	7.31	---	---	---	---	---	---
01/26/21	LG-31	49.94	2984.718	2934.78	36.089	7.11	19.1	27,400	5,690	2,610	1,280	119	15,600	1,960	<1	42.2	7.23	---	---	---	---	---	---
04/26/21	LG-31	50.35	2984.718	2934.37	46.112	7.72	24.5	30,200	5,520	2,310	1,390	295	17,000	2,110	<1	43.8	7.15	---	---	---	---	---	---
07/26/21	LG-31	49.24	2984.718	2935.48	32.736	7.33	25.2	30,800	5,660	2,510	1,430	217	17,400	2,050	<1	43.7	7.18	---	---	---	---	---	---
10/25/21	LG-31	50.56	2984.718	2934.16	46.291	7.31	24.4	29,000	5,350	2,210	1,210	136	17,000	2,030	<1	42.8	7.06	---	---	---	---	---	---
01/19/22	LG-31	50.56	2984.718	2934.16	17.937	7.21	19.7	28,900	4,830	2,050	1,080	108	15,600	2,470	<1	43.5	7.18	---	---	---	---	---	---
04/26/22	LG-31	50.70	2984.718	2934.02	42.248	6.79	23.6	28,100	5,220	2,440	1,200	75	15,200	1,940	<1	42.0	7.01	---	---	---	---	---	---
07/25/22	LG-31	51.23	2984.718	2933.49	44.257	7.69	25.4	29,900	5,570	3,240	1,640	90	15,600	1,890	<1	43.1	7.32	---	---	---	---	---	---
10/24/22	LG-31	49.85	2984.718	2934.87	46.066	7.41	18.1	28,300	5,460	2,660	1,270	ND	16,000	1,400	<1	37.1	7	---	---	---	---	---	---
01/23/23	LG-31	48.40	2984.718	2936.32	77.042	7.31	20.7	28,900	5,540	2,910	1,450	43	16,000	1,990	<1	42.4	7.10	<12.0	8.05	<4.0	NA	NA	NA
LG-32																							
02/13/14	LG-32	20.17	2962.2	2942.03	129.6	6.23	20.6	101,800	31,542	1,126	3,507	596	55,700	9,074	380.0	231.3	7.22	---	---	---	---	---	---
04/30/14	LG-32	20.35	2962.2	2941.85	125.5	6.20	20.6	106,542	29,907	1,121	3,178	701	56,075	8,692	186.9	150.0	7.06	---	---	---	---	---	---
07/22/14	LG-32	20.60	2962.2	2941.60	125.3	6.02	22.1	105,214	30,726	1,117	3,166	633	54,935	8,007	195.5	150.0	7.14	---	---	---	---	---	---
10/28/14	LG-32	16.32	2962.2	2945.88	NA	NA	20.9	101,869	31,776	1,308	3,458	813	58,879	8,411	196.3	190.0	7.35	---	---	---	---	---	---
01/13/15	LG-32	16.58	2962.2	2945.62	135.9	6.93	16.7	106,679	30,612	1,206	3,247	631	61,224	8,720	186.0	200.0	7.34	---	---	---	---	---	---
05/05/15	LG-32	16.17	2962.2	2946.03	137.3	5.26	21.2	107,477	30,841	738	3,364	748	54,206	7,477	189.0	180.0	7.34	---	---	---	---	---	---
05/05/15	LG-32	16.17	2962.2	2946.03	137.3	5.26	21.2	107,477	32,617	1,159	3,598	687	57,944	9,907	221.0	169.0	6.68	---	---	---	---	---	---
07/08/15	LG-32	16.76	2962.2	2945.44	135.8	6.89	23.4	100,559	34,544	1,294	3,883	709	55,866	7,998	231.0	201.0	6.85	---	---	---	---	---	---
10/09/15	LG-32	16.71	2962.2	2945.49	135.5	6.63	21.1	107,376	32,586	1,279	3,511	715	56,956	7,535	220.0	185.0	6.78	---	---	---	---	---	---
10/09/15	LG-32	16.71	2962.2	2945.49	135.5	6.63	21.1	108,635	32,498	1,244	3,435	693	55,710	8,626	215.0	182.0	6.79	---	---	---	---	---	---

TABLE 2
WATER QUALITY MONITORING RESULTS

Date[1]	Well / Sampling Location	FIELD MEASUREMENTS						LABORATORY ANALYSES															
								DP-1399 Reporting Requirements									S1AP Reporting Requirements						
		Depth to Water (feet)	TOC Elevation[2] (feet amsl)	WL Elevation (feet amsl)	Specific Conductivity (mS/cm)	pH (std. units)	Temperature (°C)	TDS (ppm)	Sodium (ppm)	Calcium (ppm)	Magnesium (ppm)	Potassium (ppm)	Chloride (ppm)	Sulfate (ppm)	Alkalinity (ppm as $CaCO_3$)[6]	Specific Conductivity (mS/cm)	pH (std. units)	Boron (ppm)	Bromine (ppm)	Selenium (ppm)	TSS (ppm)	Fecal Coliform (MPN/100 mL)	Total Nitrogen (ppm)
01/07/16	LG-32	16.29	2962.2	2945.91	100.4	NA	19.3	105,556	32,685	694	3,556	781	59,259	8,963	250.0	140.0	7.22	---	---	---	---	---	---
04/08/16	LG-32	16.30	2962.2	2945.90	103	NA	21.2	106,244	32,805	1,221	3,402	734	63,374	10,438	108.1	153.0	7.07	---	---	---	---	---	---
08/09/16	LG-32	17.33	2962.2	2944.87	211	NA	22.1	107,209	39,741	1,479	4,233	989	64,695	7,957	221.8	207.0	6.80	---	---	---	---	---	---
12/05/16	LG-32	16.71	2962.2	2945.49	213	NA	19.9	106,481	29,352	1,120	3,139	773	60,185	9,352	196.3	192.0	6.85	---	---	---	---	---	---
03/14/17	LG-32	17.21	2962.2	2944.99	136.45	6.76	20.5	109,462	35,065	1,299	3,803	946	61,224	9,276	204.1	201.0	6.92	---	---	---	---	---	---
05/12/17	LG-32	17.40	2962.2	2944.80	134.4	6.90	22.2	112,465	32,521	1,181	3,374	868	64,667	8,828	209.9	212.0	6.63	---	---	---	---	---	---
07/28/17	LG-32	17.65	2962.2	2944.55	132.39	6.59	22.2	103,160	33,736	1,171	3,429	916	65,985	8,169	219.3	288.0	7.27	---	---	---	---	---	---
11/10/17	LG-32	17.32	2962.2	2944.88	141.34	6.63	19.9	111,732	30,633	1,071	3,110	840	60,521	11,453	245.8	140.0	6.87	---	---	---	---	---	---
02/20/18	LG-32	17.72	2963.8	2946.08	145.53	6.30	20.6	120,000	35,700	1,280	3,750	1,070	65,000	10,100	236.0	144.0	7.13	---	---	---	---	---	---
04/06/18	LG-32	17.82	2963.8	2945.98	134.98	6.71	20.7	123,000	34,800	1,240	3,620	982	66,000	10,700	268.0	135.0	7.06	---	---	---	---	---	---
07/29/18	LG-32	18.05	2963.8	2945.75	137.82	6.65	21.1	121,000	34,500	1,200	3,580	1,010	67,000	7,540	228.0	134.0	6.65	---	---	---	---	---	---
10/05/18	LG-32	17.73	2963.8	2946.07	153.504	6.71	21	123,000	38,100	1,360	3,920	1,040	67,000	9,090	216.0	143.0	6.88	---	---	---	---	---	---
01/11/19	LG-32	17.22	2963.8	2946.58	161.008	6.39	20.3	123,000	37,500	1,380	3,950	1,150	64,000	10,400	244.0	143.0	6.90	---	---	---	---	---	---
04/05/19	LG-32	17.40	2963.8	2946.40	162.624	6.44	20.4	127,000	33,800	1,160	3,390	973	68,000	9,120	273.0	142.0	6.82	---	---	---	---	---	---
07/26/19	LG-32	17.71	2963.8	2946.09	137.367	6.71	21	Not tested	Not	Not tested	Not tested	Not tested	Not	Not tested	Not tested	Not tested	Not tested	---	---	---	---	---	---
11/01/19	LG-32	18.00	2963.8	2945.80	124.345	6.77	20.3	130,000	36,400	1,270	3,730	1,120	66,000	8,450	228	148.0	6.76	---	---	---	---	---	---
01/28/20	LG-32	18.00	2963.8	2945.80	137.174	7.20	20	126,000	37,000	1,300	3,750	1,130	68,000	10,200	<1	146.0	7.15	---	---	---	---	---	---
04/27/20	LG-32	17.85	2963.8	2945.95	146.2	6.71	23	125,000	37,400	1,270	3,830	1,270	69,000	9,280	<1	139.0	6.97	---	---	---	---	---	---
07/28/20	LG-32	18.30	2963.8	2945.50	134.744	6.78	21	126,000	35,200	1,180	3,640	1,100	74,000	10,800	<1	143.0	6.68	---	---	---	---	---	---
10/28/20	LG-32	18.26	2963.8	2945.54	136.1	6.60	18.5	128,000	36,700	1,210	3,630	1,130	69,000	9,510	<1	147.0	7	---	---	---	---	---	---
01/27/21	LG-32	18.55	2963.8	2945.25	122.101	6.44	19.2	126,000	37,600	1,370	4,040	1,400	70,000	9,720	<1	148.0	7	---	---	---	---	---	---
04/27/21	LG-32	18.51	2963.8	2945.29	Not Tested	Not Tested	Not Tested	Not Tested	Not Tested	Not Tested	Not Tested	Not Tested	Not Tested	Not Tested	Not Tested	Not Tested	Not Tested	---	---	---	---	---	---
07/27/21	LG-32	18.09	2963.8	2945.71	27.811	6.6	24.5	125,000	42,300	1,520	4,610	1,380	74,000	7,800	<1	145	6.92	---	---	---	---	---	---
10/25/21	LG-32	18.30	2963.8	2945.50	33.756	6.86	22.9	132,000	35,600	1,170	3,590	1,220	69,000	9,810	<1	147	6.68	---	---	---	---	---	---
01/19/22	LG-32	18.07	2963.8	2945.73	80.155	6.68	19.6	132,000	34,000	1,100	3,390	1,200	72,000	11,200	<1	150	6.84	---	---	---	---	---	---
04/26/22	LG-32	17.92	2963.8	2945.88	145.898	6.83	22.8	131,000	36,600	1,210	3,780	1,320	80,000	8,840	<1	148	6.70	---	---	---	---	---	---
07/26/22	LG-32	18.00	2963.8	2945.80	158.494	6.27	25.4	129,000	38,400	1,280	3,860	1,370	72,000	8,540	<1	150	7.09	---	---	---	---	---	---
11/01/22	LG-32	17.51	2963.8	2946.29	154.435	6.78	21.5	131,000	36,900	1,310	3,910	1,330	71,000	9,290	<1	133	6.77	---	---	---	---	---	---
01/23/23	LG-32	16.80	2963.8	2947.00	274.716	7.12	16.9	131,000	42,000	1,450	4,420	1,510	72,000	9,080	<1	149	6.65	<42.0	49.2	<14.0	NA	NA	NA
LG-33																							
01/27/21	LG-33	27.68	2969.516	2941.84	6.391	7.07	20.2	5,620	795	693	204	8	1,720	1,940	<1	8.3	7.13	---	---	---	---	---	---
04/27/21	LG-33	28.20	2969.516	2941.32	7.588	7.41	23.5	5,950	857	729	215	8	1,800	1,690	<1	8.1	7.12	---	---	---	---	---	---
07/27/21	LG-33	27.87	2969.516	2941.65	2.541	7.46	23.5	5,920	931	888	252	9	1,820	1,880	<1	8.0	7.16	---	---	---	---	---	---
10/26/21	LG-33	28.21	2969.516	2941.31	4.552	7.21	22.4	5,720	861	743	217	ND	1,680	1,970	<1	8.2	6.89	---	---	---	---	---	---
01/20/22	LG-33	28.38	2969.516	2941.14	6.277	7.21	19.7	5,790	825	723	210	8	1,740	1,880	<1	8.3	7.02	---	---	---	---	---	---
04/27/22	LG-33	28.53	2969.516	2940.99	8.375	6.86	25.7	5,830	825	747	216	7	1,960	1,750	<1	8.2	6.95	---	---	---	---	---	---
07/26/22	LG-33	28.50	2969.516	2941.02	8.909	7.28	25.9	5,770	828	708	210	<10	1,740	1,600	<1	8.2	7.51	---	---	---	---	---	---
11/01/22	LG-33	28.20	2969.516	2941.32	8.858	7.01	22.2	6,000	824	764	216	<10	1,830	1,750	<1	7.9	7.05	---	---	---	---	---	---
01/24/23	LG-33	28.05	2969.516	2941.47	7.185	7.54	19.3	5,790	812	723	215	<10	1,880	1,890	<1	8.8	7.02	<3.0	1.07	<1.0	NA	NA	NA
LG-34																							
01/27/21	LG-34	19.91	2974.697	2954.79	7.15	6.87	20.5	6,000	1,020	636	251	12	1,620	1,930	<1	8.5	7.21	---	---	---	---	---	---
04/26/21	LG-34	19.60	2974.697	2955.10	8.251	7.94	21.2	6,190	978	592	245	11	1,880	1,870	<1	8.4	7.08	---	---	---	---	---	---
07/27/21	LG-34	19.53	2974.697	2955.17	3.398	7.44	24.3	5,990	954	613	265	10	1,860	1,790	<1	8.1	7.26	---	---	---	---	---	---
10/26/21	LG-34	20.11	2974.697	2954.59	6.75	7.16	24.4	6,100	961	569	237	10	1,800	2,000	<1	8.5	6.97	---	---	---	---	---	---
01/20/22	LG-34	20.00	2974.697	2954.70	5.068	7.22	18.8	6,050	966	602	246	12	1,620	2,190	<1	8.6	7.11	---	---	---	---	---	---
04/27/22	LG-34	19.85	2974.697	2954.85	8.641	7.22	23.1	5,910	955	600	245	10	1,840	2,020	<1	7.9	7.11	---	---	---	---	---	---
07/26/22	LG-34	20.14	2974.697	2954.56	9.66	7.16	26.1	5,760	870	529	215	10	1,820	1,680	<1	8.0	7.51	---	---	---	---	---	---
10/25/22	LG-34	20.14	2974.697	2954.56	6.272	7.17	21.6	5,060	777	674	239	15	1,840	1,160	<1	5.8	7.14	---	---	---	---	---	---
01/24/23	LG-34	19.60	2974.697	2955.10	6.968	7.25	17.7	5,720	885	560	224	<10	1,520	1,640	<1	8.7	7.23	<3.0	1.3	<1.0	NA	NA	NA
LG-35																							
01/27/21	LG-35	35.64	2979.798	2944.16	52.703	6.70	19.8	45,100	11,400	1,700	1,880	825	24,300	3,590	<1	65.3	6.89	---	---	---	---	---	---
04/27/21	LG-35	35.80	2979.798	2944.00	63.973	7.32	24.6	46,600	11,100	1,550	1,760	781	25,000	3,750	<1	64.2	6.80	---	---	---	---	---	---
07/27/21	LG-35	35.34	2979.798	2944.46	27.602	7.02	25.5	45,000	11,100	1,610	1,830	787	25,300	4,140	<1	64.0	6.99	---	---	---	---	---	---
10/26/21	LG-35	35.67	2979.798	2944.13	13.054	6.75	23.6	45,800	11,300	1,500	1,750	835	23,400	3,990	<1	65.6	6.65	---	---	---	---	---	---
01/20/22	LG-35	35.77	2979.798	2944.03	45.885	6.78	18.5	46,700	10,700	1,470	1,680	819	25,000	4,370	<1	66.8	6.87	---	---	---	---	---	---
04/27/22	LG-35	35.85	2979.798	2943.95	64.442	6.41	24.4	46,000	11,200	1,570	1,780	843	24,000	4,230	<1	63.3	6.65	---	---	---	---	---	---
07/26/22	LG-35	36.02	2979.798	2943.78	65.99	6.44	26.8	45,300	13,200	1,370	1,520	770	25,000	3,590	<1	61.9	7.26	---	---	---	---	---	---
10/25/22	LG-35	35.85	2979.798	2943.95	52.98	6.68	19	46,500	10,500	1,420	1,610	807	22,800	3,070	<1	59.6	6.92	---	---	---	---	---	---
01/24/23	LG-35	35.65	2979.798	2944.15	55.27	7.48	19.4	43,900	10,400	1,350	1,630	865	24,000	3,730	<1	66.4	6.90	<15.0	13.9	<5.00	NA	NA	NA
LG-36																							
01/21/22	LG-36	65.25	3007.775	2942.53	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
04/27/22	LG-36	63.50	3007.775	2944.28	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
07/25/22	LG-36	63.12	3007.775	2944.66	14.09	12.22	25.8	4,750	864	709	13	447	1,760	15	400	14.9	12.7	---	---	---	---	---	---
10/24/22	LG-36	63.20	3007.775	2944.58	15.025	11.5	18.6	4,840	684	737	5	265	2,600	64	840	12.8	12.4	---	---	---	---	---	---
01/25/23	LG-36	63.37	3007.775	2944.41	21.39	12.4	17.7	4,790	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LG-37																							
01/20/22	LG-37	21.18	2977.41	2956.23	15.1	7.46	17.1	18,800	3,870	873	765	70	8,200	4,070	<1	27.7	7.4	---	---	---	---	---	---
04/27/22	LG-37	21.17	2977.41	2956.24	26.4	7.14	22.8	18,800	4,140	970	891	51	11,200	3,740	<1	27.8	7.2	---	---	---	---	---	---
07/25/22	LG-37	21.71	2977.41	2955.70	27.5	7.26	25.3	19,700	4,270	947	878	58	9,300	3,650	<1	27.4	7.6	---	---	---	---	---	---
10/24/22	LG-37	21.07	2977.41	2956.34	28.5	6.89	21.7	19,800	4,260	960	892	57	8,800	2,710	<1	26.9	7.1	---	---	---	---	---	---
01/24/23	LG-37	20.70	2977.41	2956.71	25.88	7.44	17.1	21,200	4,470	970	941	69	9,400	3,950	<1	32.4	7.29	<9.0	4.62	<3.0	NA	NA	NA
LG-38																							
01/20/22	LG-38	8.48	2963.89	2955.41	134.4	6.61	19.2	253,000	66,400	1,770	10,000	36,000	134,000	13,900	<1	243.0	7.2	---	---	---	---	---	---
04/27/22	LG-38	8.65	2963.89	2955.24	228.2	6.64	22.1	257,000	80,000	1,180	7,560	24,300	152,000	12,100	<1	233.0	6.9	---	---	---	---	---	---
07/25/22	LG-38	8.80	2963.89	2955.09	220.4	6.82	26.2	256,000	71,200	933	6,550	22,600	134,000	12,800	<1	234.0	7.0	---	---	---	---	---	---
10/24/22	LG-38	8.06	2963.89	2955.83	253.4	6.21	21.9	259,000	64,700	867	6,130	20,500	160,000	12,400	<1	223.0	6.8	---	---	---	---	---	---

TABLE 2
WATER QUALITY MONITORING RESULTS

Date[1]	Well / Sampling Location	FIELD MEASUREMENTS						LABORATORY ANALYSES															
								DP-1399 Reporting Requirements									S1AP Reporting Requirements						
		Depth to Water (feet)	TOC Elevation[2] (feet amsl)	WL Elevation (feet amsl)	Specific Conductivity (mS/cm)	pH (std. units)	Temperature (°C)	TDS (ppm)	Sodium (ppm)	Calcium (ppm)	Magnesium (ppm)	Potassium (ppm)	Chloride (ppm)	Sulfate (ppm)	Alkalinity (ppm as $CaCO_3$)[6]	Specific Conductivity (mS/cm)	pH (std. units)	Boron (ppm)	Bromine (ppm)	Selenium (ppm)	TSS (ppm)	Fecal Coliform (MPN/100 mL)	Total Nitrogen (ppm)
01/24/23	LG-38	7.71	2963.89	2956.18	204.8	7.16	16.8	258,000	61,700	814	6,000	18,800	138,000	13,900	<1	244.0	6.73	<72.0	61.5	<24.0	NA	NA	NA
P-West																							
1/14/2015	P-West	58.30	3071.0	3012.7	226.00	7.16	19.9	219,130	NA	NA	NA	NA	NA	NA	270	347	7.03	---	---	---	---	---	---
4/28/2015	P-West	59.20	3071.0	3011.8	221.00	6.12	21.1	220,870	NA	NA	NA	NA	NA	NA	263	390	7.06	---	---	---	---	---	---
7/14/2015	P-West	59.56	3071.0	3011.4	225.00	7.00	28.1	249,581	NA	NA	NA	NA	NA	NA	377	456	6.61	---	---	---	---	---	---
10/15/2015	P-West	59.93	3071.0	3011.0	227.00	6.58	22.5	257,767	NA	NA	NA	NA	NA	NA	252	439	6.50	---	---	---	---	---	---
1/5/2016	P-West	59.72	3071.0	3011.2	163.00	6.52	20.0	208,725	NA	NA	NA	NA	NA	NA	317	287	6.93	---	---	---	---	---	---
4/7/2016	P-West	59.94	3071.0	3011.0	161.90	NA	24.0	144,595	NA	NA	NA	NA	NA	NA	257	296	7.00	---	---	---	---	---	---
8/10/2016	P-West	61.15	3071.0	3009.8	335.00	NA	25.3	205,373	NA	NA	NA	NA	NA	NA	308	391	6.77	---	---	---	---	---	---
12/6/2016	P-West	60.84	3071.0	3010.1	336.00	NA	19.5	198,080	NA	NA	NA	NA	NA	NA	279	351	6.83	---	---	---	---	---	---
3/15/2017	P-West	61.80	3071.0	3009.2	203.15	6.73	22.0	200,695	NA	NA	NA	NA	NA	NA	330	365	6.91	---	---	---	---	---	---
5/13/2017	P-West	62.40	3071.0	3008.6	199.21	6.75	25.6	186,106	NA	NA	NA	NA	NA	NA	288	386	6.66	---	---	---	---	---	---
7/29/2017	P-West	62.97	3071.0	3008.0	203.15	6.21	24.5	179,875	55,200	772	5,130	15,000	112,000	18,600	299	393	7.32	---	---	---	---	---	---
11/11/2017	P-West	61.81	3071.0	3009.2	195.30	6.61	21.2	208,443	55,100	549	4,940	15,600	109,000	28,000	341	206	6.85	---	---	---	---	---	---
2/21/2018	P-West	60.58	3071.0	3010.4	203.47	6.76	20.0	200,000	51,600	685	4,890	15,300	117,000	22,700	328	197	6.90	---	---	---	---	---	---
4/7/2018	P-West	60.66	3071.0	3010.3	180.30	6.73	20.9	187,000	45,100	860	4,310	13,200	92,000	21,200	388	176	7.03	---	---	---	---	---	---
7/29/2018	P-West	59.82	3071.0	3011.1	180.76	6.76	23.6	176,000	46,600	809	4,310	13,800	87,000	19,200	312	172	6.83	---	---	---	---	---	---
10/6/2018	P-West	62.67	3071.0	3008.3	197.14	7.00	21.7	178,000	48,800	830	4,510	14,300	97,000	20,400	308	184	7.05	---	---	---	---	---	---
1/12/2019	P-West	62.85	3071.0	3008.1	223.99	6.69	20.5	184,000	47,500	795	4,530	14,400	87,000	23,500	344	186	7.05	---	---	---	---	---	---
4/6/2019	P-West	61.70	3071.0	3009.3	225.57	6.72	22.3	170,000	41,000	723	3,670	11,900	83,000	15,700	366	176	6.92	---	---	---	---	---	---
7/27/2019	P-West	62.81	3071.0	3008.2	173.19	6.82	23.6	180,000	45,300	706	3,800	13,800	86,000	18,600	344	162	7.30	---	---	---	---	---	---
11/2/2019	P-West	61.37	3071.0	3009.6	156.66	6.82	21.2	166,000	41,100	912	3,820	12,600	88,000	19,700	276	180	7.11	---	---	---	---	---	---
1/29/2020	P-West	60.55	3071.0	3010.4	126.27	7.05	20.8	158,000	40,800	884	3,650	11,800	83,000	16,000	<1	174	7.23	---	---	---	---	---	---
4/28/2020	P-West	60.59	3071.0	3010.4	152.30	6.75	22.5	153,000	39,500	1,220	3,710	11,100	79,000	14,000	<1	167	7.12	---	---	---	---	---	---
7/29/2020	P-West	62.05	3071.0	3008.9	169.24	6.59	22.8	190,000	47,000	782	4,140	13,500	92,000	22,900	<1	184	6.78	---	---	---	---	---	---
10/29/2020	P-West	63.22	3071.0	3007.7	170.30	6.72	20.1	191,000	50,800	728	4,300	14,500	94,000	21,900	<1	193	6.80	---	---	---	---	---	---
1/27/2021	P-West	64.98	3071.0	3006.0	159.98	6.43	18.6	190,000	49,100	727	4,550	14,100	96,000	23,700	<1	198	6.91	---	---	---	---	---	---
4/27/2021	P-West	65.73	3071.0	3005.2	178.43	6.78	23.0	199,000	50,300	746	4,560	14,000	86,000	23,300	<1	200	6.87	---	---	---	---	---	---
7/27/2021	P-West	66.61	3071.0	3004.4	107.99	6.60	25.1	199,000	62,300	2,880	6,050	16,900	95,000	19,200	<1	185	6.87	---	---	---	---	---	---
10/26/2021	P-West	65.24	3071.0	3005.7	21.89	6.69	22.7	189,000	50,900	730	4,490	14,000	103,000	17,300	<1	199	6.68	---	---	---	---	---	---
1/20/2022	P-West	64.92	3071.0	3006.0	132.77	6.48	15.2	204,000	48,200	629	4,310	13,800	100,000	26,400	<1	204	6.88	---	---	---	---	---	---
4/27/2022	P-West	65.56	3071.0	3005.4	234.62	6.43	22.0	189,000	50,100	966	4,590	14,000	110,000	19,500	<1	192	6.87	---	---	---	---	---	---
7/25/2022	P-West	64.75	3071.0	3006.2	184.94	6.71	27.6	195,000	45,500	716	3,990	13,000	98,000	23,000	<1	194	7.26	---	---	---	---	---	---
11/1/2022	P-West	62.56	3071.0	3008.4	174.68	6.85	20.0	158,000	41,800	1,290	3,900	12,000	80,000	14,500	<1	144	6.91	---	---	---	---	---	---
1/24/2023	P-West	60.63	3071.0	3010.3	208.29	6.87	15.6	151,000	36,600	1,010	3,430	10,100	73,000	14,700	<1	175	6.81	<48.0	21.9	<16.0	NA	NA	NA
P-Center																							
1/14/2015	P-Center	16.21	3034.8	3018.6	254.00	7.11	19.5	304,918	NA	NA	NA	NA	NA	NA	238	491	6.86	---	---	---	---	---	---
4/28/2015	P-Center	16.78	3034.8	3018.1	259.00	6.34	20.5	281,967	NA	NA	NA	NA	NA	NA	228	560	6.92	---	---	---	---	---	---
7/9/2015	P-Center	16.70	3034.8	3018.1	250.00	6.53	24.6	305,057	NA	NA	NA	NA	NA	NA	294	360	6.76	---	---	---	---	---	---
10/15/2015	P-Center	16.02	3034.8	3018.8	255.00	6.57	21.5	287,356	NA	NA	NA	NA	NA	NA	174	426	6.78	---	---	---	---	---	---
1/5/2016	P-Center	16.51	3034.8	3018.3	184.60	6.64	20.2	258,381	NA	NA	NA	NA	NA	NA	253	386	6.99	---	---	---	---	---	---
4/7/2016	P-Center	17.08	3034.8	3017.8	186.20	NA	23.3	250,620	NA	NA	NA	NA	NA	NA	281	471	6.87	---	---	---	---	---	---
8/10/2016	P-Center	16.50	3034.8	3018.3	397.00	NA	24.2	276,003	NA	NA	NA	NA	NA	NA	303	534	6.77	---	---	---	---	---	---
12/6/2016	P-Center	16.31	3034.8	3018.5	NA	NA	NA	267,055	NA	NA	NA	NA	NA	NA	233	486	6.83	---	---	---	---	---	---
3/15/2017	P-Center	17.47	3034.8	3017.4	231.09	6.69	22.0	259,136	NA	NA	NA	NA	NA	NA	233	482	7.05	---	---	---	---	---	---
5/13/2017	P-Center	17.20	3034.8	3017.6	224.37	6.83	24.2	226,290	NA	NA	NA	NA	NA	NA	275	480	6.63	---	---	---	---	---	---
7/29/2017	P-Center	17.49	3034.8	3016.9	226.17	6.14	23.0	258,921	94,500	335	4,230	15,900	182,000	19,600	315	644	7.27	---	---	---	---	---	---
11/11/2017	P-Center	17.15	3034.8	3017.3	242.63	6.51	21.5	266,611	92,200	309	4,220	15,500	178,000	29,000	349	242	6.83	---	---	---	---	---	---
2/21/2018	P-Center	18.62	3034.8	3016.2	248.42	6.63	20.5	327,000	95,000	332	4,520	16,300	209,000	23,600	272	263	6.67	---	---	---	---	---	---
4/7/2018	P-Center	18.96	3034.8	3015.9	227.13	6.58	20.9	322,000	92,200	325	4,300	15,800	170,000	28,000	390	252	6.78	---	---	---	---	---	---
7/29/2018	P-Center	18.37	3034.8	3016.5	238.87	6.81	23.0	340,000	98,200	314	5,010	16,700	178,000	15,900	290	252	6.65	---	---	---	---	---	---
10/6/2018	P-Center	17.90	3034.8	3016.9	258.78	6.87	21.8	346,000	105,000	310	5,320	18,300	192,000	20,100	310	273	6.74	---	---	---	---	---	---
1/12/2019	P-Center	18.44	3034.8	3016.4	302.59	6.42	21.0	368,000	102,000	310	5,460	18,100	182,000	30,500	308	277	6.80	---	---	---	---	---	---
4/6/2019	P-Center	18.58	3034.8	3016.3	298.10	6.53	22.1	318,000	100,000	285	4,620	15,400	176,000	27,500	361	281	6.75	---	---	---	---	---	---
7/27/2019	P-Center	15.41	3034.8	3019.4	227.72	6.74	22.2	338,000	89,200	322	5,280	20,300	174,000	26,200	300	248	6.96	---	---	---	---	---	---
11/2/2019	P-Center	17.82	3034.8	3017.0	211.38	6.46	21.2	348,000	94,200	251	5,040	17,100	180,000	25,900	268	269	6.89	---	---	---	---	---	---
1/29/2020	P-Center	18.43	3034.8	3016.4	172.83	6.24	20.7	345,000	107,000	306	6,070	20,200	170,000	29,900	<1	281	6.83	---	---	---	---	---	---
4/28/2020	P-Center	18.76	3034.8	3016.1	159.90	6.31	22.3	346,000	99,300	262	5,610	18,900	184,000	26,200	<1	284	6.70	---	---	---	---	---	---
7/29/2020	P-Center	18.98	3034.8	3015.9	212.53	6.32	22.3	343,000	98,500	284	5,680	18,200	176,000	29,600	<1	285	6.55	---	---	---	---	---	---
10/29/2020	P-Center	18.93	3034.8	3015.9	211.90	6.58	18.9	346,000	99,600	273	5,540	18,400	176,000	29,400	<1	275	6.68	---	---	---	---	---	---
1/27/2021	P-Center	19.28	3034.8	3015.6	191.37	5.98	19.0	333,000	92,200	298	5,820	18,600	178,000	39,600	<1	273	6.76	---	---	---	---	---	---
4/27/2021	P-Center	19.20	3034.8	3015.6	212.49	6.45	22.7	333,000	94,400	270	5,580	18,300	172,000	27,500	<1	273	6.68	---	---	---	---	---	---
7/27/2021	P-Center	18.78	3034.8	3016.1	20.36	6.17	23.3	340,000	96,500	288	5,730	18,200	180,000	30,300	<1	273	6.72	---	---	---	---	---	---
10/26/2021	P-Center	19.14	3034.8	3015.7	19.77	6.32	23.0	331,000	92,600	273	5,140	17,300	168,000	28,900	<1	273	6.66	---	---	---	---	---	---
1/20/2022	P-Center	19.59	3034.8	3015.3	167.49	5.87	17.5	333,000	94,200	341	6,070	20,900	174,000	29,200	<1	278	6.74	---	---	---	---	---	---
4/27/2022	P-Center	20.29	3034.8	3014.6	234.62	6.43	22.0	338,000	90,300	346	5,990	19,800	168,000	28,000	<1	268	6.71	---	---	---	---	---	---
7/25/2022	P-Center	19.68	3034.8	3015.2	234.78	6.14	26.7	338,000	104,000	280	5,270	18,200	174,000	28,800	<1	272	6.94	---	---	---	---	---	---
11/1/2022	P-Center	18.57	3034.8	3016.3	247.54	6.45	20.3	334,000	96,100	282	5,720	18,900	174,000	31,600	<1	275	6.69	---	---	---	---	---	---
1/24/2023	P-Center	19.45	3034.8	3015.4	210.46	6.48	15.2	341,000	92,600	267	5,540	18,600	180,000	23,200	<1	302	6.67	<72.0	39.6	<24.0	NA	NA	NA
P-East																							
1/14/2015	P-East	50.40	3110.6	3060.2	241.00	7.19	19.0	288,945	NA	NA	NA	NA	NA	NA	238	418	6.86	---	---	---	---	---	---
4/28/2015	P-East	49.75	3110.6	3060.8	246.00	6.19	21.4	142,617	NA	NA	NA	NA	NA	NA	281	470	6.92	---	---	---	---	---	---
7/14/2015	P-East	50.90	3110.6	3059.7	233.00	6.50	26.7	198,618	NA	NA	NA	NA	NA	NA	440	294	6.80	---	---	---	---	---	---
10/15/2015	P-East	50.1	3110.6	3060.5	235.00	6.65	22.8	208,083	NA	NA	NA	NA	NA	NA	292	344	6.68	---	---	---	---	---	---
1/5/2016	P-East	51.40	3110.6	3059.2	171.20	6.30	19.8	240,200	NA	NA	NA	NA	NA	NA	317	337	6.85	---	---	---	---	---	---
4/7/2016	P-East	52.27	3110.6	3058.3	173.80	NA	23.2	233,134	NA	NA	NA	NA	NA	NA	345	304	6.68	---	---	---	---	---	---

TABLE 2
WATER QUALITY MONITORING RESULTS

Date[1]	Well / Sampling Location	FIELD MEASUREMENTS						LABORATORY ANALYSES															
								DP-1399 Reporting Requirements									S1AP Reporting Requirements						
		Depth to Water (feet)	TOC Elevation[2] (feet amsl)	WL Elevation (feet amsl)	Specific Conductivity (mS/cm)	pH (std. units)	Temperature (°C)	TDS (ppm)	Sodium (ppm)	Calcium (ppm)	Magnesium (ppm)	Potassium (ppm)	Chloride (ppm)	Sulfate (ppm)	Alkalinity (ppm as $CaCO_3$)[6]	Specific Conductivity (mS/cm)	pH (std. units)	Boron (ppm)	Bromine (ppm)	Selenium (ppm)	TSS (ppm)	Fecal Coliform (MPN/100 mL)	Total Nitrogen (ppm)
8/10/2016	P-East	53.76	3110.6	3056.8	354.00	NA	24.0	231,946	NA	NA	NA	NA	NA	NA	295	438	6.65	---	---	---	---	---	---
12/6/2016	P-East	52.51	3110.6	3058.1	NA	NA	NA	221,097	NA	NA	NA	NA	NA	NA	295	417	6.64	---	---	---	---	---	---
3/15/2017	P-East	53.77	3110.6	3056.8	125.34	6.46	21.7	234,894	NA	NA	NA	NA	NA	NA	323	421	6.72	---	---	---	---	---	---
5/13/2017	P-East	53.12	3110.6	3057.5	216.34	6.62	23.4	216,625	NA	NA	NA	NA	NA	NA	311	433	6.47	---	---	---	---	---	---
7/29/2017	P-East	53.45	3110.6	3057.1	212.80	6.08	23.4	224,681	77,700	434	6,190	16,900	150,000	25,900	340	510	7.13	---	---	---	---	---	---
11/11/2017	P-East	54.63	3110.6	3056.0	225.24	6.32	21.3	234,589	72,200	453	5,760	15,700	134,000	31,400	277	222	6.79	---	---	---	---	---	---
2/21/2018	P-East	55.80	3110.6	3054.8	230.71	6.42	20.9	258,000	71,600	479	5,770	15,400	150,000	23,100	352	218	6.65	---	---	---	---	---	---
4/7/2018	P-East	56.22	3110.6	3054.4	212.32	6.45	21.7	259,000	69,800	463	5,580	15,400	138,000	28,300	328	213	6.84	---	---	---	---	---	---
7/29/2018	P-East	56.99	3110.6	3053.6	233.17	6.53	26.0	264,000	73,200	556	5,970	16,000	134,000	19,300	840	210	6.54	---	---	---	---	---	---
10/6/2018	P-East	56.05	3110.6	3054.5	238.10	6.85	22.1	257,000	74,300	537	5,760	15,900	122,000	23,200	320	220	6.72	---	---	---	---	---	---
1/12/2019	P-East	55.52	3110.6	3055.1	281.42	6.43	20.5	269,000	73,600	538	5,990	16,100	127,000	28,600	316	224	6.77	---	---	---	---	---	---
4/6/2019	P-East	56.02	3110.6	3054.6	277.31	6.4	20.9	257,000	73,900	629	6,700	18,200	135,000	23,900	390	227	6.63	---	---	---	---	---	---
7/27/2019	P-East	56.70	3110.6	3053.9	210.10	6.52	21.7	262,000	75,400	544	5,410	16,400	130,000	22,600	444	198	7.02	---	---	---	---	---	---
11/2/2019	P-East	57.45	3110.6	3053.1	193.14	6.56	21.2	248,000	69,900	545	5,510	15,100	127,000	24,100	312	222	6.87	---	---	---	---	---	---
1/29/2020	P-East	58.23	3110.6	3052.4	154.61	5.73	18.6	244,000	65,700	517	4,860	14,000	122,000	23,400	<1	219	6.95	---	---	---	---	---	---
4/28/2020	P-East	58.55	3110.6	3052.0	150.30	6.45	21.4	238,000	65,500	569	4,940	14,200	124,000	20,900	<1	213	6.83	---	---	---	---	---	---
7/29/2020	P-East	59.14	3110.6	3051.5	192.20	6.41	23.1	238,000	61,900	597	4,560	12,900	120,000	21,900	<1	212	6.59	---	---	---	---	---	---
10/29/2020	P-East	60.00	3110.6	3050.6	200.10	6.41	16.5	320,000	88,200	354	5,930	18,700	180,000	27,200	<1	261	6.62	---	---	---	---	---	---
1/27/2021	P-East	59.99	3110.6	3050.6	184.66	5.55	18	250,000	74,600	506	5,430	16,100	140,000	30,500	<1	227	6.98	---	---	---	---	---	---
4/27/2021	P-East	59.39	3110.6	3051.2	187.52	6.24	22	222,000	60,900	646	4,500	12,800	102,000	19,700	<1	211	6.64	---	---	---	---	---	---
7/27/2021	P-East	59.69	3110.6	3050.9	14.03	5.81	22.7	301,000	88,300	420	6,130	17,900	164,000	23,900	<1	244	6.69	---	---	---	---	---	---
10/26/2021	P-East	59.38	3110.6	3051.2	14.68	5.85	20.8	297,000	75,500	397	4,970	15,200	142,000	26,600	<1	240	6.59	---	---	---	---	---	---
1/20/2022	P-East	60.26	3110.6	3050.3	147.04	5.87	15.6	285,000	82,100	434	5,430	17,400	176,000	36,600	<1	254	6.63	---	---	---	---	---	---
4/27/2022	P-East	60.76	3110.6	3049.8	227.26	6.02	21.4	324,000	83,600	756	7,890	24,700	172,000	38,500	<1	264	6.54	---	---	---	---	---	---
7/25/2022	P-East	60.69	3110.6	3049.9	168.28	5.71	26.0	307,000	79,400	372	5,070	16,900	168,000	31,300	<1	256	6.82	---	---	---	---	---	---
11/1/2022	P-East	60.59	3110.6	3050.0	243.72	6.8	19.2	323,000	87,000	409	5,540	17,700	160,000	30,100	<1	256	6.62	---	---	---	---	---	---
1/24/2023	P-East	63.11	3110.6	3047.5	145.61	7.32	16.4	299,000	82,000	386	5,340	16,500	154,000	29,800	<1	284	6.69	<72.0	38.0	<24.0	NA	NA	NA
River 1																							
11/26/12	River 1	--	--	--	3.82	7.31	21.7	4,471	679	499	190	<10	1,397	1,597	140	3.82	7.31	---	---	---	---	---	---
11/26/12	River 1	--	--	--	3.82	7.31	21.7	4,558	673	523	241	7	1,333	1,618	272	7.80	8.05	---	---	---	---	---	---
02/27/13	River 1	--	--	--	3.49	4.84	12.6	4,350	640	430	170	11	1,200	1,400	130	5.70	7.90	---	---	---	---	---	---
02/27/13	River 1	--	--	--	3.49	4.84	12.6	4,226	633	476	216	8	1,234	1,500	265	7.10	8.09	---	---	---	---	---	---
05/01/13	River 1	--	--	--	NA	NA	NA	5,234	788	598	253	11	1,547	1,864	289	9.00	8.08	---	---	---	---	---	---
08/02/13	River 1	--	--	--	2.34	7.28	27.8	3,292	534	367	155	12	995	1,083	244	6.00	7.73	---	---	---	---	---	---
11/11/13	River 1	--	--	--	3.07	7.56	13.6	3,611	567	399	161	10	1,057	1,275	236	6.30	7.41	---	---	---	---	---	---
02/18/14	River 1	--	--	--	3.26	5.49	17.2	4,004	591	459	209	7	1,110	1,489	231	7.00	8.25	---	---	---	---	---	---
04/30/14	River 1	--	--	--	4.02	8.18	21.5	5,230	880	510	220	17	1,800	1,600	130	5.90	7.90	---	---	---	---	---	---
10/27/14	River 1	--	--	--	NA	NA	21.8	3,660	520	400	150	10	860	1,200	200	4.40	8.06	---	---	---	---	---	---
01/12/15	River 1	--	--	--	5.7	8.32	7.1	4,390	670	500	190	17	1,100	1,400	190	5.30	8.10	---	---	---	---	---	---
05/04/15	River 1	--	--	--	NA	NA	NA	4,290	683	458	202	13	1,040	1,290	168	5.82	7.87	---	---	---	---	---	---
07/09/15	River 1	--	--	--	NA	NA	NA	4,140	744	461	213	18	1,240	1,360	156	6.30	7.71	---	---	---	---	---	---
10/09/15	River 1	--	--	--	NA	NA	NA	3,600	587	414	144	11	940	1,250	160	5.10	8.30	---	---	---	---	---	---
03/01/16	River 1	--	--	--	NA	NA	NA	4,232	727	483	165	<20.0	1,327	1,377	160	5.59	7.95	---	---	---	---	---	---
04/14/16	River 1	--	--	--	NA	NA	NA	4,294	665	476	181	<20.0	1,124	1,535	124	6.84	8.01	---	---	---	---	---	---
08/09/16	River 1	--	--	--	NA	NA	NA	4,980	738	482	197	7	1,429	1,667	123	5.06	7.78	---	---	---	---	---	---
12/05/16	River 1	--	--	--	NA	NA	NA	4,524	620	424	169	20	1,190	1,587	190	7.20	8.05	---	---	---	---	---	---
03/15/17	River 1	--	--	--	NA	NA	NA	4,090	681	454	186	20	1,240	1,680	188	7.82	7.99	---	---	---	---	---	---
05/13/17	River 1	--	--	--	NA	NA	NA	4,213	670	438	182	<10	1,215	1,584	155	5.70	7.86	---	---	---	---	---	---
07/29/17	River 1	--	--	--	NA	NA	NA	4,811	782	480	211	50	1,375	1,514	143	6.28	8.19	---	---	---	---	---	---
11/11/17	River 1	--	--	--	NA	NA	NA	4,527	676	444	186	20	1,102	1,743	192	6.34	7.50	---	---	---	---	---	---
02/21/18	River 1	--	--	--	NA	NA	NA	4,380	736	481	202	37	1,300	1,710	232	6.18	7.72	---	---	---	---	---	---
04/07/18	River 1	--	--	--	NA	NA	NA	3,160	720	486	203	<10.0	920	1,780	248	6.36	8.00	---	---	---	---	---	---
07/29/18	River 1	--	--	--	NA	NA	NA	5,050	821	511	225	16	1,460	1,490	148	6.75	8.08	---	---	---	---	---	---
10/06/18	River 1	--	--	--	NA	NA	NA	4,520	768	473	199	<10	1,500	1,700	168	6.72	8.16	---	---	---	---	---	---
01/12/19	River 1	--	--	--	NA	NA	NA	4,070	772	547	222	7	1,260	1,680	252	6.51	7.95	---	---	---	---	---	---
04/06/19	River 1	--	--	--	NA	NA	NA	4,790	648	430	177	<10	1,320	1,690	273	6.68	7.83	---	---	---	---	---	---
07/26/19	River 1	--	--	--	NA	NA	NA	4,980	795	495	207	13	1,260	1,630	148	6.12	8.13	---	---	---	---	---	---
11/01/19	River 1	--	--	--	NA	NA	NA	4,850	769	498	211	7	1,600	1,570	208	6.79	7.96	---	---	---	---	---	---
01/28/20	River 1	--	--	--	NA	NA	NA	4,280	608	428	169	6	1,180	1,530	<1	6.30	8.16	---	---	---	---	---	---
04/27/20	River 1	--	--	--	NA	NA	NA	5,270	811	530	224	9	1,540	1,680	<1	7.02	8.06	---	---	---	---	---	---
07/28/20	River 1	--	--	--	NA	NA	NA	5,660	837	549	229	7	1,700	1,760	<1	7.47	8.17	---	---	---	---	---	---
10/29/20	River 1	--	--	--	NA	NA	NA	4,910	790	501	215	11	1,370	1,740	<1	6.97	8.07	---	---	---	---	---	---
01/27/21	River 1	--	--	--	6.062	7.70	10.6	4,580	759	554	226	10	1,320	1,740	<1	6.73	8.05	---	---	---	---	---	---
04/27/21	River 1	--	--	--	7.335	8.37	20.2	5,280	787	525	223	8	1,200	1,750	<1	7.15	7.99	---	---	---	---	---	---
07/27/21	River 1	--	--	--	1.87	8.32	30	2,070	311	249	94	6	600	782	<1	3.14	8.39	---	---	---	---	---	---
10/26/21	River 1	--	--	--	2.882	8.07	20.1	4,210	645	467	183	6	1,140	1,470	<1	6.03	8.05	---	---	---	---	---	---
01/20/22	River 1	--	--	--	3.538	7.93	8.7	4,200	612	471	179	7	1,100	1,650	<1	6.13	8.06	---	---	---	---	---	---
04/27/22	River 1	--	--	--	5.835	7.79	20.7	4,480	669	500	198	7	1,240	1,490	<1	6.30	7.93	---	---	---	---	---	---
07/26/22	River 1	--	--	--	6.769	7.74	31.6	4,470	673	405	175	<8	1,200	1,580	<1	6.21	8.16	---	---	---	---	---	---
10/24/22	River 1	--	--	--	6.325	8.01	17.4	4,010	609	433	173	7	1,240	1,480	<1	5.93	8.23	---	---	---	---	---	---
01/24/23	River 1	--	--	--	5.193	8.01	8.4	4,100	592	438	172	6	1,180	1,370	<1	6.36	8.17	<1.5	<0.60	<0.50	NA	NA	NA
River 2																							
02/16/16	River 2	--	--	--	NA	NA	NA	3,750	676	459	144	<20	1,260	1,141	151	5.14	7.10	---	---	---	---	---	---
04/14/16	River 2	--	--	--	NA	NA	NA	4,166	727	480	188	<20	1,202	1,662	188	6.76	7.96	---	---	---	---	---	---
08/08/16	River 2	--	--	--	NA	NA	NA	5,064	781	468	196	10	1,487	1,724	135	5.47	7.96	---	---	---	---	---	---
11/30/16	River 2	--	--	--	NA	NA	NA	4,532	754	459	190	<20	1,394	1,633	187	8.22	7.93	---	---	---	---	---	---

TABLE 2
WATER QUALITY MONITORING RESULTS

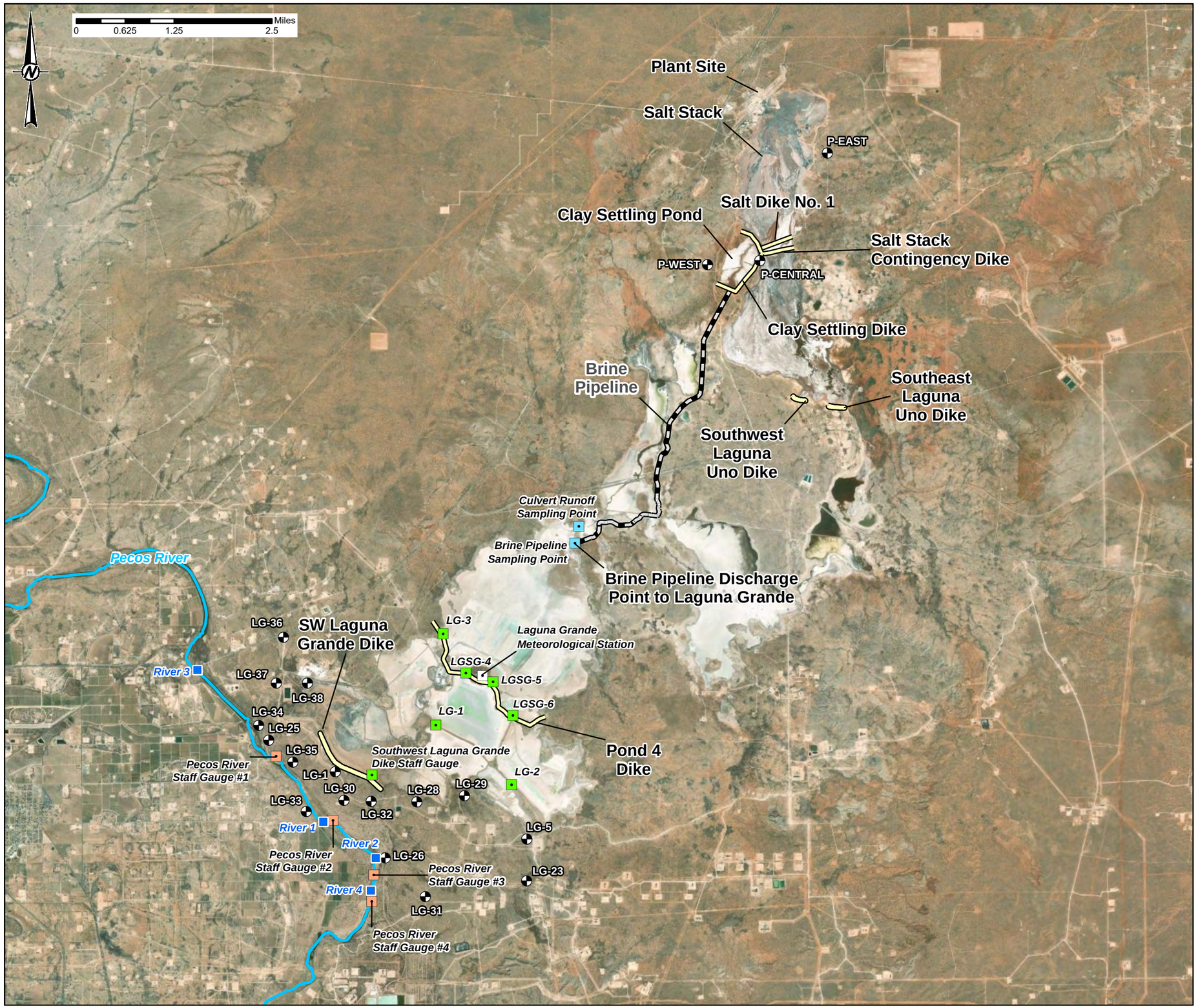
Date[1]	Well / Sampling Location	FIELD MEASUREMENTS						LABORATORY ANALYSES														
								DP-1399 Reporting Requirements									S1AP Reporting Requirements					
		Depth to Water (feet)	TOC Elevation[2] (feet amsl)	WL Elevation (feet amsl)	Specific Conductivity (mS/cm)	pH (std. units)	Temperature (°C)	TDS (ppm)	Sodium (ppm)	Calcium (ppm)	Magnesium (ppm)	Potassium (ppm)	Chloride (ppm)	Sulfate (ppm)	Alkalinity (ppm as $CaCO_3$)[6]	Specific Conductivity (mS/cm)	pH (std. units)	Boron (ppm)	Bromine (ppm)	Selenium (ppm)	TSS (ppm)	Fecal Coliform (MPN/100 mL)	Total Nitrogen (ppm)
03/14/17	River 2	--	--	--	NA	NA	NA	5,147	841	483	220	12	1,362	1,762	92	9.18	7.60	---	---	---	---	---	---
05/12/17	River 2	--	--	--	NA	NA	NA	4,936	723	429	182	11	1,288	1,625	174	6.39	7.99	---	---	---	---	---	---
07/28/17	River 2	--	--	--	NA	NA	NA	5,264	871	501	224	<50	1,496	1,665	132	6.87	8.17	---	---	---	---	---	---
11/11/17	River 2	--	--	--	NA	NA	NA	5,055	760	456	196	<20	1,416	1,725	207	6.94	7.54	---	---	---	---	---	---
02/20/18	River 2	--	--	--	NA	NA	NA	4,610	865	516	219	73	1,440	1,590	208	6.81	8.20	---	---	---	---	---	---
04/06/18	River 2	--	--	--	NA	NA	NA	4,900	809	512	218	12	1,460	1,760	188	6.93	7.97	---	---	---	---	---	---
07/28/18	River 2	--	--	--	NA	NA	NA	5,340	883	515	230	18	1,660	1,620	148	7.18	8.04	---	---	---	---	---	---
10/06/18	River 2	--	--	--	NA	NA	NA	5,060	862	482	206	13	1,500	1,840	168	7.47	8.02	---	---	---	---	---	---
01/11/19	River 2	--	--	--	NA	NA	NA	4,750	885	565	236	11	1,560	1,710	268	7.22	7.96	---	---	---	---	---	---
04/05/19	River 2	--	--	--	NA	NA	NA	5,000	773	458	197	14	1,640	1,540	254	6.97	7.82	---	---	---	---	---	---
07/26/19	River 2	--	--	--	NA	NA	NA	5,160	860	495	211	14	1,600	1,660	160	6.60	8.11	---	---	---	---	---	---
11/01/19	River 2	--	--	--	NA	NA	NA	4,860	841	518	219	8	1,600	1,720	192	7.30	7.92	---	---	---	---	---	---
01/28/20	River 2	--	--	--	NA	NA	NA	4,640	690	480	189	9	1,340	1,560	<1	6.59	8.24	---	---	---	---	---	---
04/27/20	River 2	--	--	--	NA	NA	NA	5,590	868	530	230	14	1,780	1,690	<1	7.31	8.04	---	---	---	---	---	---
07/28/20	River 2	--	--	--	NA	NA	NA	5,580	960	537	247	13	1,830	1,680	<1	7.67	8.07	---	---	---	---	---	---
10/28/20	River 2	--	--	--	NA	NA	NA	5,460	909	530	225	12	1,580	1,840	<1	7.71	8.21	---	---	---	---	---	---
01/27/21	River 2	--	--	--	7.162	8.2	9.9	4,930	815	559	233	15	1,420	1,720	<1	7.18	8.14	---	---	---	---	---	---
04/27/21	River 2	--	--	--	7.865	8.65	20.2	5,640	884	539	242	14	1,520	1,740	<1	7.84	8.05	---	---	---	---	---	---
07/27/21	River 2	--	--	--	2.13	8.36	31	2,360	380	265	108	10	750	795	<1	3.70	8.53	---	---	---	---	---	---
10/26/21	River 2	--	--	--	4.342	7.94	21	4,700	736	473	197	11	1,200	1,620	<1	6.66	7.98	---	---	---	---	---	---
01/20/22	River 2	--	--	--	3.705	8.07	8.6	4,530	675	477	186	13	1,400	1,920	<1	6.66	8.17	---	---	---	---	---	---
04/26/22	River 2	--	--	--	6.823	8.29	20.9	5,040	798	502	210	14	1,640	1,680	<1	7.15	8.02	---	---	---	---	---	---
07/26/22	River 2	--	--	--	7.251	7.59	29.1	4,680	758	461	201	12	1,540	1,820	<1	6.86	8.04	---	---	---	---	---	---
10/24/22	River 2	--	--	--	7.07	7.98	17	4,480	721	457	191	12	1,360	1,470	<1	6.61	8.26	---	---	---	---	---	---
01/24/23	River 2	--	--	--	5.711	8.30	8.1	4,400	693	466	190	11	1,280	1,450	<1	7.37	8.35	<3.0	<0.8	<1.0	NA	NA	NA
River 3																							
11/11/17	River 3	--	--	--	NA	NA	NA	4,458	676	451	187	<20	1,075	1,612	219	6.28	7.38	---	---	---	---	---	---
02/21/18	River 3	--	--	--	NA	NA	NA	4,000	728	471	200	43	1,200	1,500	208	6.13	8.15	---	---	---	---	---	---
04/06/18	River 3	--	--	--	NA	NA	NA	4,500	678	464	195	<10	1,320	1,680	204	6.06	7.65	---	---	---	---	---	---
07/29/18	River 3	--	--	--	NA	NA	NA	5,050	801	511	222	10	1,420	1,540	144	6.51	8.10	---	---	---	---	---	---
10/05/18	River 3	--	--	--	NA	NA	NA	4,490	732	447	190	<10	1,400	1,780	156	6.57	8.10	---	---	---	---	---	---
01/12/19	River 3	--	--	--	NA	NA	NA	3,670	734	532	215	5	1,080	1,620	296	6.30	7.89	---	---	---	---	---	---
04/06/19	River 3	--	--	--	NA	NA	NA	4,530	630	422	175	<10	1,220	1,510	244	6.12	7.85	---	---	---	---	---	---
07/26/19	River 3	--	--	--	NA	NA	NA	4,830	765	477	199	10	1,340	1,600	192	5.97	8.08	---	---	---	---	---	---
11/01/19	River 3	--	--	--	NA	NA	NA	4,620	767	521	224	7	1,240	1,540	164	6.66	7.92	---	---	---	---	---	---
01/29/20	River 3	--	--	--	NA	NA	NA	4,490	753	597	229	9	1,180	1,520	<1	6.25	8.14	---	---	---	---	---	---
04/28/20	River 3	--	--	--	NA	NA	NA	5,530	850	545	242	9	1,680	1,790	<1	7.57	8.07	---	---	---	---	---	---
07/29/20	River 3	--	--	--	NA	NA	NA	5,490	823	569	225	8	1,630	1,760	<1	7.30	8.20	---	---	---	---	---	---
10/29/20	River 3	--	--	--	NA	NA	NA	4,960	791	504	211	9	1,420	1,680	<1	7.01	8.25	---	---	---	---	---	---
01/27/21	River 3	--	--	--	5.461	7.52	10.8	4,730	732	546	223	8	1,300	1,710	<1	6.54	8.12	---	---	---	---	---	---
04/27/21	River 3	--	--	--	6.634	8.14	21	5,040	754	507	219	8	1,400	1,610	<1	6.89	8.08	---	---	---	---	---	---
07/27/21	River 3	--	--	--	1.838	7.95	33.6	2,030	310	255	96	6	570	686	<1	3.07	8.48	---	---	---	---	---	---
10/26/21	River 3	--	--	--	2.544	7.97	20.9	4,240	646	483	183	6	1,100	1,420	<1	5.96	7.71	---	---	---	---	---	---
01/20/22	River 3	--	--	--	3.369	7.85	9.4	4,130	590	453	172	7	1,140	1,750	<1	5.98	8.07	---	---	---	---	---	---
04/27/22	River 3	--	--	--	5.993	7.68	23.1	4,300	652	493	196	7	1,200	2,100	<1	6.12	7.99	---	---	---	---	---	---
07/26/22	River 3	--	--	--	6.653	7.66	33.7	4,290	775	412	182	7	1,280	1,480	<1	5.98	8.26	---	---	---	---	---	---
10/25/22	River 3	--	--	--	4.301	8.2	15.6	3,870	586	417	170	6	1,100	1,430	<1	5.72	8.19	---	---	---	---	---	---
01/24/23	River 3	--	--	--	5.105	7.97	8.5	3,990	581	438	173	6	1,140	1,380	<1	6.19	8.21	<1.5	<0.60	<0.50	NA	NA	NA
River 4																							
01/19/22	River 4	--	--	--	3.54	7.99	12.1	4,560	652	443	176	13	1,300	1,770	<1	6.73	8.25	---	---	---	---	---	---
04/26/22	River 4	--	--	--	6.87	7.58	20.4	5,150	818	504	212	16	1,560	1,620	<1	7.38	8.03	---	---	---	---	---	---
07/26/22	River 4	--	--	--	8.08	7.36	29.7	5,210	814	454	203	17	1,780	1,780	<1	7.37	8.03	---	---	---	---	---	---
10/24/22	River 4	--	--	--	7.27	7.25	16.5	4,560	738	501	199	15	1,440	1,300	<1	6.79	8.07	---	---	---	---	---	---
01/24/23	River 4	--	--	--	5.645	7.79	8.9	4,460	750	467	195	14	1,480	1,450	<1	7.61	8.28	<3.0	0.896	<1.0	NA	NA	NA
24" Brine Pipeline Effluent																							
11/26/12	24" Line	--	--	--	NA	NA	NA	382,000	110,000	77	7,200	43,000	190,000	42,000	130	680.0	7.5	---	---	---	---	---	---
11/26/12	24" Line	--	--	--	NA	NA	NA	320,800	89,000	21	6,210	37,194	156,600	31,684	213	765	7.8	---	---	---	---	---	---
04/29/13	24" Line	--	--	--	NA	NA	NA	401,000	NA	NA	NA	NA	NA	NA	350	670	7.4	---	---	---	---	---	---
04/29/13	24" Line	--	--	--	NA	NA	NA	317,800	79,700	11	8,542	36,503	149,100	43,959	306	778	7.9	---	---	---	---	---	---
07/31/13	24" Line	--	--	--	NA	NA	NA	301,500	156,500	30	7,901	29,444	156,500	26,090	462	728	7.9	---	---	---	---	---	---
08/01/13	24" Line	--	--	--	NA	NA	NA	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	---	---	---	---	---	---
02/18/14	24" Line	--	--	--	NA	NA	NA	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	---	---	---	---	---	---
04/30/14	24" Line	--	--	--	NA	NA	NA	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	---	---	---	---	---	---
07/22/14	24" Line	--	--	--	NA	NA	NA	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	---	---	---	---	---	---
10/27/14	24" Line	--	--	--	NA	NA	NA	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	---	---	---	---	---	---
01/16/15	24" Line	--	--	--	NA	NA	NA	107,000	32,000	110	1,600	8,300	66,000	7,000	180	210	7.84	---	---	---	---	---	---
04/04/16	24" Line	--	--	--	NA	NA	NA	273,183	77,193	377	359	16,625	142,022	62,072	127	385	7.5	---	---	---	---	---	---
06/12/17	24" Line	--	--	--	NA	NA	NA	271,667	83,333	433	3,983	13,583	150,000	20,250	208	538	7.18	---	---	---	---	---	---
10/26/17	24" Line				NA	NA	NA	274,590	79,180	261	3,410	18,279	170,492	26,066	262	662	7.37	---	---	---	---	---	---
02/20/18	24" Line	--	--	--	NA	NA	NA	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	---	---	---	---	---	---
04/06/18	24" Line	--	--	--	NA	NA	NA	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	---	---	---	---	---	---
07/27/18	24" Line	--	--	--	NA	NA	NA	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	---	---	---	---	---	---
10/05/18	24" Line	--	--	--	NA	NA	NA	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	---	---	---	---	---	---
07/27/19	24" Line	--	--	--	NA	NA	NA	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	---	---	---	---	---	---
11/02/19	24" Line	--	--	--	NA	NA	NA	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	---	---	---	---	---	---
01/29/20	24" Line	--	--	--	NA	NA	NA	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	---	---	---	---	---	---

TABLE 2
WATER QUALITY MONITORING RESULTS

Date[1]	Well / Sampling Location	FIELD MEASUREMENTS						LABORATORY ANALYSES															
								DP-1399 Reporting Requirements									S1AP Reporting Requirements						
		Depth to Water (feet)	TOC Elevation[2] (feet amsl)	WL Elevation (feet amsl)	Specific Conductivity (mS/cm)	pH (std. units)	Temperature (°C)	TDS (ppm)	Sodium (ppm)	Calcium (ppm)	Magnesium (ppm)	Potassium (ppm)	Chloride (ppm)	Sulfate (ppm)	Alkalinity (ppm as $CaCO_3$)[6]	Specific Conductivity (mS/cm)	pH (std. units)	Boron (ppm)	Bromine (ppm)	Selenium (ppm)	TSS (ppm)	Fecal Coliform (MPN/100 mL)	Total Nitrogen (ppm)
04/28/20	24" Line	--	--	--	NA	NA	NA	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	---	---	---	---	---	---
06/22/20	24" Line	--	--	--	NA	NA	NA	269,000	63,700	417	9,100	21,200	122,000	48,400	<1	207,000	7.54	---	---	---	---	---	---
12/21/20	24" Line	--	--	--	NA	NA	NA	284,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
01/11/21	24" Line	--	--	--	NA	NA	NA	254,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
02/01/21	24" Line	--	--	--	NA	NA	NA	285,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
02/22/21	24" Line	--	--	--	NA	NA	NA	199,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
03/15/21	24" Line	--	--	--	NA	NA	NA	297,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
03/22/21	24" Line	--	--	--	NA	NA	NA	293,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
04/05/21	24" Line	--	--	--	NA	NA	NA	285,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
04/26/21	24" Line	--	--	--	NA	NA	NA	173,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
05/03/21	24" Line	--	--	--	NA	NA	NA	341,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
05/17/21	24" Line	--	--	--	NA	NA	NA	287,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
05/24/21	24" Line	--	--	--	NA	NA	NA	265,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
06/07/21	24" Line	--	--	--	NA	NA	NA	298,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
06/28/21	24" Line	--	--	--	NA	NA	NA	201,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
07/19/21	24" Line	--	--	--	NA	NA	NA	283,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
07/26/21	24" Line	--	--	--	NA	NA	NA	257,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
08/09/21	24" Line	--	--	--	NA	NA	NA	305,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
09/01/21	24" Line	--	--	--	NA	NA	NA	279,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
09/06/21	24" Line	--	--	--	NA	NA	NA	291,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
10/12/21	24" Line	--	--	--	NA	NA	NA	115,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
01/03/22	24" Line	--	--	--	NA	NA	NA	240,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
04/02/22	24" Line	--	--	--	NA	NA	NA	326,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
10/03/22	24" Line	--	--	--	NA	NA	NA	369,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
01/25/23	24" Line	--	--	--	216.78	7.75	4.4	294,000	96,400	609	2,670	7,920	164,000	13,900	<1	279	7.54	<72.0	<25.0	<24.0	4030	<50	<25.0
Laguna Uno Decant Structure																							
07/10/22	Laguna Uno	--	--	--	NA	NA	NA	306,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---	---	---	---
Laguna Natural Runoff Culvert																							
01/25/23	Runoff Culvert	--	--	--	216.53	8.14	5.6	289,000	15,700	490	4,520	15,700	174,000	17,000	<1	273	7.65	<72.0	36.8	<24.0	124	NA	NA

NOTES:
1) The sample date is the date of sample collection for laboratory analysis. Field parameters are taken at the same time as sample collection.
2) Top of casing elevations were surveyed by Pyeatts on May 5, 2009, except for LG-3 and LG-4 which were inaccessible. LG-3 and LG-4 elevations were surveyed prior to 2005. Piezometers were surveyed in 2014.
3) During the November 2008 and February 2009 monitoring events, salinity readings were taken instead of conductivity. The salinity measurements shown in the table are in units of ppt (parts per trillion).
4) Decimal place was assumed based on results from previous sampling events.
5) Sample results from Hall Environmental were outside typical ranges. Wells were resampled and results from ENC Labs are reported.
6) Prior to 2020 alkalinity is reported as bicarbonate alkalinity.
- NA: Not Analyzed
- NM: Not Measured
- TOC: Top of Casing
- WL: Water level
- ppm: parts per million
- All cation results are for the dissolved fraction.
- For April 2007 samples, calcium was analyzed twice. The results shown in the table are the higher concentrations of the two results.
- Specific conductivity samples were not measured in November 2010 due to equipment problems. Specific conductivity measurements from January to July 2011 were unreliable and not included in the monitoring.
- Specific conductivity and pH were not measured in October 2014 due to equipment problems.
- During the fourth quarter of 2015 duplicate samples were taken of wells LG-2, LG-26, LG-30, and LG-32.
- During the second quarter of 2021 access was not available to sample LG-32.
- Reporting requirements for Boron (B), Bromine (Br), Selenium (Se), Total Suspended Solids (TSS), Fecal Coliform, and Total Nitrogen starting Q1 2023 as part of the S1AP Requirements

Figures



LEGEND

- BRINE PIPELINE
- DIKES
- PECOS RIVER
- RIVER SURFACE WATER SAMPLE
- MONITORING WELLS
- AUTOMATED METEOROLOGICAL STATION
- AUTOMATED STAFF GAUGE - LAGUNA GRANDE
- AUTOMATED STAFF GAUGE - PECOS RIVER
- WATER SAMPLING POINT

REFERENCES

1. BASEMAP: ESRI PROVIDED BASEMAP SERVICE. VIVID. MAXAR. IMAGERY COLLECTED 2020/2021.

CLIENT
MOSAIC POTASH CARLSBAD, INC.

PROJECT
MOSAIC POTASH MINE DP-1399 MONITORING

TITLE
MOSAIC DP-1399 MONITORING POINTS AND SITE FEATURES

CONSULTANT

wsp

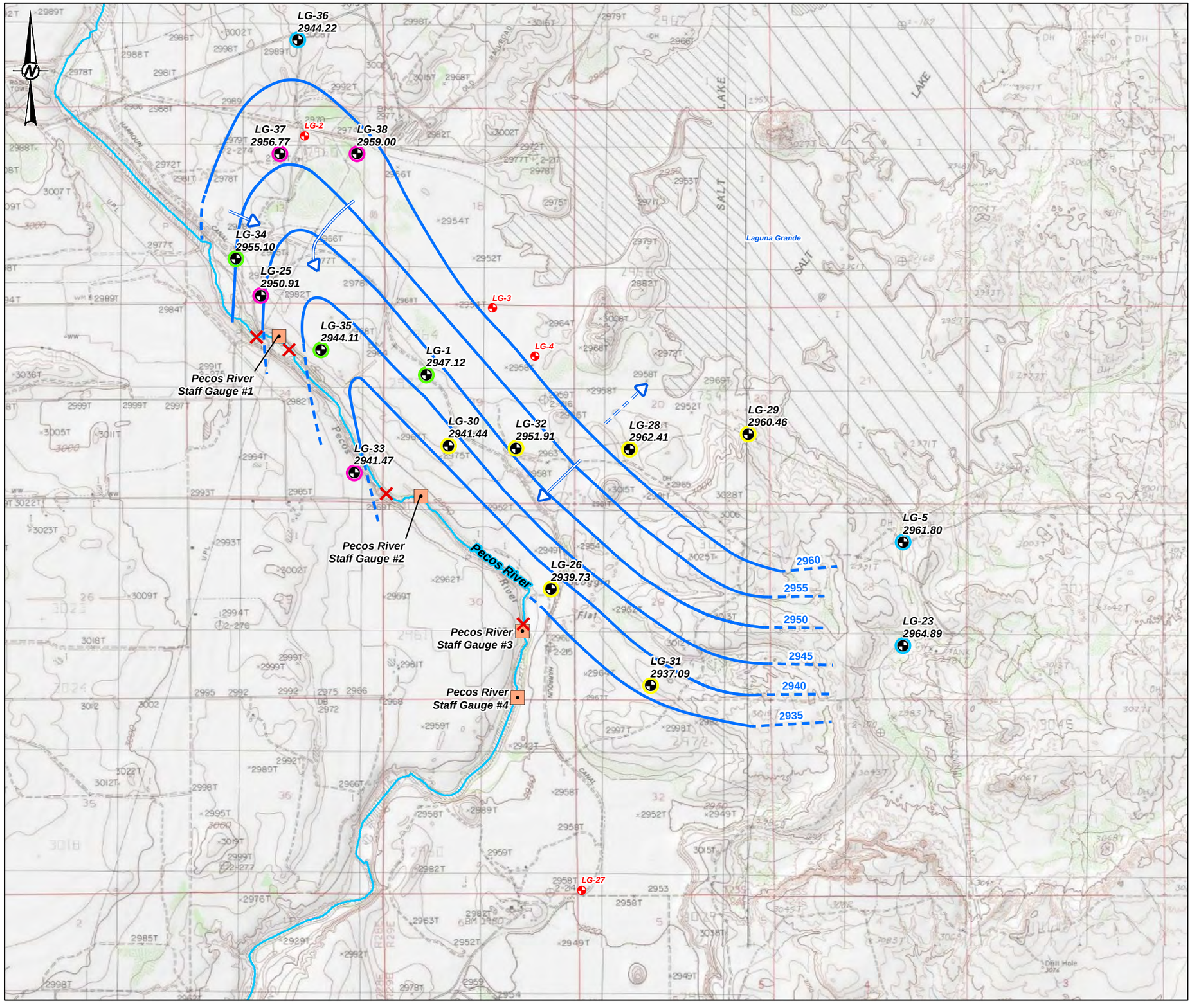
YYYY-MM-DD	2023-04-13
DESIGNED	TS
PREPARED	RHG
REVIEWED	-
APPROVED	-

PROJECT NO.
GL21502059

FIGURE
1

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B

PATH: M:\Mosaic_Stage1_Abatement_2022\202212_Stage1_Update\11x17_GL21502059_Mosaic_Fig01_DP_1399_MonitoringPoints.mxd PRINTED ON: 2023-04-13 AT 3:30:22 PM



LEGEND

- EQUIVALENT FRESHWATER HEAD ELEVATION CONTOUR (DASHED WHERE INFERRED)
- PROJECTED WATER LEVEL POINTS
- GROUNDWATER FLOW DIRECTION

MONITORING WELLS WITH Q1 2023 EQUIVALENT FRESHWATER HEAD ELEVATION (WHERE APPLICABLE)

- PRESENT
- CURRENTLY INACCESSIBLE

MONITORING WELLS BY GEOLOGIC UNIT (SEE NOTE 2)

- ALLUVIUM / CALICHE
- CALICHE
- CULEBRA
- GATUNA

0 0.25 0.5 1 Miles

NOTE

1. EQUIVALENT FRESHWATER HEAD ELEVATIONS REPORTED IN FEET ABOVE MEAN SEA LEVEL.
2. WELLS LG-5 AND 23 WERE SCREENED IN THE CULEBRA AQUIFER AND WERE NOT USED IN CONTOURING.
3. Q1 MEASUREMENTS TAKEN IN JANUARY 2013.

REFERENCES

1. BASEMAP: USGS 1:24,000 SCALE TOPOGRAPHIC QUADRANGLES: "MALAGA, NM", "PIERCE CANYON, NM", "LOVING, NM", AND "REMUDA BASIN, NM".
2. GROUNDWATER ELEVATION CONTOURS DEVELOPED BY GOLDER ASSOCIATES BASED ON JANUARY 2022 WELL DATA PROVIDED BY MOSAIC.

CLIENT
MOSAIC POTASH CARLSBAD INC.

PROJECT
MOSAIC POTASH MINE
SEMI-ANNUAL GROUNDWATER MONITORING

TITLE
Q1 2023 EQUIVALENT FRESHWATER HEAD ELEVATIONS AND FLOW DIRECTIONS LAGUNA GRANDE AREA

CONSULTANT

YYYY-MM-DD	2023-04-13
DESIGNED	JAM
PREPARED	JAM
REVIEWED	ML
APPROVED	TS

PROJECT NO. 31405860

FIGURE 2

PATH: M:\Mosaic_GWReporting\Mapping\2022\11x17_20448935_Fig02_GWELaJan2023.mxd PRINTED ON: 2023-04-13 AT: 3:27:23 PM

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B

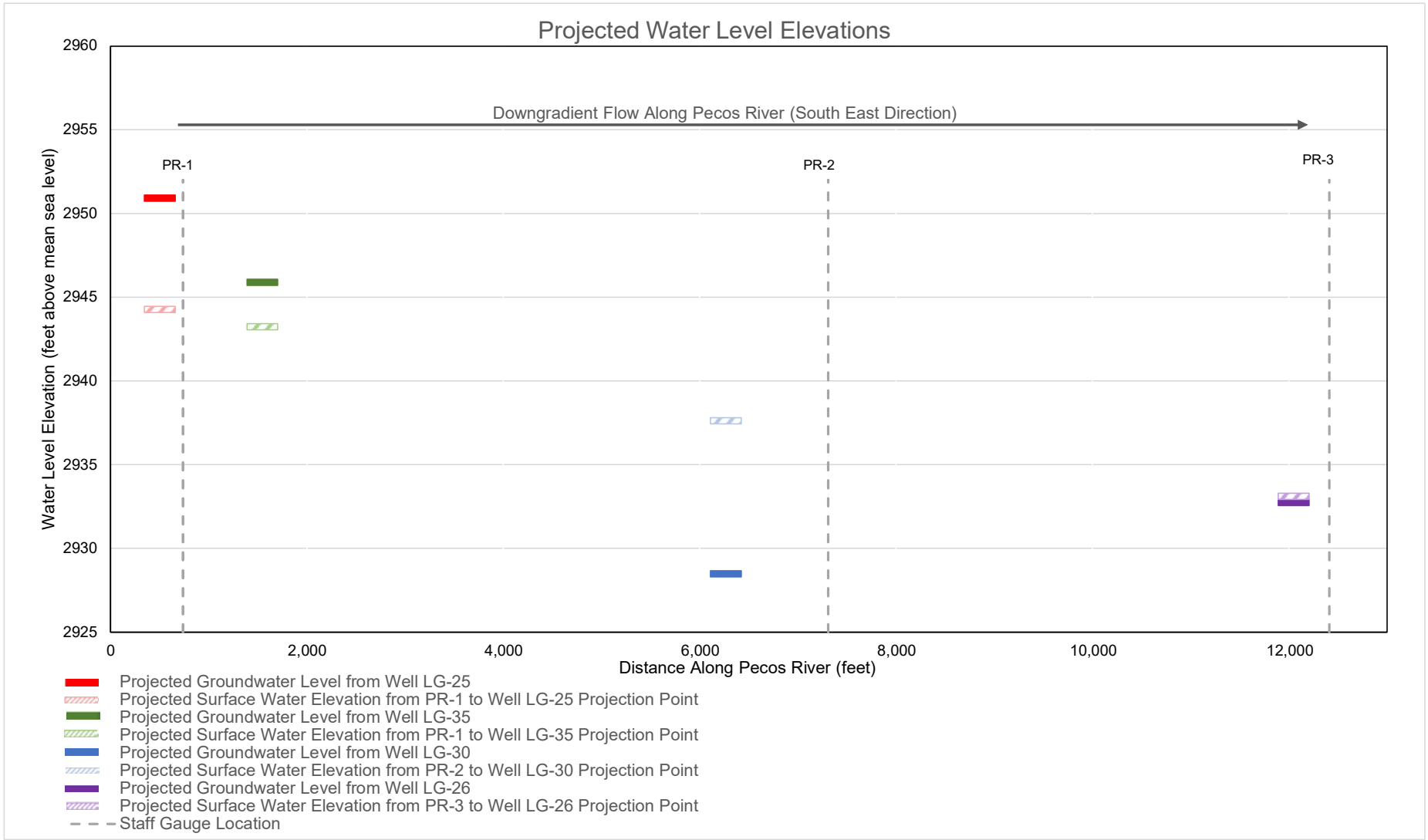


Figure 3: Projected Water Levels January 2023

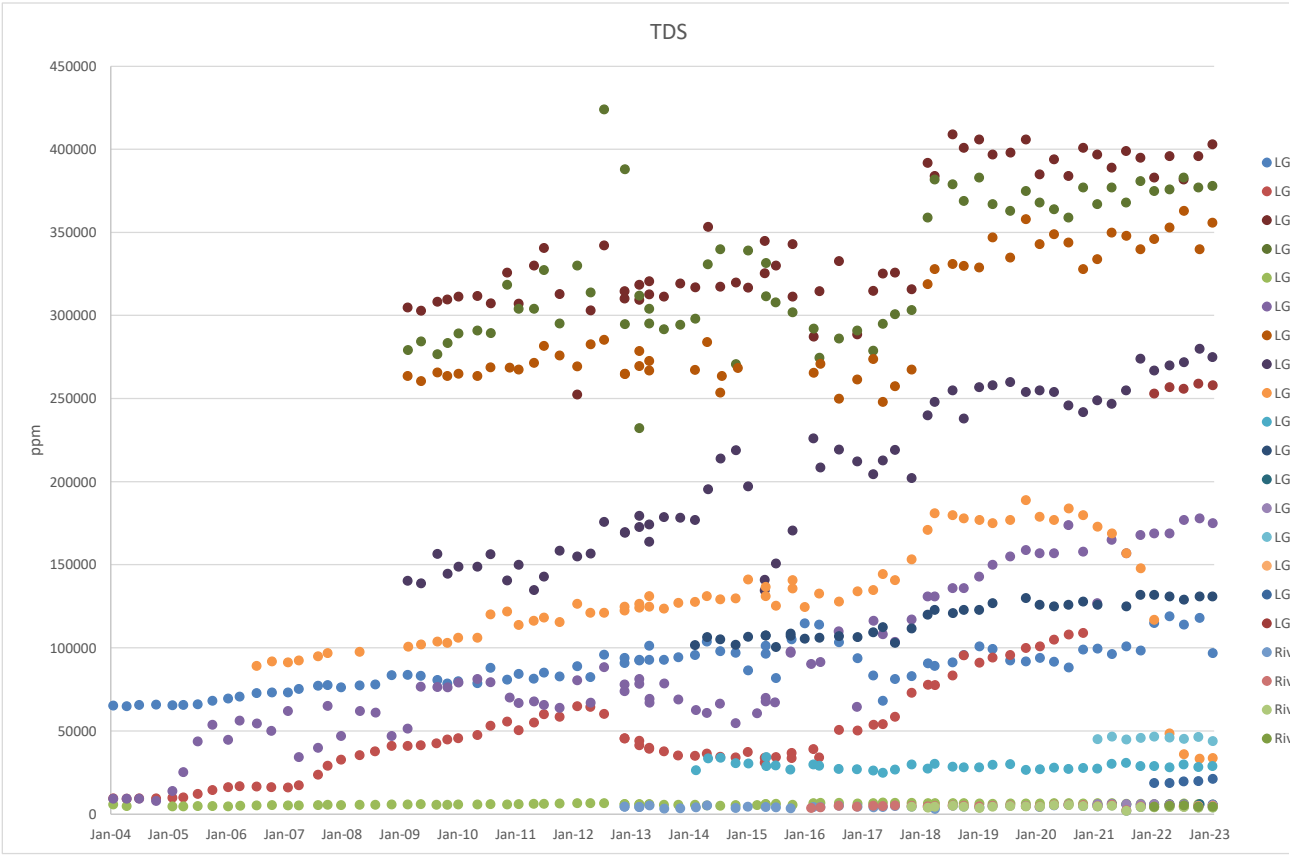


Figure 4: Total Dissolved Solids Plot for Monitoring Wells and River Sample Points.

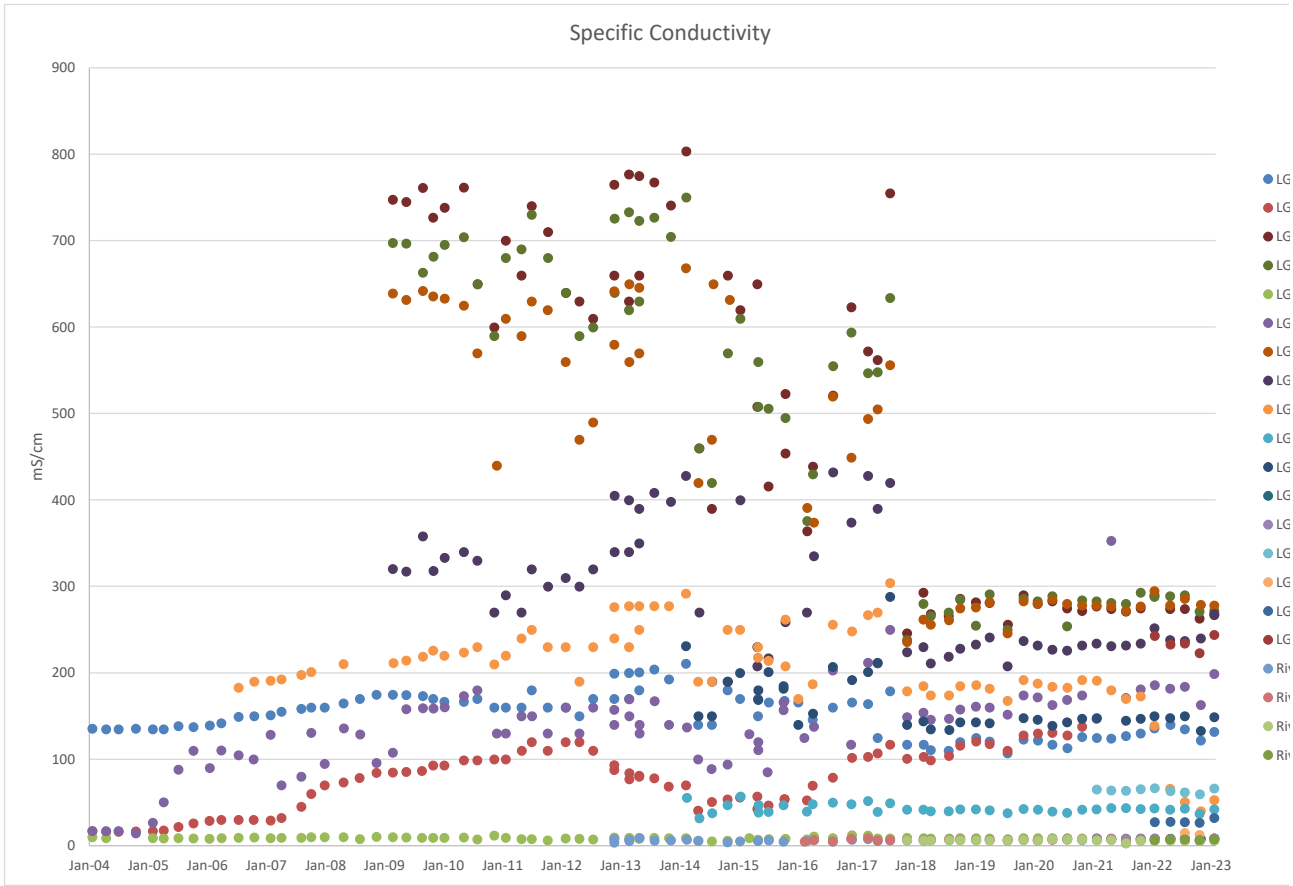


Figure 5: Specific Conductivity Plot for Monitoring Wells and River Sample Points.

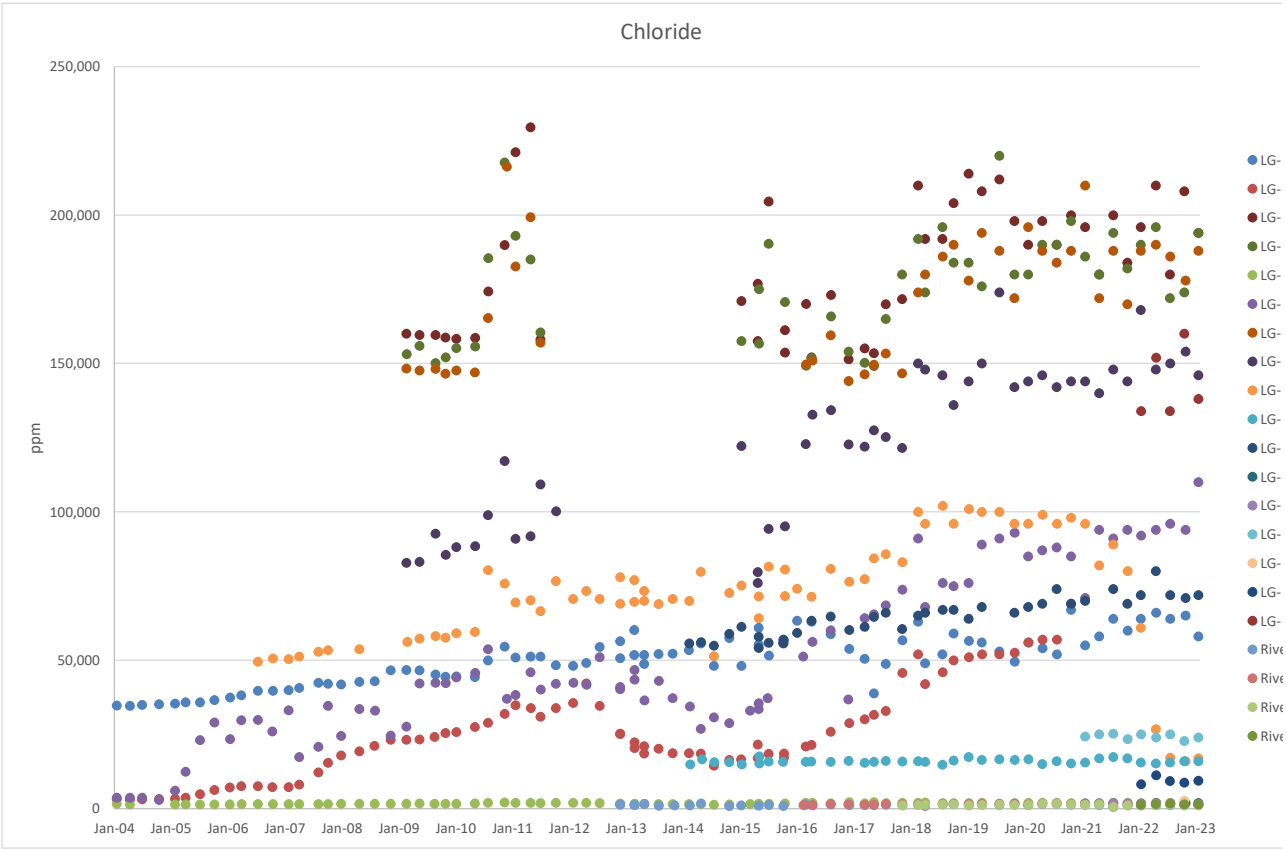


Figure 6: Chloride Plot for Monitoring Wells and River Sample Points.

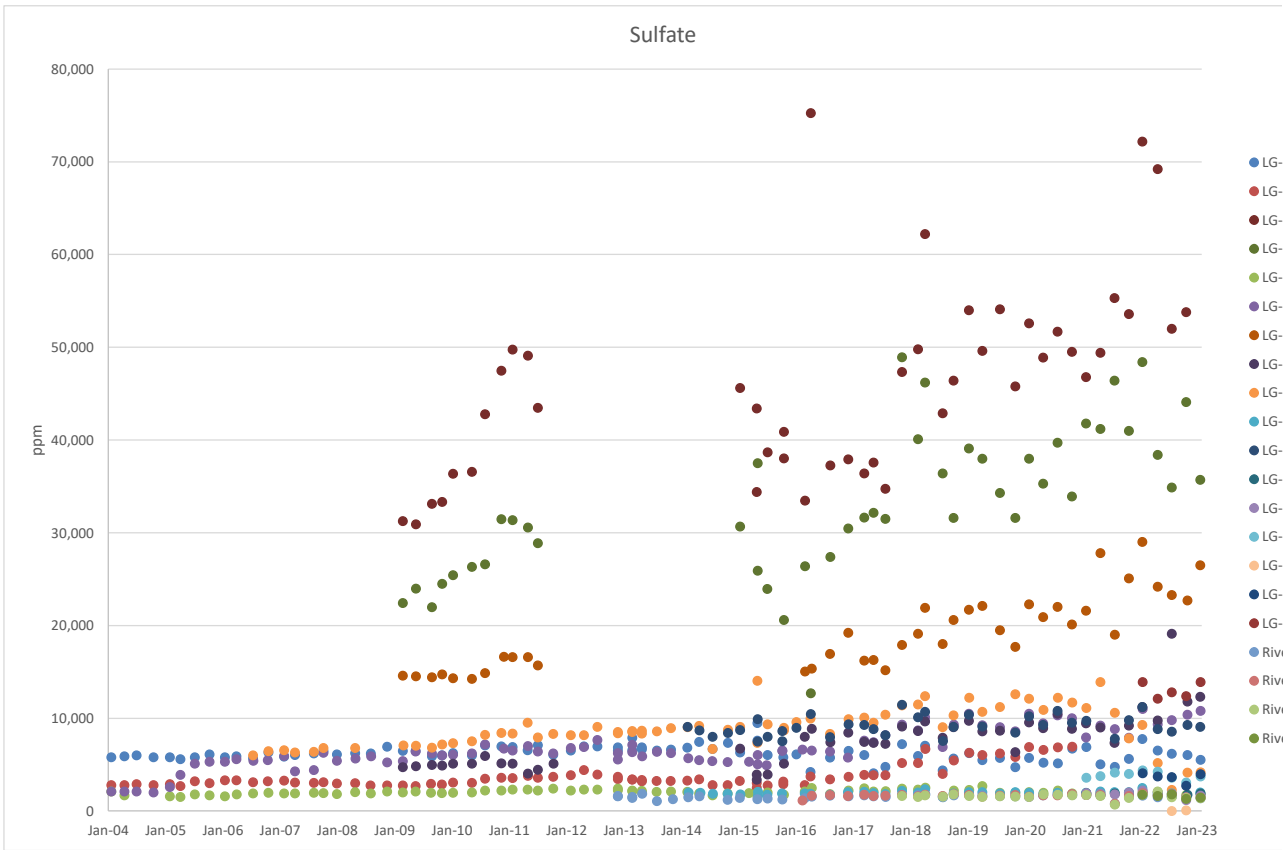


Figure 7: Sulfate Plot for Monitoring Wells and River Sample Points.

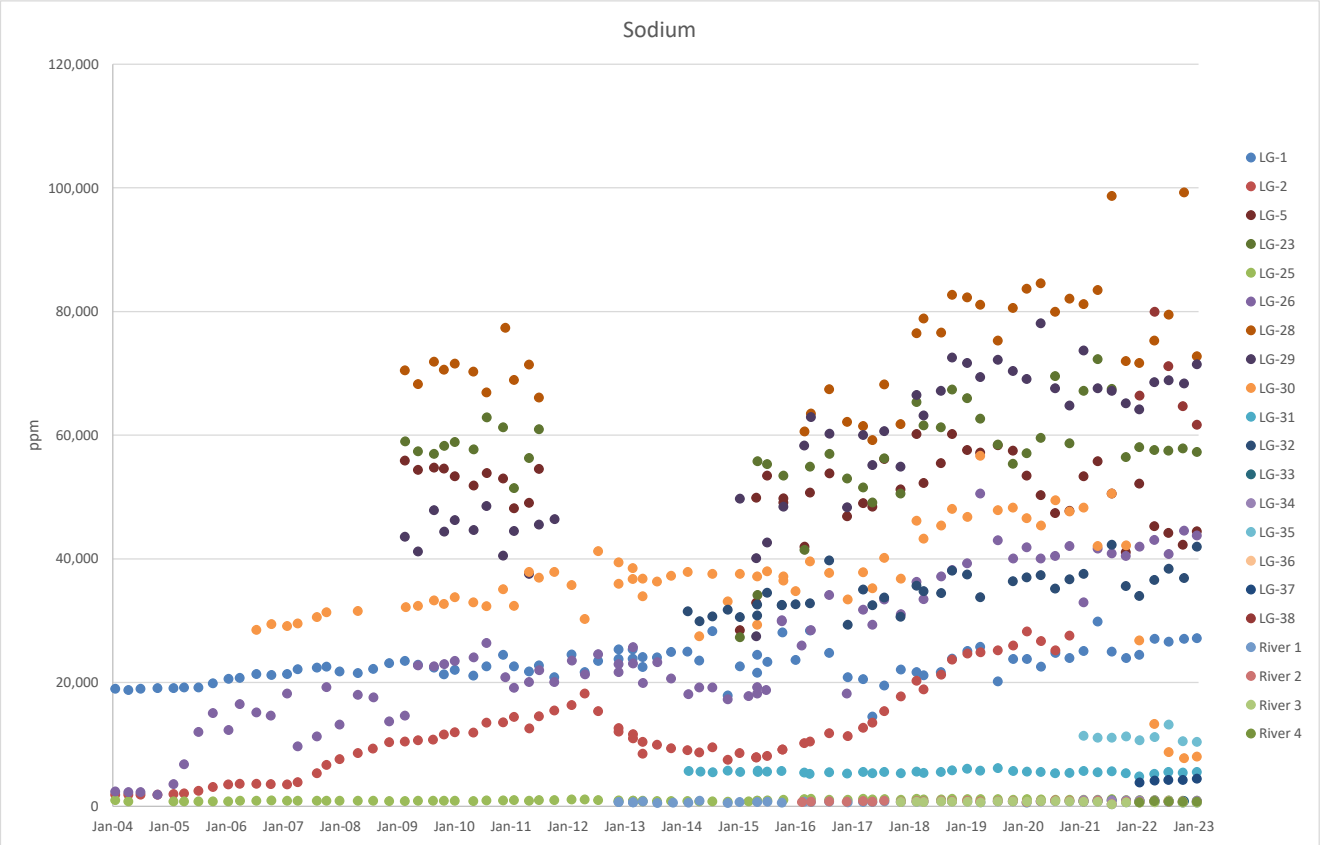


Figure 8: Sodium Plot for Monitoring Wells and River Sample Points.

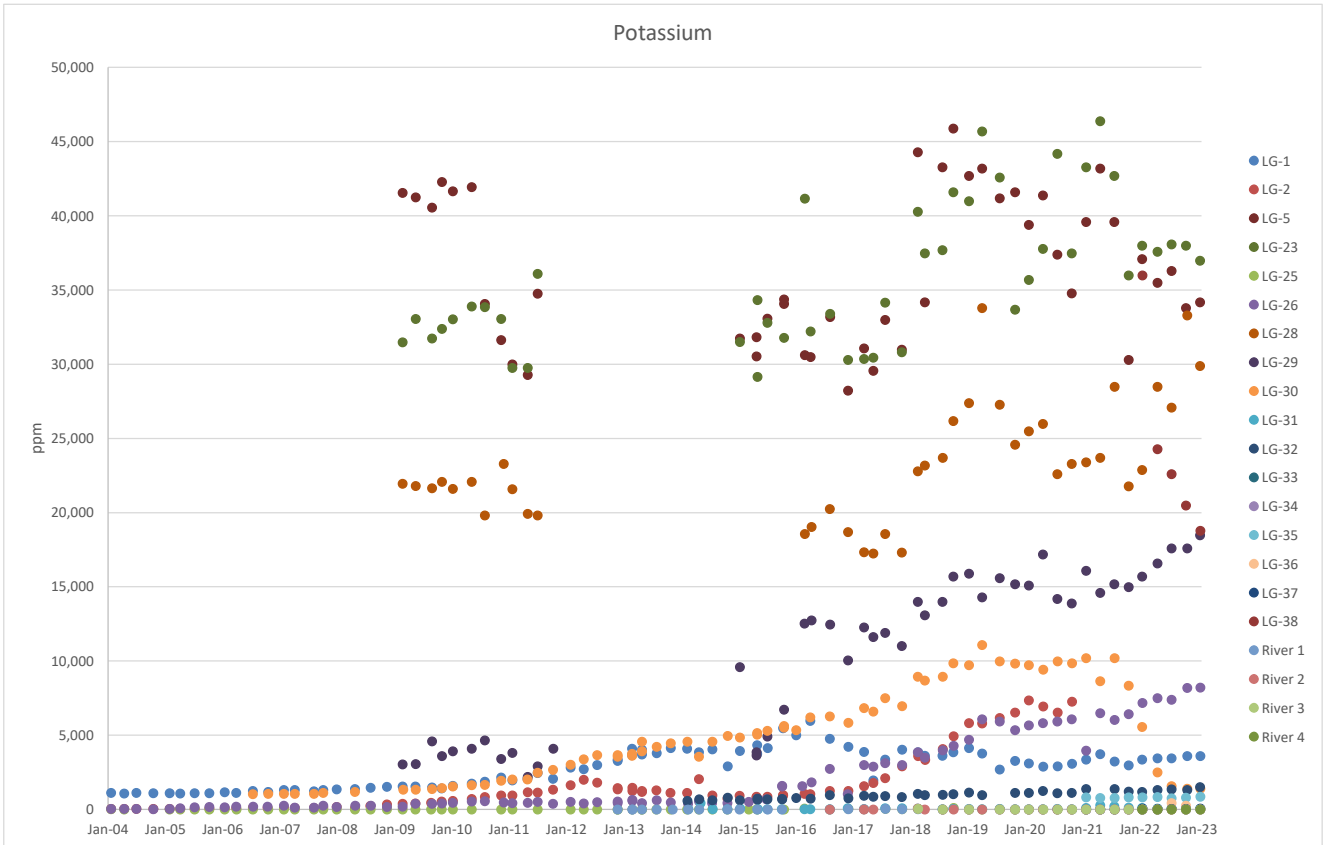


Figure 9: Potassium Plot for Monitoring Wells and River Sample Points.

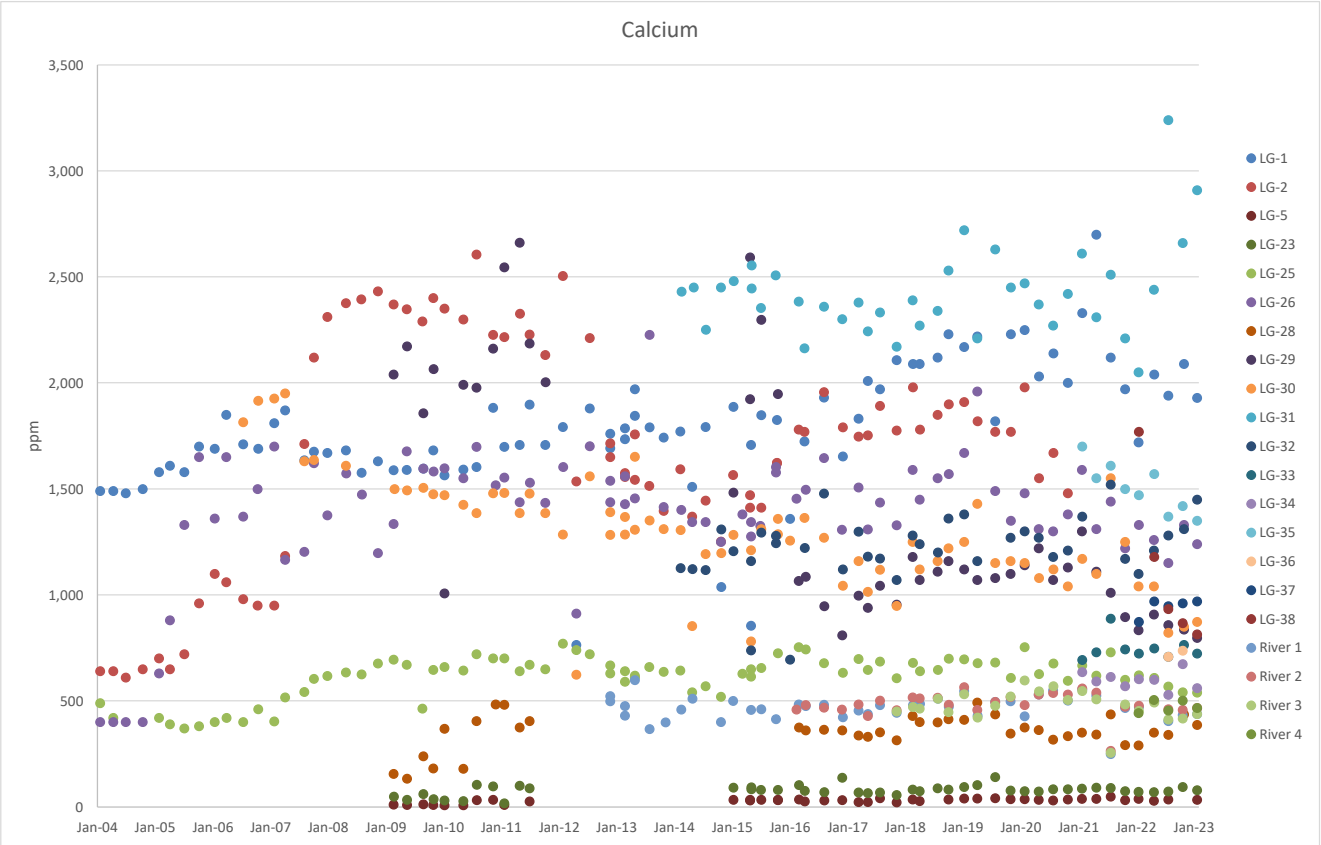


Figure 10: Calcium Plot for Monitoring Wells and River Sample Points.

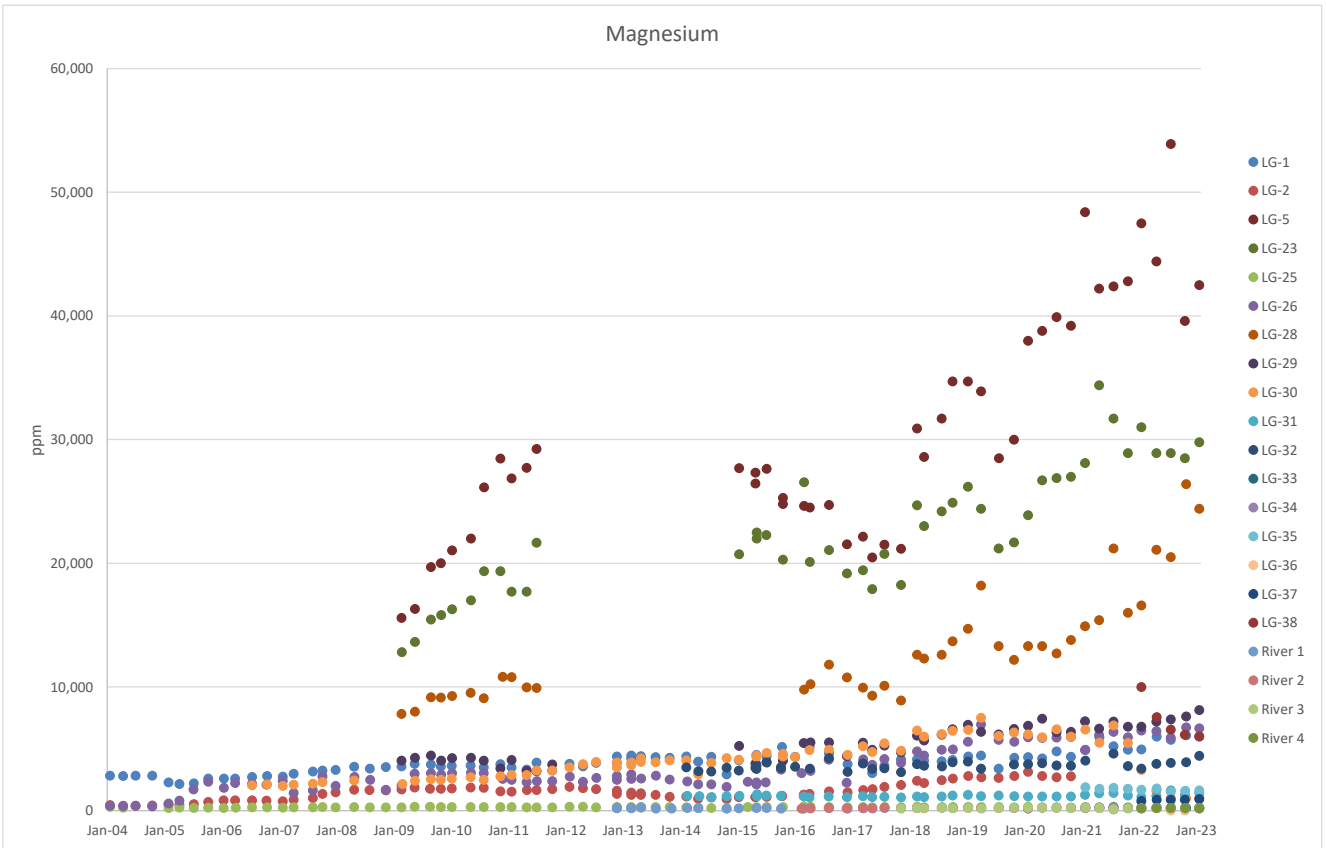


Figure 11: Magnesium Plot for Monitoring Wells and River Sample Points.

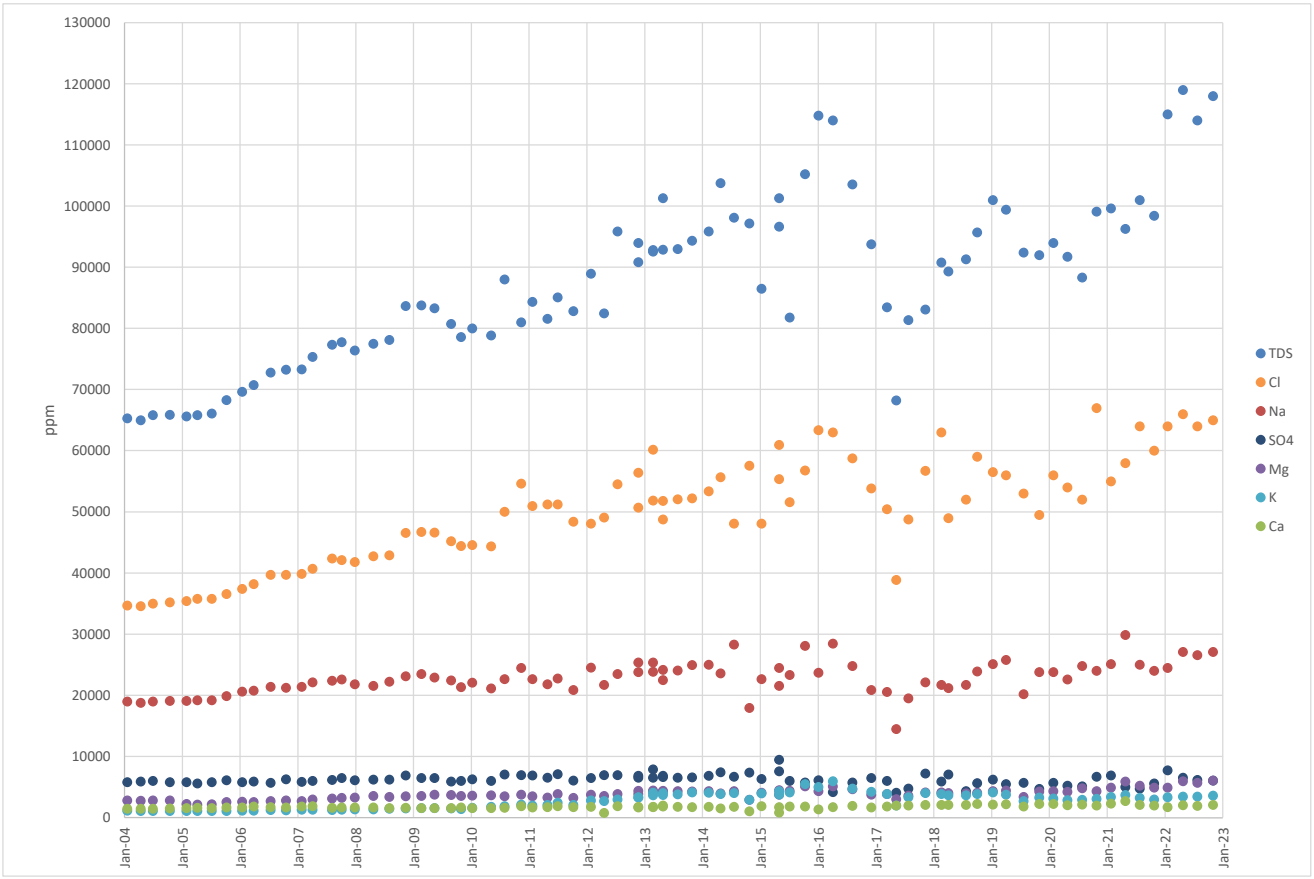


Figure 12: Concentrations of Water Quality Parameters Over Time at Well LG-1.

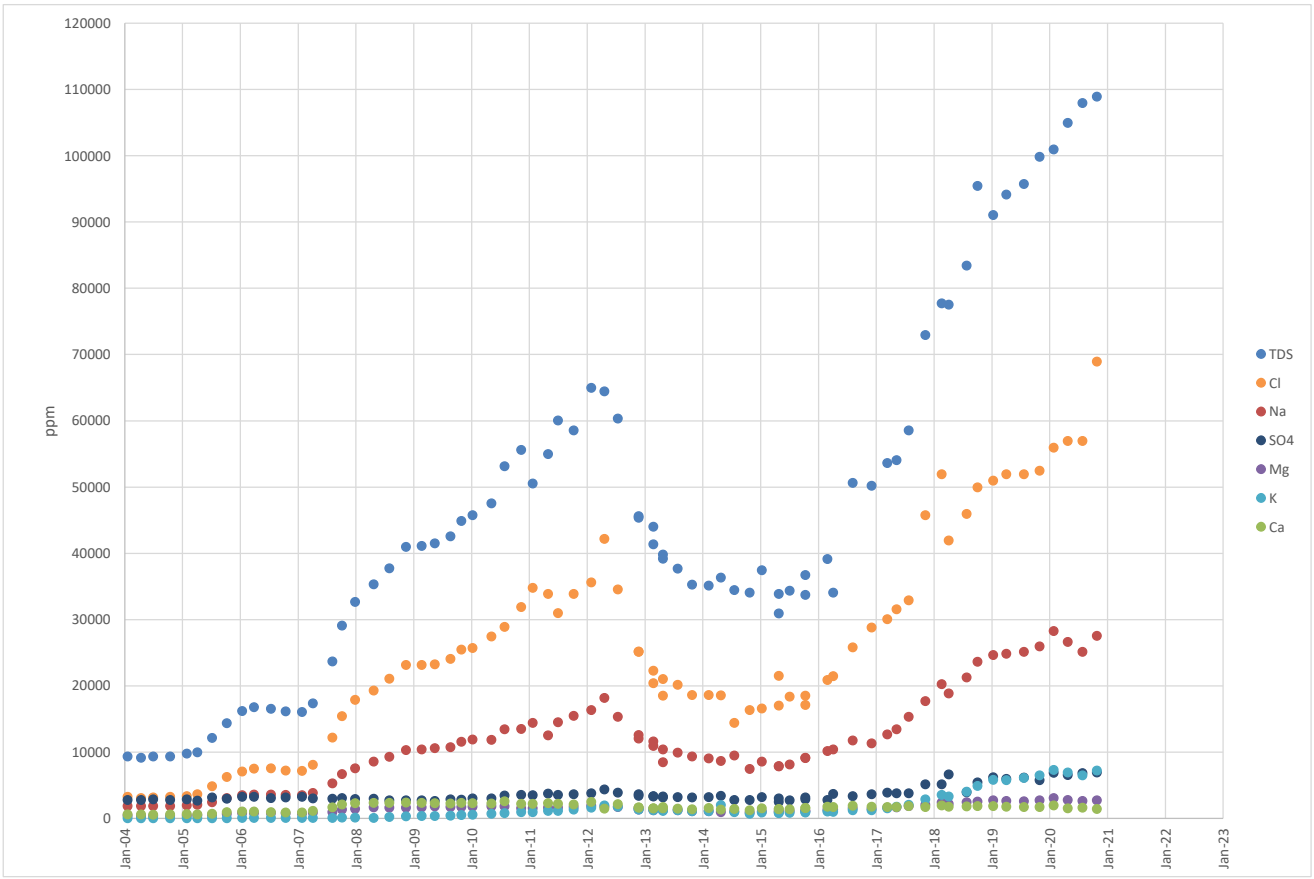


Figure 13: Concentrations of Water Quality Parameters Over Time at Well LG-2.

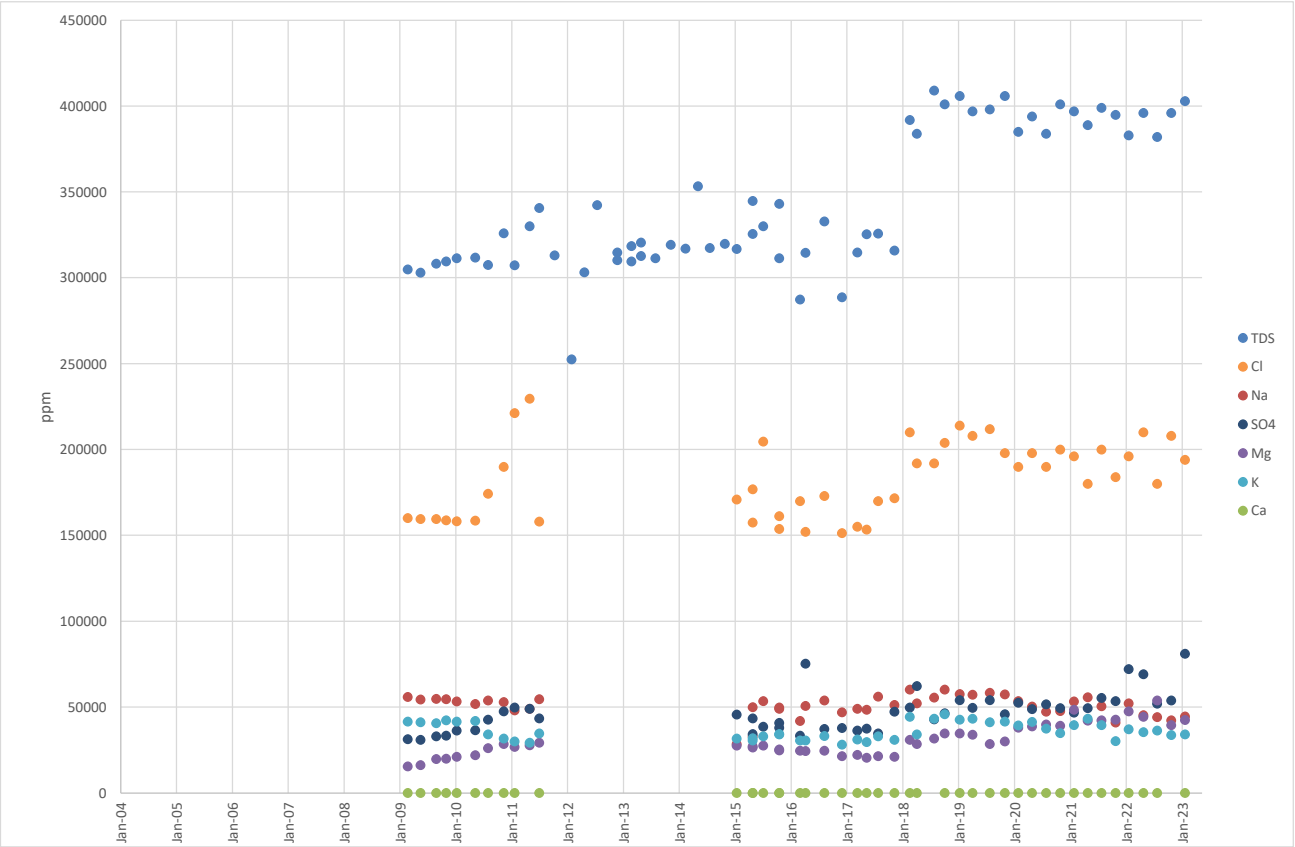


Figure 14: Concentrations of Water Quality Parameters Over Time at Well LG-5.

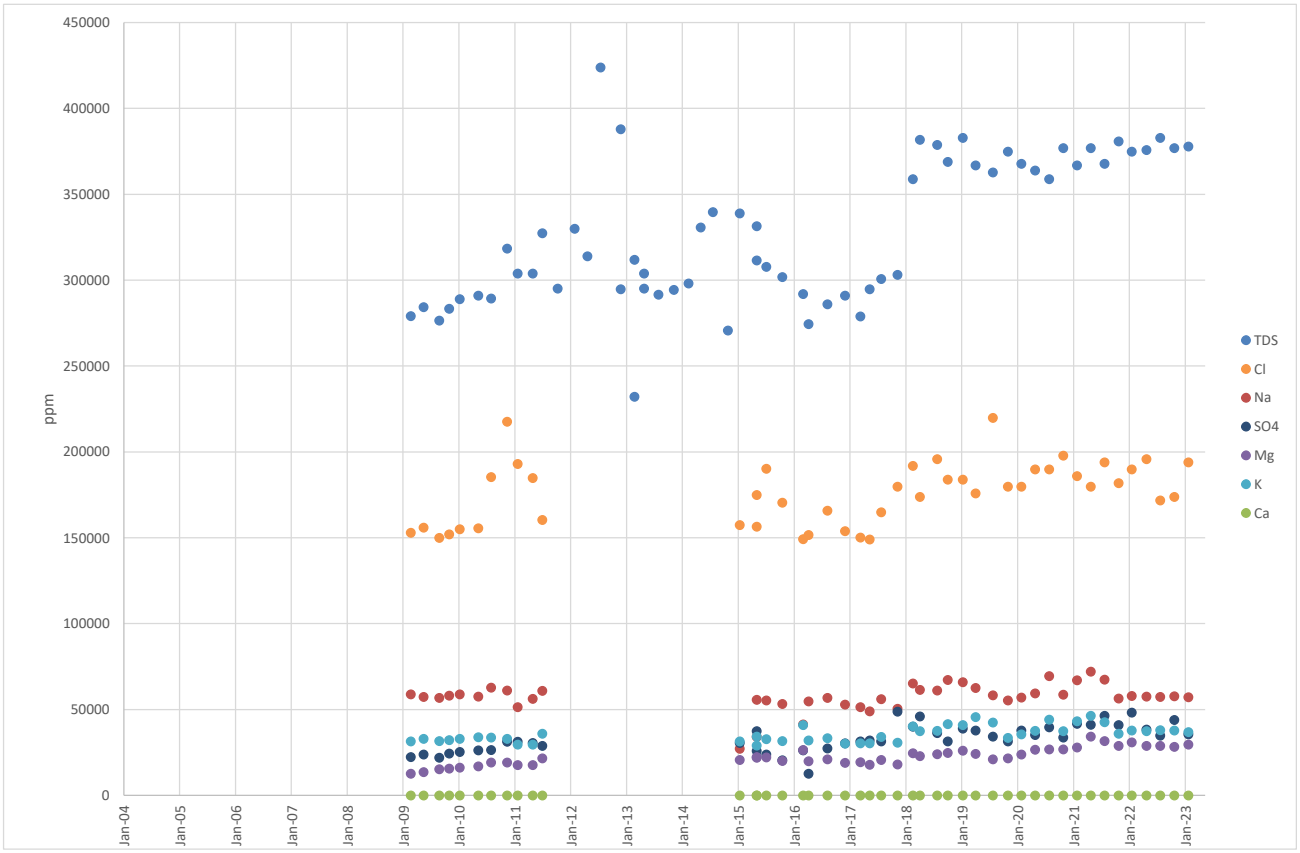


Figure 15: Concentrations of Water Quality Parameters Over Time at Well LG-23.

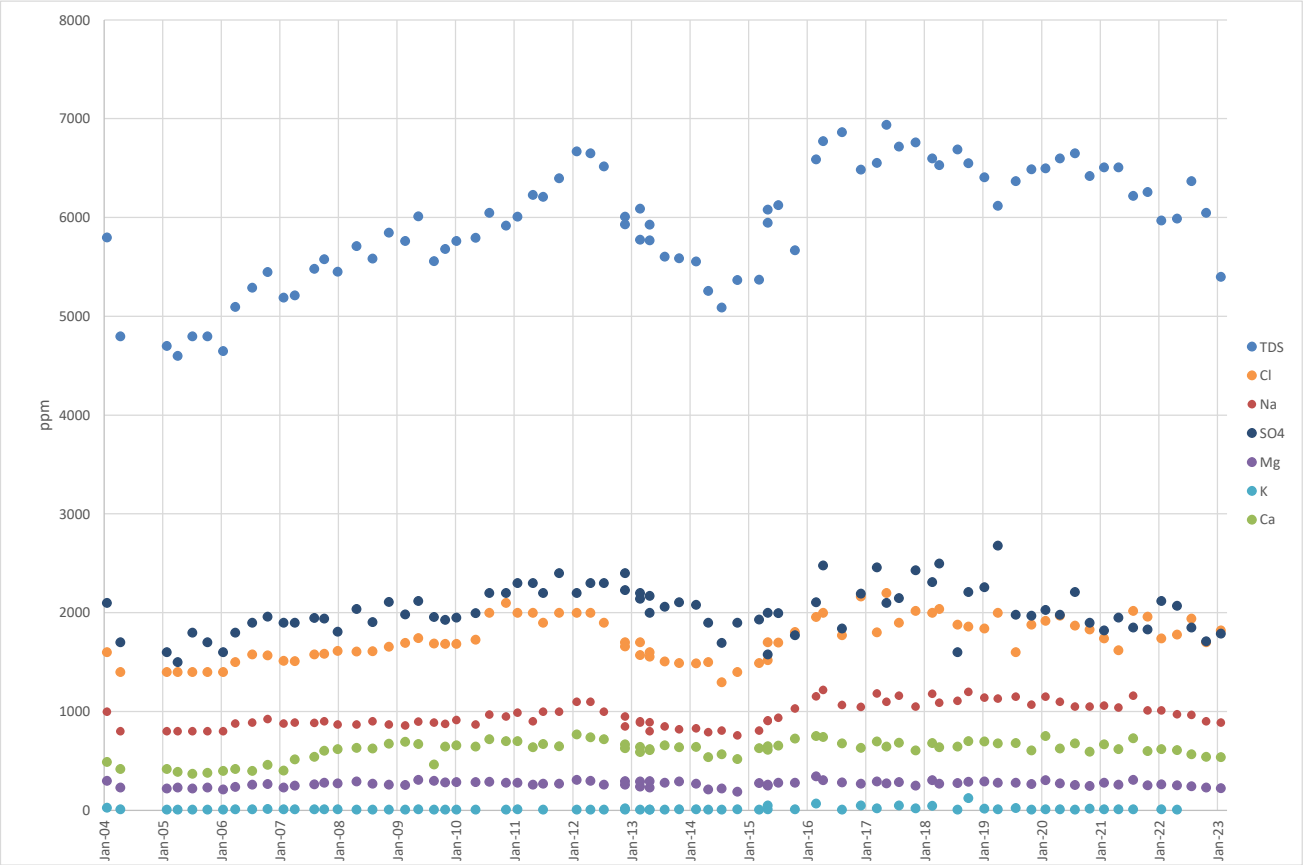


Figure 16: Concentrations of Water Quality Parameters Over Time at Well LG-25.

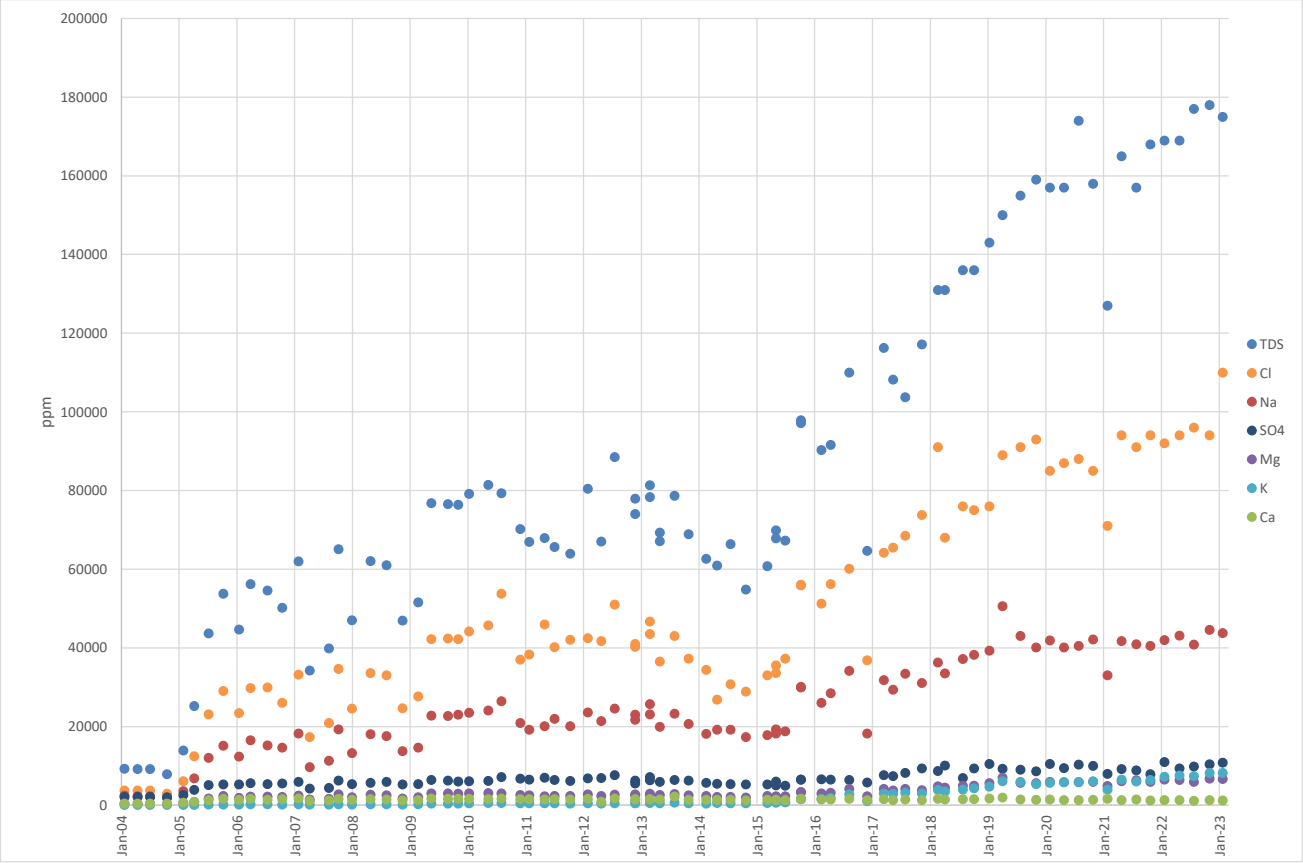


Figure 17: Concentrations of Water Quality Parameters Over Time at Well LG-26.

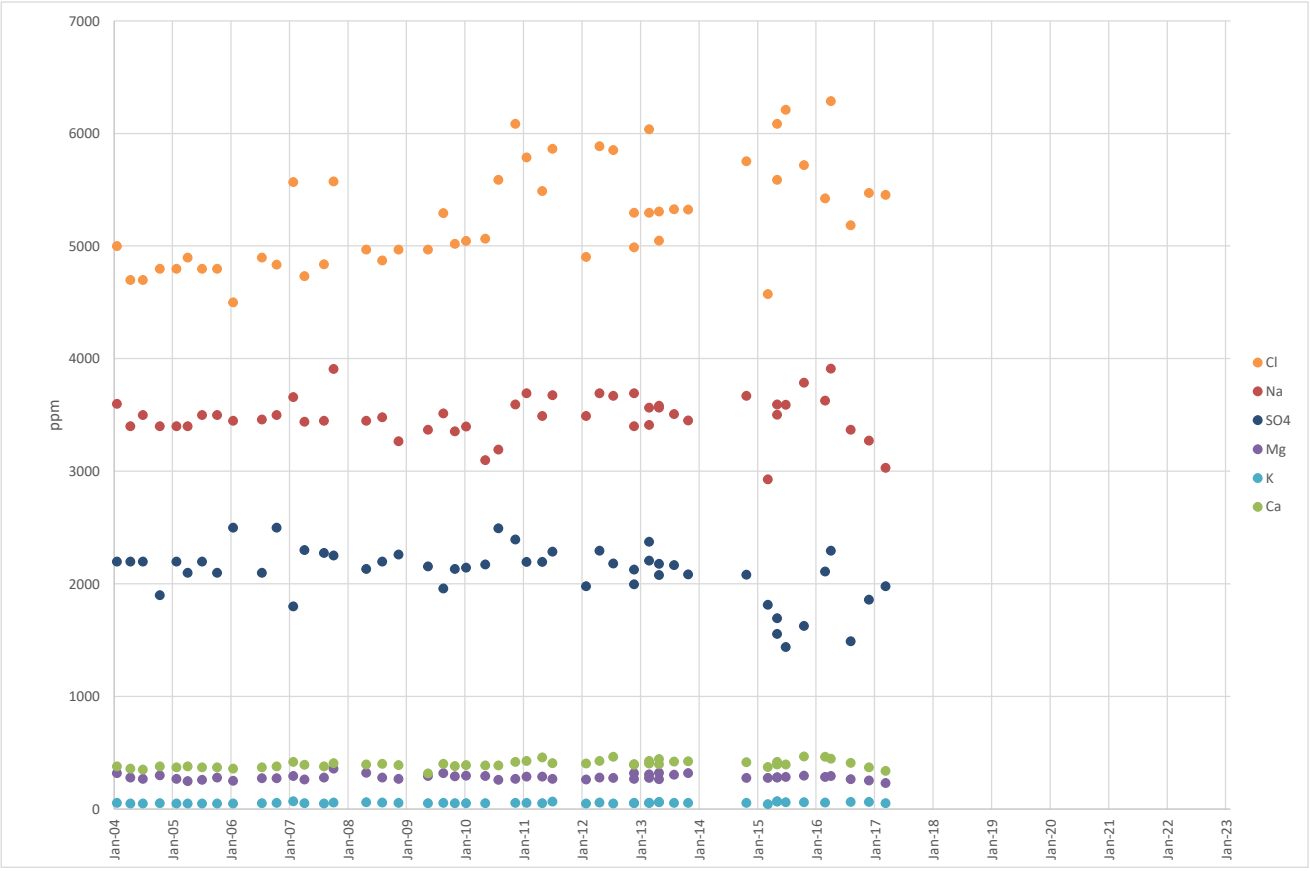


Figure 18: Concentrations of Water Quality Parameters Over Time at Well LG-27.

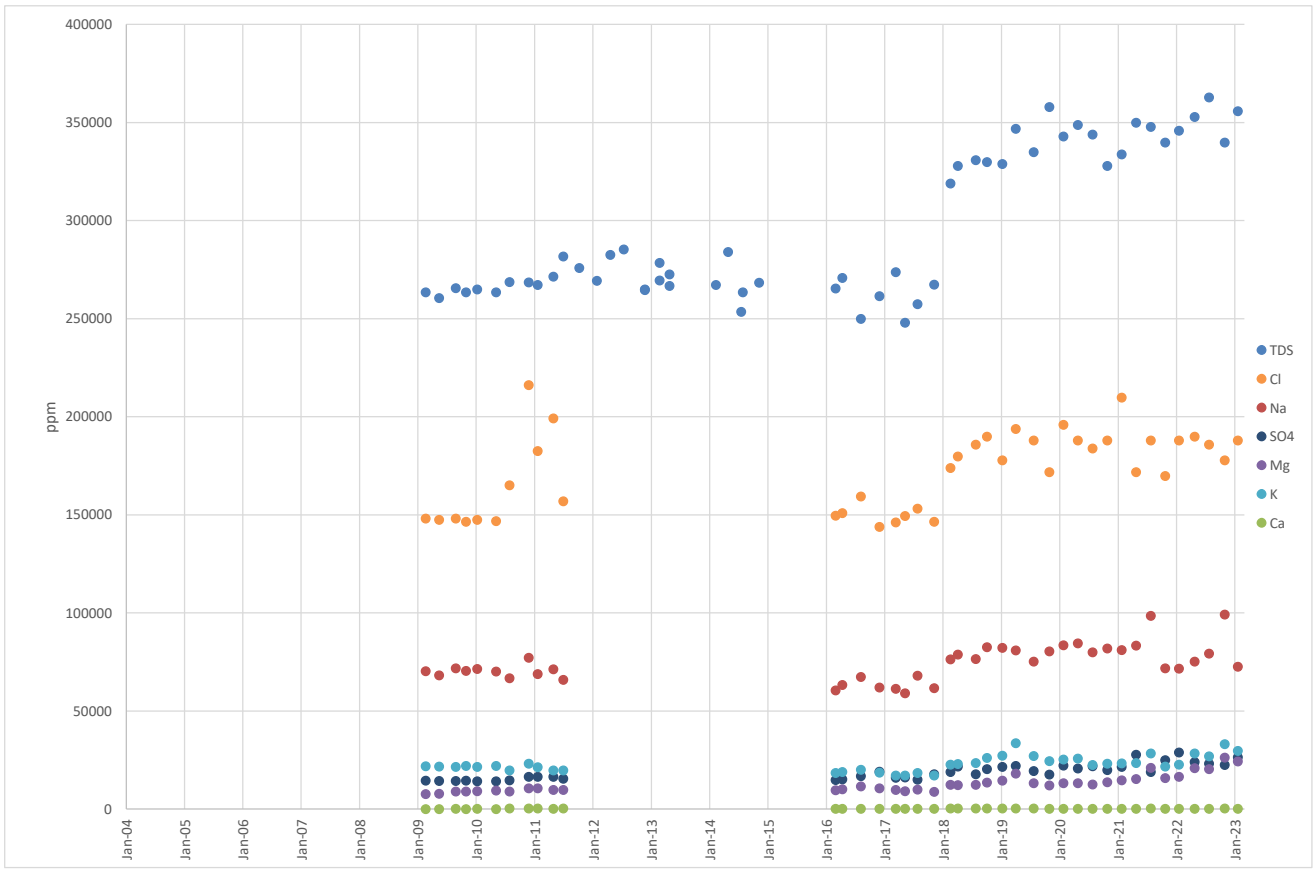


Figure 19: Concentrations of Water Quality Parameters Over Time at Well LG-28.

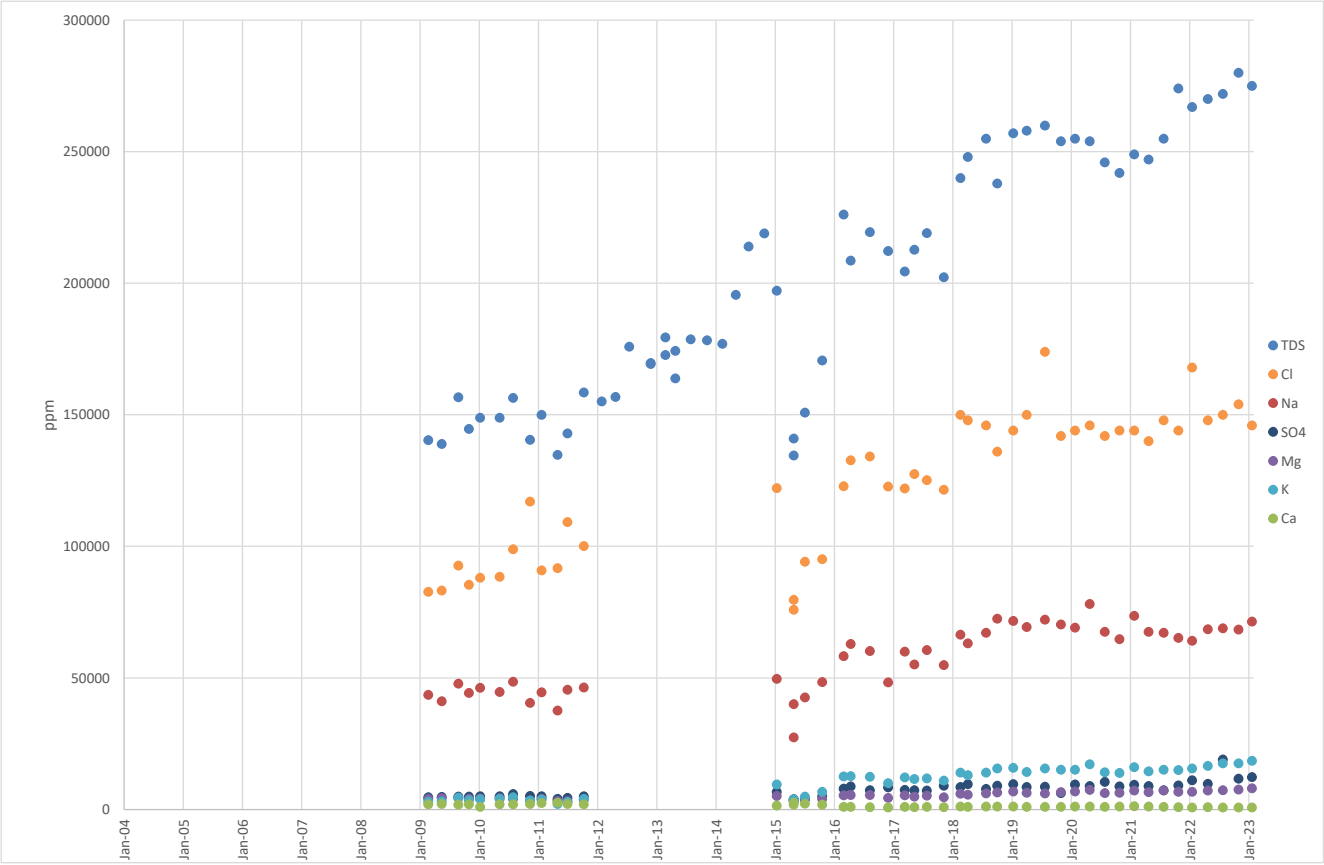


Figure 20: Concentrations of Water Quality Parameters Over Time at Well LG-29.

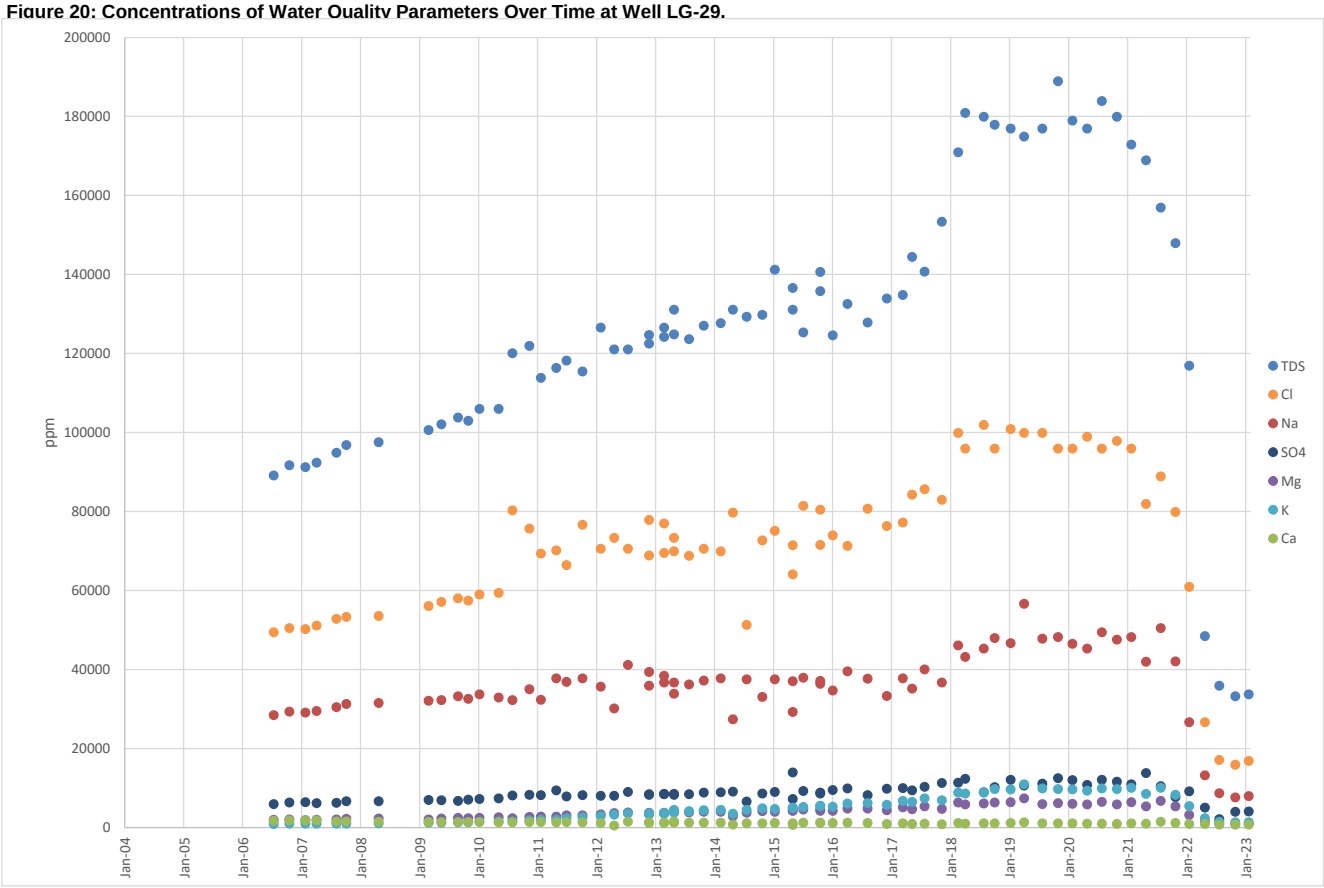


Figure 21: Concentrations of Water Quality Parameters Over Time at Well LG-30.

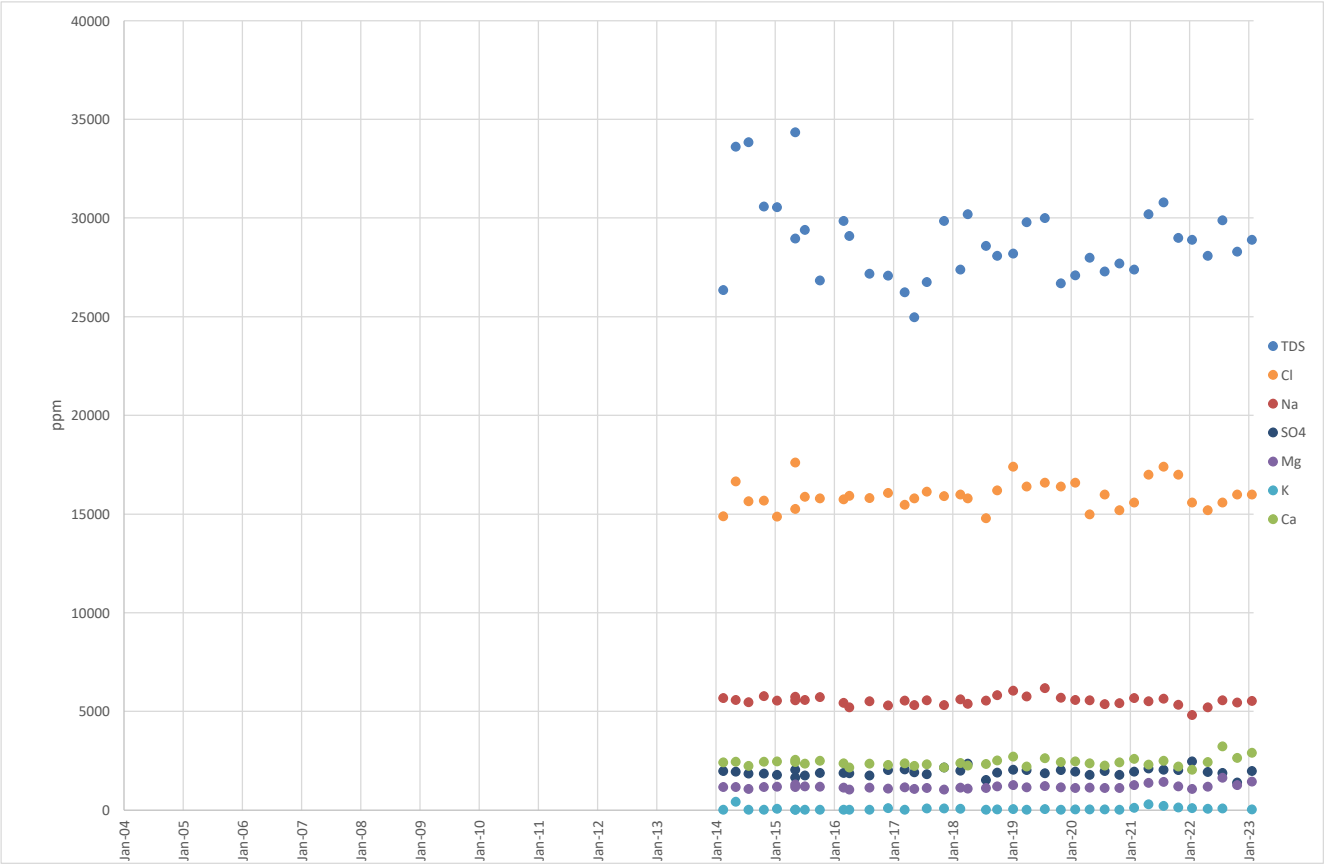


Figure 22: Concentrations of Water Quality Parameters Over Time at Well LG-31.

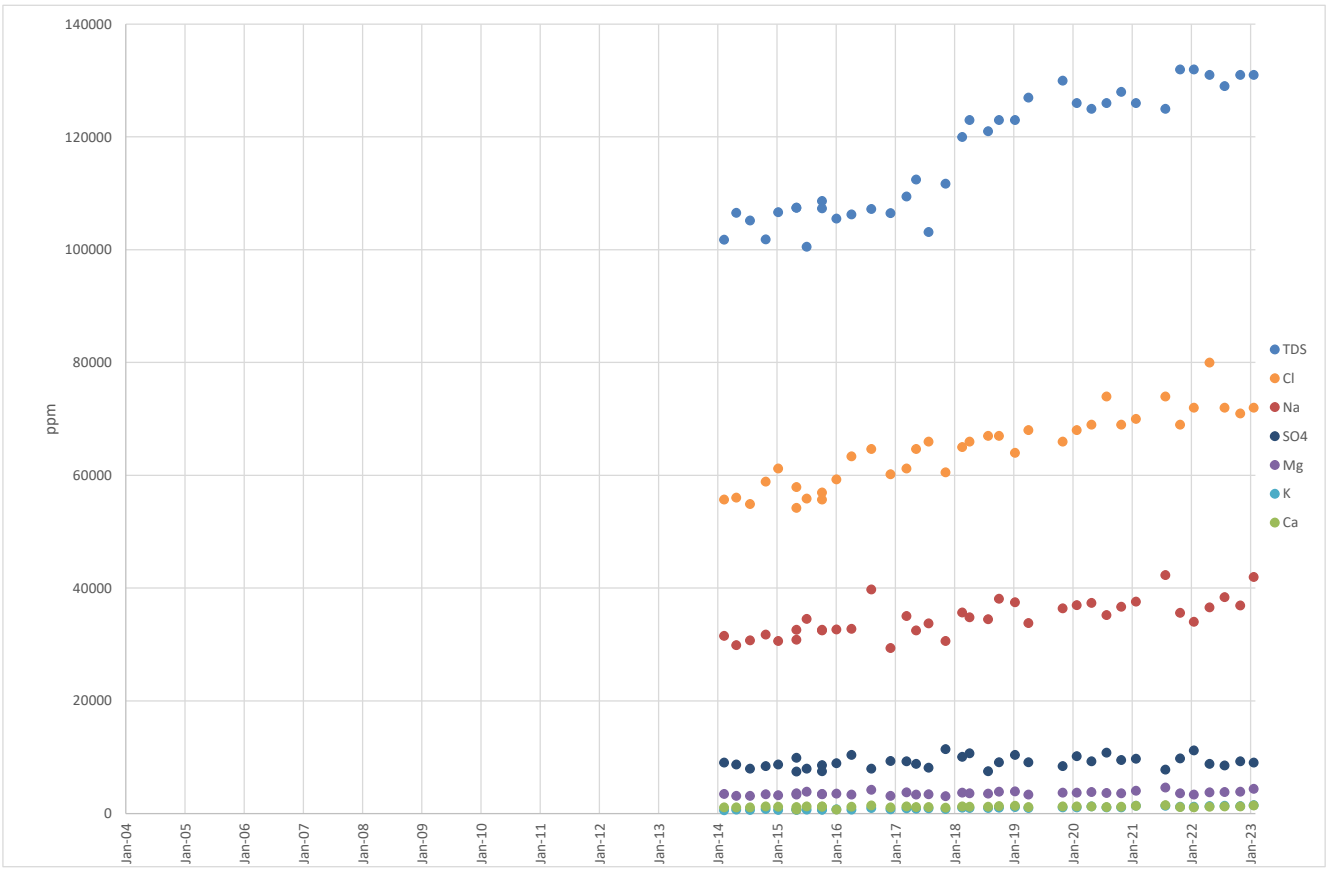


Figure 23: Concentrations of Water Quality Parameters Over Time at Well LG-32.

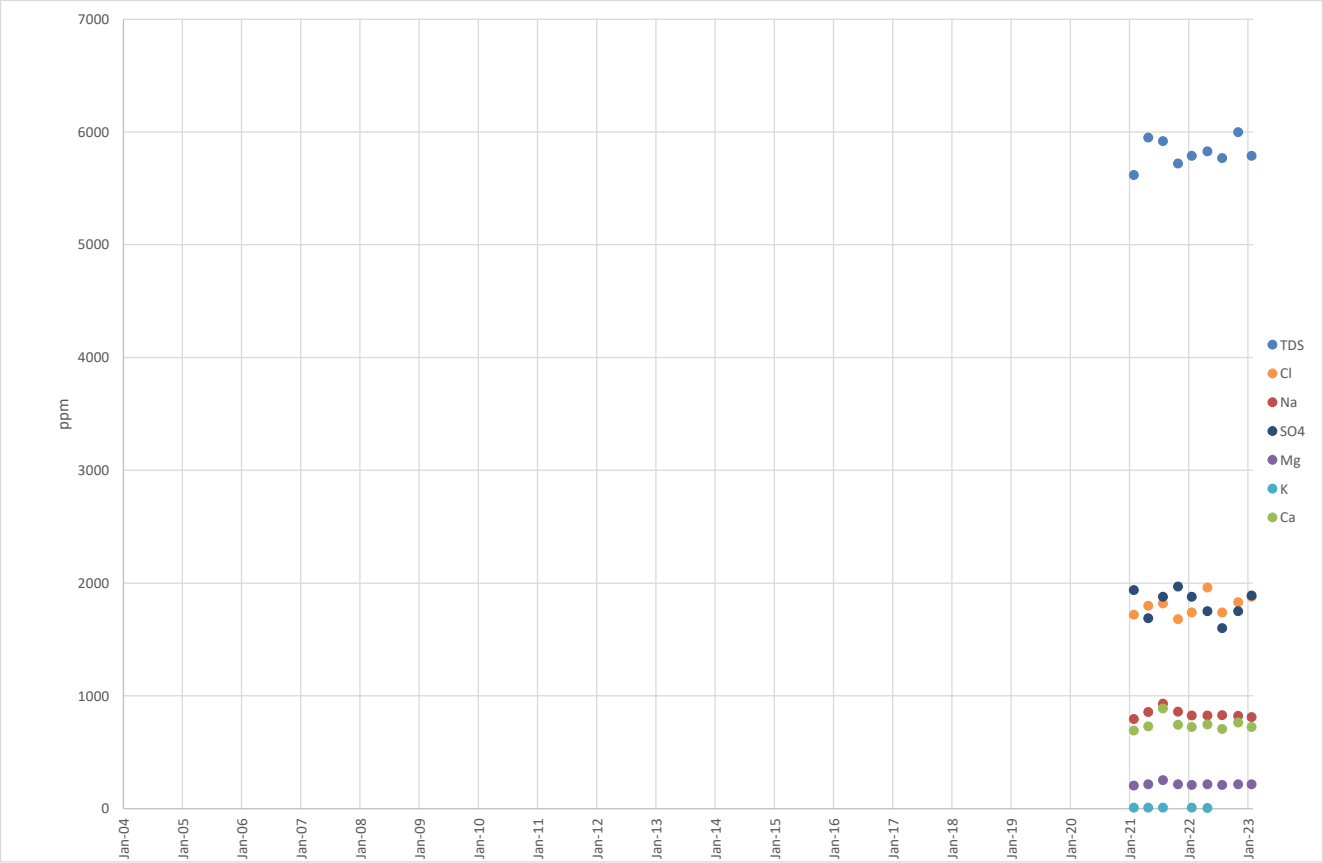


Figure 24: Concentrations of Water Quality Parameters Over Time at Well LG-33.

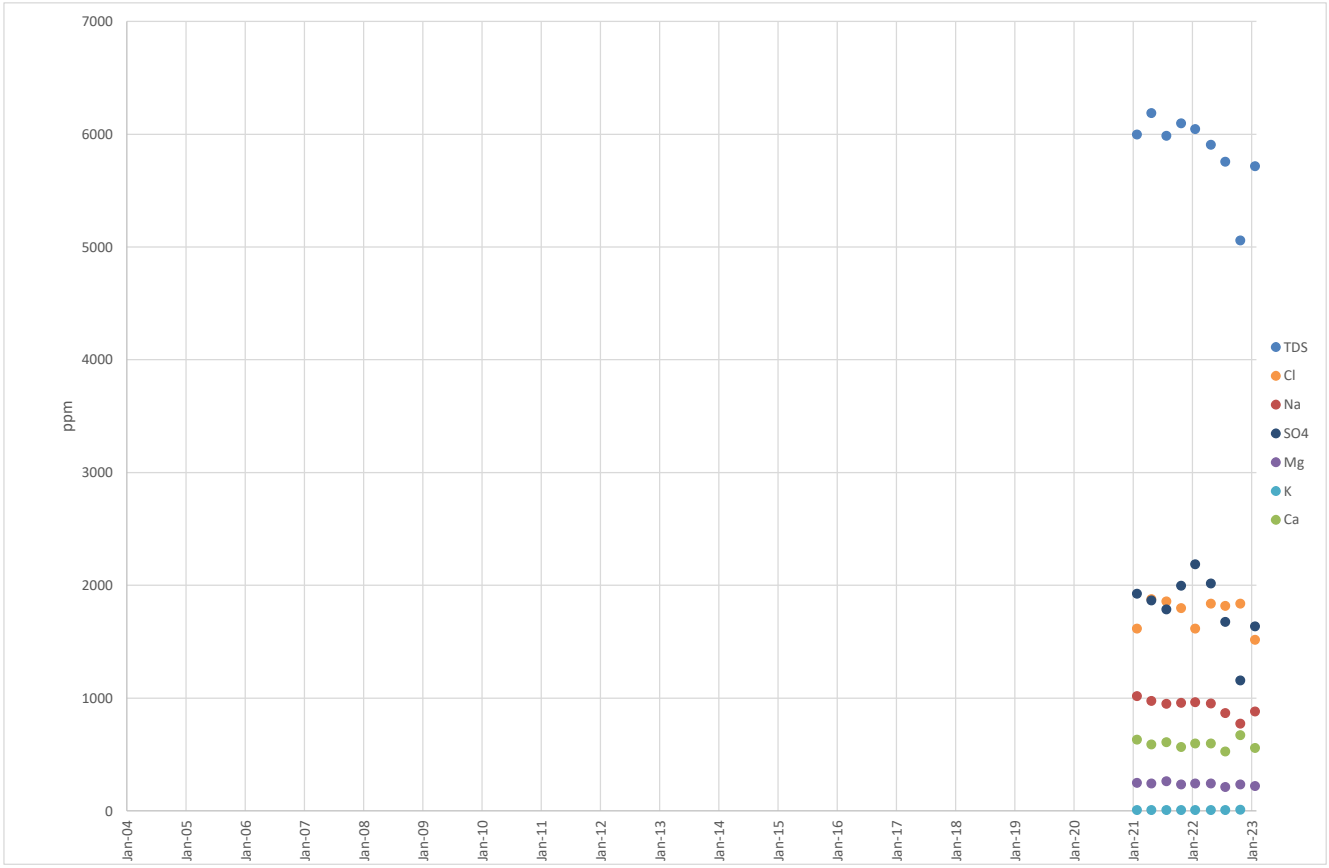


Figure 25: Concentrations of Water Quality Parameters Over Time at Well LG-34.

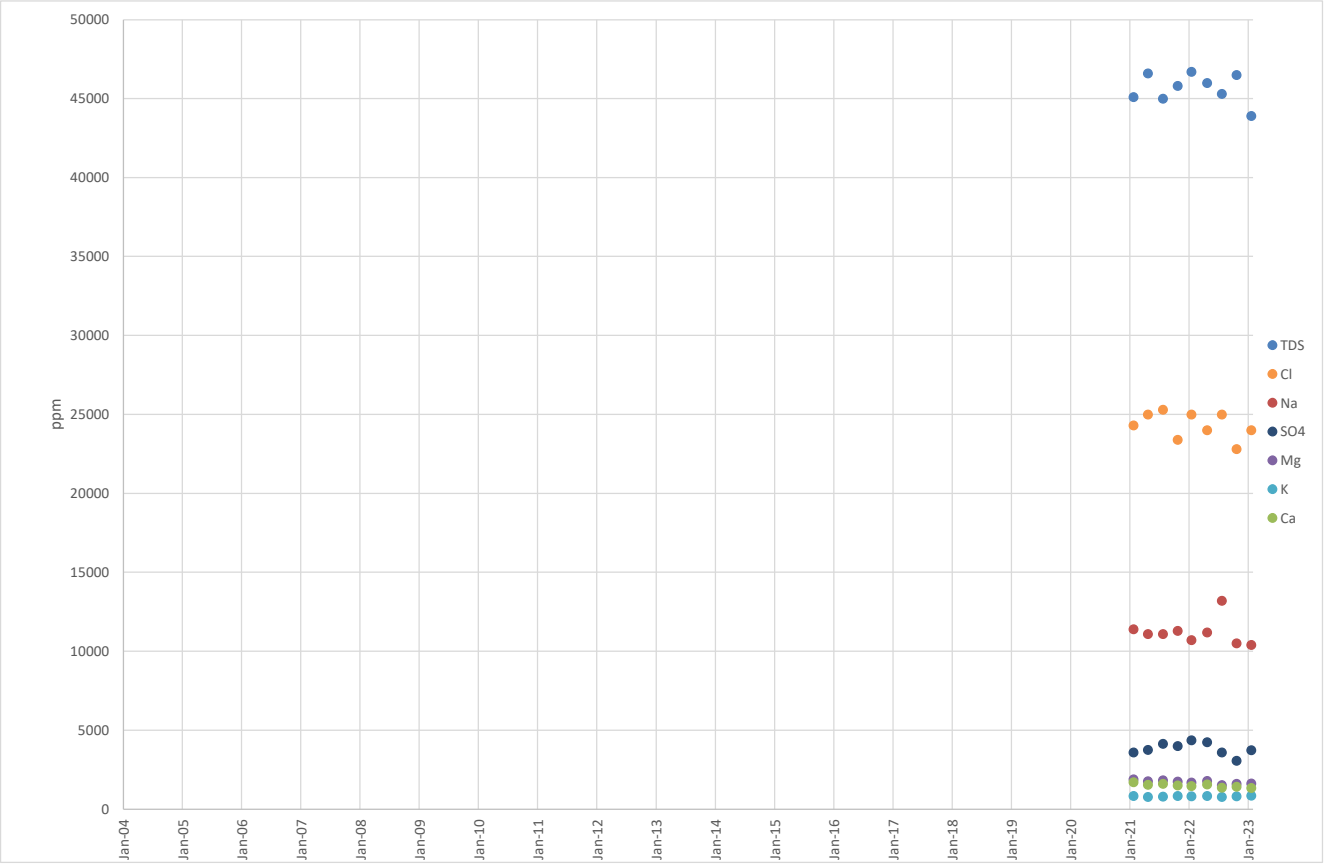


Figure 26: Concentrations of Water Quality Parameters Over Time at Well LG-35

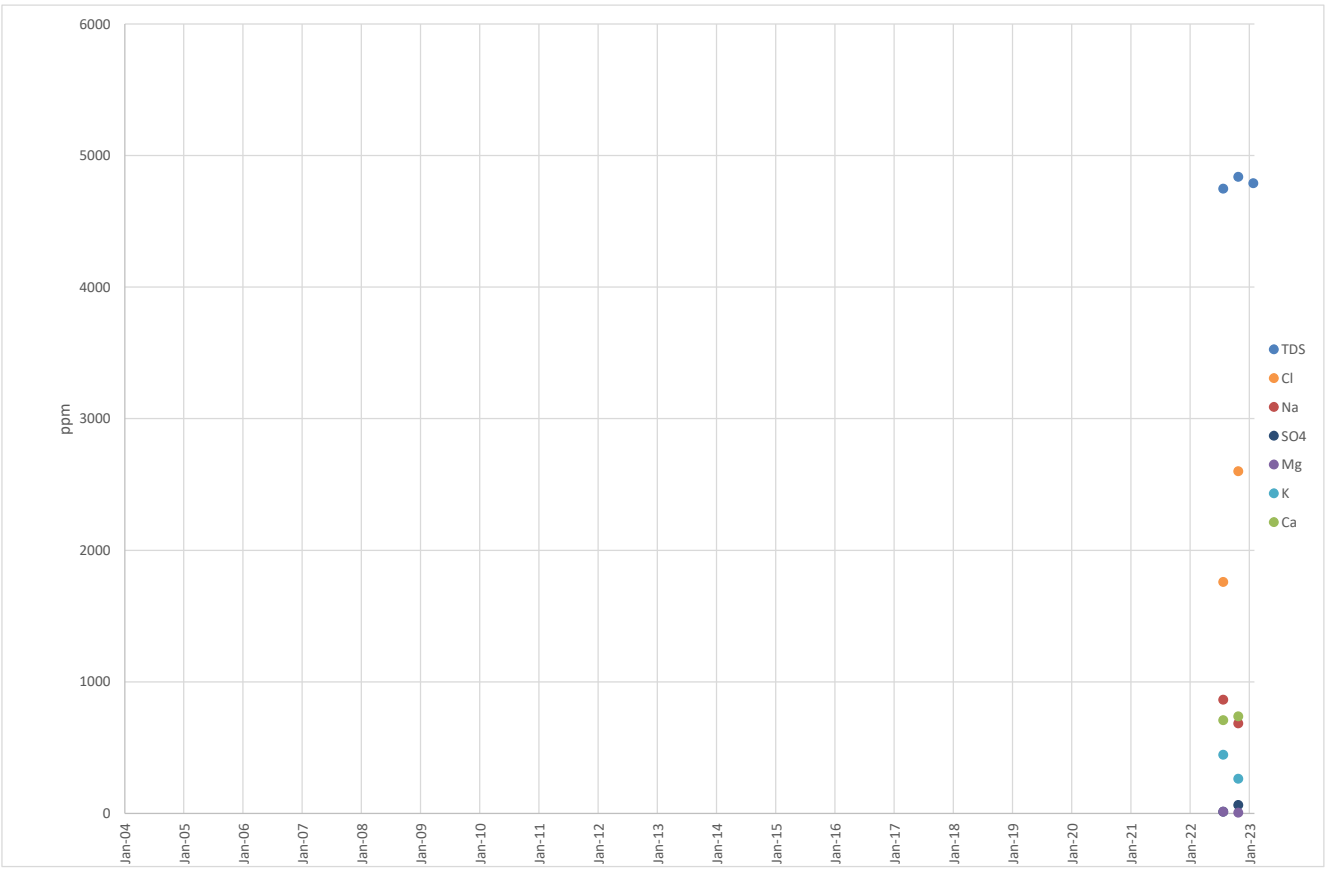


Figure 27: Concentrations of Water Quality Parameters Over Time at Well LG-36

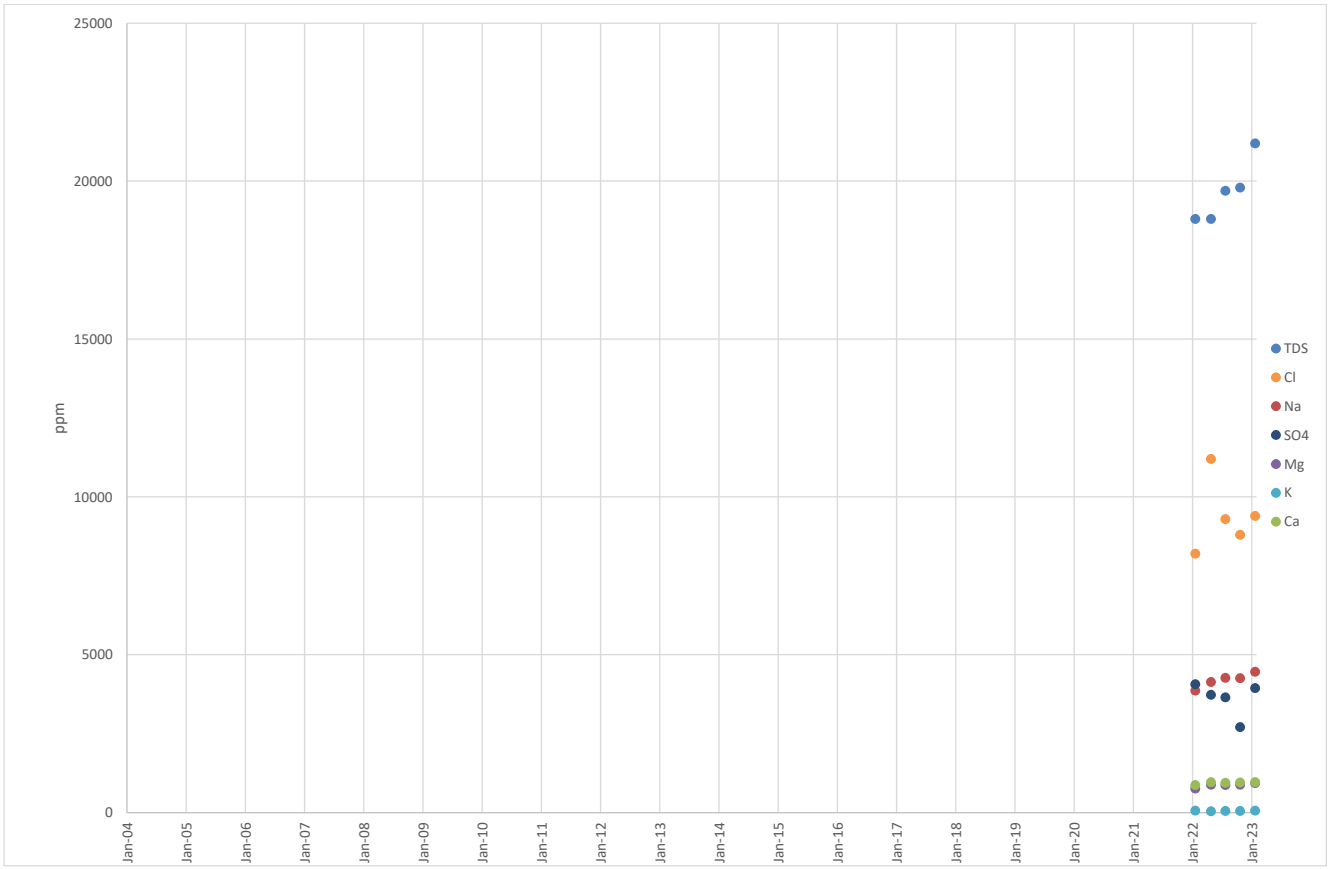


Figure 28: Concentrations of Water Quality Parameters Over Time at Well LG-37

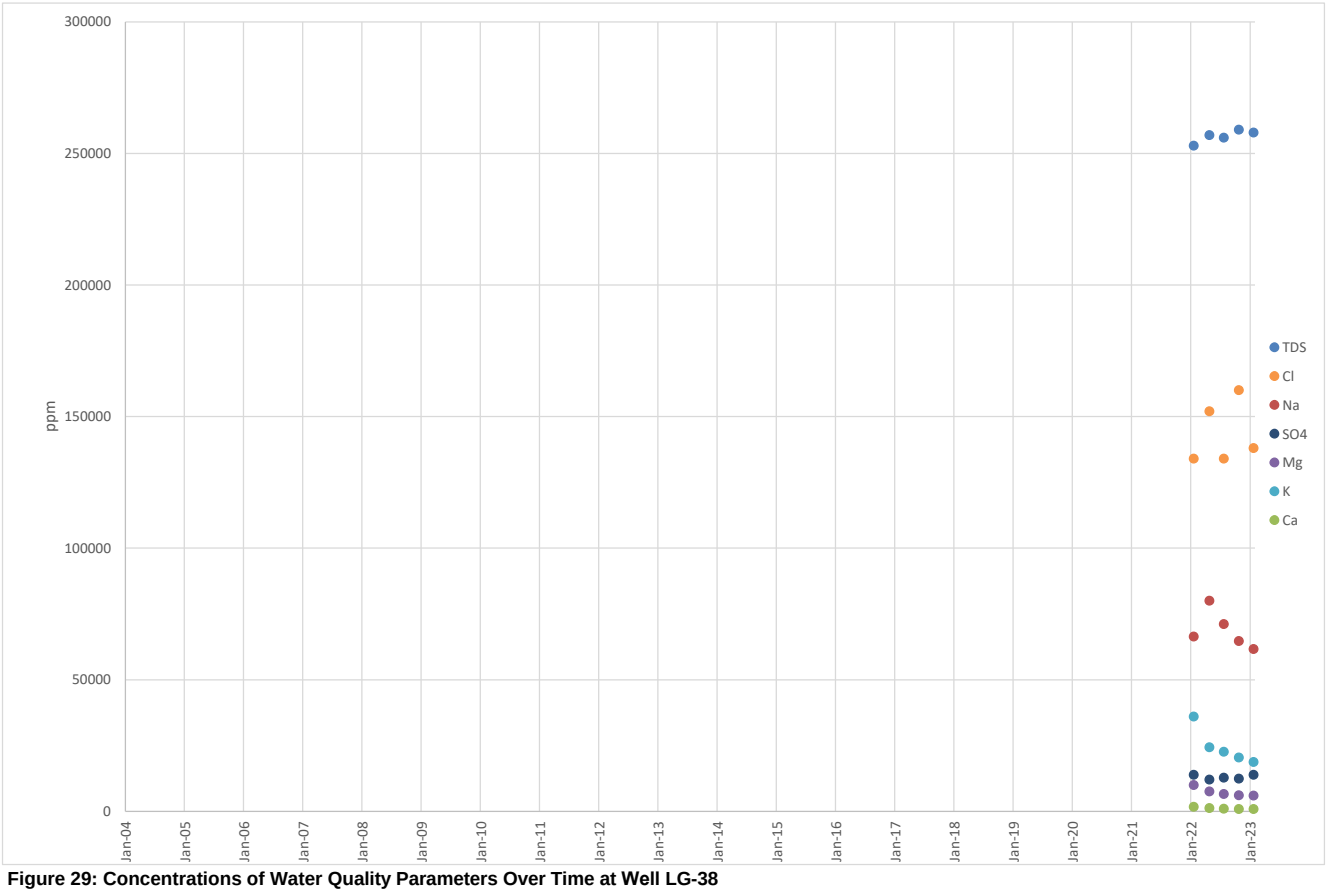


Figure 29: Concentrations of Water Quality Parameters Over Time at Well LG-38

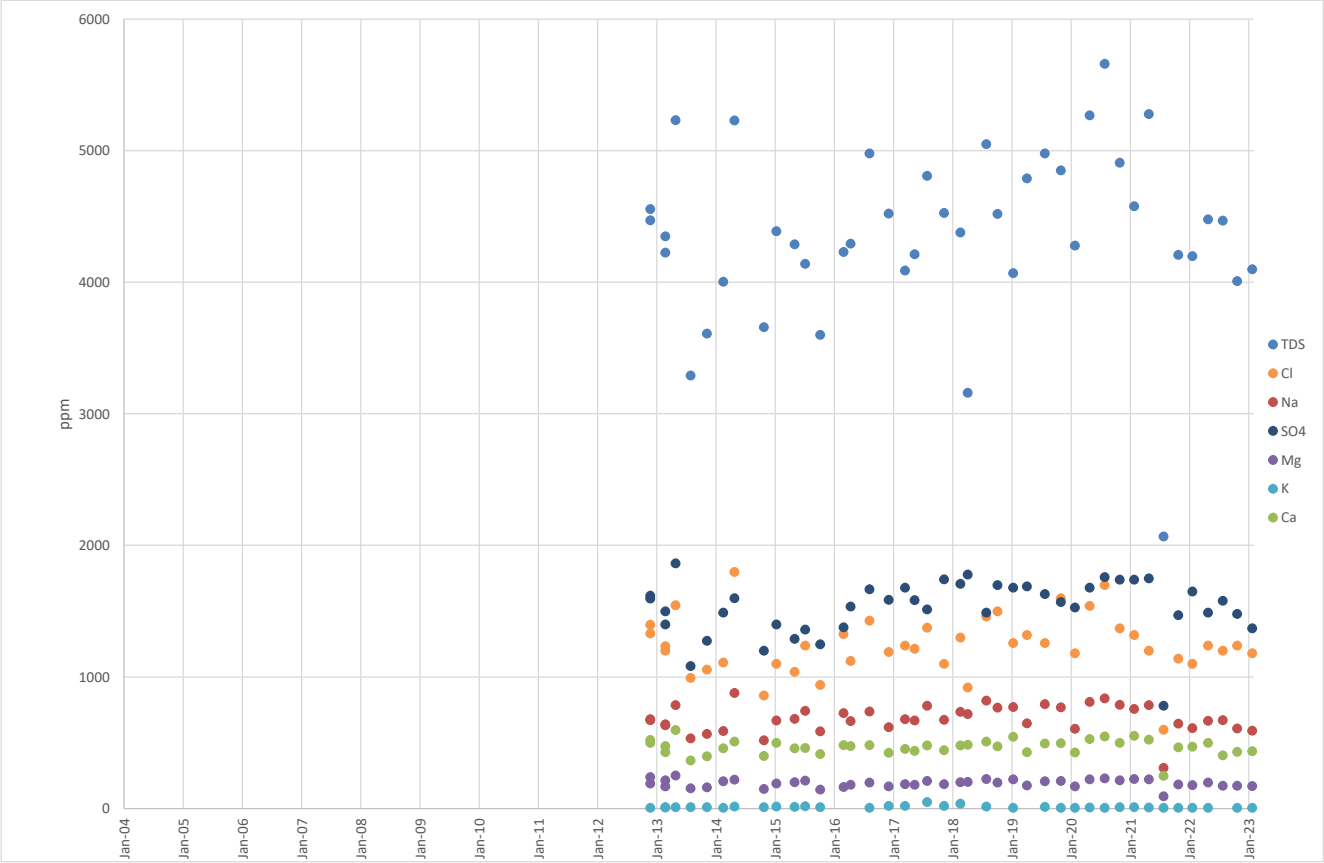


Figure 30: Concentrations of Water Quality Parameters Over Time at River 1 Sample Point.

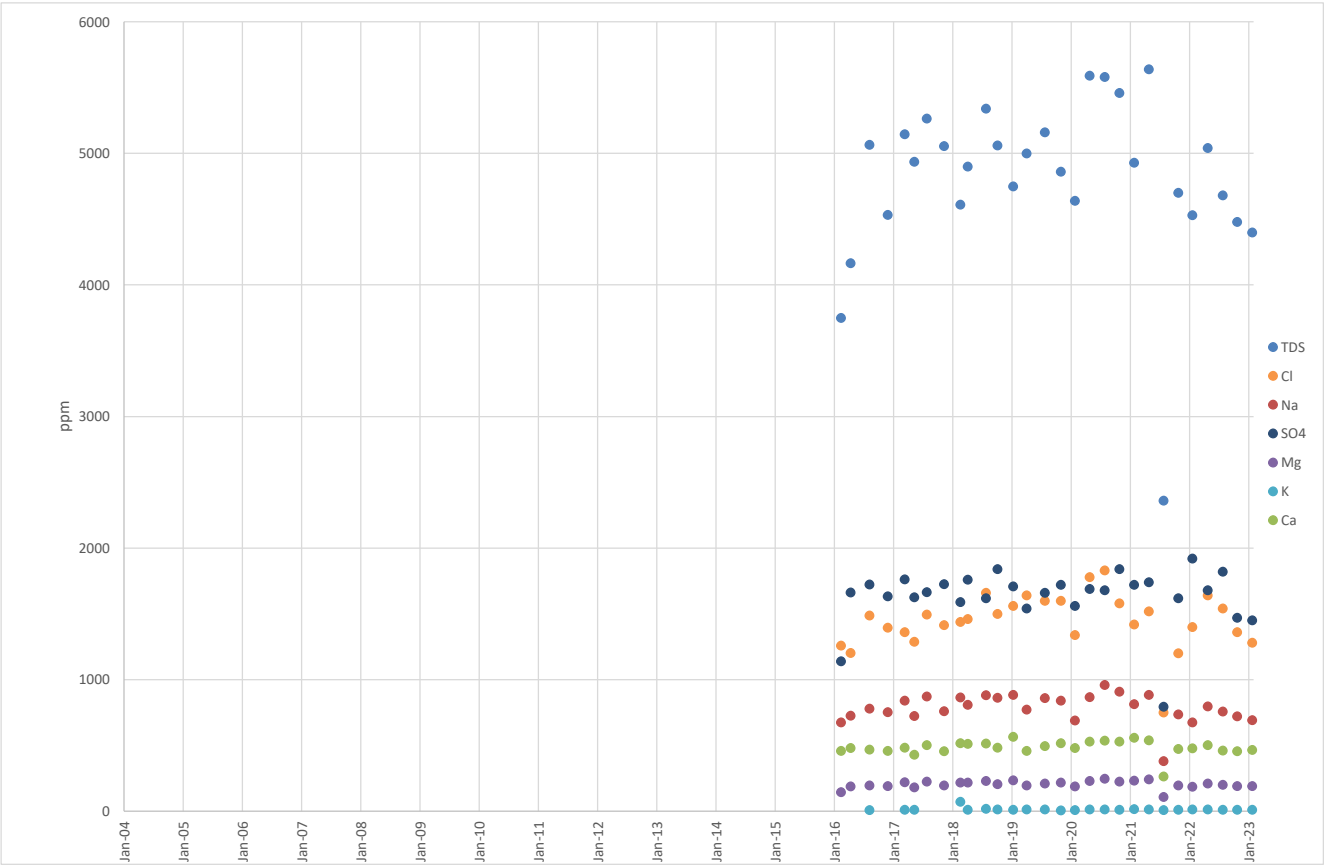


Figure 31: Concentrations of Water Quality Parameters Over Time at River 2 Sample Point.

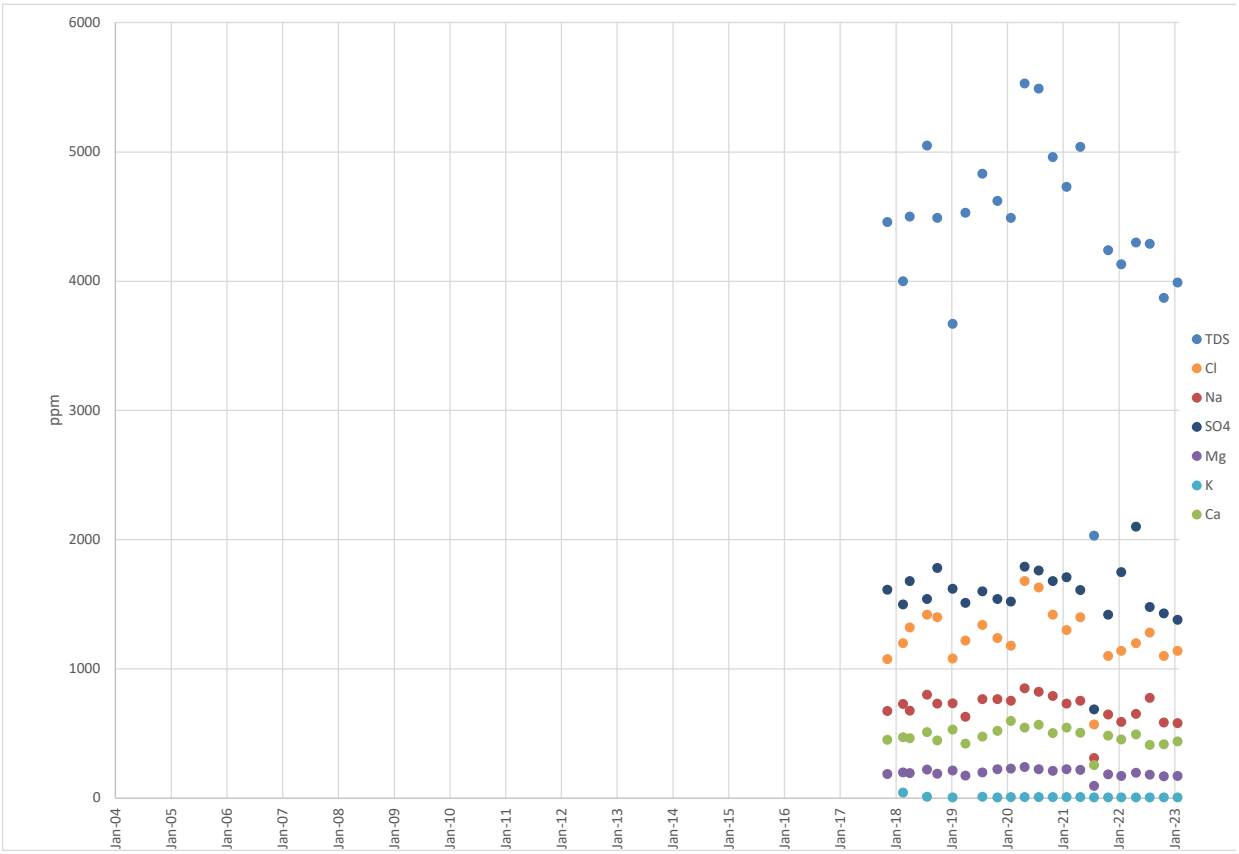


Figure 32: Concentrations of Water Quality Parameters Over Time at River 3 Sample Point.

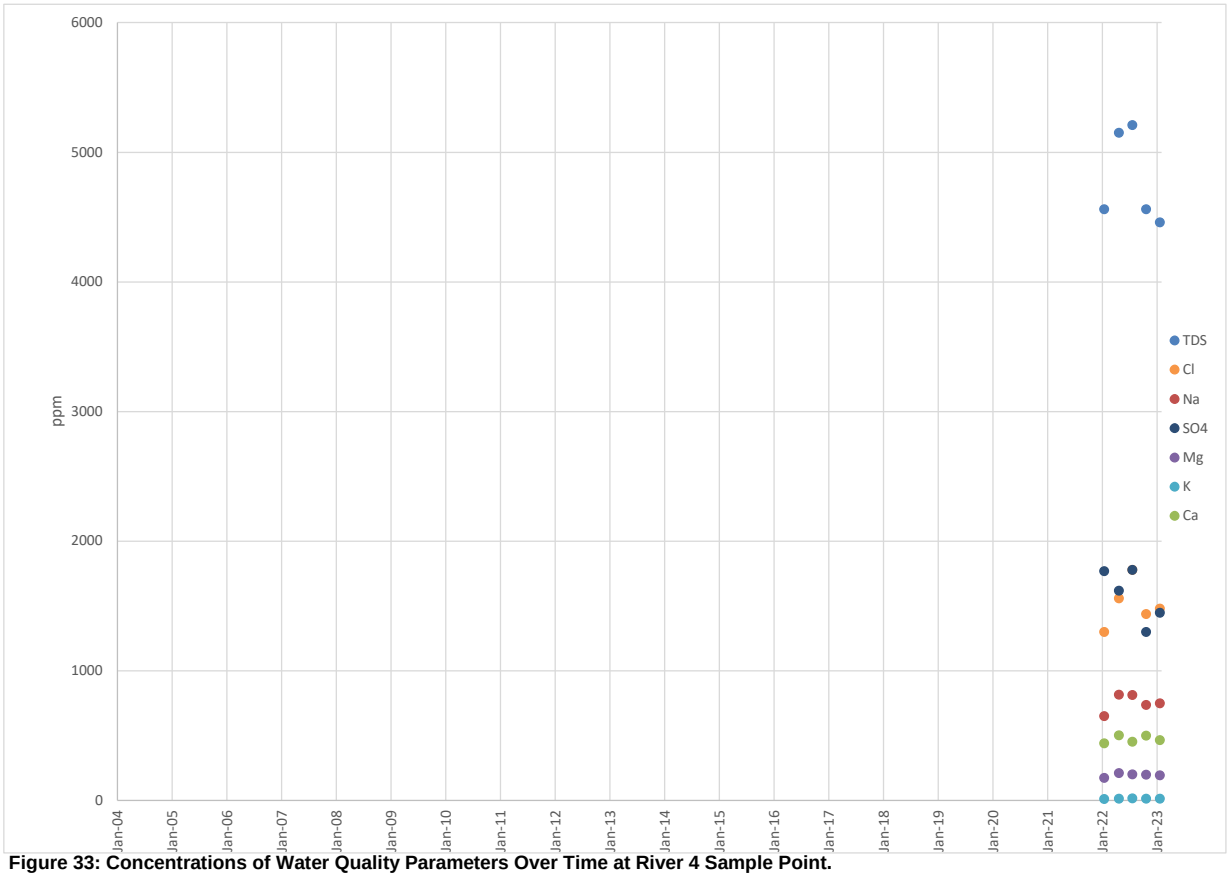


Figure 33: Concentrations of Water Quality Parameters Over Time at River 4 Sample Point.

ATTACHMENT 1

Field Sampling Forms

Golder / WSP
2440 Louisiana Blvd NE, Suite 400
Albuquerque, NM 87110
Phone: 505 881 5357

GROUNDWATER SAMPLING FIELD FORM

WATER LEVEL DATA

Well ID: P-East
Site: Mosaic Potash Mine
Date gauged: 1/24/13
Time gauged: 0715

Depth to water: 60.63 Feet
Total well depth: 80 Feet
Well diameter: 2 Inches
Height of fluid column: 19.37 Feet
Volume in well: 3.29 Gallons

(3 well volumes = 9.88 gallons)

GROUNDWATER SAMPLING DATA

@ 1 gpm

Time/date purged: 0730
Purge Method: low flow pump

Time	Purge Volume (gal)	Temp (°C)	Specific Conductance (mS/cm)	pH	Specific Gravity (SG)
0733	3.25	16.4	197708	6.62	1.158
0737	6.50	18.4	200206	6.58	1.180
0740	10	15.6	208294	6.87	1.198

Actual purge volume: 10 gal. @ 1 gpm
Field measurements stabilized within ± 10%? ✓

Sample time: 0740
Purged/sampled by: GP

Sample method: Grab

Comments/observations: Brown - Red turbid water at start

Well Casing Volumes
2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 6" diameter = 1.50 gal/ft

WSP GOLDER

Golder / WSP
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Albuquerque, NM 87110
Phone: 505 881 5357

GROUNDWATER SAMPLING FIELD FORM

WATER LEVEL DATA

Well ID: P-Center
Site: Mosaic Potash Mine
Date gauged: 1/24/23
Time gauged: 0805

Depth to water: 19.45 Feet
Total well depth: 20 Feet
Well diameter: 2 Inches
Height of fluid column: 0.55 Feet
Volume in well: 0.09 Gallons

(3 well volumes = 0.28 gallons)

GROUNDWATER SAMPLING DATA

@ 1 gpm

Time/date purged: 0810
Purge Method: low flow pump

Time	Purge Volume (gal)	Temp (°C)	Specific Conductance (mS/cm)	pH	Specific Gravity (SG)
0810	0.25	4.6	171.817	7.21	1.110
0813	3	15.2	210943	6.03	1.210
0815	5	15.2	210456	6.48	1.214

Actual purge volume: 5 gal. @ 1 gpm
Field measurements stabilized within ± 10%? ✓

Sample time: 0815
Purged/sampled by: GP

Sample method: Grab

Comments/observations: —

Well Casing Volumes
2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 6" diameter = 1.50 gal/ft

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GROUNDWATER SAMPLING FIELD FORM

WATER LEVEL DATA

Well ID: P-west
Site: Mosaic Potash Mine
Date gauged: 1/24/23
Time gauged: 0855

Depth to water: 63.11 Feet
Total well depth: 79 Feet
Well diameter: 2 Inches
Height of fluid column: 15.89 Feet
Volume in well: 2.70 Gallons

(3 well volumes = 8.1 gallons)

GROUNDWATER SAMPLING DATA

Time/date purged: @1gpm 0905
Purge Method: low flow pump

Time	Purge Volume (gal)	Temp (°C)	Specific Conductance (mS/cm)	pH	Specific Gravity (SG)
0907	2.5	15.3	124625	6.81	1.070
0910	5.0	16.9	122921	7.37	1.070
0915	~8.0	16.4	145610	7.32	1.058

Actual purge volume: ~8.0 gal. @ 1gpm
Field measurements stabilized within ± 10%? ✓

Sample time: 0915
Purged/sampled by: GP

Sample method: Grab

Comments/observations: ~~Brown~~ Grey turbid water
Dry @ 8 gal

Well Casing Volumes
2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 6" diameter = 1.50 gal/ft

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GROUNDWATER SAMPLING FIELD FORM

WATER LEVEL DATA

*GO1-04 taken here

Well ID	LG-1	Date gauged	1/24/23
Site	Mosaic Potash Mine	Time gauged	1125
Depth to water	20.62 Feet	Well diameter	2 Inches
Total well depth	39 Feet	Height of fluid column	18.38 Feet
		Volume in well	3.12 Gallons

(3 well volumes = 9.37 gallons)

GROUNDWATER SAMPLING DATA

@ 1 gpm

Time/date purged 1130 Purge Method low flow pump

Time	Purge Volume (gal)	Temp (°C)	Specific Conductance (mS/cm)	pH	Specific Gravity (SG)
1133	3.0	15.2	121338	6.68	1.070
1136	6.0	15.4	124005	6.83	1.075
1140	10.	16.4	123971	6.89	1.070

Actual purge volume 10 gal. @ 1 gpm Field measurements stabilized within ± 10%? ✓

Sample time 1140 Purged/sampled by GP

Sample method Grab

Comments/observations

Well Casing Volumes
2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 6" diameter = 1.50 gal/ft

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GROUNDWATER SAMPLING FIELD FORM

WATER LEVEL DATA

Well ID: LG-5
Site: Mosaic Potash Mine
Date gauged: 1/23/23
Time gauged: 1125

Depth to water: 15.10 Feet
Total well depth: 40 Feet
Well diameter: 2 Inches
Height of fluid column: 24.9 Feet
Volume in well: 4.23 Gallons

(3 well volumes = 12.70 gallons)

GROUNDWATER SAMPLING DATA

@ 1.5gpm low-flow

Time/date purged: 1130
Purge Method: Pump

Time	Purge Volume (gal)	Temp (°C)	Specific Conductance (mS/cm)	pH	Specific Gravity (SG)
1043	4.25	19.6	333373	5.93	1.260
1046	8.5	20.1	330308	6.05	1.260
~~1049~~	~~12.75~~				
~~1040~~/1050	15.00	23.2	332819	6.25	1.260

Actual purge volume: 15 gal. @ 1.5gpm
Field measurements stabilized within ± 10%? ✓

Sample time: 1050
Purged/sampled by: GP NB

Sample method: Grab

Comments/observations: Yellow-tan color

Well Casing Volumes
2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 6" diameter = 1.50 gal/ft

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GROUNDWATER SAMPLING FIELD FORM

WATER LEVEL DATA

Well ID: EG-23
Site: Mosaic Potash Mine
Date gauged: 1/23/23
Time gauged: 0940

Depth to water: 19.47 Feet
Total well depth: 75 Feet
Well diameter: 4 Inches
Height of fluid column: 55.853 Feet
Volume in well: 36.65 Gallons

(3 well volumes = 109.95 gallons)

GROUNDWATER SAMPLING DATA

@ 2gpm

Time/date purged: 0945
Purge Method: Pump (low-flow)

Time	Purge Volume (gal)	Temp (°C)	Specific Conductance (µS/cm)	pH	Specific Gravity (SG)
1008	37	18.9	381521	5.92	~~1.302~~ 1.240
1026	~~77~~	18.8	384941	6.51	~~1.405~~ 1.240
1050	110	19.3	383610	6.63	1.240

Actual purge volume: 110 gal. @ 2gpm
Field measurements stabilized within ± 10%? ✓

Sample time: 0950
Purged/sampled by: GP NB

Sample method: Grab

Comments/observations: Dead plant material

Well Casing Volumes
2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 6" diameter = 1.50 gal/ft

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GROUNDWATER SAMPLING FIELD FORM

WATER LEVEL DATA

Well ID: LG-25
Site: Mosaic Potash Mine
Date gauged: 1/24/23
Time gauged: 1535

Depth to water: 22 Feet
Total well depth: 26 Feet
Well diameter: 2 Inches
Height of fluid column: 4 Feet
Volume in well: 0.68 Gallons

(3 well volumes = 2.04 gallons)

GROUNDWATER SAMPLING DATA

@ 1gpm

Time/date purged: 1540
Purge Method: low-flow pump

Time	Purge Volume (gal)	Temp (°C)	Specific Conductance (mS/cm)	pH	Specific Gravity (SG)
1540	0.5	16.2	5472	6.79	1.000
1545	3.0	20.3	6135	7.04	1.000
1550	5.0	20.1	6133	7.08	1.000

Actual purge volume: 5 gal. @ 1gpm
Field measurements stabilized within ± 10%? ✓

Sample time: 1550
Purged/sampled by: GP

Sample method: Grab

Comments/observations: Slight grey turbidity
Dead veg

Well Casing Volumes
2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 6" diameter = 1.50 gal/ft

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GROUNDWATER SAMPLING FIELD FORM

WATER LEVEL DATA

Well ID	LG-26	Date gauged	1/24/23
Site	Mosaic Potash Mine	Time gauged	1240
Depth to water	15.5 Feet	Well diameter	4 Inches
Total well depth	45 Feet	Height of fluid column	29.5 Feet
		Volume in well	19.47 Gallons

(3 well volumes = 58.41 gallons)

@2gpm

GROUNDWATER SAMPLING DATA

Time/date purged 1240 Purge Method low-flow pump

Time	Purge Volume (gal)	Temp (°C)	Specific Conductance (mS/cm)	pH	Specific Gravity (SG)
1250	20	18.9	162834	6.41	1.106
1300	40	17.7	163972	6.82	1.110
1310	60	19.6	162451	6.73	1.110

Actual purge volume 60 gal.@ 2gpm Field measurements stabilized within ± 10%? ✓

Sample time 1310 Purged/sampled by GP

Sample method Grab

Comments/observations —

Well Casing Volumes
2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 6" diameter = 1.50 gal/ft

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GROUNDWATER SAMPLING FIELD FORM

WATER LEVEL DATA

Well ID: LG-28
Site: Mosaic Potash Mine
Date gauged: 1/23/23
Time gauged: 1355

Depth to water: 7.30 Feet
Total well depth: 38 Feet
Well diameter: 2 Inches
Height of fluid column: 30.7 Feet
Volume in well: 5.22 Gallons

(3 well volumes = 15.66 gallons)

GROUNDWATER SAMPLING DATA

Time/date purged: 1400
Purge Method: low-flow pump

Time	Purge Volume (gal)	Temp (°C)	Specific Conductance (µS/cm)	pH	Specific Gravity (SG)
1405	5.25	19.5	413826	6.35	1.224
1410	10.75	19.9	406528	6.46	1.222
1415	~~16.00~~ 16.00	19.5	410334	6.61	1.222

Actual purge volume: 16 gal. @ 1gpm
Field measurements stabilized within ± 10%? ✓
Sample time: 1415
Purged/sampled by: GP
Sample method: Grab
Comments/observations: —

Well Casing Volumes
2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 6" diameter = 1.50 gal/ft

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GROUNDWATER SAMPLING FIELD FORM

WATER LEVEL DATA

Well ID: LG-29
Site: Mosaic Potash Mine
Date gauged: 1/23/22
Time gauged: 1440

Depth to water: 16.80 Feet
Total well depth: 26 Feet
Well diameter: 2 Inches
Height of fluid column: 9.2 Feet
Volume in well: 1.56 Gallons

(3 well volumes = 4.69 gallons)

GROUNDWATER SAMPLING DATA

Time/date purged: 1445
Purge Method: low-flow pump

Time	Purge Volume (gal)	Temp (°C)	Specific Conductance µ (µS/cm)	pH	Specific Gravity (SG)
1446	1.5	17.6	436329	6.40	1.168
1455	3.0	16.3	438860	6.52	1.170
1500	5.0	18.5	438720	6.49	1.170

Actual purge volume: 5.0 gal. @ 1 gpm
Field measurements stabilized within ± 10%? ✓

Sample time: 1500
Purged/sampled by: GP

Sample method: Grab

Comments/observations: —

Well Casing Volumes
2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 6" diameter = 1.50 gal/ft

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GROUNDWATER SAMPLING FIELD FORM

WATER LEVEL DATA

Well ID: LG-30
Site: Mosaic Potash Mine
Date gauged: 1/24/23
Time gauged: 1200

Depth to water: 26.03 Feet
Total well depth: 48 Feet
Well diameter: 2 Inches
Height of fluid column: 21.97 Feet
Volume in well: 3.73 Gallons

(3 well volumes = 11.2 gallons)

GROUNDWATER SAMPLING DATA

Time/date purged: @1gpm 1205
Purge Method: low-flow pump

Time	Purge Volume (gal)	Temp (°C)	Specific Conductance (mS/cm)	pH	Specific Gravity (SG)
1210	4.0	18.6	41545	6.93	1.016
1215	10.0	18.2	42420	7.19	1.016
1225	15.0	17.1	43387	7.13	1.017

Actual purge volume: 15 gal.@1gpm
Field measurements stabilized within ± 10%? ✓
Sample time: 1225
Purged/sampled by: GP
Sample method: Grab
Comments/observations: Brown turbid water

Well Casing Volumes
2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 6" diameter = 1.50 gal/ft

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GROUNDWATER SAMPLING FIELD FORM

WATER LEVEL DATA

Well ID: LG-31
Site: Mosaic Potash Mine
Date gauged: 1/23/23
Time gauged: 1225

Depth to water: 48.40 Feet
Total well depth: 99 Feet
Well diameter: 4 Inches
Height of fluid column: 50.6 Feet
Volume in well: 33.40 Gallons

(3 well volumes = 100.19 gallons)

GROUNDWATER SAMPLING DATA

@2gpm
Time/date purged: 1230
Purge Method: low-flow pump

Time	Purge Volume (gal)	Temp (°C)	Specific Conductance (mS/cm)	pH	Specific Gravity (SG)
1240	~15	20.8	77140	7.12	1.014
1245	20	21.1	79922	7.33	1.014
1255	30	21.1	73,528	7.35	1.014
1305	35	21.4	75,242	7.23	1.014
1315	40	20.7	77,042	7.31	1.014

Actual purge volume: ~41 gal. @2gpm
Field measurements stabilized within ± 10%? ✓

Sample time: 1320
Purged/sampled by: GP

Sample method: Grab

Comments/observations: Grey turbid water - dead veg material
Clear water @15 gal back to brown turbid water @ 35 gal
dry @ 41

Well Casing Volumes
2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 6" diameter = 1.50 gal/ft

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GROUNDWATER SAMPLING FIELD FORM

WATER LEVEL DATA

Well ID: LG-32
Site: Mosaic Potash Mine
Date gauged: 1/23/23
Time gauged: 1545

Depth to water: 16.8 Feet
Total well depth: 71 Feet
Well diameter: 4 Inches
Height of fluid column: 54.2 Feet
Volume in well: 35.77 Gallons

(3 well volumes = 107.32 gallons)

GROUNDWATER SAMPLING DATA

@ 2gpm

Time/date purged: ~~1555~~ 1610
Purge Method:

Time	Purge Volume (gal)	Temp (°C)	Specific Conductance (mS/cm)	pH	Specific Gravity (SG)
1630	35	17.2	274625	7.06	1.080
1645	70	17.7	273.987	6.89	1.080
1705	110	16.9	274716	7.12	1.080

Actual purge volume: 110 gal. @ 2gpm
Field measurements stabilized within ± 10%? ✓

Sample time: 1705
Purged/sampled by: GP

Sample method: Grab

Comments/observations: brown turbid water at start

Well Casing Volumes
2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 6" diameter = 1.50 gal/ft

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GROUNDWATER SAMPLING FIELD FORM

WATER LEVEL DATA

Well ID: LG-33
Site: Mosaic Potash Mine
Date gauged: 1/24/23
Time gauged: 1625

Depth to water: 28.05 Feet
Total well depth: 36.5 Feet
Well diameter: 2 Inches
Height of fluid column: 8.45 Feet
Volume in well: 1.44 Gallons

(3 well volumes = 4.30 gallons)

GROUNDWATER SAMPLING DATA

Time/date purged: @1gpm 1630
Purge Method: low-flow pump

Time	Purge Volume (gal)	Temp (°C)	Specific Conductance (mS/cm)	pH	Specific Gravity (SG)
1632	1.5	16.7	7103	7.38	1.000
1635	3.0	16.5	7172	7.29	1.000
1640	5.0	19.3	7185	7.54	1.000

Actual purge volume: 10+ (decon) gal. + rinsate Sample
Field measurements stabilized within ± 10%? ✓
Sample time: 1640
Purged/sampled by: CP
Sample method: Grab
Comments/observations: Brown turbid water at first

Well Casing Volumes
2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 6" diameter = 1.50 gal/ft

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GROUNDWATER SAMPLING FIELD FORM

WATER LEVEL DATA

Well ID	LG-34	Date gauged	1/24/23
Site	Mosaic Potash Mine	Time gauged	1500
Depth to water	19.6 Feet	Well diameter	2 Inches
Total well depth	23.3 Feet	Height of fluid column	3.7 Feet
		Volume in well	0.63 Gallons

(3 well volumes = 1.89 gallons)

GROUNDWATER SAMPLING DATA

@ 1 gpm

Time/date purged 1505 Purge Method low-flow pump

Time	Purge Volume (gal)	Temp (°C)	Specific Conductance (mS/cm)	pH	Specific Gravity (SG)
1505	0.75	17.6	7155	6.96	1.000
1510	3.0	16.6	6745	7.21	1.000
1515	5.0	17.7	6968	7.25	1.000

Actual purge volume 5 gal. @ 1 gpm Field measurements stabilized within ± 10%? ✓

Sample time 1515 Purged/sampled by GP

Sample method Grab

Comments/observations light grey turbid water

Well Casing Volumes
2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 6" diameter = 1.50 gal/ft

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GROUNDWATER SAMPLING FIELD FORM

WATER LEVEL DATA

Well ID: LG-35
Site: Mosaic Potash Mine
Date gauged: 1/24/23
Time gauged: 1425

Depth to water: 35.65 Feet
Total well depth: 36.8 Feet
Well diameter: 2 Inches
Height of fluid column: 1.15 Feet
Volume in well: 0.20 Gallons

(3 well volumes = 0.6 gallons)

GROUNDWATER SAMPLING DATA

Time/date purged: 1430
Purge Method: low-flow pump

Time	Purge Volume (gal)	Temp (°C)	Specific Conductance (mS/cm)	pH	Specific Gravity (SG)
1430	0.25	15.5	53713	6.77	1.018
1435	3.0	17.7	55012	7.22	1.022
1440	5.0	19.4	55274	7.48	1.020

Actual purge volume: 5 gal. @ 1 gpm
Field measurements stabilized within ± 10%? ✓

Sample time: 1440
Purged/sampled by: GP

Sample method: Grab

Comments/observations: Slight tan-brown turbid water

Well Casing Volumes
2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 6" diameter = 1.50 gal/ft

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GROUNDWATER SAMPLING FIELD FORM

WATER LEVEL DATA

Well ID: LG-36
Site: Mosaic Potash Mine
Date gauged: 1/23/23
Time gauged: 0830

Depth to water: 63.37 Feet
Total well depth: 65.11 Feet
Well diameter: 2 Inches
Height of fluid column: 1.74 Feet
Volume in well: 0.30 Gallons

(3 well volumes = 0.887 gallons)

GROUNDWATER SAMPLING DATA

Time/date purged: 0845
Purge Method: Bailer

Time	Purge Volume (gal)	Temp (°C)	Specific Conductance ~~(mS/cm)~~ µs/cm	pH	Specific Gravity (SG)
0850	~0.3	17.7	21309	12.40	1029

Actual purge volume: ~0.3 gal.
Field measurements stabilized within ± 10%?

Sample time: 1/25/23
Purged/sampled by: GP NB

Sample method: Grab

Comments/observations: Did not grab sample - will try tomorrow
1/25/23 - Sample grabbed

Well Casing Volumes
2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 6" diameter = 1.50 gal/ft

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GROUNDWATER SAMPLING FIELD FORM

WATER LEVEL DATA

Well ID: LG-37
Site: Mosaic Potash Mine
Date gauged: 1/24/23
Time gauged: 1045

Depth to water: 20.7 Feet
Total well depth: 36.48 Feet
Well diameter: 2 Inches
Height of fluid column: 15.78 Feet
Volume in well: 2.68 Gallons

(3 well volumes = 8.05 gallons)

GROUNDWATER SAMPLING DATA

@ 1gpm

Time/date purged: 1045
Purge Method: low-flow pump

Time	Purge Volume (gal)	Temp (°C)	Specific Conductance (mS/cm)	pH	Specific Gravity (SG)
1047	2.5	15.4	25641	7.50	1.016
1051	6.0	17.3	26548	7.43	1.010
1055	10	17.1	25876	7.44	1.010

Actual purge volume: 10 gal. @ 1gpm
Field measurements stabilized within ± 10%? ✓

Sample time: 1055
Purged/sampled by: GP

Sample method: Grab

Comments/observations: Brown turbid water

Well Casing Volumes
2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 6" diameter = 1.50 gal/ft

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GROUNDWATER SAMPLING FIELD FORM

WATER LEVEL DATA

Well ID	LG-38	Date gauged	1/24/23	
Site	Mosaic Potash Mine	Time gauged	1605	
Depth to water	7.71 Feet	Well diameter	2	Inches
Total well depth	34.51 Feet	Height of fluid column	26.8	Feet
		Volume in well	4.56	Gallons

(3 well volumes = 13.67 gallons)

GROUNDWATER SAMPLING DATA

@ 1gpm

Time/date purged 1610 Purge Method low-flow pump

Time	Purge Volume (gal)	Temp (°C)	Specific Conductance (mS/cm)	pH	Specific Gravity (SG)
1015	5	16.8	200433	6.85	1.150
1620	10	16.7	202314	6.87	1.150
1025	15	16.8	204773	7.16	1.150

Actual purge volume 15 gal. Field measurements stabilized within ± 10%? ✓

Sample time 1025 Purged/sampled by GP

Sample method Grab

Comments/observations grey turbid water

Well Casing Volumes
2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 6" diameter = 1.50 gal/ft

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SURFACE WATER SAMPLING FIELD FORM

Location ID River-1 Date Sampled 1/24/23

Site Mosaic Potash Mine

Time	Temp (°C)	Specific Conductance (mS/cm)	pH	Specific Gravity (SG)
1609	8.4°	5193	8.01	1000

Sample time 1605 Sampled by NB

Sample method Direct from river - 1

Comments/observations

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SURFACE WATER SAMPLING FIELD FORM

Location ID: River-2 Date Sampled: 1/24/22

Site: Mosaic Potash Mine

Time	Temp (°C)	Specific Conductance (mS/cm)	pH	Specific Gravity (SG)
1331	8.1	5711	8.30	1000

Sample time: 1331 Sampled by: NB

Sample method: Direct from River-2

Comments/observations:

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SURFACE WATER SAMPLING FIELD FORM

Location ID: River-3 Date Sampled: 1/24/23

Site: Mosaic Potash Mine

Time	Temp (°C)	Specific Conductance (mS/cm)	pH	Specific Gravity (SG)
17.30	8.5	5105	7.97	1.020

Sample time: 1730 Sampled by: GP

Sample method: Grab

Comments/observations:

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Phone: 505 881 5357

SURFACE WATER SAMPLING FIELD FORM

Location ID: River-4 Date Sampled: 1/24/23

Site: Mosaic Potash Mine

Time	Temp (°C)	Specific Conductance (mS/cm)	pH	Specific Gravity (SG)
1350	8.9	5645	7.79	1.000

Sample time: 1350 Sampled by: GP

Sample method: Grab

Comments/observations:

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SURFACE WATER SAMPLING FIELD FORM

Location ID: Runoff Culvert Date Sampled: 1/25/23

Site: Mosaic Potash Mine

Time	Temp (°C)	Specific Conductance (mS/cm)	pH	Specific Gravity (SG)
0843	5.6	216526	8.14	1.180

Sample time: 0845 Sampled by: GP

Sample method: Grab

Comments/observations

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SURFACE WATER SAMPLING FIELD FORM

Location ID: Brine Pipeline Date Sampled: 1/25/23

Site: Mosaic Potash Mine

Time	Temp (°C)	Specific Conductance ~~mS~~ µS (~~mS~~/cm)	pH	Specific Gravity (SG)
0820	4.4°	216781	7.75	1.190

Sample time: 0820 Sampled by: GP

Sample method: Grab

Comments/observations:

ATTACHMENT 2

Laboratory Results

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

February 16, 2023

HASKINS HOBSON

MOSAIC POTASH

1361 POTASH MINES ROAD

CARLSBAD, NM 88220

RE: DP-1399

Enclosed are the results of analyses for samples received by the laboratory on 01/25/23 9:45.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Total Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Cardinal Laboratories is accredited through the State of New Mexico Environment Department for:

Method SM 9223-B	Total Coliform and E. coli (Colilert MMO-MUG)
Method EPA 524.2	Regulated VOCs and Total Trihalomethanes (TTHM)
Method EPA 552.2	Total Haloacetic Acids (HAA-5)

Accreditation applies to public drinking water matrices for State of Colorado and New Mexico.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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Analytical Results For:

MOSAIC POTASH 1361 POTASH MINES ROAD CARLSBAD NM, 88220	Project: DP-1399 Project Number: 2023 1ST QT Project Manager: HASKINS HOBSON Fax To: (575) 887-0589	Reported: 16-Feb-23 09:12

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
LG - 23	H230347-01	Water	23-Jan-23 09:50	25-Jan-23 09:45
LG - 5	H230347-02	Water	23-Jan-23 10:50	25-Jan-23 09:45
LG - 31	H230347-03	Water	23-Jan-23 13:20	25-Jan-23 09:45
LG - 28	H230347-04	Water	23-Jan-23 14:15	25-Jan-23 09:45
LG - 29	H230347-05	Water	23-Jan-23 15:00	25-Jan-23 09:45
LG - 32	H230347-06	Water	23-Jan-23 17:05	25-Jan-23 09:45
P - EAST	H230347-07	Water	24-Jan-23 07:40	25-Jan-23 09:45
P - CENTER	H230347-08	Water	24-Jan-23 08:15	25-Jan-23 09:45
P - WEST	H230347-09	Water	24-Jan-23 09:15	25-Jan-23 09:45
LG - 37	H230347-10	Water	24-Jan-23 10:55	25-Jan-23 09:45
LG - 38	H230347-11	Water	24-Jan-23 10:25	25-Jan-23 09:45
LG - 1	H230347-12	Water	24-Jan-23 11:40	25-Jan-23 09:45
LG - 30	H230347-13	Water	24-Jan-23 12:25	25-Jan-23 09:45
LG - 26	H230347-14	Water	24-Jan-23 13:10	25-Jan-23 09:45
RIVER - 2	H230347-15	Water	24-Jan-23 13:30	25-Jan-23 09:45
RIVER - 4	H230347-16	Water	24-Jan-23 13:50	25-Jan-23 09:45
LG - 35	H230347-17	Water	24-Jan-23 14:40	25-Jan-23 09:45
LG - 34	H230347-18	Water	24-Jan-23 15:15	25-Jan-23 09:45
LG - 25	H230347-19	Water	24-Jan-23 15:50	25-Jan-23 09:45
RIVER - 1	H230347-20	Water	24-Jan-23 16:05	25-Jan-23 09:45
LG - 33	H230347-21	Water	24-Jan-23 16:40	25-Jan-23 09:45
RIVER - 3	H230347-22	Water	24-Jan-23 17:30	25-Jan-23 09:45
RINSATE SAMPLE	H230347-23	Water	24-Jan-23 16:50	25-Jan-23 09:45
BRINE PIPELINE	H230347-24	Water	25-Jan-23 00:00	25-Jan-23 09:45
CULVERT RUNOFF	H230347-25	Water	25-Jan-23 00:00	25-Jan-23 09:45
GOL - 04	H230347-26	Water	25-Jan-23 00:00	25-Jan-23 09:45
LG - 36	H230347-27	Water	25-Jan-23 09:00	25-Jan-23 09:45

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Celey D. Keene, Lab Director/Quality Manager

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Analytical Results For:

MOSAIC POTASH 1361 POTASH MINES ROAD CARLSBAD NM, 88220	Project: DP-1399 Project Number: 2023 1ST QT Project Manager: HASKINS HOBSON Fax To: (575) 887-0589	Reported: 16-Feb-23 09:12

LG - 23

H230347-01 (Water)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Alkalinity, Bicarbonate	**756**		5.00	mg/L	1	3010506	GM	26-Jan-23	310.1	
Alkalinity, Carbonate	<1.00		1.00	mg/L	1	3010506	GM	26-Jan-23	310.1	
Chloride*	**194000**		4.00	mg/L	1	3011328	GM	27-Jan-23	4500-Cl-B	
Conductivity*	**272000**		1.00	umhos/cm @ 25°C	1	3012517	AC	26-Jan-23	120.1	
pH*	**6.31**		0.100	pH Units	1	3012510	AC	26-Jan-23	150.1	
Temperature °C	**18.3**			pH Units	1	3012510	AC	26-Jan-23	150.1	
Specific Gravity @ 60° F	**1.250**		0.000	[blank]	1	3012515	AC	26-Jan-23	SM 2710F	
Sulfate*	**35700**		10000	mg/L	1000	3012617	AC	27-Jan-23	375.4	QM-07
TDS*	**378000**		5.00	mg/L	1	3011904	AC	27-Jan-23	160.1	
Alkalinity, Total*	**620**		4.00	mg/L	1	3010506	GM	26-Jan-23	310.1	
Green Analytical Laboratories										
General Chemistry										
Bromide	**342**		20.0	mg/L	200	B230218	AES	02-Feb-23	EPA300.0	
Total Recoverable Metals by ICP (E200.7)										
Boron	<60.0		60.0	mg/L	200	B230229	AES	07-Feb-23	EPA200.7	
Calcium*	**78.6**		20.0	mg/L	200	B230229	AES	07-Feb-23	EPA200.7	
Magnesium*	**29800**		20.0	mg/L	200	B230229	AES	07-Feb-23	EPA200.7	
Potassium*	**37000**		200	mg/L	200	B230229	AES	07-Feb-23	EPA200.7	
Selenium*	<20.0		20.0	mg/L	200	B230229	AES	07-Feb-23	EPA200.7	B2
Sodium*	**57300**		200	mg/L	200	B230229	AES	07-Feb-23	EPA200.7	

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Analytical Results For:

MOSAIC POTASH 1361 POTASH MINES ROAD CARLSBAD NM, 88220	Project: DP-1399 Project Number: 2023 1ST QT Project Manager: HASKINS HOBSON Fax To: (575) 887-0589	Reported: 16-Feb-23 09:12

LG - 5

H230347-02 (Water)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Alkalinity, Bicarbonate	**1510**		5.00	mg/L	1	3010506	GM	26-Jan-23	310.1	
Alkalinity, Carbonate	<1.00		1.00	mg/L	1	3010506	GM	26-Jan-23	310.1	
Chloride*	**194000**		4.00	mg/L	1	3011328	GM	27-Jan-23	4500-Cl-B	
Conductivity*	**267000**		1.00	umhos/cm @ 25°C	1	3012517	AC	26-Jan-23	120.1	
pH*	**6.18**		0.100	pH Units	1	3012510	AC	26-Jan-23	150.1	
Temperature °C	**18.4**			pH Units	1	3012510	AC	26-Jan-23	150.1	
Specific Gravity @ 60° F	**1.269**		0.000	[blank]	1	3012515	AC	26-Jan-23	SM 2710F	
Sulfate*	**81100**		16700	mg/L	1666.66	3012617	AC	27-Jan-23	375.4	
TDS*	**403000**		5.00	mg/L	1	3011904	AC	27-Jan-23	160.1	
Alkalinity, Total*	**1240**		4.00	mg/L	1	3010506	GM	26-Jan-23	310.1	
Green Analytical Laboratories										
General Chemistry										
Bromide	**491**		15.0	mg/L	150	B230218	AES	02-Feb-23	EPA300.0	
Total Recoverable Metals by ICP (E200.7)										
Boron	<42.0		42.0	mg/L	140	B230229	AES	07-Feb-23	EPA200.7	
Calcium*	**34.1**		14.0	mg/L	140	B230229	AES	07-Feb-23	EPA200.7	
Magnesium*	**42500**		50.0	mg/L	500	B230229	AES	08-Feb-23	EPA200.7	
Potassium*	**34200**		140	mg/L	140	B230229	AES	07-Feb-23	EPA200.7	
Selenium*	<14.0		14.0	mg/L	140	B230229	AES	07-Feb-23	EPA200.7	B2
Sodium*	**44500**		140	mg/L	140	B230229	AES	07-Feb-23	EPA200.7	

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Analytical Results For:

MOSAIC POTASH 1361 POTASH MINES ROAD CARLSBAD NM, 88220	Project: DP-1399 Project Number: 2023 1ST QT Project Manager: HASKINS HOBSON Fax To: (575) 887-0589	Reported: 16-Feb-23 09:12

LG - 31

H230347-03 (Water)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Alkalinity, Bicarbonate	**137**		5.00	mg/L	1	3010506	GM	26-Jan-23	310.1	
Alkalinity, Carbonate	<1.00		1.00	mg/L	1	3010506	GM	26-Jan-23	310.1	
Chloride*	**16000**		4.00	mg/L	1	3011328	GM	27-Jan-23	4500-Cl-B	
Conductivity*	**42400**		1.00	umhos/cm @ 25°C	1	3012517	AC	26-Jan-23	120.1	
pH*	**7.10**		0.100	pH Units	1	3012510	AC	26-Jan-23	150.1	
Temperature °C	**18.5**			pH Units	1	3012510	AC	26-Jan-23	150.1	
Specific Gravity @ 60° F	**1.023**		0.000	[blank]	1	3012515	AC	26-Jan-23	SM 2710F	
Sulfate*	**1990**		500	mg/L	50	3012617	AC	27-Jan-23	375.4	
TDS*	**28900**		5.00	mg/L	1	3011904	AC	27-Jan-23	160.1	
Alkalinity, Total*	**112**		4.00	mg/L	1	3010506	GM	26-Jan-23	310.1	
Green Analytical Laboratories										
General Chemistry										
Bromide	**8.05**		5.00	mg/L	50	B230218	AES	02-Feb-23	EPA300.0	
Total Recoverable Metals by ICP (E200.7)										
Boron	<12.0		12.0	mg/L	40	B230229	AES	07-Feb-23	EPA200.7	
Calcium*	**2910**		4.00	mg/L	40	B230229	AES	07-Feb-23	EPA200.7	
Magnesium*	**1450**		4.00	mg/L	40	B230229	AES	07-Feb-23	EPA200.7	
Potassium*	**43.3**		40.0	mg/L	40	B230229	AES	07-Feb-23	EPA200.7	
Selenium*	<4.00		4.00	mg/L	40	B230229	AES	07-Feb-23	EPA200.7	B2
Sodium*	**5540**		40.0	mg/L	40	B230229	AES	07-Feb-23	EPA200.7	

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Analytical Results For:

MOSAIC POTASH 1361 POTASH MINES ROAD CARLSBAD NM, 88220	Project: DP-1399 Project Number: 2023 1ST QT Project Manager: HASKINS HOBSON Fax To: (575) 887-0589	Reported: 16-Feb-23 09:12

LG - 28

H230347-04 (Water)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Alkalinity, Bicarbonate	**517**		5.00	mg/L	1	3010506	GM	26-Jan-23	310.1	
Alkalinity, Carbonate	<1.00		1.00	mg/L	1	3010506	GM	26-Jan-23	310.1	
Chloride*	**188000**		4.00	mg/L	1	3011328	GM	27-Jan-23	4500-Cl-B	
Conductivity*	**278000**		1.00	umhos/cm @ 25°C	1	3012517	AC	26-Jan-23	120.1	
pH*	**6.11**		0.100	pH Units	1	3012510	AC	26-Jan-23	150.1	
Temperature °C	**18.5**			pH Units	1	3012510	AC	26-Jan-23	150.1	
Specific Gravity @ 60° F	**1.233**		0.000	[blank]	1	3012515	AC	26-Jan-23	SM 2710F	
Sulfate*	**26500**		5000	mg/L	500	3012617	AC	27-Jan-23	375.4	
TDS*	**356000**		5.00	mg/L	1	3011904	AC	27-Jan-23	160.1	
Alkalinity, Total*	**424**		4.00	mg/L	1	3010506	GM	26-Jan-23	310.1	
Green Analytical Laboratories										
General Chemistry										
Bromide	**230**		20.0	mg/L	200	B230218	AES	02-Feb-23	EPA300.0	
Total Recoverable Metals by ICP (E200.7)										
Boron	<60.0		60.0	mg/L	200	B230229	AES	07-Feb-23	EPA200.7	
Calcium*	**387**		20.0	mg/L	200	B230229	AES	07-Feb-23	EPA200.7	
Magnesium*	**24400**		20.0	mg/L	200	B230229	AES	07-Feb-23	EPA200.7	
Potassium*	**29900**		200	mg/L	200	B230229	AES	07-Feb-23	EPA200.7	
Selenium*	<20.0		20.0	mg/L	200	B230229	AES	07-Feb-23	EPA200.7	B2
Sodium*	**72800**		500	mg/L	500	B230229	AES	08-Feb-23	EPA200.7	

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Analytical Results For:

MOSAIC POTASH 1361 POTASH MINES ROAD CARLSBAD NM, 88220	Project: DP-1399 Project Number: 2023 1ST QT Project Manager: HASKINS HOBSON Fax To: (575) 887-0589	Reported: 16-Feb-23 09:12

LG - 29

H230347-05 (Water)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Alkalinity, Bicarbonate	**322**		5.00	mg/L	1	3010506	GM	26-Jan-23	310.1	
Alkalinity, Carbonate	<1.00		1.00	mg/L	1	3010506	GM	26-Jan-23	310.1	
Chloride*	**146000**		4.00	mg/L	1	3011328	GM	27-Jan-23	4500-Cl-B	
Conductivity*	**268000**		1.00	umhos/cm @ 25°C	1	3012517	AC	26-Jan-23	120.1	
pH*	**6.11**		0.100	pH Units	1	3012510	AC	26-Jan-23	150.1	
Temperature °C	**18.6**			pH Units	1	3012510	AC	26-Jan-23	150.1	
Specific Gravity @ 60° F	**1.187**		0.000	[blank]	1	3012515	AC	26-Jan-23	SM 2710F	
Sulfate*	**12300**		2500	mg/L	250	3012617	AC	27-Jan-23	375.4	
TDS*	**275000**		5.00	mg/L	1	3011904	AC	27-Jan-23	160.1	
Alkalinity, Total*	**264**		4.00	mg/L	1	3010506	GM	26-Jan-23	310.1	
Green Analytical Laboratories										
General Chemistry										
Bromide	**115**		25.0	mg/L	250	B230218	AES	02-Feb-23	EPA300.0	
Total Recoverable Metals by ICP (E200.7)										
Boron	<72.0		72.0	mg/L	240	B230229	AES	07-Feb-23	EPA200.7	
Calcium*	**798**		24.0	mg/L	240	B230229	AES	07-Feb-23	EPA200.7	
Magnesium*	**8120**		24.0	mg/L	240	B230229	AES	07-Feb-23	EPA200.7	
Potassium*	**18500**		240	mg/L	240	B230229	AES	07-Feb-23	EPA200.7	
Selenium*	<24.0		24.0	mg/L	240	B230229	AES	07-Feb-23	EPA200.7	B2
Sodium*	**71500**		240	mg/L	240	B230229	AES	07-Feb-23	EPA200.7	

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Analytical Results For:

MOSAIC POTASH 1361 POTASH MINES ROAD CARLSBAD NM, 88220	Project: DP-1399 Project Number: 2023 1ST QT Project Manager: HASKINS HOBSON Fax To: (575) 887-0589	Reported: 16-Feb-23 09:12

LG - 32

H230347-06 (Water)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Alkalinity, Bicarbonate	**268**		5.00	mg/L	1	3010506	GM	26-Jan-23	310.1	
Alkalinity, Carbonate	<1.00		1.00	mg/L	1	3010506	GM	26-Jan-23	310.1	
Chloride*	**72000**		4.00	mg/L	1	3011328	GM	27-Jan-23	4500-Cl-B	
Conductivity*	**149000**		1.00	umhos/cm @ 25°C	1	3012517	AC	26-Jan-23	120.1	
pH*	**6.65**		0.100	pH Units	1	3012510	AC	26-Jan-23	150.1	
Temperature °C	**18.6**			pH Units	1	3012510	AC	26-Jan-23	150.1	
Specific Gravity @ 60° F	**1.095**		0.000	[blank]	1	3012515	AC	26-Jan-23	SM 2710F	
Sulfate*	**9080**		2500	mg/L	250	3012617	AC	27-Jan-23	375.4	
TDS*	**131000**		5.00	mg/L	1	3011904	AC	27-Jan-23	160.1	
Alkalinity, Total*	**220**		4.00	mg/L	1	3010506	GM	26-Jan-23	310.1	
Green Analytical Laboratories										
General Chemistry										
Bromide	**49.2**		15.0	mg/L	150	B230218	AES	02-Feb-23	EPA300.0	
Total Recoverable Metals by ICP (E200.7)										
Boron	<42.0		42.0	mg/L	140	B230229	AES	07-Feb-23	EPA200.7	
Calcium*	**1450**		14.0	mg/L	140	B230229	AES	07-Feb-23	EPA200.7	
Magnesium*	**4420**		14.0	mg/L	140	B230229	AES	07-Feb-23	EPA200.7	
Potassium*	**1510**		140	mg/L	140	B230229	AES	07-Feb-23	EPA200.7	
Selenium*	<14.0		14.0	mg/L	140	B230229	AES	07-Feb-23	EPA200.7	B2
Sodium*	**42000**		140	mg/L	140	B230229	AES	07-Feb-23	EPA200.7	

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Celey D. Keene, Lab Director/Quality Manager

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Analytical Results For:

MOSAIC POTASH 1361 POTASH MINES ROAD CARLSBAD NM, 88220	Project: DP-1399 Project Number: 2023 1ST QT Project Manager: HASKINS HOBSON Fax To: (575) 887-0589	Reported: 16-Feb-23 09:12

P - EAST

H230347-07 (Water)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Alkalinity, Bicarbonate	**361**		5.00	mg/L	1	3010506	GM	26-Jan-23	310.1	
Alkalinity, Carbonate	<1.00		1.00	mg/L	1	3010506	GM	26-Jan-23	310.1	
Chloride*	**154000**		4.00	mg/L	1	3011328	GM	27-Jan-23	4500-Cl-B	
Conductivity*	**284000**		1.00	umhos/cm @ 25°C	1	3012518	AC	26-Jan-23	120.1	
pH*	**6.69**		0.100	pH Units	1	3012512	AC	26-Jan-23	150.1	
Temperature °C	**18.6**			pH Units	1	3012512	AC	26-Jan-23	150.1	
Specific Gravity @ 60° F	**1.201**		0.000	[blank]	1	3012515	AC	26-Jan-23	SM 2710F	
Sulfate*	**29800**		5000	mg/L	500	3012617	AC	27-Jan-23	375.4	
TDS*	**299000**		5.00	mg/L	1	3011904	AC	27-Jan-23	160.1	
Alkalinity, Total*	**296**		4.00	mg/L	1	3010506	GM	26-Jan-23	310.1	
Green Analytical Laboratories										
General Chemistry										
Bromide	**38.0**		25.0	mg/L	250	B230218	AES	02-Feb-23	EPA300.0	
Total Recoverable Metals by ICP (E200.7)										
Boron	<72.0		72.0	mg/L	240	B230230	AES	07-Feb-23	EPA200.7	
Calcium*	**386**		24.0	mg/L	240	B230230	AES	07-Feb-23	EPA200.7	
Magnesium*	**5340**		24.0	mg/L	240	B230230	AES	07-Feb-23	EPA200.7	
Potassium*	**16500**		240	mg/L	240	B230230	AES	07-Feb-23	EPA200.7	
Selenium*	<24.0		24.0	mg/L	240	B230230	AES	07-Feb-23	EPA200.7	
Sodium*	**82000**		240	mg/L	240	B230230	AES	07-Feb-23	EPA200.7	

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Analytical Results For:

MOSAIC POTASH 1361 POTASH MINES ROAD CARLSBAD NM, 88220	Project: DP-1399 Project Number: 2023 1ST QT Project Manager: HASKINS HOBSON Fax To: (575) 887-0589	Reported: 16-Feb-23 09:12

P - CENTER

H230347-08 (Water)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Alkalinity, Bicarbonate	**371**		5.00	mg/L	1	3010506	GM	26-Jan-23	310.1	
Alkalinity, Carbonate	<1.00		1.00	mg/L	1	3010506	GM	26-Jan-23	310.1	
Chloride*	**180000**		4.00	mg/L	1	3011328	GM	27-Jan-23	4500-Cl-B	
Conductivity*	**302000**		1.00	umhos/cm @ 25°C	1	3012518	AC	26-Jan-23	120.1	
pH*	**6.67**		0.100	pH Units	1	3012512	AC	26-Jan-23	150.1	
Temperature °C	**18.7**			pH Units	1	3012512	AC	26-Jan-23	150.1	
Specific Gravity @ 60° F	**1.222**		0.000	[blank]	1	3012515	AC	26-Jan-23	SM 2710F	
Sulfate*	**23200**		5000	mg/L	500	3012617	AC	27-Jan-23	375.4	
TDS*	**341000**		5.00	mg/L	1	3011904	AC	27-Jan-23	160.1	
Alkalinity, Total*	**304**		4.00	mg/L	1	3010506	GM	26-Jan-23	310.1	
Green Analytical Laboratories										
General Chemistry										
Bromide	**39.6**		20.0	mg/L	200	B230254	AES	06-Feb-23	EPA300.0	
Total Recoverable Metals by ICP (E200.7)										
Boron	<72.0		72.0	mg/L	240	B230230	AES	07-Feb-23	EPA200.7	
Calcium*	**267**		24.0	mg/L	240	B230230	AES	07-Feb-23	EPA200.7	
Magnesium*	**5540**		24.0	mg/L	240	B230230	AES	07-Feb-23	EPA200.7	
Potassium*	**18600**		240	mg/L	240	B230230	AES	07-Feb-23	EPA200.7	
Selenium*	<24.0		24.0	mg/L	240	B230230	AES	07-Feb-23	EPA200.7	
Sodium*	**92600**		240	mg/L	240	B230230	AES	07-Feb-23	EPA200.7	

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Analytical Results For:

MOSAIC POTASH 1361 POTASH MINES ROAD CARLSBAD NM, 88220	Project: DP-1399 Project Number: 2023 1ST QT Project Manager: HASKINS HOBSON Fax To: (575) 887-0589	Reported: 16-Feb-23 09:12

P - WEST

H230347-09 (Water)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Alkalinity, Bicarbonate	**298**		5.00	mg/L	1	3010506	GM	26-Jan-23	310.1	
Alkalinity, Carbonate	<1.00		1.00	mg/L	1	3010506	GM	26-Jan-23	310.1	
Chloride*	**73000**		4.00	mg/L	1	3012616	GM	27-Jan-23	4500-Cl-B	
Conductivity*	**175000**		1.00	umhos/cm @ 25°C	1	3012518	AC	26-Jan-23	120.1	
pH*	**6.81**		0.100	pH Units	1	3012512	AC	26-Jan-23	150.1	
Temperature °C	**18.8**			pH Units	1	3012512	AC	26-Jan-23	150.1	
Specific Gravity @ 60° F	**1.103**		0.000	[blank]	1	3012515	AC	26-Jan-23	SM 2710F	
Sulfate*	**14700**		2500	mg/L	250	3012617	AC	27-Jan-23	375.4	
TDS*	**151000**		5.00	mg/L	1	3011904	AC	27-Jan-23	160.1	
Alkalinity, Total*	**244**		4.00	mg/L	1	3010506	GM	26-Jan-23	310.1	
Green Analytical Laboratories										
General Chemistry										
Bromide	**21.9**		15.0	mg/L	150	B230218	AES	02-Feb-23	EPA300.0	
Total Recoverable Metals by ICP (E200.7)										
Boron	<48.0		48.0	mg/L	160	B230230	AES	07-Feb-23	EPA200.7	
Calcium*	**1010**		16.0	mg/L	160	B230230	AES	07-Feb-23	EPA200.7	
Magnesium*	**3430**		16.0	mg/L	160	B230230	AES	07-Feb-23	EPA200.7	
Potassium*	**10100**		160	mg/L	160	B230230	AES	07-Feb-23	EPA200.7	
Selenium*	<16.0		16.0	mg/L	160	B230230	AES	07-Feb-23	EPA200.7	
Sodium*	**36600**		160	mg/L	160	B230230	AES	07-Feb-23	EPA200.7	

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Analytical Results For:

MOSAIC POTASH 1361 POTASH MINES ROAD CARLSBAD NM, 88220	Project: DP-1399 Project Number: 2023 1ST QT Project Manager: HASKINS HOBSON Fax To: (575) 887-0589	Reported: 16-Feb-23 09:12

LG - 37

H230347-10 (Water)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Alkalinity, Bicarbonate	**351**		5.00	mg/L	1	3012514	GM	26-Jan-23	310.1	
Alkalinity, Carbonate	<1.00		1.00	mg/L	1	3012514	GM	26-Jan-23	310.1	
Chloride*	**9400**		4.00	mg/L	1	3012616	GM	27-Jan-23	4500-Cl-B	
Conductivity*	**32400**		1.00	umhos/cm @ 25°C	1	3012518	AC	26-Jan-23	120.1	
pH*	**7.29**		0.100	pH Units	1	3012512	AC	26-Jan-23	150.1	
Temperature °C	**18.8**			pH Units	1	3012512	AC	26-Jan-23	150.1	
Specific Gravity @ 60° F	**1.017**		0.000	[blank]	1	3012515	AC	26-Jan-23	SM 2710F	
Sulfate*	**3950**		500	mg/L	50	3012617	AC	27-Jan-23	375.4	
TDS*	**21200**		5.00	mg/L	1	3011904	AC	27-Jan-23	160.1	
Alkalinity, Total*	**288**		4.00	mg/L	1	3012514	GM	26-Jan-23	310.1	
Green Analytical Laboratories										
General Chemistry										
Bromide	**4.62**		3.00	mg/L	30	B230218	AES	02-Feb-23	EPA300.0	
Total Recoverable Metals by ICP (E200.7)										
Boron	<9.00		9.00	mg/L	30	B230230	AES	07-Feb-23	EPA200.7	
Calcium*	**970**		3.00	mg/L	30	B230230	AES	07-Feb-23	EPA200.7	
Magnesium*	**941**		3.00	mg/L	30	B230230	AES	07-Feb-23	EPA200.7	
Potassium*	**68.5**		30.0	mg/L	30	B230230	AES	07-Feb-23	EPA200.7	
Selenium*	<3.00		3.00	mg/L	30	B230230	AES	07-Feb-23	EPA200.7	
Sodium*	**4470**		30.0	mg/L	30	B230230	AES	07-Feb-23	EPA200.7	

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Analytical Results For:

MOSAIC POTASH 1361 POTASH MINES ROAD CARLSBAD NM, 88220	Project: DP-1399 Project Number: 2023 1ST QT Project Manager: HASKINS HOBSON Fax To: (575) 887-0589	Reported: 16-Feb-23 09:12

LG - 38

H230347-11 (Water)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Alkalinity, Bicarbonate	**332**		5.00	mg/L	1	3012514	GM	26-Jan-23	310.1	
Alkalinity, Carbonate	<1.00		1.00	mg/L	1	3012514	GM	26-Jan-23	310.1	
Chloride*	**138000**		4.00	mg/L	1	3012616	GM	27-Jan-23	4500-Cl-B	
Conductivity*	**244000**		1.00	umhos/cm @ 25°C	1	3012518	AC	26-Jan-23	120.1	
pH*	**6.73**		0.100	pH Units	1	3012512	AC	26-Jan-23	150.1	
Temperature °C	**18.8**			pH Units	1	3012512	AC	26-Jan-23	150.1	
Specific Gravity @ 60° F	**1.166**		0.000	[blank]	1	3012515	AC	26-Jan-23	SM 2710F	
Sulfate*	**13900**		2500	mg/L	250	3012617	AC	27-Jan-23	375.4	
TDS*	**258000**		5.00	mg/L	1	3011904	AC	27-Jan-23	160.1	
Alkalinity, Total*	**272**		4.00	mg/L	1	3012514	GM	26-Jan-23	310.1	
Green Analytical Laboratories										
General Chemistry										
Bromide	**61.5**		25.0	mg/L	250	B230218	AES	02-Feb-23	EPA300.0	
Total Recoverable Metals by ICP (E200.7)										
Boron	<72.0		72.0	mg/L	240	B230230	AES	07-Feb-23	EPA200.7	
Calcium*	**814**		24.0	mg/L	240	B230230	AES	07-Feb-23	EPA200.7	
Magnesium*	**6000**		24.0	mg/L	240	B230230	AES	07-Feb-23	EPA200.7	
Potassium*	**18800**		240	mg/L	240	B230230	AES	07-Feb-23	EPA200.7	
Selenium*	<24.0		24.0	mg/L	240	B230230	AES	07-Feb-23	EPA200.7	
Sodium*	**61700**		240	mg/L	240	B230230	AES	07-Feb-23	EPA200.7	

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Analytical Results For:

MOSAIC POTASH 1361 POTASH MINES ROAD CARLSBAD NM, 88220	Project: DP-1399 Project Number: 2023 1ST QT Project Manager: HASKINS HOBSON Fax To: (575) 887-0589	Reported: 16-Feb-23 09:12

LG - 1

H230347-12 (Water)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Alkalinity, Bicarbonate	**317**		5.00	mg/L	1	3012514	GM	26-Jan-23	310.1	
Alkalinity, Carbonate	<1.00		1.00	mg/L	1	3012514	GM	26-Jan-23	310.1	
Chloride*	**58000**		4.00	mg/L	1	3012616	GM	27-Jan-23	4500-Cl-B	
Conductivity*	**132000**		1.00	umhos/cm @ 25°C	1	3012518	AC	26-Jan-23	120.1	
pH*	**6.61**		0.100	pH Units	1	3012512	AC	26-Jan-23	150.1	
Temperature °C	**18.8**			pH Units	1	3012512	AC	26-Jan-23	150.1	
Specific Gravity @ 60° F	**1.072**		0.000	[blank]	1	3012515	AC	26-Jan-23	SM 2710F	
Sulfate*	**5510**		1250	mg/L	125	3012617	AC	27-Jan-23	375.4	
TDS*	**96900**		5.00	mg/L	1	3011904	AC	27-Jan-23	160.1	
Alkalinity, Total*	**260**		4.00	mg/L	1	3012514	GM	26-Jan-23	310.1	
Green Analytical Laboratories										
General Chemistry										
Bromide	**36.6**		15.0	mg/L	150	B230218	AES	02-Feb-23	EPA300.0	
Total Recoverable Metals by ICP (E200.7)										
Boron	<36.0		36.0	mg/L	120	B230230	AES	07-Feb-23	EPA200.7	
Calcium*	**1930**		12.0	mg/L	120	B230230	AES	07-Feb-23	EPA200.7	
Magnesium*	**5990**		12.0	mg/L	120	B230230	AES	07-Feb-23	EPA200.7	
Potassium*	**3620**		120	mg/L	120	B230230	AES	07-Feb-23	EPA200.7	
Selenium*	<12.0		12.0	mg/L	120	B230230	AES	07-Feb-23	EPA200.7	
Sodium*	**27200**		120	mg/L	120	B230230	AES	07-Feb-23	EPA200.7	

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Analytical Results For:

MOSAIC POTASH 1361 POTASH MINES ROAD CARLSBAD NM, 88220	Project: DP-1399 Project Number: 2023 1ST QT Project Manager: HASKINS HOBSON Fax To: (575) 887-0589	Reported: 16-Feb-23 09:12

LG - 30

H230347-13 (Water)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Alkalinity, Bicarbonate	**283**		5.00	mg/L	1	3012514	GM	26-Jan-23	310.1	
Alkalinity, Carbonate	<1.00		1.00	mg/L	1	3012514	GM	26-Jan-23	310.1	
Chloride*	**17000**		4.00	mg/L	1	3012616	GM	27-Jan-23	4500-Cl-B	
Conductivity*	**53200**		1.00	umhos/cm @ 25°C	1	3012518	AC	26-Jan-23	120.1	
pH*	**7.06**		0.100	pH Units	1	3012512	AC	26-Jan-23	150.1	
Temperature °C	**18.8**			pH Units	1	3012512	AC	26-Jan-23	150.1	
Specific Gravity @ 60° F	**1.026**		0.000	[blank]	1	3012515	AC	26-Jan-23	SM 2710F	
Sulfate*	**4160**		1250	mg/L	125	3012617	AC	27-Jan-23	375.4	
TDS*	**33800**		5.00	mg/L	1	3012738	AC	30-Jan-23	160.1	
Alkalinity, Total*	**232**		4.00	mg/L	1	3012514	GM	26-Jan-23	310.1	
Green Analytical Laboratories										
General Chemistry										
Bromide	**9.70**		5.00	mg/L	50	B230218	AES	03-Feb-23	EPA300.0	
Total Recoverable Metals by ICP (E200.7)										
Boron	<15.0		15.0	mg/L	50	B230230	AES	07-Feb-23	EPA200.7	
Calcium*	**873**		5.00	mg/L	50	B230230	AES	07-Feb-23	EPA200.7	
Magnesium*	**1040**		5.00	mg/L	50	B230230	AES	07-Feb-23	EPA200.7	
Potassium*	**1420**		50.0	mg/L	50	B230230	AES	07-Feb-23	EPA200.7	
Selenium*	<5.00		5.00	mg/L	50	B230230	AES	07-Feb-23	EPA200.7	
Sodium*	**8060**		50.0	mg/L	50	B230230	AES	07-Feb-23	EPA200.7	

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Analytical Results For:

MOSAIC POTASH 1361 POTASH MINES ROAD CARLSBAD NM, 88220	Project: DP-1399 Project Number: 2023 1ST QT Project Manager: HASKINS HOBSON Fax To: (575) 887-0589	Reported: 16-Feb-23 09:12

LG - 26

H230347-14 (Water)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Alkalinity, Bicarbonate	**342**		5.00	mg/L	1	3012514	GM	26-Jan-23	310.1	
Alkalinity, Carbonate	<1.00		1.00	mg/L	1	3012514	GM	26-Jan-23	310.1	
Chloride*	**110000**		4.00	mg/L	1	3012616	GM	27-Jan-23	4500-Cl-B	
Conductivity*	**199000**		1.00	umhos/cm @ 25°C	1	3012518	AC	26-Jan-23	120.1	
pH*	**6.54**		0.100	pH Units	1	3012512	AC	26-Jan-23	150.1	
Temperature °C	**18.8**			pH Units	1	3012512	AC	26-Jan-23	150.1	
Specific Gravity @ 60° F	**1.123**		0.000	[blank]	1	3012515	AC	26-Jan-23	SM 2710F	
Sulfate*	**10800**		2500	mg/L	250	3012617	AC	27-Jan-23	375.4	
TDS*	**175000**		5.00	mg/L	1	3012738	AC	30-Jan-23	160.1	
Alkalinity, Total*	**280**		4.00	mg/L	1	3012514	GM	26-Jan-23	310.1	
Green Analytical Laboratories										
General Chemistry										
Bromide	**67.8**		20.0	mg/L	200	B230218	AES	03-Feb-23	EPA300.0	
Total Recoverable Metals by ICP (E200.7)										
Boron	<48.0		48.0	mg/L	160	B230230	AES	07-Feb-23	EPA200.7	
Calcium*	**1240**		16.0	mg/L	160	B230230	AES	07-Feb-23	EPA200.7	
Magnesium*	**6640**		16.0	mg/L	160	B230230	AES	07-Feb-23	EPA200.7	
Potassium*	**8220**		160	mg/L	160	B230230	AES	07-Feb-23	EPA200.7	
Selenium*	<16.0		16.0	mg/L	160	B230230	AES	07-Feb-23	EPA200.7	
Sodium*	**43800**		160	mg/L	160	B230230	AES	07-Feb-23	EPA200.7	

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Analytical Results For:

MOSAIC POTASH 1361 POTASH MINES ROAD CARLSBAD NM, 88220	Project: DP-1399 Project Number: 2023 1ST QT Project Manager: HASKINS HOBSON Fax To: (575) 887-0589	Reported: 16-Feb-23 09:12

RIVER - 2

H230347-15 (Water)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Alkalinity, Bicarbonate	**234**		5.00	mg/L	1	3012514	GM	26-Jan-23	310.1	
Alkalinity, Carbonate	<1.00		1.00	mg/L	1	3012514	GM	26-Jan-23	310.1	
Chloride*	**1280**		4.00	mg/L	1	3012616	GM	27-Jan-23	4500-Cl-B	
Conductivity*	**7370**		1.00	umhos/cm @ 25°C	1	3012518	AC	26-Jan-23	120.1	
pH*	**8.35**		0.100	pH Units	1	3012512	AC	26-Jan-23	150.1	
Temperature °C	**18.7**			pH Units	1	3012512	AC	26-Jan-23	150.1	
Specific Gravity @ 60° F	**1.004**		0.000	[blank]	1	3012515	AC	26-Jan-23	SM 2710F	
Sulfate*	**1450**		250	mg/L	25	3012617	AC	27-Jan-23	375.4	
TDS*	**4400**		5.00	mg/L	1	3012738	AC	30-Jan-23	160.1	
Alkalinity, Total*	**192**		4.00	mg/L	1	3012514	GM	26-Jan-23	310.1	
Green Analytical Laboratories										
General Chemistry										
Bromide	<0.800		0.800	mg/L	8	B230218	AES	03-Feb-23	EPA300.0	
Total Recoverable Metals by ICP (E200.7)										
Boron	<3.00		3.00	mg/L	10	B230230	AES	07-Feb-23	EPA200.7	
Calcium*	**466**		1.00	mg/L	10	B230230	AES	07-Feb-23	EPA200.7	
Magnesium*	**190**		1.00	mg/L	10	B230230	AES	07-Feb-23	EPA200.7	
Potassium*	**11.4**		10.0	mg/L	10	B230230	AES	07-Feb-23	EPA200.7	
Selenium*	<1.00		1.00	mg/L	10	B230230	AES	07-Feb-23	EPA200.7	
Sodium*	**693**		10.0	mg/L	10	B230230	AES	07-Feb-23	EPA200.7	

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Analytical Results For:

MOSAIC POTASH 1361 POTASH MINES ROAD CARLSBAD NM, 88220	Project: DP-1399 Project Number: 2023 1ST QT Project Manager: HASKINS HOBSON Fax To: (575) 887-0589	Reported: 16-Feb-23 09:12

RIVER - 4

H230347-16 (Water)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Alkalinity, Bicarbonate	**224**		5.00	mg/L	1	3012514	GM	26-Jan-23	310.1	
Alkalinity, Carbonate	<1.00		1.00	mg/L	1	3012514	GM	26-Jan-23	310.1	
Chloride*	**1480**		4.00	mg/L	1	3012616	GM	27-Jan-23	4500-Cl-B	
Conductivity*	**7610**		1.00	umhos/cm @ 25°C	1	3012518	AC	26-Jan-23	120.1	
pH*	**8.28**		0.100	pH Units	1	3012512	AC	26-Jan-23	150.1	
Temperature °C	**18.8**			pH Units	1	3012512	AC	26-Jan-23	150.1	
Specific Gravity @ 60° F	**1.006**		0.000	[blank]	1	3012515	AC	26-Jan-23	SM 2710F	
Sulfate*	**1450**		250	mg/L	25	3012617	AC	27-Jan-23	375.4	
TDS*	**4460**		5.00	mg/L	1	3012738	AC	30-Jan-23	160.1	
Alkalinity, Total*	**184**		4.00	mg/L	1	3012514	GM	26-Jan-23	310.1	
Green Analytical Laboratories										
General Chemistry										
Bromide	**0.896**		0.700	mg/L	7	B230218	AES	03-Feb-23	EPA300.0	
Total Recoverable Metals by ICP (E200.7)										
Boron	<3.00		3.00	mg/L	10	B230230	AES	07-Feb-23	EPA200.7	
Calcium*	**467**		1.00	mg/L	10	B230230	AES	07-Feb-23	EPA200.7	
Magnesium*	**195**		1.00	mg/L	10	B230230	AES	07-Feb-23	EPA200.7	
Potassium*	**14.4**		10.0	mg/L	10	B230230	AES	07-Feb-23	EPA200.7	
Selenium*	<1.00		1.00	mg/L	10	B230230	AES	07-Feb-23	EPA200.7	
Sodium*	**750**		10.0	mg/L	10	B230230	AES	07-Feb-23	EPA200.7	

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Analytical Results For:

MOSAIC POTASH 1361 POTASH MINES ROAD CARLSBAD NM, 88220	Project: DP-1399 Project Number: 2023 1ST QT Project Manager: HASKINS HOBSON Fax To: (575) 887-0589	Reported: 16-Feb-23 09:12

LG - 35

H230347-17 (Water)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Alkalinity, Bicarbonate	**288**		5.00	mg/L	1	3012514	GM	26-Jan-23	310.1	
Alkalinity, Carbonate	<1.00		1.00	mg/L	1	3012514	GM	26-Jan-23	310.1	
Chloride*	**24000**		4.00	mg/L	1	3012616	GM	27-Jan-23	4500-Cl-B	
Conductivity*	**66400**		1.00	umhos/cm @ 25°C	1	3012519	AC	26-Jan-23	120.1	
pH*	**6.90**		0.100	pH Units	1	3012513	AC	26-Jan-23	150.1	
Temperature °C	**19.1**			pH Units	1	3012513	AC	26-Jan-23	150.1	
Specific Gravity @ 60° F	**1.035**		0.000	[blank]	1	3012515	AC	26-Jan-23	SM 2710F	
Sulfate*	**3730**		1250	mg/L	125	3012617	AC	27-Jan-23	375.4	
TDS*	**43900**		5.00	mg/L	1	3012738	AC	30-Jan-23	160.1	
Alkalinity, Total*	**236**		4.00	mg/L	1	3012514	GM	26-Jan-23	310.1	
Green Analytical Laboratories										
General Chemistry										
Bromide	**13.9**		6.00	mg/L	60	B230218	AES	03-Feb-23	EPA300.0	
Total Recoverable Metals by ICP (E200.7)										
Boron	<15.0		15.0	mg/L	50	B230230	AES	07-Feb-23	EPA200.7	
Calcium*	**1350**		5.00	mg/L	50	B230230	AES	07-Feb-23	EPA200.7	
Magnesium*	**1630**		5.00	mg/L	50	B230230	AES	07-Feb-23	EPA200.7	
Potassium*	**865**		50.0	mg/L	50	B230230	AES	07-Feb-23	EPA200.7	
Selenium*	<5.00		5.00	mg/L	50	B230230	AES	07-Feb-23	EPA200.7	
Sodium*	**10400**		50.0	mg/L	50	B230230	AES	07-Feb-23	EPA200.7	

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Analytical Results For:

MOSAIC POTASH 1361 POTASH MINES ROAD CARLSBAD NM, 88220	Project: DP-1399 Project Number: 2023 1ST QT Project Manager: HASKINS HOBSON Fax To: (575) 887-0589	Reported: 16-Feb-23 09:12

LG - 34

H230347-18 (Water)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Alkalinity, Bicarbonate	**268**		5.00	mg/L	1	3012514	GM	26-Jan-23	310.1	
Alkalinity, Carbonate	<1.00		1.00	mg/L	1	3012514	GM	26-Jan-23	310.1	
Chloride*	**1520**		4.00	mg/L	1	3012616	GM	27-Jan-23	4500-Cl-B	
Conductivity*	**8650**		1.00	umhos/cm @ 25°C	1	3012519	AC	26-Jan-23	120.1	
pH*	**7.23**		0.100	pH Units	1	3012513	AC	26-Jan-23	150.1	
Temperature °C	**19.1**			pH Units	1	3012513	AC	26-Jan-23	150.1	
Specific Gravity @ 60° F	**1.005**		0.000	[blank]	1	3012515	AC	26-Jan-23	SM 2710F	
Sulfate*	**1640**		500	mg/L	50	3012617	AC	27-Jan-23	375.4	
TDS*	**5720**		5.00	mg/L	1	3012738	AC	30-Jan-23	160.1	
Alkalinity, Total*	**220**		4.00	mg/L	1	3012514	GM	26-Jan-23	310.1	
Green Analytical Laboratories										
General Chemistry										
Bromide	**1.30**		0.800	mg/L	8	B230218	AES	03-Feb-23	EPA300.0	
Total Recoverable Metals by ICP (E200.7)										
Boron	<3.00		3.00	mg/L	10	B230230	AES	07-Feb-23	EPA200.7	
Calcium*	**560**		1.00	mg/L	10	B230230	AES	07-Feb-23	EPA200.7	
Magnesium*	**224**		1.00	mg/L	10	B230230	AES	07-Feb-23	EPA200.7	
Potassium*	<10.0		10.0	mg/L	10	B230230	AES	07-Feb-23	EPA200.7	
Selenium*	<1.00		1.00	mg/L	10	B230230	AES	07-Feb-23	EPA200.7	
Sodium*	**885**		10.0	mg/L	10	B230230	AES	07-Feb-23	EPA200.7	

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Analytical Results For:

MOSAIC POTASH 1361 POTASH MINES ROAD CARLSBAD NM, 88220	Project: DP-1399 Project Number: 2023 1ST QT Project Manager: HASKINS HOBSON Fax To: (575) 887-0589	Reported: 16-Feb-23 09:12

LG - 25

H230347-19 (Water)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Alkalinity, Bicarbonate	**268**		5.00	mg/L	1	3012514	GM	26-Jan-23	310.1	
Alkalinity, Carbonate	<1.00		1.00	mg/L	1	3012514	GM	26-Jan-23	310.1	
Chloride*	**1820**		4.00	mg/L	1	3012616	GM	27-Jan-23	4500-Cl-B	
Conductivity*	**8480**		1.00	umhos/cm @ 25°C	1	3012519	AC	26-Jan-23	120.1	
pH*	**7.07**		0.100	pH Units	1	3012513	AC	26-Jan-23	150.1	
Temperature °C	**19.1**			pH Units	1	3012513	AC	26-Jan-23	150.1	
Specific Gravity @ 60° F	**1.005**		0.000	[blank]	1	3012515	AC	26-Jan-23	SM 2710F	
Sulfate*	**1790**		500	mg/L	50	3012617	AC	27-Jan-23	375.4	
TDS*	**5400**		5.00	mg/L	1	3012738	AC	30-Jan-23	160.1	
Alkalinity, Total*	**220**		4.00	mg/L	1	3012514	GM	26-Jan-23	310.1	
Green Analytical Laboratories										
General Chemistry										
Bromide	**1.12**		0.800	mg/L	8	B230218	AES	03-Feb-23	EPA300.0	
Total Recoverable Metals by ICP (E200.7)										
Boron	<3.00		3.00	mg/L	10	B230230	AES	07-Feb-23	EPA200.7	
Calcium*	**539**		1.00	mg/L	10	B230230	AES	07-Feb-23	EPA200.7	
Magnesium*	**225**		1.00	mg/L	10	B230230	AES	07-Feb-23	EPA200.7	
Potassium*	<10.0		10.0	mg/L	10	B230230	AES	07-Feb-23	EPA200.7	
Selenium*	<1.00		1.00	mg/L	10	B230230	AES	07-Feb-23	EPA200.7	
Sodium*	**890**		10.0	mg/L	10	B230230	AES	07-Feb-23	EPA200.7	

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Analytical Results For:

MOSAIC POTASH 1361 POTASH MINES ROAD CARLSBAD NM, 88220	Project: DP-1399 Project Number: 2023 1ST QT Project Manager: HASKINS HOBSON Fax To: (575) 887-0589	Reported: 16-Feb-23 09:12

RIVER - 1

H230347-20 (Water)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Alkalinity, Bicarbonate	**234**		5.00	mg/L	1	3012514	GM	26-Jan-23	310.1	
Alkalinity, Carbonate	<1.00		1.00	mg/L	1	3012514	GM	26-Jan-23	310.1	
Chloride*	**1180**		4.00	mg/L	1	3012616	GM	27-Jan-23	4500-Cl-B	
Conductivity*	**6360**		1.00	umhos/cm @ 25°C	1	3012519	AC	26-Jan-23	120.1	
pH*	**8.17**		0.100	pH Units	1	3012513	AC	26-Jan-23	150.1	
Temperature °C	**19.1**			pH Units	1	3012513	AC	26-Jan-23	150.1	
Specific Gravity @ 60° F	**1.004**		0.000	[blank]	1	3012515	AC	26-Jan-23	SM 2710F	
Sulfate*	**1370**		250	mg/L	25	3012617	AC	27-Jan-23	375.4	
TDS*	**4100**		5.00	mg/L	1	3012738	AC	30-Jan-23	160.1	
Alkalinity, Total*	**192**		4.00	mg/L	1	3012514	GM	26-Jan-23	310.1	
Green Analytical Laboratories										
General Chemistry										
Bromide	<0.600		0.600	mg/L	6	B230254	AES	06-Feb-23	EPA300.0	
Total Recoverable Metals by ICP (E200.7)										
Boron	<1.50		1.50	mg/L	5	B230230	AES	07-Feb-23	EPA200.7	
Calcium*	**438**		0.500	mg/L	5	B230230	AES	07-Feb-23	EPA200.7	
Magnesium*	**172**		0.500	mg/L	5	B230230	AES	07-Feb-23	EPA200.7	
Potassium*	**6.16**		5.00	mg/L	5	B230230	AES	07-Feb-23	EPA200.7	
Selenium*	<0.500		0.500	mg/L	5	B230230	AES	07-Feb-23	EPA200.7	
Sodium*	**592**		5.00	mg/L	5	B230230	AES	07-Feb-23	EPA200.7	

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Analytical Results For:

MOSAIC POTASH 1361 POTASH MINES ROAD CARLSBAD NM, 88220	Project: DP-1399 Project Number: 2023 1ST QT Project Manager: HASKINS HOBSON Fax To: (575) 887-0589	Reported: 16-Feb-23 09:12

LG - 33

H230347-21 (Water)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Alkalinity, Bicarbonate	**229**		5.00	mg/L	1	3012514	GM	26-Jan-23	310.1	
Alkalinity, Carbonate	<1.00		1.00	mg/L	1	3012514	GM	26-Jan-23	310.1	
Chloride*	**1880**		4.00	mg/L	1	3012616	GM	27-Jan-23	4500-Cl-B	
Conductivity*	**8830**		1.00	umhos/cm @ 25°C	1	3012519	AC	26-Jan-23	120.1	
pH*	**7.02**		0.100	pH Units	1	3012513	AC	26-Jan-23	150.1	
Temperature °C	**19.1**			pH Units	1	3012513	AC	26-Jan-23	150.1	
Specific Gravity @ 60° F	**1.005**		0.000	[blank]	1	3012516	AC	26-Jan-23	SM 2710F	
Sulfate*	**1890**		500	mg/L	50	3012618	AC	27-Jan-23	375.4	QM-07
TDS*	**5790**		5.00	mg/L	1	3012738	AC	30-Jan-23	160.1	
Alkalinity, Total*	**188**		4.00	mg/L	1	3012514	GM	26-Jan-23	310.1	
Green Analytical Laboratories										
General Chemistry										
Bromide	**1.07**		0.800	mg/L	8	B230254	AES	06-Feb-23	EPA300.0	
Total Recoverable Metals by ICP (E200.7)										
Boron	<3.00		3.00	mg/L	10	B230230	AES	07-Feb-23	EPA200.7	
Calcium*	**723**		1.00	mg/L	10	B230230	AES	07-Feb-23	EPA200.7	
Magnesium*	**215**		1.00	mg/L	10	B230230	AES	07-Feb-23	EPA200.7	
Potassium*	<10.0		10.0	mg/L	10	B230230	AES	07-Feb-23	EPA200.7	
Selenium*	<1.00		1.00	mg/L	10	B230230	AES	07-Feb-23	EPA200.7	
Sodium*	**812**		10.0	mg/L	10	B230230	AES	07-Feb-23	EPA200.7	

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Analytical Results For:

MOSAIC POTASH 1361 POTASH MINES ROAD CARLSBAD NM, 88220	Project: DP-1399 Project Number: 2023 1ST QT Project Manager: HASKINS HOBSON Fax To: (575) 887-0589	Reported: 16-Feb-23 09:12

RIVER - 3

H230347-22 (Water)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Alkalinity, Bicarbonate	**234**		5.00	mg/L	1	3012514	GM	26-Jan-23	310.1	
Alkalinity, Carbonate	<1.00		1.00	mg/L	1	3012514	GM	26-Jan-23	310.1	
Chloride*	**1140**		4.00	mg/L	1	3012616	GM	27-Jan-23	4500-Cl-B	
Conductivity*	**6190**		1.00	umhos/cm @ 25°C	1	3012519	AC	26-Jan-23	120.1	
pH*	**8.21**		0.100	pH Units	1	3012513	AC	26-Jan-23	150.1	
Temperature °C	**19.2**			pH Units	1	3012513	AC	26-Jan-23	150.1	
Specific Gravity @ 60° F	**1.006**		0.000	[blank]	1	3012516	AC	26-Jan-23	SM 2710F	
Sulfate*	**1380**		250	mg/L	25	3012618	AC	27-Jan-23	375.4	
TDS*	**3990**		5.00	mg/L	1	3012738	AC	30-Jan-23	160.1	
Alkalinity, Total*	**192**		4.00	mg/L	1	3012514	GM	26-Jan-23	310.1	
Green Analytical Laboratories										
General Chemistry										
Bromide	<0.600		0.600	mg/L	6	B230254	AES	06-Feb-23	EPA300.0	
Total Recoverable Metals by ICP (E200.7)										
Boron	<1.50		1.50	mg/L	5	B230230	AES	07-Feb-23	EPA200.7	
Calcium*	**438**		0.500	mg/L	5	B230230	AES	07-Feb-23	EPA200.7	
Magnesium*	**173**		0.500	mg/L	5	B230230	AES	07-Feb-23	EPA200.7	
Potassium*	**6.06**		5.00	mg/L	5	B230230	AES	07-Feb-23	EPA200.7	
Selenium*	<0.500		0.500	mg/L	5	B230230	AES	07-Feb-23	EPA200.7	
Sodium*	**581**		5.00	mg/L	5	B230230	AES	07-Feb-23	EPA200.7	

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Analytical Results For:

MOSAIC POTASH 1361 POTASH MINES ROAD CARLSBAD NM, 88220	Project: DP-1399 Project Number: 2023 1ST QT Project Manager: HASKINS HOBSON Fax To: (575) 887-0589	Reported: 16-Feb-23 09:12

RINSATE SAMPLE

H230347-23 (Water)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Alkalinity, Bicarbonate	**98.0**		5.00	mg/L	1	3012514	GM	26-Jan-23	310.1	
Alkalinity, Carbonate	<1.00		1.00	mg/L	1	3012514	GM	26-Jan-23	310.1	
Chloride*	**32.0**		4.00	mg/L	1	3012616	GM	27-Jan-23	4500-Cl-B	
Conductivity*	**268**		1.00	umhos/cm @ 25°C	1	3012519	AC	26-Jan-23	120.1	
pH*	**8.24**		0.100	pH Units	1	3012513	AC	26-Jan-23	150.1	
Temperature °C	**19.2**			pH Units	1	3012513	AC	26-Jan-23	150.1	
Specific Gravity @ 60° F	**1.009**		0.000	[blank]	1	3012516	AC	26-Jan-23	SM 2710F	
Sulfate*	<10.0		10.0	mg/L	1	3012618	AC	27-Jan-23	375.4	
TDS*	**126**		5.00	mg/L	1	3012738	AC	02-Feb-23	160.1	
Alkalinity, Total*	**80.0**		4.00	mg/L	1	3012514	GM	26-Jan-23	310.1	
Green Analytical Laboratories										
General Chemistry										
Bromide	<0.100		0.100	mg/L	1	B230254	AES	06-Feb-23	EPA300.0	
Total Recoverable Metals by ICP (E200.7)										
Boron	<0.300		0.300	mg/L	1	B230230	AES	07-Feb-23	EPA200.7	
Calcium*	**24.7**		0.100	mg/L	1	B230230	AES	07-Feb-23	EPA200.7	
Magnesium*	**4.58**		0.100	mg/L	1	B230230	AES	07-Feb-23	EPA200.7	
Potassium*	**2.21**		1.00	mg/L	1	B230230	AES	07-Feb-23	EPA200.7	
Selenium*	<0.100		0.100	mg/L	1	B230230	AES	07-Feb-23	EPA200.7	
Sodium*	**15.7**		1.00	mg/L	1	B230230	AES	07-Feb-23	EPA200.7	

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Analytical Results For:

MOSAIC POTASH 1361 POTASH MINES ROAD CARLSBAD NM, 88220	Project: DP-1399 Project Number: 2023 1ST QT Project Manager: HASKINS HOBSON Fax To: (575) 887-0589	Reported: 16-Feb-23 09:12

BRINE PIPELINE

H230347-24 (Water)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Alkalinity, Bicarbonate	**146**		5.00	mg/L	1	3012514	GM	26-Jan-23	310.1	
Alkalinity, Carbonate	<1.00		1.00	mg/L	1	3012514	GM	26-Jan-23	310.1	
Chloride*	**164000**		4.00	mg/L	1	3012616	GM	27-Jan-23	4500-Cl-B	
Conductivity*	**279000**		1.00	umhos/cm @ 25°C	1	3012519	AC	26-Jan-23	120.1	
Fecal Coliforms	<50		50	MPN/100 mL	5	3010415	GM	26-Jan-23	9221E	
pH*	**7.54**		0.100	pH Units	1	3012513	AC	26-Jan-23	150.1	
Temperature °C	**19.2**			pH Units	1	3012513	AC	26-Jan-23	150.1	
Specific Gravity @ 60° F	**1.201**		0.000	[blank]	1	3012516	AC	26-Jan-23	SM 2710F	
Sulfate*	**13900**		2500	mg/L	250	3012618	AC	27-Jan-23	375.4	
TDS*	**294000**		5.00	mg/L	1	3012738	AC	30-Jan-23	160.1	
Alkalinity, Total*	**124**		4.00	mg/L	1	3012514	GM	26-Jan-23	310.1	
TSS*	**4030**		2.00	mg/L	1	3012619	AC	27-Jan-23	160.2	
Green Analytical Laboratories										
General Chemistry										
Bromide	<25.0		25.0	mg/L	250	B230254	AES	06-Feb-23	EPA300.0	
Nitrate/Nitrite as N*	<1.00		1.00	mg/L as N	50	B230209	AES	30-Jan-23	EPA353.2	
Total Kjeldahl Nitrogen*	<25.0		25.0	mg N/L	50	B230253	AES	06-Feb-23	EPA351.2	
Total Recoverable Metals by ICP (E200.7)										
Boron	<72.0		72.0	mg/L	240	B230230	AES	07-Feb-23	EPA200.7	
Calcium*	**609**		24.0	mg/L	240	B230230	AES	07-Feb-23	EPA200.7	
Magnesium*	**2670**		24.0	mg/L	240	B230230	AES	07-Feb-23	EPA200.7	
Potassium*	**7920**		240	mg/L	240	B230230	AES	07-Feb-23	EPA200.7	
Selenium*	<24.0		24.0	mg/L	240	B230230	AES	07-Feb-23	EPA200.7	
Sodium*	**96400**		240	mg/L	240	B230230	AES	07-Feb-23	EPA200.7	

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Analytical Results For:

MOSAIC POTASH 1361 POTASH MINES ROAD CARLSBAD NM, 88220	Project: DP-1399 Project Number: 2023 1ST QT Project Manager: HASKINS HOBSON Fax To: (575) 887-0589	Reported: 16-Feb-23 09:12

CULVERT RUNOFF

H230347-25 (Water)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Alkalinity, Bicarbonate	**224**		5.00	mg/L	1	3012514	GM	26-Jan-23	310.1	
Alkalinity, Carbonate	<1.00		1.00	mg/L	1	3012514	GM	26-Jan-23	310.1	
Chloride*	**174000**		4.00	mg/L	1	3012616	GM	27-Jan-23	4500-Cl-B	
Conductivity*	**273000**		1.00	umhos/cm @ 25°C	1	3012519	AC	26-Jan-23	120.1	
pH*	**7.65**		0.100	pH Units	1	3012513	AC	26-Jan-23	150.1	
Temperature °C	**19.2**			pH Units	1	3012513	AC	26-Jan-23	150.1	
Specific Gravity @ 60° F	**1.200**		0.000	[blank]	1	3012516	AC	26-Jan-23	SM 2710F	
Sulfate*	**17000**		5000	mg/L	500	3012618	AC	27-Jan-23	375.4	
TDS*	**289000**		5.00	mg/L	1	3012738	AC	30-Jan-23	160.1	
Alkalinity, Total*	**184**		4.00	mg/L	1	3012514	GM	26-Jan-23	310.1	
TSS*	**124**		2.00	mg/L	1	3012619	AC	27-Jan-23	160.2	
Green Analytical Laboratories										
General Chemistry										
Bromide	**36.8**		25.0	mg/L	250	B230254	AES	06-Feb-23	EPA300.0	
Total Recoverable Metals by ICP (E200.7)										
Boron	<72.0		72.0	mg/L	240	B230230	AES	07-Feb-23	EPA200.7	
Calcium*	**490**		24.0	mg/L	240	B230230	AES	07-Feb-23	EPA200.7	
Magnesium*	**4520**		24.0	mg/L	240	B230230	AES	07-Feb-23	EPA200.7	
Potassium*	**15700**		240	mg/L	240	B230230	AES	07-Feb-23	EPA200.7	
Selenium*	<24.0		24.0	mg/L	240	B230230	AES	07-Feb-23	EPA200.7	
Sodium*	**83300**		240	mg/L	240	B230230	AES	07-Feb-23	EPA200.7	

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Analytical Results For:

MOSAIC POTASH 1361 POTASH MINES ROAD CARLSBAD NM, 88220	Project: DP-1399 Project Number: 2023 1ST QT Project Manager: HASKINS HOBSON Fax To: (575) 887-0589	Reported: 16-Feb-23 09:12

GOL - 04

H230347-26 (Water)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Alkalinity, Bicarbonate	**337**		5.00	mg/L	1	3012514	GM	26-Jan-23	310.1	
Alkalinity, Carbonate	<1.00		1.00	mg/L	1	3012514	GM	26-Jan-23	310.1	
Chloride*	**64000**		4.00	mg/L	1	3012616	GM	27-Jan-23	4500-Cl-B	
Conductivity*	**144000**		1.00	umhos/cm @ 25°C	1	3012519	AC	26-Jan-23	120.1	
pH*	**6.72**		0.100	pH Units	1	3012513	AC	26-Jan-23	150.1	
Temperature °C	**19.3**			pH Units	1	3012513	AC	26-Jan-23	150.1	
Specific Gravity @ 60° F	**1.082**		0.000	[blank]	1	3012516	AC	26-Jan-23	SM 2710F	
Sulfate*	**6000**		1250	mg/L	125	3012618	AC	27-Jan-23	375.4	
TDS*	**114000**		5.00	mg/L	1	3012738	AC	30-Jan-23	160.1	
Alkalinity, Total*	**276**		4.00	mg/L	1	3012514	GM	26-Jan-23	310.1	
Green Analytical Laboratories										
General Chemistry										
Bromide	**43.4**		15.0	mg/L	150	B230254	AES	06-Feb-23	EPA300.0	
Total Recoverable Metals by ICP (E200.7)										
Boron	<42.0		42.0	mg/L	140	B230230	AES	07-Feb-23	EPA200.7	
Calcium*	**1840**		14.0	mg/L	140	B230230	AES	07-Feb-23	EPA200.7	
Magnesium*	**6140**		14.0	mg/L	140	B230230	AES	07-Feb-23	EPA200.7	
Potassium*	**4230**		140	mg/L	140	B230230	AES	07-Feb-23	EPA200.7	
Selenium*	<14.0		14.0	mg/L	140	B230230	AES	07-Feb-23	EPA200.7	
Sodium*	**29600**		140	mg/L	140	B230230	AES	07-Feb-23	EPA200.7	

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Analytical Results For:

MOSAIC POTASH 1361 POTASH MINES ROAD CARLSBAD NM, 88220	Project: DP-1399 Project Number: 2023 1ST QT Project Manager: HASKINS HOBSON Fax To: (575) 887-0589	Reported: 16-Feb-23 09:12

LG - 36

H230347-27 (Water)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
TDS*	**4790**		5.00	mg/L	1	3012738	AC	30-Jan-23	160.1	

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Analytical Results For:

MOSAIC POTASH 1361 POTASH MINES ROAD CARLSBAD NM, 88220	Project: DP-1399 Project Number: 2023 1ST QT Project Manager: HASKINS HOBSON Fax To: (575) 887-0589	Reported: 16-Feb-23 09:12

Inorganic Compounds - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3010415 - General Prep										
Blank (3010415-BLK1)				Prepared: 03-Jan-23 Analyzed: 04-Jan-23						
Fecal Coliforms	ND	2	MPN/100 mL							
Batch 3010506 - General Prep - Wet Chem										
Blank (3010506-BLK1)				Prepared: 05-Jan-23 Analyzed: 06-Jan-23						
Alkalinity, Carbonate	ND	1.00	mg/L							
Alkalinity, Bicarbonate	5.00	5.00	mg/L							
Alkalinity, Total	4.00	4.00	mg/L							
LCS (3010506-BS1)				Prepared: 05-Jan-23 Analyzed: 06-Jan-23						
Alkalinity, Carbonate	ND	2.50	mg/L				80-120			
Alkalinity, Bicarbonate	305	12.5	mg/L				80-120			
Alkalinity, Total	250	10.0	mg/L	250		100	80-120			
LCS Dup (3010506-BSD1)				Prepared: 05-Jan-23 Analyzed: 06-Jan-23						
Alkalinity, Carbonate	ND	2.50	mg/L				80-120		20	
Alkalinity, Bicarbonate	305	12.5	mg/L				80-120	0.00	20	
Alkalinity, Total	250	10.0	mg/L	250		100	80-120	0.00	20	
Batch 3011328 - General Prep - Wet Chem										
Blank (3011328-BLK1)				Prepared & Analyzed: 13-Jan-23						
Chloride	ND	4.00	mg/L							
LCS (3011328-BS1)				Prepared & Analyzed: 13-Jan-23						
Chloride	104	4.00	mg/L	100		104	80-120			

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Analytical Results For:

MOSAIC POTASH 1361 POTASH MINES ROAD CARLSBAD NM, 88220	Project: DP-1399 Project Number: 2023 1ST QT Project Manager: HASKINS HOBSON Fax To: (575) 887-0589	Reported: 16-Feb-23 09:12

Inorganic Compounds - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3011328 - General Prep - Wet Chem										
LCS Dup (3011328-BSD1)				Prepared & Analyzed: 13-Jan-23						
Chloride	100	4.00	mg/L	100		100	80-120	3.92	20	
Batch 3011904 - Filtration										
Blank (3011904-BLK1)				Prepared: 19-Jan-23 Analyzed: 20-Jan-23						
TDS	ND	5.00	mg/L							
LCS (3011904-BS1)				Prepared: 19-Jan-23 Analyzed: 20-Jan-23						
TDS	476		mg/L	495		96.2	80-120			
Duplicate (3011904-DUP1)		**Source: H230236-02**		Prepared: 19-Jan-23 Analyzed: 20-Jan-23						
TDS	1390	5.00	mg/L		1390			0.288	20	
Batch 3012510 - General Prep - Wet Chem										
LCS (3012510-BS1)				Prepared & Analyzed: 25-Jan-23						
pH	7.12		pH Units	7.00		102	90-110			
Duplicate (3012510-DUP1)		**Source: H230345-01**		Prepared & Analyzed: 25-Jan-23						
pH	6.84	0.100	pH Units		6.83			0.146	20	
Temperature °C	19.1		pH Units		19.3			1.04	200	
Batch 3012512 - General Prep - Wet Chem										
LCS (3012512-BS1)				Prepared: 25-Jan-23 Analyzed: 26-Jan-23						
pH	7.12		pH Units	7.00		102	90-110			

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Celey D. Keene, Lab Director/Quality Manager

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Analytical Results For:

MOSAIC POTASH 1361 POTASH MINES ROAD CARLSBAD NM, 88220	Project: DP-1399 Project Number: 2023 1ST QT Project Manager: HASKINS HOBSON Fax To: (575) 887-0589	Reported: 16-Feb-23 09:12

Inorganic Compounds - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3012512 - General Prep - Wet Chem										
Duplicate (3012512-DUP1)	**Source: H230347-07**			Prepared: 25-Jan-23 Analyzed: 26-Jan-23						
pH	6.78	0.100	pH Units		6.69			1.34	20	
Temperature °C	18.9		pH Units		18.6			1.60	200	
Batch 3012513 - General Prep - Wet Chem										
LCS (3012513-BS1)				Prepared: 25-Jan-23 Analyzed: 26-Jan-23						
pH	7.13		pH Units	7.00		102	90-110			
Duplicate (3012513-DUP1)	**Source: H230347-17**			Prepared: 25-Jan-23 Analyzed: 26-Jan-23						
pH	6.93	0.100	pH Units		6.90			0.434	20	
Temperature °C	19.1		pH Units		19.1			0.00	200	
Batch 3012514 - General Prep - Wet Chem										
Blank (3012514-BLK1)				Prepared: 25-Jan-23 Analyzed: 26-Jan-23						
Alkalinity, Carbonate	ND	1.00	mg/L							
Alkalinity, Bicarbonate	5.00	5.00	mg/L							
Alkalinity, Total	4.00	4.00	mg/L							
LCS (3012514-BS1)				Prepared: 25-Jan-23 Analyzed: 26-Jan-23						
Alkalinity, Carbonate	ND	2.50	mg/L				80-120			
Alkalinity, Bicarbonate	318	12.5	mg/L				80-120			
Alkalinity, Total	260	10.0	mg/L	250		104	80-120			
LCS Dup (3012514-BSD1)				Prepared: 25-Jan-23 Analyzed: 26-Jan-23						
Alkalinity, Carbonate	ND	2.50	mg/L				80-120		20	
Alkalinity, Bicarbonate	305	12.5	mg/L				80-120	4.02	20	
Alkalinity, Total	250	10.0	mg/L	250		100	80-120	3.92	20	

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Analytical Results For:

MOSAIC POTASH 1361 POTASH MINES ROAD CARLSBAD NM, 88220	Project: DP-1399 Project Number: 2023 1ST QT Project Manager: HASKINS HOBSON Fax To: (575) 887-0589	Reported: 16-Feb-23 09:12

Inorganic Compounds - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3012515 - General Prep - Wet Chem										
Duplicate (3012515-DUP1)		**Source: H230347-01**		Prepared: 25-Jan-23 Analyzed: 26-Jan-23						
Specific Gravity @ 60° F	1.249	0.000	[blank]		1.250			0.0969	20	
Batch 3012516 - General Prep - Wet Chem										
Duplicate (3012516-DUP1)		**Source: H230347-21**		Prepared: 25-Jan-23 Analyzed: 26-Jan-23						
Specific Gravity @ 60° F	1.006	0.000	[blank]		1.005			0.114	20	
Batch 3012517 - General Prep - Wet Chem										
LCS (3012517-BS1)				Prepared: 25-Jan-23 Analyzed: 26-Jan-23						
Conductivity	102000		uS/cm	100000		102	80-120			
Duplicate (3012517-DUP1)		**Source: H230345-01**		Prepared: 25-Jan-23 Analyzed: 26-Jan-23						
Conductivity	105000	1.00	umhos/cm @ 25°C		131000			21.8	20	QR-03
Batch 3012518 - General Prep - Wet Chem										
LCS (3012518-BS1)				Prepared: 25-Jan-23 Analyzed: 26-Jan-23						
Conductivity	105000		uS/cm	100000		105	80-120			
Duplicate (3012518-DUP1)		**Source: H230347-07**		Prepared: 25-Jan-23 Analyzed: 26-Jan-23						
Conductivity	287000	1.00	umhos/cm @ 25°C		284000			1.05	20	
Batch 3012519 - General Prep - Wet Chem										
LCS (3012519-BS1)				Prepared: 25-Jan-23 Analyzed: 26-Jan-23						
Conductivity	105000		uS/cm	100000		105	80-120			

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Analytical Results For:

MOSAIC POTASH 1361 POTASH MINES ROAD CARLSBAD NM, 88220	Project: DP-1399 Project Number: 2023 1ST QT Project Manager: HASKINS HOBSON Fax To: (575) 887-0589	Reported: 16-Feb-23 09:12

Inorganic Compounds - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3012519 - General Prep - Wet Chem										
Duplicate (3012519-DUP1)		**Source: H230347-17**		Prepared: 25-Jan-23 Analyzed: 26-Jan-23						
Conductivity	66400	1.00	umhos/cm @ 25°C		66400			0.00	20	
Batch 3012616 - General Prep - Wet Chem										
Blank (3012616-BLK1)				Prepared: 26-Jan-23 Analyzed: 27-Jan-23						
Chloride	ND	4.00	mg/L							
LCS (3012616-BS1)				Prepared: 26-Jan-23 Analyzed: 27-Jan-23						
Chloride	100	4.00	mg/L	100		100	80-120			
LCS Dup (3012616-BSD1)				Prepared: 26-Jan-23 Analyzed: 27-Jan-23						
Chloride	100	4.00	mg/L	100		100	80-120	0.00	20	
Batch 3012617 - General Prep - Wet Chem										
Blank (3012617-BLK1)				Prepared: 26-Jan-23 Analyzed: 27-Jan-23						
Sulfate	ND	10.0	mg/L							
LCS (3012617-BS1)				Prepared: 26-Jan-23 Analyzed: 27-Jan-23						
Sulfate	17.7	10.0	mg/L	20.0		88.4	80-120			
LCS Dup (3012617-BSD1)				Prepared: 26-Jan-23 Analyzed: 27-Jan-23						
Sulfate	19.0	10.0	mg/L	20.0		95.2	80-120	7.40	20	
Batch 3012618 - General Prep - Wet Chem										
Blank (3012618-BLK1)				Prepared & Analyzed: 27-Jan-23						
Sulfate	ND	10.0	mg/L							

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Analytical Results For:

MOSAIC POTASH 1361 POTASH MINES ROAD CARLSBAD NM, 88220	Project: DP-1399 Project Number: 2023 1ST QT Project Manager: HASKINS HOBSON Fax To: (575) 887-0589	Reported: 16-Feb-23 09:12

Inorganic Compounds - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3012618 - General Prep - Wet Chem										
LCS (3012618-BS1)				Prepared & Analyzed: 27-Jan-23						
Sulfate	21.0	10.0	mg/L	20.0		105	80-120			
LCS Dup (3012618-BSD1)				Prepared & Analyzed: 27-Jan-23						
Sulfate	22.3	10.0	mg/L	20.0		111	80-120	6.02	20	
Batch 3012619 - Filtration										
Blank (3012619-BLK1)				Prepared: 26-Jan-23 Analyzed: 27-Jan-23						
TSS	ND	2.00	mg/L							
Duplicate (3012619-DUP1)	**Source: H230347-24**			Prepared: 26-Jan-23 Analyzed: 27-Jan-23						
TSS	3820	2.00	mg/L		4030			5.28	52.7	
Batch 3012738 - Filtration										
Blank (3012738-BLK1)				Prepared: 27-Jan-23 Analyzed: 30-Jan-23						
TDS	ND	5.00	mg/L							
LCS (3012738-BS1)				Prepared: 27-Jan-23 Analyzed: 30-Jan-23						
TDS	458		mg/L	495		92.5	80-120			
Duplicate (3012738-DUP1)	**Source: H230347-13**			Prepared: 27-Jan-23 Analyzed: 30-Jan-23						
TDS	33200	5.00	mg/L		33800			1.96	20	

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Analytical Results For:

MOSAIC POTASH 1361 POTASH MINES ROAD CARLSBAD NM, 88220	Project: DP-1399 Project Number: 2023 1ST QT Project Manager: HASKINS HOBSON Fax To: (575) 887-0589	Reported: 16-Feb-23 09:12

General Chemistry - Quality Control

Green Analytical Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B230209 - Lachat										
Blank (B230209-BLK1)				Prepared & Analyzed: 30-Jan-23						
Nitrate/Nitrite as N	ND	0.020	mg/L as N							
LCS (B230209-BS1)				Prepared & Analyzed: 30-Jan-23						
Nitrate/Nitrite as N	1.10	0.020	mg/L as N	1.00		110	90-110			
LCS Dup (B230209-BSD1)				Prepared & Analyzed: 30-Jan-23						
Nitrate/Nitrite as N	1.09	0.020	mg/L as N	1.00		109	90-110	0.438	20	
Batch B230218 - IC- Ion Chromatograph										
Blank (B230218-BLK1)				Prepared: 31-Jan-23 Analyzed: 02-Feb-23						
Bromide	ND	0.100	mg/L							
LCS (B230218-BS1)				Prepared: 31-Jan-23 Analyzed: 02-Feb-23						
Bromide	2.58	0.100	mg/L	2.50		103	90-110			
LCS Dup (B230218-BSD1)				Prepared: 31-Jan-23 Analyzed: 02-Feb-23						
Bromide	2.58	0.100	mg/L	2.50		103	90-110	0.0775	20	
Batch B230253 - Lachat										
Blank (B230253-BLK1)				Prepared: 03-Feb-23 Analyzed: 13-Feb-23						
Total Kjeldahl Nitrogen	ND	0.500	mg N/L							
LCS (B230253-BS1)				Prepared: 03-Feb-23 Analyzed: 06-Feb-23						
Total Kjeldahl Nitrogen	10.8	0.500	mg N/L	10.0		108	90-110			

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Analytical Results For:

MOSAIC POTASH 1361 POTASH MINES ROAD CARLSBAD NM, 88220	Project: DP-1399 Project Number: 2023 1ST QT Project Manager: HASKINS HOBSON Fax To: (575) 887-0589	Reported: 16-Feb-23 09:12

General Chemistry - Quality Control

Green Analytical Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B230253 - Lachat										
LCS Dup (B230253-BSD1)				Prepared: 03-Feb-23 Analyzed: 06-Feb-23						
Total Kjeldahl Nitrogen	10.7	0.500	mg N/L	10.0		107	90-110	1.34	20	
Batch B230254 - IC- Ion Chromatograph										
Blank (B230254-BLK1)				Prepared: 03-Feb-23 Analyzed: 06-Feb-23						
Bromide	ND	0.100	mg/L							
LCS (B230254-BS1)				Prepared: 03-Feb-23 Analyzed: 06-Feb-23						
Bromide	2.39	0.100	mg/L	2.50		95.6	90-110			
LCS Dup (B230254-BSD1)				Prepared: 03-Feb-23 Analyzed: 06-Feb-23						
Bromide	2.38	0.100	mg/L	2.50		95.2	90-110	0.461	20	

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Analytical Results For:

MOSAIC POTASH 1361 POTASH MINES ROAD CARLSBAD NM, 88220	Project: DP-1399 Project Number: 2023 1ST QT Project Manager: HASKINS HOBSON Fax To: (575) 887-0589	Reported: 16-Feb-23 09:12

Total Recoverable Metals by ICP (E200.7) - Quality Control

Green Analytical Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B230229 - Total Recoverable by ICP										
Blank (B230229-BLK1)				Prepared: 01-Feb-23 Analyzed: 07-Feb-23						
Boron	ND	0.300	mg/L							
Sodium	ND	1.00	mg/L							
Calcium	ND	0.100	mg/L							
Magnesium	ND	0.100	mg/L							
Selenium	ND	0.100	mg/L							
Potassium	ND	1.00	mg/L							
LCS (B230229-BS1)				Prepared: 01-Feb-23 Analyzed: 07-Feb-23						
Sodium	1.53	1.00	mg/L	1.62		94.4	85-115			
Selenium	4.16	0.100	mg/L	4.00		104	85-115			
Potassium	4.06	1.00	mg/L	4.00		101	85-115			
Calcium	2.05	0.100	mg/L	2.00		102	85-115			
Magnesium	10.5	0.100	mg/L	10.0		105	85-115			
Boron	2.00	0.300	mg/L	2.00		100	85-115			
LCS Dup (B230229-BSD1)				Prepared: 01-Feb-23 Analyzed: 07-Feb-23						
Selenium	4.14	0.100	mg/L	4.00		103	85-115	0.670	20	
Calcium	2.02	0.100	mg/L	2.00		101	85-115	1.49	20	
Magnesium	10.3	0.100	mg/L	10.0		103	85-115	1.26	20	
Sodium	1.51	1.00	mg/L	1.62		93.1	85-115	1.41	20	
Boron	2.00	0.300	mg/L	2.00		100	85-115	0.0626	20	
Potassium	4.00	1.00	mg/L	4.00		100	85-115	1.40	20	
Batch B230230 - Total Recoverable by ICP										
Blank (B230230-BLK1)				Prepared: 01-Feb-23 Analyzed: 07-Feb-23						
Potassium	ND	1.00	mg/L							
Boron	ND	0.300	mg/L							
Calcium	ND	0.100	mg/L							
Sodium	ND	1.00	mg/L							
Magnesium	ND	0.100	mg/L							
Selenium	ND	0.100	mg/L							

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Analytical Results For:

MOSAIC POTASH 1361 POTASH MINES ROAD CARLSBAD NM, 88220	Project: DP-1399 Project Number: 2023 1ST QT Project Manager: HASKINS HOBSON Fax To: (575) 887-0589	Reported: 16-Feb-23 09:12

Total Recoverable Metals by ICP (E200.7) - Quality Control

Green Analytical Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B230230 - Total Recoverable by ICP										
LCS (B230230-BS1)				Prepared: 01-Feb-23 Analyzed: 07-Feb-23						
Selenium	4.19	0.100	mg/L	4.00		105	85-115			
Potassium	4.06	1.00	mg/L	4.00		102	85-115			
Sodium	1.58	1.00	mg/L	1.62		97.4	85-115			
Magnesium	10.5	0.100	mg/L	10.0		105	85-115			
Calcium	2.06	0.100	mg/L	2.00		103	85-115			
Boron	2.00	0.300	mg/L	2.00		100	85-115			
LCS Dup (B230230-BSD1)				Prepared: 01-Feb-23 Analyzed: 07-Feb-23						
Magnesium	10.3	0.100	mg/L	10.0		103	85-115	1.76	20	
Potassium	3.99	1.00	mg/L	4.00		99.7	85-115	1.94	20	
Calcium	2.02	0.100	mg/L	2.00		101	85-115	1.86	20	
Selenium	4.11	0.100	mg/L	4.00		103	85-115	1.89	20	
Sodium	1.55	1.00	mg/L	1.62		95.6	85-115	1.91	20	
Boron	1.98	0.300	mg/L	2.00		99.2	85-115	0.899	20	

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Notes and Definitions

QR-03	The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
B2	Target analyte detected in continuing calibration blank at or above method reporting limit. Sample concentration found to be 10 times above the concentration found in the blank or less than the reporting limit.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

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CARDINAL Laboratories
101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: MOSAIC POTASH
Project Manager: HASKINS HOBSON
Address: 1361 POTASH MINES ROAD
City: CARLSBAD State: NM Zip: 88220
Phone #: 575-628-6267 Fax #:
Project #: Project Owner:
Project Name: DP -1399 2023 1ST QT
Project Location:
Sampler Name: Geno Persico

BILL TO
P.O. #:
Company:
Attn:
Address:
City:
State: Zip:
Phone #:
Fax #:

ANALYSIS REQUEST

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	CATION / ANIONS	SPECIFIC GRAVITY	B, Se 200.7	Br 300	TSS	TKN	NO_3 + NO_2	FECAL COLIFORM
H230347																						
1	LG-23	G	3	X									1/23/23	0950	X	X	X	X				
2	LG-5													1050								
3	LG-31													1320								
4	LG-28													1415								
5	LG-29													1500								
6	LG-32													1705								
7	P-East												1/24/23	0740								
8	P-Center													0815								
9	P-West													0915								
10	LG-37													1055								

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Relinquished By: Geno Persico Date: 1/25/23 Time: 0945 Received By: Tamara Oldaker
Relinquished By: Date: Time: Received By:

Verbal Result: ☐ Yes ☐ No Add'l Phone #:
All Results are emailed. Please provide Email address:
todd.stein@cwsp.com madison.larkin@cwsp.com
REMARKS:
Page 1 of 3 3 coolers

Delivered By: (Circle One)
Sampler - UPS - Bus - Other:
Observed Temp. °C 2.1
Corrected Temp. °C 1.5
Sample Condition: Cool ☑ Yes ☐ No Intact ☑ Yes ☐ No
CHECKED BY: (Initials) TO

Turnaround Time: Standard ☑ Rush ☐
Thermometer ID #97
Correction Factor +0.4 °C TO 1-25-23
Bacteria (only) Sample Condition: Cool ☐ Yes ☐ No Intact ☐ Yes ☐ No Observed Temp. °C Corrected Temp. °C

† Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com

FORM-006 R 3.0

CARDINAL Laboratories

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name:	MOSAIC POTASH	BILL TO	
Project Manager:	HASKINS HOBSON	P.O. #:	
Address:	1361 POTASH MINES ROAD	Company:	
City:	CARLSBAD State: NM Zip: 88220	Attn:	
Phone #:	Fax #:	Address:	
Project #:	Project Owner:	City:	
Project Name:	DP -1399 2023 1ST QT	State: Zip:	
Project Location:		Phone #:	
Sampler Name:	Geno Persico	Fax #:	

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	CATION / ANIONS	SPECIFIC GRAVITY	B, Se 200.7	Br 300	TSS	TKN	NO_3 + NO_2	FECAL COLIFORM
H230347																						
11	LG-38	G	3	X									1/24/23	1025	X	X	X	X				
12	LG-1													1140								
13	LG-30													1225								
14	LG-26													1310								
15	River-2													1330								
16	River-4													1350								
17	LG-35													1440								
18	LG-34													1515								
19	LG-25													1550								
20	River-1													1605								

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Relinquished By: Geno Persico	Date: 1/25/23 Time: 0945	Received By: Tamara Maddox	Verbal Result: ☐ Yes ☐ No Add'l Phone #:
Relinquished By:	Date: Time:	Received By:	All Results are emailed. Please provide Email address:
			REMARKS: Page 2 of 3

Delivered By: (Circle One)	Observed Temp. °C 2.1	Sample Condition Cool Intact	CHECKED BY: (Initials)	Turnaround Time: Standard ☑ Rush ☐
Sampler - UPS - Bus - Other:	Corrected Temp. °C 1.5	☑ Yes ☑ Yes ☐ No ☐ No		Bacteria (only) Sample Condition Cool Intact Observed Temp. °C ☐ Yes ☐ Yes ☐ No ☐ No Corrected Temp. °C

Thermometer ID #97
Correction Factor ~~+0.4 °C~~ TO 1-25-23

FORM-006 R 3.0

† Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com

CARDINAL Laboratories

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: MOSAIC POTASH	BILL TO
Project Manager: HASKINS HOBSON	P.O. #:
Address: 1361 POTASH MINES ROAD	Company:
City: CARLSBAD State: NM Zip: 88220	Attn:
Phone #: Fax #:	Address:
Project #: Project Owner:	City:
Project Name: DP -1399 2023 1ST QT	State: Zip:
Project Location:	Phone #:
Sampler Name: Gene Perkins	Fax #:

ANALYSIS REQUEST

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER: Rinsate	PRESERV.: ACID/BASE:	ICE / COOL	OTHER:	SAMPLING: DATE	TIME	CATION / ANIONS	SPECIFIC GRAVITY	B, Se 200.7	Br 300	TSS	TKN	NO_3 + NO_2	FECAL COLIFORM		TDS		
H230347																										
21	LG-33	G	3	X									1/24/23	1640	X	X	X	X								
22	River-3	"		X									"	1730	"	"	"	"								
23	Rinsate Sample	"							X				"	1650	"	"	"	"								
24	Brine Pipeline	"	5	X									1/25/23		X	X	X	X	X	X	X	X				
25	Culvert Runoff	"	3	X									1/25/23		X	X	X	X	X							
26	GOL-04														X	X	X	X								
27	LG-36	G	3	X									1/25/23	0960	X	X	X	X	cancel					✓	not enough sample	

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Relinquished By: Gene Larson	Date: 1/25/23 Time: 0945	Received By: Tamara Oldham	Verbal Result: ☐ Yes ☐ No Add'l Phone #: All Results are emailed. Please provide Email address:
Relinquished By:	Date: Time:	Received By:	REMARKS: Page 3 of 3
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Observed Temp. °C 2.1 Corrected Temp. °C 1.5	Sample Condition Cool: ☑ Yes ☐ No Intact: ☑ Yes ☐ No	CHECKED BY: (Initials) TO

Turnaround Time: Standard ☑ Rush ☐ Thermometer ID #97 Correction Factor ~~+0.4 °C~~ TO 1-25-23

Bacteria (only) Sample Condition: Cool ☐ Yes ☐ No Intact ☐ Yes ☐ No Observed Temp. °C Corrected Temp. °C

FORM-006 R 3.0

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ATTACHMENT 3

S1AP Data Gap Analysis Report

April 14, 2023 Reference No. GL21502059-LTR-0

Haskins Hobson, P.E.
Senior Environmental Engineer
Mosaic Potash Carlsbad
1361 Potash Mines Road
Carlsbad, New Mexico 88220

RE: STAGE 1 ABATEMENT PLAN DATA GAP ANALYSIS, MOSAIC POTASH CARLSBAD, INC.

Dear Mr. Hobson:

WSP USA, Inc. (WSP) is pleased to provide the following data gap analysis for the Mosaic Potash Carlsbad Facility Stage 1 Abatement Plan (S1AP). The data gap analysis was prepared in accordance with the reporting requirements contained in the approved Modified S1AP Proposal for the Mosaic Potash Mine (Site). The scope of work for the data gap analysis (20.6.2.4106.C(7) NMAC) was included as Task 1 of the approved Modified S1AP Proposal and updated S1AP Program schedule, and the results of the analysis are included herein.

The following data gap analysis includes an assessment of the existing information available to support the Mosaic S1AP and identifies specific data gaps that may exist to adequately define site conditions and provide the necessary data to select and design "if necessary" (as provided in 20.6.2.4106.E NMAC), an effective abatement option for the Site. Results of the data gap analysis are summarized in **Table 1** and includes a summary of the data required to complete each of the major S1AP tasks. For each of the major S1AP tasks, the following information is provided in **Table 1**:

- description of the data requirements to complete the task
- summary of data available to support the task
- identified data gaps
- plan to address identified data gaps

The results of the analysis indicate there are currently several data gaps that exist associated with individual Mosaic S1AP tasks. The majority of the identified data gaps will be addressed through implementation of the scope of work outlined in the approved Modified S1AP Proposal. A limited number of identified data gaps are currently not addressed as part of the approved S1AP scope of work. Additional proposed S1AP scope items identified through the data gap analysis are summarized in **Table 2**.

If you have any questions or need further clarification on the results of the S1AP data gap analysis, please do not hesitate to call Todd Stein at WSP, 505-881-5357.

Sincerely,



Todd Stein, PG
Senior Lead Consultant

Attachments: **Table 1** - Analysis of Current Data Gaps Associated with Individual S1AP Tasks
Table 2 - Additional Proposed S1AP Scope Items Identified Through the Data Gap Analysis

Tables

Table 1. Analysis of Current Data Gaps Associated with Individual Stage 1 Abatement Plan Tasks

Task	Task Description	Data Requirements	Available Data	Data Gaps	Plan to Address Identified Data Gap
2a	Well Inventory	• NMOSE well/POD records for identified wells. • Available soil boring/well completion logs for identified wells. • Field reconnaissance of inventoried wells to identify their current status.	• NMOSE well/POD records for identified wells. • Available soil boring/well completion logs for identified wells.	• Field reconnaissance of inventoried wells to identify their current status.	• Field reconnaissance of wells where current status is unknown or have not been monitored as specified in approved S1AP. • Field reconnaissance of the west side wells where access is granted by the well owners will be conducted as part of Task 2d. Field reconnaissance will be conducted during the initial sampling event for each of the wells sampled as part of Task 2d.
2b	Define the Extent of Potential Impacts to Groundwater from Mosaic Discharges	• Groundwater quality trends within the current DP-1399 groundwater monitoring network. • Surface water quality trends in the Pecos River sampling locations River 1, River 2, River 3, and River 4. • Vadose-zone constituent concentrations. • Geochemical characteristics of the individual media within the area (groundwater, surface water, brine discharge, and natural sources of brine).	• Groundwater quality from DP-1399 monitoring program and west side well sampling conducted by the NMED in August 2022. • Surface water quality from DP-1399 monitoring program and select USGS stations along the Pecos River. • Vadose-zone constituent concentrations from select Mosaic soil borings. • Limited geochemical characteristics of the individual media within the area.	• Only limited data exists for constituent concentrations within the vadose zone. • Limited geochemical characterization exists for the individual media at the site.	• Attempt to locate additional existing data on vadose zone constituent concentrations in the area as part of the approved S1AP. • Evaluation of the geochemical characteristics, or water types, of the individual media within the area (groundwater, surface water, brine discharge, and natural sources of brine) in accordance with approved S1AP.
2c	Characterize the Hydrogeologic Conditions Between Laguna Grande and the Pecos River	• Water quality trends within the current DP-1399 groundwater monitoring network. • Vertical and horizontal extent and magnitude of vadose-zone and groundwater constituents in excess of applicable WQ standards between Laguna Grande and the Pecos River. • Geochemical characteristics for the individual water-bearing units identified between Laguna Grande and the Pecos River. • Hydraulic parameters for the individual water-bearing units identified between Laguna Grande and the Pecos River.	• Water quality trends evaluated as part of DP-1399 program. • Vertical and horizontal extent and magnitude of vadose-zone and groundwater constituents in excess of applicable WQ standards between Laguna Grande and the Pecos River. • Geochemical characteristics for the individual water-bearing units identified between Laguna Grande and the Pecos River. • Hydraulic parameters for the individual water-bearing units identified between Laguna Grande and the Pecos River.	• Only limited data exists for constituent concentrations within the vadose zone. • Limited geochemical characterization exists for the individual media at the site. • Limited analysis and summary of available hydraulic property test data obtained at the Site currently exists.	• Continuation of DP-1399 work with the monitoring of already established monitoring wells, surface water locations, automated monitoring staff gauge systems, and brine and culvert sampling points. • Compare and monitor the hydrogeologic and water quality relationships between Laguna Grande and Pecos River and between developed wells West of the Pecos River and the Pecos River in accordance with approved S1AP. • Analyze available hydraulic property test data obtained at the Site and provide a summary of the results in relation to the individual water-bearing units present at the site in accordance with approved S1AP. • Evaluation of vadose zone constituents as described above in Task 2b. • Obtain flood plain map(s) from USGS or other government agencies to show the extent of the Pecos River valley. • Develop a topographic map of the “saddle” area or boundary between the Southwest Laguna Grande Dike (SWLGD) and the Pecos River through available data.

Task	Task Description	Data Requirements	Available Data	Data Gaps	Plan to Address Identified Data Gap
2d	Characterize the Hydrogeologic Conditions West of the Pecos River	• Executed access agreements from well owners. • Well Completion information for wells to be monitored. • Survey coordinates for wells to be monitored. • Water level data for wells to be monitored. • Water quality data for wells to be monitored. • Historic water level data from USGS wells on the east and west sides of the Pecos River.	• Well completion logs and water quality and water level data accessible through NMOSE, OCD, and USGS. • Historic groundwater monitoring reports from Arcadis and Chevron related to the Candelario 24-1 Saltwater Disposal Well site.	• Only limited data exists for constituent concentrations within the vadose zone west of the Pecos River. • Current status and condition of private wells on the west side of the Pecos River is largely unknown. • Well completion information is not available for several of the private wells on the west side of the Pecos River. • Access agreements from well owners are currently not in place.	• Attempt to locate additional existing data of vadose zone constituent concentrations in the area as part of the S1AP. • Continue to gather historic data from existing wells West of the Pecos River in accordance with approved S1AP. • Mosaic mailed certified letters with access agreements to landowners with wells west of Pecos River on April 5, 2023. • Field reconnaissance of the west side wells where access is granted by the well owners will be conducted in accordance with approved S1AP. Field reconnaissance will be conducted during the initial sampling event for each of the wells sampled as part of Task 2d. • Begin monitoring water quality and water levels to accessible wells on the West side of the Pecos River in accordance with approved S1AP. • Provide hydrogeologic potentiometric maps and water quality trends of monitoring wells West of the Pecos River in accordance with approved S1AP.
2e	Characterize any Hydrogeologic Connection Between the Pecos River and Groundwater Discharging from the Site	• Automated monitoring data sets associated with wells nearest the Pecos River (wells LG-25, LG-26, LG-30, and LG-35. • Automated monitoring data for existing Pecos River Staff Gauges 1 through 4. • Surface water quality from River 1, River 2, River 3, and River 4. • Task 2b data requirements.	• Available water level and water quality data from wells LG-25, LG-26, LG-30, and LG-35 dating back to 2004. • Available surface water quality data since 2012. • Automated monitoring data for Pecos River staff gauges since August 2018.	• Limited data exists for constituent concentrations within the vadose zone.	• Analyze USGS and NMOSE historic data located between Pecos River and Site in accordance with approved S1AP. • Continue conducting and monitoring well water levels and water quality from LG-25, LG-26, LG-30, and LG-35 in accordance with approved S1AP. • Continue monitoring water quality data from surface water locations within Pecos River in accordance with approved S1AP. • Evaluation of vadose zone constituents as described above in Task 2b.
3	Further Investigate Site Surface Water Hydrology	• Water level and water quality data (both current and historic) from the USGS National Water Information System Database for the Malaga Bend USGS Station #8406500. • Task 2e data requirements.	• Available surface water quality data since 2012. • Historic and current water data provided by USGS and other scientists. • Historic precipitation data from Nash Draw and Carlsbad areas. • Satellite images of Nash Draw (1975, 1983, 2008).	• Limited USGS discharge and Pecos River flow rate data exists. • Limited historic water quality reports for the Pecos River. • Consolidated data set of historic precipitation within the Nash Draw area.	• Continue to search for other historic water quality sampling and water level monitoring events that have occurred within this region of the Pecos River as part of the S1AP. • Analyze available historic precipitation patterns in the Nash Draw area.
4	Characterization of the Waste Stream Discharged from the Plant Site to the Salt Stack and Laguna Grande	• Flow volumes of heavy media tailings and thickener underflows measured as part of Site operations. • Brine discharge flows and water quality. • Geochemical characteristics of the brine discharge. • Geochemical characteristics of the groundwater and surface	• Water quality data and brine flow volumes from brine pipeline discharge since 2012. • Additional water quality and total suspended solids (TSS) data for the brine pipeline discharge collected as part of S1AP Task 5.	• Data associated with historic discharges from the Plant Site to the Salt Stack and Laguna Grande is lacking prior to 2012.	• Explore whether there is available historic data for discharges from the Plant Site to the Salt Stack and Laguna Grande prior to 2012 with Site operations.

Task	Task Description	Data Requirements	Available Data	Data Gaps	Plan to Address Identified Data Gap
		water at the Site determined as part of Tasks 2b, 2c and 2e.			
5	Evaluate the Effect of the Discharge of Suspended Clay Particles to the Laguna Grande Brine Management Area	• Water quality and TSS data for the brine pipeline discharge. • Water quality and TSS data from culvert discharging into northern end of Laguna Grande. • Brine pipeline and natural culvert discharge rates. • Surface water quality in shorebird habitats that may be impacted by Mosaic's operations.	• Water quality data from brine pipeline discharge since 2012. • Culvert runoff flow rate into northern end of Laguna Grande.	• Limited TSS data currently exists. • Limited area around Laguna Grande currently being analyzed for discharge of TSS.	• Field reconnaissance of the northern and eastern Laguna Grande shorelines to identify additional major springs and/or surface water run-on locations. • Explore the possibility of installing additional automated monitoring systems at major springs and/or surface water run-on locations identified during the field reconnaissance.
6	Evaluate the Relationship Between Salt-Producer Operations and Impacts to Groundwater and the Pecos River	• Publicly available discharge permits issued by NMED for United Salt, New Mexico Salt, and Southwest Salt, any discharge data submitted to the NMED. • Salt transportation, storage or production data, producer site inspections and groundwater pumping data for United Salt, New Mexico Salt, and Southwest Salt.	• Southwest Salt Point of Diversion Summary -total water pumped data from 2003-2020. •	• Limited data exists on salt-producing operations from various entities. • Publicly available salt harvesting data for New Mexico Salt and United Salt. • Southwest Salt water pumping totals from 2021 forward.	• Request that publicly available data from various salt-producing companies and/or regulatory agencies be sent or made available on a quarterly basis. • Evaluate potential releases from the salt-producing companies through an analysis of available historic aerial photographs.
7	Study Hydrologic Conditions Present in the Area of Monitoring Well LG-2	• Boring logs, well completion logs, and wellhead survey data for the three new wells (LG-36, LG-37, and LG-38). • Water level and water quality data for wells LG-36, LG-37, and LG-38 measured as part of DP-1399 program.	• LG-36, LG-37, and LG-38 well completion logs, water level, and water quality data available since January 2022. • LG-2 water level and water quality data between January 2004 and October 2020.	• Limited data currently exists for other wells located in LG-2 Monitoring Well area.	• Continue to conduct well monitoring of LG-36, LG-37, LG-38 as part of the DP-1399 program. • Conduct a field survey to determine if there are other unknown factors contributing to the hydrogeologic conditions present in the area of LG-2.
8	Water Balance Analysis Within a Portion of Nash Draw	• Precipitation, temperature, relative humidity, wind speed and direction, solar radiation and barometric pressure measured at the site. • Stage data collected from the existing Laguna Grande automated staff gauges. • Brine Pipeline discharge flow and water quality measurements at Laguna Grande.	• Precipitation, temperature, relative humidity, wind speed and direction, solar radiation and barometric pressure measured at Laguna Grande. • Stage data collected from the existing Laguna Grande automated staff gauges as part of DP-1399 monitoring program. • Brine Pipeline discharge flow and water quality	• No automated monitoring staff gauge/flow rate readings are available for the natural surface water runoff culvert. • Limited ability to track and monitor every major discharge point around Laguna Grande. • No data is currently available on the amount of brine transfers (outflows) from Pond 4 to other salt harvesting ponds.	• Continue monitoring the automated monitoring staff gauge systems with Laguna Grande as part of the S1AP. • Continue monitoring of Brine Pipeline and natural runoff water flow rates and water quality as part of the S1AP. • Field reconnaissance of the northern and eastern Laguna Grande shorelines to identify additional major springs and/or surface water run-on locations as part of S1AP Task 5. • Explore the possibility of installing additional automated monitoring systems at major springs and/or surface water run-on locations identified during the field reconnaissance as part of S1AP Task 5.

Task	Task Description	Data Requirements	Available Data	Data Gaps	Plan to Address Identified Data Gap
		• Flow rate and water quality of surface water discharging from the natural runoff culvert at the northern end of Laguna Grande. • Flow rates of other major surface discharge points identified along the northern and eastern ends of Laguna Grande. • Brine transfers (flows) from Pond 4 to other salt harvesting ponds by the salt harvesting companies. • Permeability data of the underlying playa sediments. • Updated stormwater runoff estimates for the Laguna Grande watershed. • Laguna Grande water quality data. • High resolution 1-foot topography for the Laguna Grande area from the New Mexico LiDAR program released in December 2020. • Historic aerial photographs of Laguna Grande. • Available historical water balance calculations and estimates.	measurements at Laguna Grande as part of DP-1399 monitoring program. • Flow rate and water quality of surface water discharging from the natural runoff culvert at the northern end of Laguna Grande. • Flow rates of other major surface discharge points identified along the northern and eastern ends of Laguna Grande. • Brine transfers (flows) from Pond 4 to other salt harvesting ponds by the salt harvesting companies. • Permeability data of the underlying playa sediments. • Updated stormwater runoff estimates for the Laguna Grande watershed. • Laguna Grande water quality data. • High resolution 1-foot topography for the Laguna Grande area from the New Mexico LiDAR program released in December 2020. • Historic aerial photographs of Laguna Grande. • Available historical water balance calculations and estimates.		• Explore the possibility of installing an automated monitoring system at the natural surface water runoff culvert to obtain better estimates of surface water run-on into Laguna Grande. • Attempt to obtain historic and current brine transfer volumes from Pond 4 to other salt harvesting ponds from the salt harvesting companies. • Explore the possibility of installing flow meters at the Pond 4 outfall points (in coordination with the salt harvesting companies) to better quantify brine transfers to other salt harvesting ponds.

Table 2. Additional Proposed S1AP Scope Items Identified Through the Data Gap Analysis

Task	Task Description	Additional Proposed S1AP Scope Items
2a	Well Inventory	• No additional S1AP scope items identified outside of current approved task scope of work (SOW).
2b	Define the Extent of Potential Impacts to Groundwater from Mosaic Discharges	• Attempt to locate additional existing data on vadose zone constituent concentrations in the area as part of the approved S1AP.
2c	Characterize the Hydrogeologic Conditions Between Laguna Grande and the Pecos River	• See Task 2b additional proposed S1AP scope items. • Obtain flood plain map(s) from USGS or other government agencies to show the extent of the Pecos River valley. • Develop a topographic map of the "saddle" area or boundary between the Southwest Laguna Grande Dike (SWLGD) and the Pecos River through available LIDAR survey data to look for surface water patterns.
2d	Characterize the Hydrogeologic Conditions West of the Pecos River	• See Task 2b additional proposed S1AP scope items. • Attempt to gather missing well completion information for west side wells where access is granted by the landowner.
2e	Characterize any Hydrogeologic Connection Between the Pecos River and Groundwater Discharging from the Site	• See Task 2b additional proposed S1AP scope items. • No additional S1AP scope items identified outside of current approved task SOW.
3	Further Investigate Site Surface Water Hydrology	• Continue to search for other historic water quality sampling and water level monitoring events that have occurred within this region of the Pecos River as part of the approved S1AP. • Analyze available historic precipitation patterns in the Nash Draw area.
4	Characterization of the Waste Stream Discharged from the Plant Site to the Salt Stack and Laguna Grande	• Explore whether there is available historic data for discharges from the Plant Site to the Salt Stack and Laguna Grande prior to 2012 with Site operations as part of the S1AP.
5	Evaluate the Effect of the Discharge of Suspended Clay Particles to the Laguna Grande Brine Management Area	• Field reconnaissance of the northern and eastern Laguna Grande shorelines to identify additional major springs and/or surface water run-on locations. • Explore the possibility of installing additional automated monitoring systems at major springs and/or surface water run-on locations identified during the field reconnaissance.
6	Evaluate the Relationship Between Salt-Producer Operations and Impacts to Groundwater and the Pecos River	• Request that publicly available data from various salt-producing companies and/or regulatory agencies be sent or made available on a quarterly basis. • Evaluate potential releases from the salt-producing companies through an analysis of available historic aerial photographs.
7	Study Hydrologic Conditions Present in the Area of Monitoring Well LG-2	• Conduct a field survey to determine if there are other unknown factors contributing to the hydrogeologic conditions present in the area of LG-2.
8	Water Balance Analysis Within a Portion of Nash Draw	• Field reconnaissance of the northern and eastern Laguna Grande shorelines to identify additional major springs and/or surface water run-on locations as part of S1AP Task 5. • Explore the possibility of installing additional automated monitoring systems at major springs and/or surface water run-on locations identified during the field reconnaissance as part of S1AP Task 5. • Explore the possibility of installing an automated monitoring system at the natural surface water runoff culvert to obtain better estimates of surface water run-on into Laguna Grande. • Attempt to obtain historic and current brine transfer volumes from Pond 4 to other salt harvesting ponds from the salt harvesting companies. • Explore the possibility of installing flow meters at the Pond 4 outfall points (in coordination with the salt harvesting companies) to better quantify brine transfers to other salt harvesting ponds.

ATTACHMENT 4

S1AP Well Inventory Report

April 14, 2023 Reference No. 21502059-LTR-0

Haskins Hobson, PE
Senior Environmental Engineer
Mosaic Potash Carlsbad
1361 Potash Mines Road
Carlsbad, New Mexico 88220

RE: STAGE 1 ABATEMENT PLAN WELL INVENTORY, MOSAIC POTASH CARLSBAD, INC.

Dear Mr. Hobson:

WSP USA, Inc. (WSP) is pleased to provide the following well inventory for the Mosaic Potash Carlsbad Facility Stage 1 Abatement Plan (S1AP). The well inventory has been prepared in accordance with the reporting requirements contained in the approved Modified S1AP Proposal for the Mosaic Potash Mine (Site)[1]. The scope of work for the well inventory (20.6.2.4106.C(2)(A) NMAC) was included as Task 2a of the approved Modified S1AP Proposal and updated S1AP Program schedule, and the results of the inventory are included herein.

The following S1AP well inventory includes a summary of available information associated with all groundwater wells located inside and within a one-mile perimeter of the three-dimensional body of water where measured constituents are present in excess of the numerical standards of 20.6.2.3103 NMAC, and all groundwater wells actually or potentially affected by the groundwater quality exceedances. More specifically, the well inventory covers the area from the southwestern edge of Laguna Grande and extends outward one mile to the west, east, and south of where measured constituents are present in excess of the numerical standards of 20.6.2.3103 NMAC, and all groundwater wells actually or potentially affected by the groundwater quality exceedances. The extent of the well inventory is presented in **Figure 1**.

A well inventory was previously conducted in 2019 as part of further characterization of the hydrogeology in the area between Laguna Grande and the Pecos River at the request of the NMED[2] (Mosaic Potash Carlsbad Inc. 2019), and the information has been updated with new well information obtained as part of the S1AP. Specifically, the existing well inventory was updated to include current information for the wells within the S1AP well inventory area from the following sources:

- New Mexico Office of the State Engineer (NMOSE) WATERS database;
- USGS National Water Information System;
- New DP-1399 groundwater monitoring well completion reports; and
- Mosaic files and personal knowledge of Mosaic staff.

[1] GAUSA (Golder Associates USA Inc.). 2022. Modified Stage 1 Abatement Plan Proposal for the Mosaic Potash Mine. Submitted to Haskins Hobson, Mosaic Potash Carlsbad, Carlsbad, New Mexico. September 20.

[2] Mosaic Potash Carlsbad Inc. 2019. Further Characterization of the Hydrogeology in the Area Between Laguna Grande and the Pecos River in Support of DP-1399 Renewal – Mosaic Potash Carlsbad Inc. Letter report submitted to the NMED. August 15.

Table 1 summarizes the well completion information for the Mosaic wells within the S1AP well inventory area, and **Table 2** presents a summary of available well completion information for wells owned by other parties within the S1AP well inventory area. Available soil boring and well completion logs for the wells located within the S1AP well inventory area are presented in **Attachment 1** (Mosaic Wells) and **Attachment 2** (Other Owner Wells). Additional water rights and permitting information for the wells owned by other parties within the S1AP well inventory area, obtained from the NMOSE online records repository, are included in **Attachment 3**.

If you have any questions or need further clarification on this S1AP well inventory, please do not hesitate to call Todd Stein at WSP, 505-881-5357.

Sincerely,

Todd Stein, PG
Senior Lead Consultant

Attachments:

Table 1 – Summary of Completion Details for Wells Within the S1AP Well Inventory Area - Mosaic Groundwater Monitor Wells
Table 2 – Summary of Completion Details for Wells Within the S1AP Well Inventory Area - Other Wells
Figure 1 – Stage 1 Abatement Plan Well Inventory
Attachment 1 – Soil Boring and Well Completion Information for Mosaic Wells
Attachment 2 – Soil Boring and Well Completion Information for Wells Owned by Other Parties
Attachment 3 – NMOSE Water Rights and Permitting Online Records and USGS Records for Wells Owned by Other Parties

Tables

Table 1. Summary of Completion Details for Wells Within the S1AP Well Inventory Area - Mosaic Groundwater Monitor Wells

Well ID	Date Drilled	Current Status	NAD83 Coordinates [1]		Ground Surface Elevation	Elevation Top of Casing	Primary Formation / Litholgy Completed In	Total Depth of Boring	Total Depth of Well	Top of Screen	Bottom of Screen	Top of Screen	Bottom of Screen	Data Availability				
			Northing [2]	Easting [2]	(ft amsl)	(ft amsl)		(ft bgs)	(ft bgs)	(ft bgs)	(ft bgs)	(ft amsl)	(ft amsl)	Boring Logs	Well Logs	Water Levels		
																DTW (ft bgs)	Date Completed	Data Availability
LG-1	5/22/2000	Active	470386.0	635526.2	2966.08	2966.78	Caliche	60.0	39.0	27.8	39	2938.3	2927.1	YES	YES	23.32	(7/25/01)	1/04 to present
LG-5	9/6/2000	Active	465855.4	648445.6	2970.68	2972.42	Culebra Dolomite	213.5	40.0	35	40	2935.7	2930.7	YES	YES	15.61	(7/25/01)	1/04 to present
LG-23	7/10/2001	Active	463050.8	648440.1	2972.08	2973.22	Culebra Dolomite	80.0	75.0	47.5	75	2924.6	2897.1	YES	YES	20.78	(7/25/01)	1/04 to present
LG-25	7/27/2001	Active	472539.1	631039.2	2972.11	2972.92	Caliche and Sand	50.0	26.0	11	26	2961.1	2946.1	YES	YES	21.88	(8/01/01)	1/04 to present
LG-26	8/13/2002	Active	464579.4	638904.2	2951.22	2952.61	Gatuna	47.0	45.0	30	45	2921.2	2906.2	YES	YES	17.2	(5/1/13)	1/04 to present
LG-28	1/12/2006	Active	468369.0	641030.1	2961.25	2962.52	Gatuna	40.0	38.0	28	38	2933.3	2923.3	YES	YES	7.33 1.29	(1/12/06) (5/29/13)	2/06 to present
LG-29	1/9/2006	Active	468782.4	644247.2	2974.80	2976.14	Gatuna	30.0	26.0	18	26	2956.8	2948.8	YES	YES	17.53	(5/30/13)	2/06 to present
LG-30	1/13/2006	Active	468468.3	636128.4	2966.70	2968.55	Gatuna	50.0	48.0	38	48	2928.7	2918.7	YES	YES	24.58 25.77	(1/13/06) (5/30/13)	2/06 to present
LG-31	4/13/2013	Active	461969.5	641604.6	2982.31	2984.72	Gatuna	99.5	99.0	89	99	2893.3	2883.3	YES	YES	53.61	(5/30/13)	4/13 to present
LG-32	4/11/2013	Active	468401.5	637956.0	2960.91	2963.80	Gatuna	77.0	71.0	61	71	2899.9	2889.9	YES	YES	17 7.90	(4/13/13) (5/29/13)	4/13 to present
LG-33	11/17/2020	Active	467732	633572	2967.33	2969.52	Caliche	101.5	36.5	21.2	36.2	2946.1	2931.1	YES	YES	25.03	11/22/2020	11/20 to present
LG-34	11/19/2020	Active	473535	630365	2972.47	2974.70	Caliche	100.0	23.3	13	23	2959.5	2949.5	YES	YES	17.71	11/22/2020	11/20 to present
LG-35	11/16/2020	Active	471062	632668	2977.29	2979.80	Caliche and Gatuna	100.0	36.8	26.5	36.5	2950.8	2940.8	YES	YES	32.7	11/22/2020	11/20 to present
LG-36	12/17/2021	Active	479447.7	632035.3	3005.27	3007.78	Culebra Dolomite	101.0	62.5	47.2	62.2	2958.1	2943.1	YES	YES	---	Dry January 2022	1/22 to present
LG-37	12/15/2021	Active	476401.8	631566.5	2974.98	2977.41	Caliche	100.0	33.8	13.5	33.5	2961.5	2941.5	YES	YES	18.5	1/20/2022	1/22 to present
LG-38	12/14/2021	Active	476343.1	633597.2	2960.82	2963.89	Caliche	101.0	31.1	15.8	30.8	2945.0	2930.0	YES	YES	5.1	1/20/2022	1/22 to present

Notes:

[1] State Plane NAD83 Coordinates, New Mexico East 3001 Zone in Feet

[2] Coordinates are approximate—translated to NAD83 according to approximate section line locations on archived maps for the following wells: LG-3 and LG-4.

ft amsl: Feet above mean sea level

ft bgs: Feet below ground surface

NA: Not Applicable

---: No data available

Table 2. Summary of Completion Details for Wells Within the S1AP Well Inventory Area - Other Wells
Mosaic Potash Carlsbad Inc.

Well ID	Date Drilled	Current Status	NAD83 Coordinates		Ground Surface Elevation [2]	Elevation Top of Casing	Primary Formation / Lithology Completed In	Total Depth of Boring	Total Depth of Well	Top of Screen	Bottom of Screen	Top of Screen	Bottom of Screen	Data Availability				
			Northing [3]	Easting [3]										Boring Logs	Well Logs	Water Levels		
																Data Available	ft bgs	ft amsl
BLM 1979 Test Holes[1,2]																		
23.29.18.14	11/17/1978	Unknown	475834.9	636216.1	2959.23	NA	Sand and Gravel	35	35	15	35	2944.23	2924.23	YES	NO	3/13/1979	7.12	---
23.29.20.33	10/25/1978	Unknown	467804.4	640125.5	2970.90	NA	Siltstone Top, Limestone	60	60	40	60	2930.9	2910.9	YES	NO	3/14/1979	22.88	---
23.29.28.41	10/24/1978	Unknown	463900.1	648116.4	2988.16	NA	Shale	100	80	50	60	2938.16	2928.16	YES	NO	3/14/1979	40.97	---
							Shale and Gypsum			70	80	2918.16	2908.16	YES	NO	3/14/1979	40.97	---
USGS National Water Information System[3]																		
USGS 321832104022001	---	Inactive	590478	3575080	2972	---	Alluvium, Bolson Deposits and Other Surface Deposits	---	45	---	---	---	---	NO	NO	05/1950	---	---
USGS 321828104024301	---	Inactive	589878	3574952	2980	---	Alluvium, Bolson Deposits and Other Surface Deposits	---	40	---	---	---	---	NO	NO	05/1950	---	---
USGS 321828104024601	---	Inactive	589799	3574951	2980	---	Alluvium, Bolson Deposits and Other Surface Deposits	---	79	---	---	---	---	NO	NO	05/1950	---	---
USGS 321818104025001	---	Inactive	589698	3574642	2976	---	Alluvium, Bolson Deposits and Other Surface Deposits	---	210	---	---	---	---	NO	NO	1983-1996	---	---
USGS 321821104025501	---	Inactive	589566	3574733	2873	---	Alluvium, Bolson Deposits and Other Surface Deposits	---	132	---	---	---	---	NO	NO	09/1954	---	---
USGS 321825104025901	---	Inactive	589460	3574856	2980	---	Alluvium, Bolson Deposits and Other Surface Deposits	---	130	---	---	---	---	NO	NO	10/1954	---	---
USGS 321830104030301	---	Inactive	589354	3575009	2980	---	Alluvium, Bolson Deposits and Other Surface Deposits	---	80	---	---	---	---	NO	NO	1954-2018	---	---
USGS 321836104031001	---	Inactive	589170	3575192	2979	---	Alluvium, Bolson Deposits and Other Surface Deposits	---	---	---	---	---	---	NO	NO	09/1954	---	---
USGS 321818104032101	---	Inactive	588887	3574635	2981	---	Alluvium, Bolson Deposits and Other Surface Deposits	---	100	---	---	---	---	NO	NO	1946-1948	---	---
USGS 321727104023901	---	Inactive	589999	3573074	2993	---	Alluvium, Bolson Deposits and Other Surface Deposits	---	96	---	---	---	---	NO	NO	1946-2003	---	---
USGS 321652104021901	---	Inactive	590532	3572001	2982	---	Alluvium, Bolson Deposits and Other Surface Deposits	---	200	---	---	---	---	NO	NO	1946-2003	---	---
USGS 321652104021902	---	Inactive	590532	3572001	2982	---	Alluvium, Bolson Deposits and Other Surface Deposits	---	80	---	---	---	---	NO	NO	1955-1996	---	---
USGS 321634104023501	---	Inactive	589832	3571287	2992	---	Alluvium, Bolson Deposits and Other Surface Deposits	---	96	---	---	---	---	NO	NO	11/1954	---	---
USGS 321615104014601	---	Inactive	591406	3570870	2962	---	Alluvium, Bolson Deposits and Other Surface Deposits	---	89	---	---	---	---	NO	NO	11/1954	---	---

Well ID	Date Drilled	Current Status	NAD83 Coordinates		Ground Surface Elevation [2]	Elevation Top of Casing	Primary Formation / Lithology Completed In	Total Depth of Boring	Total Depth of Well	Top of Screen	Bottom of Screen	Top of Screen	Bottom of Screen	Data Availability				
			Northing [3]	Easting [3]										Boring Logs	Well Logs	Water Levels		
																Data Available	ft bgs	ft amsl
OSE Well Database[3]																		
C03965-POD1	3/22/2016	Active	3573463	589800	---	2981.82	---	---	---	28	38	---	---	YES[a]	YES[a]	11/29/2021	---	2953.6
C03965-POD2	3/22/2016	Active	3573473	589891	---	2982.02	---	---	---	28	38	---	---	YES[a]	YES[a]	11/29/2021	---	2949.98
C03965-POD4	7/18/2016	Active	3573381	589918	---	2983.12	Sandstone w/Clay	40	40	29.5	39.5	---	---	YES	YES	11/29/2021	---	2949.54
C03965-POD5	7/18/2016	Active	3573534	589864	---	2981.07	Sanstone/Sand	35	35	24.5	34.5	---	---	YES	YES	11/29/2021	---	2950.41
C03965-POD6	5/27/2020	Active	3573526	590021	---	2971.33	---	---	---	29.5	39.5	---	---	YES[a]	YES[a]	11/29/2021	---	2945.9
C03965-POD7	5/27/2020	Active	3573599	589884	---	2982.82	---	---	---	24	39	---	---	YES[a]	YES[a]	11/29/2021	---	2950.69
C03965-POD8	5/27/2020	Active	3573587	589723	---	2985.07	---	---	---	25	40	---	---	YES[a]	YES[a]	11/29/2021	---	2951.5
C03965-POD9	5/28/2020	Active	3573460	589707	---	2983.95	---	---	---	25	40	---	---	YES[a]	YES[a]	11/29/2021	---	2951.09
C03965-POD10	5/28/2020	Active	3573358	589813	---	2982.58	---	---	---	24.98	39.98	---	---	YES[a]	YES[a]	11/29/2021	---	2950.41
C03965-POD11	5/28/2020	Active	3573464	589504	---	2897.53	---	---	---	22	37	---	---	YES[a]	YES[a]	11/29/2021	---	2953.55
C04556-POD1	8/17/2021	Active	3573264	589816	---	2986.26	Caliche and Clay	40.35	40	20	40.35	---	---	YES	YES	11/29/2021	---	2950.95
C04556-POD2	8/17/2021	Active	3573239	589891	---	2984.57	Clayey Sand and Sand	40	40	20	39.5	---	---	YES	YES	11/29/2021	---	2949.26
C04556-POD3	8/17/2021	Active	3573259	589915	---	2983.05	Sand w/Cobbles, Clay	40.05	40	20.05	40.05	---	---	YES	YES	11/29/2021	---	2949.08
C01102	12/21/1962	Active	3573672	588901	---	---	Sand and Gravel	100	100	14	20	---	---	YES	NO	12/21/1962	12	---
C00154	8/19/1974	Active	3573566	588595	---	80	Limestone/Dolomite/Chalk	196	196	80	110	---	---	NO	NO	8/20/1974	38	---
C03146	2/15/2005	Active	3572970	589613	---	---	Conglomerate and Sand	82	82	62	82	---	---	YES	NO	2/15/2005	36	---
C01443	11/8/1970	Active	3572064	590123	---	---	Caliche/Sand/Gravel/Redbed	50	50	35	50	---	---	YES	NO	11/8/1970	27	---
C00475	9/20/1953	Active	3571347	589822	---	40	Sandstone/Gravel/Conglomerate	144	144	40	100	---	---	YES	YES	9/20/1953	38	---
C00136	7/8/2002	Active	3571967	590426	---	---	---	200	200	---	---	---	---	NO	NO	7/9/2002	42	---
C00136S	4/5/1976	Active	3572167	590426	---	---	---	---	122	---	---	---	---	NO	NO	4/5/1976	45	---
C00500 (C00868)	2/28/1945	Active	3573176	589811	---	---	---	---	130	---	---	---	---	NO	NO	---	---	---
C00501-A		Unknown	3573958	587179	---	---	---	---	---	---	---	---	---	NO	NO	---	---	---
C00571	7/30/1954	Active	3570957	591241	---	---	Sandstone/Conglomerate, Limestone/Dolomite	---	90	---	---	---	---	NO	NO	7/30/1954	38	---
C00869-S2	11/14/1974	Unknown	3572343	587996	---	---	---	---	---	---	---	---	---	NO	NO	---	---	---
C01108	6/20/1967	Active	3573566	588395	---	---	Anhydrite & Lime Conglomerate	60	60	---	---	---	---	NO	NO	---	---	---
C01967	7/15/1981	Active	3574498	590111	---	---	Sand and Gravel	264	264	256	264	---	---	YES	NO	7/15/1981	200	---
C02182	9/26/1989	Active	3571048	592328	---	---	Sand/Gravel with Shale	75	75	25	65	---	---	YES	NO	9/26/1989	30	---
C01214	8/2/1964	Active	3574597	590010	---	---	Sandstone/Conglomerate/ Gravel	---	70	---	---	---	---	NO	NO	8/2/1964	20	---
C01215	8/4/1964	Active	3574397	590210	---	---	Sandstone/Conglomerate/ Gravel	---	104	---	---	---	---	NO	NO	8/4/1964	15	---
C01217	8/11/1964	Active	3574593	589606	---	---	Sandstone/Conglomerate/ Gravel	---	87	---	---	---	---	NO	NO	8/11/1964	50	---
C01303	12/14/1966	Inactive	3569943	591041	---	---	---	---	---	---	---	---	---	NO	NO	---	---	---
LG-2[2]	6/6/2000	Active	476867.3	632230.7	2972.77	2974.52	Caliche	150	35	25	35	2947.77	2937.77	YES	YES	1/04 to 11/22	17.34	2957.18
C03001 EXPLORE	9/24/2003	Active	3571355	590430	---	---	---	---	140	---	---	---	---	NO	NO	---	---	---
C03059 EXPLORE	4/6/2004	Active	3574378	592993	---	---	Sandstone/Conglomerate/Gravel/Limestone Dolomite	---	---	13	56	---	---	NO	NO	4/6/2004	65	---

Notes:

[1] - Geohydrology Associates, Inc., 1979, Water-Resources Study of the Carlsbad Potash Area, New Mexico: Consultant report to the United States Department of the Interior Bureau of Land Management, Denver Colorado, Contract No. YA-512-CT8-195.

[2] - State Plane NAD83 Coordinates, New Mexico East 3001 Zone in Feet (derived from original PLSS coordinates)

[3] - NAD83 UTM in Meters (derived from original PLSS coordinates)

NA: Not Applicable

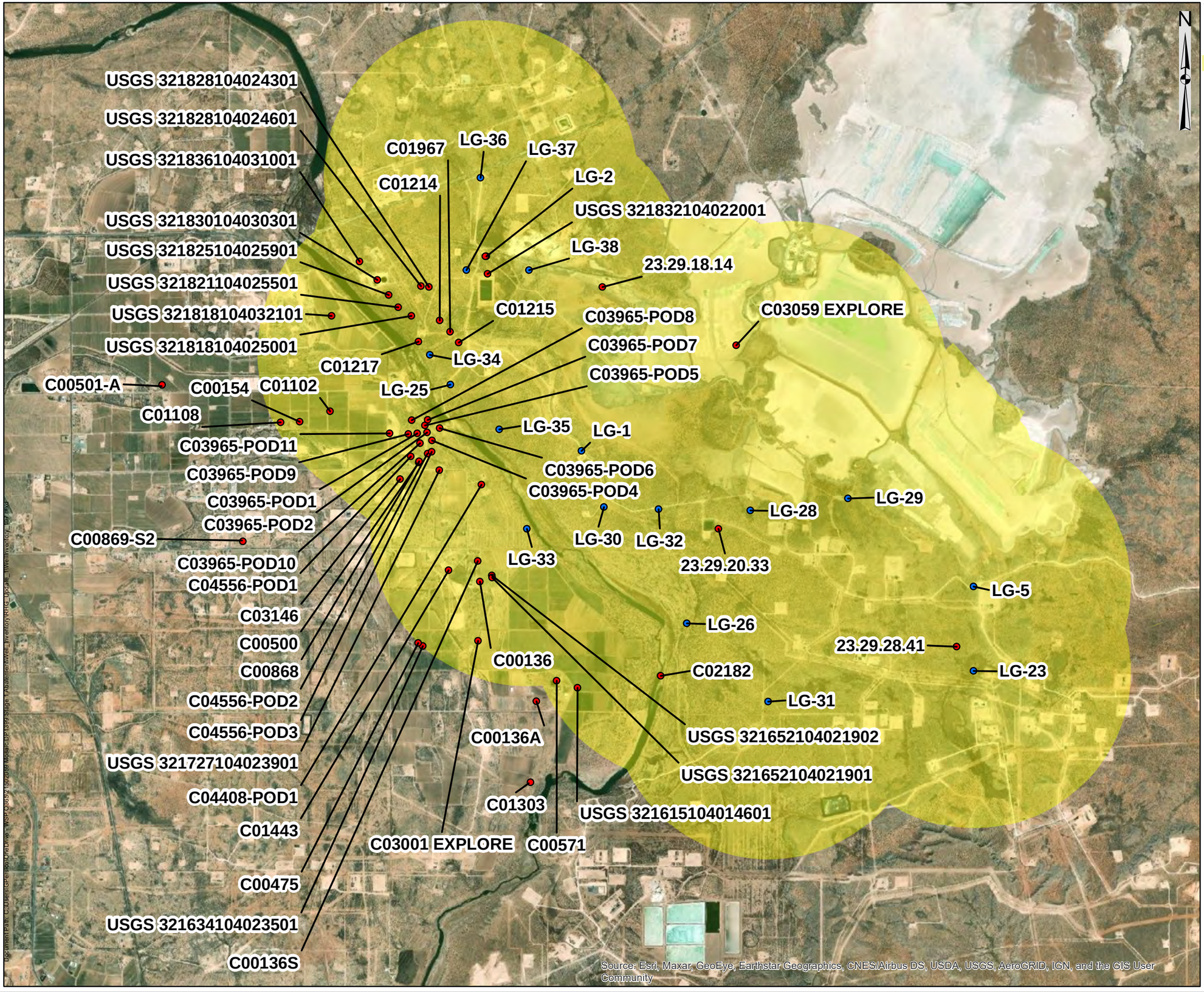
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Active - Active water POD according to the New Mexico Office of the State Engineer (NMOSE) WATERS database (actual status will be verified during initial monitoring event if access is granted)

Inactive - Inactive well according to the USGS National Water Information System (actual status will be verified during initial monitoring event if access is granted)

[a] - will need to get full report with Appendix D

Figures



LEGEND

- OTHER WELL LOCATIONS
- MOSAIC WELL LOCATIONS
- STAGE 1 ABATEMENT PLAN WELL INVENTORY AREA

0 0.5 1 2 Miles

NOTES

REFERENCE
COORDINATE SYSTEM: WGS 1984 WEB MERCATOR AUXILIARY SPHERE
AERIAL IMAGE: MRCOG REGIONAL ECW MOSAIC, ARCGIS ONLINE - WORLD IMAGERY, IMAGE TAKEN 2/2/18.

CLIENT
MOSAIC POTASH CARLSBAD, INC

PROJECT
MOSAIC POTASH MINE
STAGE 1 ABATEMENT PLAN

TITLE
STAGE 1 ABATEMENT PLAN WELL INVENTORY MAP

CONSULTANT

YYYY-MM-DD	2023-04-13
PREPARED	GSP
DESIGN	GSP
REVIEW	EMC
APPROVED	MC

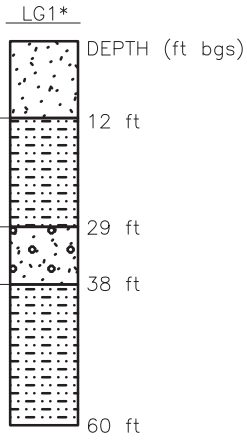
PROJECT No.	CONTROL	Rev.	FIGURE
21502059	---	---	1

Document Path: C:\Users\GPerez\OneDrive - WSP\Documents\Projects\Mosaic\DP1399 Stage 1 Abatement\Well Inventory\MXD_Updates_Well Inventory.mxd

ATTACHMENT 1

Soil Boring and Well Completion Information for Mosaic Wells

Color	Lithology
light brown (5YR 5/6)	0.0–12.0 ft fine to medium sand
moderate reddish brown (10R 6/6)	12.0–29.0 ft fine sand and silt
dark yellowish orange (10YR 6/6)	29.0–38.0 ft caliche
moderate reddish brown (10R 4/6)	38.0–60.0 ft fine sand and silt, little clay



*EL = 2964.3 ft above mean sea level

Golder Associates Denver, Colorado

TITLE

GEOLOGIC LOG
BOREHOLE LG1

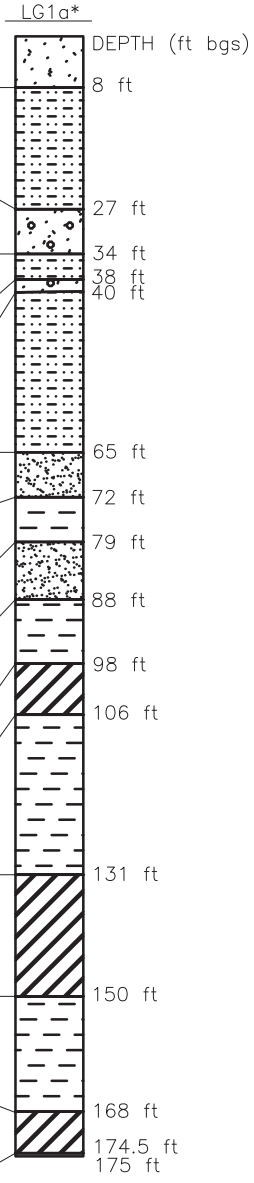
CLIENT/PROJECT

IMC CARLSBAD POTASH COMPANY

DRAWN	SMA/sfd	DATE	MAY 2001	JOB NO.	003–2214
CHECKED	JW	SCALE	N/A	DWG NO./REV. NO.	A054
REVIEWED	LK	FILE NO.	2214A054		**A-2-1**

Dwg Name: C:\Documents and Set ... p\N-BaseFiles\2214a054.dwg
Last Update: Jul 30, 2002 11:48 By:
Last Plot: Jun 04, 2009 12:10 By: sotto
Machine: NOT SET

Color	Lithology
light brown (5YR 5/6)	0.0–8.0 ft fine to coarse sand
moderate reddish brown (10R 6/6)	8.0–27.0 ft fine sand and silt, some clay
dark yellowish orange (10YR 6/6)	27.0–34.0 ft caliche
moderate reddish brown (10R 6/6)	34.0–38.0 ft fine sand and silt, little to some clay
dark yellowish orange (10YR 6/6)	38.0–40.0 ft caliche
moderate reddish brown (10R 6/6)	40.0–65.0 ft fine sand, silt and clay
pale yellowish brown (10YR 6/2)	65.0–72.0 ft fine–grained sandstone/siltstone
moderate reddish brown (10R 6/6)	72.0–79.0 ft fine sand, silt and clay with interbeds of gypsum
pale yellowish brown (10YR 6/2)	79.0–88.0 ft fine–grained sandstone/siltstone
moderate reddish brown (10R 6/6)	88.0–98.0 ft fine sand, silt and clay with interbeds of gypsum
white (N9) to light gray (N6)	98.0–106.0 ft gypsum
moderate reddish brown (10R 6/2)	106.0–131.0 ft fine sand, silt and clay with interbeds of gypsum
white (N9) to light brown (5YR 6/4)	131.0–150.0 ft gypsum
moderate reddish brown (10R 6/2)	150.0–168.0 ft fine sand, silt and clay with interbeds of gypsum
white (N9) to light brown (5YR 6/4)	168.0–174.5 ft gypsum with interbeds of fine sand/silt/clay
moderate reddish brown (10R 6/2)	174.5–175.0 ft fine sand, silt and clay



*EL = 2964.3 ft above mean sea level

Dwg Name: C:\Documents and Set ... p\N-BaseFiles\2214a055.dwg
Last Update: Jul 30, 2002 11:49 By:
Last Plot: Jun 04, 2009 12:10 By: sotto
Machine: NOT SET

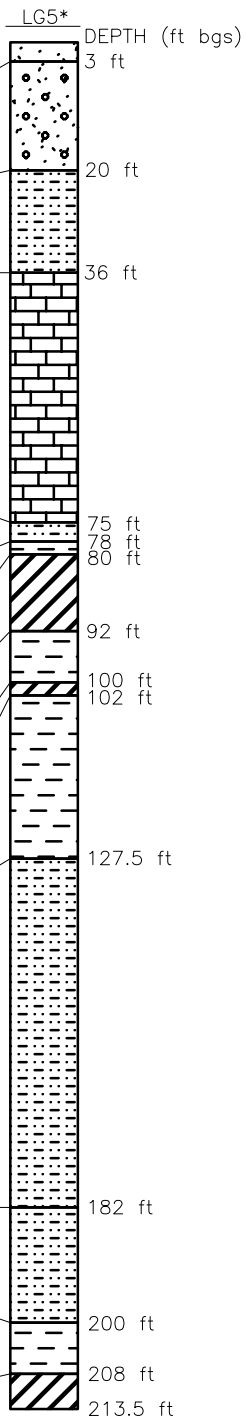
Golder Associates Denver, Colorado

CLIENT/PROJECT
IMC CARLSBAD POTASH COMPANY

TITLE
GEOLOGIC LOG BOREHOLE LG1A

DRAWN	SMA/sfd	DATE	MAY 2001	JOB NO.	003–2214
CHECKED	JW	SCALE	N/A	DWG NO./REV. NO.	A055
REVIEWED	LK	FILE NO.	2214A055		A-2-2

Color	Lithology
moderate yellowish brown (10YR 6/6)	0.0–3.0 ft silt, trace clay
dark yellowish orange (10YR 6/6) to pale yellowish orange (10YR 8/6)	3.0–20.0 ft caliche
moderate reddish brown (10R 4/6)	20.0–36.0 ft silt and clay with interbeds of limestone/dolomite
light gray (5Y 4/6)	36.0–75.0 ft dolomite
very pale orange (10YR 8/2)	75.0–78.0 ft silt, clay and dolomite
moderate reddish brown (10R 4/6)	78.0–80.0 ft silt and clay with interbeds of gypsum
white (N9) to medium light gray (N6)	80.0–92.0 ft gypsum
moderate reddish brown (10R 4/6)	92.0–100.0 ft silt and clay with interbeds of gypsum
white to medium light gray (N6)	100.0–102.0 ft gypsum
moderate reddish brown (10R 4/6)	102.0–127.5 ft silt and clay with interbeds of gypsum
pale yellowish brown (10YR 6/2)	127.5–182.0 ft silt and clay, trace to little fine to medium sand
moderate reddish brown (10R 4/6)	182.0–200.0 ft silt and clay with trace fine sand
moderate reddish brown (10R 4/6)	200.0–208.0 ft clay with trace fine sand with interbeds of gypsum
white (N9) to medium light gray (N6)	208.0–213.5 ft gypsum



*EL = 2969.3 ft above mean sea level

Golder Associates — Denver, Colorado

TITLE

GEOLOGIC LOG BOREHOLE LG5

CLIENT/PROJECT

IMC CARLSBAD POTASH COMPANY

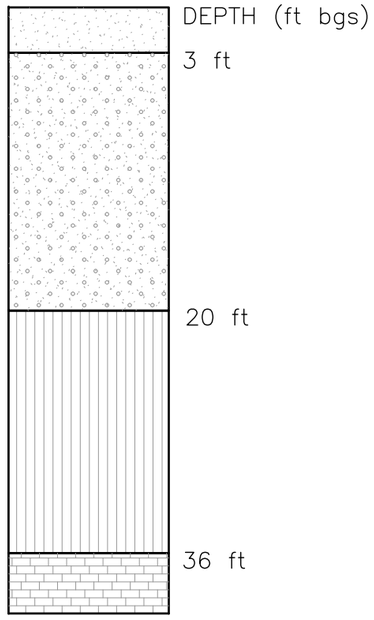
DRAWN	SMA/sfd	DATE	MAY 2001	JOB NO.	003–2214
CHECKED	JW	SCALE	N/A	DWG NO./REV. NO.	A059
REVIEWED	LK	FILE NO.	2214A059		A-2-6

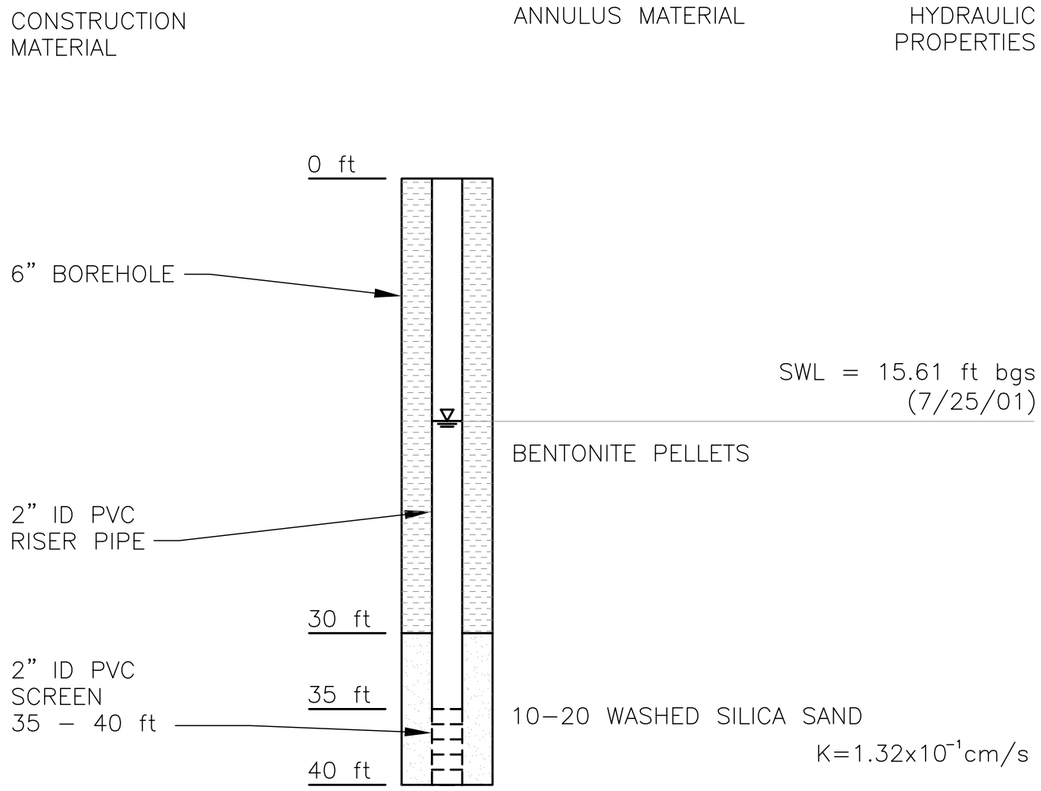
Dwg Name: C:\Documents and Set ...p\VI-BaseFiles\2214a059.dwg
Last Updated: Jul 30, 2002 11:52 By:
Last Plot: Jun 04, 2009 12:11 By: cotto
Machine: NOT SET

LEGEND

- SAND AND COARSE MATERIAL
- FINE SAND AND SILT
- CALICHE
- SILTSTONE
- SALT (SALADO FORMATION)
- FINE SAND AND SILT INTERBEDDED WITH GYPSUM
- GYPSUM
- LIMESTONE/DOLOMITE
- FILL
- LAKE BOTTOM AND/OR SALT
- GYPSITE

LG5*





*EL = 2969.3 ft above mean sea level

Golder Associates — Denver, Colorado

CLIENT/PROJECT
MOSAIC CARLSBAD POTASH COMPANY

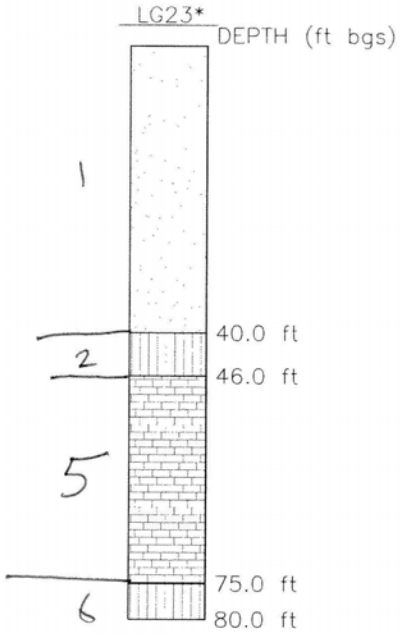
TITLE
MONITORING WELL BOREHOLE LG5a

DRAWN	SFD	DATE	MAY 2001	JOB NO.	003–2214
CHECKED	JW	SCALE	N/A	DWG. NO./REV. NO.	B065
REVIEWED	LK	FILE NO.	2214B065		**B-1-5**

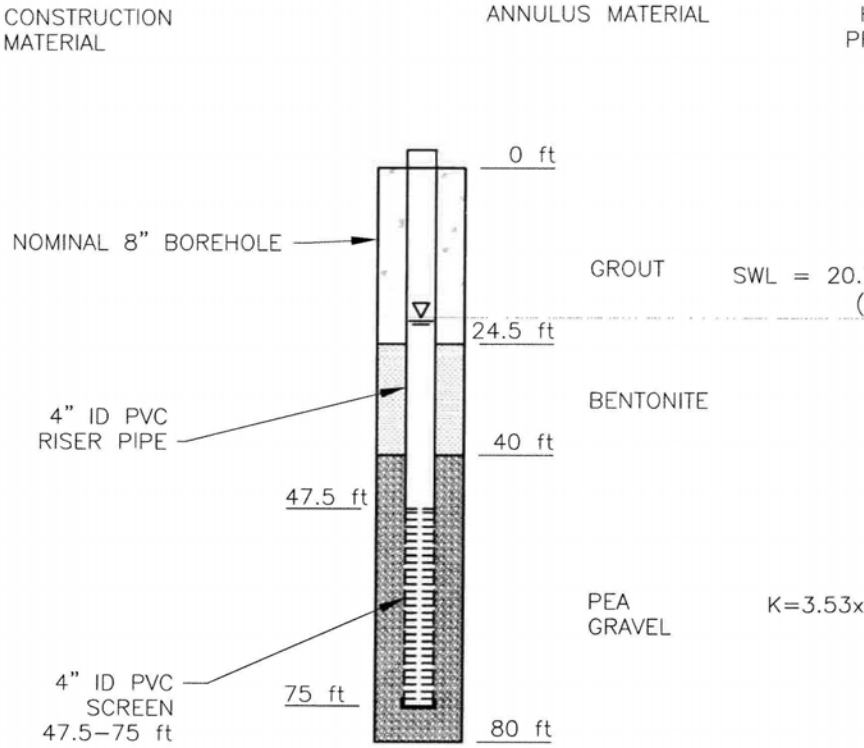
Dwg Name: J:\DOJOBS\003-2214 C ... \CAD versions\2214b065.dwg
Last Update: Dec 22, 2006 09:51 By: Nikonmig
Last Plot: Dec 22, 2006 09:52 By: Nikonmig
Machine: NOT SET

LEGEND

- SAND AND COARSE MATERIAL
- FINE SAND AND SILT
- CALICHE
- SILTSTONE
- SALT (SALADO FORMATION)
- FINE SAND AND SILT INTERBEDDED WITH GYPSUM
- GYPSUM
- LIMESTONE/DOLOMITE
- FILL
- LAKE BOTTOM AND/OR SALT
- GYPSITE

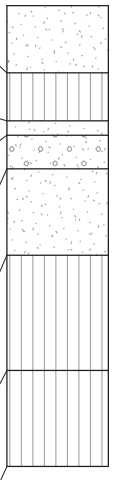


*EL = 2967.2 ft
above mean sea level



Golder Associates Denver, Colorado		TITLE: MONITORING WELL BOREHOLE LG23	
CLIENT/PROJECT: MOSAIC CARLSBAD POTASH COMPANY			
DRAWN: SFD	DATE: AUGUST, 2001	JOB NO.	
CHECKED: MJK	SCALE: N/A	DWG. NO.	
REVIEWED: JW	FILE NO.: 2214B079.dwg		

Color	Lithology
grayish brown (5R 3/2)	0.0–7.0 ft sand, silt, and some gravel
grayish orange (10YR 7/4)	7.0–12.0 ft sandy silt
grayish orange (10YR 7/4)	12.0–13.5 ft sand
very light grey (N8) to pale reddish brown (10R 5/4)	13.5–17.0 ft caliche
pale reddish brown (10R 5/4)	17.0–26.0 ft silty sand
dark yellowish orange (10YR 6/6)	26.0–38.0 ft fine sand, silt and clay
greyish yellow (5Y 8/4)	38.0–48.0 ft clay with minor fine to medium sand



*EL = 2967.5 ft above mean sea level

Golder Associates

Denver, Colorado

TITLE

GEOLOGIC LOG BOREHOLE LG25

CLIENT/PROJECT

IMC CARLSBAD POTASH COMPANY

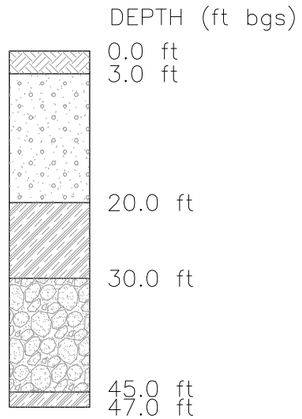
DRAWN	SFD	DATE	AUGUST 2001	JOB NO.	003–2214.2e
CHECKED	JW	SCALE	N/A	DWG NO./REV. NO.	A075
REVIEWED	LK	FILE NO.	2214A075		**A-2-31**

Dwg Name: C:\Documents and Set ... p\N-BaseFiles\2214A075.dwg
Last Update: Jul 30, 2002 12:36 By:
Last Plot: Jun 04, 2009 12:13 By: sotto
Machine: NOT SET

LEGEND

- SAND AND COARSE MATERIAL
- FINE SAND AND SILT
- CALICHE
- SILTSTONE
- SALT (SALADO FORMATION)
- FINE SAND AND SILT INTERBEDDED WITH GYPSUM
- GYPSUM
- LIMESTONE/DOLOMITE
- FILL
- LAKE BOTTOM AND/OR SALT
- GYPSITE
- CLAY
- CONGLOMERATE (QUARTZITE, LIMESTONE, SILTSTONE)
- SOIL

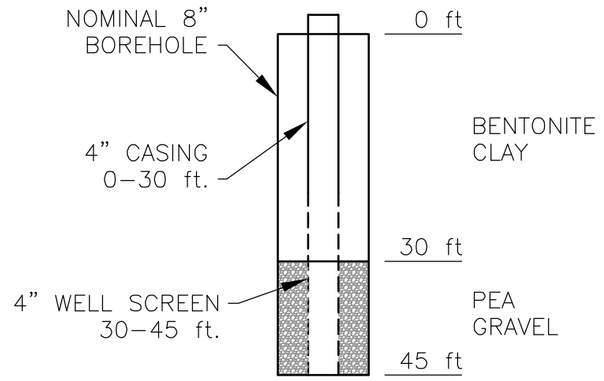
LG26



GROUND SURFACE
EL. = 2951.22 FT. AMSL

CONSTRUCTION MATERIAL

ANNULUS MATERIAL



TOP OF CASING EL. = 2952.61 FT. AMSL

Dwg Name: N:\08\083-81871\08381871A016.dwg
Last Update: Jun 05, 2009 13:37 By: jroberts
Last Plot: Jun 05, 2009 13:38 By: jroberts
Machine: NOT SET

Golder Associates
DENVER, COLORADO

CLIENT/PROJECT
MOSAIC POTASH CARLSBAD INC.

TITLE
MONITORING WELL BOREHOLE LG26

DRAWN	JWR	DATE	JUNE 2009	JOB NO.	083–81871
CHECKED	NDM	SCALE	N/A	DWG. NO./REV. NO.	A016
REVIEWED	PW	FILE NO.	08381871A016.dwg		**B-1-29**

Mosaic

PAGE 1 OF 1

TITLE LG-28 MONITOR WELL

N: 3572500 UTM/NAD27

E: 593200

[redacted]

STARTED: 1-11-06

COMPLETED: 1-12-06

DRILLER: TAYLOR WATER WELL SERVICE

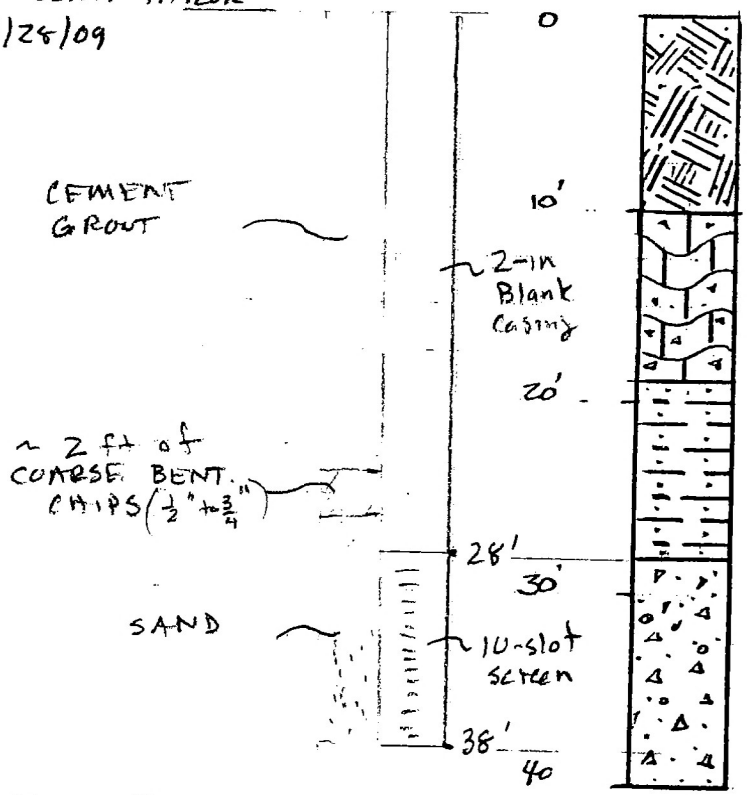
LOGGED: CLINT TAYLOR

LOCATION: T23S, R29E, SECT. 20

ELEV. 2960' APPROX.

T.D. 40'

ER CLINT TAYLOR *
4/28/09



0 - 10'
CLAY SOIL; Rd Brn, Sme Sndy

10' - 19'
CALICHE, Sme Gravel

19' - 28'
CLAY: Rd, Pl Rd, Sndy

28' - 40'
MIXTURE OF SAND, GRAVEL, CONGLOMERATE
GRAVEL: 1/16 - 1/2" Pnk, Rd, Mott Brn, Tn, Bff, Lmy, Dolo, Chrty
CONGLOMERATE: Pnk, Gry, Vry Sandy
SAND: Frstd-Ambr, VFN-Med Grn unconsl. Rnd-Sb Rnd

* NO INFORMATION REGARDING ABOVE-GROUND COMPLETION, NO INFO ON SAND SPEC.

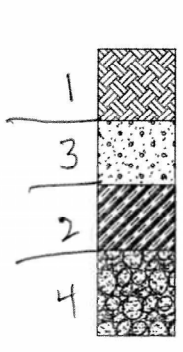
DRILLED 6 1/4" HOLE
W/ MILL TOOTH BIT

STATIC LEVEL: 7'4"

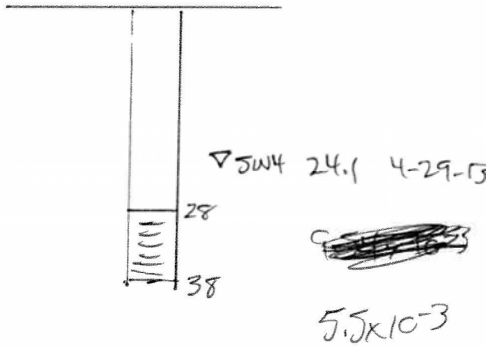
LEGEND

- SAND AND COARSE MATERIAL
- FINE SAND AND SILT
- CALICHE
- SILTSTONE
- SALT (SALADO FORMATION)
- FINE SAND AND SILT INTERBEDDED WITH GYPSUM
- GYPSUM
- LIMESTONE/DOLOMITE
- FILL
- LAKE BOTTOM AND/OR SALT
- GYPSITE
- CLAY
- CONGLOMERATE (SAND & GRAVEL)
- SOIL

LG28*



*EL = 2960.00 FT ABOVE MEAN SEA LEVEL



Golder Associates
DENVER, COLORADO

CLIENT/PROJECT
MOSAIC POTASH CARLSBAD INC.

TITLE
MONITORING WELL BOREHOLE LG28

DRAWN	SFD	DATE	DEC. 2008	JOB NO.
CHECKED	MJK	SCALE	N/A	DWG. NO.
REVIEWED	JW	FILE NO.	08381871A018.dwg	

Mosaic

TITLE LG-29 MONITOR WELL

PAGE 1 OF 1

REF. NO.

BY WTC

DATE

N: 3572631 UTM / NAD 27

E: 594180

STARTED: 1-8-06

COMPLETED: 1-9-06

DRILLER: TAYLOR WATER WELL SERVIC

LOGGED: CLINT TAYLOR

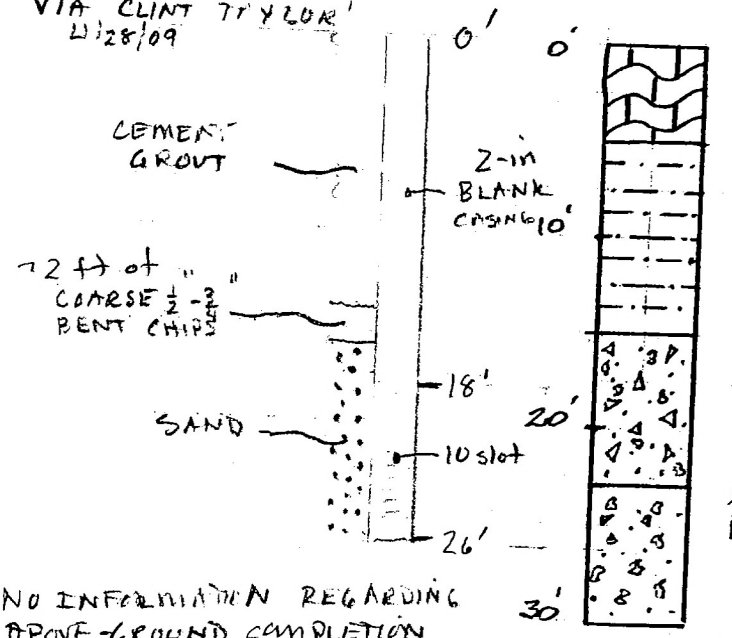
LOCATION: T23S, R29E, SECT. 20

ELEV: 2970' APPROX.

T.D. 30'

[redacted]

WELL COMPLETION INFO VIA CLINT TAYLOR 1/28/09



0-5' CALICHE

5'-15' SILTSTONE: Tn, Bff, Lmy, Hrd
LOSING SOME RETURNS

15'-23' CONGLOMERATE: Gry, Tn, Yel Brn, Vry Lmy
18'-20' LOST RETURNS

23'-30' POSSIBLY GRAVEL - SOME RETURNS W/ AIR & FOAM
SALT WATER

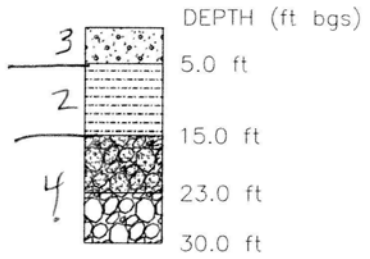
* NO INFORMATION REGARDING ABOVE-GROUND COMPLETION
NO INFO ON SAND SPEC.

DRILLED 6 1/4" HOLE
W/ MILL TOOTH BIT
DRILLED WITH MUD TO 17'
LOST ALL RETURNS, FINISHED DRILLING W/ AIR/FOAM

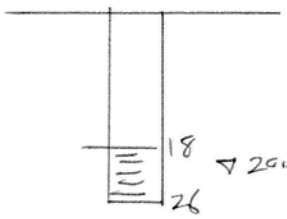
LEGEND

- SAND AND COARSE MATERIAL
- FINE SAND AND SILT
- CALICHE
- SILTSTONE
- SALT (SALADO FORMATION)
- FINE SAND AND SILT INTERBEDDED WITH GYPSUM
- GYPSUM
- LIMESTONE/DOLOMITE
- FILL
- LAKE BOTTOM AND/OR SALT
- GYPSITE
- CLAY
- CONGLOMERATE
- SOIL

LG29*



*EL = 2970.00 FT ABOVE MEAN SEA LEVEL



JWL = 20
4/30/
7.98x10-2

Golder Associates DENVER, COLORADO	TITLE: MONITORING WELL BOREHOLE LG29		
CLIENT/PROJECT: MOSAIC POTASH CARLSBAD INC.	DRAWN: SFD	DATE: DEC. 2008	JOB NO.
	CHECKED: MJK	SCALE: N/A	DWG. NO.
	REVIEWED: JW	FILE NO.: 08381871A019.dwg	

Mosaic

TITLE LG-30 MONITOR WELL

N: 3572521 UTM/NAD 27

E: 591704

PAGE 1 OF 1

REF. NO.

BY WTC

DATE

STARTED: 1-13-06

COMPLETED: 1-13-06

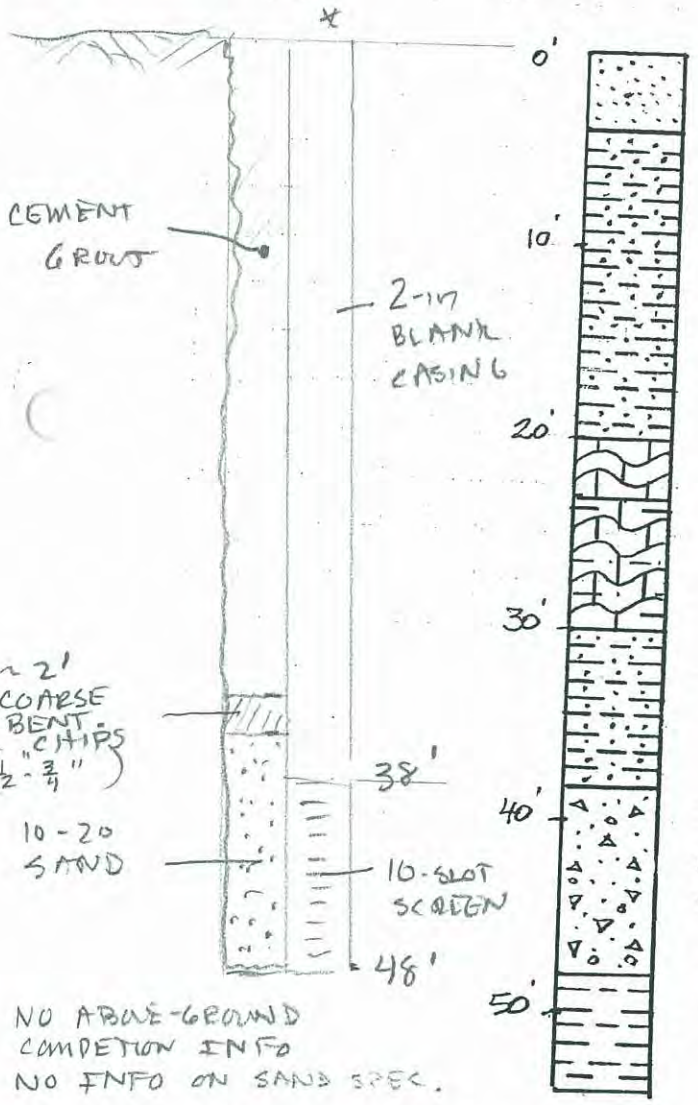
DRILLER: TAYLOR WATER WELL SERVICE

LOGGED: CLINT TAYLOR

LOCATION: T23S, R29E, SECT. 19

ELEV. : 2968 APPROX.

T.D. 48'



0-4'
SANDY SOIL

4'-20'
CLAY: Rd Brn, Vry Sndy

20'-23'
CALICHE

23'-30'
CALICHE & RED CLAY

30'-38'
CLAY: Rd, Vry Sndy

38'-48'
CONGLOMERATE & GRAVEL
Yel Brn, Brn, Gry, Tn, Bff, Sme Sndy, Lmy
LARGE (¼"-¾") GRAVEL LOST SOME MUD

48'
CLAY: Rd, Vry Stky, Sme Sndy

NO ABOVE-GROUND COMPETION INFO
NO INFO ON SAND SPEC.

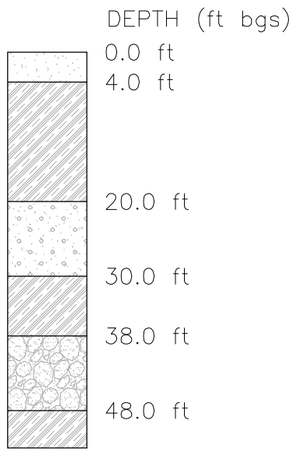
DRILLED 6¼" HOLE
W/ MUD & MILL TOOTH BIT

STATIC LEVEL 24'7"

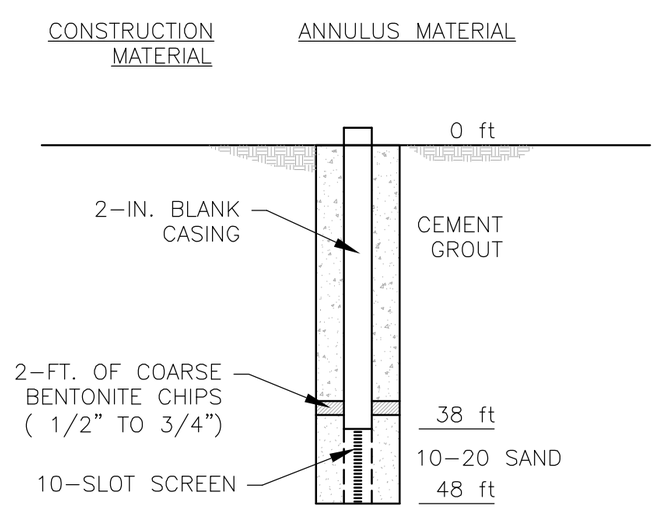
LEGEND

- SAND AND COARSE MATERIAL
- FINE SAND AND SILT
- CALICHE
- SILTSTONE
- SALT (SALADO FORMATION)
- FINE SAND AND SILT INTERBEDDED WITH GYPSUM
- GYPSUM
- LIMESTONE/DOLOMITE
- FILL
- LAKE BOTTOM AND/OR SALT
- GYPSITE
- CLAY
- CONGLOMERATE
- SOIL

LG30



GROUND SURFACE
EL = 2966.70 FT. AMSL



NOTES
1. WELL COMPLETION DATA VIA CLINT TAYLOR 4-28-09
2. TOP OF CASING EL. = 2968.55 FT. AMSL
3. NO INFORMATION ON SAND SPECIFICATIONS.

Golder Associates
DENVER, COLORADO

CLIENT/PROJECT
MOSAIC POTASH CARLSBAD INC.

TITLE
MONITORING WELL BOREHOLE LG30

DRAWN	JWR	DATE	JUNE 2009	JOB NO.	083-81871
CHECKED	NDM	SCALE	N/A	DWG. NO./REV. NO.	A020
REVIEWED	PW	FILE NO.	08381871A020.dwg		

Dwg. Name: N:\08\083-81871\08381871A020.dwg
Last Update: Jun 02, 2009 15:47 By: jroberts
Last Plot: Jun 05, 2009 13:48 By: jroberts
Machine: NOT SET

BORING/WELL CONSTRUCTION LOG LG-31

Project:	Mosaic Monitor Wells	Project Number:	133-81612
Drilling Company:	Taylor Water Well	Start Time/Date:	8:00 AM 4/13/13
Drilling Rig/Bit:	Mayhew 1000/7-7/8"drag	Completion Time/Date:	12:45 PM 4/14/13
Driller:	Clint Taylor	Final Depth:	99.5 feet
Boring/Well ID:	LG-31	Logged By:	John Purcell

Sample Type	Blow Counts/6"	Sample Interval	Recovery	PID Reading	USCS Soil Type	Depth, ft bgs	Soil Description (soil type, color, density/consitency, plasticity, moisture, grain size, angularity/minerology, other)
Grab		0-5				1	Alluvium, silty sand, light brown, fine grain 0-1'
						2	Caliche, light pink brown, 2'-13'
						3	
						4	Drilled 7 7/8" hole to 2' and set subcollar
						5	Using air and foam, and drag bit to drill hole
Grab		5-10				6	Caliche, light pink brown, 2'-13'
						7	
						8	
						9	
						10	
Grab		10-15				11	Caliche, light pink brown (2'-13')
						12	
						13	
						14	Sandstone, red (14'-20')
						15	
Grab		15-20				16	Sandstone, red (14'-20')
						17	
						18	
						19	
						20	
Grab		20-25				21	Sandstone, red (20'-22')
						22	
						23	Mudstone, red (22'-27')
						24	
						25	
Grab		25-30				26	
						27	Mudstone, gray (27'-30')
						28	
						29	
						30	
Grab		30-35				31	Mudstone, red-brown (30'-45')
						32	
						33	
						34	
						35	
Grab		35-40				36	Mudstone, red-brown (30'-45')
						37	
						38	
						39	
						40	Checked for water - N/A
Grab		40-45				41	Mudstone, red-brown (30'-45')
						42	
						43	
						44	
						45	
Grab		45-50				46	Clay, yellow-gray (45'-99')
						47	
						48	
						49	
						50	
Grab		50-55				51	Clay, yellow-gray (45'-99')
						52	
						53	
						54	
						55	
Grab		55-60				56	Clay, yellow-gray (45'-99')
						57	
						58	
						59	
						60	Checked for water - N/A

Boring and/or Well Details

Sub

Bentonite grout 74' - surface

Static water level measured N/A - 4/14/13 3:00 PM

BORING/WELL CONSTRUCTION LOG LG-31

Project:	Mosaic Monitor Wells	Project Number:	133-81612
Drilling Company:	Taylor Water Well	Start Time/Date:	8:00 AM 4/13/13
Drilling Rig/Bit:	Mayhew 1000/air rotary	Completion Time/Date:	12:45 PM 4/14/13
Driller:	Clint Taylor	Final Depth:	99.5 feet
Boring/Well ID:	LG-31	Logged By:	John Purcell

Sample Type	Blow Counts/6"	Sample Interval	Recovery	PID Reading	USCS Soil Type	Depth, ft bgs	Soil Description (soil type, color, density/consitency, plasticity, moisture, grain size, angularity/minerology, other)
Grab		60-65				61	Clay, yellow-gray (45'-99')
						62	
						63	
						64	
						65	
Grab		65-70				66	Clay, yellow-gray (45'-99')
						67	
						68	
						69	
						70	
Grab		70-75				71	Clay, yellow-gray (45'-99')
						72	
						73	
						74	
						75	
Grab		75-80				76	Clay, yellow-gray (45'-99')
						77	
						78	
						79	
						80	
Grab		80-85				81	Clay, yellow-gray (45'-99')
						82	
						83	
						84	
						85	
Grab		85-90				86	Clay, yellow-gray (45'-99')
						87	
						88	
						89	
						90	
Grab		90-95				91	Clay, yellow-gray (45'-99')
						92	
						93	
						94	
						95	
Grab		95-99				96	Clay, yellow-gray (45'-99')
						97	
						98	
						99	
						100	Limestone, light yellow, hard stopped hole at 99.5'

Boring and/or Well Details
4" PVC casing 89'-surface
Bentonite chips 83' - 74' (3 bags)
Perforated 4" PVC casing 99'-89'
Sand from 99' - 83' (7 bags)

BORING/WELL CONSTRUCTION LOG LG-32

Project:	Mosaic Monitor Wells	Project Number:	133-81612
Drilling Company:	Taylor Water Well	Start Time/Date:	8:00 AM 4/11/13
Drilling Rig/Bit:	Mayhew 1000/7-7/8"drag	Completion Time/Date:	9:30 AM 4/13/13
Driller:	Clint Taylor	Final Depth:	77 feet
Boring/Well ID:	LG-32	Logged By:	John Purcell

Sample Type	Blow Counts/6"	Sample Interval	Recovery	PID Reading	USCS Soil Type	Depth, ft bgs	Soil Description (soil type, color, density/consitency, plasticity, moisture, grain size, angularity/minerology, other)
Grab		0-5				1	Alluvium, silty sand, light brown, fine grain
						2	Drilled 7 7/8" hole to 2' and set subcollar
						3	Using air, mud and drag bit to drill hole
						4	
						5	
Grab		5-10				6	Alluvium, silty sand, light brown, fine grain
						7	
						8	
						9	
						10	
Grab		10-15				11	Sandy clay, brown
						12	
						13	
						14	
						15	
Grab		15-20				16	Sandy clay, brown
						17	
						18	
						19	
						20	
Grab		20-25				21	Sandy clay, brown
						22	
						23	
						24	
						25	
Grab		25-30				26	Sandy clay, brown
						27	
						28	
						29	
						30	
Grab		30-35				31	Sandy clay, gray-brown
						32	
						33	
						34	
						35	
Grab		35-40				36	Sandy clay, gray-brown
						37	
						38	
						39	
						40	Checked for water - very little water (perched water in clay)
Grab		40-45				41	Sandy clay, gray-brown
						42	
						43	
						44	
						45	
Grab		45-50				46	Sandy, clay, gray-brown
						47	
						48	
						49	
						50	
Grab		50-55				51	Sandy clay, gray-brown
						52	
						53	
						54	
						55	
Grab		55-60				56	Sandy clay, gray-brown
						57	
						58	
						59	
						60	Checked for water - very little water

Boring and/or Well Details

- 4" PVC casing 71'-surface
- Bentonite chips 55' - 49' (2 bags)
- Bentonite grout 49' - surface
- Sub
- Static water level measured to 17' on 4/13/13 9:00 AM

BORING/WELL CONSTRUCTION LOG LG-32

Project:	Mosaic Monitor Wells	Project Number:	133-81612
Drilling Company:	Taylor Water Well	Start Time/Date:	8:00 AM 4/11/13
Drilling Rig/Bit:	Mayhew 1000/air rotary	Completion Time/Date:	9:30 AM 4/13/13
Driller:	Clint Taylor	Final Depth:	77 feet
Boring/Well ID:	LG-32	Logged By:	John Purcell

Sample Type	Blow Counts/6"	Sample Interval	Recovery	PID Reading	USCS Soil Type	Depth, ft bgs	Soil Description (soil type, color, density/consitency, plasticity, moisture, grain size, angularity/minerology, other)
Grab		60-65				61	Sandy clay, gray-brown to 61'
						62	Gravel hard, red-brown, rounded, pea sized, hard drillling
						63	
						64	
						65	Changed back to clay at 65'
Grab		65-70				66	Sandy clay, gray-brown
						67	
						68	
						69	
						70	
Grab		70-75				71	Sandy clay, gray brown
						72	
						73	
						74	
						75	
Grab		75-80				76	Sandy clay,gray-brown
						77	Checked for water-water observed, Bottom of Hole at 77'
						78	
						79	
						80	
						81	
						82	
						83	
						84	
						85	
						86	
						87	
						88	
						89	
						90	
						91	
						92	
						93	
						94	
						95	
						96	
						97	
						98	
						99	
						100	

Boring and/or Well Details

Perforated 4" PVC casing 71'-61'

Sand from 77' - 55' (7 bags)

Monitor Well/Piezometer Log

SITE NAME AND LOCATION:

LG-33

LATITUDE: 32.2855 LONGITUDE: -104.0349
DATUM: amsl
ELEVATION: TBD

DRILL RIG: Sonic
ANGLE: 90 BEARING: -

DRILLING METHOD: Sonic Drilling

SAMPLING METHOD: Core (approximately 2.5 ft increments)
Field Electrical Conductivity measured with a FieldScout Direct Soil EC Meter

WATER LEVEL	25.03 ft-bgs
TIME	1030
DATE	11/22/2020
CASING DEPTH	36.5 ft-bgs

SURFACE CONDITIONS: Sand

WELL LOG 1

SHEET 1 of 4

DRILLING	
START	FINISH
1610	1434
DATE	DATE
11/16 2020	11/17 2020

DRILLING CONTRACTOR: Cascade Environmental

LOGGED BY: ML

DATE: 11/17/2020

JOB NO.: 20147373

FILE NAME: Mosaic 2020 Monitoring Well Improvemen

DEPTH IN FEET (ELEVATION)	WELL COMPLETION DETAILS	SAMPLE DEPTH AND DESCRIPTION OF MATERIAL	% GRAVEL	% SAND	% FINES	Soil Electrical Conductivity (µS/cm)	COLOR	CONSISTENCY / CEMENTATION	PLASTICITY (np, l, m, h)	HYDROCHLORIC ACID REACTION TEST
		Depth Interval								
--- --- --- --- ----2.5	Portland Cement 0 - 14.5	1.0 - 2.5 : Silt (ML), trace fine sand, brown (7.5YR 4/4), well graded, non-plastic, dry, loose, strong HCL reaction	-	20	80	90.2	7.5 YR 4/4	Loose	np	Strong
--- --- --- --- ----5		2.5 - 5.0 : Clayey Silt (ML), brown (7.5YR 4/4), well graded, non-plastic, dry, loose with nodules of increased cementation, strong HCL reaction	-	Trace	100	23.4	7.5 YR 4/4	Loose with Nodules	np	Strong
--- --- --- --- ----7.5		5.0 - 7.5 : Same as above with increased cemented calcium carbonate nodules	-	Trace	100	90.1	7.5 YR 4/4	Loose with Nodules	np	Strong
--- --- --- --- ----10		7.5 - 10.0 : Silt (ML), trace fine sand, brown (7.5YR 4/4), well graded, non-plastic, dry, loose with cemented calcium carbonate nodules, strong HCL reaction	-	10	90	57.9	7.5 YR 4/4	Loose with Nodules	np	Strong
--- --- --- --- ----12.5		10.0 - 12.3 : Silt (ML), fine sand, red-brown (7.5YR 4/6), well graded, non-plastic, dry, loose with cemented calcium carbonate nodules (decreased amount from above), strong HCL reaction	-	15	85	55.4	7.5 YR 4/6	Loose with Nodules	np	Strong
--- --- --- --- ----15		12.3 - 13.0 : Silty Fine-Sand (SM), rounded to sub-rounded gravel (0.25"-2.0"), red-brown (7.5YR 4/6), loose, poorly graded, slightly moist, strong HCL reaction	10	20	70	157.3	7.5 YR 4/6	Loose	np	Strong
		13.0 - 14.5 : Gravely Sand (SP) with silt, rounded to subrounded gravels (0.25") to cobbles (4"), brown (7.5YR 5/4), loose, non-plastic, slightly moist, strong HCL reaction	30	50	20	157	7.5 YR 5/4	Loose	np	Strong
		14.5 - 15.0 : Gravely Sand (SP) with silt, rounded to subrounded gravels (0.25"-2.9"), pink-grey, dry	40	60	10	157	7.5YR7/2	Loose	np	Strong
--- --- --- --- ----17.5	Bentonite Seal 14.5 - 19	15.0 - 19.0 : Sandy Gravel (GP), rounded to subrounded gravels(0.25") to cobbles (4"), pink-grey (7.5YR 7/2), slightly moist, non-plastic, loose, poorly graded, strong HCL reaction	50	50	Trace	33.1	7.5 YR 7/2	Loose	np	Strong
--- --- --- --- ----20		19.0 - 20.0 : Sand (SW), fine sand, light brown (7.5YR 6/3), loose, non-plastic, well graded, dry to slightly moist, strong HCL reaction. At 20': partially cemented carbonates	-	100	-	14.1	7.5YR 6/3	Loose	np	Strong
--- --- --- --- ----22.5	21.2	20.0 - 22.0 : Gravely Sand (SP), subrounded gravels(0.25") to cobbles (4"), brown (7.5YR 5/4), loose, non-plastic, poorly graded, slightly moist, strong HCL reaction	40	60	Trace	11	7.5 YR 5/4	Loose	np	Strong
		22.0 - 22.5 : Same as above with nodules of caliche and increased clay and moisture	35	60	5	1547	7.5YR6/4	Loose	lp	Strong
--- --- --- --- ----25	Sand Filter Pack	22.5 - 23.5 : Clay (CL), fine to very fine sand, light brown (7.5YR 6/4), low plasticity, moist, minor cementation, strong HCL reaction	-	10	90	1547	7.5YR 6/4	minor cementation	lp	Strong
		23.5 - 26.5 : Gravely Clay (GC), angular to subrounded gravel (0.25"-2"), medium sand, light brown (7.5YR 6/4), poorly sorted, low plasticity, loose, moist, strong HCL reaction	30	20	50	1547	7.5 YR 6/4	Loose	lp	Strong
--- --- --- --- ----27.5		26.5 - 27.5 : Sand (SP), clay and subrounded gravels, medium sand, light brown (7.5YR 6/4), non-plastic, loose, moist, strong HCL reaction	20	40	40	810	7.5 YR 6/4	Loose	np	Strong
		27.5 - 28.0 : Sand (SP), trace subrounded gravel and clay, medium sand, moist	10	70	20	1815	7.5YR6/4	Loose	np	Strong
--- --- --- --- ----30		28.0 - 29.0 : Gravely Clay (GC), medium sand, light brown (7.5YR 6/4), large pockets of red clay (5YR 4/6), clay is moderately plastic, gravel matrix is non-plastic and loose	25	20	55	1815	7.5 YR 6/4	Loose	np	Strong
		29.0 - 31.0 : Gravely Sand (SP), angular to subrounded gravel, increase gravel percentage, non-plastic, loose, poorly sorted, moist, strong HCL reaction	30	40	30	2650	7.5 YR 6/4	Loose	np	Strong

Monitor Well/Piezometer Log

SITE NAME AND LOCATION:

LG-33

LATITUDE: 32.2855 LONGITUDE: -104.0349
DATUM: amsl
ELEVATION: TBD

DRILL RIG: Sonic
ANGLE: 90 BEARING: -

DRILLING METHOD: Sonic Drilling

SAMPLING METHOD: Core (approximately 2.5 ft increments)
Field Electrical Conductivity measured with a FieldScout Direct Soil EC Meter

WATER LEVEL	25.03 ft-bgs
TIME	1030
DATE	11/22/2020
CASING DEPTH	36.5 ft-bgs

SURFACE CONDITIONS: Sand

WELL LOG 1
SHEET 2 of 4

DRILLING	
START	FINISH
1610	1434
DATE	DATE
11/16 2020	11/17 2020

DRILLING CONTRACTOR: Cascade Environmental
LOGGED BY: ML
DATE: 11/17/2020
JOB NO.: 20147373
FILE NAME: Mosaic 2020 Monitoring Well Improvemen

DEPTH IN FEET (ELEVATION)	WELL COMPLETION DETAILS	SAMPLE DEPTH AND DESCRIPTION OF MATERIAL	% GRAVEL	% SAND	% FINES	Soil Electrical Conductivity (µS/cm)	COLOR	CONSISTENCY[3] / CEMENTATION[4]	PLASTICITY (np, l, m, h)	HYDROCHLORIC ACID REACTION TEST
Depth Interval										
--- --- --- --- ----32.5	Sand Filter Pack 19 - 41.5	29.0 - 31.0 : Same as above	30	40	30	2650	7.5 YR 6/4	Loose	np	Strong
		31.0 - 32.5 : Clayey Sand (SC), increased clay percentage, angular to subrounded gravel, light brown (7.5YR 6/4), non-plastic, loose with stiff reddish-brown clay nodules (5YR 4/6), poorly sorted, very moist, strong HCL reaction	20	30	50	2650	7.5 YR 6/4	Loose with Nodules	np	Strong
		32.5 - 34.0 : Sand (SP), minor amounts of clay and gravel (subrounded and up to 2"), medium sand, light brown (7.5YR 6/4), non-plastic, loose, moist, strong HCL reaction	10	70	20	2230	7.5 YR 6/4	Loose	np	Strong
--- --- --- ----35		34.0 - 35.5 : Clayey Sand (SC), subrounded gravel (up to 1"), medium sand, light brown (7.5YR 6/4), non-plastic, loose with stiff reddish-brown clay nodules (5YR 4/6), poorly sorted, very moist, strong HCL reaction	10	50	40	2230	7.5 YR 6/4	Loose	np	Strong
--- --- 36.2 36.5 --- ----37.5		35.5 - 43.5 : Sand (SW), trace amounts of clay, fine to very fine sand, light brown (7.5YR 6/4), non-plastic to low plasticity, slightly stiff, well sorted, very moist, strong HCL reaction • 41 - 41.5 ft: Color change (5 YR 4/6, red) • 42.5 - 43.5 ft: Color change (7.5 YR 5/4, brown) with trace organic lenses	Trace	90	10	2011	7.5 YR 6/4	Slightly Stiff	np-lp	Strong
--- --- --- --- ----40										
--- --- --- --- ----42.5										
--- --- --- ----45		43.5 - 46.0 : Clayey Gravel (GC), angular to subrounded gravels (0.25") to cobbles (4"), brown (7.5 YR 5/3), medium sand, poorly sorted, loose, non-plastic, moist, strong HCL reaction	65	20	15	1324	7.5 YR 5/3	Loose	np	Strong
--- --- --- ----47.5		46.0 - 46.5 : Sandy Clay (SC), large (4") stiff clay nodules in loose sandy matrix, reddish-brown	Trace	10	90	11450	5YR4/6	Stiff	np	Strong
		46.5 - 48.0 : Sand (SW), trace amounts of clay, fine to very fine sand, light brown (7.5YR 6/4), non-plastic to low plasticity, stiff, well sorted, moist, strong HCL reaction	Trace	90	10	11450	7.5 YR 6/4	Stiff	np-lp	Strong
--- --- --- ----50		48.0 - 49.0 : Gravely Sand (SP), rounded to subrounded gravel (0.25"-1"), reddish-brown clay (5YR 4/6), stiff, poorly sorted, moist, non-plastic, trace organics present	25	45	20	995	7.5 YR 6/4	Stiff	np	Strong
		49.0 - 50.0 : Gravely Clay (GC), rounded to subrounded gravel to cobble (4"), trace fine to medium sand, large reddish-brown clay nodules (5YR 4/6), stiff, non-plastic	40	Trace	60	995	7.5 YR 6/4	Stiff	np	Strong
--- --- --- --- ----52.5	Bentonite	50.0 - 53.5 : Sandy Gravel (GP), angular to subangular gravel (0.25" - 3"), pinky grey (7.5YR 7/2), conglomerate clasts with caliche, loose, non-plastic, poorly sorted, moist, strong HCL reaction	80	5	15	971	7.5 YR 7/2	Loose	np	Strong
--- --- --- --- ----55		53.5 - 55.0 : Gravely Clay (GC), subangular gravel (0.25" - 1.5"), fine sand, pale brown (2.5Y 6/3), poorly sorted, loose, moderately to highly plastic, moist, strong HCL reaction	25	10	65	1117	2.5 Y 6/3	Loose	mp - hp	Strong
--- --- --- --- ----57.5		55.0 - 57.5 : Sandy Clay (SC), coarse to fine sand, trace small angular gravel (0.2"), reddish-brown (5YR 4/6) with light yellowish brown varying (10YR 6/4), stiff, high plasticity, poorly sorted, moist, strong HCL reaction	5	25	70	1214	5 YR 4/6	Stiff	hp	Strong
--- --- --- --- ----60		57.5 - 60.0 : Clayey silt (ML), fine sand, reddish brown (5YR 4/6), very stiff, moist, high plasticity, strong HCL reaction	Trace	15	85	1161	5 YR 4/6	Very Stiff	hp	Strong

Monitor Well/Piezometer Log

SITE NAME AND LOCATION:

LG-33

LATITUDE: 32.2855 LONGITUDE: -104.0349
DATUM: amsl
ELEVATION: TBD

DRILL RIG: Sonic
ANGLE: 90 BEARING: -

DRILLING METHOD: Sonic Drilling

SAMPLING METHOD: Core (approximately 2.5 ft increments)

Field Electrical Conductivity measured with a FieldScout Direct Soil EC Meter

WATER LEVEL	25.03 ft-bgs
TIME	1030
DATE	11/22/2020
CASING DEPTH	36.5 ft-bgs

SURFACE CONDITIONS: Sand

WELL LOG 1

SHEET 3 of 4

DRILLING	
START	FINISH
1610	1434
DATE	DATE
11/16 2020	11/17 2020

DRILLING CONTRACTOR: Cascade Environmental

LOGGED BY: ML

DATE: 11/17/2020

JOB NO.: 20147373

FILE NAME: Mosaic 2020 Monitoring Well Improvemen

DEPTH IN FEET (ELEVATION)	WELL COMPLETION DETAILS	SAMPLE DEPTH AND DESCRIPTION OF MATERIAL	% GRAVEL	% SAND	% FINES	Soil Electrical Conductivity (µS/cm)	COLOR	CONSISTENCY[3] / CEMENTATION[4]	PLASTICITY (np, l, m, h)	HYDROCHLORIC ACID REACTION TEST
		Depth Interval								
--- --- --- --- ----62.5 --- --- --- --- ----65 --- --- --- --- ----67.5 --- --- --- --- ----70 --- --- --- --- ----72.5 --- --- --- ----75 --- --- --- --- ----77.5 --- --- --- --- ----80 --- --- --- --- ----82.5 --- --- --- --- ----85 --- --- --- --- ----87.5 --- --- --- --- ----90	Bentonite	60.0 - 61.0 : Sand (SM), fine to medium sand with subangular gravels (0.25"-1") and fines, yellowish brown (10YR 5/4), stiff, moderate plasticity, strong HCL reaction	15	65	20	1065	10 YR 5/4	Stiff	mp	Strong
		61.0 - 66.5 : Clayey silt (ML), fine sand, yellowish brown (10 YR 5/4) mottlled with reddish brown clay (5YR 4/6), very stiff, moist, high placticity, strong HCL reaction	Trace	15	85	866.3	10 YR 5/4	Very Stiff	hp	Strong
		66.5 - 70.0 : Sandy Clay (SC), fine to medium sands, increase in percentage of silt, light yellowish brown (2.5 Y 6/4), increased mottlling of reddish brown clay (5YR 4/6), loose, low plasticity to non-plastic, moist, weak to no HCL reaction • 70 ft: Mottled with yellowish brown (5Y 4/6) and trace red (10R 3/3) clay	Trace	30	70	911	2.5 Y 6/4	Loose	np-lp	Weak to None
		70.0 - 72.0 : Silty Clay, reddish brown (5YR 4/6) mottled with light brown (7.5YR 6/3), well sorted, very stiff, high plasticity, weak HCL reaction	Trace	Trace	99	1872	5 YR 4/6	Very Stiff	hp	Weak
		72.0 - 77.0 : Anhydrite, pink anhydrite (7.5 YR 7/3) with reddish brown clay (5 YR 4/6), pockets of gypsum (7.5YR 8/1, white), trace gravels, dry, hard rock, non-plastic, weak HCL reaction • 74 - 74.25 ft: clay rich layer (5YR 4/6, reddish brown) • 75 -76 ft: clay rich layer (5YR 4/6, reddish brown)	-	-	-	29.1	7.5 YR 7/3	Hard / Rock	np	Weak
		77.0 - 78.0 : Claystone with anhydrite, gypsum nodules, white (7.5YR 8/1) with reddish brown claystone (5 YR 4/6), hard, non-plastic, dry, weak HCL reaction	-	-	-	183.8	7.5 YR 8/1	Hard / Rock	np	Weak
		78.0 - 90.5 : Claystone (5 YR 4/6, redish brown) with gypsum/anhydrite stringers (7.5YR 7/3, pink), gypsum nodules (7.5YR 8/1, white) in claystone , hard, non-plastic, dry, weak to no HCL reaction • 80 ft: increase in gypsum/anhydrite concentration and becomes harder	-	-	-	69	5 YR 4/6	Hard / Rock	np	Weak to None

GOLDER

Monitor Well/Piezometer Log

SITE NAME AND LOCATION:

LG-33

LATITUDE: 32.2855 LONGITUDE: -104.0349
DATUM: amsl
ELEVATION: TBD

DRILL RIG: Sonic
ANGLE: 90 BEARING: -

DRILLING METHOD: Sonic Drilling

SAMPLING METHOD: Core (approximately 2.5 ft increments)
Field Electrical Conductivity measured with a FieldScout Direct Soil EC Meter

WATER LEVEL	25.03 ft-bgs
TIME	1030
DATE	11/22/2020
CASING DEPTH	36.5 ft-bgs

SURFACE CONDITIONS: Sand

WELL LOG 1
SHEET 4 of 4

DRILLING	
START	FINISH
1610	1434
DATE	DATE
11/16 2020	11/17 2020

DEPTH IN FEET (ELEVATION)	WELL COMPLETION DETAILS	SAMPLE DEPTH AND DESCRIPTION OF MATERIAL	% GRAVEL	% SAND	% FINES	Soil Electrical Conductivity (µS/cm)	COLOR	CONSISTENCY[3] / CEMENTATION[4]	PLASTICITY (np, l, m, h)	HYDROCHLORIC ACID REACTION TEST
Depth Interval										
--- --- --- --- ----92.5 --- --- --- --- ----95 --- --- --- --- ----97.5 --- --- --- --- ----100 --- --- --- ----102.5 --- --- --- --- ----105 --- --- --- --- ----107.5 --- --- --- --- ----110 --- --- --- --- ----112.5 --- --- --- --- ----115 --- --- --- --- ----117.5 --- --- --- --- ----120	Bentonite	90.5 - 101.5 : Siltstone, dark greyish brown (10 YR 5/2), hard rock, pockets of gypsum (7.5YR 8/1, white), dry, non-plastic, moderate to strong HCL reaction • 100 ft: Lenses of reddish brown clay (5 YR 4/6)	-	-	-	85.6	10 YR 5/2	Hard / Rock	np	Moderate to Strong
		Total Drill Depth = 101.5 ft-bgs								

DRILLING CONTRACTOR: Cascade Environmental
LOGGED BY: ML
DATE: 11/17/2020
JOB NO.: 20147373
FILE NAME: Mosaic 2020 Monitoring Well Improvemen

Monitor Well/Piezometer Log

SITE NAME AND LOCATION:

LG-34

LATITUDE: 32.3015 LONGITUDE: -104.0451
DATUM: amsl
ELEVATION: TBD

DRILL RIG: Sonic
ANGLE: 90 BEARING: -

DRILLING METHOD: Sonic Drilling

SAMPLING METHOD: Core (approximately 2.5 ft increments)
Field Electrical Conductivity measured with a FieldScout Direct Soil EC Meter

WATER LEVEL	17.71 ft-bgs
TIME	1240
DATE	11/22/2020
CASING DEPTH	23.3 ft-bgs

SURFACE CONDITIONS: Sand

WELL LOG 2

SHEET 1 of 4

DRILLING	
START	FINISH
1607	1220
DATE	DATE
11/18 2020	11/19 2020

DRILLING CONTRACTOR: Cascade Environmental

LOGGED BY: ML

DATE: 11/19/2020

JOB NO.: 20147373

FILE NAME: Mosaic 2020 Monitoring Well Improvemen

DEPTH IN FEET (ELEVATION)	WELL COMPLETION DETAILS	SAMPLE DEPTH AND DESCRIPTION OF MATERIAL	% GRAVEL	% SAND	% FINES	Soil Electrical Conductivity (µS/cm)	COLOR	CONSISTENCY[3] / CEMENTATION[4]	PLASTICITY (np, l, m, h)	HYDROCHLORIC ACID REACTION TEST
		Depth Interval								
--- --- --- --- ----2.5 --- --- --- --- ----5 --- --- --- --- ----7.5 --- --- --- --- ----10 --- --- --- --- ----12.5 --- --- --- --- ----15 --- --- --- --- ----17.5 --- --- --- --- --- ----20 --- --- --- --- ----22.5 --- --- --- --- ----25 --- --- --- --- ----27.5 --- --- --- --- ----30	Portland Cement Bentonite Seal 13.0 Sand Filter Pack 23.0 23.3 Bentonite	0 - 7.0 : Silty Sand (SM), aeolian sand, brown (7.5YR 4/4), well sorted, loose, non-plastic, slightly moist, strong HCL reaction	-	75	25	126.7	7.5 YR 4/4	Loose	np	Strong
	0 - 6.5 6.5 - 11 11 - 25	7.0 - 12.0 : Silty Sand (SM), brown (7.5YR 4/4), Slightly cemented, increase silt percentage, well sorted, dry, non-plastic, strong HCL reaction • 10 ft: Slightly moist and becomes slightly more cemented	-	60	40	233	7.5 YR 4/4	Slightly cemented	np	Strong
		12.0 - 19.0 : Caliche, very hard, pinkish white (5 YR 8/2), organic nodules, cemented, 0.25-0.5 "vugs" in cemented caliche, non-plastic, strong HCL reaction • 13 ft: Highly organic approximately 3" layer, reddish black (5 YR 2.5/1) • 16 ft: Highly organic approximately 3" layer, reddish black (5 YR 2.5/1)	-	-	-	559	5 YR 8/2	Cemented	np	Strong
		19.0 - 19.25 : Gravel layer (GP), sub angular to sub rounded. 0.5 - 3 inch gravel to cobble. Saturated.	90	10	Trace	1476	-	Loose	np	Strong
		19.25 - 19.75 : Sand (SP), loose, very fine to fine, saturated, 0.25-0.5" gravel and silt, light red brown (5 YR 6/4)	5	90	5	1476	5YR6/4	Loose	np	Strong
		19.75 - 24.0 : Clay (CL), sharp contact, Gatuna formation, stiff clay, reddish brown (5YR 4/6), moist to saturated, high placticity, strong HCL reaction •21 ft: nodules of highly cemented clay and caliche	-	-	100	2920	5 YR 4/6	Stiff	hp	Strong
		24.0 -30.0 : Clay (CL), stiff/hard, color change, light reddish brown (2.5 YR 6/4), varied (clay layering) with yellow (10 YR 5/6) , moist/saturated, high placticity, weak HCL reaction •28-28.2 ft: 0.25 - 2 inch gravel/cobble layer with strong HCL reaction and angular to subangular gravels	-	-	100	2800	2.5 YR 6/4	Stiff	hp	Weak

GOLDER

Monitor Well/Piezometer Log

SITE NAME AND LOCATION:

LG-34

LATITUDE: 32.3015 LONGITUDE: -104.0451
DATUM: amsl
ELEVATION: TBD

DRILL RIG: Sonic
ANGLE: 90 BEARING: -

DRILLING METHOD: Sonic Drilling

SAMPLING METHOD: Core (approximately 2.5 ft increments)

Field Electrical Conductivity measured with a FieldScout Direct Soil EC Meter

WATER LEVEL	17.71 ft-bgs
TIME	1240
DATE	11/22/2020
CASING DEPTH	23.3 ft-bgs

SURFACE CONDITIONS: Sand

WELL LOG 2

SHEET 2 of 4

DRILLING	
START	FINISH
1607	1220
DATE	DATE
11/18 2020	11/19 2020

DRILLING CONTRACTOR: Cascade Environmental

LOGGED BY: ML DATE: 11/19/2020

JOB NO.: 20147373 FILE NAME: Mosaic 2020 Monitoring Well Improvemen

DEPTH IN FEET (ELEVATION)	WELL COMPLETION DETAILS	SAMPLE DEPTH AND DESCRIPTION OF MATERIAL	% GRAVEL	% SAND	% FINES	Soil Electrical Conductivity (µS/cm)	COLOR	CONSISTENCY[3] / CEMENTATION[4]	PLASTICITY (np, l, m, h)	HYDROCHLORIC ACID REACTION TEST
		Depth Interval								
--- --- --- --- ----32.5	Bentonite	30.0 - 32.0 : Clay (MI), cemented carbonate clay and gravel nodules, strong HCL reaction, stiff clay, angular gravel rock. yellowish brown (2.5YR 6/4), high plasticity, saturated	5	-	95	2590	2.5 Y 6/4	stiff	hp	strong
		32.0 - 32.3 : Silty sand (SW) with angular gravels (0.25-1"), strong HCL reaction, loose, yellowish brown (2.5YR 6/4), saturated	2	35	63	2590	2.5 Y	loose	np	Strong
--- --- --- --- ----35		32.3 - 34.0 : Clay (CL), yellowish brown (2.5YR 6/4), saturated, weak HCL reaction. 10 mm layered bedding with yellowish brown and reddish brown (5YR 4/6) clay, high plasticity, stiff	-	-	100	3380	2.5 Y 6/4	stiff	hp	Weak
--- --- --- --- ----37.5		34.0 - 60.0 : Clay (ML-CL), Gatuna formation, stiff, reddish brown (5 YR 4/6), moist, weak to moderate HCL reaction, high plasticity, pockets of black organics (5 YR 2.5/2) from 34-40 ft • 38 ft: 1" with cemented clay and organics (1-1.5") strong HCL reaction								
--- --- --- --- ----40		• 40 ft: 1.5" with cemented clay and organics (0.5-2"), begin strong HCL reaction for remainder of unit								
--- --- --- --- ----42.5		• 41 ft: 0.5" with cemented clay (0.25-0.5")								
--- --- --- --- ----45		• 44 ft: 1" silty / fine-sand layer (40% sand), loose								
--- --- --- --- ----47.5		• 45.5 ft: 3" silty / fine-sand layer (70% sand), loose	-	-	100	2117	5 YR 4/6	stiff	hp	weak to strong
--- --- --- --- ----50		• 48-50 ft: increase silt (slightly less stiff)								
--- --- --- --- ----52.5		• 51 ft: increase silt (less stiff) and moisture								
--- --- --- --- ----55		• 56.5 ft: 0.5" with trace claystone (cemented) and trace gypsum								
--- --- --- --- ----57.5		• 57.5 ft: becomes more stiff and slightly less saturated								
--- --- --- --- ----60		• 58 ft: 2" layer of cemented claystone, angular 0.5 -1.5" size clay stone								

Monitor Well/Piezometer Log

SITE NAME AND LOCATION:

LG-34

LATITUDE: 32.3015 LONGITUDE: -104.0451
DATUM: amsl
ELEVATION: TBD

DRILL RIG: Sonic
ANGLE: 90 BEARING: -

DRILLING METHOD: Sonic Drilling

SAMPLING METHOD: Core (approximately 2.5 ft increments)
Field Electrical Conductivity measured with a FieldScout Direct Soil EC Meter

WATER LEVEL	17.71 ft-bgs
TIME	1240
DATE	11/22/2020
CASING DEPTH	23.3 ft-bgs

SURFACE CONDITIONS: Sand

WELL LOG 2

SHEET 3 of 4

DRILLING START	DRILLING FINISH
1607	1220
DATE	DATE
11/18 2020	11/19 2020

DRILLING CONTRACTOR: Cascade Environmental

LOGGED BY: ML

DATE: 11/19/2020

JOB NO.: 20147373

FILE NAME: Mosaic 2020 Monitoring Well Improvemen

DEPTH IN FEET (ELEVATION)	WELL COMPLETION DETAILS	SAMPLE DEPTH AND DESCRIPTION OF MATERIAL	% GRAVEL	% SAND	% FINES	Soil Electrical Conductivity (µS/cm)	COLOR	CONSISTENCY[3] / CEMENTATION[4]	PLASTICITY (np, l, m, h)	HYDROCHLORIC ACID REACTION TEST
		Depth Interval								
--- --- --- --- ----62.5 --- --- --- --- --- ----65	Bentonite	60.0 - 65.0 : Sand (SP), fine sand, slightly firm, slightly saturated, reddish brown (5 YR 5/3), non-plastic, strong HCL reaction	-	90	10	1217	5 YR 5/3	Loose to Slightly Firm	np	strong
--- --- --- --- ----67.5 --- --- --- --- --- ----70		65.0 - 71.0 : Clay (CL), reddish brown (5YR 4/6), very stiff, slightly moist, weak to no HCL reaction, mottling with yellowish brown (10YR 6/4) silty sand (30% very fine sand) and trace cemented stone.	-	-	100	859.2	5 YR 4/6	Very Stiff	np	weak to none
--- --- --- --- --- ----72.5		71.0 - 72.0 : Sandstone, hard contact, cemented, dry, pink (5YR 8/3) and red (10R 4/6), weak to no HCL reaction	-	-	-	1118	5 YR 8/3	Cemented	np	weak to none
--- --- --- --- ----75		72.0 - 75.0 : Claystone with gypsum inclusions, cemented, deep reddish brown (5YR 3/3) with white gypsum (5 YR 8/1). Breccia with claystone matrix	-	-	-	1118	5 YR 3/3	Cemented	np	weak to none
--- --- --- --- ----77.5 --- --- --- --- --- ----80		75.0 - 90.0 : Claystone with gypsum, high percentage of gypsum, dry, white (5 YR 8/1) with inclusions of dark reddish brown claystone (5 YR 3/3), trace veining in claystone, non-plastic, weak to no HCL reaction								
--- --- --- --- ----82.5 --- --- --- --- --- ----85			-	-	-	7.1	5 YR 8/1	Cemented	np	weak to none
--- --- --- --- ----87.5 --- --- --- --- ----90		•87.5-90ft : Decrease in reddish brown claystone - massive gypsum								

Monitor Well/Piezometer Log

SITE NAME AND LOCATION:

LG-34

LATITUDE: 32.3015 LONGITUDE: -104.0451
DATUM: amsl
ELEVATION: TBD

DRILL RIG: Sonic
ANGLE: 90 BEARING: -

DRILLING METHOD: Sonic Drilling

SAMPLING METHOD: Core (approximately 2.5 ft increments)

Field Electrical Conductivity measured with a FieldScout Direct Soil EC Meter

WATER LEVEL	17.71 ft-bgs
TIME	1240
DATE	11/22/2020
CASING DEPTH	23.3 ft-bgs

SURFACE CONDITIONS: Sand

WELL LOG 2

SHEET 4 of 4

DRILLING	
START	FINISH
1607	1220
DATE	DATE
11/18 2020	11/19 2020

DEPTH IN FEET (ELEVATION)	WELL COMPLETION DETAILS	SAMPLE DEPTH AND DESCRIPTION OF MATERIAL	% GRAVEL	% SAND	% FINES	Soil Electrical Conductivity (µS/cm)	COLOR	CONSISTENCY[3] / CEMENTATION[4]	PLASTICITY (np, l, m, h)	HYDROCHLORIC ACID REACTION TEST
Depth Interval										
--- --- --- --- ---92.5	Bentonite	90.0 - 91.0 : Cemented sandstone, light reddish brown (2.5YR 7/4), cemented, strong HCL reaction, slightly moist	-	-	-	26.8	2.5 YR 7/4	Cemented	np	strong
		91.0 - 92.0 : Massive gypsum, cemented, white (5 YR 8/1), dry, moderate HCL reaction	-	-	-	26.8	5 YR 8/1	Cemented	np	moderate
		92.0 - 94.5 : Claystone with gypsum inclusions, yellowish red (5YR 4/6), dry, rounded gypsum nodules, no HCl reaction	-	-	-	277	5 YR 4/6	Cemented	np	none
--- --- --- --- ---97.5		94.5 - 98.5 : Massive gypsum, dry, white (5 YR 8/1), cemented, no HCL reaction	-	-	-	142	5 YR 8/1	Cemented	np	none
		98.5 - 100 : Claystone with gypsum inclusions, yellowish red (5YR 4/6), dry, rounded gypsum nodules, no HCL reaction	-	-	-	2.3	5 YR 4/6	Cemented	np	none
--- --- --- --- ---102.5		Total Drill Depth = 100 ft-bgs								
--- --- --- --- ---105										
--- --- --- --- ---107.5										
--- --- --- --- ---110										
--- --- --- --- ---112.5										
--- --- --- --- ---115										
--- --- --- --- ---117.5										
--- --- --- --- ---120										

DRILLING CONTRACTOR: Cascade Environmental

LOGGED BY: ML DATE: 11/19/2020

JOB NO.: 20147373

FILE NAME: Mosaic 2020 Monitoring Well Improvemer

Monitor Well/Piezometer Log

SITE NAME AND LOCATION:

LG-35

LATITUDE: 32.2946 LONGITUDE: -104.0377
DATUM: amsl
ELEVATION: TBD

DRILL RIG: Sonic
ANGLE: 90 BEARING: -

DRILLING METHOD: Sonic Drilling

SAMPLING METHOD: Core (approximately 2.5 ft increments)
Field Electrical Conductivity measured with a FieldScout Direct Soil EC Meter

WATER LEVEL	32.7 ft-bgs
TIME	1400
DATE	11/22/2020
CASING DEPTH	36.8 ft-bgs

SURFACE CONDITIONS: Sand

WELL LOG 3

SHEET 1 of 4

DRILLING START	DRILLING FINISH
1400	1350
DATE	DATE
11/20 2020	11/21 2020

DRILLING CONTRACTOR: Cascade Environmental

LOGGED BY: ML

DATE: 11/21/2020

JOB NO.: 20147373

FILE NAME: Mosaic 2020 Monitoring Well Improvemen

DEPTH IN FEET (ELEVATION)	WELL COMPLETION DETAILS	SAMPLE DEPTH AND DESCRIPTION OF MATERIAL	% GRAVEL	% SAND	% FINES	Soil Electrical Conductivity (µS/cm)	COLOR	CONSISTENCY[3] / CEMENTATION[4]	PLASTICITY (np, l, m, h)	HYDROCHLORIC ACID REACTION TEST
		Depth Interval								
--- --- --- --- ----2.5 --- --- --- --- ----5 --- --- --- --- ----7.5 --- --- --- --- ----10 --- --- --- --- ----12.5 --- --- --- --- ----15 --- --- --- --- ----17.5 --- --- --- --- ----20 --- --- --- --- ----22.5 --- --- --- --- ----25 --- --- --- --- ----27.5 --- --- --- --- ----30	Portland Cement Bentonite Seal Sand Filter Pack 26.5	0 - 9.0 : Silty sand (SM), very loose aeolian sand, dry, brown (7.5YR 5/4), well sorted, fine to very fine sand with silt, non-plastic, strong HCl reaction	-	75	25	59.9	7.5 YR 5/4	loose	np	strong
		9.0 - 10.0 : Silty sand (SM), increased cementation and trace caliche, strong HCl reaction, trace gravels (0.25-0.5"), pinky grey (2.5YR 7/2), non-plastic	trace	75	25	25.9	7.5 YR 7/2	loosely cemented to cemented	np	strong
		10.0 - 13.0 : Silty sand (SM) with gravel, carbonate gravels, loose, strong HCl reaction, very fine to fine sand, very slightly moist to dry, light reddish brown (5YR 6/4), poorly sorted	5	75	20	37.9	5 YR 6/4	loose	np	strong
		13.0 - 16.5 : Sandy Gravel (GW), sub angular to well rounded gravel (0.25-4" cobble), dry, light reddish brown (5 YR 6/4), poorly sorted, strong HCL reaction	60	30	10	54.8	5 YR 6/4	loose	np	strong
		16.5 - 20.0 : Silty sand (SM-SW) with gravel, brown (7.5YR 5/4), strong HCl reaction, slightly moist, angular to well rounded gravel - cobble (0.25"-2"), poorly sorted, loose, trace gravel sized caliche	20	60	20	49.0	7.5 YR 5/4	loose	np	strong
		20.0 - 24.5 : Silty sand (SM), light brown (7.5YR 6/4), very loose, well sorted, strong HCL reaction, dry, trace Gravel. • 22-22.5 ft: slightly moist	trace	75	25	52.5	7.5 YR 6/4	loose	np	strong
		24.5 - 26.0 : Silty sand (SM) with trace clay, reddish brown (5YR 5/4), slightly moist, loose, well sorted, strong HCl reaction	-	70	30	76.7	5 YR 5/4	loose	np	strong
		26.0 - 28.0 : Gravely sand (SP), very fine to coarse sand with well rounded gravel and trace caliche gravel (angular) 0.25"-4" cobbles, light reddish brown (5YR 6/4), poorly sorted, slightly moist, strong HCL reaction	30	60	10	19.4	5 YR 6/4	loose	np	strong
		28.5 - 33.5 : Caliche, cemented sand and gravel, large cemented caliche nodules and angular gravels (0.25-1"), light pinky white (5YR 8/2), dry, strong HCL reaction	10	70	20	324.5	5 YR 8/2	cemented	np	strong

0 - 19.5
19.5 - 24.5
24.5 - 38.7

GOLDER

Monitor Well/Piezometer Log

SITE NAME AND LOCATION:

LG-35

LATITUDE: 32.2946 LONGITUDE: -104.0377
DATUM: amsl
ELEVATION: TBD

DRILL RIG: Sonic
ANGLE: 90 BEARING: -

DRILLING METHOD: Sonic Drilling

SAMPLING METHOD: Core (approximately 2.5 ft increments)
Field Electrical Conductivity measured with a FieldScout Direct Soil EC Meter

WATER LEVEL	32.7 ft-bgs
TIME	1400
DATE	11/22/2020
CASING DEPTH	36.8 ft-bgs

SURFACE CONDITIONS: Sand

WELL LOG 3

SHEET 2 of 4

DRILLING	
START	FINISH
1400	1350
DATE	DATE
11/20 2020	11/21 2020

DEPTH IN FEET (ELEVATION)	WELL COMPLETION DETAILS	SAMPLE DEPTH AND DESCRIPTION OF MATERIAL	% GRAVEL	% SAND	% FINES	Soil Electrical Conductivity (µS/cm)	COLOR	CONSISTENCY[3] / CEMENTATION[4]	PLASTICITY (np, l, m, h)	HYDROCHLORIC ACID REACTION TEST
		Depth Interval								
--- --- --- --- ----32.5 --- --- --- --- ----35 --- --- --- --- ----37.5 --- --- --- --- ----40 --- --- --- --- ----42.5 --- --- --- --- ----45 --- --- --- --- ----47.5 --- --- --- --- ----50 --- --- --- --- ----52.5 --- --- --- --- ----55 --- --- --- --- ----57.5 --- --- --- --- ----60	Sand Filter Pack 36.5 36.8 Bentonite	28.0 - 33.5 : Same as above • 30.5-31 ft: slightly moist • 32.5-32.75 ft: calichefied peat layer, black (7.5 YR 2.5/1) • 33.5 ft: large gravel sized "vugs" present in caliche	10	70	20	324.3	5 YR 8/2	cemented	np	strong
		33.5 - 35.0 : Gravel (GW), with coarse/medium sand and trace fines, angular to subangular gravels, some cementation but mostly loose gravel, light yellowish brown (10 YR 6/4), strong HCL reaction, saturated	80	20	trace	10170	10 YR 6/4	loose to slightly cemented	np	strong
		35.0 - 37.5 : Calichefied Gravel, gravel cemented with carbonates, 1" gravel "vugs" in cemented caliche, conglomerate with carbonate cementation, well rounded gravels, strong HCL reaction, saturated	80	-	-	18120	10 YR 6/4	cemented	np	strong
		37.5 - 38.5 : Sandy Gravel (GP), sharp contact, coarse sand and gravel, strong HCl reaction, sub angular to rounded gravels, loose, saturated	60	40	Trace	18320	10 YR	loose	np	strong
		38.5 - 38.75 : Clay (CL), reddish brown (5YR 4/6), stiff, sharp contact, high plasticity, moist	-	-	100	10000	5YR4/6	Stiff	hp	strong
		38.75-41.0 : Sand (SM), reddish brown (5 YR 4/6), well sorted, loose, strong HCl reaction, 10% silt and clay, moist	-	90	10	15630	5 YR 4/6	loose	np	strong
		41.0 - 42.0 : Clay (CL) with silt and trace fine sand, reddish brown (5 YR 4/6), stiff, strong HCl reaction, medium plasticity, moist	-	trace	100	>20000	5 YR 4/6	stiff	mp	strong
		42.0 - 47.5 : Sand (SM), reddish brown (5 YR 4/6), strong HCl reaction, loose, well sorted, non plastic, trace silt/clay, moist • 43 ft: 1" stiff clay layer (90% fines) • 45.5 ft: 1.5" stiff clay layer (90% fines) • 47 ft: 2" stiff clay layer (85% fines)	-	95	5	>20000	5 YR 4/6	loose	np	strong
		47.5 - 51.0 : Sandy silt (ML) with clay, layered with pockets of increased sand or clay throughout (1" layers), medium plasticity, slightly stiff, very fine sand, reddish brown (5 YR 4/6), moist	-	30	70	6100	5 YR 4/6	slightly stiff	mp	strong
		51.0 - 54.0 : Sand (SM), fine to medium sand with trace silt and gravels (0.25"), loose, poorly sorted, strong HCL reaction, reddish brown (5 YR 4/6), moist	Trace	100	Trace	8935	5 YR 4/6	loose	np	strong
		54.0 - 56.0 : Sand (SW) with gravel, medium to coarse sand with sub rounded gravels (0.25"), loose, strong HCL reaction, reddish brown (5 YR 4/6), moist	20	80	Trace	18720	5 YR 4/6	loose	np	very strong
		56.0 - 60.5 : Clay (CL), very stiff, sharp contact, high plasticity, strong HCL reaction, reddish brown (5 YR 4/6), moist	-	Trace	100	17000	5 YR 4/6	very stiff	hp	strong

DRILLING CONTRACTOR: Cascade Environmental

LOGGED BY: ML

DATE: 11/21/2020

JOB NO.: 20147373

FILE NAME: Mosaic 2020 Monitoring Well Improvement

GOLDER

Monitor Well/Piezometer Log

SITE NAME AND LOCATION:

LG-35

LATITUDE: 32.2946 LONGITUDE: -104.0377
DATUM: amsl
ELEVATION: TBD

DRILL RIG: Sonic
ANGLE: 90 BEARING: -

DRILLING METHOD: Sonic Drilling

SAMPLING METHOD: Core (approximately 2.5 ft increments)

Field Electrical Conductivity measured with a FieldScout Direct Soil EC Meter

WATER LEVEL	32.7 ft-bgs
TIME	1400
DATE	11/22/2020
CASING DEPTH	36.8 ft-bgs

SURFACE CONDITIONS: Sand

WELL LOG 3

SHEET 3 of 4

DRILLING START	DRILLING FINISH
1400	1350
DATE	DATE
11/20 2020	11/21 2020

DRILLING CONTRACTOR: Cascade Environmental

LOGGED BY: ML

DATE: 11/21/2020

JOB NO.: 20147373

FILE NAME: Mosaic 2020 Monitoring Well Improvemen

DEPTH IN FEET (ELEVATION)	WELL COMPLETION DETAILS	SAMPLE DEPTH AND DESCRIPTION OF MATERIAL	% GRAVEL	% SAND	% FINES	Soil Electrical Conductivity (µS/cm)	COLOR	CONSISTENCY[3] / CEMENTATION[4]	PLASTICITY (np, l, m, h)	HYDROCHLORIC ACID REACTION TEST
		Depth Interval								
--- --- --- --- ----62.5 --- --- --- --- ----65 --- --- --- --- ----67.5 --- --- --- --- ----70 --- --- --- --- ----72.5 --- --- --- --- ----75 --- --- --- --- ----77.5 --- --- --- --- ----80 --- --- --- --- ----82.5 --- --- --- --- ----85 --- --- --- --- ----87.5 --- --- --- --- ----90	Bentonite	60.5 - 61.5 : Sandy Silt (ML) with clay, reddish brown (5 YR 4/6), very fine sand, slightly stiff, moist, strong HCL reaction, high plasticity	-	30	70	1130	5 YR 4/6	slightly stiff	hp	strong
		61.5 - 63.0 : Clay (CL), light yellow brown (10YR 6/4), cemented, stiff, weak to no HCL reaction, moist, non-plastic	-	5	95	802	10 YR 6/4	cemented	np	weak to none
		63.0 - 67.0 : Clay (CL), reddish brown (5YR 4/6) clay mottled with light yellow brown clay (10YR 6/4), sharp contact, very stiff, weak to no HCL reaction, moist to dry, becomes increasingly dry with depth	-	trace	100	487	5 YR 4/6	very stiff	mp-np	weak to none
		67.0 - 87.5 : Clay (CL) with cemented claystone, reddish brown (5YR 4/6) clay mottled with light yellow brown clay (10YR 6/4) clay to claystone (slightly cemented), large gypsum (pinkish white, 5 YR 8/2) inclusions, weak to no HCL reaction, dry • 74-75.5 ft: increased gypsum • 74 ft: Begin presence of angular anhydrite gravels surrounded by red clay (0.5-1"), very hard, dark grey (7.5 YR 4/1) and white (7.5 YR 8/1) • 78-80 ft: increased gypsum • 80-82.5 ft: increased reddish brown clays/fines • 82.5 ft: breccia clay (angular gravels in clay matrix with gypsum)	-	trace	100	16.2	5 YR 8/2	stiff to cemented	np	weak to none
		87.5 - 92.5 : Clay (CL) with cemented claystone (reddish brown 5 YR 8/2) and gypsum (white 7.5 YR 8/1) nodules, no HCl reaction, very hard, breccia contains rounded to subangular gravels (>0.5"), dry	5	-	95	36.9	5 YR 8/2	stiff to cemented	np	none

Monitor Well/Piezometer Log

SITE NAME AND LOCATION: **LG-35**	DRILLING METHOD: Sonic Drilling	WELL LOG 3
		SHEET 4 of 4
	SAMPLING METHOD: Core (approximately 2.5 ft increments)	
	Field Electrical Conductivity measured with a FieldScout Direct Soil EC Meter	DRILLING START: 1400 / FINISH: 1350
LATITUDE: 32.2946 LONGITUDE: -104.0377	WATER LEVEL: 32.7 ft-bgs	
DATUM: amsl	TIME: 1400	
ELEVATION: TBD	DATE: 11/22/2020	DATE START: 11/20 2020 / DATE FINISH: 11/21 2020
	CASING DEPTH: 36.8 ft-bgs	
DRILL RIG: Sonic	SURFACE CONDITIONS: Sand	
ANGLE: 90 BEARING: -		

DEPTH IN FEET (ELEVATION)	WELL COMPLETION DETAILS	SAMPLE DEPTH AND DESCRIPTION OF MATERIAL	% GRAVEL	% SAND	% FINES	Soil Electrical Conductivity (µS/cm)	COLOR	CONSISTENCY[3] / CEMENTATION[4]	PLASTICITY (np, l, m, h)	HYDROCHLORIC ACID REACTION TEST
		Depth Interval								
--- --- --- --- ----92.5 --- --- --- --- ----95 --- --- --- --- ----97.5 --- --- --- --- ----100 --- --- --- --- ----102.5 --- --- --- --- ----105 --- --- --- --- ----107.5 --- --- --- --- ----110 --- --- --- --- ----112.5 --- --- --- --- ----115 --- --- --- --- ----117.5 --- --- --- --- ----120	Bentonite	87.5 - 92.5 : Same as above	5	-	95	36.9	5 YR 8/2	cemented/ stiff	np	none
		92.5 - 97.5 : Clay (CL) and cemented claytone, redish brown clay/claystone (5YR 6/4) with large gypsum (white, 7.5 YR 8/1) percentage and angular anhydrite (dark grey and white, 7.5 YR 4/1 and 7.5 YR 8/1) inclusions (0.5-1.5"), dry • 95-97.5 ft: Increased claystone cementation, large gravels of hard anhydrite (1-1.75"), and approximetly 80% gypsum	10	-	90	23.5	5 YR 7/3	Cemented	np	none
		97.5 - 100 : Massive gypsum (~90%) with angular anhydrite and some cemented claystone, white (5 YR 8/1), hard /stiff, dry	-	-	-	10.1	5 YR 8/1	Cemented	np	none
		Total Drill Depth = 100 ft-bgs								

DRILLING CONTRACTOR: Cascade Environmental

LOGGED BY: ML DATE: 11/21/2020

JOB NO.: 20147373

FILE NAME: Mosaic 2020 Monitoring Well Improvemen

GOLDER

Monitor Well/Piezometer Log

SITE NAME AND LOCATION:

LG-36

LATITUDE: 32.3177328°
LONGITUDE: -104.0397323°
ELEVATION: 3,007.78 ft-amsl

DRILL RIG: Sonic
ANGLE: 90 BEARING: -

DRILLING METHOD: Sonic Drilling

SAMPLING METHOD: Continuous Core (collected at approximately 2.5 ft increments)

WATER LEVEL	DRY
TIME	945
DATE	1/20/2022
CASING DEPTH	62.5 ft-bgs

SURFACE CONDITIONS: Gravely Sand. Flat area used for vehicle pullout, HDPE pipelines running N-S 50 feet east of the well location

WELL LOG 1

SHEET 1 of 4

DRILLING	
START	FINISH
1420	1445
DATE	DATE
12/16 2021	12/17 2021

DRILLING CONTRACTOR: Cascade Environmental

LOGGED BY: BB

DATE: 12/16/2021

JOB NO.: 21490520

FILE NAME: Mosaic LG2 Area Wells

DEPTH IN FEET (ELEVATION)	WELL COMPLETION DETAILS	SAMPLE DEPTH AND DESCRIPTION OF MATERIAL	% GRAVEL	% SAND	% FINES	Soil Electrical Conductivity (µS/cm)	COLOR	CONSISTENCY / CEMENTATION	PLASTICITY (np, l, m, h)	HYDROCHLORIC ACID REACTION TEST
		Depth Interval								
---	Cement-Bentonite Grout	0.0 - 1.0 : No core recovery from drilling. Surface conditions = Unconsolidated gravely sand (SW)	-	-	-	-	7.5YR5/3	Loose	np	-
----2.5		1.0 - 11.0 : Caliche, indurated caliche with silt, subrounded to rounded gravel, and poorly graded fine sand, pink (7.5 YR 7/3), non plastic, dry, strong HCL reaction	20	30	50	33.5	7.5 YR 7/3	Hard	np	Strong
----5										
----7.5										
----10										
----12.5		11.0 - 15.0 : Sand (SW), with subangular to subrounded gravel and silt, fine to coarse sand, well graded, pink (5 YR 7/4), non plastic, very stiff, dry, strong HCL reaction • 14.0 ft: siltstone stringer (1.5") with small dissolution fissures (<1mm)	20	70	10	13	5 YR 7/4	Very Stiff	np	Strong
----15		15.0 - 18.5 : Sand (SW), with subangular gravel and silt, fine to coarse sand, well graded, reddish yellow (5 YR 7/4), non plastic, loose, dry, strong HCL reaction • 17.0 ft: siltstone stringer (1.1") with small dissolution fissures (<1mm) • 17.5 ft: decrease in gravel size	10	85	5	57	7.5 YR 7/6	Loose	np	Strong
----17.5										
----20		18.5 - 20.0 : Sand (SP), with subrounded gravel and silt, very fine to fine sand, poorly graded, pinkish white (10 R 8/2), non plastic, loose, dry, strong HCL reaction	10	85	5	230	10 R 8/2	Loose	np	Strong
----22.5		20.0 - 24.0 : Gravely sand (SW), well graded, fine to coarse sand, round to subangular gravel and silt, light red (2.5 YR 6/6), non plastic, loose, dry, strong HCL reaction	25	70	5	313.5	2.5 YR 6/6	Loose	np	Strong
----25		24.0 - 28.0 : Sand (SP), very fine to fine sand, poorly graded, trace subrounded gravel, pink (7.5 YR 7/4), non plastic, loose, dry, strong HCL reaction	5	95	0	27	7.5 YR 7/4	Loose	np	Strong
----27.5										
----30	0 - 39.0 ft	28.0 - 30.0 : Gravely sand (SW), well graded, fine to coarse sand, subrounded to subangular gravel and silt, light red (2.5 YR 6/6), non plastic, loose, dry, strong HCL reaction	25	70	5	85	2.5 YR 6/6	Loose	np	Strong

Monitor Well/Piezometer Log

SITE NAME AND LOCATION:

LG-36

LATITUDE: 32.3177328°
LONGITUDE: -104.0397323°
ELEVATION: 3,007.78 ft-amsl

DRILL RIG: Sonic
ANGLE: 90 BEARING: -

DRILLING METHOD: Sonic Drilling

SAMPLING METHOD: Continuous Core (collected at approximately 2.5 ft increments)

WATER LEVEL	DRY
TIME	945
DATE	1/20/2022
CASING DEPTH	62.5 ft-bgs

SURFACE CONDITIONS: Gravely Sand. Flat area used for vehicle pullout, HDPE pipelines running N-S
50 feet east of the well location

WELL LOG 1

SHEET 3 of 4

DRILLING	
START	FINISH
1420	1445
DATE	DATE
12/16 2021	12/17 2021

DRILLING CONTRACTOR: Cascade Environmental

LOGGED BY: BB

DATE: 12/16/2021

JOB NO.: 21490520

FILE NAME: Mosaic LG2 Area Wells

DEPTH IN FEET (ELEVATION)	WELL COMPLETION DETAILS	SAMPLE DEPTH AND DESCRIPTION OF MATERIAL	% GRAVEL	% SAND	% FINES	Soil Electrical Conductivity (µS/cm)	COLOR	CONSISTENCY[3] / CEMENTATION[4]	PLASTICITY (np, l, m, h)	HYDROCHLORIC ACID REACTION TEST
		Depth Interval								
---	Sand Filter Pack 62.2 62.5 45.0 - 64.0 ft	59.0 - 61. 0 : Same as above	15	50	35	647	5YR4/6	Slightly Stiff	np	None
----62.5		61. 0 - 63.0 : Clay (CH) with gypsum, fine to coarse crystalline gypsum inclusions, very fine sand and dolomite gravel, dusky red (10 R 3/4), moderately to well consolidated and cohesive, stiff, moist, high plasticity, no HCL reaction	10	10	80	610	10 R 3/4	Stiff	hp	Weak
----65		63. 0 - 66.0 : Dolomite gravel with clay, well consolidated subangular to angular dolomite gravel, reddish brown clay, approximately 5% dolomite cobble (3" diameter), well graded, light reddish gray (2.5 YR 7/1), slightly moist, low plasticity to non plastic, no HCL reaction	60	10	25	199	2.5 YR 7/1	Very Stiff	lp - np	Weak - Moderate
----67.5		66.0 - 75.0 : Clay (CH) with gypsum, fine to coarse crystalline gypsum inclusions, very fine sand and dolomite gravel, dusky red (10 R 3/4) wih trace light brown mottling, cohesive, stiff to very stiff, moist, high plasticity, no HCL reaction	10	10	80	677.4	10 R 3/4	Stiff - Very Stiff	hp	None - Weak
----70										
----72.5										
----75	Cement-Bentonite Grout	75.0 - 101.0 : Sandy silt (ML), fine to medium sand, gray (7.5 YR 5/1) with trace light brown mottling, slightly stiff, slightly moist, low plasticity to non plastic, trace reddish brown high plasticity clay stringers (1-5mm), moderate HCL reaction								
----77.5										
----80										
----82.5			0	15	85	155.7	7.5 YR 5/1	Slightly Stiff	lp - np	Moderate
----85										
----87.5										
----90										

Monitor Well/Piezometer Log

SITE NAME AND LOCATION:

LG-36

LATITUDE: 32.3177328°
LONGITUDE: -104.0397323°
ELEVATION: 3,007.78 ft-amsl

DRILL RIG: Sonic
ANGLE: 90 BEARING: -

DRILLING METHOD: Sonic Drilling

SAMPLING METHOD: Continuous Core (collected at approximately 2.5 ft increments)

WATER LEVEL	DRY
TIME	945
DATE	1/20/2022
CASING DEPTH	62.5 ft-bgs

SURFACE CONDITIONS: Gravely Sand. Flat area used for vehicle pullout, HDPE pipelines running N-S
50 feet east of the well location

WELL LOG 1

SHEET 2 of 4

DRILLING	
START	FINISH
1420	1445
DATE	DATE
12/16 2021	12/17 2021

DRILLING CONTRACTOR: Cascade Environmental

LOGGED BY: BB

DATE: 12/16/2021

JOB NO.: 21490520

FILE NAME: Mosaic LG2 Area Wells

DEPTH IN FEET (ELEVATION)	WELL COMPLETION DETAILS	Depth Interval	SAMPLE DEPTH AND DESCRIPTION OF MATERIAL	% GRAVEL	% SAND	% FINES	Soil Electrical Conductivity (µS/cm)	COLOR	CONSISTENCY[3] / CEMENTATION[4]	PLASTICITY (np, l, m, h)	HYDROCHLORIC ACID REACTION TEST
--- --- --- --- ----32.5 --- --- --- --- ----35 --- --- --- --- ----37.5 --- --- --- --- ----40 --- --- --- --- ----42.5 --- --- --- --- ----45 --- --- --- --- ----47.5 --- --- --- --- ----50 --- --- --- --- ----52.5 --- --- --- --- ----55 --- --- --- --- ----57.5 --- --- --- --- ----60	Cement-Bentonite Grout Bentonite Seal Sand Filter Pack 47.2	0 - 39.0 ft 39.0 - 45.0 45.0 - 64.0 ft	30.0 - 32.5 : Silty sand (SP), very fine to fine sand with silt, light reddish brown (5 YR 6/4), thin (1mm) brown laminations, moderately consolidated, stiff, moist, poorly graded, non plastic, strong HCL reaction	Trace	60	40	64	5 YR 6/4	Stiff	np	Strong
			32.5 - 35.0 : Silty sand (SP) with gravel, very fine to fine sand, subrounded gravel, pink (5 YR 7/3), sharp transition, loose, dry, poorly graded, non plastic, strong HCL reaction	10	70	20	2	5 YR 7/3	Loose	np	Strong
			35.0 - 42.0 : Silty sand (SW) with gravel, very fine to coarse sand, subrounded to subangular gravel, trace cobble (3" diameter), pink (7.5 YR 8/3), loose, dry, well graded, non plastic, strong HCL reaction • 37.0 - 37.5 ft: brown high plasticity clay inclusion (1-2cm)	15	65	20	470.3	7.5 YR 8/3	Loose	np	Strong
			42.0 - 46.0 : Sand (SW) with gravel, very fine to coarse sand, subrounded to subangular gravel, approximately 20% subrounded cobble (2 -3" diameter), gradual transition, pinkish white (7.5 YR 8/2), loose, dry, well graded, non plastic, strong HCL reaction • 45.0 - 45.5 ft: gray dolomite stringer with dissolution fissures (1-3mm)	20	50	10	73	7.5 YR 8/2	Loose	np	Strong
			46.0 - 48.0 : Sandy clay (CL) with gravel, very fine to fine sand, subangular gravel, trace cobble (3 -5" diameter), red (2.5 YR 5/6), loose, dry, low plasticity, strong HCL reaction	15	25	60	74	2.5 YR 5/6	Loose	lp	Strong
			48.0 - 51.5 : Clay (CH), subangular gravel, fine grained sand, poorly graded, dusky red (10 R 3/4), slightly stiff to stiff, moist, high plasticity, trace interbedded gray dolomite stringers (1.5"), no HCL reaction	10	10	80	129	10 R 3/4	Stiff	hp	None
			51.5 - 56.0 : Dolomite, well consolidated, light reddish gray (2.5 YR 7/1), microcrystalline, minor dissolution fissures (1-4mm diameter), trace reddish orange oxidation, dry, non plastic, no HCL reaction	-	-	-	111	2.5 YR 7/1	Hard / Rock	np	None
			56.0 - 59.0 : Clay (CH), subangular to angular dolomite gravel, trace cobble (4-5" diameter), dusky red (10 R 3/4), moderately to well consolidated and cohesive, stiff, moist, high plasticity, no HCL reaction • 57.0 - 57.5 ft: moist to saturated, very fine grained sand stringer • 58.5 - 59.0 ft: moist, gray dolomite stringer with dissolution fissures	10	0	90	1081	10 R 3/4	Stiff	hp	None
			59.0 - 61.0 : Clayey sand (SP) with gravel, fine sand with sub rounded gravel and silt, poorly graded, reddish brown (5 YR 4/6), moist to saturated, non plastic, no HCL reaction	15	50	35	647	5 YR 4/6	Slightly Stiff - Loose	np	None

GOLDER

Monitor Well/Piezometer Log

SITE NAME AND LOCATION:

LG-36

LATITUDE: 32.3177328°
LONGITUDE: -104.0397323°
ELEVATION: 3,007.78 ft-amsl

DRILL RIG: Sonic
ANGLE: 90 BEARING: -

DRILLING METHOD: Sonic Drilling

SAMPLING METHOD: Continuous Core (collected at approximately 2.5 ft increments)

		DRILLING START	DRILLING FINISH
WATER LEVEL	DRY	1420	1445
TIME	945		
DATE	1/20/2022	DATE	DATE
CASING DEPTH	62.5 ft-bgs	12/16 2021	12/17 2021

SURFACE CONDITIONS: Gravely Sand. Flat area used for vehicle pullout, HDPE pipelines running N-S
50 feet east of the well location

WELL LOG 1

SHEET 4 of 4

DEPTH IN FEET (ELEVATION)	WELL COMPLETION DETAILS	SAMPLE DEPTH AND DESCRIPTION OF MATERIAL	% GRAVEL	% SAND	% FINES	Soil Electrical Conductivity (µS/cm)	COLOR	CONSISTENCY[3] / CEMENTATION[4]	PLASTICITY (np, l, m, h)	HYDROCHLORIC ACID REACTION TEST
		Depth Interval								
--- --- --- --- ----92.5 --- --- --- --- ----95 --- --- --- --- ----97.5 --- --- --- --- ----100 --- --- --- --- ----102.5 --- --- --- --- ----105 --- --- --- --- ----107.5 --- --- --- --- ----110 --- --- --- --- ----112.5 --- --- --- --- ----115 --- --- --- --- ----117.5 --- --- --- --- ----120	Cement-Bentonite Grout	75.0 - 101.0 : Same as above • 91.0 - 91.5 ft: decrease moisture to dry • 93.0 - 94.0 ft: decrease moisture to dry • 95.0 - 101.0 ft: dry and becomes very stiff and well consolidated	0	15	85	156	7.5 YR 5/1	Slightly Stiff	lp - np	Moderate
		Total Drill Depth = 101 ft-bgs								

DRILLING CONTRACTOR: Cascade Environmental

LOGGED BY: BB

DATE: 12/16/2021

JOB NO.: 21490520

FILE NAME: Mosaic LG2 Area Wells

Monitor Well/Piezometer Log

SITE NAME AND LOCATION:

LG-37

LATITUDE: 32.3093637°
LONGITUDE: -104.0412764°
ELEVATION: 2,974.98 ft-amsl

DRILL RIG: Sonic
ANGLE: 90 BEARING: -

DRILLING METHOD: Sonic Drilling

SAMPLING METHOD: Continuous Core (collected at approximately 2.5 ft increments)

WATER LEVEL	18.5 ft-bgs
TIME	1050
DATE	1/20/2022
CASING DEPTH	33.8 ft-bgs

SURFACE CONDITIONS: Silty sand. Flat area to the east of a gravel access road used by oil & gas companies, HDPE pipelines running N-S 50 feet west of the well location

WELL LOG 2

SHEET 1 of 4

DRILLING	
START	FINISH
1220	1720
DATE	DATE
12/15 2021	12/15 2021

DRILLING CONTRACTOR: Cascade Environmental

LOGGED BY: ML + BB

DATE: 12/15/2021

JOB NO.: 21490520

FILE NAME: Mosaic LG2 Area Wells

DEPTH IN FEET (ELEVATION)	WELL COMPLETION DETAILS	SAMPLE DEPTH AND DESCRIPTION OF MATERIAL	% GRAVEL	% SAND	% FINES	Soil Electrical Conductivity (µS/cm)	COLOR	CONSISTENCY / CEMENTATION	PLASTICITY (np, l, m, h)	HYDROCHLORIC ACID REACTION TEST
		Depth Interval								
0 - 2.5	Cement-Bentonite Grout; 0 - 8.0 ft	0.0 - 2.0 : No core recovery from drilling. Surface conditions = Unconsolidated silty sand (SM), brown (7.5YR 4/4), well graded, non-plastic, dry, loose	-	-	-	-	7.5 YR 4/4	Loose	np	-
2.5 - 7.5		2.0 - 8.5 : Silty sand (SM) with caliche, trace very coarse gravel and cobble, subrounded to subangular gravel, very fine to fine sand, white (2.5 YR 8/1) and pink (7.5 YR 7/4), well graded, low plasticity, dry, loose, strong HCL reaction	10	40	50	35	7.5 YR 7/4	Loose	lp	Strong
7.5 - 10	Bentonite Seal; 8.0 - 12.0 ft	8.5 - 10.0 : Sand (SW), well graded, fine sand, trace subrounded to subangular gravel, brown (7.5 YR 5/6), sharp transition, non-plastic, slightly moist, loose, strong HCL reaction	5	95	0	97	7.5 YR 5/6	Loose	np	Strong
10 - 12.5		10.0 - 13.0 : Clay (CH), very fine sand, reddish brown (5 YR 5/4), moderate to high plasticity, moist, slightly stiff, strong HCL reaction	0	10	90	601	5 YR 5/4	Slightly Stiff	mp - hp	Strong
12.5 - 17.5	13.5	13.0 - 18.0 : Sandy silt (ML), very fine sand, trace subrounded gravel, reddish brown (5 YR 5/4), low plasticity, moist to very moist, slightly stiff, strong HCL reaction	Trace	30	70	1703	5 YR 5/4	Slightly Stiff	lp	Strong
17.5 - 20	12.0 - 37.0 ft	18.0 - 20.0 : Silty sand (SM), very fine to fine sand, poorly graded, reddish brown (5 YR 5/4), non-plastic, moist to saturated, loose, strong HCL reaction	0	80	20	>2000	5 YR 5/4	Loose	np	Strong
		20.0 - 21.0 : Gravely sand (SW), alluvial sand and gravel, well graded, fine to coarse sand, subrounded to rounded gravels, approximately 10% cobble (3.5" diameter), brown (7.5 YR 5/4), saturated	30	50	10	>2000	7.5 YR 5/4	Loose	np	Strong
20 - 22.5	Sand Filter Pack	21.0 - 22.5 : Sand (SW), well graded, fine to medium sand, trace rounded gravel, brown (7.5 YR 5/4), loose, saturated, non-plastic, strong HCL reaction • 21.5 ft: 1.5" clay stringer, high plasticity, reddish brown (5 YR 5/4)	10	80	10	>2000	7.5 YR 5/4	Loose	np	Strong
		22.5 - 25.0 : Sand (SW), increase sand from above, well graded, fine to medium sand, trace rounded gravel, brown (7.5 YR 5/4), loose, saturated, non-plastic, strong HCL reaction	10	90	0	>2000	7.5 YR 5/4	Loose	np	Strong
25 - 27.5		25.0 - 37.0 : Gravely sand (SW), alluvial sand and gravel, well graded, fine to coarse sand, subrounded to rounded gravels, approximately 10% cobble (2.5" diameter), brown (7.5 YR 5/4), saturated, loose, non-plastic, strong HCL reaction • 27.0 ft: 1.5" clay stringer, high plasticity, reddish brown (5 YR 5/4)	30	50	10	>2000	7.5 YR 5/4	Loose	np	Strong
27.5 - 30										

Monitor Well/Piezometer Log

SITE NAME AND LOCATION: **LG-37**	DRILLING METHOD: Sonic Drilling	WELL LOG 2
		SHEET 2 of 4
	SAMPLING METHOD: Continuous Core (collected at approximately 2.5 ft increments)	
LATITUDE: 32.3093637°	WATER LEVEL: 18.5 ft-bgs	DRILLING START: 1220
LONGITUDE: -104.0412764°	TIME: 1050	DRILLING FINISH: 1720
ELEVATION: 2,974.98 ft-amsl	DATE: 1/20/2022	DATE: 12/15 2021
	CASING DEPTH: 33.8 ft-bgs	DATE: 12/15 2021
DRILL RIG: Sonic	SURFACE CONDITIONS: Silty sand. Flat area to the east of a gravel access road used by oil & gas	
ANGLE: 90 BEARING: -	companies, HDPE pipelines running N-S 50 feet west of the well location	

DEPTH IN FEET (ELEVATION)	WELL COMPLETION DETAILS	SAMPLE DEPTH AND DESCRIPTION OF MATERIAL	% GRAVEL	% SAND	% FINES	Soil Electrical Conductivity (µS/cm)	COLOR	CONSISTENCY[3] / CEMENTATION[4]	PLASTICITY (np, l, m, h)	HYDROCHLORIC ACID REACTION TEST
		Depth Interval								
--- --- --- --- ----32.5 --- --- --- --- ----35 --- --- --- --- ----37.5 --- --- --- --- ----40 --- --- --- --- ----42.5 --- --- --- --- ----45 --- --- --- --- ----47.5 --- --- --- --- ----50 --- --- --- --- ----52.5 --- --- --- --- ----55 --- --- --- --- ----57.5 --- --- --- --- ----60	Sand Filter Pack; 33.5; 33.8; 12.0 - 37.0 ft; Bentonite Seal; Cement-Bentonite Grout	25.0 - 37.0 : Same as above • 36.0 ft: 1" clay stringer, high plasticity, reddish yellow (5 YR 4/6)	30	50	10	>2000	7.5 YR 5/4	Loose	np	Strong
		37.0 - 41.0 : Silt (ML), trace very fine sand, sharp transition, reddish brown (5 YR 4/6) with trace light brown mottling, stiff, moist, non-plastic, weak to no HCL reaction • 38.0 - 38.5 ft: No core recovery from drilling	0	5	95	1920	5 YR 4/6	Stiff	np	Weak - None
		41.0 - 66.0 : Sandy clay (CL), very fine sand, light yellowish brown (2.5 Y 6/4) with trace reddish brown laminations (5 YR 4/6), low plasticity, stiff to very stiff, dry, weak to no HCL reaction • 49.5 - 52.0 ft: increased moisture to slightly moist, increased reddish brown laminations (5 YR 4/6)	0	15	85	159.1	2.5 Y 6/4	Stiff - Very Stiff	lp	Weak - None

DRILLING CONTRACTOR: Cascade Environmental

LOGGED BY: ML + BB

DATE: 12/15/2021

JOB NO.: 21490520

FILE NAME: Mosaic LG2 Area Wells

Monitor Well/Piezometer Log

SITE NAME AND LOCATION:

LG-37

LATITUDE: 32.3093637°
LONGITUDE: -104.0412764°
ELEVATION: 2,974.98 ft-amsl

DRILL RIG: Sonic
ANGLE: 90 BEARING: -

DRILLING METHOD: Sonic Drilling

SAMPLING METHOD: Continuous Core (collected at approximately 2.5 ft increments)

WATER LEVEL	18.5 ft-bgs
TIME	1050
DATE	1/20/2022
CASING DEPTH	33.8 ft-bgs

SURFACE CONDITIONS: Silty sand. Flat area to the east of a gravel access road used by oil & gas companies, HDPE pipelines running N-S 50 feet west of the well location

WELL LOG 2

SHEET 3 of 4

DRILLING

START	FINISH
1220	1720
DATE	DATE
12/15 2021	12/15 2021

DEPTH IN FEET (ELEVATION)	WELL COMPLETION DETAILS	SAMPLE DEPTH AND DESCRIPTION OF MATERIAL	% GRAVEL	% SAND	% FINES	Soil Electrical Conductivity (µS/cm)	COLOR	CONSISTENCY[3] / CEMENTATION[4]	PLASTICITY (np, l, m, h)	HYDROCHLORIC ACID REACTION TEST
Depth Interval										
--- --- --- --- ----62.5 --- --- --- --- ----65	Cement-Bentonite Grout	41.0 - 66.0 : Same as above • 64.0 - 66.0 ft: trace red (7.5 R 4/6) laminations containing very fine sand	0	15	85	159	2.5 Y 6/4	Stiff - Very Stiff	lp	Weak - None
--- --- --- --- ----67.5 --- --- --- --- ----70		66.0 - 70.5 : Sandy silt (ML) with clay, very fine sand, gray (2.5 Y 6/1) with trace reddish brown laminations (5 YR 4/6), low plasticity to non-plastic, stiff to very stiff, slightly moist, no HCL reaction	0	15	85	185.5	2.5 Y 6/1	Stiff - Very Stiff	np - lp	None
--- --- --- --- ----72.5 --- --- --- --- ----75 --- --- --- --- ----77.5 --- --- --- --- ----80 --- --- --- --- ----82.5 --- --- --- --- ----85 --- --- --- --- ----87.5 --- --- --- --- ----90		70.5 - 96.0 : Sandy silt (ML) with clay, fine to medium sand, gray (7.5 YR 5/1), low plasticity to non-plastic, very stiff / well consolidated, slightly moist, moderate HCL reaction • 71.0 - 76.0 ft: thin (<1mm) black organic laminations • 76.0 - 79.0 ft: black organic lamination increase in size (1mm - 4mm thick) • 85.0 - 85.5 ft: decreased moisture (dry) • 87.0 - 89.0 ft: decreased moisture (dry)	0	15	85	136.5	7.5 YR 5/1	Very Stiff	np - lp	Moderate

DRILLING CONTRACTOR: Cascade Environmental

LOGGED BY: ML + BB

DATE: 12/15/2021

JOB NO.: 21490520

FILE NAME: Mosaic LG2 Area Wells

Monitor Well/Piezometer Log

SITE NAME AND LOCATION: **LG-37** LATITUDE: 32.3093637° LONGITUDE: -104.0412764° ELEVATION: 2,974.98 ft-amsl	DRILLING METHOD: Sonic Drilling SAMPLING METHOD: Continuous Core (collected at approximately 2.5 ft increments) WATER LEVEL: 18.5 ft-bgs TIME: 1050 DATE: 1/20/2022 CASING DEPTH: 33.8 ft-bgs	WELL LOG 2 SHEET 4 of 4 DRILLING START: 1220 DATE: 12/15 2021 DRILLING FINISH: 1720 DATE: 12/15 2021
DRILL RIG: Sonic ANGLE: 90 BEARING: -	SURFACE CONDITIONS: Silty sand. Flat area to the east of a gravel access road used by oil & gas companies, HDPE pipelines running N-S 50 feet west of the well location	

DEPTH IN FEET (ELEVATION)	WELL COMPLETION DETAILS	SAMPLE DEPTH AND DESCRIPTION OF MATERIAL	% GRAVEL	% SAND	% FINES	Soil Electrical Conductivity (µS/cm)	COLOR	CONSISTENCY[3] / CEMENTATION[4]	PLASTICITY (np, l, m, h)	HYDROCHLORIC ACID REACTION TEST
		Depth Interval								
--- --- --- --- ----92.5 --- --- --- --- ----95 --- --- --- --- ----97.5 --- --- --- --- ----100 --- --- --- --- ----102.5 --- --- --- --- ----105 --- --- --- --- ----107.5 --- --- --- --- ----110 --- --- --- --- ----112.5 --- --- --- --- ----115 --- --- --- --- ----117.5 --- --- --- --- ----120	Cement-Bentonite Grout	70.5 - 96.0 : Same as above	0	15	85	137	7.5 YR 5/1	Very Stiff	np - lp	Moderate
		96.0 - 100.0 : Claystone, dark brown (7.5 YR 3/3) with trace dark gray mottling and dark gray lamination (1mm), trace white gypsum veins and inclusions (2.5 YR 8/1), dry, hard and cemented, non-plastic, no HCL reaction • 99.5 ft: white gypsum stringer (1.5" thick)	-	-	-	45.5	7.5 YR 3/3	Hard / Rock	np	None
		Total Drill Depth = 100 ft-bgs								

DRILLING CONTRACTOR: Cascade Environmental

LOGGED BY: ML + BB

DATE: 12/15/2021

JOB NO.: 21490520

FILE NAME: Mosaic LG2 Area Wells

Monitor Well/Piezometer Log

SITE NAME AND LOCATION:

LG-38

LATITUDE: 32.3091868°
LONGITUDE: -104.0347040°
ELEVATION: 2,960.82 ft-amsl

DRILL RIG: Sonic
ANGLE: 90 BEARING: -

DRILLING METHOD: Sonic Drilling

SAMPLING METHOD: Continuous Core (collected at approximately 2.5 ft increments)

WATER LEVEL	5.1 ft-bgs
TIME	1010
DATE	1/20/2022
CASING DEPTH	31.1 ft-bgs

SURFACE CONDITIONS: Sand. Disturbed flat area used for vehicle turnaround adjacent to access road.

WELL LOG 3

SHEET 1 of 4

DRILLING	
START	FINISH
0845	1450
DATE	DATE
12/14 2021	12/14 2021

DRILLING CONTRACTOR: Cascade Environmental

LOGGED BY: ML + BB

DATE: 12/14/2021

JOB NO.: 21490520

FILE NAME: Mosaic LG2 Area Wells

DEPTH IN FEET (ELEVATION)	WELL COMPLETION DETAILS	SAMPLE DEPTH AND DESCRIPTION OF MATERIAL	% GRAVEL	% SAND	% FINES	Soil Electrical Conductivity (µS/cm)	COLOR	CONSISTENCY / CEMENTATION	PLASTICITY (np, l, m, h)	HYDROCHLORIC ACID REACTION TEST
		Depth Interval								
----2.5	Cement-Bentonite Grout; 0 - 10.5 ft	0.0 - 5.0 : No core recovery from drilling. Surface conditions = Unconsolidated silty sand (SM), brown (7.5YR 4/4), well graded, non-plastic, dry, loose	-	-	-	-	7.5 YR 4/4	Loose	np	-
----5		5.0 - 5.5 : Sandy silt (ML) with clay, fine to medium sand, pale brown, slightly moist	0	20	80	>2000	10YR6/3	Loose with	lp	Strong
----7.5		5.5 - 9.5 : Silty clay (CH), trace fine sand, pale brown (10 YR 6/3), poorly graded, high-plasticity, stiff, slightly moist to moist, trace white (7.5 YR 8/1) gypsum nodules, strong HCL reaction	0	5	95	1995	10 YR 6/3	Stiff	hp	Strong
----10		9.5 - 10.0 : Sandy silt (ML), well graded sand, slightly moist, trace (very fine) gypsum nodules	0	30	70	1989	10YR6/3	Loose	lp	Strong
----12.5	Bentonite Seal; 10.5 - 13.5 ft	10.0 - 14.0 : Clayey Sand (SC), trace silt, light reddish brown (5 YR 6/3), well graded sand (fine to coarse), moderate plasticity, slightly stiff, slightly moist, strong HCL reaction • 11.5 ft: trace gravel present (< 5% gravel)	0	65	35	1228	5 YR 6/3	Slightly Stiff	mp	Strong
----15		14.0 - 19.0 : Same as above with a slight increase in sand percentage, a decrease in plasticity, and trace coarse gypsum nodules • 16.0 ft: color change to brown (7.5 YR 5/4)	0	70	30	>2000	5 YR 6/3	Slightly Stiff	lp - mp	Strong
----17.5		19.0 - 20.0 : Gravely clay (GC), well graded with fine to medium sand, light reddish brown (5 YR 6/3), moderate to high plasticity, loose, moist, strong HCL reaction	10	40	50	>2000	5 YR 6/3	Loose	mp - hp	Strong
----20		20.0 - 23.0 : No core recovery from drilling. Possible water bearing zone: saturated slurry of gravel and fines brought to the surface of the borehole	-	-	-	-	-	-	-	-
----22.5	Sand Filter Pack; 13.5 - 34.0 ft	23.0 - 23.5 : Sandy clay (SC) with gravel, poorly sorted with fine to medium sand, saturated	10	50	40	>2000	5YR6/3	Slightly Stiff	lp - mp	Strong
		23.5 - 24.5 : Gravely clay (GC), well graded with fine to medium sand, light reddish brown (5 YR 6/3), moderate to high plasticity, slightly stiff, slightly moist, strong HCL reaction	10	40	50	>2000	5 YR 6/3	Slightly Stiff	lp - mp	Strong
----25		24.0 - 28.0 : Sand (SP), poorly graded with very fine to fine sand, loose, brown (7.5 YR 4/4), low plasticity, very moist, strong HCL reaction	0	90	10	>2000	7.5 YR 4/4	Loose	lp	Strong
----27.5		28.0 - 38.0 : Clayey Sand (SC), yellowish red (5 YR 4/6), sand is non plastic, clay has low plasticity, slightly stiff, slightly moist to dry, strong to moderate HCL reaction, trace gray reductions spots	0	80	20	>2000	5 YR 4/6	Slightly Stiff	np - lp	Moderate - Strong
----30										

15.8

Monitor Well/Piezometer Log

SITE NAME AND LOCATION:

LG-38

LATITUDE: 32.3091868°
LONGITUDE: -104.0347040°
ELEVATION: 2,960.82 ft-amsl

DRILL RIG: Sonic
ANGLE: 90 BEARING: -

DRILLING METHOD: Sonic Drilling

SAMPLING METHOD: Continuous Core (collected at approximately 2.5 ft increments)

WATER LEVEL	5.1 ft-bgs
TIME	1010
DATE	1/20/2022
CASING DEPTH	31.1 ft-bgs

SURFACE CONDITIONS: Sand. Disturbed flat area used for vehicle turnaround adjacent to access road

WELL LOG 3

SHEET 2 of 4

DRILLING	
START	FINISH
0845	1450
DATE	DATE
12/14 2021	12/14 2021

DRILLING CONTRACTOR: Cascade Environmental

LOGGED BY: ML + BB

DATE: 12/14/2021

JOB NO.: 21490520

FILE NAME: Mosaic LG2 Area Wells

DEPTH IN FEET (ELEVATION)	WELL COMPLETION DETAILS	SAMPLE DEPTH AND DESCRIPTION OF MATERIAL	% GRAVEL	% SAND	% FINES	Soil Electrical Conductivity (µS/cm)	COLOR	CONSISTENCY[3] / CEMENTATION[4]	PLASTICITY (np, l, m, h)	HYDROCHLORIC ACID REACTION TEST
		Depth Interval								
--- --- --- --- ----32.5 --- --- --- --- ----35 --- --- --- --- ----37.5 --- --- --- --- ----40 --- --- --- --- ----42.5 --- --- --- --- ----45 --- --- --- --- ----47.5 --- --- --- --- ----50 --- --- --- --- ----52.5 --- --- --- --- ----55 --- --- --- --- ----57.5 --- --- --- --- ----60	Sand Filter Pack 30.8 / 31.1 — 13.5 - 34.0 ft Cement-Bentonite Grout	28.0 - 38.0 : Same as above • 30.5 ft: becomes stiffer and slightly moist to moist, decreased HCL reaction to weak - no reaction, trace gray (7.5 YR 6/1) mottling • 33.0 ft: becomes slightly moist and stiff • 35.0 ft: becomes dry and slightly cemented • 37.5 ft: increase in gray (7.5 YR 6/1) mottling	0	80	20	>2000	5 YR 4/6	Stiff	np - lp	Weak - None
		38.0 - 49.0 : Sandy silt (ML), poorly graded with very fine to fine sand, pale yellow (2.5 Y 7/3) with yellowish red (5 YR 5/6) laminations, non plastic, slightly cemented, dry, weak to no HCL reaction • 43.0 ft: trace white (7.5 YR 8/1) gypsum nodules	0	15	85	780	2.5 Y 7/3	Slightly Cemented	np	Weak - None
		49.0 - 50.0 : Clayey silt (ML), fine to very fine sand, increased clay from above, poorly graded, slight to moderate cementation, dry, low plasticity, no HCL reaction	0	15	85	1021	2.5 Y 7/3	Slightly Cemented	lp	None
		50.0 - 83.0 : Sandy silt (ML), poorly graded with very fine to fine sand, increased silt from above, gray (7.5 YR 5/1), trace white (7.5 YR 8/1) gypsum nodules, non plastic, slightly cemented, dry, no HCL reaction	0	15	85	459.3	7.5 YR 5/1	Slightly Cemented	np	None

Monitor Well/Piezometer Log

SITE NAME AND LOCATION: **LG-38** LATITUDE: 32.3091868° LONGITUDE: -104.0347040° ELEVATION: 2,960.82 ft-amsl	DRILLING METHOD: Sonic Drilling		WELL LOG 3
			SHEET 3 of 4
	SAMPLING METHOD: Continuous Core (collected at approximately 2.5 ft increments)		
			DRILLING
			START: 0845 / FINISH: 1450
	WATER LEVEL	5.1 ft-bgs	
	TIME	1010	
	DATE	1/20/2022	DATE: 12/14 2021 / DATE: 12/14 2021
	CASING DEPTH	31.1 ft-bgs	
DRILL RIG: Sonic ANGLE: 90 BEARING: -	SURFACE CONDITIONS: Sand. Disturbed flat area used for vehicle turnaround adjacent to access road		

DEPTH IN FEET (ELEVATION)	WELL COMPLETION DETAILS	SAMPLE DEPTH AND DESCRIPTION OF MATERIAL	% GRAVEL	% SAND	% FINES	Soil Electrical Conductivity (µS/cm)	COLOR	CONSISTENCY[3] / CEMENTATION[4]	PLASTICITY (np, l, m, h)	HYDROCHLORIC ACID REACTION TEST
		Depth Interval								
--- --- --- --- ----62.5 --- --- --- --- ----65 --- --- --- --- ----67.5 --- --- --- --- ----70 --- --- --- --- ----72.5 --- --- --- --- ----75 --- --- --- --- ----77.5 --- --- --- --- ----80 --- --- --- --- ----82.5 --- --- --- --- ----85 --- --- --- --- ----87.5 --- --- --- --- ----90	Cement-Bentonite Grout	50.0 - 83.0 : Same as above • 77.0 ft: slight to moderate HCL reaction • 79.0 ft: moderate to strong HCL reaction and cemented gypsum nodules up to 1" in diameter	0	15	85	459	7.5 YR 5/1	Slightly Cemented	np	None
		83.0 - 88.0 : Claystone with anhydrite inclusions, gray claystone (7.5 YR 5/1) with pink (2.5 YR 8/3) crystalline anhydrite and white (2.5 YR 8/1) gypsum inclusions, stringers of brown claystone (7.5 YR 3/4), hard and cemented, non-plastic, dry, weak to no HCL reaction • 86.0 - 88.0 ft: increased gypsum concentration	-	-	-	270.7	7.5 YR 5/1	Hard / Rock	np	Weak to None
		88.0 - 92.0 : Sandy siltstone, gray (7.5 YR 5/1), trace gypsum veins present, hard and cemented, non-plastic, dry, no HCL reaction	-	-	-	74.5	7.5 YR 5/1	Hard / Rock	np	None

DRILLING CONTRACTOR: Cascade Environmental

LOGGED BY: ML + BB

DATE: 12/14/2021

JOB NO.: 21490520

FILE NAME: Mosaic LG2 Area Wells

GOLDER

Monitor Well/Piezometer Log

SITE NAME AND LOCATION:

LG-38

LATITUDE: 32.3091868°
LONGITUDE: -104.0347040°
ELEVATION: 2,960.82 ft-amsl

DRILL RIG: Sonic
ANGLE: 90 BEARING: -

DRILLING METHOD: Sonic Drilling

SAMPLING METHOD: Continuous Core (collected at approximately 2.5 ft increments)

WATER LEVEL	5.1 ft-bgs
TIME	1010
DATE	1/20/2022
CASING DEPTH	31.1 ft-bgs

SURFACE CONDITIONS: Sand. Disturbed flat area used for vehicle turnaround adjacent to access road

WELL LOG 3

SHEET 4 of 4

DRILLING	
START	FINISH
0845	1450
DATE	DATE
12/14 2021	12/14 2021

DEPTH IN FEET (ELEVATION)	WELL COMPLETION DETAILS	SAMPLE DEPTH AND DESCRIPTION OF MATERIAL	% GRAVEL	% SAND	% FINES	Soil Electrical Conductivity (µS/cm)	COLOR	CONSISTENCY[3] / CEMENTATION[4]	PLASTICITY (np, l, m, h)	HYDROCHLORIC ACID REACTION TEST
		Depth Interval								
--- --- --- --- ----92.5 --- --- --- --- ----95 --- --- --- --- ----97.5 --- --- --- --- ----100 --- --- --- --- ----102.5 --- --- --- --- ----105 --- --- --- --- ----107.5 --- --- --- --- ----110 --- --- --- --- ----112.5 --- --- --- --- ----115 --- --- --- --- ----117.5 --- --- --- --- ----120	Cement-Bentonite Grout	88.0 - 92.0 : Same as above	-	-	-	74.5	7.5 YR 5/1	Hard / Rock	np	None
		92.0 - 101 : Claystone, trace cemented sand stringers, red (2.5 YR 4/6), white gypsum inclusions (2.5 YR 8/1), hard and cemented, non-plastic, dry, no HCL reaction	-	-	-	69.25	2.5 YR 4/6	Hard / Rock	np	None
		Total Drill Depth = 101 ft-bgs								

DRILLING CONTRACTOR: Cascade Environmental

LOGGED BY: ML + BB

DATE: 12/14/2021

JOB NO.: 21490520

FILE NAME: Mosaic LG2 Area Wells

ATTACHMENT 2

Soil Boring and Well Completion Information for Wells Owned by Other Parties

Lithologic logs, continued.

Well 23.28.1.11 continued

Top	Thickness	Description
		moderately cohesive
250	10	shale, red, clayey, interbedded with gypsum, white to pink, medium crystalline with some dark gray shale interbedded
260	10	as above but with brown very clayey shale
270	10	gypsum, medium to crystalline clear to dark gray with some red gypsum
280	10	gypsum, white to gray with broad flat flakes, with brown clayey shale and some dark gray shale
290	10	anhydrite, light gray crystalline with some brownish pink shale, very clayey

Total Depth - 300'
Lost circulation at 260', and at 70', but came back quickly; driller suspects cavity at 260-270'

Bail test - 4 pm October 26, 1978 - Dry
Perforated 260-280'
Measurement: February 27, 1979: Water level-161' below LSD

Well 23.29.18.14; drilled November 17, 1978

Top	Thickness	Description
0	4	sand, brownish-buff, fine texture (aeolian) organics-4"
4	6	clay, buff-flesh, has some gypsum, medium crystalline selenite pebbles
10	20	sand and gravel: sand-medium fine texture, buff; gravel-less than 3 cm in diameter, assorted lithologies; quartzite limestone, has a lot of interstitial calcite
30	5	as above but has more sand

Total Depth - 35'

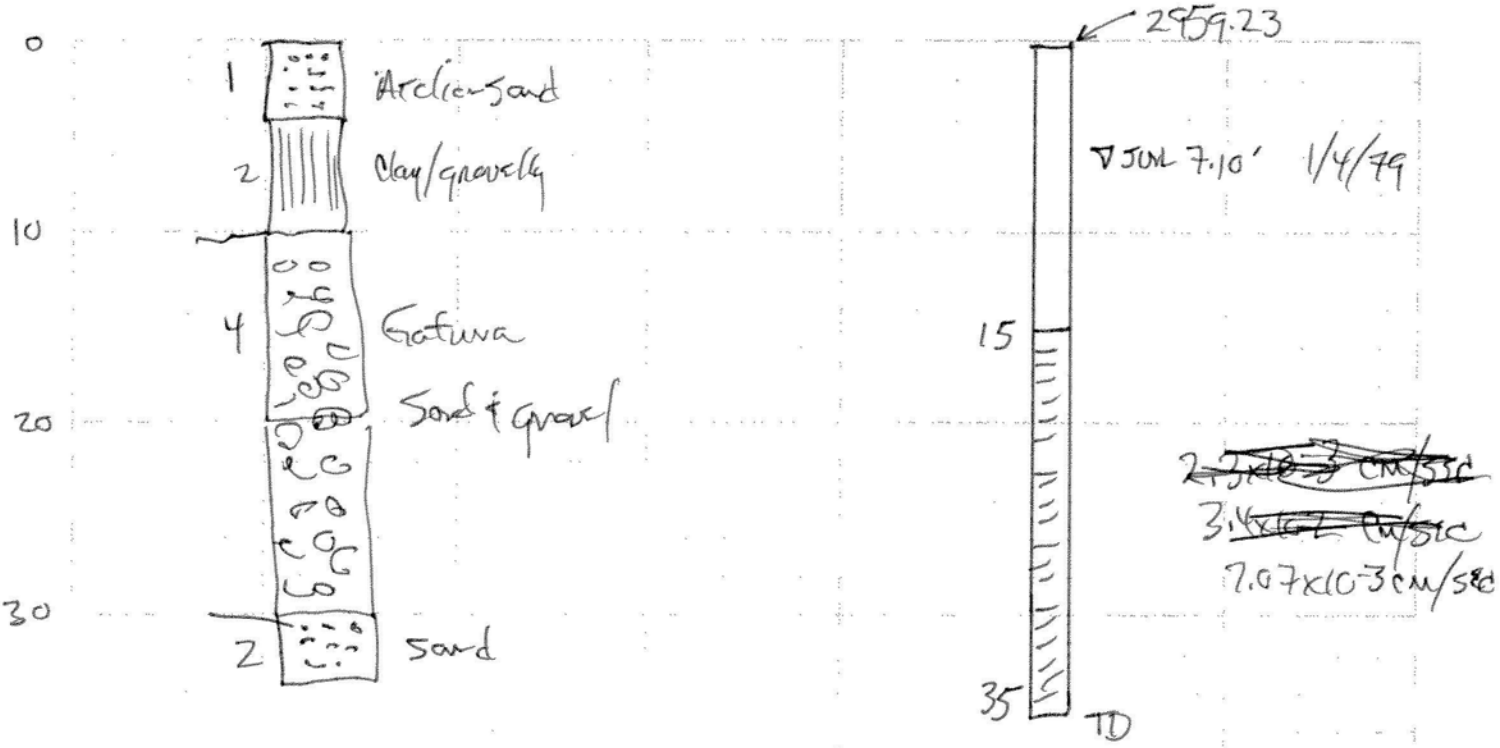
Casing penetrated - 15-35' below LSD
Bailing results - 15-20 gpm
Water level - about 6' below LSD
Water tastes salty

Measurement: January 4, 1979: Water level - 7.1' below LSD

BLM WELL

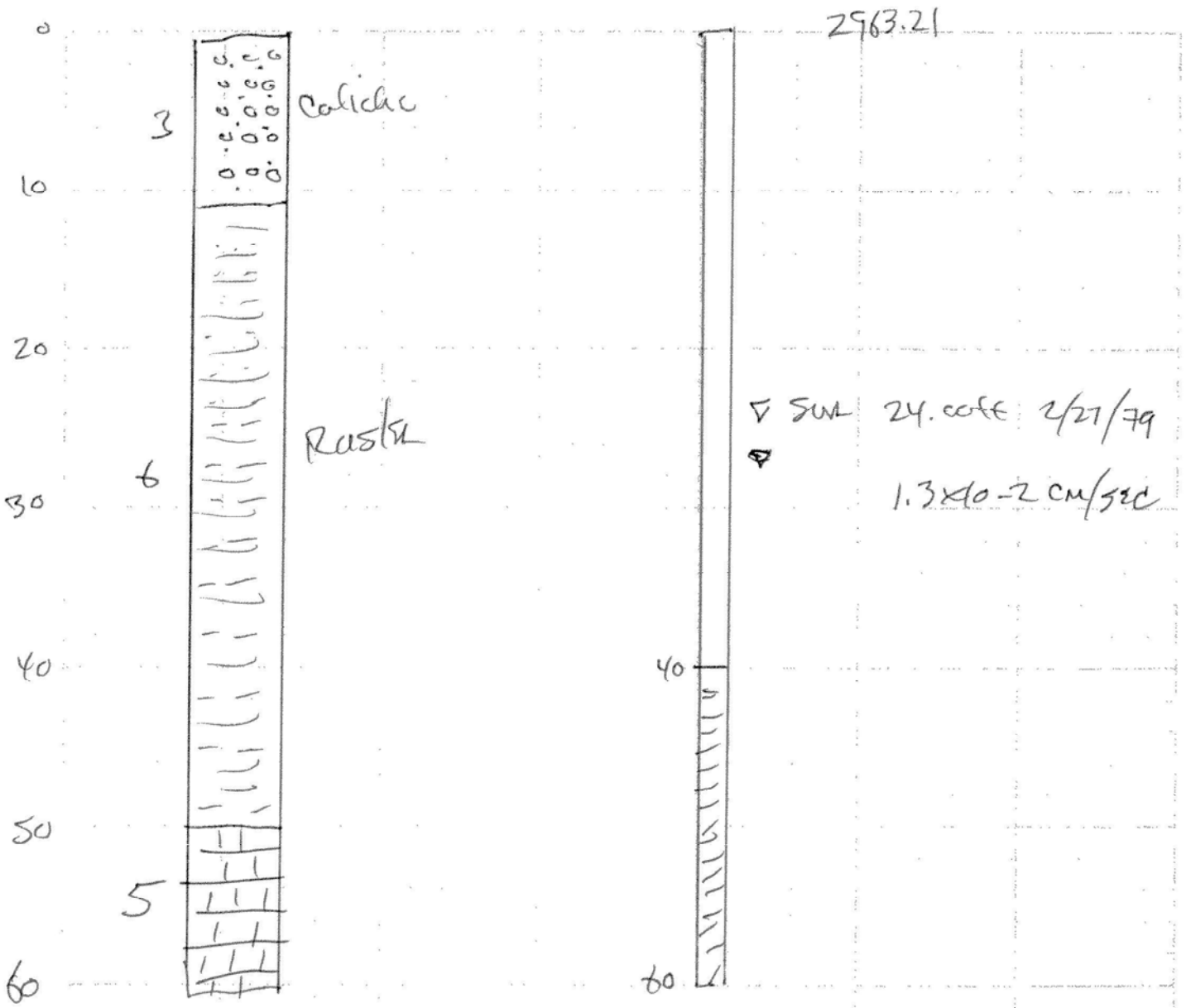
Golder Associates

SUBJECT	23.29.18.14	
Job No. / Ref.	Made by / Checked / Reviewed	Date / Sheet of



Golder Associates

SUBJECT	23.29.20.33	
Job No. / Ref.	Made by / Checked / Reviewed	Date / Sheet of

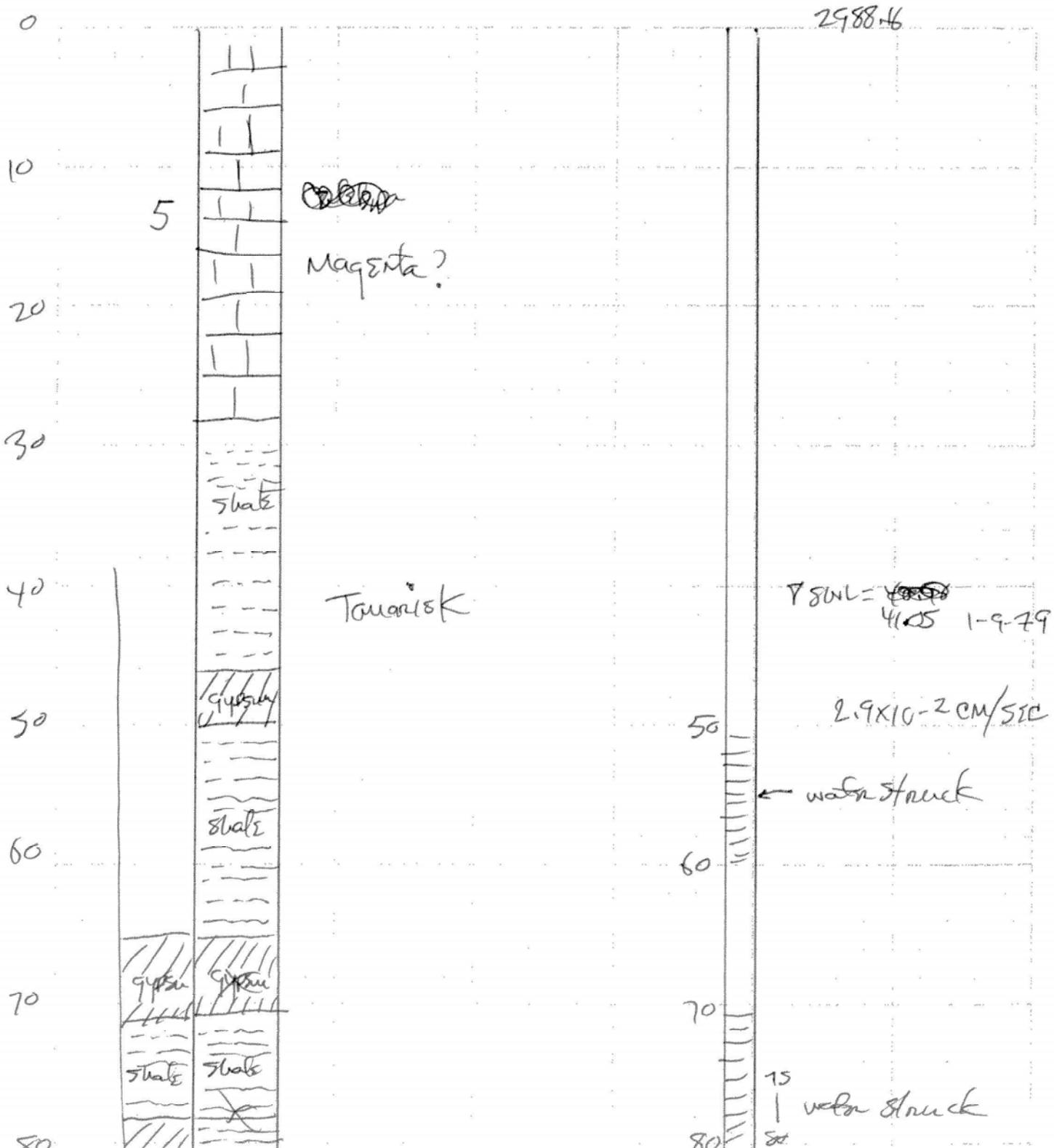


Associates

Ref.

Reviewed

Sheet of



New Mexico Office of the State Engineer
Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Twn	Rng	X	Y
	C 00136 S	1	1	2	25	23S	28E	590426	3572167*

Driller License: 24 **Driller Company:** BRININSTOOL, M.D.

Driller Name: HOWARD HEMLER.

Drill Start Date:	04/05/1976	**Drill Finish Date:**	08/24/1964	**Plug Date:**	
Log File Date:	05/28/1976	**PCW Rcv Date:**	05/12/1977	**Source:**	Shallow
Pump Type:	TURBIN	**Pipe Discharge Size:**		**Estimated Yield:**	0 GPM
Casing Size:	16.00	**Depth Well:**	122 feet	**Depth Water:**	45 feet

***UTM location was derived from PLSS - see Help**

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

Revised June 1972

TRN # 149234

STATE ENGINEER OFFICE
WELL RECORD

E.

Section 1. GENERAL INFORMATION

(A) Owner of well Glenn Johnson Owner's Well No. _____
Street or Post Office Address 10 Katy Rd.
City and State Clovis, New Mexico 88101

Well was drilled under Permit No. CC-1102 and is located in the:

NW¼

a. NE ¼ ____ ¼ ____ ¼ ____ ¼ of Section 27 Township 3N Range 35E N.M.P.M.

b. Tract No. _____ of Map No. _____ of the _____

c. Lot No. _____ of Block No. _____ of the _____
Subdivision, recorded in Curry County.

d. X= _____ feet, Y= _____ feet, N.M. Coordinate System _____ Zone in the _____ Grant.

(B) Drilling Contractor Jimmy F. Roman License No. WD-395

Address 1300 Piedmont Dr. Clovis, New Mexio 88101

Drilling Began Mar 7, 97 Completed Mar 7, 97 Type tools Rotary Size of hole 8 3/4 in.

Elevation of land surface or _____ at well is _____ ft. Total depth of well 403 ft.

Completed well is ☒ shallow ☐ artesian. Depth to water upon completion of well 357.6 ft.

Section 2. PRINCIPAL WATER-BEARING STRATA

Depth in Feet From	Depth in Feet To	Thickness in Feet	Description of Water-Bearing Formation	Estimated Yield (gallons per minute)
357.6	365	07.6	River Sand	
365	378	13	River sand and gravel	
378	403	25	Red Bed	

Section 3. RECORD OF CASING

Diameter (inches)	Pounds per foot	Threads per in.	Depth in Feet Top	Depth in Feet Bottom	Length (feet)	Type of Shoe	Perforations From	Perforations To
5"	2,324	0	0	403	403	None	383	403

Section 4. RECORD OF MUDDING AND CEMENTING

Depth in Feet From	Depth in Feet To	Hole Diameter	Sacks of Mud	Cubic Feet of Cement	Method of Placement

Section 5. PLUGGING RECORD

Plugging Contractor _____
Address _____
Plugging Method _____
Date Well Plugged _____
Plugging approved by:
_____
State Engineer Representative

No.	Depth in Feet Top	Depth in Feet Bottom	Cubic Feet of Cement
1			
2			
3			
4			

FOR USE OF STATE ENGINEER ONLY

Date Received June 2, 1997

Quad _____ FWL _____ FSL _____

File No. CC-1102 Use Domestic Location No. 3N.35.27.212134

EM

Section 6. LOG OF HOLE

Depth in Feet From	Depth in Feet To	Thickness in Feet	Color and Type of Material Encountered
0	3	03	Calchie and red clay
3	50	47	Surface Rock
50	245	195	Sandy clay Heavy
			Tight formation
245	365	120	River sand
365	378	13	River sand and gravel
378	403	25	Red Bed

Section 7. REMARKS AND ADDITIONAL INFORMATION

STATE ENGINEER OFFICE
ROSWELL NEW MEXICO
'97 JUN 2 AM 11 55

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described hole.

Jimmy Ramsey
Driller

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the appropriate district office of the State Engineer. All sections, exc[redacted]Section 5, shall be answered as completely [redacted]accurately as possible when any well is drilled, repaired or deepened. When this fo[redacted]is used as a plugging record, only Section 1(a)[redacted]d Section 5 need be completed.

SANTA FE

Form WR-23

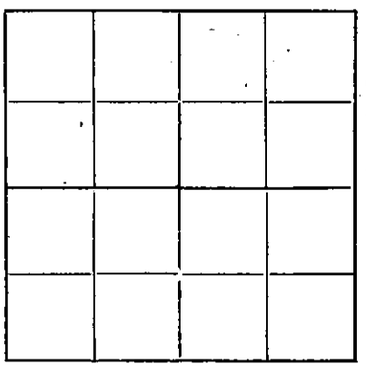
STATE ENGINEER OFFICE

WELL RECORD

462076

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the nearest district office of the State Engineer. All sections, except Section 5, shall be answered as completely and accurately as possible when any well is drilled, repaired or deepened. When this form is used as a plugging record, only Section 1A and Section 5 need be completed.

Section 1



(Plat of 640 acres)

(A) Owner of well Clarence Reed

Street and Number

City Loving State New Mexico

Well was drilled under Permit No. C-1108 and is located in the SW ¼ NE ¼ NW ¼ of Section 23 Twp. 23 Rge. 28

(B) Drilling Contractor E. Barron License No. WD 30

Street and Number 307 South 10th

City Carlsbad State New Mexico

Drilling was commenced June 20 19 67

Drilling was completed June 22 19 67

Elevation at top of casing in feet above sea level Total depth of well 60'

State whether well is shallow or artesian Shallow Depth to water upon completion 35'

Section 2 PRINCIPAL WATER-BEARING STRATA

No.	Depth in Feet From	Depth in Feet To	Thickness in Feet	Description of Water-Bearing Formation
1				Anhydrite & Lime Conglomerate
2				Old Well Clean Out
3				From 41' - 60' - (19' Clean Out)
4				
5				

1967 JUL 10 AM 10:02
STATE ENGINEER OFFICE
SANTA FE, N. M.

Section 3 RECORD OF CASING

Dia in.	Pounds ft.	Threads in	Depth Top	Depth Bottom	Feet	Type Shoe	Perforations From	Perforations To
6"OD	18		0	5	5	Surface Only		

Section 4 RECORD OF MUDDING AND CEMENTING

Depth in Feet From	Depth in Feet To	Diameter Hole in in.	Tons Clay	No. Sacks of Cement	Methods Used

Section 5 PLUGGING RECORD

Name of Plugging Contractor License No.

Street and Number City State

Tons of Clay used Tons of Roughage used Type of roughage

Plugging method used Date Plugged 19

Plugging approved by:

Basin Supervisor

Cement Plugs were placed as follows:

No.	Depth of Plug From	Depth of Plug To	No. of Sacks Used

FOR USE OF STATE ENGINEER ONLY

Date Received 1967 JUL -6 AM 9:00

File No. C-1108 Use Repair Stock Location No. 23.28.23.123

Section 6

LOG OF WELL

Depth in Feet From	Depth in Feet To	Thickness in Feet	Color	Type of Material Encountered

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described well.

Emmett Barron

Well Driller

New Mexico Office of the State Engineer
Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
	C 01214	1	2	3	13	23S	28E	590010	3574597*

Driller License: 359 **Driller Company:** BRADY, W.H. DRILLING CO.

Driller Name: W.H. BRADY

Drill Start Date: 08/01/1964 **Drill Finish Date:** 08/02/1964 **Plug Date:**

Log File Date: 11/02/1964 **PCW Rcv Date:** **Source:** Shallow

Pump Type: **Pipe Discharge Size:** **Estimated Yield:**

Casing Size: **Depth Well:** 70 feet **Depth Water:** 20 feet

Water Bearing Stratifications:	Top	Bottom	Description
	32	35	Sandstone/Gravel/Conglomerate
	38	39	Sandstone/Gravel/Conglomerate

***UTM location was derived from PLSS - see Help**

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

New Mexico Office of the State Engineer
Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Twn	Rng	X	Y
	C 01217	1	1	3	13	23S	28E	589606	3574593*

Driller License: 359 **Driller Company:** BRADY, W.H. DRILLING CO.

Driller Name: W.H. BRADY

Drill Start Date: 08/07/1964 **Drill Finish Date:** 08/11/1964 **Plug Date:**

Log File Date: 09/15/1964 **PCW Rcv Date:** **Source:** Shallow

Pump Type: **Pipe Discharge Size:** **Estimated Yield:**

Casing Size: **Depth Well:** 87 feet **Depth Water:** 50 feet

Water Bearing Stratifications:	Top	Bottom	Description
	55	69	Sandstone/Gravel/Conglomerate

Meter Number: 559 **Meter Make:** MCCROMETER

Meter Serial Number: 9541736 **Meter Multiplier:** 1.0000

Number of Dials: 2 **Meter Type:** Diversion

Unit of Measure: Acre-Feet **Return Flow Percent:**

Usage Multiplier: **Reading Frequency:** Quarterly

Meter Readings (in Acre-Feet)

Read Date	Year	Mtr Reading	Flag	Rdr	Comment	Mtr Amount
12/29/1998	1999	136	A	ms		0
04/16/1999	1999	155	A	ms		18.685
06/30/1999	1999	175	A	ms		19.849
09/29/1999	1999	200	A	ms		25.349
01/04/2000	1999	226	A	ms		25.613
04/06/2000	2000	243	A	mb		16.558
07/01/2000	2000	256	A	mb		13.141
10/01/2000	2000	276	A	mb		20.241
10/19/2000	2000	279	A	mb		3.020
01/05/2001	2000	291	A	ms		12.423
04/15/2001	2001	306	A	RPT		14.682
05/09/2001	2001	312	A	ms		5.732
07/12/2001	2001	322	A	RPT		10.142
10/01/2001	2001	337	A	RPT		14.798
11/08/2001	2001	344	A	AM		6.906
01/01/2003	2002	355	A	ms		11.314
04/01/2003	2003	366	A	ms		11.314

***UTM location was derived from PLSS - see Help**

Meter Readings (in Acre-Feet)

Read Date	Year	Mtr Reading	Flag	Rdr	Comment	Mtr Amount
04/01/2003	2003	369	A	ms		3.052
06/04/2003	2003	0	A	ms		0
06/04/2003	2003	7	A	ms		6.678
07/01/2003	2003	12	A	ms		5.246
08/20/2003	2003	22	A	ms		10.412
10/01/2003	2003	31	A	RPT		8.788
10/27/2003	2003	36	A	TW		4.600
01/02/2004	2003	49	A	ab		13.171
04/01/2004	2004	67	A	RPT		18.345
07/01/2004	2004	93	A	RPT		26.222
10/01/2004	2004	112	A	RPT		18.603
01/02/2005	2004	130	A	RPT		18.402
01/03/2005	2005	31	A	TW		0
01/29/2005	2005	35	A	TW		4.470
03/30/2005	2005	48	A	TW		13.120
07/06/2005	2005	70	A	TW		22.284
01/05/2006	2005	26	R	TW	Meter Rollover	55.703
04/06/2006	2006	49	A	tw		22.428
07/06/2006	2006	71	A	tw		21.985
01/09/2007	2006	26	R	tw	Meter Rollover	55.935
07/03/2007	2007	72	A	tw		45.278
10/11/2007	2007	96	A	tw		24.730
01/03/2008	2007	18	R	tw	Meter Rollover	21.415
04/24/2008	2008	44	A	tw		25.874
07/17/2008	2008	70	A	tw		26.000
10/02/2008	2008	5	R	tw	Meter Rollover	35.752
01/15/2009	2008	28	A	tw		22.762
04/22/2009	2009	50	A	tw		21.303
08/04/2009	2009	72	A	tw		22.625
01/06/2010	2009	6	R	tw	Meter Rollover	33.717
06/02/2010	2010	37	A	tw		31.586
01/12/2011	2010	88	A	tw		50.274
01/23/2012	2011	74	R	tw	Meter Rollover	86.316
03/12/2012	2012	85	A	tw		10.930
07/24/2012	2012	14	R	tw	Meter Rollover	28.647
02/13/2013	2012	56	A	tw		42.801
01/24/2014	2013	26	R	tw	Meter Rollover	69.298
07/22/2014	2014	69	A	tw		43.349
01/27/2015	2014	79	A	tw		10.138
03/11/2016	2015	5	R	tw	Meter Rollover	26.221
08/09/2016	2016	80	A	tw		74.314
12/28/2016	2016	92	A	tw		11.929

**YTD Meter Amounts:	Year	Amount
	1999	89.496
	2000	65.383
	2001	52.260
	2002	11.314
	2003	63.261
	2004	81.572
	2005	95.577
	2006	100.348
	2007	91.423
	2008	110.388
	2009	77.645
	2010	81.860
	2011	86.316
	2012	82.378
	2013	69.298
	2014	53.487
	2015	26.221
	2016	86.243

Meter Number: 1401 **Meter Make:**

Meter Serial Number: 01 035 530 **Meter Multiplier:** 1.0000

Number of Dials: 5 **Meter Type:** Power Child

Unit of Measure: Kilowatt Hours **Return Flow Percent:**

Usage Multiplier: **Reading Frequency:** Quarterly (No Reading Expected)

Meter Readings in (Kilowatt Hours)

Read Date	Year	Mtr Reading	Flag	Rdr	Comment	Mtr Amount
04/06/2000	2000	20998	A	mb		0
07/11/2000	2000	23327	A	mb		2329.000

**YTD Meter Amounts:	Year	Amount
	2000	2329.000

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Revised June 1972

STATE ENGINEER OFFICE

WELL RECORD

Section 1. GENERAL INFORMATION

(A) Owner of well John Jimenz Owner's Well No. _____

Street or Post Office Address ~~5200 South Prince~~

City and State Clovis, NM 88101

Well was drilled under Permit No. CC-1443 and is located in the:

a. SW ¼ SW ¼ SW ¼ ____ ¼ of Section 32 Township 2N Range 36E N.M.P.M.

b. Tract No. _____ of Map No. _____ of the _____

c. Lot No. _____ of Block No. _____ of the _____
Subdivision, recorded in Curry County.

d. X= _____ feet, Y= _____ feet, N.M. Coordinate System _____ Zone in the _____ Grant.

(B) Drilling Contractor Jimmy F Roman License No. WD-395

Address 1300 Piedmont Dr. Clovis, NM 88101

Drilling Began Mar 7, 02 Completed Mar 7, 02 Type tools Rotary Size of hole 8 3/4 in.

Elevation of land surface or _____ at well is _____ ft. Total depth of well 309 ft.

Completed well is ☒ shallow ☐ artesian. Depth to water upon completion of well 270 ft.

Section 2. PRINCIPAL WATER-BEARING STRATA

Depth in Feet From	Depth in Feet To	Thickness in Feet	Description of Water-Bearing Formation	Estimated Yield (gallons per minute)
270	276	06	Sand & Sandstones	
276	280	04	Clay	
280	302	22	River sand & Gravel	
302	309	07	Red Bed	

Section 3. RECORD OF CASING

Diameter (inches)	Pounds per foot	Threads per in.	Depth in Feet Top	Depth in Feet Bottom	Length (feet)	Type of Shoe	Perforations From	Perforations To
5"	2,324	0	0	309	309	None	289	309

Section 4. RECORD OF MUDDING AND CEMENTING

Depth in Feet From	Depth in Feet To	Hole Diameter	Sacks of Mud	Cubic Feet of Cement	Method of Placement

2002 JUN 24 AM 11:10
STATE ENGINEER OFFICE
ROSWELL, NEW MEXICO

Section 5. PLUGGING RECORD

Plugging Contractor _____

Address _____

Plugging Method _____

Date Well Plugged _____

Plugging approved by

_____
State Engineer Representative

No.	Depth in Feet Top	Depth in Feet Bottom	Cubic Feet of Cement
1			
2			
3			
4			

FOR USE OF STATE ENGINEER ONLY

Date Received June 24, 2002

Quad _____ FWL _____ FSL _____

File No. CC-1443 Use Dom Location No. 2N.36.32.333

T 224977

Section 6. LOG OF HOLE

Depth in Feet From	Depth in Feet To	Thickness in Feet	Color and Type of Material Encountered
0	3	3	Top Soil
3	21	18	Calchie
21	87	66	Sand Surface Rock
87	197	110	Sand & Sandstones
197	202	03	Clay
202	235	33	River sand & Gravel
235	276	41	Sand & Sandstones
276	280	04	Clay
280	302	22	River sand & Gravel
302	309	07	Red Bed

Section 7. REMARKS AND ADDITIONAL INFORMATION

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described hole.

Jimmy Roman
Driller

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the appropriate district office of the State Engineer. All sections, except Section 5, shall be answered as completely and accurately as possible when any well is drilled, repaired or deepened. When this form is used as a plugging record, only Section 1(a) and Section 5 need be completed.

Revised June 1972

STATE ENGINEER OFFICE

WELL RECORD

SANTA FE

464975

92357

Section 1. GENERAL INFORMATION

(A) Owner of well Perry Coleman Owner's Well No. 1

Street or Post Office Address Riverview 1416

City and State Carlsbad, N.M. 88220

Well was drilled under Permit No. C-1967 and is located in the:

a. N½N½¼ NE ¼ SW ¼ ¼ of Section 13 Township 23S Range 26E N.M.P.M.

b. Tract No. _____ of Map No. _____ of the _____

c. Lot No. _____ of Block No. _____ of the _____
Subdivision, recorded in _____ County.

d. X= _____ feet, Y= _____ feet, N.M. Coordinate System _____ Zone in the _____ Grant.

(B) Drilling Contractor Tomblin Drilling License No. WD592

Address P.O. Box 1632

Drilling Began 6-22-81 Completed 7-15-81 Type tools Rotary Size of hole 8 in.

Elevation of land surface or _____ at well is _____ ft. Total depth of well 264 ft.

Completed well is ☑ shallow ☐ artesian. Depth to water upon completion of well 200 ft.

Section 2. PRINCIPAL WATER-BEARING STRATA

Depth in Feet From	Depth in Feet To	Thickness in Feet	Description of Water-Bearing Formation	Estimated Yield (gallons per minute)
258	264	6	Sand & Gravel	15

Section 3. RECORD OF CASING

Diameter (inches)	Pounds per foot	Threads per in.	Depth in Feet Top	Depth in Feet Bottom	Length (feet)	Type of Shoe	Perforations From	Perforations To
6"	160 lb. PVC.		0	264	264	None	256	264

Section 4. RECORD OF MUDDING AND CEMENTING

Depth in Feet From	Depth in Feet To	Hole Diameter	Sacks of Mud	Cubic Feet of Cement	Method of Placement

STATE ENGINEER SANTA FE, N. M. '81 AUG 31 AM 11

Section 5. PLUGGING RECORD

Plugging Contractor _____

Address _____

Plugging Method _____

Date Well Plugged _____

Plugging approved by:

_____
State Engineer Representative

No.	Depth in Feet Top	Depth in Feet Bottom	Cubic Feet of Cement
1			
2			
3			
4			

FOR USE OF STATE ENGINEER ONLY

Date Received August 14, 1981

Quad _____ FWL _____ FSL _____

File No. C-1967 Use Domestic Location No. 23S.26E.13.32114

Section 6. LOG OF HOLE

Depth in Feet From	Depth in Feet To	Thickness in Feet	Color and Type of Material Encountered
0	4	4	Top Soil
4	30	26	Loose ~~Gravel~~ Boulders
30	60	30	Brn. Clay
60	120	60	Yellow Clay
120	195	75	Brn. Clay
195	205	10	Red Sandy Clay
205	258	53	Sand & Gravel (with Clay)
258	264	6	Sand & Gravel (water Bearing)

Section 7. REMARKS AND ADDITIONAL INFORMATION

STATE ENGINEER
ROSWELL, NM
AUG 14 8 42 AM '81

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described hole.

Tomblin Drilling
Driller
Marilyn Tomblin - Owner

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the appropriate district office of the State Engineer. All sections, except Section 5, shall be answered as completely and accurately as possible when any well is drilled, repaired or deepened. When this form is used as a plugging record, only Section 1(a) and Section 5 need be completed.

Revised June 1972

469006
~~498228~~

STATE ENGINEER OFFICE

WELL RECORD

Section 1. GENERAL INFORMATION

89 NOV 9 AM

STATE ENGINEER OFFICE
SANTA FE, NEW MEXICO

(A) Owner of well Santa Fe Energy Owner's Well No. 17

Street or Post Office Address 500 W. Illinois

City and State Midland, TX 79701

Well was drilled under Permit No. C-2182 and is located in the:

a. SE ¼ ¼ ¼ ¼ of Section 30 Township 23S Range 29E N.M.P.M.

b. Tract No. _____ of Map No. _____ of the _____

c. Lot No. _____ of Block No. _____ of the _____
Subdivision, recorded in Eddy County.

d. X= _____ feet, Y= _____ feet, N.M. Coordinate System _____ Zone in the _____ Grant.

(B) Drilling Contractor Hickerson Drilling & Pump License No. WD 1184

Address 3806 W. University Odessa, TX 79764

Drilling Began 9-26-89 Completed 9-26-89 Type tools Air rotary Size of hole 8 3/4 in.

Elevation of land surface or _____ at well is _____ ft. Total depth of well 75' ft.

Completed well is ☒ shallow ☐ artesian. Depth to water upon completion of well 30 ft.

Section 2. PRINCIPAL WATER-BEARING STRATA

Depth in Feet From	Depth in Feet To	Thickness in Feet	Description of Water-Bearing Formation	Estimated Yield (gallons per minute)
30	65	35	Coarse sand & gravel	350 GPM

Section 3. RECORD OF CASING

Diameter (inches)	Pounds per foot	Threads per in.	Depth in Feet Top	Depth in Feet Bottom	Length (feet)	Type of Shoe	Perforations From	Perforations To
6 5/8"	Sch 40	PVC	2' above grade	75	77		25	65

Section 4. RECORD OF MUDDING AND CEMENTING

Depth in Feet From	Depth in Feet To	Hole Diameter	Sacks of Mud	Cubic Feet of Cement	Method of Placement
0	15'	8 3/4"		10 sacks	Poured slurry

Section 5. PLUGGING RECORD

Plugging Contractor _____

Address _____

Plugging Method _____

Date Well Plugged _____

Plugging approved by:

_____
State Engineer Representative

No.	Depth in Feet Top	Depth in Feet Bottom	Cubic Feet of Cement
1			
2			
3			
4			

FOR USE OF STATE ENGINEER ONLY

Date Received October 5, 1989

Quad _____ FWL _____ FSL _____

File No. C-2182 Use OWD Location No 23.29.30.34234

Section 6. LOG OF HOLE

Depth in Feet From	Depth in Feet To	Thickness in Feet	Color and Type of Material Encountered
0	30	30	Sand
30	60	30	Sand, gravel
60	65	5	Gravel, blue shale
65	75	10	Blue shale

Section 7. REMARKS AND ADDITIONAL INFORMATION

'89 OCT 5 AM 8 26
STATE ENGINEER OFFICE
ROSWELL, NEW MEXICO

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described hole.

Driller

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the appropriate district office of the State Engineer. All sections, ex[illegible]ection 5, shall be answered as completely [illegible]ccurately as possible when any well is drilled, repaired or deepened. When this form is used as a plugging record, only Section 1(a) and Section 5 need be completed.

Revised June 1972

STATE ENGINEER OFFICE
WELL RECORD

467831

Section 1. GENERAL INFORMATION

(A) Owner of well Draper Brantley Jr. Owner's Well No. _____
Street or Post Office Address 706 W. Riverside Dr.
City and State Carlsbad, NM 88220

Well was drilled under Permit No. C-3146 and is located in the:

a. NW ¼ NW ¼ SW ¼ ¼ of Section 24 Township 23S Range 28E N.M.P.M.

b. Tract No. _____ of Map No. _____ of the _____

c. Lot No. _____ of Block No. _____ of the _____
Subdivision, recorded in _____ County.

d. X= _____ feet, Y= _____ feet, N.M. Coordinate System _____ Zone in the _____ Grant.

(B) Drilling Contractor Taylor Water Well Service License No. WD-1348

Address 7317 Etcheverry Rd., Carlsbad, NM 88220

Drilling Began 2/14/05 Completed 2/15/05 Type tools Rotary Size of hole 8 3/4 in.

Elevation of land surface or _____ at well is UK ft. Total depth of well 82 ft.

Completed well is ☒ shallow ☐ artesian. Depth to water upon completion of well 36 ft.

Section 2. PRINCIPAL WATER-BEARING STRATA

Depth in Feet From	Depth in Feet To	Thickness in Feet	Description of Water-Bearing Formation	Estimated Yield (gallons per minute)
66	82	16	Conglomerate:yel brn,gry,tn,	More than 100

Section 3. RECORD OF CASING

Diameter (inches)	Pounds per foot	Threads per in.	Depth in Feet Top	Depth in Feet Bottom	Length (feet)	Type of Shoe	Perforations From	Perforations To
6 5/8	Sch 40	Pvc	+1.5	82	83.5	Cap	62	82

Section 4. RECORD OF MUDDING AND CEMENTING

Depth in Feet From	Depth in Feet To	Hole Diameter	Sacks of Mud	Cubic Feet of Cement	Method of Placement

Section 5. PLUGGING RECORD

Plugging Contractor _____
Address _____
Plugging Method _____
Date Well Plugged _____
Plugging approved by:
_____ State Engineer Representative

No.	Depth in Feet Top	Depth in Feet Bottom	Cubic Feet of Cement
1			
2			
3			
4			

FOR USE OF STATE ENGINEER ONLY ~~338864~~

Date Received 3-21-05

Quad _____ FWL _____ FSL _____

File No. C 3146 Use Dom/Stk Location No. _____

23.28.24.311

Section 6. LOG OF HOLE

Depth in Feet From	Depth in Feet To	Thickness in Feet	Color and Type of Material Encountered
0	2	2	Soil
2	8	6	Caliche
8	13	5	Clay:pnk,off wht,slty,sndy
13	24	11	Conglomerate:pnk,off wht,calc,vry sndy
24	38	14	Clay:rd,sndy
38	66	28	Clay:rd,smthystky
66	73	7	Conglomerate:yel brn,gry,brn,tn,calc in prt,vry
			rough drillihg,water
73	84	11	Sand:clr,ambr,rd,vfn grn-slty,sb rnd,-rnd,unconsl,
			mod wl srtd
84	90	6	Conglomerate:yel brn,gry,tn,sme chrt,vry rough

Section 7. REMARKS AND ADDITIONAL INFORMATION

Casing went to 82'. Gravel packed well.

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described hole.

Driller

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SQ Environmental, LLC
PO Box 1991
Austin, TX 78767-1991
(512) 417-4659 or (512) 656-9445

Boring/Well Log

BORING ID: MW-04

WELL ID: MW-04

PROJECT INFORMATION

PROJECT: Candelario 24 #1 SWD Battery
SITE LOCATION: Loving, New Mexico
JOB NUMBER: 1072.002.005
PROJECT MANAGER: Susan Litherland, PE
LOGGED BY: Sam Enis, PG
DATE(S) DRILLED: 7/18/2016

DRILLING INFORMATION

DRILLING COMPANY: Straub Drilling
DRILLING METHOD: Air Rotary
TOTAL DEPTH: 40 ft bgs
BORING DIAMETER: 6-inch WELL DIAMETER: 2-inch

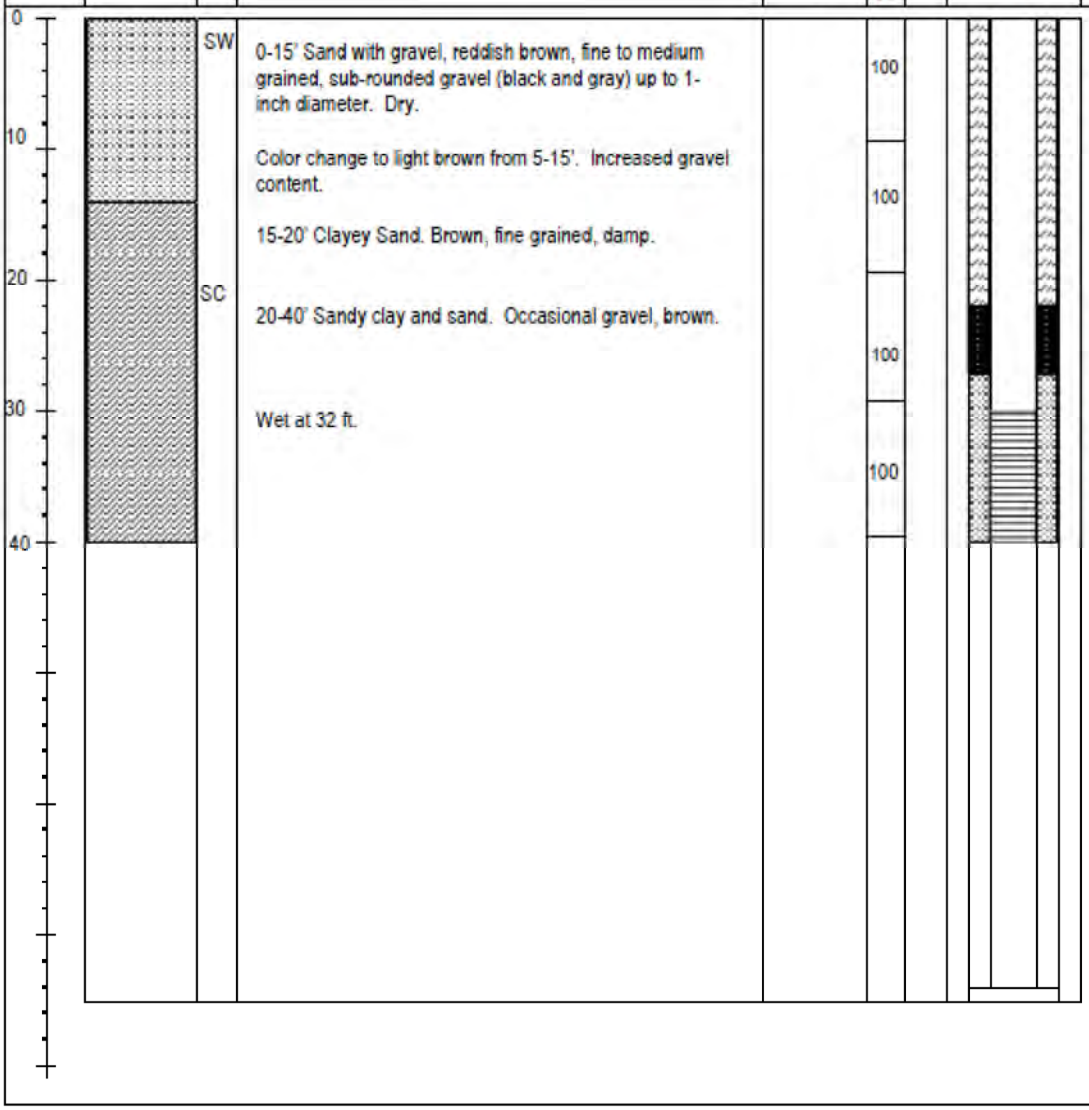
TOP OF CASING ELEVATION: NM	N. LATITUDE	W. LONGITUDE
GROUND ELEVATION: NM	NA	NA

REMARKS: Soil cuttings logged at surface. Locking flush-mounted surface completion installed at well.

INITIAL WATER LEVEL IN WELL: 32 ft bgs

STATIC WATER LEVEL IN WELL: 30.07 ft btoc

DEPTH	LITHOLOGY	USCS	DESCRIPTION	SAMPLE ID	REC. %	WELL COMPLETION	INSTALLATION NOTES
0–15		SW	0-15' Sand with gravel, reddish brown, fine to medium grained, sub-rounded gravel (black and gray) up to 1-inch diameter. Dry.		100		Bentonite-cement grout from 0-25 ft bgs
15–20			Color change to light brown from 5-15'. Increased gravel content. 15-20' Clayey Sand. Brown, fine grained, damp.		100		
20–40		SC	20-40' Sandy clay and sand. Occasional gravel, brown.		100		Bentonite from 25-27 ft bgs; 20/40 Sand from: 27-40 ft bgs; Screen 0.01" slotted from 29.5 -39.5 ft bgs
			Wet at 32 ft.		100		



SQ Environmental, LLC
PO Box 1991
Austin, TX 78767-1991
(512) 417-4659 or (512) 656-9445

Boring/Well Log

BORING ID: MW-05

WELL ID: MW-05

PROJECT INFORMATION

PROJECT: Candelario 24 #1 SWD Battery
SITE LOCATION: Loving, New Mexico
JOB NUMBER: 1072.002.005
PROJECT MANAGER: Susan Litherland, PE
LOGGED BY: Sam Enis, PG
DATE(S) DRILLED: 7/18/2016

DRILLING INFORMATION

DRILLING COMPANY: Straub Drilling
DRILLING METHOD: Air Rotary
TOTAL DEPTH: 40 ft bgs
BORING DIAMETER: 6-inch WELL DIAMETER: 2-inch

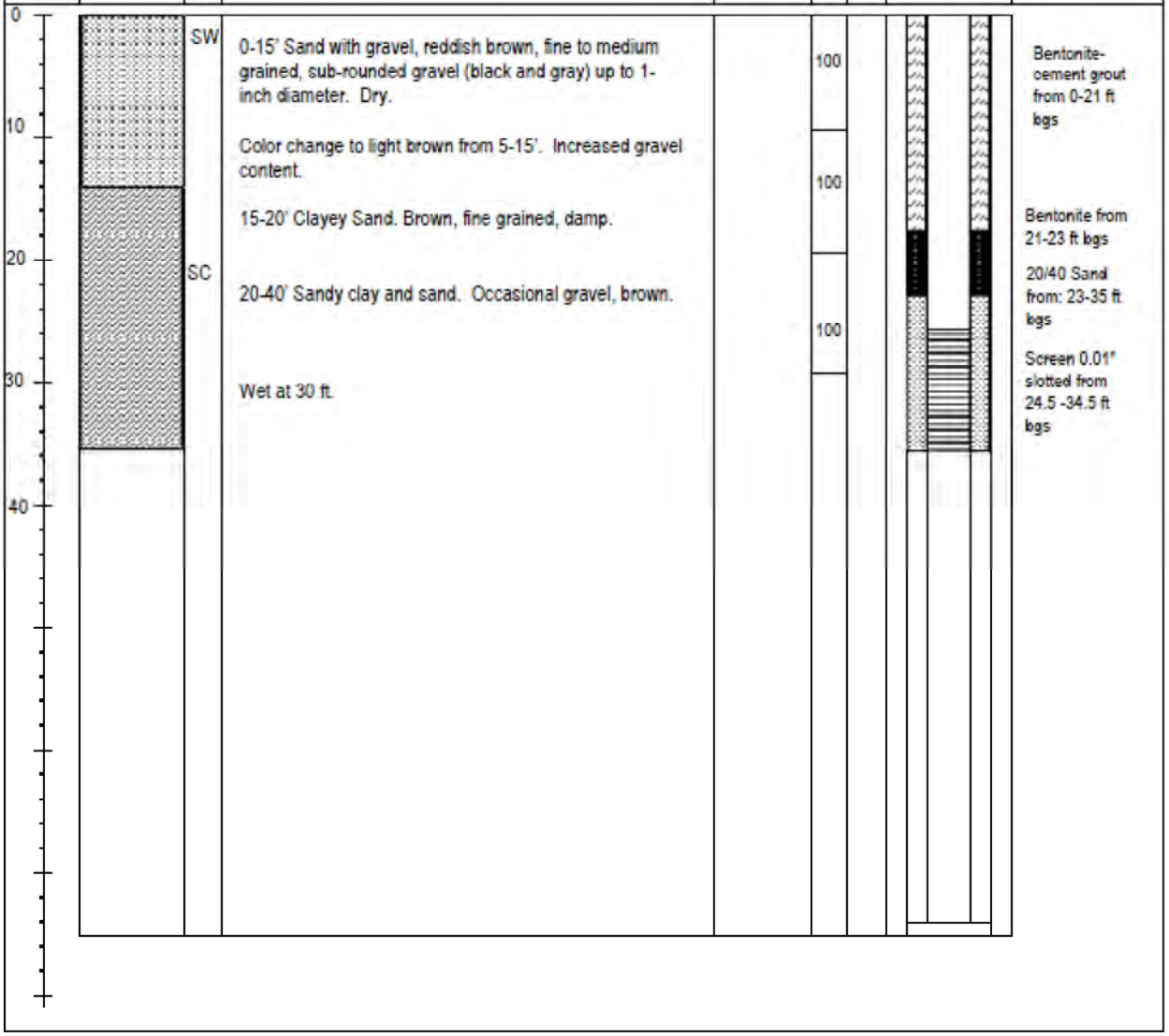
TOP OF CASING ELEVATION: NM
GROUND ELEVATION: NM

N. LATITUDE	W. LONGITUDE
NA	NA

REMARKS: Soil cuttings logged at surface. Locking flush-mounted surface completion installed at well.

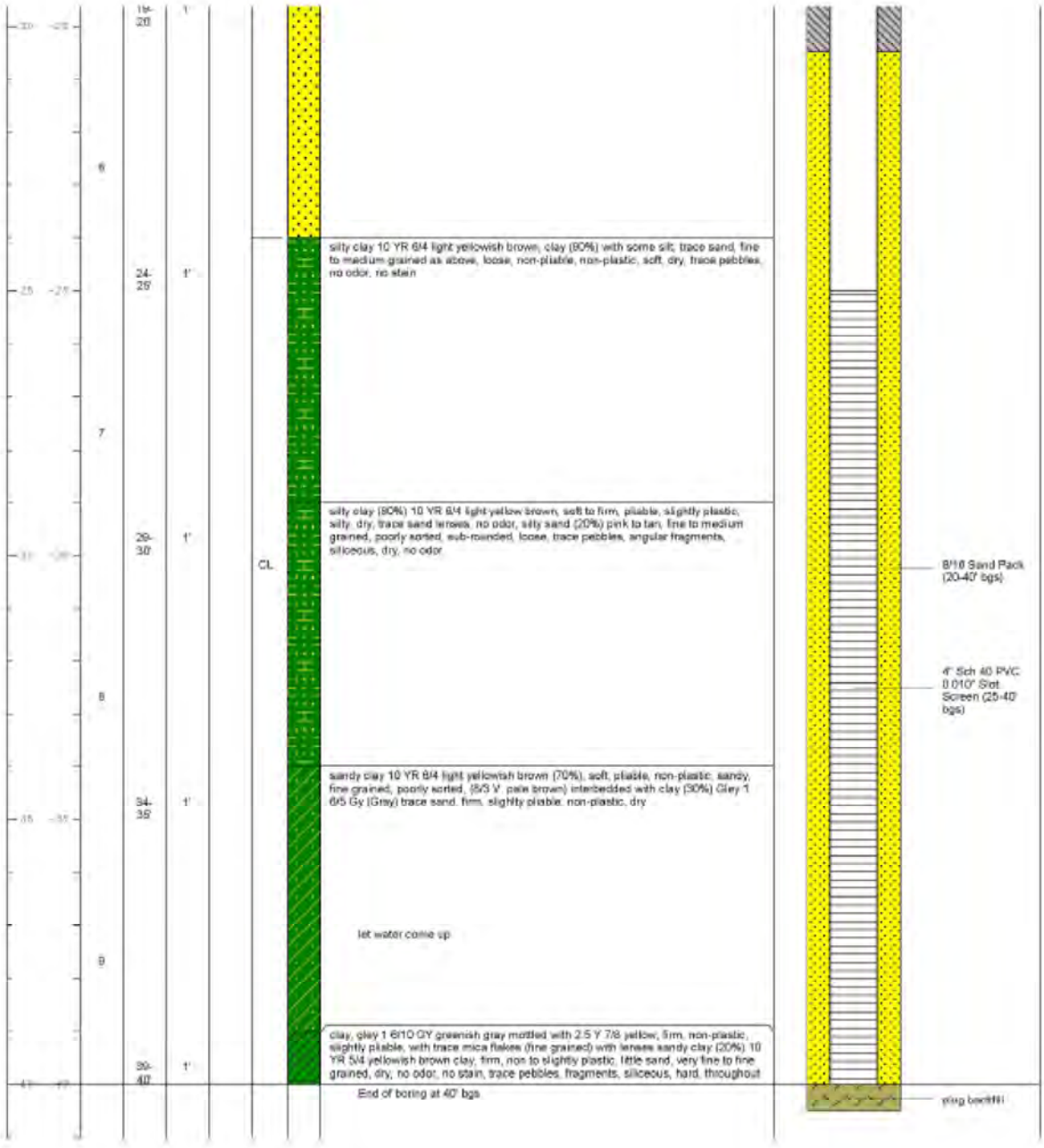
INITIAL WATER LEVEL IN WELL: 30 ft bgs

STATIC WATER LEVEL IN WELL: 26.69 ft btoc



Date Start/Finish: 5/27/2020 **Drilling Company:** HCI **Driller's Name:** Ken Cooper **Drilling Method:** Air Rotary **Sampling Method:** discrete/grab **Rig Type:** Air Rotary	**Northing:** 471,101.89 **Easting:** 630,900.08 **Casing Elevation:** 2,971.33' **Borehole Depth:** 40' **Surface Elevation:** 2,971.57' **Descriptions By:** JS	**Well/Boring ID:** MW-03R **Client:** Chevron **Location:** Candelario 24-1

DEPTH	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID	USCS Code	Geologic Column	Stratigraphic Description	Well/Boring Construction
0	1	0-0.5'	0.5'		SW		sand 7.5 YR 6/4 light brown sand, very fine to fine, little silt, well sorted, sub-well rounded, loose to hard, friable, trace organics, no odor, no stain, dry	Locking J-Plug Concrete (0-0.5')
5	2	4-5'	1'		SM		silty sand 7.5 YR 4/4 brown sand, very fine to fine, moderately sorted, subrounded, massive, loose, silty, trace clay, dry, non-pliable, slight organic smell, no odor, no stain	
10	3	9-10'	1'				gravelly sand 7.5 YR 7/3 pink sand, fine to medium grained, poorly sorted, subrounded, loose, dry, with some granule to pebbles, hard, siliceous and calcareous, throughout, dry, no odor, no stain	Bentonite
15	4	14-15'	1'		SW		gravelly sand 7.5 YR 6/4 light brown sand, fine to coarse grained, poorly sorted, sub-rounded, calcareous cement, loose, some pebbles, siliceous, hard, throughout, dry, no stain, no odor	4" Sch. 40 PVC Riser (0-25' bgs)
	5						gravelly sand, same as above but color change to 10 YR 7/2 light grey	

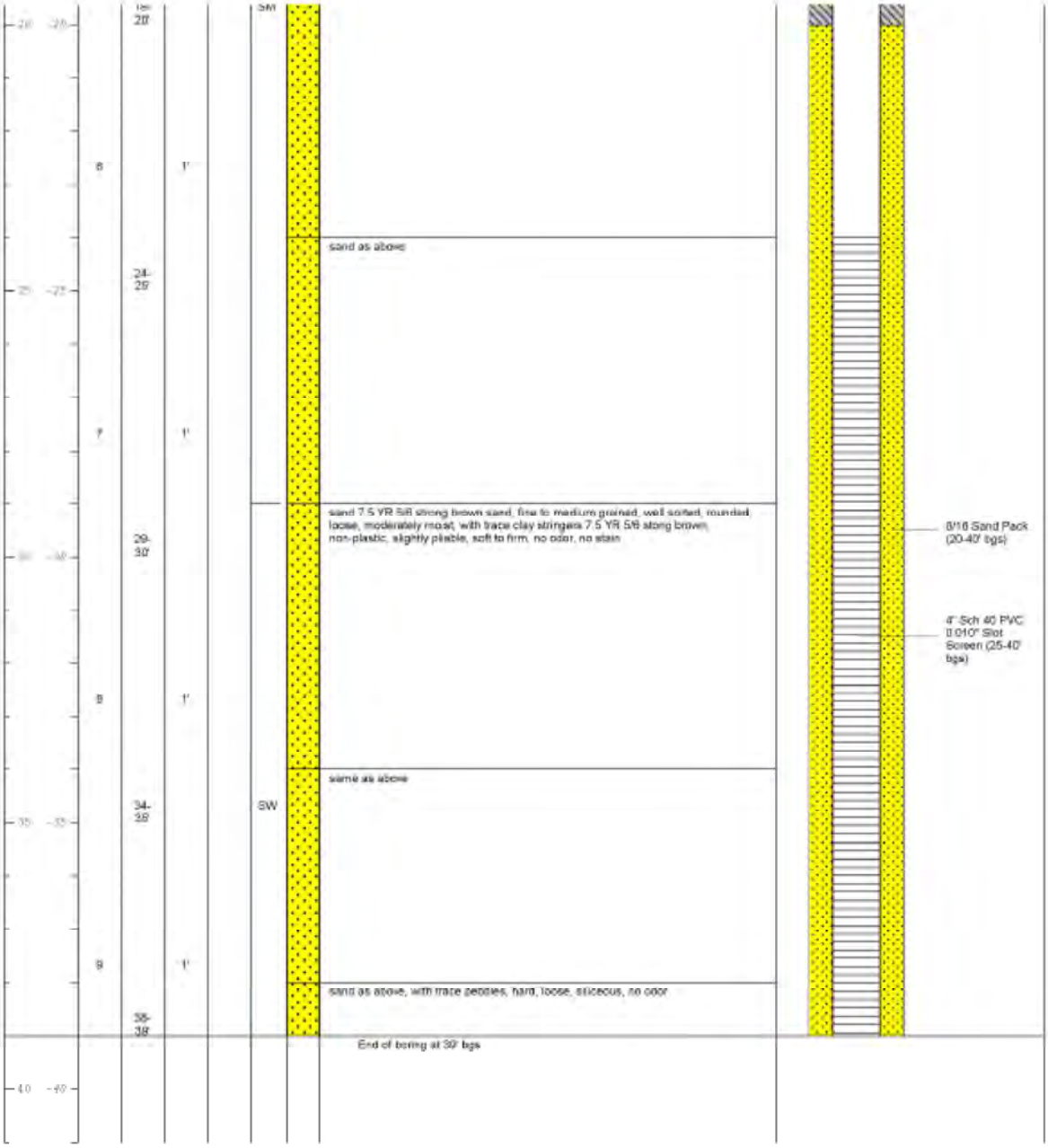


ARCADIS Design & Consultancy for natural and built assets

Remarks:
1. Below Ground Surface (bgs)
2. Northing and Easting State Plane Coordinates shown are Transverse Mercator and conform to the "New Mexico Coordinate System", New Mexico Central Zone, North American Datum of 1983.
3. Elevations shown reference the North American Vertical Datum of 1983.

Date Start/Finish: 5/27/2020 **Drilling Company:** HCI **Driller's Name:** Ken Cooper **Drilling Method:** Air Rotary **Sampling Method:** discrete/grab **Rig Type:** Air Rotary	**Northing:** 471,400.50 **Easting:** 630,212.77 **Casing Elevation:** 2,982.82' **Borehole Depth:** 39' **Surface Elevation:** 2,983.14' **Descriptions By:** JS	**Well/Boring ID:** MW-06 **Client:** Chevron **Location:** Candelario 24-1

DEPTH	Sample /Run Number	Sample/Int/Type	Recovery (feet)	PID	USCS Code	Geologic Column	Stratigraphic Description	Well/Boring Construction
	1	0-0.5'	0.5'		GM		gravelly silt 7.5 YR 6/4 brown silt, with little sand, very fine to fine grained, poorly sorted, loose, dry, little to some granules to cobbles, hard, siliceous, trace roots, no odor	Locking J-Plug Concrete (0-0.5')
	2	4-5'	1'				gravelly sand 5 YR 6/4 light brown sand, very fine to medium grained, moderately sorted, sub-rounded to well rounded, silty, loose, dry, with some pebbles/cobbles throughout, hard, siliceous, loose, sub-rounded, no stain, slight organic odor	
	3		1'					
		9-10'					sand 5 YR 6/4 light red brown, same as above, pebbles/cobbles grade to trace/little throughout, dry, no odor	Bentonite
	4		1'					4" Sch 40 PVC Riser (0-25' bgs)
		14-15'					sand same as above, but color change to 7.5 YR 7/3 pink, dry, loose, trace pebbles	
	5		1'					
							sand as above, becoming very slightly moist	

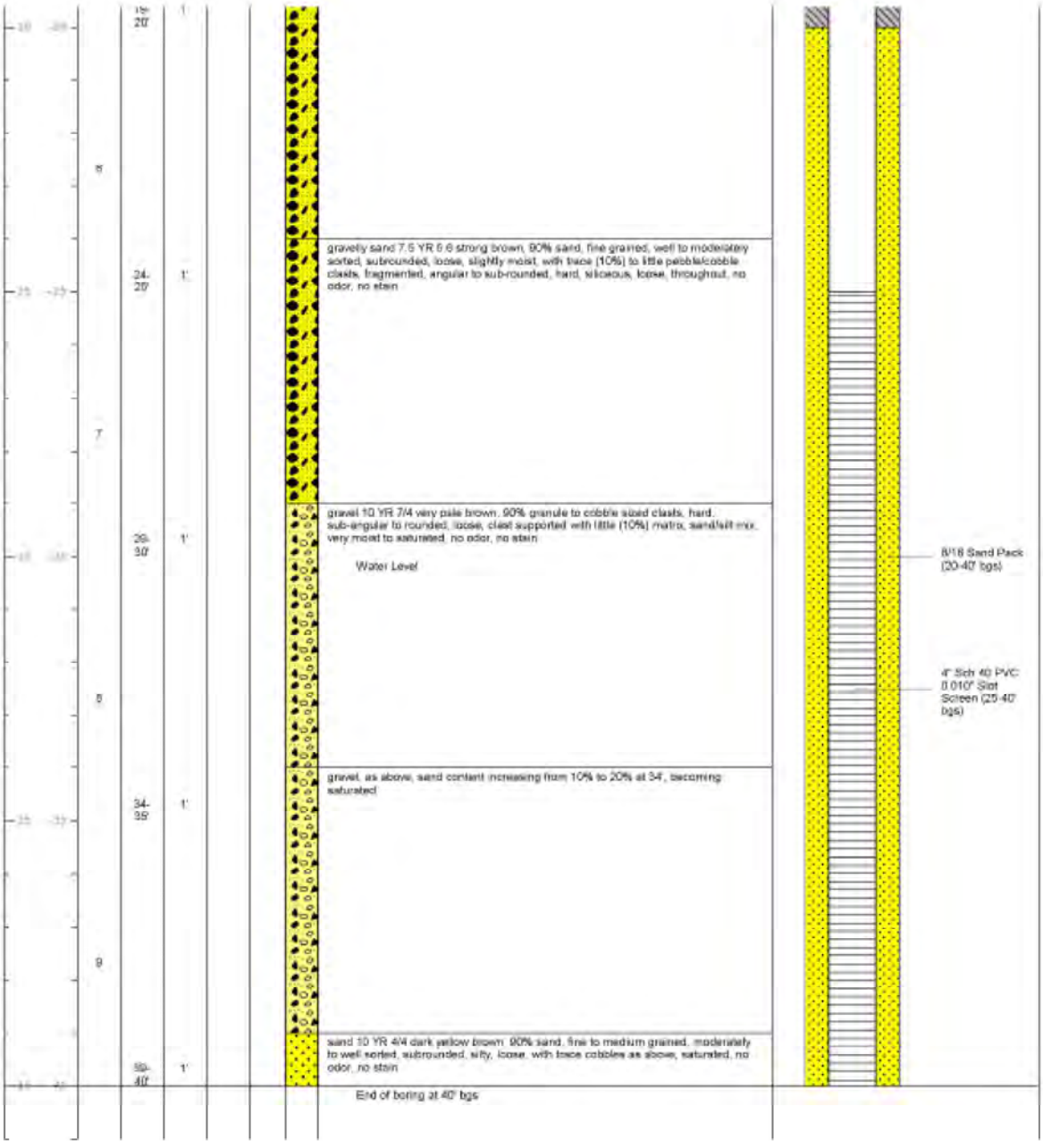


ARCADIS Design & Consultancy for natural and built assets

Remarks:
1. Below Ground Surface (bgs)
2. Northing and Easting State Plane Coordinates shown are Transverse Mercator and conform to the "New Mexico Coordinate System", New Mexico Central Zone, North American Datum of 1983.
3. Elevations shown reference the North American Vertical Datum of 1983

Date Start/Finish: 5/27/2020 **Drilling Company:** HCI **Driller's Name:** Ken Cooper **Drilling Method:** Air Rotary **Sampling Method:** discrete/grab **Rig Type:** Air Rotary	**Northing:** 471,326.59 **Easting:** 629,782.28 **Casing Elevation:** 2,985.07 **Borehole Depth:** 40' **Surface Elevation:** 2,985.43' **Descriptions By:** JS	**Well/Boring ID:** MW-07 **Client:** Chevron **Location:** Candelario 24-1

DEPTH	Sample Run Number	Sample/int/Type	Recovery (feet)	PID	USCS Code	Geologic Column	Stratigraphic Description	Well/Boring Construction
0	1	0-4'	0.5'				gravelly silt 7.5 YR 5/4 brown silt with some granule to pebble grains, poorly sorted, subrounded, loose, hard, siliceous, little to some organics, no stain, no odor	Locking J-Plug Concrete (0.0-5')
5	2	4-6'	1'				gravelly sand 5 YR 6/3 light reddish brown, sandy matrix 80%, fine to medium grained, poorly sorted, sub-angular to sub-rounded, silty, with abundant pebble/cobble clasts, fragmented, angular, siliceous and calcareous, trace roots, dry, no stain, slight organic odor	
10	3	9-10'	1'				gravelly sand, 1.5 YR 7/3 pink, 80% sand, fine to medium grained, moderately sorted, sub-rounded, loose, dry, with 20% pebble clasts, fragmented, hard, siliceous/calcareous, no odor, no stain	Bentonite 4" Sch 40 PVC Riser (0-25' bgs)
15	4	14-15'	1'				same as above	
20	5						gravelly sand, same as above, becoming slightly moist	

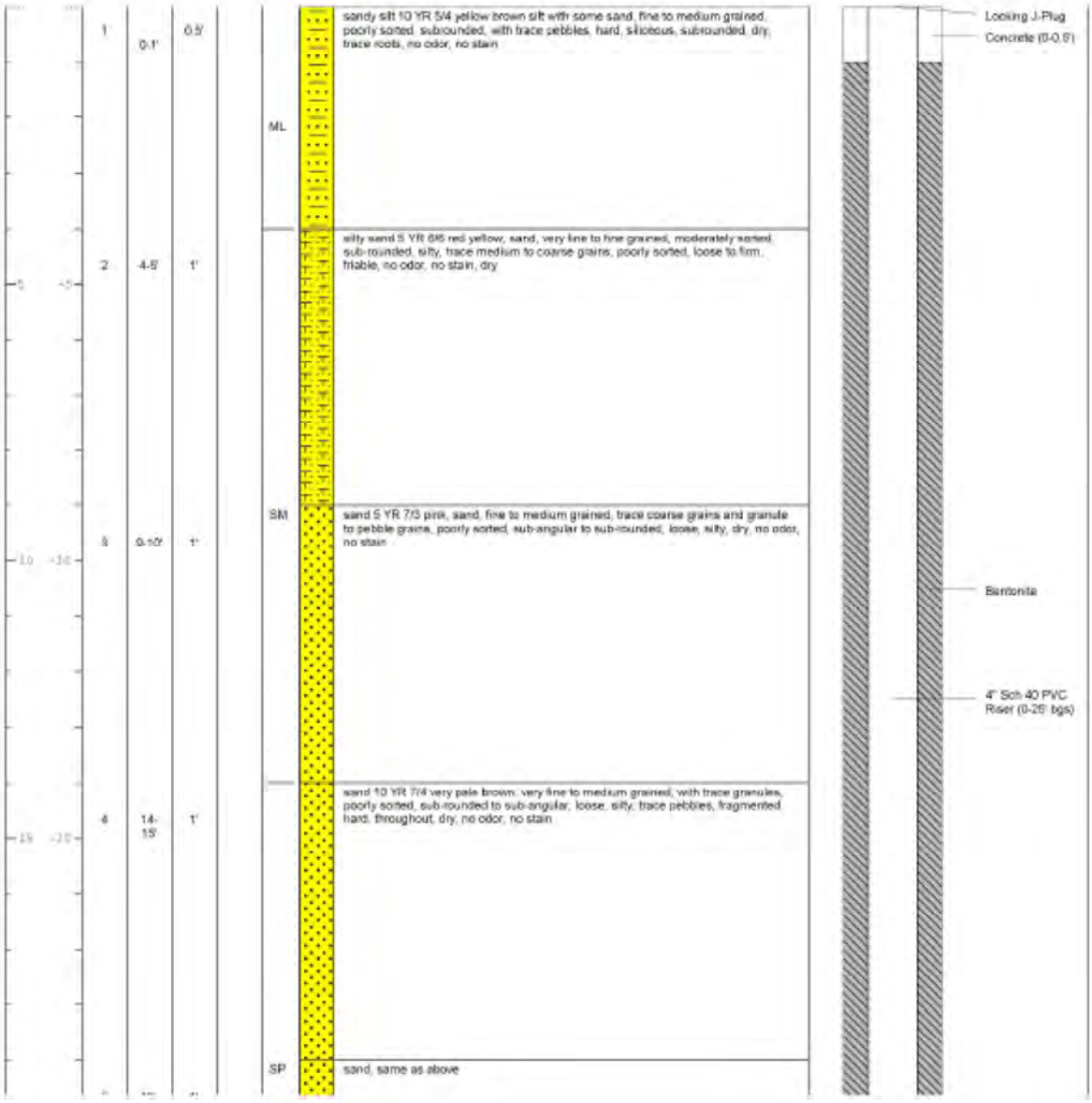


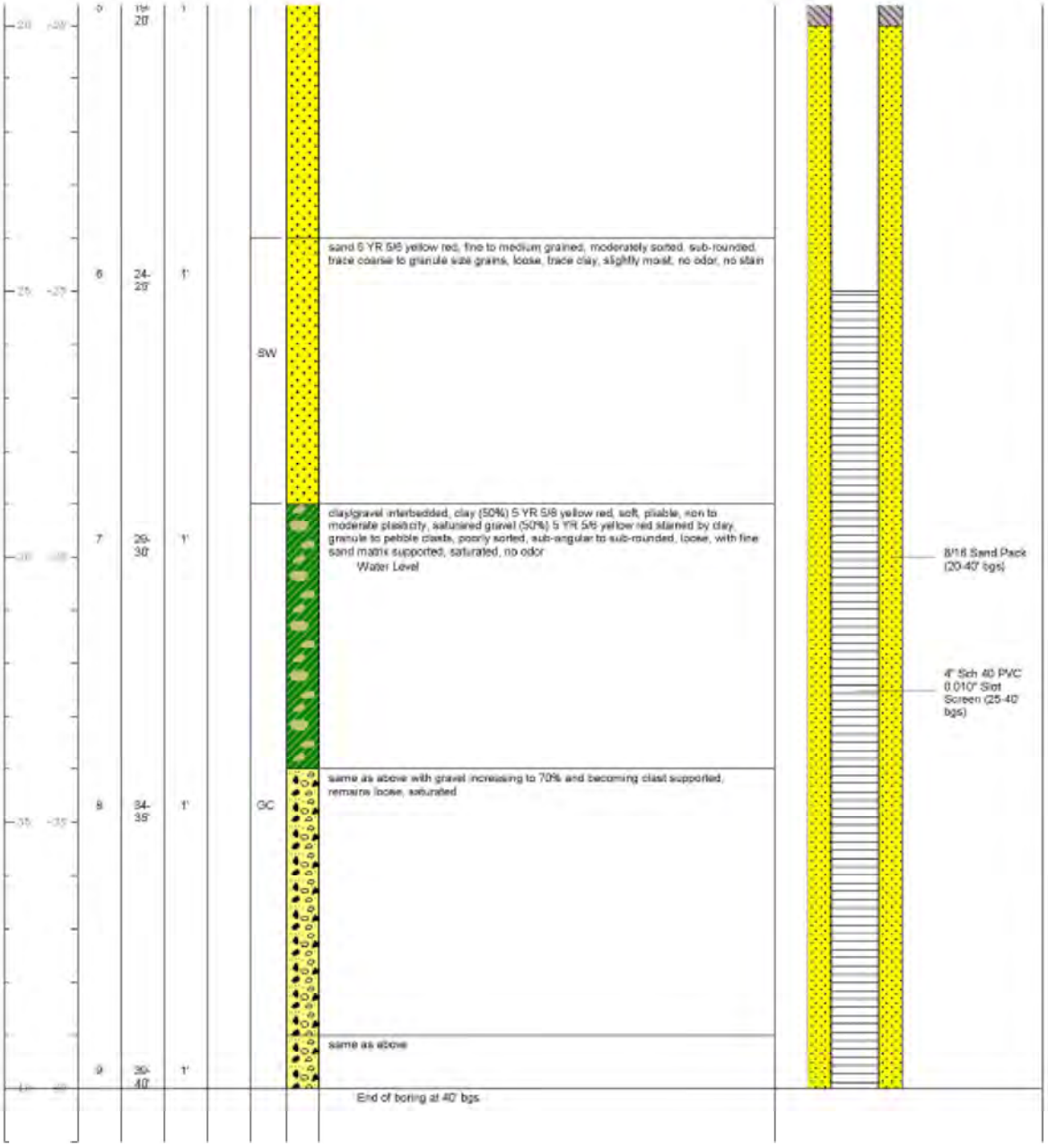
Remarks:
1. Below Ground Surface (bgs)
2. Northing and Easting State Plane Coordinates shown are Transverse Mercator and conform to the "New Mexico Coordinate System", New Mexico Central Zone, North American Datum of 1983.
3. Elevations shown reference the North American Vertical Datum of 1983

ARCADIS Design & Consultancy for natural and built assets

Project: 30051440 Template: LPTEMPLATE3.ldfx
Data File: MW-07 Date: 3/12/2021 Created/Edited by: AD

Date Start/Finish: 5/28/2020 **Drilling Company:** HCI **Driller's Name:** Ken Cooper **Drilling Method:** Air Rotary **Sampling Method:** discrete/grab **Rig Type:** Air Rotary	**Northing:** 470,960.80 **Easting:** 629,719.69 **Casing Elevation:** 2,983.95' **Borehole Depth:** 40' **Surface Elevation:** 2,983.99' **Descriptions By:** JS	**Well/Boring ID:** MW-08 **Client:** Chevron **Location:** Candelario 24-1





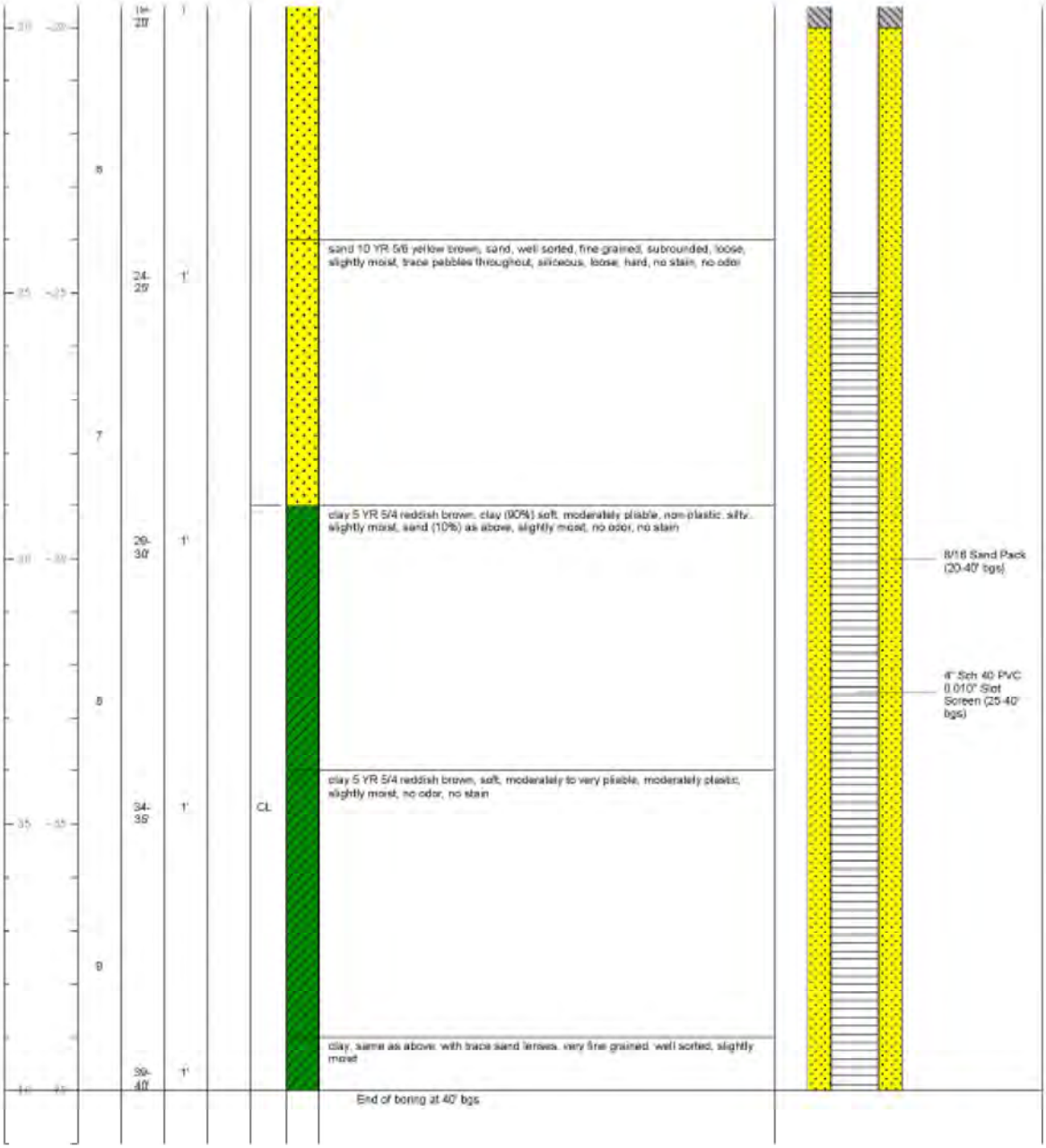
ARCADIS Design & Consultancy for natural and built assets

Remarks:

1. Below Ground Surface (bgs)
2. Northing and Easting State Plane Coordinates shown are Transverse Mercator and conform to the "New Mexico Coordinate System", New Mexico Central Zone, North American Datum of 1983.
3. Elevations shown reference the North American Vertical Datum of 1983

Date Start/Finish: 5/27/2020 **Drilling Company:** HCI **Driller's Name:** Ken Cooper **Drilling Method:** Air Rotary **Sampling Method:** discrete/grab **Rig Type:** Air Rotary	**Northing:** 470,618.79 **Easting:** 630,077.70 **Casing Elevation:** 2,982.58' **Borehole Depth:** 40' **Surface Elevation:** 2,982.79' **Descriptions By:** JS	**Well/Boring ID:** MW-09 **Client:** Chevron **Location:** Candelario 24-1

DEPTH	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID	USCS Code	Geologic Column	Stratigraphic Description	Well/Boring Construction
	1	0-4'	0.5'				silty sand 7.5 YR 6/4 light brown, sand, fine to very fine grained, moderately sorted, silty, loose to friable, trace roots, dry, no odor, no stain	Locking J-Plug Concrete (0.0-0')
	2	4-5'	1'		SM		sand 5 YR 6/4 light red brown, sand, very fine to fine grained, well sorted, sub-rounded, silty, dry, no odor, no stain, trace granule to pebble grains, hard throughout	
	3							
		9-10'	1'				sand, as above, increase in silt content from little to some, trace clay	Bentonite
	4							4" Sch 40 PVC Riser (0.25' bgs)
		14-15'	1'				gravelly sand 7.5 YR 7/3 pink, 70% sand, poorly sorted, fine to medium grained, sub-angular to sub-rounded, silty, loose, dry, with 30% pebble clasts, fragmented, hard, loose, subangular, siliceous, dry, no odor, no stain	
	5							
					SW		gravelly sand, same as above	



Remarks:
1. Below Ground Surface (bgs)
2. Northing and Easting State Plane Coordinates shown are Transverse Mercator and conform to the "New Mexico Coordinate System", New Mexico Central Zone, North American Datum of 1983.
3. Elevations shown reference the North American Vertical Datum of 1983

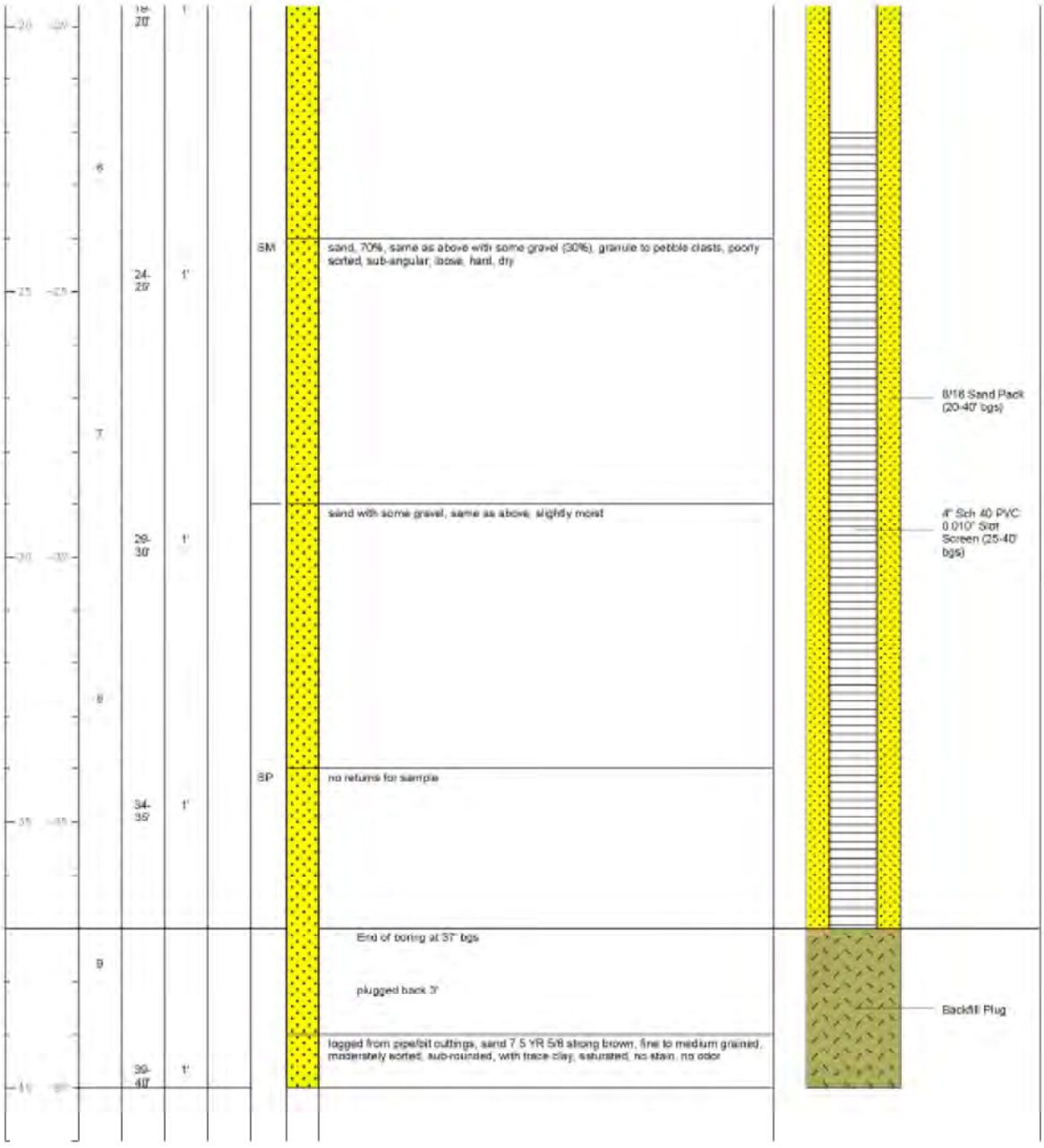
ARCADIS Design & Consultancy for natural and built assets

Project: 30051440 Template: LPTEMPLATE3.ldfx

Data File: MW-09 Date: 3/13/2021 Created/Edited by: AD

Date Start/Finish: 5/28/2020 **Drilling Company:** HCI **Driller's Name:** Ken Cooper **Drilling Method:** Air Rotary **Sampling Method:** discrete/grab **Rig Type:** Air Rotary	**Northing:** 470,929.27 **Easting:** 629,038.79 **Casing Elevation:** 2,987.53' **Borehole Depth:** 37' **Surface Elevation:** 2,987.69' **Descriptions By:** JS	**Well/Boring ID:** MW-10 **Client:** Chevron **Location:** Candelario 24-1

DEPTH	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID	USCS Code	Geologic Column	Stratigraphic Description	Well/Boring Construction
0	1	0-0.5'	0.5'		ML		sandy silt 7.5 YR 5/4 brown, silt with some fine to medium grained sand, moderately to poorly sorted, sub-rounded, loose to friable, trace granule sized grains, trace to little roots, dry, no odor, no stain	Locking J-Plug Concrete (0.0.5')
5	2	4-5'	1'		SM		silty sand 5 YR 6/6 red yellow sand, very fine to medium grained, moderately sorted, sub-rounded, silty, little coarse to granule sized grains, loose, dry, no odor, no stain	
10	3	9-10'	1'				gravelly sand 5 YR 6/6 red yellow sand, very fine to medium grained as above (70%) with granule to pebble grains (30%) fragmented, sub-angular to angular, hard, loose throughout, dry, no odor, no stain	Bentonite 8" Sch 40 PVC Riser (0.25' bgs)
15	4	14-15'	1'		SP		gravelly sand 90%, same as above, becoming slightly moist, clay (10%) 7.5 YR 5/8 strong brown, soft to firm, moderately pliable, moderately plastic	
20	5						sand 10 YR 8/2 very pale brown, very fine to medium grained, moderately sorted, sub-rounded, loose, very slightly moist, trace pebble clasts, loose throughout, hard	



ARCADIS Design & Consultancy for natural and built assets

Remarks:
1. Below Ground Surface (bgs)
2. Northing and Easting State Plane Coordinates shown are Transverse Mercator and conform to the "New Mexico Coordinate System", New Mexico Central Zone, North American Datum of 1983.
3. Elevations shown reference the North American Vertical Datum of 1983

Project: 30051440 Template: LPTEMPLATE3.ldfx
Data File: MW-10 Date: 3/13/2021 Created/Edited by: AD

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

STATE ENGINEER OFFICE
ROSWELL, NEW MEXICO

2016 AUG 18 AM 11: 21

1. GENERAL AND WELL LOCATION

OSE POD NUMBER (WELL NUMBER)	OSE FILE NUMBER(S)
(POD4) C-MW-4	C-03965
WELL OWNER NAME(S)	**PHONE (OPTIONAL)**
Rockcliff Operating New Mexico	
WELL OWNER MAILING ADDRESS	**CITY / STATE / ZIP**
1301 McKinney, Suite 1300	Houston / TX / 77010

WELL LOCATION (FROM GPS)	DEGREES	MINUTES	SECONDS	
LATITUDE	32	17'	37'	N
LONGITUDE	104	02'	42"	W

* ACCURACY REQUIRED: ONE TENTH OF A SECOND

* DATUM REQUIRED: WGS 84

DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS - PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE

SE 1/4 OF NW 1/4 OF NW 1/4 OF SECTION 24, T23S, R28E

2. DRILLING & CASING INFORMATION

LICENSE NUMBER	NAME OF LICENSED DRILLER	NAME OF WELL DRILLING COMPANY
WD-1711	EDWARD BRYAN	STRAUB CORPORATION

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
7-18-16	7-18-16	40'	40'	N/A

COMPLETED WELL IS: ○ ARTESIAN ○ DRY HOLE ◉ SHALLOW (UNCONFINED)

STATIC WATER LEVEL IN COMPLETED WELL (FT): 31'

DRILLING FLUID: ◉ AIR ○ MUD ADDITIVES – SPECIFY:

DRILLING METHOD: ◉ ROTARY ○ HAMMER ○ CABLE TOOL ○ OTHER – SPECIFY:

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
40'	30'	6"	SCH 40 .010 SCREEN	FJ	2"	0.154	.010
30'	0"	6"	SCH 40 RISER	FJ	2"	0.154	RISER

3. ANNULAR MATERIAL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT
40'	28'	6"	7 BAGS OF 20/40 SAND		TOPLOAD
28'	24'	6"	1 BAG OF 3/8 HOLEPLUG		TOPLOAD
24'	0	6"	5% CEMENT GROUT		TOPLOAD

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 06/08/2012)

FILE NUMBER	C-3965	POD NUMBER	4	TRN NUMBER	590331
LOCATION	Mon	23S.28E.24.141			PAGE 1 OF 2

4. HYDROGEOLOGIC LOG OF WELL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES (attach supplemental sheets to fully describe all units)	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER-BEARING ZONES (gpm)
0	2'	2'	TAN FINE SAND - CALICHE - SANDSTONE	○ Y ◉ N	N/A
2'	9'	7'	TAN FINE SAND - WEATHERED LIMESTONE	○ Y ◉ N	N/A
9'	11'	2'	BEIGE FINE SAND - CALICHE SANDSTONE	○ Y ◉ N	N/A
11'	20'	9'	LIGHT TAN FINE SAND - SILICEOUS SANDTONE	○ Y ◉ N	N/A
20'	35'	15'	TAN FINE SAND - SANDSTONE	○ Y ◉ N	N/A
35'	40'	5'	TAN FINE SAND SANDSTONE WITH CLAY	○ Y ◉ N	N/A
TD	40'			○ Y ◉ N	N/A
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	

METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA: ○ PUMP ○ AIR LIFT ○ BAILER ○ OTHER – SPECIFY:

TOTAL ESTIMATED WELL YIELD (gpm):

5. TEST; RIG SUPERVISION

WELL TEST — TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.

MISCELLANEOUS INFORMATION:

8X12 FLUSHMONT
2X2 PAD
EDDY COUNTY NM

PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE:

6. SIGNATURE

THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 20 DAYS AFTER COMPLETION OF WELL DRILLING:

Edward Boyd — Edward Boyd
SIGNATURE OF DRILLER / PRINT SIGNEE NAME

8-14-16
DATE

FOR OSE INTERNAL USE — WR-20 WELL RECORD & LOG (Version 06/08/2012)

FILE NUMBER	C-3965	POD NUMBER	4	TRN NUMBER	590331
LOCATION	MON	23S.28E.2414			PAGE 2 OF 2

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

STATE ENGINEER OFFICE
ROSWELL, NEW MEXICO

2016 AUG 18 AM 11: 20

1. GENERAL AND WELL LOCATION

OSE POD NUMBER (WELL NUMBER): (POD5) C-MW-5	OSE FILE NUMBER(S): C-03965
WELL OWNER NAME(S): Rockcliff Operating New Mexico	PHONE (OPTIONAL):
WELL OWNER MAILING ADDRESS: 1301 McKinney, Suite 1300	CITY: Houston STATE: TX ZIP: 77010

WELL LOCATION (FROM GPS)	DEGREES	MINUTES	SECONDS	
LATITUDE	32	17'	42"	N
LONGITUDE	104	02'	44"	W

* ACCURACY REQUIRED: ONE TENTH OF A SECOND

* DATUM REQUIRED: WGS 84

DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS - PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE

SE 1/4 OF SE 1/4 OF NW 1/4 OF NW 1/4 OF SECTION 24, T23S, R28E

2. DRILLING & CASING INFORMATION

LICENSE NUMBER	NAME OF LICENSED DRILLER	NAME OF WELL DRILLING COMPANY
WD-1711	EDWARD BRYAN	STRAUB CORPORATION

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
7-18-16	7-18-16	35'	35'	N/A

COMPLETED WELL IS: ( ) ARTESIAN ( ) DRY HOLE (•) SHALLOW (UNCONFINED)

STATIC WATER LEVEL IN COMPLETED WELL (FT): 31'

DRILLING FLUID: (•) AIR ( ) MUD ADDITIVES – SPECIFY:

DRILLING METHOD: (•) ROTARY ( ) HAMMER ( ) CABLE TOOL ( ) OTHER – SPECIFY:

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
35'	25'	6"	SCH 40 .010 SCREEN	FJ	2"	0.154	.010
25'	0"	6"	SCH 40 RISER	FJ	2"	0.154	RISER

3. ANNULAR MATERIAL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT
35'	23'	6"	13 BAGS OF 20/40 SAND		TOPLOAD
23'	19'	6"	1 BAG OF 3/8 HOLEPLUG		TOPLOAD
19'	0	6"	5% BENTONITE / CEMENT GROUT		TOPLOAD

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 06/08/2012)

FILE NUMBER	C-3965	POD NUMBER	5	TRN NUMBER	590331
LOCATION	Mon	23S.28E.24.411			PAGE 1 OF 2

4. HYDROGEOLOGIC LOG OF WELL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES (attach supplemental sheets to fully describe all units)	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER-BEARING ZONES (gpm)
0	2'	2'	TAN FINE SAND - SANDSTONE - CALICHE	○ Y ◉ N	N/A
2'	20'	18'	TAN FINE SAND - SILICEOUS SANDSTONE	○ Y ◉ N	N/A
20'	23'	21'	TAN FINE SAND - LARGE ROCK	○ Y ◉ N	N/A
23'	30'	7'	TAN FINE SAND - SANDSTONE	○ Y ◉ N	N/A
30'	35'	5'	TAN FINE SAND	○ Y ◉ N	N/A
TD	35'			○ Y ◉ N	N/A
				○ Y ◉ N	
				○ Y ◉ N	
				○ Y ◉ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	

METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA: ○ PUMP ○ AIR LIFT ○ BAILER ○ OTHER – SPECIFY:

TOTAL ESTIMATED WELL YIELD (gpm):

5. TEST; RIG SUPERVISION

WELL TEST — TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.

MISCELLANEOUS INFORMATION:

8X12 FLUSHMONT
2X2 PAD
EDDY COUNTY NM

PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE:

6. SIGNATURE

THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 20 DAYS AFTER COMPLETION OF WELL DRILLING:

Edward Brown — SIGNATURE OF DRILLER / PRINT SIGNEE NAME

8-14-16 — DATE

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 06/08/2012)

FILE NUMBER	C-3916	POD NUMBER	5	TRN NUMBER	590331
LOCATION	MON	23S.28E.24.441			PAGE 2 OF 2

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

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1. GENERAL AND WELL LOCATION

OSE POD NO. (WELL NO.)	WELL TAG ID NO.	OSE FILE NO(S).
POD 1 (MW-11)		C-4556

WELL OWNER NAME(S)	PHONE (OPTIONAL)
Arcadis	

WELL OWNER MAILING ADDRESS	CITY	STATE	ZIP
1004 N Big Spring Street, Suite 121	Midland	TX	79701

WELL LOCATION (FROM GPS)	DEGREES	MINUTES	SECONDS	
LATITUDE	32.292332	32° 17'	32.39"	N
LONGITUDE	-104.047121	104° 2'	49.63"	W

* ACCURACY REQUIRED: ONE TENTH OF A SECOND

* DATUM REQUIRED: WGS 84

DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS – PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE

2. DRILLING & CASING INFORMATION

LICENSE NO.	NAME OF LICENSED DRILLER	NAME OF WELL DRILLING COMPANY
WD-1731	Ken Cooper	Harrison & Cooper, Inc. (DBA HCI Drilling)

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
08/17/2021	08/17/2021	40	40	36

COMPLETED WELL IS: ☐ ARTESIAN ☐ DRY HOLE ☑ SHALLOW (UNCONFINED)

STATIC WATER LEVEL IN COMPLETED WELL (FT): 36

DRILLING FLUID: ☑ AIR ☐ MUD ADDITIVES – SPECIFY:

DRILLING METHOD: ☑ ROTARY ☐ HAMMER ☐ CABLE TOOL ☐ OTHER – SPECIFY:

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
0	30	8	PVC	FJ	4	Sch 40	
20	40	8	PVC	FJ	4	Sch 40	.010

3. ANNULAR MATERIAL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT
0	18	8	Bentonite	10	Poured/Tremmie
18	40	8	Sand	15	Poured/Tremmie

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 04/30/19)

FILE NO. C-4556	POD NO. 2	TRN NO. 699785
LOCATION 1-3-4 23S-28E-24	WELL TAG ID NO. —	PAGE 1 OF 2

MON-

4. HYDROGEOLOGIC LOG OF WELL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES **(attach supplemental sheets to fully describe all units)**	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER-BEARING ZONES (gpm)
0	1	1	Topsoil	Y N	
1	4	3	Sand	Y N	
4	14	10	Caliche	Y N	
14	17	3	Sand	Y N	
17	25	8	Caliche	(Y) N	
25	36	9	Sand	(Y) N	
36	40	4	Clay	(Y) N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	

METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA:

☐ PUMP ☐ AIR LIFT ☐ BAILER ☐ OTHER – SPECIFY:

TOTAL ESTIMATED WELL YIELD (gpm): 0.00

5. TEST; RIG SUPERVISION

WELL TEST — TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.

MISCELLANEOUS INFORMATION:

OSE DIT SEP 23 2021 AM 11:45

PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE:

6. SIGNATURE

BY SIGNING BELOW, I CERTIFY THAT TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED WELL. I ALSO CERTIFY THAT THE WELL TAG, IF REQUIRED, HAS BEEN INSTALLED AND THAT THIS WELL RECORD WILL ALSO BE FILED WITH THE PERMIT HOLDER WITHIN 30 DAYS AFTER THE COMPLETION OF WELL DRILLING.

Ken Cooper — 09/13/2021

JDZ FOR KEN COOPER

SIGNATURE OF DRILLER / PRINT SIGNEE NAME — DATE

FOR OSE INTERNAL USE — WR-20 WELL RECORD & LOG (Version 04/30/2019)

FILE NO. C-4556	POD NO 2	TRN NO. 699785	
LOCATION 1-3-4 23S-28E-24		WELL TAG ID NO. —	PAGE 2 OF 2

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

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1. GENERAL AND WELL LOCATION

OSE POD NO. (WELL NO.): POD 2 (MW-12)	WELL TAG ID NO.	OSE FILE NO(S.): C-4556
WELL OWNER NAME(S): Arcadis		PHONE (OPTIONAL)
WELL OWNER MAILING ADDRESS: 1004 N Big Spring Street, Suite 121		CITY: Midland STATE: TX ZIP: 79701

WELL LOCATION (FROM GPS)	DEGREES	MINUTES	SECONDS	
LATITUDE	32.292337	32° 17'	32.41"	N
LONGITUDE	-104.045304	104 2'	43.09"	W

* ACCURACY REQUIRED: ONE TENTH OF A SECOND

* DATUM REQUIRED: WGS 84

DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS – PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE

2. DRILLING & CASING INFORMATION

LICENSE NO.	NAME OF LICENSED DRILLER	NAME OF WELL DRILLING COMPANY	
WD-1731	Ken Cooper	Harrison & Cooper, Inc. (DBA HCI Drilling)	
DRILLING STARTED: 08/17/2021	DRILLING ENDED: 08/17/2021	DEPTH OF COMPLETED WELL (FT): 40	BORE HOLE DEPTH (FT): 40
DEPTH WATER FIRST ENCOUNTERED (FT): 36			
COMPLETED WELL IS: ☐ ARTESIAN ☐ DRY HOLE ☑ SHALLOW (UNCONFINED)			STATIC WATER LEVEL IN COMPLETED WELL (FT): 36
DRILLING FLUID: ☑ AIR ☐ MUD ADDITIVES – SPECIFY:			
DRILLING METHOD: ☑ ROTARY ☐ HAMMER ☐ CABLE TOOL ☐ OTHER – SPECIFY:			

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
0	30	8	PVC	FJ	4	Sch 40	
20	40	8	PVC	FJ	4	Sch 40	.010

OSE DIT SEP 23 2021 AM 11:45

3. ANNULAR MATERIAL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT
0	18	8	Bentonite	10	Poured/Tremmie
18	40	8	Sand	15	Poured/Tremmie

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 04/30/19)

FILE NO. C-4556	POD NO. 1	TRN NO. 699785	
LOCATION 1.3.4 23S.28E.24	WELL TAG ID NO. —		PAGE 1 OF 2

MON

4. HYDROGEOLOGIC LOG OF WELL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES **(attach supplemental sheets to fully describe all units)**	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER-BEARING ZONES (gpm)
0	1	1	Topsoil	Y N	
1	4	3	Sand	Y N	
4	14	10	Caliche	Y N	
14	17	3	Sand	Y N	
17	25	8	Caliche	(Y) N	
25	36	9	Sand	(Y) N	
36	40	4	Clay	(Y) N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	

METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA:

☐ PUMP ☐ AIR LIFT ☐ BAILER ☐ OTHER – SPECIFY:

TOTAL ESTIMATED WELL YIELD (gpm): 0.00

5. TEST; RIG SUPERVISION

WELL TEST — TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.

MISCELLANEOUS INFORMATION:

OSE DII SEP 23 2021 AM11:45

PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE:

6. SIGNATURE

BY SIGNING BELOW, I CERTIFY THAT TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED WELL. I ALSO CERTIFY THAT THE WELL TAG, IF REQUIRED, HAS BEEN INSTALLED AND THAT THIS WELL RECORD WILL ALSO BE FILED WITH THE PERMIT HOLDER WITHIN 30 DAYS AFTER THE COMPLETION OF WELL DRILLING.

DCZ FOR KEN COOPER — Ken Cooper — 09/13/2021

SIGNATURE OF DRILLER / PRINT SIGNEE NAME — DATE

FOR OSE INTERNAL USE — WR-20 WELL RECORD & LOG (Version 04/30/2019)

FILE NO. C-4556	POD NO. 1	TRN NO. 699785	
LOCATION L-3-4 23S-28E-24		WELL TAG ID NO. —	PAGE 2 OF 2

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

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1. GENERAL AND WELL LOCATION

OSE POD NO. (WELL NO.)	WELL TAG ID NO.	OSE FILE NO(S).
POD 3 (MW-13)		C-4556

WELL OWNER NAME(S)	PHONE (OPTIONAL)
Arcadis	

WELL OWNER MAILING ADDRESS	CITY	STATE	ZIP
1004 N Big Spring Street, Suite 121	Midland	TX	79701

WELL LOCATION (FROM GPS)	DEGREES	MINUTES	SECONDS	
LATITUDE	32.292514	32° 17'	33.04"	N
LONGITUDE	~~-104.045048~~	104° 2'	17.22"	W

* ACCURACY REQUIRED: ONE TENTH OF A SECOND
* DATUM REQUIRED: WGS 84

DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS – PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE

2. DRILLING & CASING INFORMATION

LICENSE NO.	NAME OF LICENSED DRILLER	NAME OF WELL DRILLING COMPANY
WD-1731	Ken Cooper	Harrison & Cooper, Inc. (DBA HCI Drilling)

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
08/17/2021	08/17/2021	40	40	36

COMPLETED WELL IS: ☐ ARTESIAN ☐ DRY HOLE ☑ SHALLOW (UNCONFINED)

STATIC WATER LEVEL IN COMPLETED WELL (FT): 36

DRILLING FLUID: ☑ AIR ☐ MUD ADDITIVES – SPECIFY:

DRILLING METHOD: ☑ ROTARY ☐ HAMMER ☐ CABLE TOOL ☐ OTHER – SPECIFY:

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
0	30	8	PVC	FJ	4	Sch 40	
20	40	8	PVC	FJ	4	Sch 40	.010

OSE DIT SEP 23 2021 AM11:45

3. ANNULAR MATERIAL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT
0	18	8	Bentonite	10	Poured/Tremmie
18	40	8	Sand	15	Poured/Tremmie

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 04/30/19)

FILE NO. C-4556	POD NO. 3	TRN NO. 699785	
LOCATION 1.3.4 23S-28E-24		WELL TAG ID NO. —	PAGE 1 OF 2

NDN

4. HYDROGEOLOGIC LOG OF WELL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES **(attach supplemental sheets to fully describe all units)**	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER-BEARING ZONES (gpm)
0	1	1	Topsoil	Y N	
1	4	3	Sand	Y N	
4	14	10	Caliche	Y N	
14	17	3	Sand	Y N	
17	25	8	Caliche	(Y) N	
25	36	9	Sand	(Y) N	
36	40	4	Clay	(Y) N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	

METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA:

☐ PUMP ☐ AIR LIFT ☐ BAILER ☐ OTHER – SPECIFY:

TOTAL ESTIMATED WELL YIELD (gpm): 0.00

5. TEST; RIG SUPERVISION

WELL TEST — TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.

MISCELLANEOUS INFORMATION:

OSE DIT SEP 23 2021 AM11:45

PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE:

6. SIGNATURE

BY SIGNING BELOW, I CERTIFY THAT TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED WELL. I ALSO CERTIFY THAT THE WELL TAG, IF REQUIRED, HAS BEEN INSTALLED AND THAT THIS WELL RECORD WILL ALSO BE FILED WITH THE PERMIT HOLDER WITHIN 30 DAYS AFTER THE COMPLETION OF WELL DRILLING.

Ken Cooper — 09/13/2021

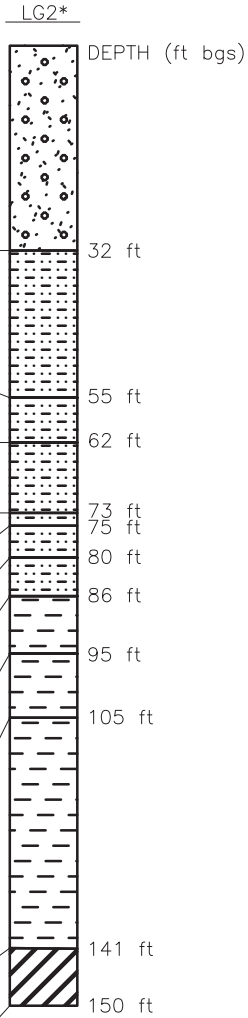
DLZ0 For Ken Cooper

SIGNATURE OF DRILLER / PRINT SIGNEE NAME — DATE

FOR OSE INTERNAL USE — WR-20 WELL RECORD & LOG (Version 04/30/2019)

FILE NO. C-4556	POD NO. 3	TRN NO. 699785	
LOCATION 1-3-4 23S-28E-24		WELL TAG ID NO.	PAGE 2 OF 2

Color	Lithology
moderate orange pink (5YR 8/4) to very pale orange (10YR 8/2)	0.0–32.0 ft caliche
pale yellowish brown (10YR 6/2)	32.0–55.0 ft silt and clay, trace to little fine sand
pale olive (10Y 6/2)	55.0–62.0 ft silt and clay, trace to little fine sand
medium bluish gray (5B 5/1)	62.0–73.0 ft silt and clay, trace to little fine sand
moderate brown (5YR 4/4), light brown (5YR 5/6), medium bluish gray (5B 5/1)	73.0–75.0 ft silt and clay, trace to little fine sand
moderate brown (5YR 4/4) to light brown (5YR 5/6)	75.0–80.0 ft silt and clay, trace to little fine sand
light brownish gray (5YR 6/1) and moderate reddish brown (10R 4/6)	80.0–86.0 ft silt and clay, trace to little fine sand
moderate brown (5YR 4/4)	86.0–95.0 ft fine sand, silt and clay with interbeds of gypsum
moderate reddish brown (10R 4/6)	95.0–105.0 ft fine sand, silt and clay with interbeds of gypsum
moderate reddish brown (10R 4/6) and pale yellowish brown (10YR 6/2)	105.0–141.0 ft fine sand, silt and clay with interbeds of gypsum
light brownish gray (5YR 6/1) and moderate reddish brown (10R 4/6)	141.0–150.0 ft interbedded gypsum and siltstone and sand, silt and clay



*EL = 2971.0 ft above mean sea level

Golder Associates — Denver, Colorado

TITLE

GEOLOGIC LOG BOREHOLE LG2

CLIENT/PROJECT

IMC CARSBAD POTASH COMPANY

DRAWN	SMA/sfd	DATE	MAY 2001	JOB NO.	003–2214
CHECKED	JW	SCALE	N/A	DWG NO./REV. NO.	A056
REVIEWED	LK	FILE NO.	2214A056		**A-2-3**

Dwg Name: C:\Documents and Set ... p\N-BaseFiles\2214a056.dwg
Last Update: Jul 30, 2002 11:40 By:
Last Plot: Jun 04, 2009 12:11 By: sotto
Machine: NOT SET

ATTACHMENT 3

NMOSE Water Rights and Permitting Online Records and USGS Records for Wells Owned by Other Parties

Attachment 3a: NMOSE Well Information

Pod File	Basin	Pod Number	Pod Suffice	Sub File	Township	Range	Section	qtr_4th	qtr_16th	qtr_64th	County	Start Date	Depth (ft)	Pump Type	Total Diversion	Status	Use	Discharge	Aquifer
C-00136-S	C	136	S	23 28 25 B 23 29 30	23S	28E	25	2	1	1	ED	1976/04/05 00:00:00+00	122	TURBIN	657	PMT	IRR	--	NONE.
C-00136	C	136	--	23 28 25 B 23 29 30	23S	28E	25	2	1	3	ED	2002/06/20 00:00:00+00	200	TURBIN	657	PMT	IRR	8 INCH	SHALLOW.
C-00154	C	154	--	--	23S	28E	23	1	2	4	ED	1974/08/15 00:00:00+00	196	TURBIN	0	CLS	CLS	8	--
C-00475	C	475	--	23 28 25 E	23S	28E	25	3	1	2	ED	1953/09/05 00:00:00+00	144	TURBIN	178.5	LIC	IRR		SHALLOW
C-00500	C	500	--	23 28 24 A	23S	28E	24	1	3	4	ED	--	130	--	200.13	DCL	IRR		--
C-00571	C	571	--	--	23S	29E	30	3	3	1	ED	1954/07/25 00:00:00+00	90	TURBIN	3	PMT	DOL		--
C-00868	C	868	--	23 28 23 E 22 28 24	23S	28E	24	1	3	4	ED	--	190	--	936.42	PMT	IRR		--
C-01102	C	1102	--	--	23S	28E	23	2	1	--	ED	1962/12/10 00:00:00+00	100	--	3	PMT	STK		--
C-01108	C	1108	--	--	23S	28E	23	1	2	3	ED	1967/06/20 00:00:00+00	60	--	3	PMT	STK		--
C-01214	C	1214	--	--	23S	28E	13	3	2	1	ED	1964/08/01 00:00:00+00	70	--	0	PMT	EXP		--
C-01215	C	1215	--	--	23S	28E	13	3	2	4	ED	1964/08/03 00:00:00+00	104	--	0	PMT	EXP		--
C-01217	C	1217	--	--	23S	28E	13	3	1	4	ED	1964/08/07 00:00:00+00	87	--	150	PMT	COM		--
C-01443	C	1443	--	--	23S	28E	25	1	2	--	ED	1970/10/27 00:00:00+00	50	--	3	PMT	STK		--
C-01967	C	1967	--	--	23S	28E	13	3	2	--	ED	1981/06/22 00:00:00+00	264	--	3	PMT	DOM		--
C-02182	C	2182	--	--	23S	29E	30	4		--	ED	1989/09/26 00:00:00+00	75	--	0	PMT	PRO		--
C-03001-EXPLORE	C	3001	EXPLORE	--	23S	28E	25	4	1	1	ED	2003/09/10 00:00:00+00	140	--	0	PMT	EXP		--
C-03059-EXPLORE	C	3059	EXPLORE	--	23S	29E	17	3	1	4	ED	2004/04/05 00:00:00+00	0	--	0	PMT			--
C-03146	C	3146		--	23S	28E	24	3	1	1	ED	2005/02/14 00:00:00+00	82	--	3	PMT	DOL		--
C-03965-POD1	C	3965	POD1	--	23S	28E	24	1	3	2	ED	--	0	--	0	PMT	MON		--
C-03965-POD2	C	3965	POD2	--	23S	28E	24	1	3	2	ED	--	0	--	0	PMT	MON		--
C-03965-POD4	C	3965	POD4	--	23S	28E	24	4	1	--	ED	2016/07/18 00:00:00+00	40	--	0	PMT	MON		--
C-03965-POD5	C	3965	POD5	--	23S	28E	24	1	1	4	ED	2016/07/18 00:00:00+00	35	--	0	PMT	MON		--
C-03965-POD6	C	3965	POD6	--	23S	28E	24	1	2	3	ED	--	0	--	0	PMT	MON		--
C-03965-POD7	C	3965	POD7	--	23S	28E	24	1	1	4	ED	--	0	--	0	PMT	MON		--
C-03965-POD8	C	3965	POD8	--	23S	28E	24	1	1	4	ED	--	0	--	0	PMT	MON		--
C-03965-POD9	C	3965	POD9	--	23S	28E	24	1	3	1	ED	--	0	--	0	PMT	MON		--
C-03965-POD10	C	3965	POD10	--	23S	28E	24	1	3	2	ED	--	0	--	0	PMT	MON		--
C-03965-POD11	C	3965	POD11	--	23S	28E	23	2	4	2	ED	--	0	--	0	PMT	MON		--
C-04556-POD1	C	4556	POD1	--	23S	28E	24	1	3	4	ED	2021/08/17 00:00:00+00	40	--	0	PMT	MON		--
C-04556-POD2	C	4556	POD2	--	23S	28E	24	1	3	4	ED	2021/07/17 00:00:00+00	40	--	0	PMT	MON		--
C-04556-POD3	C	4556	POD3	--	23S	28E	24	1	3	4	ED	2021/08/17 00:00:00+00	40	--	0	PMT	MON		--

Attachment 3b: NMOSE Well Information cont.

Pod File	Basin	Pod Number	Sub Basin	Owner Last Name	Owner First Name	Address	City	State	Zip	WR Count	OBJECTID	License Number	Ground Water Source	Percent SH	DTW (ft bgs)	Log Filed	Estimate Y	Casing Size	Lat Long AC
C-00136-S	C	136	CUB	WRIGHT	JOHN OR JANICE	343 ASH RD.	LOVING	NM	88256	1	74934	24	S	100	45	1976/05/28 00:00:00+00	0	16	M
C-00136	C	136	CUB	WRIGHT	JOHN OR JANICE	343 ASH RD.	LOVING	NM	88256	1	74948	1227	S	100	42	2002/08/19 00:00:00+00	1100	18	M
C-00154	C	154	CUB	REID	JOHNNY L.	ROUTE 1, BOX 28	LOVING	NM	88256	1	75168	24	S	100	38	1975/02/11 00:00:00+00	2500	18	M
C-00475	C	475	CUB	WELLS	KEVIN V.	P. O. BOX 218	LOVING	NM	88256	1	75064	0	S	100	38	--	300	14	M
C-00500	C	500	CUB	CARRASCO, JR.	C.A.	PO BOX 26	LOVING	NM	88256	1	75465	0	--	100	0	--	2500	16	M
C-00571	C	3121	C	GIOVENGO, JR.	JOHNNIE	PO BOX 513	LOVING	NM	88256	2	75670	171	S	100	38	1954/09/14 00:00:00+00	1000	14	M
C-00868	C	868	CUB	BRANTLEY, JR.	DRAPER	706 WEST RIVERSIDE	CARLSBAD	NM	88220	3	75018	0	S	100	0	--	0	10	M
C-01102	C	1102	C	REID	C. L.	ROUTE 1, BOX 28	CARLSBAD	NM	88220	1	183888	113	S	100	12	1963/01/30 00:00:00+00	0	6	--
C-01108	C	1108	C	REID	CLARENCE	ROUTE 1, BOX 28	LOVING	NM	88256	1	183899	30	S	100	35	1967/07/06 00:00:00+00	0	6	--
C-01214	C	1214	CUB	U.S. BORAX & CHEM. CORP.	--	P.O. BOX 271	CARLSBAD	NM	88220	1	75630	359	S	100	20	1964/11/02 00:00:00+00	0	0	M
C-01215	C	1215	CUB	U.S. BORAX & CHEM.	--	P.O. BOX 271	CARLSBAD	NM	88220	1	75264	359	S	100	15	1964/09/15 00:00:00+00	0	0	M
C-01217	C	1217	CUB	US BANK NATIONAL ASSOCIATION	INTREPID MINING NM LLC	700 17TH STREET, SUITE 1700	DENVER	CO	80202	2	75537	359	S	100	50	1964/09/15 00:00:00+00	0	0	M
C-01443	C	1443	C	WILLIAMS	S. F.	RR #1, BOX 46	LOVING	NM	88256	1	184387	30	S	100	27	1970/11/17 00:00:00+00	0	8.63	--
C-01967	C	1967	C	COLEMAN	RAE	416 RIVERVIEW	CARLSBAD	NM	88220	1	185214	592	S	100	200	1981/08/04 00:00:00+00	15	6	--
C-02182	C	2182	C	SANTA FE ENERGY	--	500 W. ILLINOIS	MIDLAND	TX	79701	1	186763	1184	S	100	30	1989/10/05 00:00:00+00	350	6.63	
C-03001-EXPLORE	C	3001	CUB	GIOVENGO	JOHNNIE	280 RABBIT HILL RD	LOVING	NM	88256	1	134810	1227	S	100	0	2003/10/20 00:00:00+00	0	0	M
C-03059-EXPLORE	C	3059	CUB	UNITED SALT CORPORATION		P.O. BOX 55	CARLSBAD	NM	88221	1	138887	1184	S	100	65	2004/05/05 00:00:00+00	0	8	M
C-03146	C	3146	C	BRANTLEY JR	DRAPER	706 WEST RIVERSIDE DRIVE	CARLSBAD	NM	88220	1	186401	1348	S	100	36	2005/03/21 00:00:00+00	100	6.63	--
C-03965-POD1	C	3965	CUB	ARCADIS US INC-CHEVRON	--	1004 N BIG SPRING ST STE 121	MIDLAND	TX	79701	1	227959	0	--	0	0	--	0	0	--
C-03965-POD2	C	3965	CUB	ARCADIS US INC-CHEVRON	--	1004 N BIG SPRING ST STE 121	MIDLAND	TX	79701	1	227960	0	--	0	0	--	0	0	--
C-03965-POD4	C	3965	CUB	ARCADIS US INC-CHEVRON	--	1004 N BIG SPRING ST STE 121	MIDLAND	TX	79701	1	227962	1711	S	100	31	2016/08/18 00:00:00+00	0	2	--
C-03965-POD5	C	3965	CUB	ARCADIS US INC-CHEVRON	--	1004 N BIG SPRING ST STE 121	MIDLAND	TX	79701	1	227963	1711	S	100	31	2016/08/18 00:00:00+00	0	2	--
C-03965-POD6	C	3965	CUB	ARCADIS US INC-CHEVRON	--	1004 N BIG SPRING ST STE 121	MIDLAND	TX	79701	1	250948	0	--	0	0	--	0	0	--
C-03965-POD7	C	3965	CUB	ARCADIS US INC-CHEVRON	--	1004 N BIG SPRING ST STE 121	MIDLAND	TX	79701	1	250949	0	--	0	0	--	0	0	--
C-03965-POD8	C	3965	CUB	ARCADIS US INC-CHEVRON	--	1004 N BIG SPRING ST STE 121	MIDLAND	TX	79701	1	250950	0	--	0	0	--	0	0	--
C-03965-POD9	C	3965	CUB	ARCADIS US INC-CHEVRON	--	1004 N BIG SPRING ST STE 121	MIDLAND	TX	79701	1	250951	0	--	0	0	--	0	0	--
C-03965-POD10	C	3965	CUB	ARCADIS US INC-CHEVRON	--	1004 N BIG SPRING ST STE 121	MIDLAND	TX	79701	1	250952	0	--	0	0	--	0	0	--
C-03965-POD11	C	3965	CUB	ARCADIS US INC-CHEVRON	--	1004 N BIG SPRING ST STE 121	MIDLAND	TX	79701	1	250953	0	--	0	0	--	0	0	--
C-04556-POD1	C	4556	CUB	ARCADIS US INC/CHEVRON ENVIRO	--	1004 N BIG SPRING ST STE 121	MIDLAND	TX	79701	1	256498	1731	S	100	36	2021/09/23 00:00:00+00	0	4	--
C-04556-POD2	C	4556	CUB	ARCADIS US INC/CHEVRON ENVIRO	--	1004 N BIG SPRING ST STE 121	MIDLAND	TX	79701	1	256499	1731	S	100	36	2021/09/23 00:00:00+00	0	4	--
C-04556-POD3	C	4556	CUB	ARCADIS US INC/CHEVRON ENVIRO	--	1004 N BIG SPRING ST STE 121	MIDLAND	TX	79701	1	256500	1731	S	100	36	2021/09/23 00:00:00+00	0	4	--

sys_date	Finish Date	pcw_rcv_da	Restrict	Latitude (degree)	Latitude (minute)	Latitude (second)	Longitude (degree)	Longitude (minute)	Longitude (second)	Pod Status	UTM Zone	Easting	Northing	Datum	UTM Source	Other Location
2015/11/24 00:00:00+00	1964/08/24 00:00:00+00	1977/05/12 00:00:00+00	963	0	0	0	0	0	0	ACT	13	590426	3572167	NAD83	G	--
2015/11/24 00:00:00+00	2002/07/09 00:00:00+00	2004/07/15 00:00:00+00	0	0	0	0	0	0	0	ACT	13	590426	3571967	NAD83	G	--
2010/06/23 00:00:00+00	1974/08/20 00:00:00+00	1975/03/03 00:00:00+00	369	0	0	0	0	0	0	ACT	13	588595	3573566	NAD83	G	--
2000/11/14 00:00:00+00	1953/09/21 00:00:00+00	1959/06/09 00:00:00+00	0	0	0	0	0	0	0	ACT	13	589822	3571347	NAD83	G	--
2000/11/21 00:00:00+00	1945/02/28 00:00:00+00	--	0	0	0	0	0	0	0	--	13	589811	3573176	NAD83	G	--
2018/03/13 00:00:00+00	1954/07/30 00:00:00+00	1956/11/01 00:00:00+00	0	0	0	0	0	0	0	ACT	13	591241	3570957	NAD83	G	--
2006/10/11 00:00:00+00	--	--	0	0	0	0	0	0	0	--	13	589811	3573176	NAD83	G	--
2010/07/07 00:00:00+00	1962/12/21 00:00:00+00	--	0	0	0	0	0	0	0	ACT	13	588901	3573672	NAD83	G	--
2010/07/07 00:00:00+00	1930/12/31 00:00:00+00	--	0	0	0	0	0	0	0	ACT	13	588395	3573566	NAD83	G	--
2000/11/29 00:00:00+00	1964/08/02 00:00:00+00	--	0	0	0	0	0	0	0	ACT	13	590010	3574597	NAD83	G	--
2000/11/29 00:00:00+00	1964/08/04 00:00:00+00	--	0	0	0	0	0	0	0	ACT	13	590210	3574397	NAD83	G	--
2020/04/08 00:00:00+00	1964/08/11 00:00:00+00	--	150	32	18	9.2	104	2	46.6	ACT	13	589788.9	3574371.9	NAD83	EG	--
2010/07/16 00:00:00+00	1970/11/08 00:00:00+00	--	0	0	0	0	0	0	0	ACT	13	590123	3572064	NAD83	G	--
2010/08/05 00:00:00+00	1981/07/15 00:00:00+00	--	0	0	0	0	0	0	0	ACT	13	590111	3574498	NAD83	G	N 1/2
2010/11/01 00:00:00+00	1989/09/26 00:00:00+00	--	0	0	0	0	0	0	0	ACT	13	592328	3571048	NAD83	G	--
2005/11/22 00:00:00+00	2003/09/24 00:00:00+00	--	0	0	0	0	0	0	0	ACT	13	590430	3571355	NAD83	G	--
2006/08/14 00:00:00+00	2004/04/06 00:00:00+00	--	0	0	0	0	0	0	0	ACT	13	592993	3574378	NAD83	G	--
2015/07/08 00:00:00+00	2005/02/15 00:00:00+00	--	0	0	0	0	0	0	0	ACT	13	589613	3572970	NAD83	G	--
2016/07/13 00:00:00+00	--	--	0	32	17	39.7	104	2	46.5	PEN	13	589799.6	3573463.5	NAD83	PD	MW-1
2016/07/13 00:00:00+00	--	--	0	32	17	40	104	2	43	PEN	13	589891	3573473.6	NAD83	PD	MW-2
2016/08/22 00:00:00+00	2016/07/18 00:00:00+00	--	0	32	17	37	104	2	42	ACT	13	589918	3573381.4	NAD83	PD	MW-4
2016/08/22 00:00:00+00	2016/07/18 00:00:00+00	--	0	32	17	42	104	2	44	ACT	13	589864.3	3573534.9	NAD83	PD	MW-5
2020/05/12 00:00:00+00	--	--	0	32	17	41.68	104	2	38.02	PEN	13	590020.8	3573526.4	NAD83	PA	MW-03R CANDELARIO 24-1 SWD PRO
2020/05/12 00:00:00+00	--	--	0	32	17	44.09	104	2	43.23	PEN	13	589883.9	3573599.4	NAD83	PA	MW-06 CANDELARIO 24-1 SWD PRO
2020/05/12 00:00:00+00	--	--	0	32	17	43.74	104	2	49.4	PEN	13	589722.6	3573587.2	NAD83	PA	MW-07 CANDELARIO 24-1 SWD PRO
2020/05/12 00:00:00+00	--	--	0	32	17	39.62	104	2	50.04	PEN	13	589707	3573460.2	NAD83	PA	MW-08 CANDELARIO 24-1 SWD PRO
2020/05/12 00:00:00+00	--	--	0	32	17	36.28	104	2	46.02	PEN	13	589813.1	3573358.3	NAD83	PA	MW-09 CANDELARIO 24-1 SWD PRO
2020/05/12 00:00:00+00	--	--	0	32	17	39.81	104	2	57.82	PEN	13	589503.5	3573464.3	NAD83	PA	MW-10 CANDELARIO 24-1 SWD PRO
2022/02/02 00:00:00+00	2021/08/17 00:00:00+00	--	0	32	17	32.39	104	2	49.63	ACT	13	589719.7	3573237.7	NAD83	PD	MW-11
2022/02/02 00:00:00+00	2021/08/17 00:00:00+00	--	0	32	17	32.41	104	2	43.09	ACT	13	589890.8	3573239.8	NAD83	PA	MW-12
2022/02/02 00:00:00+00	2021/08/17 00:00:00+00	--	0	32	17	33.04	104	2	17.22	ACT	13	590567.2	3573265.3	NAD83	PD	MW-13

Pod Rec Number	Sum Rec Number	Contact Last Name	Contact First Name
105712	104534	--	--
105734	104534	--	--
106321	158391	SEE C-94-1	
106035	104821	--	--
107073	105703	--	--
107633	263207	--	--
105907	104781	--	--
255547	250950	--	--
255558	250960	--	--
107505	105116	--	--
106537	106189	--	--
107265	105195	MCGUIRE	TOM
256070	251542	--	--
256951	252417	--	--
258644	254057	FORD	RANDY
195784	185545	--	--
201068	193905	DANIEL	E.J. (DAN)
258238	253666	--	--
302624	290669	GRANT	RUSSELL
302625	290669	GRANT	RUSSELL
302627	290669	GRANT	RUSSELL
302628	290669	GRANT	RUSSELL
326692	290669	GRANT	RUSSELL
326693	290669	GRANT	RUSSELL
326694	290669	GRANT	RUSSELL
326695	290669	GRANT	RUSSELL
326696	290669	GRANT	RUSSELL
326697	290669	GRANT	RUSSELL
332410	321598	JOHNSON	SARAH REBECCA
332411	321598	JOHNSON	SARAH REBECCA
332412	321598	JOHNSON	SARAH REBECCA

NMOSE Water Right Summary Path
http://nmwrrs.ose.state.nm.us/ReportDispatcher?type=WRHTML&name=WaterRightSummaryHTML.jrxml&basin=C&nbr=00136&suffix=
http://nmwrrs.ose.state.nm.us/ReportDispatcher?type=WRHTML&name=WaterRightSummaryHTML.jrxml&basin=C&nbr=00136&suffix=
http://nmwrrs.ose.state.nm.us/ReportDispatcher?type=WRHTML&name=WaterRightSummaryHTML.jrxml&basin=C&nbr=00154&suffix=
http://nmwrrs.ose.state.nm.us/ReportDispatcher?type=WRHTML&name=WaterRightSummaryHTML.jrxml&basin=C&nbr=00475&suffix=
http://nmwrrs.ose.state.nm.us/ReportDispatcher?type=WRHTML&name=WaterRightSummaryHTML.jrxml&basin=C&nbr=00500&suffix=
http://nmwrrs.ose.state.nm.us/ReportDispatcher?type=WRHTML&name=WaterRightSummaryHTML.jrxml&basin=C&nbr=03121&suffix=
http://nmwrrs.ose.state.nm.us/ReportDispatcher?type=WRHTML&name=WaterRightSummaryHTML.jrxml&basin=C&nbr=00868&suffix=
http://nmwrrs.ose.state.nm.us/ReportDispatcher?type=WRHTML&name=WaterRightSummaryHTML.jrxml&basin=C&nbr=01102&suffix=
http://nmwrrs.ose.state.nm.us/ReportDispatcher?type=WRHTML&name=WaterRightSummaryHTML.jrxml&basin=C&nbr=01108&suffix=
http://nmwrrs.ose.state.nm.us/ReportDispatcher?type=WRHTML&name=WaterRightSummaryHTML.jrxml&basin=C&nbr=01214&suffix=
http://nmwrrs.ose.state.nm.us/ReportDispatcher?type=WRHTML&name=WaterRightSummaryHTML.jrxml&basin=C&nbr=01215&suffix=
http://nmwrrs.ose.state.nm.us/ReportDispatcher?type=WRHTML&name=WaterRightSummaryHTML.jrxml&basin=C&nbr=01217&suffix=
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http://nmwrrs.ose.state.nm.us/ReportDispatcher?type=WRHTML&name=WaterRightSummaryHTML.jrxml&basin=C&nbr=03001&suffix=
http://nmwrrs.ose.state.nm.us/ReportDispatcher?type=WRHTML&name=WaterRightSummaryHTML.jrxml&basin=C&nbr=03059&suffix=
http://nmwrrs.ose.state.nm.us/ReportDispatcher?type=WRHTML&name=WaterRightSummaryHTML.jrxml&basin=C&nbr=03146&suffix=
http://nmwrrs.ose.state.nm.us/ReportDispatcher?type=WRHTML&name=WaterRightSummaryHTML.jrxml&basin=C&nbr=03965&suffix=
http://nmwrrs.ose.state.nm.us/ReportDispatcher?type=WRHTML&name=WaterRightSummaryHTML.jrxml&basin=C&nbr=03965&suffix=
http://nmwrrs.ose.state.nm.us/ReportDispatcher?type=WRHTML&name=WaterRightSummaryHTML.jrxml&basin=C&nbr=03965&suffix=
http://nmwrrs.ose.state.nm.us/ReportDispatcher?type=WRHTML&name=WaterRightSummaryHTML.jrxml&basin=C&nbr=03965&suffix=
http://nmwrrs.ose.state.nm.us/ReportDispatcher?type=WRHTML&name=WaterRightSummaryHTML.jrxml&basin=C&nbr=03965&suffix=
http://nmwrrs.ose.state.nm.us/ReportDispatcher?type=WRHTML&name=WaterRightSummaryHTML.jrxml&basin=C&nbr=03965&suffix=
http://nmwrrs.ose.state.nm.us/ReportDispatcher?type=WRHTML&name=WaterRightSummaryHTML.jrxml&basin=C&nbr=03965&suffix=
http://nmwrrs.ose.state.nm.us/ReportDispatcher?type=WRHTML&name=WaterRightSummaryHTML.jrxml&basin=C&nbr=03965&suffix=
http://nmwrrs.ose.state.nm.us/ReportDispatcher?type=WRHTML&name=WaterRightSummaryHTML.jrxml&basin=C&nbr=03965&suffix=
http://nmwrrs.ose.state.nm.us/ReportDispatcher?type=WRHTML&name=WaterRightSummaryHTML.jrxml&basin=C&nbr=03965&suffix=
http://nmwrrs.ose.state.nm.us/ReportDispatcher?type=WRHTML&name=WaterRightSummaryHTML.jrxml&basin=C&nbr=04556&suffix=
http://nmwrrs.ose.state.nm.us/ReportDispatcher?type=WRHTML&name=WaterRightSummaryHTML.jrxml&basin=C&nbr=04556&suffix=
http://nmwrrs.ose.state.nm.us/ReportDispatcher?type=WRHTML&name=WaterRightSummaryHTML.jrxml&basin=C&nbr=04556&suffix=

New Mexico Office of the State Engineer
Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Twn	Rng	X	Y
	C 00136	3	1	2	25	23S	28E	590426	3571967*

Driller License: 1227 **Driller Company:** B & H DRILLING

Driller Name: BEHUNIN,KEITH

Drill Start Date:	06/20/2002	**Drill Finish Date:**	07/09/2002	**Plug Date:**	
Log File Date:	08/19/2002	**PCW Rcv Date:**	07/15/2004	**Source:**	Shallow
Pump Type:	TURBIN	**Pipe Discharge Size:**	8 INCH	**Estimated Yield:**	1100 GPM
Casing Size:	18.00	**Depth Well:**	200 feet	**Depth Water:**	42 feet

Meter Number:	6771	**Meter Make:**	NUFLO
Meter Serial Number:	418839	**Meter Multiplier:**	1.0000
Number of Dials:	5	**Meter Type:**	Diversion
Unit of Measure:	Barrels 42 gal.	**Return Flow Percent:**	
Usage Multiplier:		**Reading Frequency:**	Monthly

Meter Readings (in Acre-Feet)

Read Date	Year	Mtr Reading	Flag	Rdr	Comment	Mtr Amount	Online
04/02/2003	2003	0	A	ms		0	
06/03/2003	2003	59	A	ms		58.635	
08/20/2003	2003	217	A	ab		158.374	
10/27/2003	2003	340	A	TW		122.534	
01/06/2004	2003	350	A	ab		10.004	
04/28/2004	2004	425	A	TW		75.025	
07/14/2004	2004	501	A	TW		75.963	
10/20/2004	2004	505	A	TW		4.177	
01/03/2005	2004	505	A	TW		0	
03/30/2005	2005	505	A	JW		0	
07/06/2005	2005	505	A	JW		0	
01/05/2006	2005	505	A	TW		0	
04/05/2006	2006	505	A	tw		0	
07/06/2006	2006	505	A	tw		0	
01/04/2007	2006	505	A	tw		0	
07/03/2007	2007	505	A	tw		0	
10/10/2007	2007	510	A	tw		4.874	
01/02/2008	2007	510	A	tw		0	
04/24/2008	2008	510	A	tw		0	
07/16/2008	2008	510	A	tw		0	
10/02/2008	2008	510	A	tw		0	
01/15/2009	2008	510	A	tw		0	
04/22/2009	2009	510	A	tw		0	
06/07/2009	2009	510	A	tw		0	
01/06/2010	2009	510	A	tw		0	

06/02/2010	2010	510	A	tw	0
01/02/2011	2010	510	A	tw	0
01/23/2012	2011	555	A	tw	45.628
03/12/2012	2012	577	A	tw	21.604
07/02/2012	2012	663	A	tw	86.237
02/12/2013	2012	707	A	tw	43.734
11/05/2013	2013	826	A	tw	118.915

**YTD Meter Amounts:	Year	Amount
	2003	349.547
	2004	155.165
	2005	0
	2006	0
	2007	4.874
	2008	0
	2009	0
	2010	0
	2011	45.628
	2012	151.575
	2013	118.915
	2015	0
	2016	0

***UTM location was derived from PLSS - see Help**

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New Mexico Office of the State Engineer
Water Right Summary

WR File Number: C 00136 **Subbasin:** CUB **Cross Reference:** -

Primary Purpose: IRR IRRIGATION

Primary Status: PMT PERMIT

Total Acres: 219 **Subfile:** 23 28 25 B 23 29 30 **Header:** -

Total Diversion: 657 **Cause/Case:** -

Owner: JOHN OR JANICE WRIGHT

Documents on File

Trn #	Doc	File/Act	Status 1	Status 2	Transaction Desc.	From/ To	Acres	Diversion	Consumptive
306346	COWNF	2004-06-07	CHG	PRC	C 00136	T	0	0	
235233	CLW	2002-09-05	PMT	PCW	C 00136	T	0	0	
235233	CLW	2002-09-05	PMT	PCW	C 00136	F	0	0	
235863	REPAR	2002-07-17	PMT	LOG	C 00136 S	T	0	0	
224103	ADM	2002-02-19	PMT	APR	C 00136	T	0	0	
194065	COWNF	1999-04-02	CHG	PRC	C 136, C 136 S & SP 6	T	0	0	
194058	COWNP	1983-02-10	PMT	APR	C 136 A	F	102	306	
194056	COWNF	1980-09-10	CHG	PRC	C 136, C 136 S & SP 6	T	0	0	
194048	SUPPL	1976-05-03	PMT	APR	C 136 S & SP 6	T	0	0	
194045	COWNF	1976-03-19	CHG	PRC	C 136 & SP 6	T	0	0	
194040	SUPPL	1964-08-20	CAN	FIN	C 136 S & SP 6	T	321	963	
194026	CLW	1954-10-11	PMT	APR	C 136	T	321	963	
194026	CLW	1954-10-11	PMT	APR	C 136	F	321	963	
194017	SUPPL	1954-09-23	CAN	FIN	C 136 S & SP 6	T	321	963	
194034	REPAR	1954-09-10	PMT	APR	C 136	T	0	0	
194004	DCL	1948-03-22	DCL	PRC	C 136 & SP 6	T	321	963	

Current Points of Diversion

(NAD83 UTM in meters)

POD Number	Well Tag	Source	Q 64	Q16	Q4	Sec	Tws	Rng	X	Y	Other Location Desc
C 00136		Shallow	3	1	2	25	23S	28E	590426	3571967*	
C 00136 S		Shallow	1	1	2	25	23S	28E	590426	3572167*	
SP 00006			4	1	3	12	21S	26E	570265	3595078	AVALON DAM GATE TO CID MAIN CA

***An (*) after northing value indicates UTM location was derived from PLSS - see Help**

Priority Summary

Priority	Status	Acres	Diversion	Pod Number	
07/31/1946	PMT	219	657	C 00136	Shallow
				C 00136 S	Shallow
				SP 00006	

Place of Use

Q 256	Q 64	Q16	Q4	Sec	Tws	Rng	Acres	Diversion	CU	Use	Priority	Status	Other Location Desc
			4	25	23S	28E	140	420		IRR	07/31/1946	PMT	
		3	1	30	23S	29E	34	102		IRR	07/31/1946	PMT	
		4	1	30	23S	29E	45	135		IRR	07/31/1946	PMT	

x

Source

Acres	Diversion	CU	Use	Priority	Source	Description
321	963		IRR		GW	
219	657		IRR	07/31/1946	GW	
321	963		IRR		GW	
321	963		IRR		GW	

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New Mexico Office of the State Engineer

Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
	C 00136 S	1	1	2	25	23S	28E	590426	3572167*

Driller License:	24	**Driller Company:**	BRININSTOOL, M.D.		
Driller Name:	HOWARD HEMLER.				
Drill Start Date:	04/05/1976	**Drill Finish Date:**	08/24/1964	**Plug Date:**	
Log File Date:	05/28/1976	**PCW Rcv Date:**	05/12/1977	**Source:**	Shallow
Pump Type:	TURBIN	**Pipe Discharge Size:**		**Estimated Yield:**	0 GPM
Casing Size:	16.00	**Depth Well:**	122 feet	**Depth Water:**	45 feet

***UTM location was derived from PLSS - see Help**

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New Mexico Office of the State Engineer
Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Twn	Rng	X	Y
	C 00154	4	2	1	23	23S	28E	588595	3573566*

Driller License: 24 **Driller Company:** BRININSTOOL, M.D.

Driller Name: HOWARD P. HEMLER

Drill Start Date:	08/15/1974	**Drill Finish Date:**	08/20/1974	**Plug Date:**	
Log File Date:	02/11/1975	**PCW Rcv Date:**	03/03/1975	**Source:**	Shallow
Pump Type:	TURBIN	**Pipe Discharge Size:**	8	**Estimated Yield:**	2500 GPM
Casing Size:	18.00	**Depth Well:**	196 feet	**Depth Water:**	38 feet

Water Bearing Stratifications:	Top	Bottom	Description
	40	50	Sandstone/Gravel/Conglomerate
	80	110	Limestone/Dolomite/Chalk

Casing Perforations:	Top	Bottom
	80	110

Meter Number:	4960	**Meter Make:**	MCCROMETER
Meter Serial Number:	02-8-03200	**Meter Multiplier:**	1.0000
Number of Dials:	3	**Meter Type:**	Diversion
Unit of Measure:	Acre-Feet	**Return Flow Percent:**	
Usage Multiplier:		**Reading Frequency:**	Quarterly

Meter Readings (in Acre-Feet)

Read Date	Year	Mtr Reading	Flag	Rdr	Comment	Mtr Amount	Online
09/17/2001	2001	4	A	RPT		3.653	
09/17/2001	2001	0	A	RPT		0	
09/27/2001	2001	8	A	ms		4.105	
03/26/2002	2002	17	A	MB		9.350	
09/03/2002	2002	74	A	ms		56.750	
04/01/2003	2002	93	A	MS		19.374	
06/03/2003	2003	138	A	ms		44.616	
08/20/2003	2003	199	A	ab		61.646	
10/27/2003	2003	222	A	TW		22.958	
01/06/2004	2003	222	A	ab		0	
05/12/2004	2004	243	A	TW		20.796	
07/14/2004	2004	243	A	ms		0	
10/20/2004	2004	249	A	TW		5.349	
01/03/2005	2004	249	A	TW		0	
03/30/2005	2005	249	A	JW		0	
07/06/2005	2005	249	A	JW		0	
01/05/2006	2005	249	A	TW		0	
04/05/2006	2006	249	A	tw		0	
07/06/2006	2006	249	A	tw		0	

01/04/2007	2006	249	A	tw		0
04/27/2007	2007	249	A	tw		0
04/28/2007	2007	251	A	tw		0
07/03/2007	2007	251	A	tw		0
10/10/2007	2007	251	A	tw		0
01/03/2008	2007	251	A	tw		0
04/24/2008	2008	251	A	tw		0
07/16/2008	2008	253	A	tw		1.264
10/02/2008	2008	283	A	tw		30.342
01/15/2009	2008	283	A	tw		0
04/22/2009	2009	329	A	tw		46.004
06/07/2009	2009	391	A	tw		61.893
01/06/2010	2009	431	A	tw		40.040
06/02/2010	2010	482	A	tw		50.525
01/12/2011	2010	510	A	tw		28.660
01/23/2012	2011	839	A	tw		329.303
03/12/2012	2012	840	A	tw		0.112
07/02/2012	2012	968	A	tw		128.652
02/12/2013	2012	88	R	tw	Meter Rollover	119.870
11/05/2013	2013	378	A	tw		290.001
06/10/2014	2014	378	A	tw		0
01/27/2015	2014	378	A	tw		0
01/28/2015	2015	0	A	tw		0
07/24/2015	2015	0	A	tw		0.360
02/27/2016	2016	0	A	tw		0
08/19/2016	2016	0	A	tw		0
12/28/2016	2016	0	A	tw		0
07/20/2017	2017	0	A	tw		0
01/08/2018	2017	0	A	tw		0

x

**YTD Meter Amounts:	Year	Amount
	2001	7.758
	2002	85.474
	2003	129.220
	2004	26.145
	2005	0
	2006	0
	2007	0
	2008	31.606
	2009	147.937
	2010	79.185
	2011	329.303
	2012	248.634
	2013	290.001
	2014	0
	2015	0.360
	2016	0
	2017	0

x

***UTM location was derived from PLSS - see Help**

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New Mexico Office of the State Engineer
Transaction Summary

CLOSE Closed File

Transaction Number: 461438 **Transaction Desc:** C 00154 **File Date:** 04/21/2004

Primary Status: CLS Closed File
Secondary Status: CLS Closed File
Person Assigned: *******
Applicant: JOHNNY L. REID
Contact: SEE C-94-1

Events

Date	Type	Description	Comment	Processed By
04/21/2004	APP	Application Received	*	*******
04/21/2004	FTN	Finalize non-published Trans.		*******
06/24/2010	QAT	Quality Assurance Completed	SQ2	*******
11/24/2015	QAT	Quality Assurance Completed	DATA SUB BASIN	*******

Change To:

WR File Nbr	Acres	Diversion	Consumptive	Purpose of Use
C 00154	0	0	0	CLS CLOSED FILE

****Place of Use**

Q 256	Q 64	Q 16	Q 4	Sec	Tws	Rng	Acres	Diversion	Consumptive	Use	Priority	Status	Other Loc Desc
		SW	SE	14	23S	28E	0	0	0	CLS		CLS	
	NW	SE	SE	14	23S	28E	0	0	0	CLS		CLS	
	NE	SE	SE	14	23S	28E	0	0	0	CLS		CLS	
	SW	SE	SE	14	23S	28E	0	0	0	CLS		CLS	
	SE	SE	SE	14	23S	28E	0	0	0	CLS		CLS	
		NE	NW	23	23S	28E	0	0	0	CLS		CLS	
		NW	NE	23	23S	28E	0	0	0	CLS		CLS	

Remarks

THIS TRANSACTION HAS BEEN ENTERED TO CLOSE THE FILE. THIS FILE IS NO LONGER IN USE. SEE FILE C-00094-1.

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New Mexico Office of the State Engineer
Water Right Summary

WR File Number: C 00154 **Subbasin:** CUB **Cross Reference:** -

Primary Purpose: CLS CLOSED FILE

Primary Status: CLS CLOSED FILE

Total Acres: **Subfile:** - **Header:** -

Total Diversion: 0 **Cause/Case:** -

Owner: JOHNNY L. REID

Contact: SEE C-94-1

Documents on File

Trn #	Doc	File/Act	Status 1	Status 2	Transaction Desc.	From/ To	Acres	Diversion	Consumptive
461438	CLOSE	2004-04-21	CLS	CLS	C 00154	T	0	0	0
194067	COMB	1972-05-01	PMT	PCW	CLW, C-94 COMB	T	123	369	
194067	COMB	1972-05-01	PMT	PCW	CLW, C-94 COMB	F	0	0	
193728	COWNF	1972-03-27	CHG	PRC	C 00154	T	0	0	
460631	SUPPL	1963-09-16	PMT	APR	C-94	T	0	0	
460609	SUPPL	1952-05-12	CAN	CAN	C-154 POD2	T	0	0	
193724	DCL	1948-04-26	DCL	PRC	C-154 & SP-6	T	80	240	

Current Points of Diversion

(NAD83 UTM in meters)

POD Number	Well Tag	Source	Q 64	Q16	Q4	Sec	Tws	Rng	X	Y	Other Location Desc
C 00048		Shallow	3	3	1	23	23S	28E	587997	3573160	
C 00094		Shallow	3	4	2	22	23S	28E	587588	3573151*	
C 00154		Shallow	4	2	1	23	23S	28E	588595	3573566*	
C 00154 POD2			3	2	1	23	23S	28E	588395	3573566*	
SP 00006			4	1	3	12	21S	26E	570265	3595078	AVALON DAM GATE TO CID MAIN CA

***An (*) after northing value indicates UTM location was derived from PLSS - see Help**

Priority Summary

Priority	Status	Acres	Diversion	Pod Number	
07/31/1947	CLS	0	0	C 00048	Shallow
				C 00094	Shallow
				C 00154	Shallow
				C 00154 POD2	
				SP 00006	

Place of Use

Q 256	Q 64	Q16	Q4	Sec	Tws	Rng	Acres	Diversion	CU	Use	Priority	Status	Other Location Desc
	1	2	23	23S	28E		0	0	0	CLS		CLS	
	2	1	23	23S	28E		0	0	0	CLS		CLS	
	3	4	14	23S	28E		0	0	0	CLS		CLS	
1	4	4	14	23S	28E		0	0	0	CLS		CLS	
2	4	4	14	23S	28E		0	0	0	CLS		CLS	

3	4	4	14	23S	28E		0	0	0	CLS	CLS
4	4	4	14	23S	28E		0	0	0	CLS	CLS

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

New Mexico Office of the State Engineer
Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Twn	Rng	X	Y
	C 00475	2	1	3	25	23S	28E	589822	3571347*

Driller License: **Driller Company:**

Driller Name: HOWARD HEMLER

Drill Start Date:	09/05/1953	**Drill Finish Date:**	09/21/1953	**Plug Date:**	
Log File Date:		**PCW Rcv Date:**	06/09/1959	**Source:**	Shallow
Pump Type:	TURBIN	**Pipe Discharge Size:**		**Estimated Yield:**	300 GPM
Casing Size:	14.00	**Depth Well:**	144 feet	**Depth Water:**	38 feet

Water Bearing Stratifications:	Top	Bottom	Description
	40	80	Sandstone/Gravel/Conglomerate

Casing Perforations:	Top	Bottom
	40	100

***UTM location was derived from PLSS - see Help**

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New Mexico Office of the State Engineer
Water Right Summary

WR File Number: C 00475 **Subbasin:** CUB **Cross Reference:** -

Primary Purpose: IRR IRRIGATION

Primary Status: LIC LICENSED

Total Acres: 59.5 **Subfile:** 23 28 25 E **Header:** -

Total Diversion: 178.5 **Cause/Case:** -

Owner: KEVIN V. WELLS

Owner: JOY SUE GIOVENGO WELLS

Documents on File

Trn #	Doc	File/Act	Status 1	Status 2	Transaction Desc.	From/ To	Acres	Diversion	Consumptive
196619	COWNF	1979-02-12	CHG	PRC	C 00475	T	0	0	
196610	LIC	1960-08-17	LIC	PRC	C 00475 & SP 6	T	59.5	178.5	
196597	ALTD	1954-08-09	PMT	PBU	C 00475 & SP 6	T	66	198	

Current Points of Diversion

(NAD83 UTM in meters)

POD Number	Well Tag	Source	Q 64	Q16	Q4	Sec	Tws	Rng	X	Y	Other Location Desc
C 00475		Shallow	2	1	3	25	23S	28E	589822	3571347*	
SP 00006			4	1	3	12	21S	26E	570265	3595078	AVALON DAM GATE TO CID MAIN CA

***An (*) after northing value indicates UTM location was derived from PLSS - see Help**

Place of Use

Q 256	Q 64	Q16	Q4	Sec	Tws	Rng	Acres	Diversion	CU	Use	Priority	Status	Other Location Desc
	1	1	3	25	23S	28E	7.8	23.4		IRR	07/10/1953	LIC	
	1	2	3	25	23S	28E	9.2	27.6		IRR	07/10/1953	LIC	
	2	1	3	25	23S	28E	7	21		IRR	07/10/1953	LIC	
	2	2	3	25	23S	28E	2.3	6.9		IRR	07/10/1953	LIC	
	3	1	3	25	23S	28E	8.7	26.1		IRR	07/10/1953	LIC	
	3	2	3	25	23S	28E	10	30		IRR	07/10/1953	LIC	
	4	1	3	25	23S	28E	10	30		IRR	07/10/1953	LIC	
	4	2	3	25	23S	28E	4.5	13.5		IRR	07/10/1953	LIC	

Source

Acres	Diversion	CU	Use	Priority	Source	Description
59.5	178.5		IRR	07/10/1953	GW	

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New Mexico Office of the State Engineer

Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
	C 00500	4	3	1	24	23S	28E	589811	3573176*

Driller License: **Driller Company:**

Driller Name: R.A. HIPPS

Drill Start Date: **Drill Finish Date:** 02/28/1945 **Plug Date:**

Log File Date: **PCW Rcv Date:** **Source:**

Pump Type: **Pipe Discharge Size:** **Estimated Yield:** 2500 GPM

Casing Size: 16.00 **Depth Well:** 130 feet **Depth Water:**

***UTM location was derived from PLSS - see Help**

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

New Mexico Office of the State Engineer
Water Right Summary

WR File Number: C 00500 **Subbasin:** CUB **Cross Reference:** -

Primary Purpose: IRR IRRIGATION

Primary Status: DCL DECLARATION

Total Acres: 66.71 **Subfile:** 23 28 24 A **Header:** -

Total Diversion: 200.13 **Cause/Case:** -

Owner: C.A. CARRASCO, JR.

Documents on File

Trn #	Doc	File/Act	Status 1	Status 2	Transaction Desc.	From/ To	Acres	Diversion	Consumptive
197972	COWNF	1991-04-15	CHG	PRC	C 00500	T	0	0	
197969	COWNF	1989-07-17	CHG	PRC	C 00500	T	0	0	
197966	COWNF	1975-07-22	CHG	PRC	C 00500	T	0	0	
197961	COWNF	1965-05-19	CHG	PRC	C 00500	T	0	0	
197950	DCL	1956-03-27	DCL	PRC	C 00500 AMENDED	T	66.71	200.13	
197946	DCL	1953-08-03	DCL	PRC	C 00500	T	85	255	

Current Points of Diversion

(NAD83 UTM in meters)

POD Number	Well Tag	Source	Q 64	Q16	Q4	Sec	Tws	Rng	X	Y	Other Location Desc
C 00500			4	3	1	24	23S	28E	589811	3573176*	
SP 00006			4	1	3	12	21S	26E	570265	3595078	AVALON DAM GATE TO CID MAIN CA

***An (*) after northing value indicates UTM location was derived from PLSS - see Help**

Place of Use

Q 256	Q 64	Q16	Q4	Sec	Tws	Rng	Acres	Diversion	CU	Use	Priority	Status	Other Location Desc
		1		24	23S	28E	51.97	155.91		IRR		DCL	
		3		13	23S	28E	14.74	44.22		IRR		DCL	

Source

Acres	Diversion	CU	Use	Priority	Source	Description
66.71	200.13		IRR		GW	

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File Number: 2-1852 9

NEW MEXICO OFFICE OF THE STATE ENGINEER
APPLICATION FOR PERMIT TO USE UNDERGROUND WATERS
IN ACCORDANCE WITH SECTION 72-12-1 NEW MEXICO STATUTES

1. APPLICANT
Name: Johnnie Gouveno dr
Contact:
Address: P.O Box 513
City: Loving State: NM Zip: 88256
Work Phone:
Home Phone:

2. LOCATION OF WELL (A and/or B or G Required)

A. NW 1/4 SW 1/4 SW 1/4 Section: 30 Township: 23-S Range: 29-E N.M.P.M. in Eddy County.

B. X = _____ feet, Y = _____ feet, N.M. Coordinate System _____ Zone in the _____ Grant.
U.S.G.S. Quad Map _____

C. Give State Engineer File Number if existing well: C-571

D. On land owned by: Johnnie Gouveno

E. Tract No. _____, Map No. _____ of the _____ Hydrographic Survey

F. Lot No. _____, Block No. _____ of Unit/Tract _____ of the _____ Subdivision recorded in _____ County.

G. Latitude: _____ Longitude: _____

H. Other: _____

3. USE OF WATER (check use applied for)

✓ One household, non-commercial trees, lawn and garden not to exceed a total of one acre.

✓ Livestock watering.

Note: If any of the following items are marked, give the name and nature of business or use under item 5 of the additional statements or explanations section.

___ More than one household, non-commercial trees, lawns and gardens not to exceed a total of one acre.

___ Drinking and sanitary purposes and the irrigation of non-commercial trees, shrubs and lawns not to exceed one acre in conjunction with a commercial operation.

___ Prospecting, mining or drilling operations to discover or develop natural resources.

___ Construction of public works, highways and roads.

2011 SEP 27 PM 1:39

Trn Desc: _____ File Number: C-3121
Log Due Date: _____ Trn Number: 314467

File Number: _____

NEW MEXICO OFFICE OF THE STATE ENGINEER
APPLICATION FOR PERMIT TO USE UNDERGROUND WATERS
IN ACCORDANCE WITH SECTION 72-12-1 NEW MEXICO STATUTES

4. WELL INFORMATION (Change, Repair, Drill, Test, Supplement)

Name of well driller and driller license number: _____

Approximate depth ____ feet; Outside diameter of casing ___ inches.

___ Change Location of existing well or replacement well

___ Repair or Deepen:
- ___ Clean out well to original depth
- ___ Deepen well from _____ to _____ feet
- ___ Other _____

___ Drill and test a well for _____ use.

___ Supplemental well

5. ADDITIONAL STATEMENTS OR EXPLANATIONS:

Existing well # C-571

ACKNOWLEDGEMENT FOR NATURAL PERSONS

I, Johnnie Grovengode affirm that the foregoing statements are true to
(Please Print)
the best of my knowledge and belief, By: _____.

John Thompson Jr
Signature

_____
Signature

Trn Desc: _____ File Number: _____

Log Due Date: _____ Trn Number: _____

NEW MEXICO STATE ENGINEER OFFICE
APPLICATION FOR PERMIT TO USE UNDERGROUND WATERS
IN ACCORDANCE WITH SECTION 72-12-1 NEW MEXICO STATUTES

GENERAL CONDITIONS OF APPROVAL (A thru I)

A The maximum amount of water that may be appropriated under this permit is 3.000 acre-feet in any year.

B The well shall be drilled by a driller licensed in the State of New Mexico in accordance with Section 72-12-12 New Mexico Statutes Annotated. A licensed driller shall not be required for the construction of a driven well; provided, that the casing shall not exceed two and three-eighths (2 3/8) inches outside diameter (Section 72-12-12).

C Driller's well record must be filed with the State Engineer within 10 days after the well is drilled or driven. Well record forms will be provided by the State Engineer upon request.

D The casing shall not exceed 7 inches outside diameter except under specific conditions in which reasons satisfactory to the State Engineer are shown.

E If the well under this permit is used at any time to serve more than one household or livestock in a commercial feed lot operation, or for drinking and sanitation purposes in conjunction with a commercial operation, the permittee shall notify the State Engineer Office in writing.

F In the event this well is combined with other wells permitted under Section 72-12-1 New Mexico Statutes Annotated, the total outdoor use shall not exceed the irrigation of one acre of non-commercial trees, lawn, and garden, or the equivalent outside consumptive use, and the total appropriation for household and outdoor use from the entire water distribution system shall not exceed 3.000 acre-feet in any year.

G If artesian water is encountered, all rules and regulations pertaining to the drilling and casing of artesian wells shall be complied with.

H The amount and uses of water permitted under this Application are subject to such limitations as may be imposed by the courts or by lawful municipal and county ordinances which are more restrictive than applicable State Engineer Regulations and the conditions of this permit.

NEW MEXICO STATE ENGINEER OFFICE
APPLICATION FOR PERMIT TO USE UNDERGROUND WATERS
IN ACCORDANCE WITH SECTION 72-12-1 NEW MEXICO STATUTES

GENERAL CONDITIONS OF APPROVAL (Continued)

I The permittee shall utilize the highest and best technology available to ensure conservation of water to the maximum extent practical.

SPECIFIC CONDITIONS OF APPROVAL

4 Use shall be limited to household, non-commercial trees, lawn and garden not to exceed one acre and/or stock use.

11 This permit is for a single household. The total diversion of water under this permit shall not exceed 3.000 acre-feet per year. Permit will be subject to cancellation if the conditions of approval are not met or if the actions of the permittee are not in accordance with the permit.

ACTION OF STATE ENGINEER

This application is approved for the use indicated, subject to all general conditions and to specific conditions listed above.

Witness my hand and seal this 27 day of Sep A.D., 2004

John R. D Antonio, Jr., P.E. , State Engineer

By: Mike Stapeton
Mike Stapeton

The amount, uses and locations of domestic water wells permitted under 72-12-1 (NMSA) are subject to such limitations as may be imposed by the courts or by lawful municipal and county ordinances which are more restrictive than applicable State Engineer Regulations and the conditions of this permit.

John R. D Antonio, Jr., P.E.
State Engineer

Roswell Office
1900 WEST SECOND STREET
ROSWELL, NM 88201

STATE OF NEW MEXICO
OFFICE OF THE STATE ENGINEER

Trn Nbr: ~~314161~~
File Nbr: C 03121

Sep. 27, 2004

JOHNNIE GIOVENGO, JR.
P.O. BOX 513
LOVING, NM 88256

Greetings:

Enclosed is your copy of the 72-12-1 Permit which has been approved. Your attention is called to the Specific and the General Conditions of Approval of this permit.

Sincerely,

for M. Chavez
Mike Stapleton
(505)622-6467

Enclosure

cc: Santa Fe Office

wr_01app

New Mexico Office of the State Engineer
Transaction Summary

72121 All Applications Under Statute 72-12-1

Transaction Number: 493624 **Transaction Desc:** C 03121 **File Date:** 09/27/2004

Primary Status: PMT Permit
Secondary Status: APR Approved
Person Assigned: *******
Applicant: JOHNNIE GIOVENGO, JR.

Events

	Date	Type	Description	Comment	Processed By
get images	09/27/2004	APP	Application Received	*	*******
	09/27/2004	FIN	Final Action on application		*******
	09/27/2004	WAP	General Approval Letter		*******
	02/07/2012	QAT	Quality Assurance Completed	IMAGES	*******
	06/25/2012	ARV	Rec & Arch - file location	C 03121 Box: 752	*******

Change To:

WR File Nbr	Acres	Diversion	Consumptive	Purpose of Use
C 03121		3		DOL 72-12-1 DOMESTIC AND LIVESTOCK WATERING
Point of Diversion				
C 00571		591241	3570957*	

***An (*) after northing value indicates UTM location was derived from PLSS - see Help**

Conditions

I The permittee shall utilize the highest and best technology available to ensure conservation of water to the maximum extent practical.

4 Use shall be limited to household, non-commercial trees, lawn and garden not to exceed one acre and/or stock use.

11 This permit is for a single household. The total diversion of water under this permit shall not exceed 3 acre-feet per year. Permit shall be subject to cancellation if the conditions of approval are not met or if the actions of the permittee are not in accordance with the permit.

Action of the State Engineer

**** See Image For Any Additional Conditions of Approval ****

Approval Code: A - Approved
Action Date: 09/27/2004
State Engineer:

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New Mexico Office of the State Engineer
Water Right Summary

get image list

WR File Number: C 03121 **Subbasin:** C **Cross Reference:** -

Primary Purpose: DOL 72-12-1 DOMESTIC AND LIVESTOCK WATERING

Primary Status: PMT PERMIT

Total Acres: **Subfile:** - **Header:** -

Total Diversion: 3 **Cause/Case:** -

Owner: JOHNNIE GIOVENGO, JR.

Documents on File

	Trn #	Doc	File/Act	Status 1	Status 2	Transaction Desc.	From/ To	Acres	Diversion	Consumptive
get images	493624	72121	2004-09-27	PMT	APR	C 03121	T		3	

Current Points of Diversion

(NAD83 UTM in meters)

POD Number	Well Tag	Source	Q 64	Q16	Q4	Sec	Tws	Rng	X	Y	Other Location Desc
C 00571		Shallow	1	3	3	30	23S	29E	591241	3570957*	

***An (*) after northing value indicates UTM location was derived from PLSS - see Help**

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New Mexico Office of the State Engineer
Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Twns	Rng	X	Y
	C 00868	4	3	1	24	23S	28E	589811	3573176*

Driller License: **Driller Company:**

Driller Name:

Drill Start Date: **Drill Finish Date:** **Plug Date:**

Log File Date: **PCW Rcv Date:** **Source:** Shallow

Pump Type: **Pipe Discharge Size:** **Estimated Yield:**

Casing Size: 10.00 **Depth Well:** 190 feet **Depth Water:**

Meter Number: 5866 **Meter Make:** AMCO

Meter Serial Number: 17069026 **Meter Multiplier:** 100.0000

Number of Dials: 6 **Meter Type:** Diversion

Unit of Measure: Gallons **Return Flow Percent:**

Usage Multiplier: **Reading Frequency:** Quarterly

Meter Readings (in Acre-Feet)

Read Date	Year	Mtr Reading	Flag	Rdr	Comment	Mtr Amount	Online
07/12/2002	2002	0	A	ms		0	
10/22/2002	2002	28	A	ms		28.291	
01/03/2003	2003	28	A	ms		0	
04/01/2003	2003	49	A	ms		20.894	
06/03/2003	2003	80	A	ms		31.241	
08/20/2003	2003	131	A	ab		50.168	
10/27/2003	2003	191	A	TW		60.793	
01/06/2004	2003	191	A	ab		0	
05/12/2004	2004	207	A	TW		15.463	
07/14/2004	2004	207	A	TW		0.005	
10/20/2004	2004	207	A	TW		0	
01/03/2005	2004	207	A	TW		0	
03/30/2005	2005	207	A	JW		0	
07/06/2005	2005	207	A	JW		0	
10/18/2005	2005	207	A	TW		0	
01/05/2006	2005	207	A	TW		0	
04/05/2006	2006	207	A	tw		0	
07/06/2006	2006	244	A	tw		36.665	
01/04/2007	2006	252	A	tw		8.637	
04/27/2007	2007	266	A	tw		13.486	
07/03/2007	2007	271	A	tw		5.620	
10/10/2007	2007	271	A	tw		0	
01/02/2008	2007	271	A	tw		0	
04/24/2008	2008	271	A	tw		0	
07/16/2008	2008	271	A	tw		0	

10/02/2008	2008	271	A	tw	0
01/13/2009	2008	271	A	tw	0
04/22/2009	2009	271	A	tw	0
06/07/2009	2009	271	A	tw	0
01/06/2010	2009	271	A	tw	0
06/02/2010	2010	271	A	tw	0
01/12/2011	2010	271	A	tw	0
01/13/2011	2011	0	A	tw	0
01/25/2012	2011	80059	A	tw	24.569
03/12/2012	2012	80059	A	tw	0
07/12/2012	2012	104975	A	tw	7.646
02/12/2013	2012	167614	A	tw	19.223
11/05/2013	2013	425551	A	tw	79.158
06/10/2014	2014	577458	A	tw	46.619
01/27/2015	2014	582780	A	tw	1.633
07/24/2015	2015	582780	A	tw	0
03/01/2016	2016	582780	A	tw	0
08/19/2016	2016	582780	A	tw	0
09/01/2016	2016	0	A	tw	0
12/28/2016	2016	15325	A	tw	4.703
07/20/2017	2017	41048	A	tw	7.894
01/09/2018	2017	41048	A	tw	0

x

**YTD Meter Amounts:	Year	Amount
	2002	28.291
	2003	163.096
	2004	15.468
	2005	0
	2006	45.302
	2007	19.106
	2008	0
	2009	0
	2010	0
	2011	24.569
	2012	26.869
	2013	79.158
	2014	48.252
	2015	0
	2016	4.703
	2017	7.894

x

***UTM location was derived from PLSS - see Help**

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New Mexico Office of the State Engineer
Transaction Summary

CLWPP Change Location Well & Place & Purpose of Use (GW)

Transaction Number: 322084 **Transaction Desc:** C 868 INTO C 2846 ET AL **File Date:** 11/18/2004

Primary Status: PMT Permit
Secondary Status: APR Approved
Person Assigned: *******
Applicant: BRANTLEY BROS
Contact: DRAPER BRANTLEY JR

Events

Date	Type	Description	Comment	Processed By
11/18/2004	APP	Application Received	*	*******
11/22/2004	NFP	Notice for Publication		*******
12/22/2004	AOP	Affidavit of Publication rcv		*******
01/31/2005	PUA	PBU Approval		*******
01/31/2005	FIN	Final Action on application		*******
02/17/2005	QAT	Quality Assurance Completed	app	*******
03/09/2005	QAT	Quality Assurance Completed	QC CLWPP IMAGE	*******
03/14/2005	QAT	Quality Assurance Completed	IMAGES APP	*******

Change From:

WR File Nbr	Acres	Diversion	Consumptive	Purpose of Use
C 00868	4.3	9.03	0	IRR IRRIGATION

****Point of Diversion**

C 00868	589811	3573176*
C 00869	587188	3572335*
C 00869 S	587388	3572335*
C 00869 S2	587996	3572343*

***An (*) after northing value indicates UTM location was derived from PLSS - see Help**

****Place of Use**

Q 256	Q 64	Q 16	Q 4	Sec	Tws	Rng	Acres	Diversion	Consumptive	Use	Priority	Status	Other Loc Desc
	NE	NE	NE	26	23S	28E	62.7	191.97		IRR	12/31/1946	PMT	

Change To:

WR File Nbr	Acres	Diversion	Consumptive	Purpose of Use
C 02846	0	9.03	0	COM COMMERCIAL

****Point of Diversion**

C 02846	581726	3576726*
C 02846 ENLGD S	582926	3575527*

***An (*) after northing value indicates UTM location was derived from PLSS - see Help**

****Place of Use**

Q 256	Q 64	Q 16	Q 4	Sec	Tws	Rng	Acres	Diversion	Consumptive	Use	Priority	Status	Other Loc Desc
				07	23S	28E	0	9.03	9.03	COM		APP	PARTS OF EDDY COUNTY

x

Remarks

APPLICATION IS MADE TO CHANGE RIGHT FROM IRRIGATION TO COMMERCIAL

x

Action of the State Engineer

**** See Image For Any Additional Conditions of Approval ****

Approval Code: A - Approved

Action Date: 01/31/2005

PBU Due Date: 12/31/2008

State Engineer: John R. D Antonio,

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

New Mexico Office of the State Engineer
Water Right Summary

WR File Number: C 00868 **Subbasin:** CUB **Cross Reference:** -

Primary Purpose: IRR IRRIGATION

Primary Status: PMT PERMIT

Total Acres: 310.85 **Subfile:** 23 28 23 E 22 28 24 **Header:** -

Total Diversion: 936.42 **Cause/Case:** -

Owner: DRAPER BRANTLEY, JR.

Documents on File

Trn #	Doc	File/Act	Status 1	Status 2	Transaction Desc.	From/ To	Acres	Diversion	Consumptive
322084	CLWPP	2005-01-31	PMT	APR	C 868 INTO C 2846 ET AL	F	4.3	9.03	0
320144	CLWPP	2005-01-25	PMT	APR	C 868 INTO C 2846 ET AL (T)	T	0	10.5	10.5
320144	CLWPP	2005-01-25	PMT	APR	C 868 INTO C 2846 ET AL (T)	F	5	15	
320057	CLWPP	2005-01-05	PMT	APR	C 868 INTO C 231A & C 3063 (T)	T	0	21	
320057	CLWPP	2005-01-05	PMT	APR	C 868 INTO C 231A & C 3063 (T)	F	10	30	
267699	COWNP	2003-04-30	PMT	APR	C-00868 & C-869-B	F	100	300	
230703	CPLAS	2002-01-01	PMT	APR	C 00868	T	0	0	
230703	CPLAS	2002-01-01	PMT	APR	C 00868	F	260	780	
216554	COWNF	2001-10-16	CHG	PRC	C 00868	T	0	0	
216510	COWNP	2001-10-15	DCL	APR	C 00868 & C 00869 A	F	150	450	0
221124	CLWPL	2000-07-13	PMT	APR	C 00868 INTO C-870-A	F	14.8	44.4	
230697	CPLAS	1999-07-12	PMT	APR	C 00868	T	33	99	
230697	CPLAS	1999-07-12	PMT	APR	C 00868	F	33	99	
230123	ADM	1974-11-14	PMT	APR	C 00868 & C-869	T	415.15	1245.45	

Current Points of Diversion

(NAD83 UTM in meters)

POD Number	Well Tag	Source	Q 64	Q16	Q4	Sec	Tws	Rng	X	Y	Other Location Desc
C 00868		Shallow	4	3	1	24	23S	28E	589811	3573176*	
C 00869		Shallow	3	3	4	22	23S	28E	587188	3572335*	
C 00869 S		Shallow	4	3	4	22	23S	28E	587388	3572335*	
C 00869 S2		Shallow	3	3	3	23	23S	28E	587996	3572343*	
C 02846		Shallow	4	1	1	07	23S	28E	581726	3576726*	
C 02846 S		Shallow	4	4	4	07	23S	28E	582926	3575527*	
SP 00006			4	1	3	12	21S	26E	570265	3595078	AVALON DAM GATE TO CID MAIN CA

***An (*) after northing value indicates UTM location was derived from PLSS - see Help**

Priority Summary

Priority	Status	Acres	Diversion	Pod Number	
12/31/1946	PMT	310.85	936.42	C 00868	Shallow
					Shallow

C 00869
C 00869 S Shallow
C 00869 S2 Shallow
SP 00006

Place of Use

Q 256	Q 64	Q16	Q4	Sec	Tws	Rng	Acres	Diversion	CU	Use	Priority	Status	Other Location Desc
				02	23S	28E	26	78			01/01/1946	PMT	
				02	23S	28E	6	18			01/01/1946	PMT	
				07	23S	28E		10.5		COM		PMT	
				22	22S	28E	22	66			01/01/1946	PMT	
				22	23S	28E	129.85	389.55		IRR	12/31/1946	PMT	
				22	23S	28E	50	150			01/01/1946	PMT	
				22	23S	28E	75	225			01/01/1946	PMT	
				23	22S	27E	0	21		COM		PMT	PARTS OF EDDY COUNTY
				23	22S	28E	105	315			01/01/1946	PMT	
				23	23S	28E	198	594		IRR	12/31/1946	PMT	
				24	23S	28E	0	0		IRR	01/01/1946	APP	
				24	23S	28E	10	30		IRR		APP	
				24	23S	28E	37	111			01/01/1946	PMT	
				24	23S	28E	186	558		IRR	12/31/1946	PMT	
				24	23S	28E	7	21		IRR	01/01/1946	APP	
				24	23S	28E	0	0		IRR	01/01/1946	APP	
				24	23S	28E	19	57		IRR	01/01/1946	APP	
				26	23S	28E	12	36		IRR	01/01/1946	APP	
			3	24	23S	27E	14.8	44.4		IRR		PMT	
			3	24	23S	28E	100	300		IRR	12/31/1946	APP	
			3	24	23S	28E	5	10.5		IRR		ACT	
			4	23	23S	28E	0	0		IRR	12/31/1946	DCL	as previously described
		1	2	13	24S	27E	14	42		IRR	01/01/1946	PMT	
		3	1	13	24S	27E	19	57		IRR	01/01/1946	PMT	
	2	2	2	26	23S	28E	62.7	191.97		IRR	12/31/1946	PMT	

Source

Acres	Diversion	CU	Use	Priority	Source	Description
398	1194		IRR		GW	
580.85	1742.55		IRR	12/31/1946	GW	
443.2	1299.6		IRR		GW	
315.15	945.45		IRR	12/31/1946	GW	
62.7	191.97	0	IRR		GW	
0	21		COM		GW	

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

SF

205147

READ INSTRUCTIONS ON BACK

Revised June 1991 5.00

APPLICATION TO APPROPRIATE UNDERGROUND WATERS IN ACCORDANCE WITH SECTION 72-12-1 NEW MEXICO STATUTES

1. Name and mailing address of applicant:

Glenn E. Johnson
10 Katy Rd.
Clovis, N.M. 88101

File No. CC-1102

Received: February 21, 1997

2. Describe well location under one of the following subheadings:

a. ____ ¼ NW ¼ NE ¼ of Sec. 27 Twp. 3N Rge. 35E NMPM, in Curry County.

b. X = ____ feet, Y = ____ feet, New Mexico Coordinate System ____ Zone in the ____ Grant.

3. Approximate depth (if known) 400 feet; outside diameter of casing 7 inches.

Name of driller (if known) Jimmy F. Roman

4. Use of water (check use applied for):

✓ One household, non-commercial trees, lawn and garden not to exceed one acre.

____ Livestock watering.

____ More than one household, non-commercial trees, lawns and gardens not to exceed a total of one acre.

____ Drill and test a well intended to be used for domestic, drinking and sanitary or stock water purposes in conjunction with the building or dwelling unit.

____ Drinking and sanitary purposes and the irrigation of non-commercial trees, shrubs and lawns in conjunction with a commercial operation.

____ Prospecting, mining or drilling operations to discover or develop natural resources.

____ Construction of public works, highways and roads.

If any of the last three items were marked, give name and nature of business under Remarks (Item 5).

5. Remarks: ____

'97 FEB 21 AM 8 42 STATE ENGINEER OFFICE ROSWELL, NEW MEXICO

I, Glenn E. Johnson, affirm that the foregoing statements are true to the best of my knowledge and belief and that development shall not commence until approval of the permit has been obtained.

Glenn E. Johnson, Applicant

By: Glenn E. Johnson

Date: February 20, 1997

'97 FEB 24 AM 10 54 STATE ENGINEER OFFICE SANTA FE, NEW MEXICO

ACTION OF STATE ENGINEER

This application is approved for the use indicated, subject to all general conditions and to specific conditions numbered 1 & 4 on the reverse side hereof. This permit will automatically expire unless this well is drilled or driven and the well record filed on or before February 28, 1998.

Thomas C. Turney
~~XXXXXXXXXXXX~~, State Engineer

By: Frank Bradley
Frank Bradley
Basin Supervisor

Date: February 21, 1997

File No. CC-1102

Log Filed:

GENERAL CONDITIONS OF APPROVAL

A. The maximum amount of water that may be appropriated under this permit is 3 acre-feet in any year.
B. The well shall be drilled by a driller licensed in the State of New Mexico in accordance with Section 72-12-12 New Mexico Statutes Annotated. A licensed driller shall not be required for the construction of a driven well; provided, that the casing shall not exceed two and three-eights (2 3/8) inches outside diameter (Section 72-12-12).
C. Driller's well record must be filed with the State Engineer within 10 days after the well is drilled or driven. Failure to file the well record within that time shall result in automatic cancellation of the permit. Well record forms will be provided by the State Engineer upon request.
D. The casing shall not exceed 7 inches outside diameter except under specific conditions in which reasons satisfactory to the State Engineer are shown.
E. If the well under this permit is used at any time to serve more than one household or livestock in a commercial feed lot operation, or for drinking and sanitation purposes in conjunction with a commercial operation, the permittee shall comply with Specific Conditions of Approval number 5(b).
F. In the event this well is combined with other wells permitted under Section 72-12-1 New Mexico Statutes Annotated, the total outdoor use shall not exceed the irrigation of one acre of non-commercial trees, lawn, and garden, or the equivalent outside consumptive use, and the total appropriation for household and outdoor use from the entire water distribution system shall not exceed 3 acre-feet in any year.
G. If artesian water is encountered, all rules and regulations pertaining to the drilling and casing of artesian wells shall be complied with.

SPECIFIC CONDITIONS OF APPROVAL

(Applicable only when so indicated on the other side of this form.)

1. Depth of the well shall not exceed the thickness of the (a) valley fill or (b) Ogallala formation.
2. The well shall be constructed to artesian well specifications and the State Engineer shall be notified before casing is landed or cemented.
3. Appropriation and use of water under this permit shall not exceed a period of one year from the date of approval.
4. Use shall be limited to household, non-commercial trees, lawn and garden not to exceed one acre and/or stock use.
5. A totalizing meter shall be installed before the first branch of the discharge line from the well and the installation shall be acceptable to the State Engineer; the Engineer shall be advised of the make, model, serial number, date of installation, and initial reading of the meter prior to appropriation of water; pumping records shall be submitted to the District Supervisor: (a) for each calendar month, on or before the 10th day of the following month (b) on or before the 10th of January, April, July and October of each year for the three preceding calendar months (c) for each calendar year on or before the 10th day of January of the following year.
6. The well shall be plugged upon completion of the permitted use, and a plugging report shall be filed with the State Engineer within 10 days.
7. Final approval for the use of the well shall be dependent upon a leakage test made by the State Engineer.
8. Use shall be limited strictly to household, drinking and sanitary purposes; water shall be conveyed from the well to the place of use in closed conduit and the effluent returned to the underground so that it will not appear on the surface. No irrigation of lawns, gardens, trees or use in any type of pool or pond is authorized under this permit.
9. No water shall be used from this well unless and until a permit has been issued to an applicant who intends to use the water for any of the purposes described in § 72-12-1.

INSTRUCTIONS

The application shall be made in the name of the actual user of the well for the purpose specified in the application.

The application shall be filed in triplicate and forwarded with a $5.00 filing fee to the State Engineer.

A separate application must be filed for each well to be drilled or used.

If well to be used is an existing well, an explanation (and the file number, if possible) should be given under Remarks (Item 5).

Applications for appropriation, well records and requests for information in the following basins should be addressed to the State Engineer at the location indicated.

Bluewater, Estancia, Rio Grande, Sandia, Gallup and San Juan Basins
District No. 1, 3311 Candelaria, NE, Suite A, Albuquerque, NM 87107

Capitan, Carlsbad, Curry County, Fort Sumner, Hondo, Jal, Lea County, Penasco, Portales, Roswell, Tucumcari and Upper Pecos Basins District No. 2, 1900 West Second Street, Roswell, NM 88201

Animas, Gila-San Francisco, Lordsburg, Mimbres, Nutt-Hockett, Playas, San Simon and Virden Valley Basins
District No. 3, P.O. Box 844, Deming, NM 88031

Lower Rio Grande, Tularosa, Hueco, Las Animas Creek and Hot Springs Basins
District No. 4, 133 Wyatt Drive, Suite 3, Las Cruces, NM 88005

Canadian River Basin
State Engineer Office, P.O. Box 25102, Santa Fe, NM 87504-5102

APPLICATION TO APPROPRIATE UNDERGROUND WATERS IN ACCORDANCE WITH SECTION 72-12-1 NEW MEXICO STATUTES

General Conditions of Approval

H. The amount and uses of water permitted under this Application are subject to such limitations as may be imposed by the courts or by lawful municipal and county ordinances which are more restrictive than applicable State Engineer Regulations and the conditions of this permit.

New Mexico Office of the State Engineer
Transaction Summary

72121 All Applications Under Statute 72-12-1

Transaction Number: 149234 **Transaction Desc:** CC 01102 **File Date:** 02/21/1997

Primary Status: PMT Permit
Secondary Status: LOG Well Log Received
Person Assigned: *******
Applicant: GLENN E. JOHNSON

Events

	Date	Type	Description	Comment	Processed By
get images	02/21/1997	APP	Application Received	*	*******
	02/21/1997	FIN	Final Action on application		*******
	02/21/1997	WAP	General Approval Letter		*******
get images	06/02/1997	LOG	Well Log Received	*	*******
	07/27/2009	QAT	Quality Assurance Completed	XAP	*******
	09/17/2009	QAT	Quality Assurance Completed	IMAGES	*******
	10/13/2009	ARV	Rec & Arch - file location	CC 01102 Box: 1652	*******

Change To:

WR File Nbr	Acres	Diversion	Consumptive	Purpose of Use
CC 01102		3		DOM 72-12-1 DOMESTIC ONE HOUSEHOLD

****Point of Diversion**

CC 01102	660220	3814664*	

***An (*) after northing value indicates UTM location was derived from PLSS - see Help**

Conditions

1A Depth of the well shall not exceed the thickness of the valley fill.

4 Use shall be limited to household, non-commerical trees, lawn and garden not to exceed one acre and/or stock use.

H The amount and uses of water permitted under this Application are subject to such limitations as may be imposed by the courts or by lawful municipal and county ordinances which are more restrictive than applicable State Engineer Regulations and the conditions of this permit.

Action of the State Engineer

**** See Image For Any Additional Conditions of Approval ****

Approval Code: A - Approved
Action Date: 02/21/1997
Log Due Date: 02/28/1998

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

2/2/23 9:52 AM TRANSACTION SUMMARY

New Mexico Office of the State Engineer
Water Right Summary

get image list

WR File Number: C 01102 **Subbasin:** C **Cross Reference:** -

Primary Purpose: STK 72-12-1 LIVESTOCK WATERING

Primary Status: PMT PERMIT

Total Acres: **Subfile:** - **Header:** -

Total Diversion: 3 **Cause/Case:** -

Owner: C. L. REID

Documents on File

	Trn #	Doc	File/Act	Status 1	Status 2	Transaction Desc.	From/ To	Acres	Diversion	Consumptive
get images	462038	72121	1962-11-20	PMT	LOG	C 01102	T		3	

Current Points of Diversion

(NAD83 UTM in meters)

POD Number	Well Tag	Source	Q 64	Q16	Q4	Sec	Tws	Rng	X	Y	Other Location Desc
C 01102		Shallow		1	2	23	23S	28E	588901	3573672*	

***An (*) after northing value indicates UTM location was derived from PLSS - see Help**

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New Mexico Office of the State Engineer
Point of Diversion Summary

Well Tag	POD Number	(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest) Q64	Q16	Q4	Sec	Tws	Rng	(NAD83 UTM in meters) X	Y
	C 01108	3	2	1	23	23S	28E	588395	3573566*

Driller License:	30	**Driller Company:**	BARRON, EMMETT		
Driller Name:	BARRON, EMMETT				
Drill Start Date:	06/20/1967	**Drill Finish Date:**	12/31/1930	**Plug Date:**	
Log File Date:	07/06/1967	**PCW Rcv Date:**		**Source:**	Shallow
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	
Casing Size:	6.00	**Depth Well:**	60 feet	**Depth Water:**	35 feet

***UTM location was derived from PLSS - see Help**

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

New Mexico Office of the State Engineer
Transaction Summary

72121 All Applications Under Statute 72-12-1

Transaction Number: 462076 **Transaction Desc:** C 01108 RPR **File Date:** 04/05/1967

Primary Status: PMT Permit
Secondary Status: LOG Well Log Received
Person Assigned: *******
Applicant: CLARENCE REID

Events

	Date	Type	Description	Comment	Processed By
get images	04/05/1967	APP	Application Received	*	*******
	04/07/1967	FIN	Final Action on application		*******
	04/07/1967	WAP	General Approval Letter		*******
get images	07/06/1967	LOG	Well Log Received	*	*******
	05/11/2011	QAT	Quality Assurance Completed	IMAGES	*******
	05/13/2011	ARV	Rec & Arch - file location	C 01108 Box: 1859	*******

Change To:

WR File Nbr	Acres	Diversion	Consumptive	Purpose of Use
C 01108		3		STK 72-12-1 LIVESTOCK WATERING

****Point of Diversion**

C 01108	588395	3573566*	

***An (*) after northing value indicates UTM location was derived from PLSS - see Help**

Conditions

4 Use shall be limited to household, non-commercial trees, lawn and garden not to exceed one acre and/or stock use.

1A Depth of the well shall not exceed the thickness of the valley fill.

Action of the State Engineer

REPAIRS SHALL BE COMPLETED AND WELL RECORD FILED IN THIS OFFICE ON FOR BEFORE APRIL 30, 1968.

**** See Image For Any Additional Conditions of Approval ****

Approval Code: A - Approved
Action Date: 04/07/1967
Log Due Date: 04/30/1968
State Engineer:

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

New Mexico Office of the State Engineer
Water Right Summary

get image list

WR File Number: C 01108 **Subbasin:** C **Cross Reference:** -

Primary Purpose: STK 72-12-1 LIVESTOCK WATERING

Primary Status: PMT PERMIT

Total Acres: **Subfile:** - **Header:** -

Total Diversion: 3 **Cause/Case:** -

Owner: CLARENCE REID

x

Documents on File

	Trn #	Doc	File/Act	Status 1	Status 2	Transaction Desc.	From/ To	Acres	Diversion	Consumptive
get images	462076	72121	1967-04-07	PMT	LOG	C 01108 RPR	T		3	
get images	462070	72121	1965-10-21	PMT	APR	C 01108	T		3	
get images	462067	72121	1962-12-26	PMT	APR	C 01108	T		3	

x

Current Points of Diversion

(NAD83 UTM in meters)

POD Number	Well Tag	Source	Q64	Q16	Q4	Sec	Tws	Rng	X	Y	Other Location Desc
C 01108		Shallow	3	2	1	23	23S	28E	588395	3573566*	

***An (*) after northing value indicates UTM location was derived from PLSS - see Help**

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New Mexico Office of the State Engineer

Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
	C 01214	1	2	3	13	23S	28E	590010	3574597*

Driller License: 359 **Driller Company:** BRADY, W.H. DRILLING CO.

Driller Name: W.H. BRADY

Drill Start Date:	08/01/1964	**Drill Finish Date:**	08/02/1964	**Plug Date:**	
Log File Date:	11/02/1964	**PCW Rcv Date:**		**Source:**	Shallow
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	
Casing Size:		**Depth Well:**	70 feet	**Depth Water:**	20 feet

Water Bearing Stratifications:	Top	Bottom	Description
	32	35	Sandstone/Gravel/Conglomerate
	38	39	Sandstone/Gravel/Conglomerate

***UTM location was derived from PLSS - see Help**

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New Mexico Office of the State Engineer
Transaction Summary

EXPL Permit To Explore

Transaction Number: 198598 **Transaction Desc:** C 01214 **File Date:** 07/28/1964

Primary Status: PMT Permit
Secondary Status: LOG Well Log Received
Person Assigned: *******
Applicant: U.S. BORAX & CHEM. CORP.

Events

Date	Type	Description	Comment	Processed By
07/28/1964	APP	Application Received	*	*******
07/29/1964	FTN	Finalize non-published Trans.		*******
11/02/1964	LOG	Well Log Received	*	*******

Water Right Information

WR File Nbr	Acres	Diversion	Consumptive	Purpose of Use
C 01214	0	0		EXP EXPLORATION

****Point of Diversion**

C 01214		590010	3574597*

***An (*) after northing value indicates UTM location was derived from PLSS - see Help**

Action of the State Engineer

**** See Image For Any Additional Conditions of Approval ****

Approval Code: A - Approved
Action Date: 07/29/1964
PCW Due Date: 07/29/1965
State Engineer:

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

New Mexico Office of the State Engineer
Water Right Summary

WR File Number: C 01214 **Subbasin:** CUB **Cross Reference:** -

Primary Purpose: EXP EXPLORATION

Primary Status: PMT PERMIT

Total Acres: **Subfile:** - **Header:** -

Total Diversion: 0 **Cause/Case:** -

Owner: U.S. BORAX & CHEM. CORP.

Documents on File

Trn #	Doc	File/Act	Status 1	Status 2	Transaction Desc.	From/ To	Acres	Diversion	Consumptive
198598	EXPL	1964-07-29	PMT	LOG	C 01214	T	0	0	

Current Points of Diversion

(NAD83 UTM in meters)

POD Number	Well Tag	Source	Q 64	Q16	Q4	Sec	Tws	Rng	X	Y	Other Location Desc
C 01214		Shallow	1	2	3	13	23S	28E	590010	3574597*	

***An (*) after northing value indicates UTM location was derived from PLSS - see Help**

Source

Acres	Diversion	CU	Use	Priority	Source	Description
0	0		EXP		GW	

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New Mexico Office of the State Engineer

Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
	C 01215	4	2	3	13	23S	28E	590210	3574397*

Driller License: 359 **Driller Company:** BRADY, W.H. DRILLING CO.

Driller Name: W.H. BRADY

Drill Start Date:	08/03/1964	**Drill Finish Date:**	08/04/1964	**Plug Date:**	
Log File Date:	09/15/1964	**PCW Rcv Date:**		**Source:**	Shallow
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	
Casing Size:		**Depth Well:**	104 feet	**Depth Water:**	15 feet

Water Bearing Stratifications:	Top	Bottom	Description
	19	20	Sandstone/Gravel/Conglomerate
	25	31	Sandstone/Gravel/Conglomerate

***UTM location was derived from PLSS - see Help**

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

New Mexico Office of the State Engineer
Transaction Summary

EXPL Permit To Explore

Transaction Number: 198597 **Transaction Desc:** C 01215 **File Date:** 07/28/1964

Primary Status: PMT Permit
Secondary Status: LOG Well Log Received
Person Assigned: *******
Applicant: U.S. BORAX & CHEM.

Events

Date	Type	Description	Comment	Processed By
07/28/1964	APP	Application Received	*	*******
07/29/1964	FTN	Finalize non-published Trans.		*******
09/15/1964	LOG	Well Log Received	*	*******

Water Right Information

WR File Nbr	Acres	Diversion	Consumptive	Purpose of Use
C 01215	0	0		EXP EXPLORATION

****Point of Diversion**

C 01215		590210	3574397*

***An (*) after northing value indicates UTM location was derived from PLSS - see Help**

Action of the State Engineer

**** See Image For Any Additional Conditions of Approval ****

Approval Code: A - Approved
Action Date: 07/29/1964
PCW Due Date: 07/29/1965
State Engineer:

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

New Mexico Office of the State Engineer
Water Right Summary

WR File Number: C 01215 **Subbasin:** CUB **Cross Reference:** -

Primary Purpose: EXP EXPLORATION

Primary Status: PMT PERMIT

Total Acres: **Subfile:** - **Header:** -

Total Diversion: 0 **Cause/Case:** -

Owner: U.S. BORAX & CHEM.

Documents on File

Trn #	Doc	File/Act	Status 1	Status 2	Transaction Desc.	From/ To	Acres	Diversion	Consumptive
198597	EXPL	1964-07-29	PMT	LOG	C 01215	T	0	0	

Current Points of Diversion

(NAD83 UTM in meters)

POD Number	Well Tag	Source	Q 64	Q16	Q4	Sec	Tws	Rng	X	Y	Other Location Desc
C 01215		Shallow	4	2	3	13	23S	28E	590210	3574397*	

***An (*) after northing value indicates UTM location was derived from PLSS - see Help**

Source

Acres	Diversion	CU	Use	Priority	Source	Description
0	0		EXP		GW	

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

New Mexico Office of the State Engineer
Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Twn	Rng	X	Y
	C 01217	4	1	3	13	23S	28E	589789	3574371

Driller License: 359 **Driller Company:** BRADY, W.H. DRILLING CO.

Driller Name: W.H. BRADY

Drill Start Date: 08/07/1964 **Drill Finish Date:** 08/11/1964 **Plug Date:**

Log File Date: 09/15/1964 **PCW Rcv Date:** **Source:** Shallow

Pump Type: **Pipe Discharge Size:** **Estimated Yield:**

Casing Size: **Depth Well:** 87 feet **Depth Water:** 50 feet

Water Bearing Stratifications:	Top	Bottom	Description
	55	69	Sandstone/Gravel/Conglomerate

Meter Number: 559 **Meter Make:** MCCROMETER

Meter Serial Number: 9541736 **Meter Multiplier:** 1.0000

Number of Dials: 2 **Meter Type:** Diversion

Unit of Measure: Acre-Feet **Return Flow Percent:**

Usage Multiplier: **Reading Frequency:**

Meter Readings (in Acre-Feet)

Read Date	Year	Mtr Reading	Flag	Rdr	Comment	Mtr Amount	Online
12/29/1998	1999	136	A	ms		0	
04/16/1999	1999	155	A	ms		18.685	
06/30/1999	1999	175	A	ms		19.849	
09/29/1999	1999	200	A	ms		25.349	
01/04/2000	1999	226	A	ms		25.613	
04/06/2000	2000	243	A	mb		16.558	
07/01/2000	2000	256	A	mb		13.141	
10/01/2000	2000	276	A	mb		20.241	
10/19/2000	2000	279	A	mb		3.020	
01/05/2001	2000	291	A	ms		12.423	
04/15/2001	2001	306	A	RPT		14.682	
05/09/2001	2001	312	A	ms		5.732	
07/12/2001	2001	322	A	RPT		10.142	
10/01/2001	2001	337	A	RPT		14.798	
11/08/2001	2001	344	A	AM		6.906	
01/01/2003	2002	355	A	ms		11.314	
04/01/2003	2003	366	A	ms		11.314	
04/01/2003	2003	369	A	ms		3.052	
06/04/2003	2003	0	A	ms		0	
06/04/2003	2003	7	A	ms		6.678	
07/01/2003	2003	12	A	ms		5.246	
08/20/2003	2003	22	A	ms		10.412	

10/01/2003	2003	31	A	RPT		8.788
10/27/2003	2003	36	A	TW		4.600
01/02/2004	2003	49	A	ab		13.171
04/01/2004	2004	67	A	RPT		18.345
07/01/2004	2004	93	A	RPT		26.222
10/01/2004	2004	112	A	RPT		18.603
01/02/2005	2004	130	A	RPT		18.402
01/03/2005	2005	31	A	TW		0
01/29/2005	2005	35	A	TW		4.470
03/30/2005	2005	48	A	TW		13.120
07/06/2005	2005	70	A	TW		22.284
01/05/2006	2005	26	R	TW	Meter Rollover	55.703
04/06/2006	2006	49	A	tw		22.428
07/06/2006	2006	71	A	tw		21.985
01/09/2007	2006	26	R	tw	Meter Rollover	55.935
07/03/2007	2007	72	A	tw		45.278
10/11/2007	2007	96	A	tw		24.730
01/03/2008	2007	18	R	tw	Meter Rollover	21.415
04/24/2008	2008	44	A	tw		25.874
07/17/2008	2008	70	A	tw		26.000
10/02/2008	2008	5	R	tw	Meter Rollover	35.752
01/15/2009	2008	28	A	tw		22.762
04/22/2009	2009	50	A	tw		21.303
08/04/2009	2009	72	A	tw		22.625
01/06/2010	2009	6	R	tw	Meter Rollover	33.717
06/02/2010	2010	37	A	tw		31.586
01/12/2011	2010	88	A	tw		50.274
01/23/2012	2011	74	R	tw	Meter Rollover	86.316
03/12/2012	2012	85	A	tw		10.930
07/24/2012	2012	14	R	tw	Meter Rollover	28.647
02/13/2013	2012	56	A	tw		42.801
01/24/2014	2013	26	R	tw	Meter Rollover	69.298
07/22/2014	2014	69	A	tw		43.349
01/27/2015	2014	79	A	tw		10.138
03/11/2016	2015	5	R	tw	Meter Rollover	26.221
08/09/2016	2016	80	A	tw		74.314
12/28/2016	2016	92	A	tw		11.929

x

****YTD Meter Amounts:**	**Year**	**Amount**
	1999	89.496
	2000	65.383
	2001	52.260
	2002	11.314
	2003	63.261
	2004	81.572
	2005	95.577
	2006	100.348
	2007	91.423
	2008	110.388
	2009	77.645
	2010	81.860

2011	86.316
2012	82.378
2013	69.298
2014	53.487
2015	26.221
2016	86.243

Meter Number:	1401	**Meter Make:**	MCCROMETER
Meter Serial Number:	17-09535	**Meter Multiplier:**	100.0000
Number of Dials:	6	**Meter Type:**	Diversion
Unit of Measure:	Gallons	**Return Flow Percent:**	
Usage Multiplier:		**Reading Frequency:**	

Meter Readings (in Acre-Feet)

Read Date	Year	Mtr Reading	Flag	Rdr	Comment	Mtr Amount	Online
04/06/2000	2000	20998	A	mb		0	
07/11/2000	2000	23327	A	mb		2329.000	
03/01/2019	2019	201196	A	RPT		0	
10/31/2019	2019	255120	A	RPT		16.549	

**YTD Meter Amounts:	Year	Amount
	2000	2329.000
	2019	16.549

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

New Mexico Office of the State Engineer
Transaction Summary

EXPL Permit To Explore

Transaction Number: 198804 **Transaction Desc:** C 01217 **File Date:** 07/28/1964

Primary Status: PMT Permit
Secondary Status: LOG Well Log Received
Person Assigned: *******
Applicant: U.S. BORAX & CHEM. CORP.
Contact: RALPH S. BROWN

Events

Date	Type	Description	Comment	Processed By
07/28/1964	APP	Application Received	*	*******
07/29/1964	FTN	Finalize non-published Trans.		*******
09/15/1964	LOG	Well Log Received	*	*******
03/06/2002	QAT	Quality Assurance Completed		*******

Water Right Information

WR File Nbr	Acres	Diversion	Consumptive	Purpose of Use
C 01217	0	0		EXP EXPLORATION

****Point of Diversion**

C 01217		589606	3574593*

***An (*) after northing value indicates UTM location was derived from PLSS - see Help**

Remarks

THE GROUND WATER RIGHTS IN FILE C-1217 & C-1217-S ARE
SUPPLEMENTAL ONLY TO SURFACE FILES 302, 1856 1955 AND 1942

Action of the State Engineer

**** See Image For Any Additional Conditions of Approval ****

Approval Code: A - Approved
Action Date: 07/29/1964
PCW Due Date: 07/29/1965
State Engineer:

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

New Mexico Office of the State Engineer
Water Right Summary

get image list

WR File Number: C 01217 **Subbasin:** CUB **Cross Reference:** -

Primary Purpose: COM COMMERCIAL

Primary Status: PMT PERMIT

Total Acres: 0 **Subfile:** - **Header:** -

Total Diversion: 150 **Cause/Case:** -

Owner: INTREPID MINING NM LLC US BANK NATIONAL ASSOCIATION

Contact: TOM MCGUIRE

x

Documents on File

	Trn #	Doc	File/Act	Status 1	Status 2	Transaction Desc.	From/ To	Acres	Diversion	Consumptive
get images	670930	UWL	2020-03-18	UWL	ACC	C 01217	T	0	0	
	310665	COWNF	2004-05-11	CHG	PRC	C 01217 & C 1217 S	T	0	0	
	188188	SUPPL	2000-05-18	PMT	APR	C 01217	T	0	150	
	315178	CLW	1965-05-07	PMT	APR	C 791	T	0	0	
	198804	EXPL	1964-07-29	PMT	LOG	C 01217	T	0	0	

x

Current Points of Diversion

(NAD83 UTM in meters)

POD Number	Well Tag	Source	Q 64	Q16	Q4	Sec	Tws	Rng	X	Y	Other Location Desc
C 01217		Shallow	4	1	3	13	23S	28E	589789	3574371	
C 01217 S		Shallow	4	1	4	16	23S	29E	595413	3574403*	

***An (*) after northing value indicates UTM location was derived from PLSS - see Help**

x

Place of Use

Q 256	Q 64	Q16	Q4	Sec	Tws	Rng	Acres	Diversion	CU	Use	Priority	Status	Other Location Desc
			2	13	23S	28E	0	150		COM		APP	

x

Source

Acres	Diversion	CU	Use	Priority	Source	Description
0	150		COM		GW	

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

File Number: CC-1443

CC-1443
T 224977
2-13466
5

NEW MEXICO STATE ENGINEER OFFICE
APPLICATION TO APPROPRIATE UNDERGROUND WATERS
IN ACCORDANCE WITH SECTION 72-12-1 NEW MEXICO STATUTES

Date Rec'd March 6, 2002

1. APPLICANT

Name: JOHNOR VIVIAN JIMENEZ Work Phone: _____

Contact: _____ Home Phone: _____

Address: 5200 South Prince Street

City: Clovis State: NM Zip: 88101

2. LOCATION OF WELL (E thru H optional)

A. SW 1/4 SW 1/4 SW 1/4 Section: 32 Township: 2N Range: 36E N.M.P.M. in Curry County.

B. X = _____ feet, Y = _____ feet, N.M. Coordinate System _____ Zone in the _____ Grant.
U.S.G.S. Quad Map _____

C. Give State Engineer File Number if existing well: _____

D. On land owned by: APPLICANTS

E. Tract No. _____, Map No. _____ of the _____

F. Lot No. _____, Block No. _____ of Unit/Tract _____ of the _____ Subdivision recorded in _____ County.

G. Latitude: _____ Longitude: _____

H. Other: _____

OFFICE OF STATE ENGINEER
SANTA FE, NEW MEXICO
2002 MAR 12 PM 1 13

STATE ENGINEER OFFICE
ROSWELL, NEW MEXICO
2002 MAR -6 AM 9:50

3. USE OF WATER (check use applied for)

X One household, non-commercial trees, lawn and garden not to exceed a total of one acre.

___ Livestock watering.

Note: If any of the following items are marked, give the name and nature of business or use under item 5 of the additional statements or explanations section.

___ More than one household, non-commercial trees, lawns and gardens not to exceed a total of one acre.

___ Drinking and sanitary purposes and the irrigation of non-commercial trees, shrubs and lawns not to exceed one acre in conjunction with a commercial operation.

___ Prospecting, mining or drilling operations to discover or develop natural resources.

___ Construction of public works, highways and roads.

Trn Desc: DOMESTIC File Number: CC-1443

Log Due Date: 3-31-2003 Trn Number: 224977

Form: wr-01

NEW MEXICO STATE ENGINEER OFFICE
APPLICATION TO APPROPRIATE UNDERGROUND WATERS
IN ACCORDANCE WITH SECTION 72-12-1 NEW MEXICO STATUTES

4. WELL INFORMATION (Change, Repair, Drill, Test, Supplement)

Name of well driller and driller license number:
Roman Well Service (Jimmy Roman) WD-0395.
Approximate depth 400 feet; outside diameter of casing 7 inches.

___ Change Location of existing well or replacement well

___ Repair or Deepen:
- ___ Clean out well to original depth
- ___ Deepen well from _____ to _____ feet
- ___ Other _____

___ Drill and test a well for _____ use.

___ Supplemental well

5. ADDITIONAL STATEMENTS OR EXPLANATIONS:

ACKNOWLEDGEMENT FOR NATURAL PERSONS

I, Vivian Jimenez (Please Print) affirm that the foregoing statements are true to the best of my knowledge and belief, By: _____.

Signature _____ Signature _____.

NEW MEXICO STATE ENGINEER OFFICE
APPLICATION FOR PERMIT TO USE UNDERGROUND WATERS
IN ACCORDANCE WITH SECTION 72-12-1 NEW MEXICO STATUTES

GENERAL CONDITIONS OF APPROVAL (A thru I)

A The maximum amount of water that may be appropriated under this permit is 3 acre-feet in any year.

B The well shall be drilled by a driller licensed in the State of New Mexico in accordance with Section 72-12-12 New Mexico Statutes Annotated. A licensed driller shall not be required for the construction of a driven well; provided, that the casing shall not exceed two and three-eighths (2 3/8) inches outside diameter (Section 72-12-12).

C Driller's well record must be filed with the State Engineer within 10 days after the well is drilled or driven. Well record forms will be provided by the State Engineer upon request.

D The casing shall not exceed 7 inches outside diameter except under specific conditions in which reasons satisfactory to the State Engineer are shown.

E If the well under this permit is used at any time to serve more than one household or livestock in a commercial feed lot operation, or for drinking and sanitation purposes in conjunction with a commercial operation, the permittee shall notify the State Engineer Office in writing.

F In the event this well is combined with other wells permitted under Section 72-12-1 New Mexico Statutes Annotated, the total outdoor use shall not exceed the irrigation of one acre of non-commercial trees, lawn, and garden, or the equivalent outside consumptive use, and the total appropriation for household and outdoor use from the entire water distribution system shall not exceed 3 acre-feet in any year.

G If artesian water is encountered, all rules and regulations pertaining to the drilling and casing of artesian wells shall be complied with.

H The amount and uses of water permitted under this Application are subject to such limitations as may be imposed by the courts or by lawful municipal and county ordinances which are more restrictive than applicable State Engineer Regulations and the conditions of this permit.

NEW MEXICO STATE ENGINEER OFFICE
APPLICATION FOR PERMIT TO USE UNDERGROUND WATERS
IN ACCORDANCE WITH SECTION 72-12-1 NEW MEXICO STATUTES

GENERAL CONDITIONS OF APPROVAL (Continued)

I The permittee shall utilize the highest and best technology available to ensure conservation of water to the maximum extent practical.

SPECIFIC CONDITIONS OF APPROVAL

1A Depth of the well shall not exceed the thickness of the valley fill.

4 Use shall be limited to household, non-commercial trees, lawn and garden not to exceed one acre and/or stock use.

LOG This permit will automatically expire unless the well CC 01443 is completed and the well record filed on or before 03/31/2003.

ACTION OF STATE ENGINEER

This application is approved for the use indicated, subject to all general conditions and to specific conditions listed above.

Witness my hand and seal this 07 day of Mar A.D., 2002

Thomas C. Turney, State Engineer

By: _____
Frank Bradley

Trn Desc: CC 01443 File Number: CC 01443
Log Due Date: 03/31/2003 Trn Number: 224977
Form: wr-01 page: 2

Thomas C. Turney
State Engineer

Roswell Office
1900 WEST SECOND STREET
ROSWELL, NM 88201

STATE OF NEW MEXICO
OFFICE OF THE STATE ENGINEER

Trn Nbr: 224977
File Nbr: CC 01443
Well File Nbr: CC 01443

Jun. 25, 2002

JOHN OR VIVIAN JIMENEZ
5200 S. PRINCE ST.
CLOVIS, NM 88101

Greetings:

Enclosed is your copy of the well record for the above numbered permit, which has been accepted for filing.

Sincerely,

Frank Bradley
(505)622-6467

Enclosure
cc: Santa Fe Office

wellrrcv

Thomas C. Turney
State Engineer

Roswell Office
1900 WEST SECOND STREET
ROSWELL, NM 88201

STATE OF NEW MEXICO
OFFICE OF THE STATE ENGINEER

Trn Nbr: 224977
File Nbr: CC 01443

Mar. 07, 2002

JOHN OR VIVIAN JIMENEZ
5200 S. PRINCE ST.
CLOVIS, NM 88101

Greetings:

Enclosed is your copy of the 72-12-1 Permit which has been approved. Your attention is called to the Specific and the General Conditions of Approval of this permit.

In accordance with General Condition C, a well record shall be filed in this office within ten (10) days after completion of drilling. The well record is proof of completion of the well. IT IS YOUR RESPONSIBILITY TO ASSURE THAT THE WELL LOG BE FILED WITHIN 10 DAYS OF DRILLING THE WELL.

The amount, uses and locations of domestic water wells permitted under 72-12-1 (NMSA) are subject to such limitations as may be imposed by the courts or by lawful municipal and county ordinances which are more restrictive than applicable State Engineer Regulations and the conditions of this permit.

This permit will expire on or before 03/31/2003, unless the well has been drilled and the well log filed in this office.

Sincerely,

Frank Bradley
(505)622-6467

Enclosure

cc: Santa Fe Office

wr_01app

New Mexico Office of the State Engineer
Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Twn	Rng	X	Y
	CC 01443	3	3	3	32	02N	36E	665981	3802160*

Driller License: 395 **Driller Company:** ROMAN WELL SERVICE, INC.

Driller Name: ROMAN, JIMMY F. (LD)

Drill Start Date:	03/07/2002	**Drill Finish Date:**	03/07/2002	**Plug Date:**	
Log File Date:	06/24/2002	**PCW Rcv Date:**		**Source:**	Shallow
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	
Casing Size:	5.00	**Depth Well:**	309 feet	**Depth Water:**	270 feet

Water Bearing Stratifications:	Top	Bottom	Description
	270	276	Sandstone/Gravel/Conglomerate
	276	280	Other/Unknown
	280	302	Sandstone/Gravel/Conglomerate
	302	309	Other/Unknown

Casing Perforations:	Top	Bottom
	289	309

***UTM location was derived from PLSS - see Help**

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

New Mexico Office of the State Engineer
Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Twn	Rng	X	Y
	C 01967		2	3	13	23S	28E	590111	3574498*

Driller License: 592 **Driller Company:** TOMBLIN DRILLING

Driller Name:

Drill Start Date:	06/22/1981	**Drill Finish Date:**	07/15/1981	**Plug Date:**	
Log File Date:	08/04/1981	**PCW Rcv Date:**		**Source:**	Shallow
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	15 GPM
Casing Size:	6.00	**Depth Well:**	264 feet	**Depth Water:**	200 feet

Water Bearing Stratifications:	Top	Bottom	Description
	258	264	Sandstone/Gravel/Conglomerate

Casing Perforations:	Top	Bottom
	256	264

***UTM location was derived from PLSS - see Help**

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

SF

READ INSTRUCTIONS ON BACK

Revised March 1972

APPLICATION TO APPROPRIATE UNDERGROUND WATERS IN ACCORDANCE WITH SECTION 75-11-1 NEW MEXICO STATUTES

92351
4649751
C-1967

194134

1. Name and Address of Applicant:

Perry L. or Rae Coleman
416 Riverview
Carlsbad,NM 88220

File No. C-1967
Received: June 22,1981

STATE ENGINEER
SANTA FE, N. M.
'81 JUN 24 PM 1 11

2. Describe well location under one of the following subheadings:

a. N ½ N½ ¼ N E ¼ S W ¼ of Sec. 13 Twp. 23 S Rge. 28 E N. M. P. M., in _____ County.

b. Tract No. _____ of Map No. _____ of the _____

c. Lot No. _____ of Block No. _____ of the _____ Subdivision, recorded in _____ County.

d. X = _____ feet, Y = _____ feet, N. M. Coordinate System _____ Zone in the _____ Grant.

e. Give street address or route and box No. of property upon which well is to be located, or location by direction and distance from known landmarks _____

3. Approximate depth (if known) 200 ' feet; outside diameter of casing 7 inches.

Name of driller (if known) Tomblin Drilling Co.

4. Use of water (check appropriate box or boxes):

- [X] Household, non-commercial trees, lawn and garden not to exceed 1 acre.
- [ ] Livestock watering.
- [ ] Drinking and sanitary purposes and the irrigation of non-commercial trees, shrubs and lawns in conjunction with a commercial operation.
- [ ] Prospecting, mining or drilling operations to discover or develop natural resources.
- [ ] Construction of public works, highways and roads.

If any of the last three were marked, give name and nature of business under Remarks. (Item 5)

JUN 22 8 39 AM '81
STATE ENGINEER
ROSWELL, NM

5. Remarks: _____

I, _____, affirm that the foregoing statements are true to the best of my knowledge and belief and that development shall not commence until approval of the permit has been obtained.

Rae Coleman, Applicant

By: _____ Date: June 18, 1981

ACTION OF STATE ENGINEER

This application is approved for the use indicated, subject to all general conditions and to the specific conditions numbered 1&4 on the reverse side hereof. This permit will automatically expire unless this well is drilled or driven and the well record filed on or before June 30, 1982.

S. E. Reynolds, State Engineer

By: Delbert W. Nelson
Delbert W. Nelson
Assistant District II Supervisor

Date: June 23, 1981

File No. C-1967
LOG FILED:

GENERAL CONDITIONS OF APPROVAL

A. The maximum amount of water that may be appropriated under this permit is 3 acre feet in any calendar year.

B. The well shall be drilled only by a driller licensed in the State of New Mexico in accordance with Section 75-11-13 New Mexico Statutes Annotated. A licensed driller shall not be required for the construction of a driven well; provided, that the casing shall not exceed two and three-eights (2 3/8) inches outside diameter (Section 75-11-13).

C. Driller's log must be filed in the office of the State Engineer within 10 days after the well is drilled or driven. Failure to file the log within that time shall result in automatic cancellation of the permit. Log forms will be provided by the State Engineer upon request.

D. The casing shall not exceed 7 inches outside diameter except under specific conditions in which reasons satisfactory to the State Engineer are shown.

E. If the well under this permit is used at any time to serve more than one household, livestock in a commercial feed lot operation, or any other commercial purpose, the permittee shall comply with Specific Conditon of Approval number 5(b).

F. In the event this well is combined with other wells permitted under Section 75-11-1 New Mexico Statutes Annotated, the total outdoor use shall not exceed the irrigation of one acre of non-commercial trees, lawn, and garden, or the equivalent outside consumptive use, and the total appropriation for household and outdoor use from the entire water distribution system shall not exceed 3 acre feet per annum.

SPECIFIC CONDITIONS OF APPROVAL

(Applicable only when so indicated on the other side of this form.)

1. Depth of the well shall not exceed the thickness of the (a) the valley fill or (b) Ogallala formation.
2. The well shall be constructed to artesian well specifications and the State Engineer Office shall be notified before casing is landed or cemented.
3. Appropriation and use of water under this permit shall not exceed a period of one year from the date of approval.
4. Use shall be limited to household, non-commercial trees, lawn and garden not to exceed one acre and/or stock use.
5. A totalizing meter shall be installed before the first branch of the discharge line from the well and the installation shall be acceptable to the State Engineer; the State Engineer shall be advised of the make, model, serial number, date of installation, and initial reading of the meter prior to appropriation of water and pumping records shall be submitted to the District Supervisor (a) for each calendar month, on or before the 30th day of the following month (b) on or before the 10th of January, April, July and October of each year for the three preceding calendar months (c) for each calendar year on or before the 30th day of January of the following year.
6. The well shall be plugged upon completion of the permitted use and a plugging report shall be filed in the office of the State Engineer within 10 days.
7. Final approval for the use of the well shall be dependent upon a leakage test made by the State Engineer Office.
8. Use shall be limited strictly to household and/or drinking and sanitary purposes; water shall be conveyed from the well to the place of use in closed conduit and the effluent returned to the underground so that it will not appear on the surface. No irrigation of lawns, garden, trees or use in any type of pool or pond is authorized under this permit.

INSTRUCTIONS

The application shall be made in the name of the actual user of the well for the purpose specified in the application.

The application shall be executed in triplicate and forwarded with a $1.00 filing fee to the appropriate office of the State Engineer.

A separate application must be filed for each well to be drilled or used.

If well to be used is an existing well, an explanation (and file number, if possible) should be given under Remarks. (Item 5.)

Applications for appropriation, well logs and request for information in the following basins should be addressed to the State Engineer at the office indicated;

Bluewater, Estancia, Rio Grande, and Sandia Basins
District No. 1, 505 Marquette NW, Room 1023, Albuquerque, New Mexico 87101

Capitan, Carlsbad, Fort Sumner, Hondo, Jal, Lea, Penasco, Portales, Roswell, and Upper Pecos Basins
District No. 2, Box 1717, Roswell, New Mexico 88201

Animas, Gila-San Francisco, Hot Springs, Las Animas Creek, Lordsburg, Mimbres, Nutt-Hockett, Playas, San Simon, and Virden Valley Basins
District No. 3, Box 844, Deming, New Mexico 88030

Canadian River Basin
State Engineer Office, State Capitol, Bataan Memorial Bldg., Santa Fe, New Mexico 87501

New Mexico Office of the State Engineer
Transaction Summary

72121 All Applications Under Statute 72-12-1

Transaction Number: 464975 **Transaction Desc:** C 01967 **File Date:** 06/22/1981

Primary Status: PMT Permit
Secondary Status: LOG Well Log Received
Person Assigned: *******
Applicant: PERRY L COLEMAN
Applicant: RAE COLEMAN

Events

	Date	Type	Description	Comment	Processed By
get images	06/22/1981	APP	Application Received	*	*******
	06/23/1981	FIN	Final Action on application		*******
	06/23/1981	WAP	General Approval Letter		*******
get images	08/04/1981	LOG	Well Log Received	*	*******
	05/20/2011	ARV	Rec & Arch - file location	C 01967 Box: 1869	*******

Change To:

WR File Nbr	Acres	Diversion	Consumptive	Purpose of Use
C 01967		3		DOM 72-12-1 DOMESTIC ONE HOUSEHOLD

****Point of Diversion**

C 01967		590111	3574498*

***An (*) after northing value indicates UTM location was derived from PLSS - see Help**

Conditions

1A Depth of the well shall not exceed the thickness of the valley fill.

4 Use shall be limited to household, non-commercial trees, lawn and garden not to exceed one acre and/or stock use.

Action of the State Engineer

**** See Image For Any Additional Conditions of Approval ****

Approval Code: A - Approved
Action Date: 06/23/1981
Log Due Date: 06/30/1982
State Engineer:

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

New Mexico Office of the State Engineer
Water Right Summary

get image list

WR File Number: C 01967 **Subbasin:** C **Cross Reference:** -

Primary Purpose: DOM 72-12-1 DOMESTIC ONE HOUSEHOLD

Primary Status: PMT PERMIT

Total Acres: **Subfile:** - **Header:** -

Total Diversion: 3 **Cause/Case:** -

Owner: PERRY L COLEMAN

Owner: RAE COLEMAN

x

Documents on File

	Trn #	Doc	File/Act	Status 1	Status 2	Transaction Desc.	From/ To	Acres	Diversion	Consumptive
get images	464975	72121	1981-06-23	PMT	LOG	C 01967	T		3	

x

Current Points of Diversion

(NAD83 UTM in meters)

POD Number	Well Tag	Source	Q 64	Q16	Q4	Sec	Tws	Rng	X	Y	Other Location Desc
C 01967		Shallow		2	3	13	23S	28E	590111	3574498*	N 1/2

***An (*) after northing value indicates UTM location was derived from PLSS - see Help**

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

L05596
S.

READ INSTRUCTIONS ON BACK **Revised March 1979**

APPLICATION TO APPROPRIATE UNDERGROUND WATERS IN ACCORDANCE WITH SECTION 72-12-1 NEW MEXICO STATUTES

4090006

1. Name and Address of Applicant:

Santa Fe Energy

500 W. Illinois

Midland , TX 79701

File No. C-2182

RECEIVED: 9/26/89

2. Describe well location under one of the following subheadings:

a. SE ¼ ____ ¼ ____ ¼ of Sec. 30 Twp. 23S Rge. 29E N.M.P.M., in Eddy County.

b. Tract No. ____ of Map No. ____ of the ____

c. Lot No. ____ of Block No. ____ of the ____ Subdivision, recorded in ____ County.

d. X = ____ feet, Y = ____ feet, N.M. Coordinate System ____ Zone in the ____ Grant.

e. Give street address or route and box No. of property upon which well is to be located, or location by direction and distance from known landmarks ____

3. Approximate depth (if known) 150 feet; outside diameter of casing 6 5/8 inches.

Name of driller (if known) Robert E. Collis Hickerson Drilling & Pump 3806 W. University, Odessa TX

4. Use of water (check appropriate box or boxes):

- ☐ One household, non-commercial trees, lawn and garden not to exceed 1 acre.
- ☐ Livestock watering.
- ☐ More than one household, non-commercial trees, lawns and gardens not to exceed a total of 1 acre.
- ☐ Drinking and sanitary purposes and the irrigation of non-commercial trees, shrubs and lawns in conjunction with a commercial operation.
- ☒ Prospecting, mining or drilling operations to discover or develop natural resources.
- ☐ Construction of public works, highways and roads.

If any of the last four were marked, give name and nature of business under Remarks. (Item 5)

5. Remarks: Water to be used on an oil test. Lease Harroun Trust # 1
2010' from E., 660' S, Sec 30 TWSHP 23S RGE 29E Eddy County
Water to be metered & usage report to be sent to state Eng. Office

I, Randy Ford, affirm that the foregoing statements are true to the best of my knowledge and belief and that development shall not commence until approval of the permit has been obtained.

Santa Fe Energy, Applicant

By: Randy Ford Date: 9-25-89

ACTION OF STATE ENGINEER

This application is approved for the use indicated, subject to all general conditions and to the specific conditions numbered 1,3,5a,5d, 6 & 9 on the reverse side hereof. This permit will automatically expire unless this well is drilled or driven and the well record filed on or before September 30, 1990

S.E. Reynolds, State Engineer

By: Art B. Mason, Assistant District I Supervisor

METER REQUIRED SEE CONDITION OF APPROVAL No. 5a, 5d

Date: September 27, 1989

File No. C-2182

Project completed 12-11-89 Used 1.5 AF

LOG FILED: 10-5-89

Plugging Report Filed: 1-28-91

GENERAL CONDITIONS OF APPROVAL

A. The maximum amount of water that may be appropriated under this permit is 3 acre feet in any year.

B. The well shall be drilled only by a driller licensed in the State of New Mexico in accordance with Section 72-12-12 New Mexico Statutes Annotated. A licensed driller shall not be required for the construction of a driven well; provided, that the casing shall not exceed two and three-eighths (2 3/8) inches outside diameter (Section 72-12-12).

C. Driller's log must be filed with the State Engineer within 10 days after the well is drilled or driven. Failure to file the log within that time shall result in automatic cancellation of the permit. Log forms will be provided by the State Engineer upon request.

D. The casing shall not exceed 7 inches outside diameter except under specific conditions in which reasons satisfactory to the State Engineer are shown.

E. If the well under this permit is used at any time to serve more than one household, livestock in a commercial feed lot operation, the permittee shall comply with Specific Condition of Approval number 5(b).

F. In the event this well is combined with other wells permitted under Section 72-12-1 New Mexico Statutes Annotated, the total outdoor use shall not exceed the irrigation of one acre of non-commercial trees, lawn, and garden, or the equivalent outside consumptive use, and the total appropriation for household and outdoor use from the entire water distribution system shall not exceed 3 acre feet per annum.

SPECIFIC CONDITIONS OF APPROVAL

(Applicable only when so indicated on the other side of this form.)

1. Depth of the well shall not exceed the thickness of the (a) the valley fill or (b) Ogallala formation.
2. The well shall be constructed to artesian well specifications and the State Engineer shall be notified before casing is landed or cemented.
3. Appropriation and use of water under this permit shall not exceed a period of one year from the date of approval.
4. Use shall be limited to household, non-commercial trees, lawn and garden not to exceed one acre and/or stock use.
5. A totalizing meter shall be installed before the first branch of the discharge line from the well and the installation shall be acceptable to the State Engineer; the Engineer shall be advised of the make, model, serial number, date of installation, and initial reading of the meter prior to appropriation of water and pumping records shall be submitted to the District Supervisor; (a) for each calendar month, on or before the 30th day of the following month (b) on or before the 10th of January, April, July and October of each year for the three preceding calendar months (c) for each calendar year on or before the 30th day of January of the following year.d) or upon completion of the project if less than 30 days.
6. The well shall be plugged upon completion of the permitted use and a plugging report shall be filed with the State Engineer within 10 days.
7. Final approval for the use of the well shall be dependent upon a leakage test made by the State Engineer.
8. Use shall be limited strictly to household and/or drinking and sanitary purposes; water shall be conveyed from the well to the place of use in closed conduit and the effluent returned to the underground so that it will not appear on the surface. No irrigation of lawns, gardens, trees or use in any type of pool or pond is authorized under this permit.
9. This permit is approved for the drilling of one (1) only oil or gas well and expires on the date of completion of said well or one (1) year from date of approval.

INSTRUCTIONS

The application shall be made in the name of the actual user of the well for the purpose specified in the application.

The application shall be executed in triplicate and forwarded with a $5.00 filing fee to the State Engineer.

A separate application must be filed for each well to be drilled or used.

If well to be used is an existing well, an explanation (and file number, if possible) should be given under Remarks. (Item 5.)

Applications for appropriation, well logs and request for information in the following basins should be addressed to the State Engineer at the location indicated:

Bluewater, Estancia, Rio Grande, Sandia and San Juan Basins
District No. 1, 2340 Menaul NE, Room 206, Albuquerque, New Mexico 87107

Capitan, Carlsbad, Fort Sumner, Hondo, Jal, Lea, Penasco, Portales, Roswell, and Upper Pecos Basins
District No. 2, Box 1717, Roswell, New Mexico 88201

Animas, Gila-San Francisco, Hot Springs, Las Animas Creek, Lordsburg, Mimbres, Nutt-Hockett, Playas, San Simon, and Virden Valley Basins
District No. 3, Box 844, Deming, New Mexico 88030

Canadian River Basin
State Engineer, State Capitol, Bataan Memorial Bldg., Santa Fe, New Mexico 87503

SF

STATE OF NEW MEXICO
STATE ENGINEER OFFICE

'90 OCT 3 AM 10 01
STATE ENGINEER OFFICE
SANTA FE NEW MEXICO

Carl L. Slingerland
~~Steve Reynolds~~
STATE ENGINEER

ROSWELL

DISTRICT II
1900 W. ~~989 E.~~ 2ND STREET
~~P.O. BOX 1717~~
ROSWELL, NEW MEXICO 88202

October 1, 1990

FILE: C-2182

Santa Fe Energy
500 W. Illinois
Midland, Texas 79701

ATTN: Randy Ford

Dear Mr. Ford:

Our records indicate that under permit for oil well drilling purposes, as numbered above, required a Well Record and Plugging Report be filed in this office on or before September 30, 1990.

Well Record was filed in this office on October 5, 1989.

It is suggested that you take immediate steps to fulfill the requirements and terms of your permit by filing the Plugging Report as soon as possible.

Sincerely,

Richard C. Cibak
Pecos River Drainage
Basin Supervisor

RCC/amg
cc: Santa Fe

SF

'89 SEP 28 AM 10 40

S. E. REYNOLDS
STATE ENGINEER

STATE ENGINEER OFFICE
SANTA FE NEW MEXICO

STATE OF NEW MEXICO

STATE ENGINEER OFFICE

ROSWELL

DISTRICT II
909 E. 2ND STREET
P.O. BOX 1717
ROSWELL, NEW MEXICO 88202

September 26, 1989

FILE: C-2182

Santa Fe Energy
c/o Mr. Randy Ford
500 W. Illinois
Midland, Texas 79701

Dear Mr. Ford:

Enclosed is your copy of Application to Appropriate Underground Waters in Accordance with Section 72-12-1 New Mexico Statutes, as numbered above, which has been approved subject to the conditions on the permit.

Your attention is directed to the following specific conditions of approval:

Appropriation and use of water under this permit shall not exceed a period of one year from the date of approval.

A totalizing meter shall be installed before the first branch of the discharge line from the well and the installation shall be acceptable to the State Engineer; the Engineer shall be advised of the make, model, serial number, date of installation, and initial reading of the meter prior to appropriation of water and pumping records shall be submitted to the District Supervisor for each calendar month, on or before the 30th day of the following month.

The well shall be plugged upon completion of the permitted use and a plugging report shall be filed with the State Engineer within 10 days.

Your rights under this permit will expire on September 30, 1990, unless the well is drilled and Well Record filed in this office on or before the above due date.

Meter sheets are enclosed for your convenience.

Sincerely,

Richard C. Cibak
Basin Supervisor

amg
cc: Santa Fe
Enclosures

HICKERSON DRILLING & PUMP, INC.
3806 West University Blvd.
Odessa, Texas 79764
(915) 381-2687

September 25, 1989

Mr. Richard Cibak
State of New Mexico
State Engineer Office
P.O. BOx 1717
Roswell, New Mexico 88201

Dear Mr. Hernandez:

As an authorized representative of Santa Fe Energy, I hereby convey the authority to apply for water well drilling permits to be used in exploration to Hickerson Drilling & Pump, of Odessa, TX.

Randy Ford
Randy Ford
Santa Fe Energy Co.

Subscribed & Sworn to before me this 25 day of September, 1989.

Ector County
State of Texas

Notary Public

C-2182

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Date

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Company

Your Phone Number (Very Important)

Department/Floor No.

Street Address

City

State

ZIP Required

RECIPIENT'S COPY

2 To (Recipient's Name) Please Print

Company

Recipient's Phone Number (Very Important)

Department/Floor No.

Exact Street Address (We Cannot Deliver to P.O. Boxes or P.O. # Zip Codes.)

City

State

ZIP Required

3 YOUR BILLING REFERENCE INFORMATION (FIRST 24 CHARACTERS WILL APPEAR ON INVOICE.)

PAYMENT ☐ Bill Sender ☐ Bill Recipient's FedEx Acct. No. ☐ Bill 3rd Party FedEx Acct. No. ☐ Bill Credit Card
☒ Cash

4 SERVICES

1 ☐ PRIORITY 1 Overnight Delivery
2 ☐ COURIER-PAK OVERNIGHT ENVELOPE*
3 ☐ OVERNIGHT BOX
4 ☐ OVERNIGHT TUBE
5 ☐ STANDARD AIR Delivery not later than second business day
6 ☒ OVERNIGHT LETTER*
7 ☐
8 ☐
9 ☐
10 ☐

*Declared Value Limit $100.

DELIVERY AND SPECIAL HANDLING

1 ☐ HOLD FOR PICK-UP (Fill in Box H)
2 ☒ DELIVER WEEKDAY
3 DELIVER SATURDAY (Extra charge) ☐
4 ☐ DANGEROUS GOODS (Extra charge)
5 ☐ CONSTANT SURVEILLANCE SERVICE (CSS) (Extra charge) (Release Signature Not Applicable)
6 ☐ DRY ICE ____ Lbs.
7 ☐ OTHER SPECIAL SERVICE
8 ☐
9 ☐ SATURDAY PICK-UP (Extra charge)
10 ☐
11 ☐
12 ☐ HOLIDAY DELIVERY (If offered) (Extra charge)

	PACKAGES	WEIGHT IN POUNDS ONLY	YOUR DECLARED VALUE	OVER SIZE
Total	Total	Total		

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1 ☐ Regular Stop
2 ☐ On-Call Stop
3 ☐ Drop Box
4 ☐ B.S.C.
5 ☐ Station

FEDEX Corp. Employee No:

Date/Time for FEDEX Use

H IF HOLD FOR PICK-UP, Print FEDEX Address Here

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City State ZIP Required

Emp. No. Date

☐ Cash Received
☐ Return Shipment
☐ Third Party ☐ Chg. To Del. ☐ Chg. To Hold

Street Address

City State Zip

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Date/Time Received FedEx Employee Number

5 Sender authorizes Federal Express to deliver this shipment without obtaining a delivery signature and shall indemnify and hold harmless Federal Express from any claims resulting therefrom.

Release Signature:

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Declared Value Charge

Other 1

Other 2

Total Charges

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6/89

New Mexico Office of the State Engineer

Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Twn	Rng	X	Y
	C 02182			4	30	23S	29E	592328	3571048*

Driller License: 1184 **Driller Company:** WEST TEXAS WATER WELL SERVICE

Driller Name:

Drill Start Date: 09/26/1989 **Drill Finish Date:** 09/26/1989 **Plug Date:**

Log File Date: 10/05/1989 **PCW Rcv Date:** **Source:** Shallow

Pump Type: **Pipe Discharge Size:** **Estimated Yield:** 350 GPM

Casing Size: 6.63 **Depth Well:** 75 feet **Depth Water:** 30 feet

Water Bearing Stratifications:	Top	Bottom	Description
	30	65	Sandstone/Gravel/Conglomerate

Casing Perforations:	Top	Bottom
	25	65

***UTM location was derived from PLSS - see Help**

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

New Mexico Office of the State Engineer
Water Right Summary

get image list

WR File Number: C 02182 **Subbasin:** C **Cross Reference:** -

Primary Purpose: PRO 72-12-1 PROSPECTING OR DEVELOPMENT OF NATURAL RESOURCE

Primary Status: PMT PERMIT

Total Acres: **Subfile:** - **Header:** -

Total Diversion: 0 **Cause/Case:** -

Owner: SANTA FE ENERGY

Contact: RANDY FORD

Documents on File

	Trn #	Doc	File/Act	Status 1	Status 2	Transaction Desc.	From/ To	Acres	Diversion	Consumptive
get images	469006	72121	1989-09-27	PMT	LOG	C 02182	T		3	

Current Points of Diversion

(NAD83 UTM in meters)

POD Number	Well Tag	Source	Q 64	Q16	Q4	Sec	Tws	Rng	X	Y	Other Location Desc
C 02182		Shallow			4	30	23S	29E	592328	3571048*	

***An (*) after northing value indicates UTM location was derived from PLSS - see Help**

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New Mexico Office of the State Engineer

Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
	C 03001 EXPLORE	1	1	4	25	23S	28E	590430	3571355*

Driller License: 1227 **Driller Company:** B & H DRILLING

Driller Name: HAMMOND, JOHN B.

Drill Start Date:	09/10/2003	**Drill Finish Date:**	09/24/2003	**Plug Date:**	
Log File Date:	10/20/2003	**PCW Rcv Date:**		**Source:**	Shallow
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	
Casing Size:		**Depth Well:**	140 feet	**Depth Water:**	

***UTM location was derived from PLSS - see Help**

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New Mexico Office of the State Engineer
Transaction Summary

EXPL Permit To Explore

Transaction Number: 285052 **Transaction Desc:** C 03001 EXPLORE **File Date:** 09/17/2003

Primary Status: PMT Permit
Secondary Status: LOG Well Log Received
Person Assigned: *******
Applicant: JOHNNIE GIOVENGO

Events

Date	Type	Description	Comment	Processed By
09/17/2003	APP	Application Received	*	*******
10/07/2003	FTN	Finalize non-published Trans.		*******
10/20/2003	LOG	Well Log Received	*	*******
11/22/2005	QAT	Quality Assurance Completed	QA LOG	*******
11/30/2005	QAT	Quality Assurance Completed	QC LOG IMAGE	*******

Water Right Information

WR File Nbr	Acres	Diversion	Consumptive	Purpose of Use
C 03001	0	0		EXP EXPLORATION

****Point of Diversion**

C 03001 EXPLORE		590430	3571355*

***An (*) after northing value indicates UTM location was derived from PLSS - see Help**

Remarks

DRILL AND TEST A WELL FOR POSSIBLE IRRIGATION USE.

Conditions

4 No water shall be appropriated and beneficially used under this permit.

B The well shall be drilled by a driller licensed in the State of New Mexico in accordance with Section 72-12-12 New Mexico Statutes Annotated.

C Driller's well record must be filed with the State Engineer within 10 days after the well is drilled or driven. Well record forms will be provided by the State Engineer upon request.

C2 No water shall be diverted from this well except for testing purposes which shall not exceed ten (10) cumulative days, and well shall be plugged or capped on or before 8/30/104, unless a permit to use water from this well is acquired from the Office of the State Engineer.

Action of the State Engineer

THIS WELL SHALL BE DRILLED AT LEAST 660 FEET FROM ALL WELLS OF OTHER OWNERSHIP.

**** See Image For Any Additional Conditions of Approval ****

Approval Code: A - Approved

Action Date: 10/07/2003
PCW Due Date: 10/30/2004
State Engineer: John R. D Antonio,

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

New Mexico Office of the State Engineer
Water Right Summary

WR File Number: C 03001 **Subbasin:** CUB **Cross Reference:** -

Primary Purpose: EXP EXPLORATION

Primary Status: PMT PERMIT

Total Acres: **Subfile:** - **Header:** -

Total Diversion: 0 **Cause/Case:** -

Owner: JOHNNIE GIOVENGO

Documents on File

Trn #	Doc	File/Act	Status 1	Status 2	Transaction Desc.	From/ To	Acres	Diversion	Consumptive
285052	EXPL	2003-10-07	PMT	LOG	C 03001 EXPLORE	T	0	0	

Current Points of Diversion

(NAD83 UTM in meters)

POD Number	Well Tag	Source	Q 64	Q16	Q4	Sec	Tws	Rng	X	Y	Other Location Desc
C 03001 EXPLORE		Shallow	1	1	4	25	23S	28E	590430	3571355*	

***An (*) after northing value indicates UTM location was derived from PLSS - see Help**

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

New Mexico Office of the State Engineer
Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Twn	Rng	X	Y
	C 03059 EXPLORE	4	1	3	17	23S	29E	592993	3574378*

Driller License: 1184 **Driller Company:** WEST TEXAS WATER WELL SERVICE

Driller Name: RODNEY D. DUTTON

Drill Start Date: 04/05/2004 **Drill Finish Date:** 04/06/2004 **Plug Date:**

Log File Date: 05/05/2004 **PCW Rcv Date:** **Source:** Shallow

Pump Type: **Pipe Discharge Size:** **Estimated Yield:**

Casing Size: 8.00 **Depth Well:** **Depth Water:** 65 feet

Water Bearing Stratifications:	Top	Bottom	Description
	0	4	Other/Unknown
	4	12	Other/Unknown
	12	25	Other/Unknown
	25	33	Other/Unknown
	33	37	Sandstone/Gravel/Conglomerate
	37	56	Limestone/Dolomite/Chalk
	56	65	Limestone/Dolomite/Chalk

Casing Perforations:	Top	Bottom
	13	56

***UTM location was derived from PLSS - see Help**

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

New Mexico Office of the State Engineer
Transaction Summary

EXPL Permit To Explore

Transaction Number: 299594 **Transaction Desc:** C 3059 EXPLORE **File Date:** 03/15/2004

Primary Status: PMT Permit
Secondary Status: LOG Well Log Received
Person Assigned: *******
Applicant: UNITED SALT CORPORATION
Contact: E.J. (DAN) DANIEL

Events

Date	Type	Description	Comment	Processed By
03/15/2004	APP	Application Received	*	*******
03/23/2004	FTN	Finalize non-published Trans.		*******
03/24/2004	QAT	Quality Assurance Completed		*******
05/05/2004	LOG	Well Log Received	*	*******
08/18/2006	QAT	Quality Assurance Completed	QA LOG	*******

Water Right Information

WR File Nbr	Acres	Diversion	Consumptive	Purpose of Use
C 03059	0	0		

****Point of Diversion**

C 03059 EXPLORE		592993	3574378*

***An (*) after northing value indicates UTM location was derived from PLSS - see Help**

Remarks

TO DETERMINE BRACKING WATER QUALITY AND PROBABLE YIELD
FOR FUTURE PRODUCTION WELL.

Conditions

4	No water shall be appropriated and beneficially used under this permit.
B	The well shall be drilled by a driller licensed in the State of New Mexico in accordance with Section 72-12-12 New Mexico Statutes Annotated.
C	Driller's well record must be filed with the State Engineer within 10 days after the well is drilled or driven. Well record forms will be provided by the State Engineer upon request.
C1	A complete and properly executed Well Record on the form provided by the State Engineer shall be filed not later than ten (10) days after completion of the well. Test data shall be filed not later than ten (10) days after completion of the test(s).
C2	No water shall be diverted from this well except for testing purposes which shall not exceed ten (10) cumulative days, and well shall be plugged or capped on or before 2/31/105, unless a permit to use water from this well is acquired from the Office of the State Engineer.
2	The well shall be constructed to artesian well specifications and the State Engineer shall be notified before casing is landed or cemented

x

Action of the State Engineer

THE WELL SHALL BE LOCATED AT LEAST 660 FEET FROM ALL WELLS OF OTHER OWNERSHIP.

**** See Image For Any Additional Conditions of Approval ****

Approval Code: A - Approved

Action Date: 03/23/2004

PCW Due Date: 03/31/2005

State Engineer: John R. D Antonio,

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

New Mexico Office of the State Engineer
Water Right Summary

WR File Number: C 03059 **Subbasin:** CUB **Cross Reference:** -

Primary Purpose:

Primary Status: PMT PERMIT

Total Acres: **Subfile:** - **Header:** -

Total Diversion: 0 **Cause/Case:** -

Owner: UNITED SALT CORPORATION

Contact: E.J. (DAN) DANIEL

Documents on File

Trn #	Doc	File/Act	Status 1	Status 2	Transaction Desc.	From/ To	Acres	Diversion	Consumptive
299594	EXPL	2004-03-23	PMT	LOG	C 3059 EXPLORE	T	0	0	

Current Points of Diversion

(NAD83 UTM in meters)

POD Number	Well Tag	Source	Q 64	Q16	Q4	Sec	Tws	Rng	X	Y	Other Location Desc
C 03059 EXPLORE		Shallow	4	1	3	17	23S	29E	592993	3574378*	

***An (*) after northing value indicates UTM location was derived from PLSS - see Help**

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

File Number: _____

2-18914
#5

NEW MEXICO OFFICE OF THE STATE ENGINEER
APPLICATION FOR PERMIT TO USE UNDERGROUND WATERS
IN ACCORDANCE WITH SECTION 72-12-1 NEW MEXICO STATUTES

1. APPLICANT
Name: Draper Brantley Jr. Work Phone: 505-236-6616
Contact: _____ Home Phone: 505-885-2000
Address: 706 W. Riverside Dr.
City: Carlsbad, NM 88220 State: __ Zip: _____

2. LOCATION OF WELL (A, B, C, or D required, E or F if known)
A NW 1/4 NW 1/4 SW 1/4 Section: 24 Township: 23 Range: 28 N.M.P.M.
in Eddy County.

B. X = _____ feet, Y = _____ feet, N.M. Coordinate System _____ Zone in the _____ Grant.
U.S.G.S. Quad Map _____

C. Latitude: _____d ____m _____s Longitude: _____d ____m _____s

D. East _____ (m), North _____ (m), UTM Zone 13, NAD ___ (27 or 83)

E. Tract No. _____, Map No. _____ of the _____ Hydrographic Survey

F. Lot No. _____, Block No. _____ of Unit/Tract _____ of the _____ Subdivision recorded in _____ County.

G. Is this well within a municipality? NO if yes, where? _____

H. Give State Engineer File Number if existing well: N/A

I. On land owned by (required): Draper Brantley Jr.

3. USE OF WATER (check use applied for)
✓ One household, non-commercial trees, lawn and garden not to exceed a total of one acre.

✓ Livestock watering.

Note: If any of the following items are marked, give the name and nature of business or use under item 5 of the additional statements or explanations section.

___ More than one household, non-commercial trees, lawns and gardens not to exceed a total of one acre.

___ Drinking and sanitary purposes and the irrigation of non-commercial trees, shrubs and lawns not to exceed one acre in conjunction with a commercial operation.

___ Prospecting, mining or drilling operations to discover or develop natural resources.

___ Construction of public works, highways and roads.

Trn Desc: _____ File Number: C-3146
Log Due Date: _____ Trn Number: ~~320809~~ 467831
Form: wr-01

11-28-04; 1:35PM; NM. STATE ENG. ;505 623 8559 # 2/ 4

File Number: _____

NEW MEXICO OFFICE OF THE STATE ENGINEER
APPLICATION FOR PERMIT TO USE UNDERGROUND WATERS
IN ACCORDANCE WITH SECTION 72-12-1 NEW MEXICO STATUTES

4. WELL INFORMATION (Change, Repair, Drill, Test, Supplement)

Name of well driller and driller license number:
CLINT Taylor
Approximate depth 300 feet; Outside diameter of casing 7 inches.

___ Change Location of existing well or replacement well

___ Repair or Deepen:
___ Clean out well to original depth
___ Deepen well from _____ to _____ feet
___ Other _____

X Drill and test a well for Domestic use.

___ Supplemental well

5. ADDITIONAL STATEMENTS OR EXPLANATIONS:

2004 NOV 1 PM 1:39

ACKNOWLEDGEMENT FOR NATURAL PERSONS

(I, We) DRAPER BRANTLEY K. affirm that the
(Please Print)
foregoing statements are true to the best of (my, our) knowledge and belief.

Draper Brantley
Applicant Signature

_____
Applicant Signature

Trn Desc: _____
Log Due Date: _____
Form: wr-01

File Number: C-3146
Trn Number: 320869

11-29-04; 1:35PM; NM. STATE ENG. ;505 623 8559 # 3/ 4

NEW MEXICO STATE ENGINEER OFFICE
APPLICATION FOR PERMIT TO USE UNDERGROUND WATERS
IN ACCORDANCE WITH SECTION 72-12-1 NEW MEXICO STATUTES

GENERAL CONDITIONS OF APPROVAL (A thru I)

A The maximum amount of water that may be appropriated under this permit is 3.000 acre-feet in any year.

B The well shall be drilled by a driller licensed in the State of New Mexico in accordance with Section 72-12-12 New Mexico Statutes Annotated. A licensed driller shall not be required for the construction of a driven well; provided, that the casing shall not exceed two and three-eighths (2 3/8) inches outside diameter (Section 72-12-12).

C Driller's well record must be filed with the State Engineer within 10 days after the well is drilled or driven. Well record forms will be provided by the State Engineer upon request.

D The casing shall not exceed 7 inches outside diameter except under specific conditions in which reasons satisfactory to the State Engineer are shown.

E If the well under this permit is used at any time to serve more than one household or livestock in a commercial feed lot operation, or for drinking and sanitation purposes in conjunction with a commercial operation, the permittee shall notify the State Engineer Office in writing.

F In the event this well is combined with other wells permitted under Section 72-12-1 New Mexico Statutes Annotated, the total outdoor use shall not exceed the irrigation of one acre of non-commercial trees, lawn, and garden, or the equivalent outside consumptive use, and the total appropriation for household and outdoor use from the entire water distribution system shall not exceed 3.000 acre-feet in any year.

G If artesian water is encountered, all rules and regulations pertaining to the drilling and casing of artesian wells shall be complied with.

H The amount and uses of water permitted under this Application are subject to such limitations as may be imposed by the courts or by lawful municipal and county ordinances which are more restrictive than applicable State Engineer Regulations and the conditions of this permit.

NEW MEXICO STATE ENGINEER OFFICE
APPLICATION FOR PERMIT TO USE UNDERGROUND WATERS
IN ACCORDANCE WITH SECTION 72-12-1 NEW MEXICO STATUTES

GENERAL CONDITIONS OF APPROVAL (Continued)

I The permittee shall utilize the highest and best technology available to ensure conservation of water to the maximum extent practical.

SPECIFIC CONDITIONS OF APPROVAL

4 Use shall be limited to household, non-commercial trees, lawn and garden not to exceed one acre and/or stock use.

11 This permit is for a single household. The total diversion of water under this permit shall not exceed 3.000 acre-feet per year. Permit will be subject to cancellation if the conditions of approval are not met or if the actions of the permittee are not in accordance with the permit.

LOG This permit will automatically expire unless the well C 03146 is completed and the well record filed on or before 01/31/2006.

ACTION OF STATE ENGINEER

This application is approved for the use indicated, subject to all general conditions and to specific conditions listed above.

Witness my hand and seal this 19 day of Jan A.D., 2005

John R. D Antonio, Jr., P.E. , State Engineer

By: Andy Morley
Andy Morley

The amount, uses and locations of domestic water wells permitted under 72-12-1 (NMSA) are subject to such limitations as may be imposed by the courts or by lawful municipal and county ordinances which are more restrictive than applicable State Engineer Regulations and the conditions of this permit.

File Copy

October 15, 2007

PERMIT: Order #C-868 into C-3146
PERMIT APPLICATION: C-3147(T-2) under New Mexico Statute 72-12-1.3
PERMIT APPLICATION: C-1986(T-1) under New Mexico Statute 72-12-1.3

Draper Brantley, Jr.
706 West Riverside Drive
Carlsbad, NM 88220

Greetings:

Application for Permit to Temporarily Change the Location of Well and the Place and Purpose of Use of Underground Waters, as captioned above, was approved on June 14, 2007, with the condition that a plat map acceptable to the State Engineer showing 1.0 acres of fallow land at the *move-from* location be filed with the District II Office of the State Engineer (OSE) on or before July 31, 2007. To date we have not received said plat.

Your rights under this permit will be subject to cancellation with no further notice to you unless said plat is filed in this office within 30 days of receipt of this letter.

Receipt of this required plat would also assist OSE in evaluating the permit applications noted above. Both pending applications include proposed plans to offset projected effects on the Black River should said permit applications gain approval. The offset plans involve pumping primary groundwater out of your wells C-868 and/or C-869 and releasing the water into the Pecos River to replace the water that would be pumped from the wells under the pending permit applications. For each offset, an acre of land that is normally irrigated with primary groundwater from the offset well(s) must be left fallow. OSE is keeping track of acreage under Files C-868 and C-869 that are currently fallow due to other existing permits. OSE needs to determine that enough appurtenant acreage is available to dry up in satisfying the offsets planned for these pending permit applications. Providing the aforementioned plat map will assist in this process.

Sincerely,

Bill Duemling
Water Resources Specialist

John R. D Antonio, Jr., P.E.
State Engineer

Roswell Office
1900 WEST SECOND STREET
ROSWELL, NM 88201

STATE OF NEW MEXICO
OFFICE OF THE STATE ENGINEER

Trn Nbr: 320869
File Nbr: C 03146

Jan. 19, 2005

DRAPER BRANTLEY, JR.
706 W. RIVERSIDE DR.
CARLSBAD, NM 88220

Greetings:

Enclosed is your copy of the 72-12-1 Permit which has been approved. Your attention is called to the Specific and the General Conditions of Approval of this permit.

In accordance with General Condition C, a well record shall be filed in this office within ten (10) days after completion of drilling. The well record is proof of completion of the well. IT IS YOUR RESPONSIBILITY TO ASSURE THAT THE WELL LOG BE FILED WITHIN 10 DAYS OF DRILLING THE WELL.

This permit will expire on or before 01/31/2006, unless the well has been drilled and the well log filed in this office.

Sincerely,

M. Chavez

for Andy Morley
(505)622-6467

Enclosure

cc: Santa Fe Office

wr_01app

New Mexico Office of the State Engineer

Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Twn	Rng	X	Y
	C 03146	1	1	3	24	23S	28E	589613	3572970*

Driller License: 1348 **Driller Company:** TAYLOR WATER WELL SERVICE

Driller Name:

Drill Start Date: 02/14/2005 **Drill Finish Date:** 02/15/2005 **Plug Date:**

Log File Date: 03/21/2005 **PCW Rcv Date:** **Source:** Shallow

Pump Type: **Pipe Discharge Size:** **Estimated Yield:** 100 GPM

Casing Size: 6.63 **Depth Well:** 82 feet **Depth Water:** 36 feet

Water Bearing Stratifications:	Top	Bottom	Description
	66	82	Sandstone/Gravel/Conglomerate

Casing Perforations:	Top	Bottom
	62	82

***UTM location was derived from PLSS - see Help**

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

New Mexico Office of the State Engineer
Water Right Summary

get image list

WR File Number: C 03146 **Subbasin:** C **Cross Reference:** -

Primary Purpose: DOL 72-12-1 DOMESTIC AND LIVESTOCK WATERING

Primary Status: PMT PERMIT

Total Acres: **Subfile:** - **Header:** -

Total Diversion: 3 **Cause/Case:** -

Owner: DRAPER BRANTLEY JR

x

Documents on File

	Trn #	Doc	File/Act	Status 1	Status 2	Transaction Desc.	From/ To	Acres	Diversion	Consumptive
get images	536196	72121	2013-10-30	EXP	EXP	C 03146 REPAIR/DEEPEN	T		3	
get images	467831	72121	2005-01-19	PMT	LOG	C 03146	T		3	

x

Current Points of Diversion

(NAD83 UTM in meters)

POD Number	Well Tag	Source	Q 64	Q16	Q4	Sec	Tws	Rng	X	Y	Other Location Desc
C 03146		Shallow	1	1	3	24	23S	28E	589613	3572970*	

***An (*) after northing value indicates UTM location was derived from PLSS - see Help**

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

I No.	C-3965

NEW MEXICO OFFICE OF THE STATE ENGINEER

WR-07 APPLICATION FOR PERMIT TO DRILL

A WELL WITH NO WATER RIGHT

(check applicable box):

For fees, see State Engineer website: http://www.ose.state.nm.us/

Purpose:	☐ Pollution Control And/Or Recovery	☐ Ground Source Heat Pump
☐ Exploratory Well (Pump test)	☐ Construction Site/Public Works Dewatering	☐ Other(Describe):
☒ Monitoring Well	☐ Mine Dewatering	

A separate permit will be required to apply water to beneficial use regardless if use is consumptive or nonconsumptive.

☐ Temporary Request - Requested Start Date: Requested End Date:

Plugging Plan of Operations Submitted? ☐ Yes ☒ No

1. APPLICANT(S)

Name: Arcadis US Inc. on behalf of Chevron	Name:
Contact or Agent: check here if Agent ☐ Russell Grant	Contact or Agent: check here if Agent ☐
Mailing Address: 1004 N. Big Spring St. suite #121	Mailing Address:
City: Midland	City:
State: Texas Zip Code: 79701	State: Zip Code:
Phone: 432.214.1542 ☐ Home ☒ Cell Phone (Work):	Phone: ☐ Home ☐ Cell Phone (Work):
E-mail (optional): Russell.Grant@arcadis.com	E-mail (optional):

FOR OSE INTERNAL USE — Application for Permit, Form WR-07, Rev 11/17/16

File No.: C-3965	Trn. No.: 672407	Receipt No.: 2-41953
Trans Description (optional): POD 6-11		
Sub-Basin: CUB	PCW/LOG Due Date: 5-31-21	

2. WELL(S) Describe the well(s) applicable to this application.

Location Required: Coordinate location must be reported in NM State Plane (NAD 83), UTM (NAD 83), or Latitude/Longitude (Lat/Long - WGS84).
District II (Roswell) and District VII (Cimarron) customers, provide a PLSS location in addition to above.

☐ NM State Plane (NAD83) (Feet)
☐ NM West Zone
☐ NM East Zone
☐ NM Central Zone

☐ UTM (NAD83) (Meters)
☐ Zone 12N
☐ Zone 13N

■ Lat/Long (WGS84) (to the nearest 1/10th of second)

Well Number (if known):	X or Easting or Longitude:	Y or Northing or Latitude:	Provide if known: -Public Land Survey System (PLSS) (*Quarters or Halves , Section, Township, Range*) OR - Hydrographic Survey Map & Tract; OR - Lot, Block & Subdivision; OR - Land Grant Name
C-3965 MW-03R POD 6	-104°02'38.0202"	32°17'41.6820"	Candelario 24-1 SWD Property
MW-06 7	-104°02'43.2366"	32°17'44.0900"	Candelario 24-1 SWD Property
MW-07 8	-104°02'49.4016"	32°17'43.7491"	Candelario 24-1 SWD Property
MW-08 9	-104°02'50.0417"	32°17'39.6240"	Candelario 24-1 SWD Property
MW-09 10	-104°02'46.0298"	32°17'36.2871"	Candelario 24-1 SWD Property

NOTE: If more well locations need to be described, complete form WR-08 (Attachment 1 – POD Descriptions)
Additional well descriptions are attached: ■ **Yes** ☐ **No** **If yes, how many** 1

Other description relating well to common landmarks, streets, or other:

Well is on land owned by: Private surface owner

Well Information: NOTE: If more than one (1) well needs to be described, provide attachment. Attached? ■ **Yes** ☐ **No**
If yes, how many 1

Approximate depth of well (feet): 40'	Outside diameter of well casing (inches): 4"
Driller Name: Kenneth D. Cooper	Driller License Number: WD-1731

3. ADDITIONAL STATEMENTS OR EXPLANATIONS

Six groundwater monitor wells (MW-03R, MW-06, MW-07, MW-08, MW-09, and MW-10 are proposed to be installed at coordinate locations above for site semi-annual groundwater monitoring.

FOR OSE INTERNAL USE — Application for Permit, Form WR-07

File No.: C-3965	Trn No.: 672407

NEW MEXICO OFFICE OF THE STATE ENGINEER

ATTACHMENT 1
POINT OF DIVERSION DESCRIPTIONS

This Attachment is to be completed if more than one (1) point of diversion is described on an Application or Declaration.

a. Is this a:	**b. Information on Attachment(s):**
☐ Move-From Point of Diversion(s) ☐ Move-To Point of Diversion(s)	Number of points of diversion involved in the application: ____ Total number of pages attached to the application: 1

☐ **Surface Point of Diversion** **OR** ☒ **Well**	
Name of ditch, acequia, or spring:	
Stream or water course:	
Tributary of:	

c. Location (Required):
Required: Move to POD location coordinate must be either New Mexico State Plane (NAD 83), UTM (NAD 83), **or** Lat/Long (WGS84)

NM State Plane (NAD83) (feet) NM West Zone ☐ NM Central Zone ☐ NM East Zone ☐	UTM (NAD83) (meters) Zone 13N ☐ Zone 12N ☐	☒ Lat/Long–(WGS84) 1/10th of second	OTHER (allowable only for move-from descriptions - see application form for format) ☐ PLSS (quarters, section, township, range) ☐ Hydrographic Survey, Map & Tract ☐ Lot, Block & Subdivision ☐ Grant
POD Number: 11 C-3965 MW-10	X or Longitude -104°02'57.8245"	Y or Latitude 32°17'39.8191"	Other Location Description: Candelario 24-1 SWD Property
POD Number:	X or Longitude	Y or Latitude	Other Location Description:
POD Number:	X or Longitude	Y or Latitude	Other Location Description:
POD Number:	X or Longitude	Y or Latitude	Other Location Description:
POD Number:	X or Longitude	Y or Latitude	Other Location Description:
POD Number:	X or Longitude	Y or Latitude	Other Location Description:
POD Number:	X or Longitude	Y or Latitude	Other Location Description:
POD Number:	X or Longitude	Y or Latitude	Other Location Description:
POD Number:	X or Longitude	Y or Latitude	Other Location Description:

FOR OSE INTERNAL USE

Form wr-08
POD DESCRIPTIONS - ATTACHMENT 1

File Number: C-3965	Trn Number: 672407
Trans Description (optional):	

4. SPECIFIC REQUIREMENTS: The applicant must include the following, as applicable to each well type. Please check the appropriate boxes, to indicate the information has been included and/or attached to this application:

Exploratory:	**Pollution Control and/or Recovery:**	**Construction De-Watering:**	**Mine De-Watering:**
☐ Include a description of any proposed pump test, if applicable.	☐ Include a plan for pollution control/recovery, that includes the following: ☐ A description of the need for the pollution control or recovery operation. ☐ The estimated maximum period of time for completion of the operation. ☐ The annual diversion amount. ☐ The annual consumptive use amount. ☐ The maximum amount of water to be diverted and injected for the duration of the operation. ☐ The method and place of discharge.	☐ Include a description of the proposed dewatering operation, ☐ The estimated duration of the operation, ☐ The maximum amount of water to be diverted, ☐ A description of the need for the dewatering operation, and, ☐ A description of how the diverted water will be disposed of.	☐ Include a plan for pollution control/recovery, that includes the following: ☐ A description of the need for mine dewatering. ☐ The estimated maximum period of time for completion of the operation. ☐ The source(s) of the water to be diverted. ☐ The geohydrologic characteristics of the aquifer(s). ☐ The maximum amount of water to be diverted per annum. ☐ The maximum amount of water to be diverted for the duration of the operation. ☐ The quality of the water. ☐ The method of measurement of water diverted. ☐ The recharge of water to the aquifer. ☐ Description of the estimated area of hydrologic effect of the project. ☐ The method and place of discharge. ☐ An estimation of the effects on surface water rights and underground water rights from the mine dewatering project. ☐ A description of the methods employed to estimate effects on surface water rights and underground water rights. ☐ Information on existing wells, rivers, springs, and wetlands within the area of hydrologic effect.
Monitoring: ■ Include the reason for the monitoring well, and, ■ The duration of the planned monitoring.	☐ The method of measurement of water produced and discharged. ☐ The source of water to be injected. ☐ The method of measurement of water injected. ☐ The characteristics of the aquifer. ☐ The method of determining the resulting annual consumptive use of water and depletion from any related stream system. ☐ Proof of any permit required from the New Mexico Environment Department. ☐ An access agreement if the applicant is not the owner of the land on which the pollution plume control or recovery well is to be located.	**Ground Source Heat Pump:** ☐ Include a description of the geothermal heat exchange project, ☐ The number of boreholes for the completed project and required depths. ☐ The time frame for constructing the geothermal heat exchange project, and, ☐ The duration of the project. ☐ Preliminary surveys, design data, and additional information shall be included to provide all essential facts relating to the request.	

ACKNOWLEDGEMENT

I, We (name of applicant(s)), Scott Foord
Print Name(s)

affirm that the foregoing statements are true to the best of (my, our) knowledge and belief.

Scott Foord
Digitally signed by: Scott Foord
DN: CN = Scott Foord email = william.foord@arcadis.com C = AD
Date: 2020.04.24 09:29:34 -05'00'

Applicant Signature

Applicant Signature

ACTION OF THE STATE ENGINEER

This application is:

☒ approved ☐ partially approved ☐ denied

provided it is not exercised to the detriment of any others having existing rights, and is not contrary to the conservation of water in New Mexico nor detrimental to the public welfare and further subject to the attached conditions of approval.

Witness my hand and seal this 12th day of May 20 20, for the State Engineer,

John R. D'Antonio, Jr., P.E., State Engineer

By: _____
Signature

Print

Title: Juan Hernandez, Water Resource Manager 1
Print

FOR OSE INTERNAL USE

Application for Permit, Form WR-07

File No.: C-3965 Trn No.: 672407

NEW MEXICO STATE ENGINEER OFFICE
PERMIT TO EXPLORE

SPECIFIC CONDITIONS OF APPROVAL

17-1A Depth of the well shall not exceed the thickness of the valley fill.

17-4 No water shall be appropriated and beneficially used under this permit.

17-6 The well authorized by this permit shall be plugged completely using the following method per Rules and Regulations Governing Well Driller Licensing, Construction, Repair and Plugging of Wells; Subsection C of 19.27.4.30 NMAC unless an alternative plugging method is proposed by the well owner and approved by the State Engineer upon completion of the permitted use. All pumping appurtenance shall be removed from the well prior to plugging. To plug a well, the entire well shall be filled from the bottom upwards to ground surface using a tremie pipe. The bottom of the tremie shall remain submerged in the sealant throughout the entire sealing process; other placement methods may be acceptable and approved by the state engineer. The well shall be plugged with an office of the state engineer approved sealant for use in the plugging of non-artesian wells. The well driller shall cut the casing off at least four (4) feet below ground surface and fill the open hole with at least two vertical feet of approved sealant. The driller must fill or cover any open annulus with sealant. Once the sealant has cured, the well driller or well owner may cover the seal with soil. A Plugging Report for said well shall be filed with the Office of the State Engineer in a District Office within 30 days of completion of the plugging.

17-7 The Permittee shall utilize the highest and best technology available to ensure conservation of water to the maximum extent practical.

Trn Desc: C 03965 POD6-11

File Number: C 03965
Trn Number: 672407

NEW MEXICO STATE ENGINEER OFFICE
PERMIT TO EXPLORE

SPECIFIC CONDITIONS OF APPROVAL (Continued)

17-B The well shall be drilled by a driller licensed in the State of New Mexico in accordance with 72-12-12 NMSA 1978. A licensed driller shall not be required for the construction of a well driven without the use of a drill rig, provided that the casing shall not exceed two and three-eighths (2 3/8) inches outside diameter.

17-C The well driller must file the well record with the State Engineer and the applicant within 30 days after the well is drilled or driven. It is the well owner's responsibility to ensure that the well driller files the well record.
The well driller may obtain the well record form from any District Office or the Office of the State Engineer website.

17-P The well shall be constructed, maintained, and operated to prevent inter-aquifer exchange of water and to prevent loss of hydraulic head between hydrogeologic zones.

17-Q The State Engineer retains jurisdiction over this permit.

17-R Pursuant to section 72-8-1 NMSA 1978, the permittee shall allow the State Engineer and OSE representatives entry upon private property for the performance of their respective duties, including access to the ditch or acequia to measure flow and also to the well for meter reading and water level measurement.

LOG The Point of Diversion C 03965 POD10 must be completed and the Well Log filed on or before 05/31/2021.

LOG The Point of Diversion C 03965 POD11 must be completed and the Well Log filed on or before 05/31/2021.

NEW MEXICO STATE ENGINEER OFFICE
PERMIT TO EXPLORE

SPECIFIC CONDITIONS OF APPROVAL (Continued)

LOG The Point of Diversion C 03965 POD6 must be completed and the Well Log filed on or before 05/31/2021.

LOG The Point of Diversion C 03965 POD7 must be completed and the Well Log filed on or before 05/31/2021.

LOG The Point of Diversion C 03965 POD8 must be completed and the Well Log filed on or before 05/31/2021.

LOG The Point of Diversion C 03965 POD9 must be completed and the Well Log filed on or before 05/31/2021.

IT IS THE PERMITTEES RESPONSIBILITY TO OBTAIN ALL AUTHORIZATIONS AND PERMISSIONS TO DRILL ON PROPERTY OF OTHER OWNERSHIP BEFORE COMMENCING ACTIVITIES UNDER THIS PERMIT.

SHOULD THE PERMITTEE CHANGE THE PURPOSE OF USE TO OTHER THAN MONITORING PURPOSES, AN APPLICATION SHALL BE ACQUIRED FROM THE OFFICE OF THE STATE ENGINEER.

ACTION OF STATE ENGINEER

Notice of Intention Rcvd: Date Rcvd. Corrected:
Formal Application Rcvd: 04/28/2020 Pub. of Notice Ordered:
Date Returned - Correction: Affidavit of Pub. Filed:

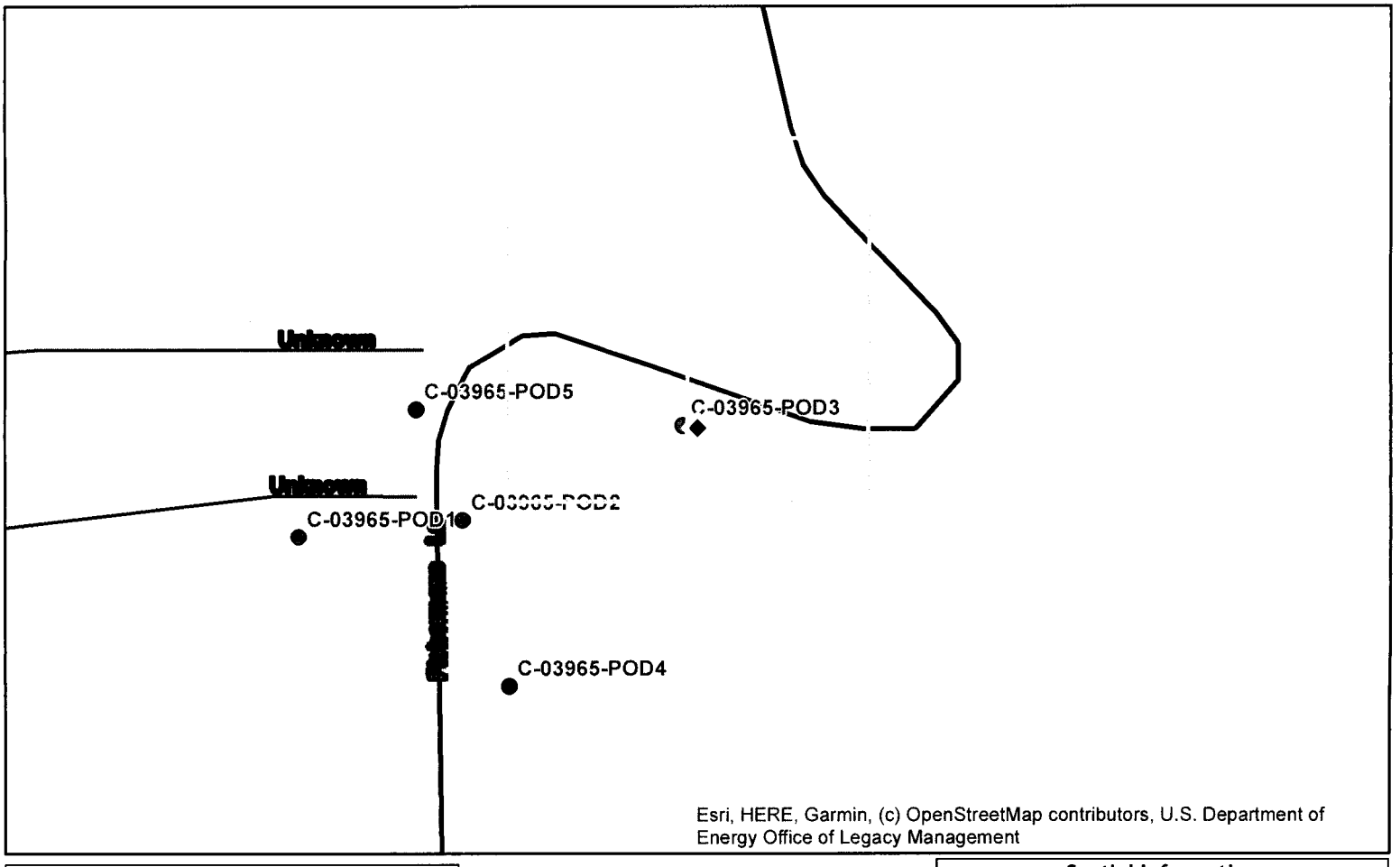
This application is approved provided it is not exercised to the detriment of any others having existing rights, and is not contrary to the conservation of water in New Mexico nor detrimental to the public welfare of the state; and further subject to the specific conditions listed previously.

Witness my hand and seal this 12TH day of May A.D., 2020

John R. D Antonio, Jr., P/E, State Engineer

By: JUAN HERNANDEZ

Trn Desc: C 03965 POD6-11 File Number: C 03965
Trn Number: 672407



Coordinates

UTM - NAD 83 (m) - Zone 13

Easting 590021.704

Northing 3573525.861

State Plane - NAD 83 (f) - Zone E

Easting 630774.754

Northing 471140.037

Degrees Minutes Seconds

Latitude 32 : 17 : 41.680000

Longitude -104 : 2 : 38.020000

Location pulled from Coordinate Search

NEW MEXICO OFFICE OF THE STATE ENGINEER

1:4,514

ft

0 90 180 360

N

YMENDIOLA 5/7/2020

Office of the State Engineer
Interstate Stream Commission

Reasonable efforts have been made by the New Mexico Office of the State Engineer (OSE/ISC) to verify that this map accurately represents the data used in its preparation. However, a degree of error is inherent in all maps, and these maps may contain databases and errors in the compilation, verification, explanation, accuracy, development, methodology, interpretation of source data, and other circumstances.
These maps are furnished "as is" without warranty of any kind.

Spatial Information

County: Eddy

Groundwater Basin: Carlsbad

Abstract Area:C
CUB

Land Grant:
Not in Land Grant

Restrictions:
NA

PLSS Description
SESWNENW Qtr of Sec 24 of 023S 028E

Derived from CADNSDI- Qtr Sec. locations are calculated and are only approximations

Parcel Information

UPC/DocNum: 4168136133118

Parcel Owner: MOSAIC POTASH CARLSBAD

Address:null null null

Legal: Quarter: NW S: 24 T: 23S R: 28E NW MAP# 313-1 LOC GR HOWARD

POD Information

Owner: ARCADIS/CHEVRON

File Number: C- 3965 POD6

POD Status: NoData

Permit Status: NoData

Permit Use: NoData

Purpose: MONITOR MW-03R

Calculated PLSS

Coord Search Location

GIS WATERS PODs

Active

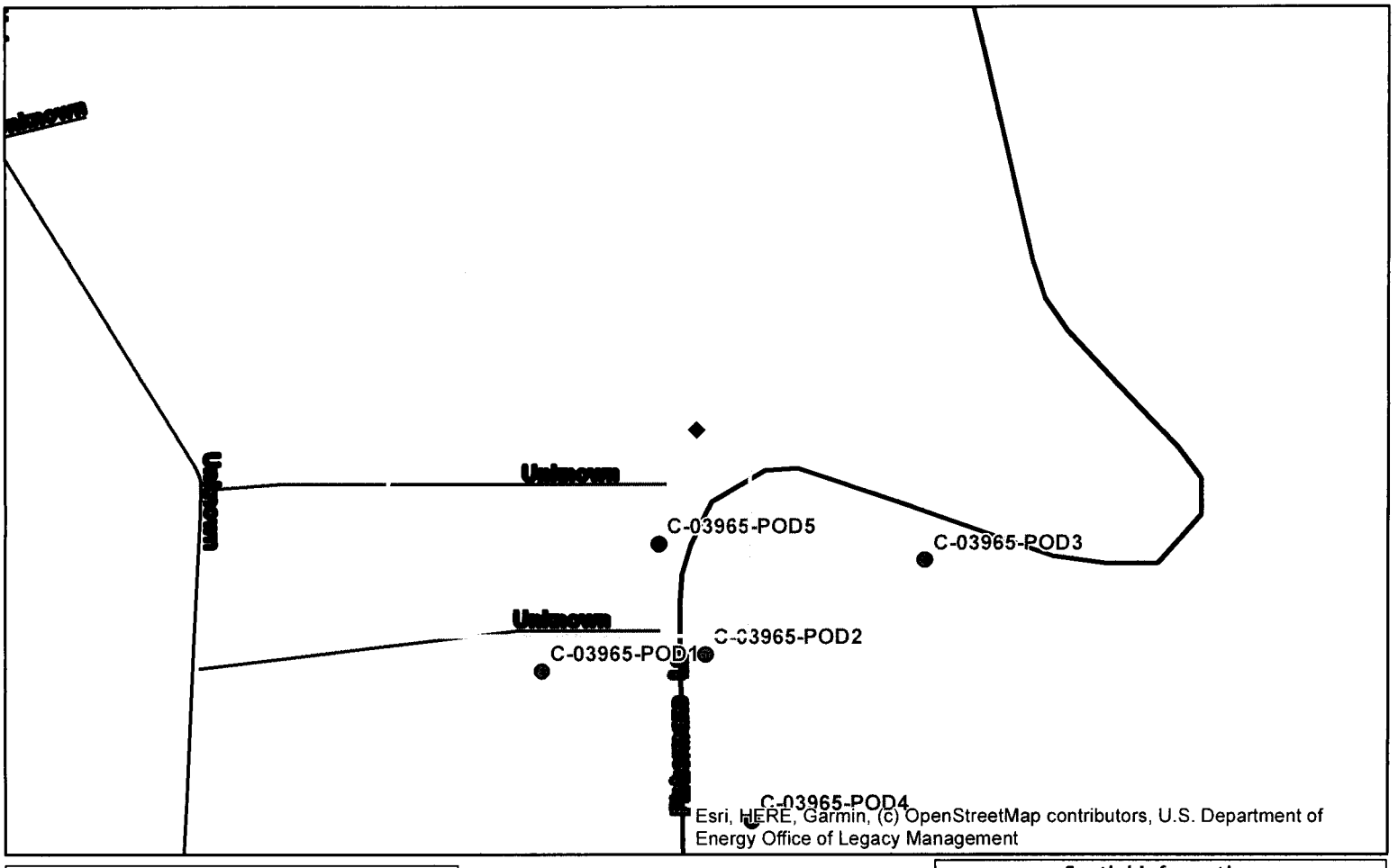
Pending

OSE District Boundary

Conveyances

Ditch

SiteBoundaries



Coordinates

UTM - NAD 83 (m) - Zone 13

Easting 589884.777

Northing 3573598.857

State Plane - NAD 83 (f) - Zone E

Easting 630326.918

Northing 471382.369

Degrees Minutes Seconds

Latitude 32 : 17 : 44.090000

Longitude -104 : 2 : 43.230000

Location pulled from Coordinate Search

NEW MEXICO OFFICE OF THE STATE ENGINEER

1:4,514

ft

0 90 180 360

N

YMENDIOLA 5/7/2020

Office of the State Engineer

Interstate Stream Commission

Reasonable efforts have been made by the New Mexico Office of the State Engineer/ISC to verify that these data accurately represent the points, data, and the interpretation however, it is the duty of others to determine all images and their rights, they contain privileged and private information, topographic, property survey, development, and geology, interpretation of source data, and other information.
These data are distributed "as is" without warranty of any kind.

Spatial Information

County: Eddy

Groundwater Basin: Carlsbad

Abstract Area:C

CUB

Land Grant:

Not in Land Grant

Restrictions:

NA

PLSS Description

NESENWNW Qtr of Sec 24 of 023S 028E

Derived from CADNSDI- Qtr Sec. locations are calculated and are only approximations

Parcel Information

UPC/DocNum: 4168136133118

Parcel Owner: MOSAIC POTASH CARLSBAD

Address: null null null

Legal: Quarter: NW S: 24 T: 23S R: 28E NW MAP# 313-1 LOC GR HOWARD

POD Information

Owner: ARCADIS/CHEVRON

File Number: C-3965 POD 7

POD Status: NoData

Permit Status: NoData

Permit Use: NoData

Purpose: MONITOR MW-06

Calculated PLSS

Coord Search Location

GIS WATERS PODs

Active

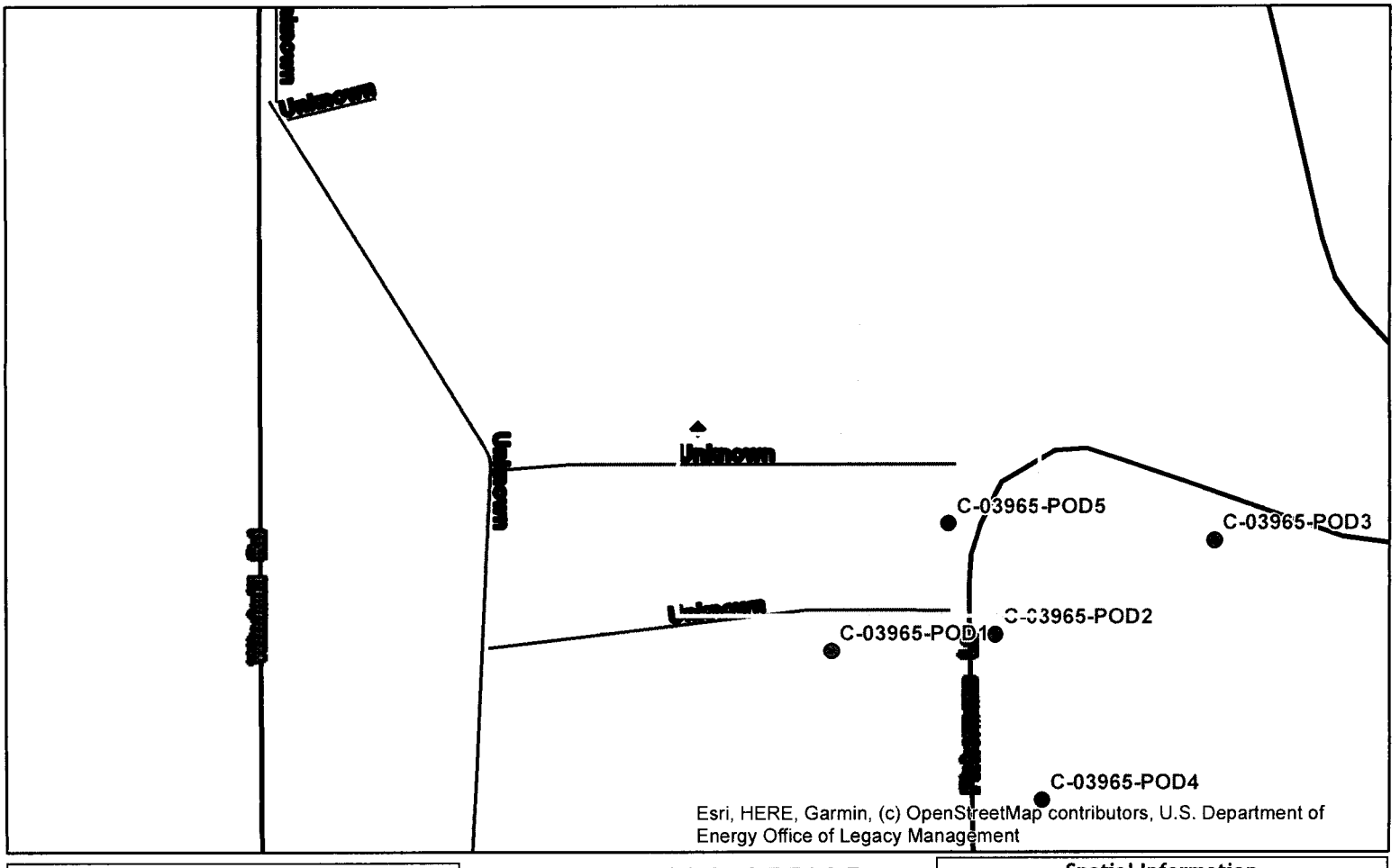
Pending

OSE District Boundary

Conveyances

Ditch

SiteBoundaries



Coordinates

UTM - NAD 83 (m) - Zone 13

Easting 589723.499

Northing 3573586.644

State Plane - NAD 83 (f) - Zone E

Easting 629797.436

Northing 471345.583

Degrees Minutes Seconds

Latitude 32 : 17 : 43.740000

Longitude -104 : 2 : 49.400000

Location pulled from Coordinate Search

NEW MEXICO OFFICE OF THE STATE ENGINEER

1:4,514

ft

0 90 180 360

N

YMENDIOLA 5/7/2020

Office of the State Engineer

Interstate Stream Commission

Reasonable efforts have been made by the New Mexico Office of the State Engineer, OSE/ISC only that these data accurately represent the best data in their possession. However, a portion of others inherent in all maps and these data may contain inaccuracies and errors due to data resolution, registration, positional accuracy, geological and hydrological interpretation of source data and other considerations.
These maps and data are provided "as is" without warranty of any kind.

Spatial Information

County: Eddy

Groundwater Basin: Carlsbad

Abstract Area:C
CUB

Land Grant:
Not in Land Grant

Restrictions:
NA

PLSS Description
NWSENWNW Qtr of Sec 24 of 023S 028E

Derived from CADNSDI- Qtr Sec. locations are calculated and are only approximations

Parcel Information

UPC/DocNum: 4168136133118

Parcel Owner: MOSAIC POTASH CARLSBAD

Address:null null null

Legal: Quarter: NW S: 24 T: 23S R: 28E NW MAP# 313-1 LOC GR HOWARD

POD Information

Owner: ARCADIS/CHEVRON

File Number: C-3965 POD 8

POD Status: NoData

Permit Status: NoData

Permit Use: NoData

Purpose: MONITOR MW-07

Calculated PLSS

Coord Search Location

GIS WATERS PODs

Active

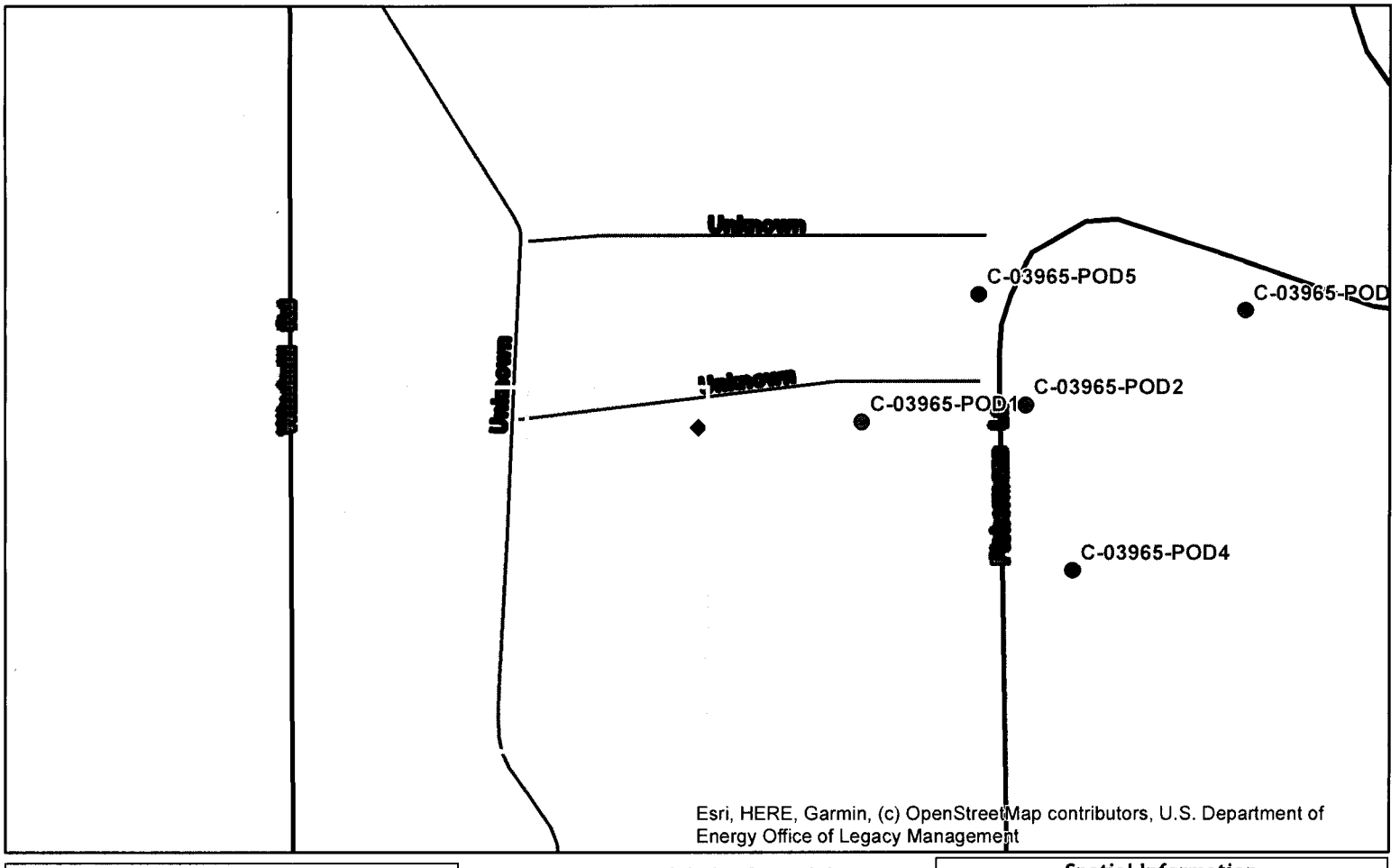
Pending

OSE District Boundary

Conveyances

Ditch

SiteBoundaries



Coordinates

UTM - NAD 83 (m) - Zone 13

Easting 589707.887

Northing 3573459.629

State Plane - NAD 83 (f) - Zone E

Easting 629743.615

Northing 470929.102

Degrees Minutes Seconds

Latitude 32 : 17 : 39.620000

Longitude -104 : 2 : 50.040000

Location pulled from Coordinate Search

NEW MEXICO OFFICE OF THE STATE ENGINEER

1:4,514

ft

0 90 180 360

N

YMENDIOLA 5/7/2020

Office of the State Engineer

Interstate Stream Commission

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Spatial Information

County: Eddy

Groundwater Basin: Carlsbad

Abstract Area: C
CUB

Land Grant:
Not in Land Grant

Restrictions:
NA

PLSS Description
NENWSWNW Qtr of Sec 24 of 023S 028E

Derived from CADNSDI- Qtr Sec. locations are calculated and are only approximations

Parcel Information

UPC/DocNum: 4168136133118

Parcel Owner: MOSAIC POTASH CARLSBAD

Address: null null null

Legal: Quarter: NW S: 24 T: 23S R: 28E NW MAP# 313-1 LOC GR HOWARD

POD Information

Owner: ARCADIS/CHEVRON

File Number: C-3965 POD 9

POD Status: NoData

Permit Status: NoData

Permit Use: NoData

Purpose: MONITOR MW-08

Calculated PLSS

Coord Search Location

GIS WATERS PODs

Active

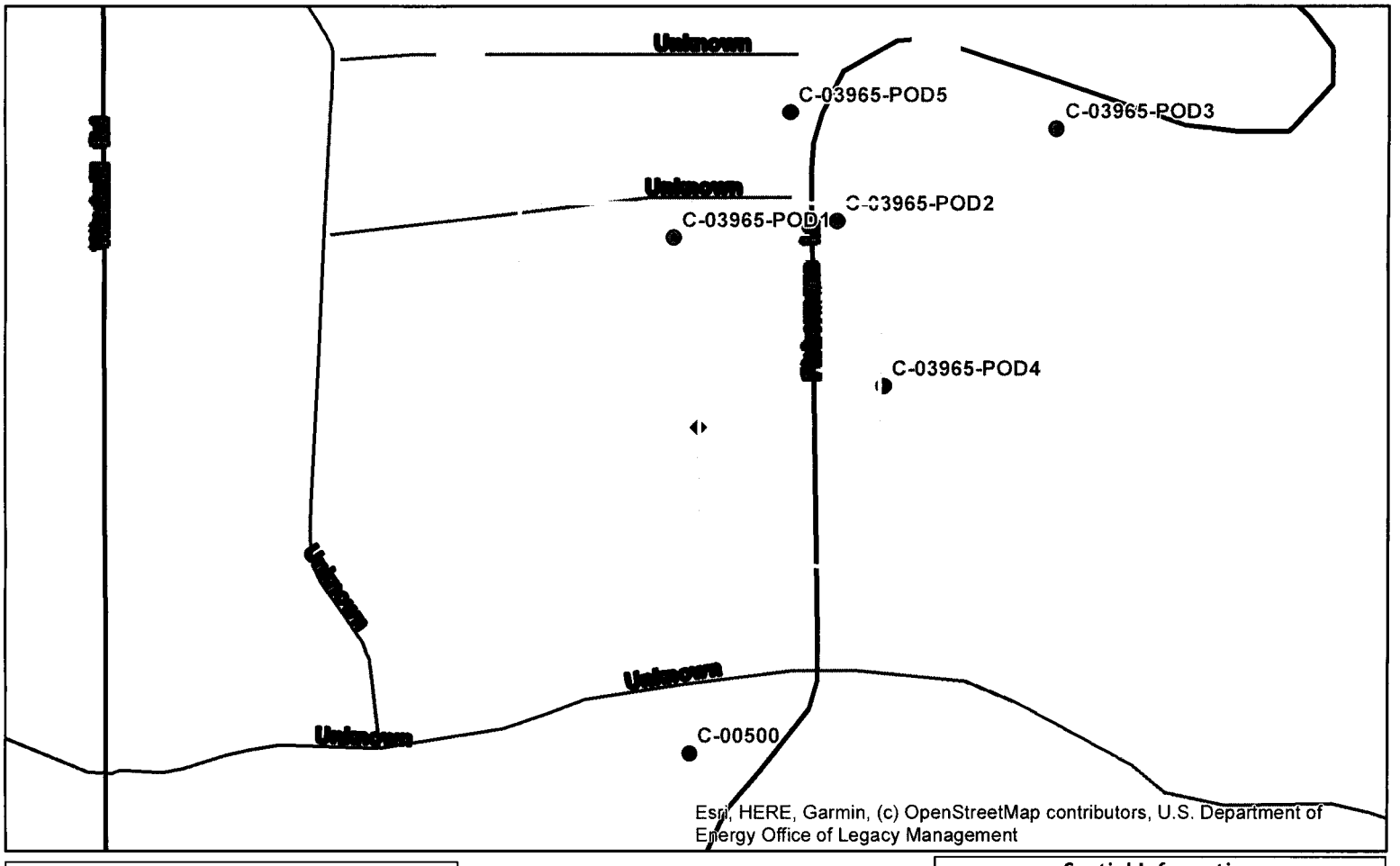
Pending

OSE District Boundary

Conveyances

Ditch

SiteBoundaries



Coordinates

UTM - NAD 83 (m) - Zone 13

Easting 589813.945

Northing 3573357.716

State Plane - NAD 83 (f) - Zone E

Easting 630089.564

Northing 470592.511

Degrees Minutes Seconds

Latitude 32 : 17 : 36.280000

Longitude -104 : 2 : 46.020000

Location pulled from Coordinate Search

NEW MEXICO OFFICE OF THE STATE ENGINEER

1:4,514

ft

0 90 180 360

N

YMENDIOLA 5/7/2020

Office of the State Engineer
Interstate Stream Commission

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Spatial Information

County: Eddy

Groundwater Basin: Carlsbad

Abstract Area:C
CUB

Land Grant:
Not in Land Grant

Restrictions:
NA

PLSS Description
SWNESWNW Qtr of Sec 24 of 023S 028E

Derived from CADNSDI- Qtr Sec. locations are calculated and are only approximations

Parcel Information

UPC/DocNum: 4168136133118

Parcel Owner: MOSAIC POTASH CARLSBAD

Address:null null null

Legal: Quarter: NW S: 24 T: 23S R: 28E NW MAP# 313-1
LOC GR HOWARD

POD Information

Owner: ARCADIS/CHEVRON

File Number: C-3965 POD 10

POD Status: NoData

Permit Status: NoData

Permit Use: NoData

Purpose: MONITOR MW-09

Calculated PLSS

Coord Search Location

GIS WATERS PODs

Other

Active

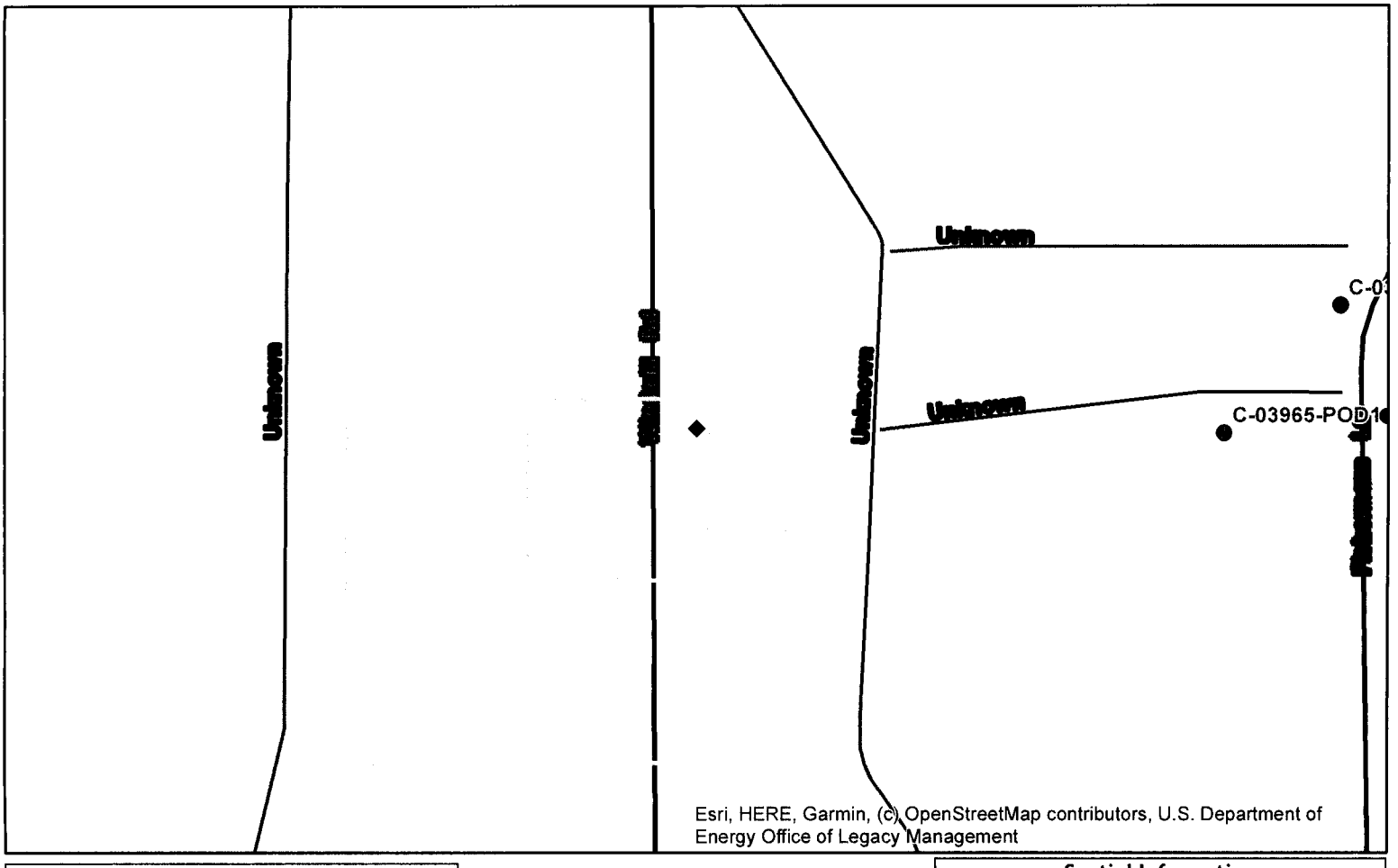
Pending

OSE District Boundary

Conveyances

Ditch

SiteBoundaries



Coordinates

UTM - NAD 83 (m) - Zone 13

Easting 589504.349

Northing 3573463.674

State Plane - NAD 83 (f) - Zone E

Easting 629075.791

Northing 470946.527

Degrees Minutes Seconds

Latitude 32 : 17 : 39.810000

Longitude -104 : 2 : 57.820000

Location pulled from Coordinate Search

NEW MEXICO OFFICE OF THE STATE ENGINEER

1:4,514

ft

0 90 180 360

N

YMENDIOLA 5/7/2020

Office of the State Engineer
Interstate Stream Commission

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Spatial Information

County: Eddy

Groundwater Basin: Carlsbad

Abstract Area: C
CUB

Land Grant:
Not in Land Grant

Restrictions:
NA

PLSS Description
NENESENE Qtr of Sec 23 of 023S 028E

Derived from CADNSDI- Qtr Sec. locations are calculated and are only approximations

Parcel Information

UPC/DocNum: 4168136133118

Parcel Owner: MOSAIC POTASH CARLSBAD

Address: null null null

Legal: Quarter: NW S: 24 T: 23S R: 28E NW MAP# 313-1 LOC GR HOWARD

POD Information

Owner: ARCADIS/CHEVRON

File Number: C-3965 POD 11

POD Status: NoData

Permit Status: NoData

Permit Use: NoData

Purpose: MONITOR MW-10

Calculated PLSS

Coord Search Location

GIS WATERS PODs

Active

Pending

OSE District Boundary

Conveyances

Ditch

SiteBoundaries

John R. D Antonio, Jr., P.E.
State Engineer

Roswell Office
1900 WEST SECOND STREET
ROSWELL, NM 88201

STATE OF NEW MEXICO
OFFICE OF THE STATE ENGINEER

Trn Nbr: 672407
File Nbr: C 03965

May. 12, 2020

RUSSELL GRANT
ARCADIS US INC-CHEVRON
1004 N BIG SPRING ST STE 121
MIDLAND, TX 79701

Greetings:

Your approved copy of the above numbered permit to drill a well for non-consumptive purposes is enclosed. You must obtain an additional permit if you intend to use the water. It is your responsibility to provide the contracted well driller with a copy of the permit that must be made available during well drilling activities.

Carefully review the attached conditions of approval for all specific permit requirements.

* If use of this well is temporary in nature and the well will be plugged at the end of the well usage, the OSE must initially approve of the plugging. If plugging approval is not conditioned in this permit, the applicant must submit a Plugging Plan of Operations for approval prior to the well being plugged. The Plugging Record must be properly completed and submitted to the OSE within 30 days of the well plugging.

* If the final intended purpose and condition requires a well ID tag and meter installation, the applicant must immediately send a completed meter report form to this office.

* The well record and log must be submitted within 30 days of the completion of the well or if the attempt was a dry hole.

* This permit expires and will be cancelled if no well is drilled and/or a well log is not received by the date set forth in the conditions of approval.

Appropriate forms can be downloaded from the OSE website www.ose.state.nm.us.

Sincerely,

Juan Hernandez
(575)622-6521

Enclosure

explore

I No.	C-3965

NEW MEXICO OFFICE OF THE STATE ENGINEER

WR-07 APPLICATION FOR PERMIT TO DRILL

A WELL WITH NO WATER RIGHT

(check applicable box):

For fees, see State Engineer website: http://www.ose.state.nm.us/

Purpose:	☐ Pollution Control And/Or Recovery	☐ Ground Source Heat Pump
☐ Exploratory Well (Pump test)	☐ Construction Site/Public Works Dewatering	☐ Other(Describe):
☒ Monitoring Well	☐ Mine Dewatering	

A separate permit will be required to apply water to beneficial use regardless if use is consumptive or nonconsumptive.

☐ Temporary Request - Requested Start Date: Requested End Date:

Plugging Plan of Operations Submitted? ☐ Yes ☒ No

1. APPLICANT(S)

Name: Arcadis US Inc. on behalf of Chevron	Name:
Contact or Agent: check here if Agent ☐ Russell Grant	Contact or Agent: check here if Agent ☐
Mailing Address: 1004 N. Big Spring St. suite #121	Mailing Address:
City: Midland	City:
State: Texas Zip Code: 79701	State: Zip Code:
Phone: 432.214.1542 ☐ Home ☒ Cell Phone (Work):	Phone: ☐ Home ☐ Cell Phone (Work):
E-mail (optional): Russell.Grant@arcadis.com	E-mail (optional):

FOR OSE INTERNAL USE — Application for Permit, Form WR-07, Rev 11/17/16

File No.: C-3965	Trn. No.: 672407	Receipt No.: 2-41953
Trans Description (optional): POD 6-11		
Sub-Basin: CUB	PCW/LOG Due Date: 5-31-21	

2. WELL(S) Describe the well(s) applicable to this application.

Location Required: Coordinate location must be reported in NM State Plane (NAD 83), UTM (NAD 83), or Latitude/Longitude (Lat/Long - WGS84).
District II (Roswell) and District VII (Cimarron) customers, provide a PLSS location in addition to above.

☐ NM State Plane (NAD83) (Feet)
☐ NM West Zone
☐ NM East Zone
☐ NM Central Zone

☐ UTM (NAD83) (Meters)
☐ Zone 12N
☐ Zone 13N

■ Lat/Long (WGS84) (to the nearest 1/10th of second)

Well Number (if known):	X or Easting or Longitude:	Y or Northing or Latitude:	Provide if known: -Public Land Survey System (PLSS) (*Quarters or Halves , Section, Township, Range*) OR - Hydrographic Survey Map & Tract; OR - Lot, Block & Subdivision; OR - Land Grant Name
C-3965 MW-03R POD 6	-104°02'38.0202"	32°17'41.6820"	Candelario 24-1 SWD Property
MW-06 7	-104°02'43.2366"	32°17'44.0900"	Candelario 24-1 SWD Property
MW-07 8	-104°02'49.4016"	32°17'43.7491"	Candelario 24-1 SWD Property
MW-08 9	-104°02'50.0417"	32°17'39.6240"	Candelario 24-1 SWD Property
MW-09 10	-104°02'46.0298"	32°17'36.2871"	Candelario 24-1 SWD Property

NOTE: If more well locations need to be described, complete form WR-08 (Attachment 1 – POD Descriptions)
Additional well descriptions are attached: ■ **Yes** ☐ **No** **If yes, how many** 1

Other description relating well to common landmarks, streets, or other:

Well is on land owned by: Private surface owner

Well Information: NOTE: If more than one (1) well needs to be described, provide attachment. Attached? ■ **Yes** ☐ **No**
If yes, how many 1

Approximate depth of well (feet): 40'	Outside diameter of well casing (inches): 4"
Driller Name: Kenneth D. Cooper	Driller License Number: WD-1731

3. ADDITIONAL STATEMENTS OR EXPLANATIONS

Six groundwater monitor wells (MW-03R, MW-06, MW-07, MW-08, MW-09, and MW-10 are proposed to be installed at coordinate locations above for site semi-annual groundwater monitoring.

FOR OSE INTERNAL USE — Application for Permit, Form WR-07

File No.: C-3965	Trn No.: 672407

NEW MEXICO OFFICE OF THE STATE ENGINEER

ATTACHMENT 1
POINT OF DIVERSION DESCRIPTIONS

This Attachment is to be completed if more than one (1) point of diversion is described on an Application or Declaration.

a. Is this a:	**b. Information on Attachment(s):**
☐ Move-From Point of Diversion(s) ☐ Move-To Point of Diversion(s)	Number of points of diversion involved in the application: ____ Total number of pages attached to the application: 1

☐ **Surface Point of Diversion** **OR** ☒ **Well**	
Name of ditch, acequia, or spring:	
Stream or water course:	
Tributary of:	

c. Location (Required):
Required: Move to POD location coordinate must be either New Mexico State Plane (NAD 83), UTM (NAD 83), **or** Lat/Long (WGS84)

NM State Plane (NAD83) (feet) NM West Zone ☐ NM Central Zone ☐ NM East Zone ☐	UTM (NAD83) (meters) Zone 13N ☐ Zone 12N ☐	☒ Lat/Long–(WGS84) 1/10th of second	OTHER (allowable only for move-from descriptions - see application form for format) ☐ PLSS (quarters, section, township, range) ☐ Hydrographic Survey, Map & Tract ☐ Lot, Block & Subdivision ☐ Grant
POD Number: 11 C-3965 MW-10	X or Longitude -104°02'57.8245"	Y or Latitude 32°17'39.8191"	Other Location Description: Candelario 24-1 SWD Property
POD Number:	X or Longitude	Y or Latitude	Other Location Description:
POD Number:	X or Longitude	Y or Latitude	Other Location Description:
POD Number:	X or Longitude	Y or Latitude	Other Location Description:
POD Number:	X or Longitude	Y or Latitude	Other Location Description:
POD Number:	X or Longitude	Y or Latitude	Other Location Description:
POD Number:	X or Longitude	Y or Latitude	Other Location Description:
POD Number:	X or Longitude	Y or Latitude	Other Location Description:
POD Number:	X or Longitude	Y or Latitude	Other Location Description:

FOR OSE INTERNAL USE

Form wr-08
POD DESCRIPTIONS - ATTACHMENT 1

File Number: C-3965	Trn Number: 672407
Trans Description (optional):	

4. SPECIFIC REQUIREMENTS: The applicant must include the following, as applicable to each well type. Please check the appropriate boxes, to indicate the information has been included and/or attached to this application:

Exploratory:	**Pollution Control and/or Recovery:**	**Construction De-Watering:**	**Mine De-Watering:**
☐ Include a description of any proposed pump test, if applicable.	☐ Include a plan for pollution control/recovery, that includes the following: ☐ A description of the need for the pollution control or recovery operation. ☐ The estimated maximum period of time for completion of the operation. ☐ The annual diversion amount. ☐ The annual consumptive use amount. ☐ The maximum amount of water to be diverted and injected for the duration of the operation. ☐ The method and place of discharge.	☐ Include a description of the proposed dewatering operation, ☐ The estimated duration of the operation, ☐ The maximum amount of water to be diverted, ☐ A description of the need for the dewatering operation, and, ☐ A description of how the diverted water will be disposed of.	☐ Include a plan for pollution control/recovery, that includes the following: ☐ A description of the need for mine dewatering. ☐ The estimated maximum period of time for completion of the operation. ☐ The source(s) of the water to be diverted. ☐ The geohydrologic characteristics of the aquifer(s). ☐ The maximum amount of water to be diverted per annum. ☐ The maximum amount of water to be diverted for the duration of the operation. ☐ The quality of the water. ☐ The method of measurement of water diverted. ☐ The recharge of water to the aquifer. ☐ Description of the estimated area of hydrologic effect of the project. ☐ The method and place of discharge. ☐ An estimation of the effects on surface water rights and underground water rights from the mine dewatering project. ☐ A description of the methods employed to estimate effects on surface water rights and underground water rights. ☐ Information on existing wells, rivers, springs, and wetlands within the area of hydrologic effect.
Monitoring: ■ Include the reason for the monitoring well, and, ■ The duration of the planned monitoring.	☐ The method of measurement of water produced and discharged. ☐ The source of water to be injected. ☐ The method of measurement of water injected. ☐ The characteristics of the aquifer. ☐ The method of determining the resulting annual consumptive use of water and depletion from any related stream system. ☐ Proof of any permit required from the New Mexico Environment Department. ☐ An access agreement if the applicant is not the owner of the land on which the pollution plume control or recovery well is to be located.	**Ground Source Heat Pump:** ☐ Include a description of the geothermal heat exchange project, ☐ The number of boreholes for the completed project and required depths. ☐ The time frame for constructing the geothermal heat exchange project, and, ☐ The duration of the project. ☐ Preliminary surveys, design data, and additional information shall be included to provide all essential facts relating to the request.	

ACKNOWLEDGEMENT

I, We (name of applicant(s)), Scott Foord
Print Name(s)

affirm that the foregoing statements are true to the best of (my, our) knowledge and belief.

Scott Foord
Digitally signed by: Scott Foord
DN: CN = Scott Foord email = william.foord@arcadis.com C = AD
Date: 2020.04.24 09:29:34 -05'00'

Applicant Signature

Applicant Signature

ACTION OF THE STATE ENGINEER

This application is:

☒ approved ☐ partially approved ☐ denied

provided it is not exercised to the detriment of any others having existing rights, and is not contrary to the conservation of water in New Mexico nor detrimental to the public welfare and further subject to the attached conditions of approval.

Witness my hand and seal this 12th day of May 20 20, for the State Engineer,

John R. D'Antonio, Jr., P.E., State Engineer

By: _____
Signature

Print

Title: Juan Hernandez, Water Resource Manager 1
Print

FOR OSE INTERNAL USE

Application for Permit, Form WR-07

File No.: C-3965 Trn No.: 672407

NEW MEXICO STATE ENGINEER OFFICE
PERMIT TO EXPLORE

SPECIFIC CONDITIONS OF APPROVAL

17-1A Depth of the well shall not exceed the thickness of the valley fill.

17-4 No water shall be appropriated and beneficially used under this permit.

17-6 The well authorized by this permit shall be plugged completely using the following method per Rules and Regulations Governing Well Driller Licensing, Construction, Repair and Plugging of Wells; Subsection C of 19.27.4.30 NMAC unless an alternative plugging method is proposed by the well owner and approved by the State Engineer upon completion of the permitted use. All pumping appurtenance shall be removed from the well prior to plugging. To plug a well, the entire well shall be filled from the bottom upwards to ground surface using a tremie pipe. The bottom of the tremie shall remain submerged in the sealant throughout the entire sealing process; other placement methods may be acceptable and approved by the state engineer. The well shall be plugged with an office of the state engineer approved sealant for use in the plugging of non-artesian wells. The well driller shall cut the casing off at least four (4) feet below ground surface and fill the open hole with at least two vertical feet of approved sealant. The driller must fill or cover any open annulus with sealant. Once the sealant has cured, the well driller or well owner may cover the seal with soil. A Plugging Report for said well shall be filed with the Office of the State Engineer in a District Office within 30 days of completion of the plugging.

17-7 The Permittee shall utilize the highest and best technology available to ensure conservation of water to the maximum extent practical.

Trn Desc: C 03965 POD6-11

File Number: C 03965
Trn Number: 672407

NEW MEXICO STATE ENGINEER OFFICE
PERMIT TO EXPLORE

SPECIFIC CONDITIONS OF APPROVAL (Continued)

17-B The well shall be drilled by a driller licensed in the State of New Mexico in accordance with 72-12-12 NMSA 1978. A licensed driller shall not be required for the construction of a well driven without the use of a drill rig, provided that the casing shall not exceed two and three-eighths (2 3/8) inches outside diameter.

17-C The well driller must file the well record with the State Engineer and the applicant within 30 days after the well is drilled or driven. It is the well owner's responsibility to ensure that the well driller files the well record.
The well driller may obtain the well record form from any District Office or the Office of the State Engineer website.

17-P The well shall be constructed, maintained, and operated to prevent inter-aquifer exchange of water and to prevent loss of hydraulic head between hydrogeologic zones.

17-Q The State Engineer retains jurisdiction over this permit.

17-R Pursuant to section 72-8-1 NMSA 1978, the permittee shall allow the State Engineer and OSE representatives entry upon private property for the performance of their respective duties, including access to the ditch or acequia to measure flow and also to the well for meter reading and water level measurement.

LOG The Point of Diversion C 03965 POD10 must be completed and the Well Log filed on or before 05/31/2021.

LOG The Point of Diversion C 03965 POD11 must be completed and the Well Log filed on or before 05/31/2021.

NEW MEXICO STATE ENGINEER OFFICE
PERMIT TO EXPLORE

SPECIFIC CONDITIONS OF APPROVAL (Continued)

LOG The Point of Diversion C 03965 POD6 must be completed and the Well Log filed on or before 05/31/2021.

LOG The Point of Diversion C 03965 POD7 must be completed and the Well Log filed on or before 05/31/2021.

LOG The Point of Diversion C 03965 POD8 must be completed and the Well Log filed on or before 05/31/2021.

LOG The Point of Diversion C 03965 POD9 must be completed and the Well Log filed on or before 05/31/2021.

IT IS THE PERMITTEES RESPONSIBILITY TO OBTAIN ALL AUTHORIZATIONS AND PERMISSIONS TO DRILL ON PROPERTY OF OTHER OWNERSHIP BEFORE COMMENCING ACTIVITIES UNDER THIS PERMIT.

SHOULD THE PERMITTEE CHANGE THE PURPOSE OF USE TO OTHER THAN MONITORING PURPOSES, AN APPLICATION SHALL BE ACQUIRED FROM THE OFFICE OF THE STATE ENGINEER.

ACTION OF STATE ENGINEER

Notice of Intention Rcvd: Date Rcvd. Corrected:
Formal Application Rcvd: 04/28/2020 Pub. of Notice Ordered:
Date Returned - Correction: Affidavit of Pub. Filed:

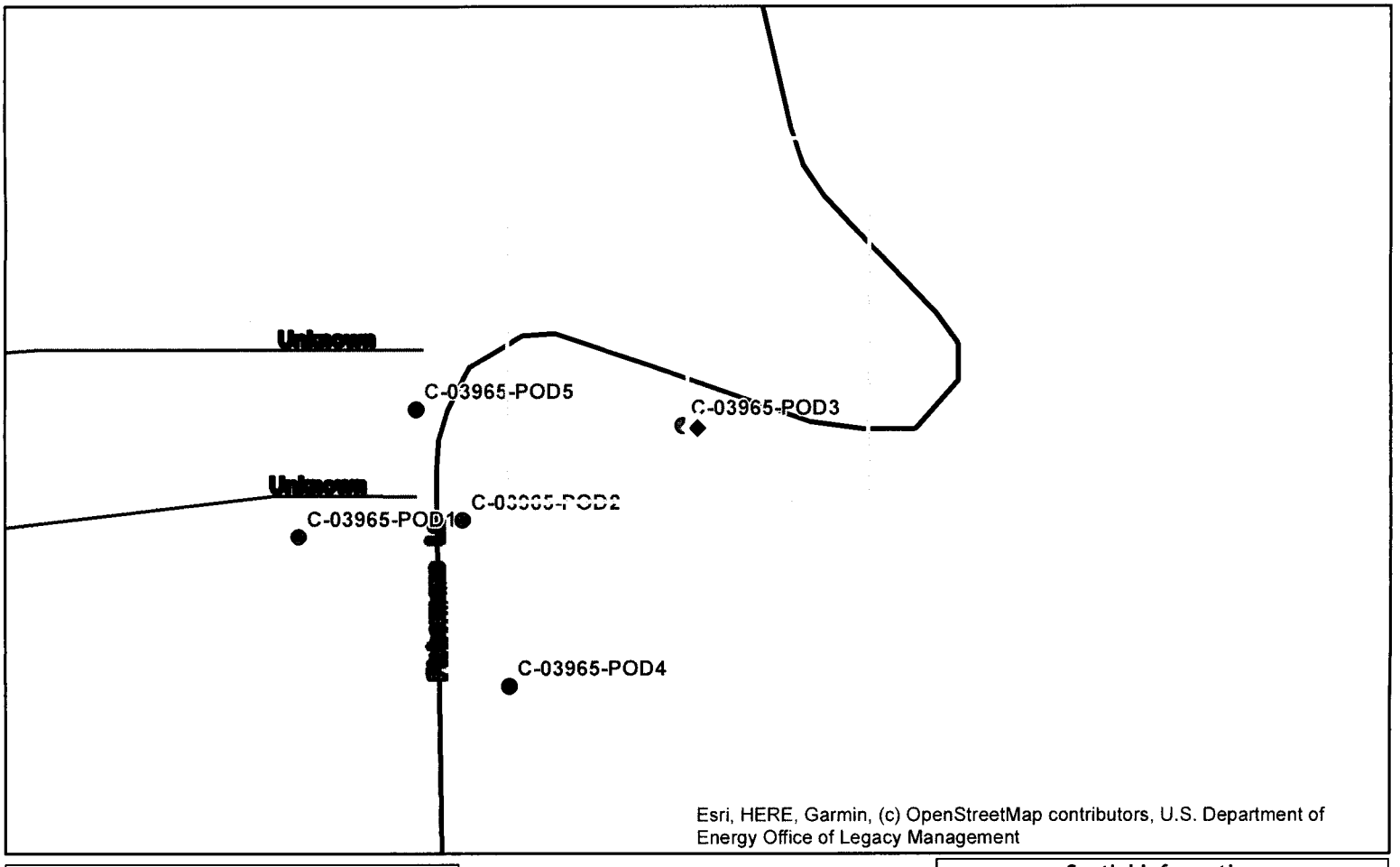
This application is approved provided it is not exercised to the detriment of any others having existing rights, and is not contrary to the conservation of water in New Mexico nor detrimental to the public welfare of the state; and further subject to the specific conditions listed previously.

Witness my hand and seal this 12TH day of May A.D., 2020

John R. D Antonio, Jr., P/E, State Engineer

By: JUAN HERNANDEZ

Trn Desc: C 03965 POD6-11 File Number: C 03965
Trn Number: 672407



Coordinates

UTM - NAD 83 (m) - Zone 13

Easting 590021.704

Northing 3573525.861

State Plane - NAD 83 (f) - Zone E

Easting 630774.754

Northing 471140.037

Degrees Minutes Seconds

Latitude 32 : 17 : 41.680000

Longitude -104 : 2 : 38.020000

Location pulled from Coordinate Search

NEW MEXICO OFFICE OF THE STATE ENGINEER

1:4,514

ft

0 90 180 360

N

YMENDIOLA 5/7/2020

Office of the State Engineer
Interstate Stream Commission

Reasonable efforts have been made by the New Mexico Office of the State Engineer (OSE/ISC) to verify that this map accurately represents the data used in its preparation. However, a degree of error is inherent in all maps, and these maps may contain databases and errors in the compilation, verification, explanation, accuracy, development, methodology, interpretation of source data, and other circumstances.
These maps are furnished "as is" without warranty of any kind.

Spatial Information

County: Eddy

Groundwater Basin: Carlsbad

Abstract Area:C
CUB

Land Grant:
Not in Land Grant

Restrictions:
NA

PLSS Description
SESWNENW Qtr of Sec 24 of 023S 028E

Derived from CADNSDI- Qtr Sec. locations are calculated and are only approximations

Parcel Information

UPC/DocNum: 4168136133118

Parcel Owner: MOSAIC POTASH CARLSBAD

Address:null null null

Legal: Quarter: NW S: 24 T: 23S R: 28E NW MAP# 313-1 LOC GR HOWARD

POD Information

Owner: ARCADIS/CHEVRON

File Number: C- 3965 POD6

POD Status: NoData

Permit Status: NoData

Permit Use: NoData

Purpose: MONITOR MW-03R

Calculated PLSS

Coord Search Location

GIS WATERS PODs

Active

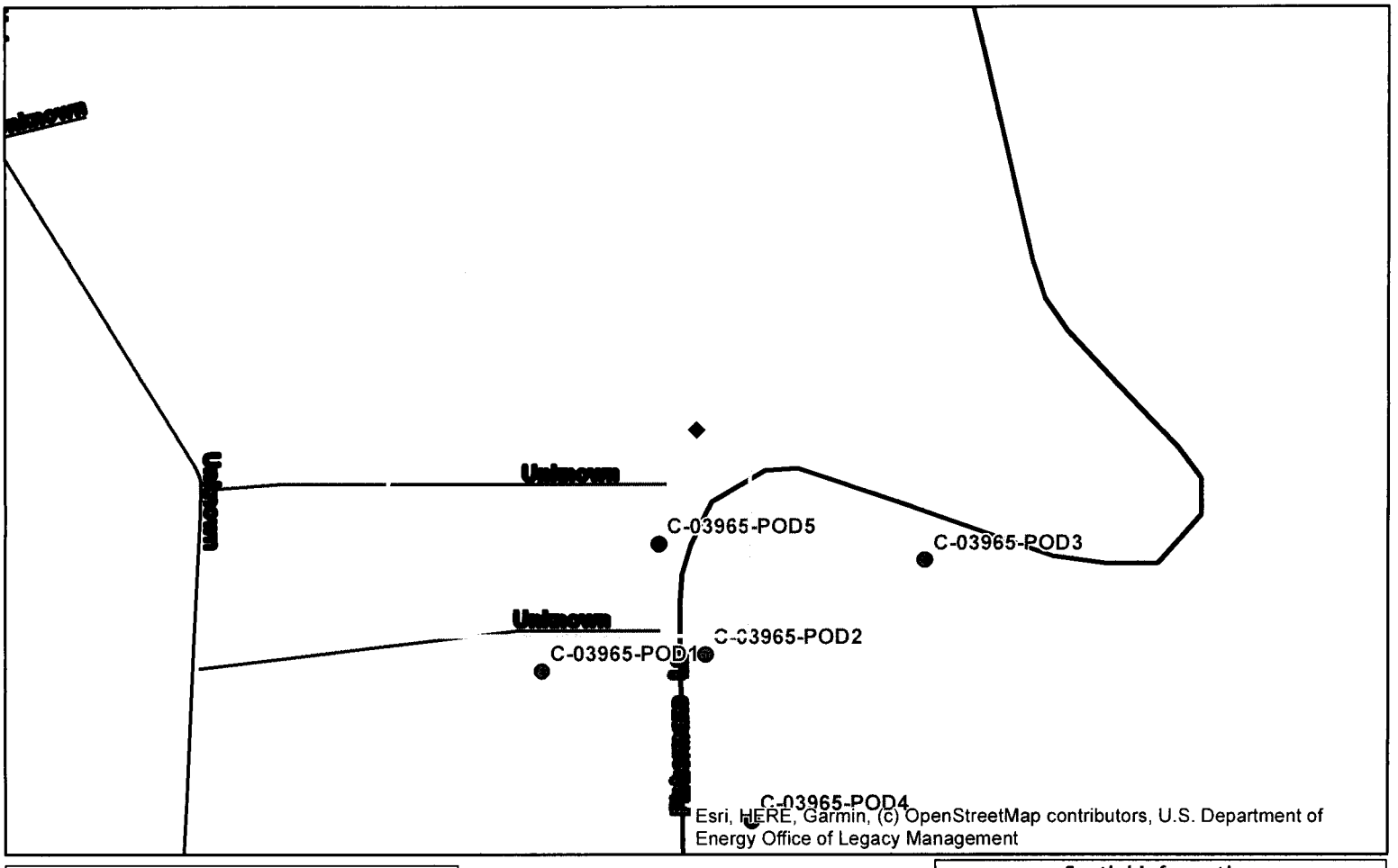
Pending

OSE District Boundary

Conveyances

Ditch

SiteBoundaries



Coordinates

UTM - NAD 83 (m) - Zone 13

Easting 589884.777

Northing 3573598.857

State Plane - NAD 83 (f) - Zone E

Easting 630326.918

Northing 471382.369

Degrees Minutes Seconds

Latitude 32 : 17 : 44.090000

Longitude -104 : 2 : 43.230000

Location pulled from Coordinate Search

NEW MEXICO OFFICE OF THE STATE ENGINEER

1:4,514

ft

0 90 180 360

N

YMENDIOLA 5/7/2020

Office of the State Engineer

Interstate Stream Commission

Reasonable efforts have been made by the New Mexico Office of the State Engineer/ISC to verify that these data accurately represent the points, data, and the interpretation however, it is the duty of others to determine all images and their rights, they contain privileged and private information, topographic, property survey, development, and geology, interpretation of source data, and other information.
These data are distributed "as is" without warranty of any kind.

Spatial Information

County: Eddy

Groundwater Basin: Carlsbad

Abstract Area:C

CUB

Land Grant:

Not in Land Grant

Restrictions:

NA

PLSS Description

NESENWNW Qtr of Sec 24 of 023S 028E

Derived from CADNSDI- Qtr Sec. locations are calculated and are only approximations

Parcel Information

UPC/DocNum: 4168136133118

Parcel Owner: MOSAIC POTASH CARLSBAD

Address: null null null

Legal: Quarter: NW S: 24 T: 23S R: 28E NW MAP# 313-1 LOC GR HOWARD

POD Information

Owner: ARCADIS/CHEVRON

File Number: C-3965 POD 7

POD Status: NoData

Permit Status: NoData

Permit Use: NoData

Purpose: MONITOR MW-06

Calculated PLSS

Coord Search Location

GIS WATERS PODs

Active

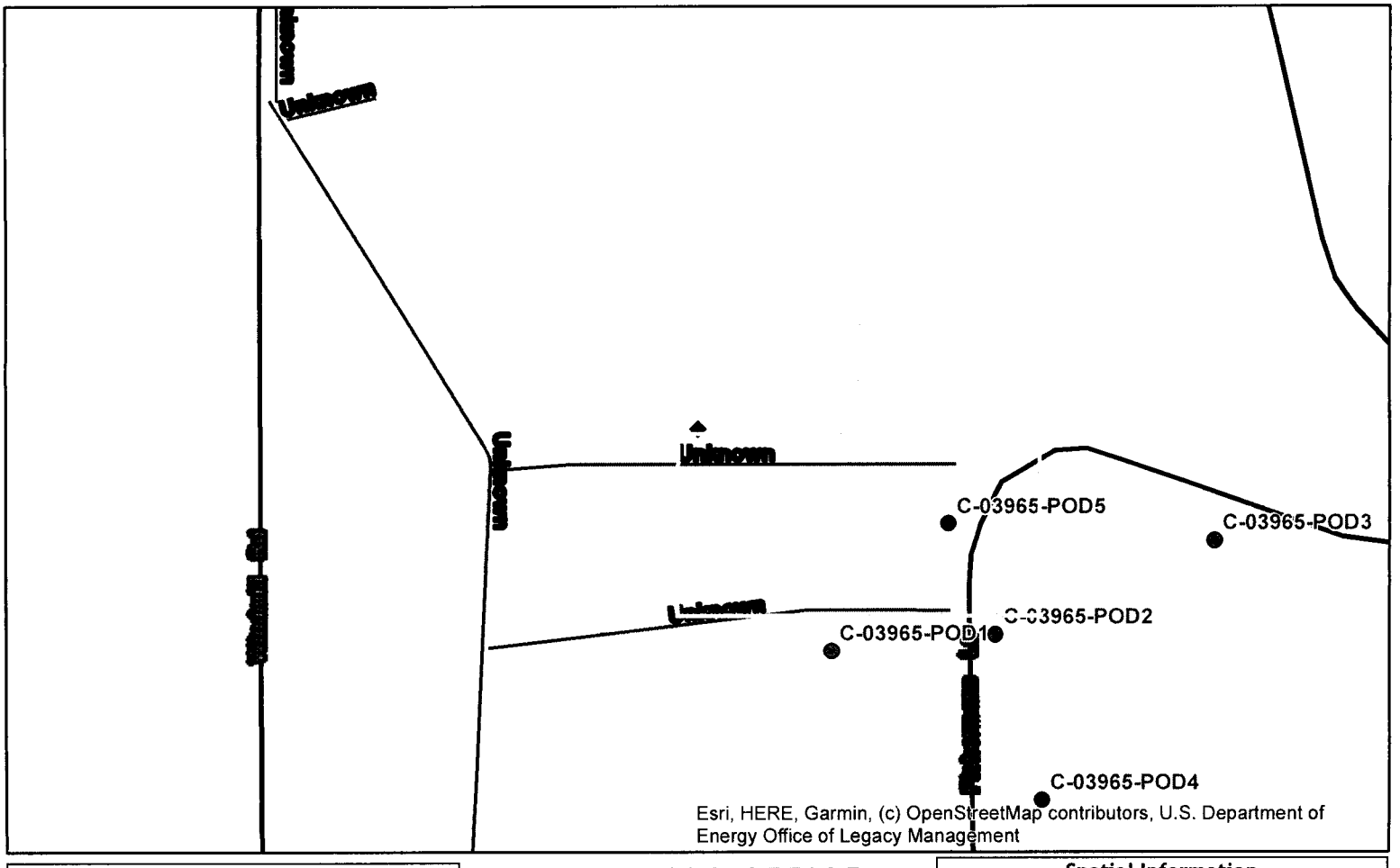
Pending

OSE District Boundary

Conveyances

Ditch

SiteBoundaries



Coordinates

UTM - NAD 83 (m) - Zone 13

Easting 589723.499

Northing 3573586.644

State Plane - NAD 83 (f) - Zone E

Easting 629797.436

Northing 471345.583

Degrees Minutes Seconds

Latitude 32 : 17 : 43.740000

Longitude -104 : 2 : 49.400000

Location pulled from Coordinate Search

NEW MEXICO OFFICE OF THE STATE ENGINEER

1:4,514

ft

0 90 180 360

N

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These maps and data are provided "as is" without warranty of any kind.

Spatial Information

County: Eddy

Groundwater Basin: Carlsbad

Abstract Area:C
CUB

Land Grant:
Not in Land Grant

Restrictions:
NA

PLSS Description
NWSENWNW Qtr of Sec 24 of 023S 028E

Derived from CADNSDI- Qtr Sec. locations are calculated and are only approximations

Parcel Information

UPC/DocNum: 4168136133118

Parcel Owner: MOSAIC POTASH CARLSBAD

Address:null null null

Legal: Quarter: NW S: 24 T: 23S R: 28E NW MAP# 313-1 LOC GR HOWARD

POD Information

Owner: ARCADIS/CHEVRON

File Number: C-3965 POD 8

POD Status: NoData

Permit Status: NoData

Permit Use: NoData

Purpose: MONITOR MW-07

Calculated PLSS

Coord Search Location

GIS WATERS PODs

Active

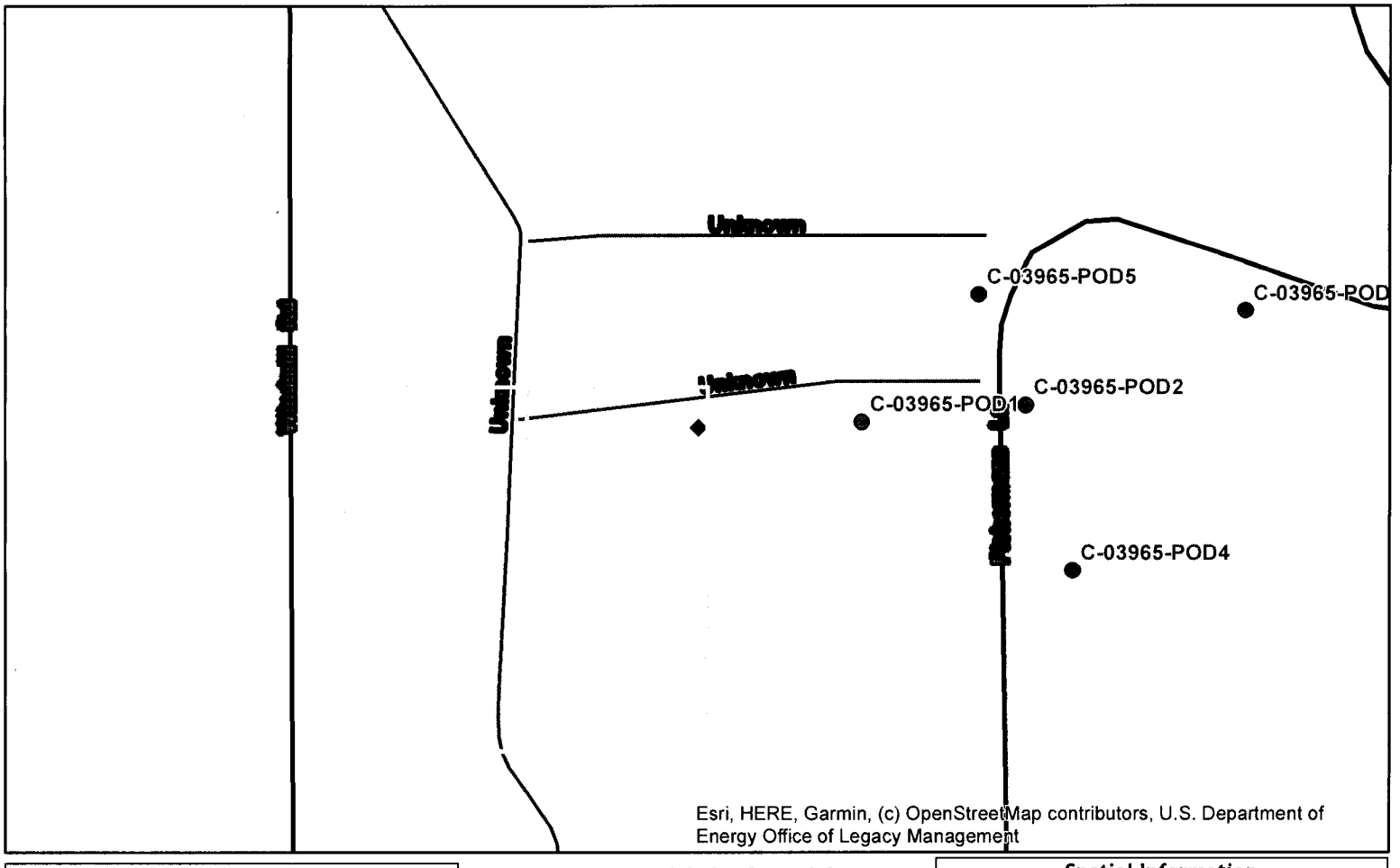
Pending

OSE District Boundary

Conveyances

Ditch

SiteBoundaries



Coordinates

UTM - NAD 83 (m) - Zone 13

Easting 589707.887

Northing 3573459.629

State Plane - NAD 83 (f) - Zone E

Easting 629743.615

Northing 470929.102

Degrees Minutes Seconds

Latitude 32 : 17 : 39.620000

Longitude -104 : 2 : 50.040000

Location pulled from Coordinate Search

NEW MEXICO OFFICE OF THE STATE ENGINEER

1:4,514

ft

0 90 180 360

N

YMENDIOLA 5/7/2020

Office of the State Engineer

Interstate Stream Commission

Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. THIS MAP IS NOT TO BE USED FOR NAVIGATION. NEW MEXICO OFFICE OF THE STATE ENGINEER MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, CONCERNING THE ACCURACY, COMPLETENESS, RELIABILITY, OR SUITABILITY OF THIS INFORMATION FOR ANY PURPOSE. THE USER ACCEPTS ALL RISK AND RESPONSIBILITY FOR LOSSES, CLAIMS, OR DAMAGES RESULTING FROM THE USE OF THIS MAP. THIS MAP IS PROVIDED "AS IS" WITHOUT WARRANTY OF ANY KIND.

Spatial Information

County: Eddy

Groundwater Basin: Carlsbad

Abstract Area: C
CUB

Land Grant:
Not in Land Grant

Restrictions:
NA

PLSS Description
NENWSWNW Qtr of Sec 24 of 023S 028E

Derived from CADNSDI- Qtr Sec. locations are calculated and are only approximations

Parcel Information

UPC/DocNum: 4168136133118

Parcel Owner: MOSAIC POTASH CARLSBAD

Address: null null null

Legal: Quarter: NW S: 24 T: 23S R: 28E NW MAP# 313-1 LOC GR HOWARD

POD Information

Owner: ARCADIS/CHEVRON

File Number: C-3965 POD 9

POD Status: NoData

Permit Status: NoData

Permit Use: NoData

Purpose: MONITOR MW-08

Calculated PLSS

Coord Search Location

GIS WATERS PODs

Active

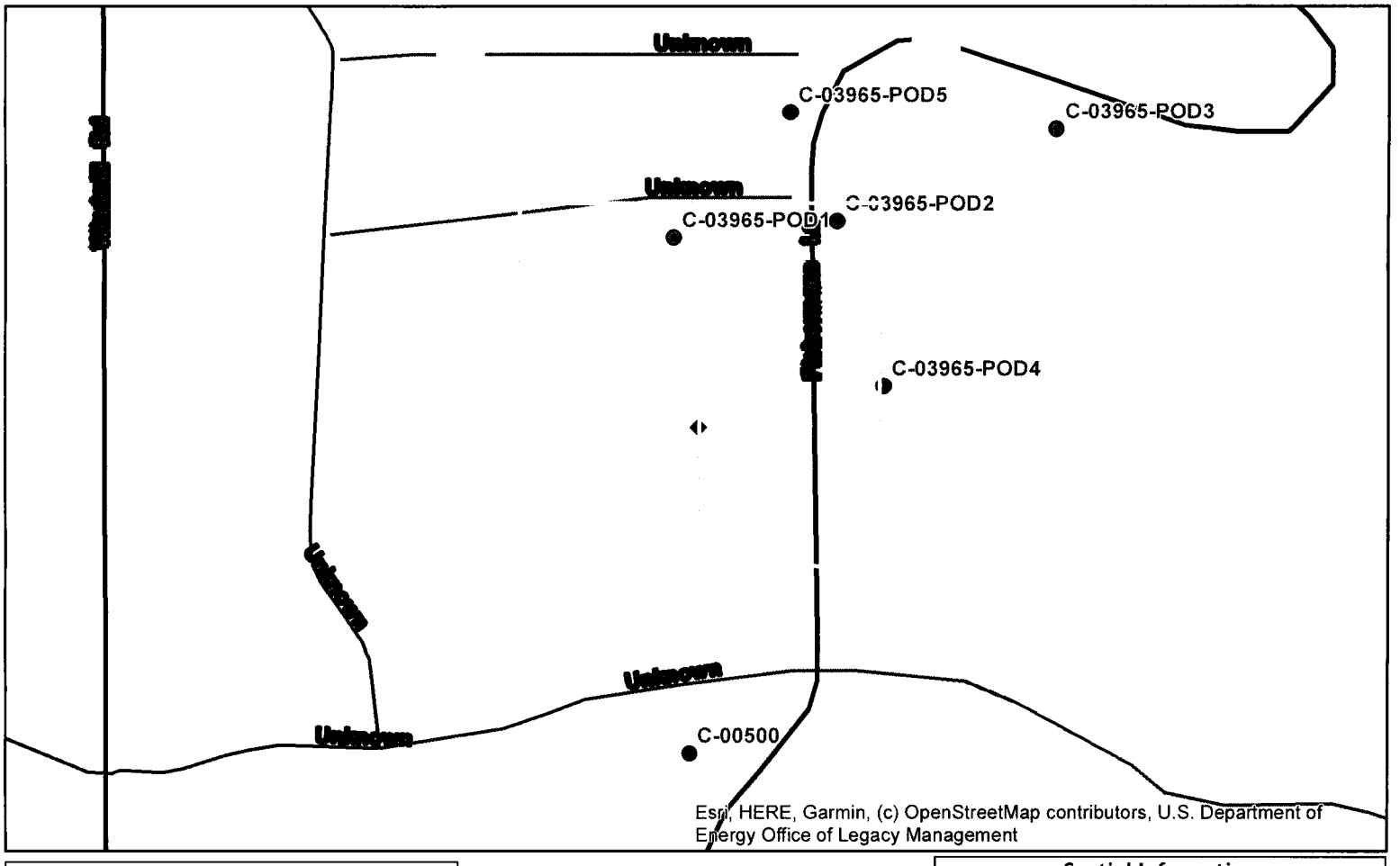
Pending

OSE District Boundary

Conveyances

Ditch

SiteBoundaries



Coordinates

UTM - NAD 83 (m) - Zone 13

Easting 589813.945

Northing 3573357.716

State Plane - NAD 83 (f) - Zone E

Easting 630089.564

Northing 470592.511

Degrees Minutes Seconds

Latitude 32 : 17 : 36.280000

Longitude -104 : 2 : 46.020000

Location pulled from Coordinate Search

NEW MEXICO OFFICE OF THE STATE ENGINEER

1:4,514

ft

0 90 180 360

N

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Office of the State Engineer
Interstate Stream Commission

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These maps are distributed "as is" without warranty of any kind.

Spatial Information

County: Eddy

Groundwater Basin: Carlsbad

Abstract Area:C
CUB

Land Grant:
Not in Land Grant

Restrictions:
NA

PLSS Description
SWNESWNW Qtr of Sec 24 of 023S 028E

Derived from CADNSDI- Qtr Sec. locations are calculated and are only approximations

Parcel Information

UPC/DocNum: 4168136133118

Parcel Owner: MOSAIC POTASH CARLSBAD

Address:null null null

Legal: Quarter: NW S: 24 T: 23S R: 28E NW MAP# 313-1
LOC GR HOWARD

POD Information

Owner: ARCADIS/CHEVRON

File Number: C-3965 POD 10

POD Status: NoData

Permit Status: NoData

Permit Use: NoData

Purpose: MONITOR MW-09

Calculated PLSS

Coord Search Location

GIS WATERS PODs

Other

Active

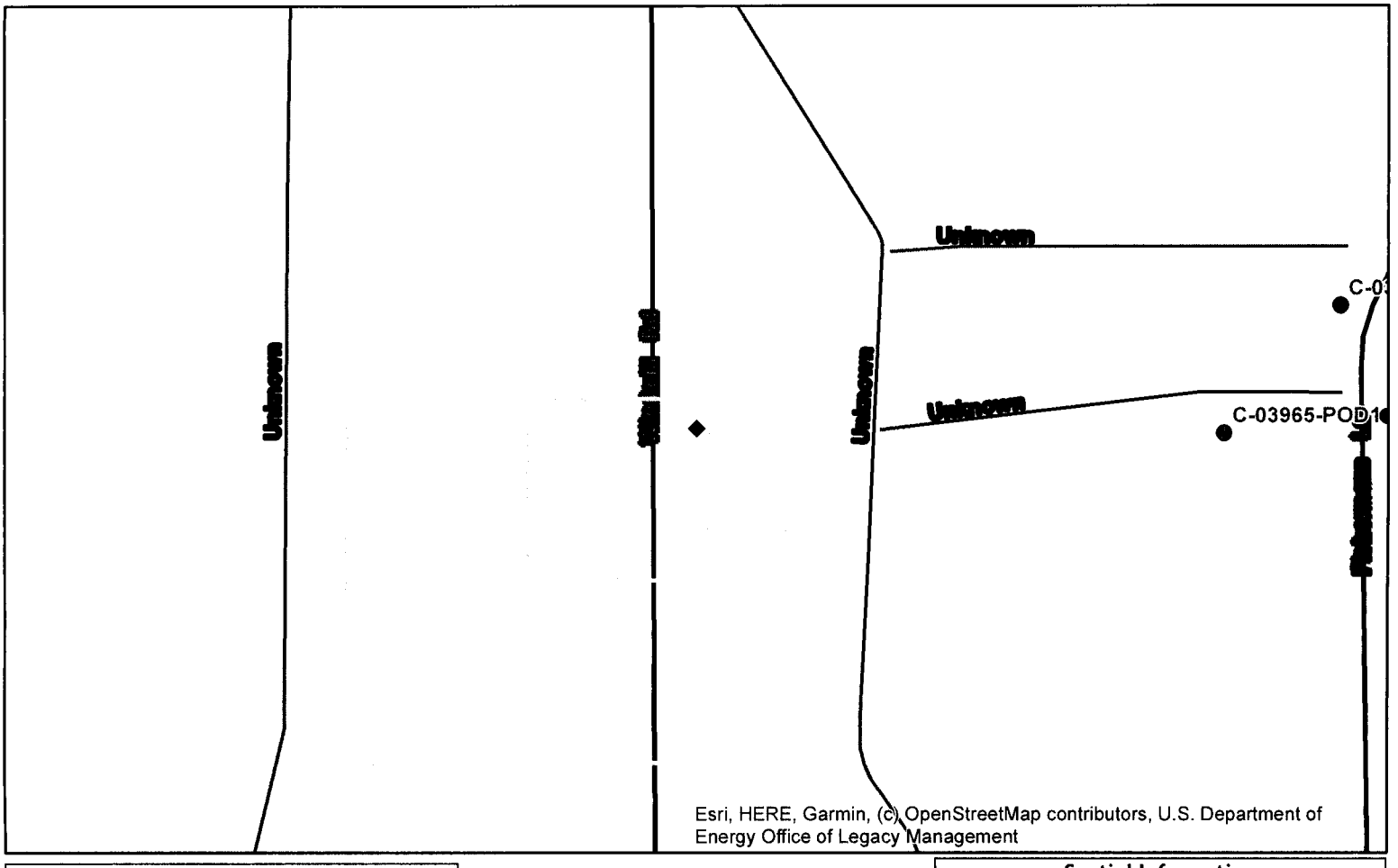
Pending

OSE District Boundary

Conveyances

Ditch

SiteBoundaries



Coordinates

UTM - NAD 83 (m) - Zone 13

Easting 589504.349

Northing 3573463.674

State Plane - NAD 83 (f) - Zone E

Easting 629075.791

Northing 470946.527

Degrees Minutes Seconds

Latitude 32 : 17 : 39.810000

Longitude -104 : 2 : 57.820000

Location pulled from Coordinate Search

NEW MEXICO OFFICE OF THE STATE ENGINEER

1:4,514

ft

0 90 180 360

N

YMENDIOLA 5/7/2020

Office of the State Engineer
Interstate Stream Commission

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Spatial Information

County: Eddy

Groundwater Basin: Carlsbad

Abstract Area: C
CUB

Land Grant:
Not in Land Grant

Restrictions:
NA

PLSS Description
NENESENE Qtr of Sec 23 of 023S 028E

Derived from CADNSDI- Qtr Sec. locations are calculated and are only approximations

Parcel Information

UPC/DocNum: 4168136133118

Parcel Owner: MOSAIC POTASH CARLSBAD

Address: null null null

Legal: Quarter: NW S: 24 T: 23S R: 28E NW MAP# 313-1 LOC GR HOWARD

POD Information

Owner: ARCADIS/CHEVRON

File Number: C-3965 POD 11

POD Status: NoData

Permit Status: NoData

Permit Use: NoData

Purpose: MONITOR MW-10

Calculated PLSS

Coord Search Location

GIS WATERS PODs

Active

Pending

OSE District Boundary

Conveyances

Ditch

SiteBoundaries

John R. D Antonio, Jr., P.E.
State Engineer

Roswell Office
1900 WEST SECOND STREET
ROSWELL, NM 88201

STATE OF NEW MEXICO
OFFICE OF THE STATE ENGINEER

Trn Nbr: 672407
File Nbr: C 03965

May. 12, 2020

RUSSELL GRANT
ARCADIS US INC-CHEVRON
1004 N BIG SPRING ST STE 121
MIDLAND, TX 79701

Greetings:

Your approved copy of the above numbered permit to drill a well for non-consumptive purposes is enclosed. You must obtain an additional permit if you intend to use the water. It is your responsibility to provide the contracted well driller with a copy of the permit that must be made available during well drilling activities.

Carefully review the attached conditions of approval for all specific permit requirements.

* If use of this well is temporary in nature and the well will be plugged at the end of the well usage, the OSE must initially approve of the plugging. If plugging approval is not conditioned in this permit, the applicant must submit a Plugging Plan of Operations for approval prior to the well being plugged. The Plugging Record must be properly completed and submitted to the OSE within 30 days of the well plugging.

* If the final intended purpose and condition requires a well ID tag and meter installation, the applicant must immediately send a completed meter report form to this office.

* The well record and log must be submitted within 30 days of the completion of the well or if the attempt was a dry hole.

* This permit expires and will be cancelled if no well is drilled and/or a well log is not received by the date set forth in the conditions of approval.

Appropriate forms can be downloaded from the OSE website www.ose.state.nm.us.

Sincerely,

Juan Hernandez
(575)622-6521

Enclosure

explore

New Mexico Office of the State Engineer
Transaction Summary

EXPL Permit To Explore

Transaction Number: 590331 **Transaction Desc:** C 03965 POD1-5 **File Date:** 07/05/2016

Primary Status: PMT Permit
Secondary Status: LOG Well Log Received
Person Assigned: *******
Applicant: ROCKCLIFF OPERATING NM LLC
Contact: NICK KOCH

Events

	Date	Type	Description	Comment	Processed By
get images	07/05/2016	APP	Application Received	*	*******
	07/12/2016	FTN	Finalize non-published Trans.		*******
	07/14/2016	QAT	Quality Assurance Completed	DATA	*******
get images	08/18/2016	LOG	Well Log Received	*C-3965 POD4	*******
get images	08/18/2016	LOG	Well Log Received	*C-3965 POD5	*******
	08/24/2016	QAT	Quality Assurance Completed	DATA	*******
	08/24/2016	QAT	Quality Assurance Completed	DATA	*******
	03/13/2017	QAT	Quality Assurance Completed	DATA	*******
	03/28/2017	QAT	Quality Assurance Completed	IMAGE	*******

Water Right Information

WR File Nbr	Acres	Diversion	Consumptive	Purpose of Use
C 03965	0	0		MON MONITORING WELL
**Point of Diversion				
C 03965 POD2		589891	3573473	
C 03965 POD1		589800	3573463	
C 03965 POD3		590014	3573527	
C 03965 POD5		589864	3573534	
C 03965 POD4		589918	3573381	

Remarks

"THE MONITORING WELLS WILL BE INSTALLED APPROXIMATELY 3 MILES WEST OF LOVING, NM, WEST OF FISHERMANS LANE AND 0.25 MILES NORTH OF CR 741"

"THREE MONITORING WELLS (MW-1, MW-2 AND MW-3) WERE PREVIOUSLY INSTALLED AT THE SITE IN MARCH 2016, BUT STILL

NEED AN ASSIGNED PERMIT NUMBER. MONITORING WELLS MW-4 AND MW-5 WILL BE INSTALLED AT THE SITE FOLLOWING APPROVAL OF THIS APPLICATION.

"THE PERMITTING FEE FOR ALL FIVE OF THE WELLS HAS BEEN INCLUDED WITH THIS APPLICATION. THE WELLS WILL BE USED TO EVALUATE GROUNDWATER CONCENTRATIONS IN THE AREA OF A SPILL OF RELEASED WATER THAT OCCURRED FROM THE CANDELARIO 24 #1

"SWD BATTERY. THE RELEASE WAS REPORTED TO THE NEW MEXICO OIL CONSERVATION DIVISION (NMOCD) AND ROCKCLIFF IS WORKING WITH THE NMOCD (PROJECT NO. 2RP-2400) TO RESOLVE THE ISSUE AND DETERMINE THE DURATION OF GROUNDWATER MONITORING AT THE SITE"

---

x

Conditions

1A	Depth of the well shall not exceed the thickness of the valley fill.
4	No water shall be appropriated and beneficially used under this permit.
B	The well shall be drilled by a driller licensed in the State of New Mexico in accordance with Section 72-12-12 New Mexico Statutes Annotated.
C	Driller's well record must be filed with the State Engineer within 20 days after the well is drilled or driven. Well record forms will be provided by the State Engineer upon request.
C2	No water shall be diverted from this well except for testing purposes which shall not exceed ten (10) cumulative days, and well shall be plugged or capped on or before , unless a permit to use water from this well is acquired from the Office of the State Engineer.
6	The well shall be plugged upon completion of the permitted use, and a plugging report shall be filed with the State Engineer within 10 days.
7	The Permittee shall utilize the highest and best technology available to ensure conservation of water to the maximum extent practical.
P	The well shall be constructed, maintained, and operated to prevent inter-aquifer exchange of water and to prevent loss of hydraulic head between geologic zones.
Q	The State Engineer retains jurisdiction over this permit.
R	Pursuant to section 72-8-1 NMSA, the permittee shall allow the State Engineer and his representatives entry upon private property for the performance of their respective duties, including access to the ditch or acequia to measure flow and also to the well for meter reading and water level measurement.

---

x

Action of the State Engineer

**** See Image For Any Additional Conditions of Approval ****

Approval Code: A - Approved

Action Date: 07/12/2016

Log Due Date: 07/31/2017

State Engineer: Tom Blaine, P.E.

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

New Mexico Office of the State Engineer

Point of Diversion Summary

Well Tag	POD Number	(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest) Q64	Q16	Q4	Sec	Tws	Rng	(NAD83 UTM in meters) X	Y
	C 03965 POD4	1	4		24	23S	28E	589918	3573381

Driller License:	1711	**Driller Company:**	STRAUB CORPORATION		
Driller Name:	BRYAN, EDWARD				
Drill Start Date:	07/18/2016	**Drill Finish Date:**	07/18/2016	**Plug Date:**	
Log File Date:	08/18/2016	**PCW Rcv Date:**		**Source:**	Shallow
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	
Casing Size:	2.00	**Depth Well:**	40 feet	**Depth Water:**	31 feet

Casing Perforations:	Top	Bottom
	30	40

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New Mexico Office of the State Engineer

Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
	C 03965 POD5	4	1	1	24	23S	28E	589864	3573534

Driller License: 1711 **Driller Company:** STRAUB CORPORATION

Driller Name: BRYAN, EDWARD

Drill Start Date: 07/18/2016 **Drill Finish Date:** 07/18/2016 **Plug Date:**

Log File Date: 08/18/2016 **PCW Rcv Date:** **Source:** Shallow

Pump Type: **Pipe Discharge Size:** **Estimated Yield:**

Casing Size: 2.00 **Depth Well:** 35 feet **Depth Water:** 31 feet

Casing Perforations:	Top	Bottom
	25	35

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New Mexico Office of the State Engineer
Water Right Summary

get image list

WR File Number: C 03965 **Subbasin:** CUB **Cross Reference:** -

Primary Purpose: MON MONITORING WELL

Primary Status: PMT PERMIT

Total Acres: **Subfile:** - **Header:** -

Total Diversion: 0 **Cause/Case:** -

Agent: ARCADIS US INC-CHEVRON

Contact: RUSSELL GRANT

Documents on File

	Trn #	Doc	File/Act	Status 1	Status 2	Transaction Desc.	From/ To	Acres	Diversion	Consumptive
get images	672407	EXPL	2020-05-12	PMT	APR	C 03965 POD6-11	T	0	0	
get images	590331	EXPL	2016-07-12	PMT	LOG	C 03965 POD1-5	T	0	0	

Current Points of Diversion

(NAD83 UTM in meters)

POD Number	Well Tag	Source	Q 64	Q16	Q4	Sec	Tws	Rng	X	Y	Other Location Desc
C 03965 POD1			2	3	1	24	23S	28E	589800	3573463	MW-1
C 03965 POD10	NA		2	3	1	24	23S	28E	589813	3573358	MW-09 CANDELARIO 24-1 SWD PRO
C 03965 POD11	NA		2	4	2	23	23S	28E	589504	3573464	MW-10 CANDELARIO 24-1 SWD PRO
C 03965 POD2			2	3	1	24	23S	28E	589891	3573473	MW-2
C 03965 POD3			3	2	1	24	23S	28E	590014	3573527	MW-3
C 03965 POD4		Shallow		1	4	24	23S	28E	589918	3573381	MW-4
C 03965 POD5		Shallow	4	1	1	24	23S	28E	589864	3573534	MW-5
C 03965 POD6	NA		3	2	1	24	23S	28E	590021	3573526	MW-03R CANDELARIO 24-1 SWD PRO
C 03965 POD7	NA		4	1	1	24	23S	28E	589884	3573599	MW-06 CANDELARIO 24-1 SWD PRO
C 03965 POD8	NA		4	1	1	24	23S	28E	589723	3573587	MW-07 CANDELARIO 24-1 SWD PRO
C 03965 POD9	NA		1	3	1	24	23S	28E	589707	3573460	MW-08 CANDELARIO 24-1 SWD PRO

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New Mexico Office of the State Engineer
Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Twn	Rng	X	Y
NA	C 04556 POD1	4	3	1	24	23S	28E	589720	3573237

Driller License: 1731 **Driller Company:** HARRISON & COOPER, INC DBA: HCI DRILLING

Driller Name: COOPER, KENNY.EE.NER

Drill Start Date: 08/17/2021 **Drill Finish Date:** 08/17/2021 **Plug Date:**

Log File Date: 09/23/2021 **PCW Rcv Date:** **Source:** Shallow

Pump Type: **Pipe Discharge Size:** **Estimated Yield:** 0 GPM

Casing Size: 4.00 **Depth Well:** 40 feet **Depth Water:** 36 feet

Water Bearing Stratifications:	Top	Bottom	Description
	17	25	Other/Unknown
	25	36	Sandstone/Gravel/Conglomerate
	36	40	Other/Unknown

Casing Perforations:	Top	Bottom
	20	40

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New Mexico Office of the State Engineer

Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Twn	Rng	X	Y
NA	C 04556 POD2	4	3	1	24	23S	28E	589891	3573239

Driller License: 1731 **Driller Company:** HARRISON & COOPER, INC DBA: HCI DRILLING

Driller Name: COOPER, KENNY.EE.NER

Drill Start Date: 07/17/2021 **Drill Finish Date:** 08/17/2021 **Plug Date:**

Log File Date: 09/23/2021 **PCW Rcv Date:** **Source:** Shallow

Pump Type: **Pipe Discharge Size:** **Estimated Yield:**

Casing Size: 4.00 **Depth Well:** 40 feet **Depth Water:** 36 feet

Water Bearing Stratifications:	Top	Bottom	Description
	17	25	Other/Unknown
	25	36	Sandstone/Gravel/Conglomerate
	36	40	Other/Unknown

Casing Perforations:	Top	Bottom
	20	40

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

New Mexico Office of the State Engineer
Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Twn	Rng	X	Y
NA	C 04556 POD3	4	3	1	24	23S	28E	590567	3573265

Driller License: 1731 **Driller Company:** HARRISON & COOPER, INC DBA: HCI DRILLING

Driller Name: COOPER, KENNY.EE.NER

Drill Start Date:	08/17/2021	**Drill Finish Date:**	08/17/2021	**Plug Date:**	
Log File Date:	09/23/2021	**PCW Rcv Date:**		**Source:**	Shallow
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	0 GPM
Casing Size:	4.00	**Depth Well:**	40 feet	**Depth Water:**	36 feet

Water Bearing Stratifications:	Top	Bottom	Description
	17	25	Other/Unknown
	25	36	Sandstone/Gravel/Conglomerate
	36	40	Other/Unknown

Casing Perforations:	Top	Bottom
	20	40

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

File No. C-4556

NEW MEXICO OFFICE OF THE STATE ENGINEER

WR-07 APPLICATION FOR PERMIT TO DRILL

A WELL WITH NO WATER RIGHT

(check applicable box):

For fees, see State Engineer website: http://www.ose.state.nm.us/

Purpose:	☐ Pollution Control And/Or Recovery	☐ Ground Source Heat Pump
☐ Exploratory Well (Pump test)	☐ Construction Site/Public Works Dewatering	☐ Other(Describe):
☒ Monitoring Well	☐ Mine Dewatering	

A separate permit will be required to apply water to beneficial use **regardless if use is consumptive or nonconsumptive.**

☐ Temporary Request - Requested Start Date: Requested End Date:

Plugging Plan of Operations Submitted? ☐ Yes ☒ No

1. APPLICANT(S)

Name: Arcadis US, Inc. on behalf of Chevron Environmental Management	Name:
Contact or Agent: check here if Agent ☒ Sarah Rebecca Johnson	Contact or Agent: check here if Agent ☐
Mailing Address: 1004 N Big Spring Street Suite 121	Mailing Address:
City: Midland	City:
State: Texas Zip Code: 79701	State: Zip Code:
Phone: 931.436.0316 ☐ Home ☒ Cell Phone (Work):	Phone: ☐ Home ☐ Cell Phone (Work):
E-mail (optional): sarah.johnson@arcadis.com	E-mail (optional):

OSE DII JUL 2 2021 PM2:18

FOR OSE INTERNAL USE Application for Permit, Form WR-07, Rev 11/17/16

File No.: C-4556	Trn. No.: 699785	Receipt No.: 243575
Trans Description (optional): MON		
Sub-Basin: C	PCW/LOG Due Date: 7/8/2022	

2. WELL(S) Describe the well(s) applicable to this application.

Location Required: Coordinate location must be reported in NM State Plane (NAD 83), UTM (NAD 83), or Latitude/Longitude (Lat/Long - WGS84).
District II (Roswell) and District VII (Cimarron) customers, provide a PLSS location in addition to above.

☐ NM State Plane (NAD83) (Feet)
☐ NM West Zone
☐ NM East Zone
☐ NM Central Zone

☐ UTM (NAD83) (Meters)
☐ Zone 12N
☐ Zone 13N

■ Lat/Long (WGS84) (to the nearest 1/10th of second)

Well Number (if known):	X or Easting or Longitude:	Y or Northing or Latitude:	Provide if known: -Public Land Survey System (PLSS) (*Quarters or Halves, Section, Township, Range*) OR - Hydrographic Survey Map & Tract; OR - Lot, Block & Subdivision; OR - Land Grant Name
MW-11 C-4556 POD 1	-104.046091	32.292368	SW/NW Section 24 Township 23 South Range 28 E
MW-12 C-4556 POD2	-104.045304	32.292337	SW/NW Section 24 Township 23 South Range 28 E
MW-13 C-4556 POD3	-104.045048	32.292514	SW/NW Section 24 Township 23 South Range 28 E

NOTE: If more well locations need to be described, complete form WR-08 (Attachment 1 – POD Descriptions)
Additional well descriptions are attached: ☐ **Yes** ■ **No** **If yes, how many**_____

Other description relating well to common landmarks, streets, or other:

Well is on land owned by: The Mosaic Company

Well Information: NOTE: If more than one (1) well needs to be described, provide attachment. Attached? ☐ **Yes** ☐ **No**
If yes, how many_____

Approximate depth of well (feet): 40'	Outside diameter of well casing (inches): 4"
Driller Name: Kenneth D. Cooper	Driller License Number: WD-1731

3. ADDITIONAL STATEMENTS OR EXPLANATIONS

OSE DII JUL 2 2021 PM2:18

Three groundwater monitoring wells (MW-11, MW-12, and MW-13) are proposed to be installed at coordinate locations above for semi-annual groundwater monitoring.

FOR OSE INTERNAL USE

Application for Permit, Form WR-07

File No.: C-4556	Trn No.: 699785

4. SPECIFIC REQUIREMENTS: The applicant must include the following, as applicable to each well type. Please check the appropriate boxes, to indicate the information has been included and/or attached to this application:

Exploratory: ☐ Include a description of any proposed pump test, if applicable.	**Pollution Control and/or Recovery:** ☐ Include a plan for pollution control/recovery, that includes the following: ☐ A description of the need for the pollution control or recovery operation. ☐ The estimated maximum period of time for completion of the operation. ☐ The annual diversion amount. ☐ The annual consumptive use amount. ☐ The maximum amount of water to be diverted and injected for the duration of the operation. ☐ The method and place of discharge.	**Construction De-Watering:** ☐ Include a description of the proposed dewatering operation, ☐ The estimated duration of the operation, ☐ The maximum amount of water to be diverted, ☐ A description of the need for the dewatering operation, and, ☐ A description of how the diverted water will be disposed of.	**Mine De-Watering:** ☐ Include a plan for pollution control/recovery, that includes the following: ☐ A description of the need for mine dewatering. ☐ The estimated maximum period of time for completion of the operation. ☐ The source(s) of the water to be diverted. ☐ The geohydrologic characteristics of the aquifer(s). ☐ The maximum amount of water to be diverted per annum. ☐ The maximum amount of water to be diverted for the duration of the operation. ☐ The quality of the water. ☐ The method of measurement of water diverted. ☐ The recharge of water to the aquifer. ☐ Description of the estimated area of hydrologic effect of the project. ☐ The method and place of discharge. ☐ An estimation of the effects on surface water rights and underground water rights from the mine dewatering project. ☐ A description of the methods employed to estimate effects on surface water rights and underground water rights. ☐ Information on existing wells, rivers, springs, and wetlands within the area of hydrologic effect.
Monitoring: ■ Include the reason for the monitoring well, and, ■ The duration of the planned monitoring.	☐ The method of measurement of water produced and discharged. ☐ The source of water to be injected. ☐ The method of measurement of water injected. ☐ The characteristics of the aquifer. ☐ The method of determining the resulting annual consumptive use of water and depletion from any related stream system. ☐ Proof of any permit required from the New Mexico Environment Department. ☐ An access agreement if the applicant is not the owner of the land on which the pollution plume control or recovery well is to be located.	**Ground Source Heat Pump:** ☐ Include a description of the geothermal heat exchange project, ☐ The number of boreholes for the completed project and required depths. ☐ The time frame for constructing the geothermal heat exchange project, and, ☐ The duration of the project. ☐ Preliminary surveys, design data, and additional information shall be included to provide all essential facts relating to the request.	

ACKNOWLEDGEMENT

I, We (name of applicant(s)), Sarah Johnson
Print Name(s)

affirm that the foregoing statements are true to the best of (my, our) knowledge and belief.

Applicant Signature _____ Applicant Signature _____

ACTION OF THE STATE ENGINEER

OSE DII JUL 2 2021 PM2:18

This application is:

☒ approved ☐ partially approved ☐ denied

provided it is not exercised to the detriment of any others having existing rights, and is not contrary to the conservation of water in New Mexico nor detrimental to the public welfare and further subject to the attached conditions of approval.

Witness my hand and seal this 8th day of JULY 20 21, for the State Engineer

JONH R. D'ANTONIO JR., P.E., State Engineer

By: _____ _____
Signature Print

Title: JUAN HERNANDEZ, ACTING DISTRICT MANAGER
Print

FOR OSE INTERNAL USE Application for Permit, Form WR-07

File No.: C-4556 Trn No.: 699785

NEW MEXICO STATE ENGINEER OFFICE
PERMIT TO EXPLORE

SPECIFIC CONDITIONS OF APPROVAL

17-1A Depth of the well shall not exceed the thickness of the valley fill.

17-4 No water shall be appropriated and beneficially used under this permit.

17-6 The well authorized by this permit shall be plugged completely using the following method per Rules and Regulations Governing Well Driller Licensing, Construction, Repair and Plugging of Wells; Subsection C of 19.27.4.30 NMAC unless an alternative plugging method is proposed by the well owner and approved by the State Engineer upon completion of the permitted use. All pumping appurtenance shall be removed from the well prior to plugging. To plug a well, the entire well shall be filled from the bottom upwards to ground surface using a tremie pipe. The bottom of the tremie shall remain submerged in the sealant throughout the entire sealing process; other placement methods may be acceptable and approved by the state engineer. The well shall be plugged with an office of the state engineer approved sealant for use in the plugging of non-artesian wells. The well driller shall cut the casing off at least four (4) feet below ground surface and fill the open hole with at least two vertical feet of approved sealant. The driller must fill or cover any open annulus with sealant. Once the sealant has cured, the well driller or well owner may cover the seal with soil. A Plugging Report for said well shall be filed with the Office of the State Engineer in a District Office within 30 days of completion of the plugging.

17-7 The Permittee shall utilize the highest and best technology available to ensure conservation of water to the maximum extent practical.

Trn Desc: C 04556 POD1 File Number: C 04556
Trn Number: 699785

NEW MEXICO STATE ENGINEER OFFICE
PERMIT TO EXPLORE

SPECIFIC CONDITIONS OF APPROVAL (Continued)

17-B The well shall be drilled by a driller licensed in the State of New Mexico in accordance with 72-12-12 NMSA 1978. A licensed driller shall not be required for the construction of a well driven without the use of a drill rig, provided that the casing shall not exceed two and three-eighths (2 3/8) inches outside diameter.

17-C The well driller must file the well record with the State Engineer and the applicant within 30 days after the well is drilled or driven. It is the well owner's responsibility to ensure that the well driller files the well record.
The well driller may obtain the well record form from any District Office or the Office of the State Engineer website.

17-P The well shall be constructed, maintained, and operated to prevent inter-aquifer exchange of water and to prevent loss of hydraulic head between hydrogeologic zones.

17-Q The State Engineer retains jurisdiction over this permit.

17-R Pursuant to section 72-8-1 NMSA 1978, the permittee shall allow the State Engineer and OSE representatives entry upon private property for the performance of their respective duties, including access to the ditch or acequia to measure flow and also to the well for meter reading and water level measurement.

LOG The Point of Diversion C 04556 POD1 must be completed and the Well Log filed on or before 07/08/2022.

LOG The Point of Diversion C 04556 POD2 must be completed and the Well Log filed on or before 07/08/2022.

NEW MEXICO STATE ENGINEER OFFICE
PERMIT TO EXPLORE

SPECIFIC CONDITIONS OF APPROVAL (Continued)

LOG The Point of Diversion C 04556 POD3 must be completed and the Well Log filed on or before 07/08/2022.

IT IS THE PERMITTEES RESPONSIBILITY TO OBTAIN ALL AUTHORIZATIONS AND PERMISSIONS TO DRILL ON PROPERTY OF OTHER OWNERSHIP BEFORE COMMENCING ACTIVITIES UNDER THIS PERMIT. CONSTRUCTION OF A WATER WELL BY ANYONE WITHOUT A VALID NM WELL

ACTION OF STATE ENGINEER

Notice of Intention Rcvd: Date Rcvd. Corrected:
Formal Application Rcvd: 07/02/2021 Pub. of Notice Ordered:
Date Returned - Correction: Affidavit of Pub. Filed:

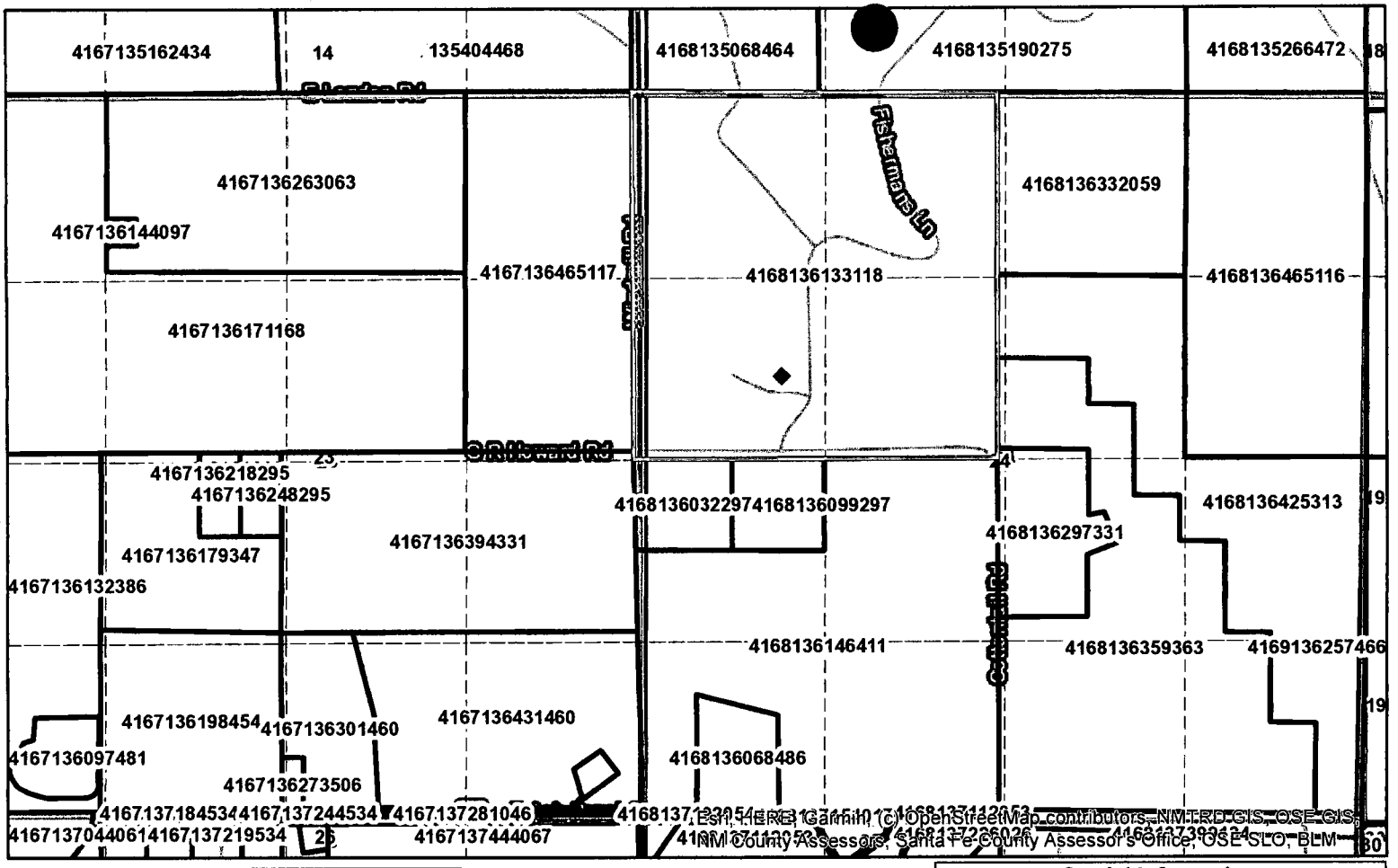
This application is approved provided it is not exercised to the detriment of any others having existing rights, and is not contrary to the conservation of water in New Mexico nor detrimental to the public welfare of the state; and further subject to the specific conditions listed previously.

Witness my hand and seal this 08 day of Jul A.D., 2021

John R. D Antonio, Jr., P.E. , State Engineer

By: JUAN HERNANDEZ

Trn Desc: C 04556 POD1 File Number: C 04556
Trn Number: 699785



Coordinates

UTM - NAD 83 (m) - Zone 13

Easting 589817.193

Northing 3573264.275

Decimal Degrees

Latitude 32.292568

Longitude -104.046091

Degrees Minutes Seconds

Latitude 32 : 17 : 33.244800

Longitude -104 : 2 : 45.927600

Location pulled from Coordinate Search

NEW MEXICO OFFICE OF THE STATE ENGINEER

1:18,056

mi

0 0.05 0.1 0.2

N

GUILLEN 7/8/2021

Office of the State Engineer

Interstate Stream Commission

Reasonable efforts have been made by the New Mexico Office of the State Engineer (OSE) to verify that these maps accurately interpret the source data used in their preparation, however, a degree of error is inherent in all maps, and these maps may contain omissions and errors in scale, resolution, rectification, positional accuracy, development methodology, interpretation of source data, and other circumstances.
These maps are distributed "as is" without warranty of any kind.

Spatial Information

County: Eddy

Groundwater Basin: Carlsbad

Abstract Area: C
CUB

Land Grant:
Not in Land Grant

Restrictions:
NA

PLSS Description
NESESWNW Qtr of Sec 24 of 023S 028E

Derived from CADNSDI- Qtr Sec. locations are calculated and are only approximations

Parcel Information

UPC/DocNum: 4168136133118

Parcel Owner: MOSAIC POTASH CARLSBAD

Address: null null null

Legal: Quarter: NW S: 24 T: 23S R: 28E NW MAP# 313-1
LOC GR HOWARD

POD Information

Owner: ARCADIS/CHEVRON

File Number: C-4556 POD1

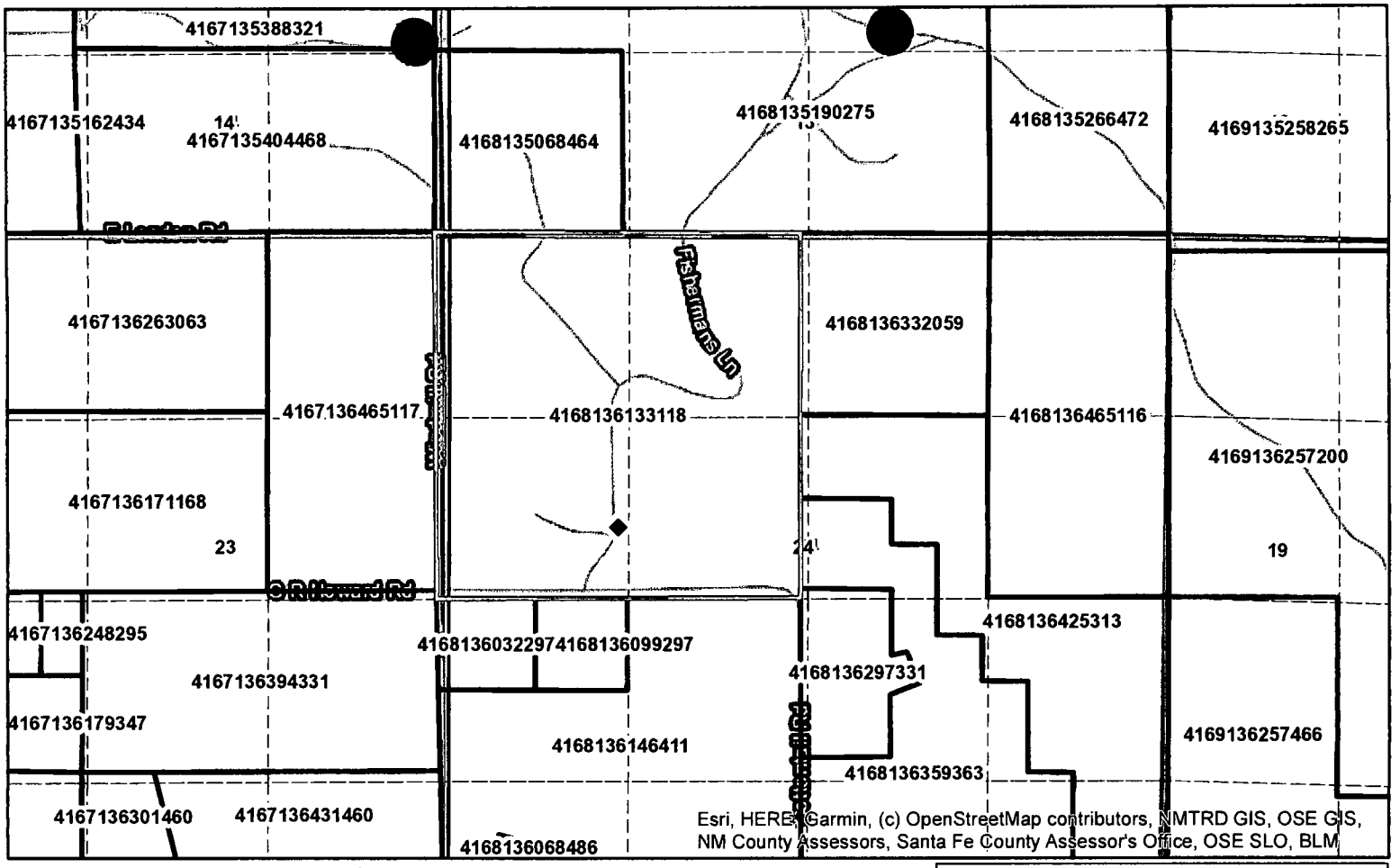
POD Status: NoData

Permit Status: NoData

Permit Use: NoData

Purpose: MON

- Coord Search Location
- Eddy County Parcels 2020
- Lea County Parcels 2020
- Sections
- BLM Land Grant
- PLSSTownship
- PLSSFirstDiv...
- PLSSSecond...



Coordinates

UTM - NAD 83 (m) - Zone 13

Easting 589891.525

Northing 3573239.327

Decimal Degrees

Latitude 32.292337

Longitude -104.045304

Degrees Minutes Seconds

Latitude 32 : 17 : 32.413200

Longitude -104 : 2 : 43.094400

Location pulled from Coordinate Search

NEW MEXICO OFFICE OF THE STATE ENGINEER

1:18,056

mi

0 0.05 0.1 0.2

N

GUILLEN 7/8/2021

Office of the State Engineer

Interstate Stream Commission

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Spatial Information

County: Eddy

Groundwater Basin: Carlsbad

Abstract Area: C
CUB

Land Grant:
Not in Land Grant

Restrictions:
NA

PLSS Description
NESESWNW Qtr of Sec 24 of 023S 028E

Derived from CADNSDI- Qtr Sec. locations are calculated and are only approximations

Parcel Information

UPC/DocNum: 4168136133118

Parcel Owner: MOSAIC POTASH CARLSBAD

Address: null null null

Legal: Quarter: NW S: 24 T: 23S R: 28E NW MAP# 313-1
LOC GR HOWARD

POD Information

Owner: ARCADIS/CHEVRON

File Number: C-4556 POD2

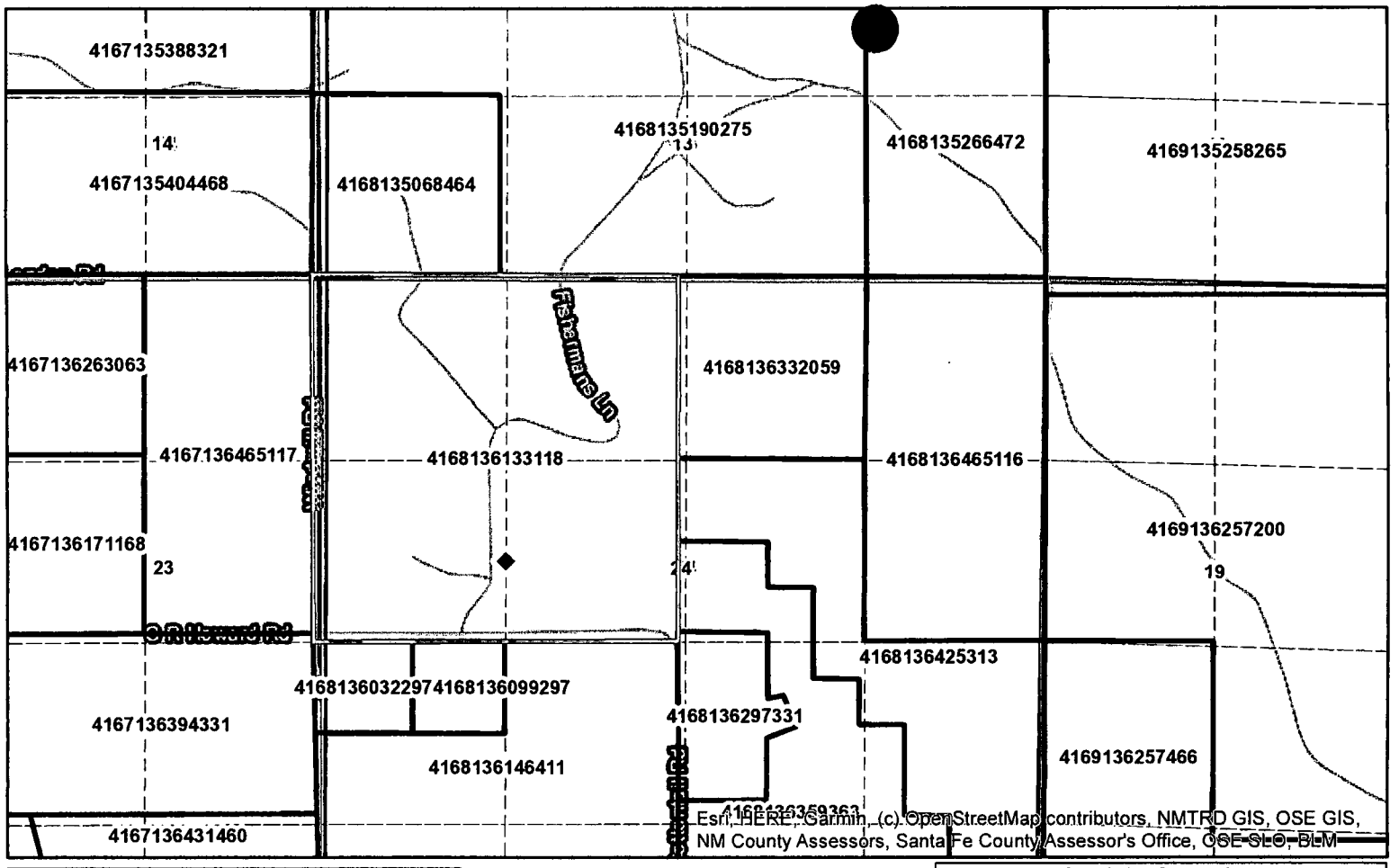
POD Status: NoData

Permit Status: NoData

Permit Use: NoData

Purpose: MON

- Coord Search Location
- Eddy County Parcels 2020
- Lea County Parcels 2020
- Sections
- BLM Land Grant
- PLSSTownship
- PLSSFirstDiv...
- PLSSSecond...



Coordinates

UTM - NAD 83 (m) - Zone 13

Easting **589915.455**

Northing **3573259.163**

Decimal Degrees

Latitude **32.292514**

Longitude **-104.045048**

Degrees Minutes Seconds

Latitude **32 : 17 : 33.050400**

Longitude **-104 : 2 : 42.172800**

Location pulled from Coordinate Search

NEW MEXICO OFFICE OF THE STATE ENGINEER

1:18,056

mi

0 0.05 0.1 0.2

N

GUILLEN 7/8/2021

Office of the State Engineer
Interstate Stream Commission

Reasonable efforts have been made by the New Mexico Office of the State Engineer (OSE) to verify that these maps accurately interpret the source data used in their preparation; however, a degree of error is inherent in all maps, and these maps may contain omissions and errors in scale, resolution, rectification, positional accuracy, development methodology, interpretation of source data, and other circumstances.
These maps are distributed "as is" without warranty of any kind.

Spatial Information

County: Eddy

Groundwater Basin: Carlsbad

Abstract Area: C
CUB

Land Grant:
Not in Land Grant

Restrictions:

NA

PLSS Description

NESESWNW Qtr of Sec 24 of 023S 028E

Derived from CADNSDI- Qtr Sec. locations are calculated and are only approximations

Parcel Information

UPC/DocNum: 4168136133118

Parcel Owner: MOSAIC POTASH CARLSBAD

Address: null null null

Legal: Quarter: NW S: 24 T: 23S R: 28E NW MAP# 313-1
LOC GR HOWARD

POD Information

Owner: ARCADIS/CHEVRON

File Number: C-4556 POD3

POD Status: NoData

Permit Status: NoData

Permit Use: NoData

Purpose: MON

- Coord Search Location
- Eddy County Parcels 2020
- Lea County Parcels 2020
- Sections
- BLM Land Grant
- PLSSTownship
- PLSSFirstDiv...
- PLSSSecond...

John R. D Antonio, Jr., P.E.
State Engineer

Roswell Office
1900 WEST SECOND STREET
ROSWELL, NM 88201

STATE OF NEW MEXICO
OFFICE OF THE STATE ENGINEER

Trn Nbr: 699785
File Nbr: C 04556

Jul. 08, 2021

SARAH REBECCA JOHNSON
ARCADIS US INC CHEVRON ENVIRONMENTAL MGMT
1004 N BIG SPRING ST STE 121
MIDLAND, TX 79701

Greetings:

Your approved copy of the above numbered permit to drill a well for non-consumptive purposes is enclosed. You must obtain an additional permit if you intend to use the water. It is your responsibility to provide the contracted well driller with a copy of the permit that must be made available during well drilling activities.

Carefully review the attached conditions of approval for all specific permit requirements.

* If use of this well is temporary in nature and the well will be plugged at the end of the well usage, the OSE must initially approve of the plugging. If plugging approval is not conditioned in this permit, the applicant must submit a Plugging Plan of Operations for approval prior to the well being plugged. The Plugging Record must be properly completed and submitted to the OSE within 30 days of the well plugging.

* If the final intended purpose and condition requires a well ID tag and meter installation, the applicant must immediately send a completed meter report form to this office.

* The well record and log must be submitted within 30 days of the completion of the well or if the attempt was a dry hole.

* This permit expires and will be cancelled if no well is drilled and/or a well log is not received by the date set forth in the conditions of approval.

Appropriate forms can be downloaded from the OSE website www.ose.state.nm.us.

Sincerely,

Claudia Guillen
(575)622-6521

Enclosure

explore

New Mexico Office of the State Engineer
Transaction Summary

EXPL Permit To Explore

Transaction Number: 699785 **Transaction Desc:** C 04556 POD1-3 **File Date:** 07/02/2021

Primary Status: PMT Permit
Secondary Status: LOG Well Log Received
Person Assigned: *******
Agent: ARCADIS US INC/CHEVRON ENVIRO
Contact: SARAH REBECCA JOHNSON

Events

	Date	Type	Description	Comment	Processed By
get images	07/02/2021	APP	Application Received	*	*******
	07/08/2021	FTN	Finalize non-published Trans.		*******
	07/30/2021	QAT	Quality Assurance Completed	DATA	*******
get images	09/23/2021	LOG	Well Log Received	*POD1	*******
get images	09/23/2021	LOG	Well Log Received	*POD2	*******
get images	09/23/2021	LOG	Well Log Received	*POD3	*******
	03/08/2022	QAT	Quality Assurance Completed	DATA	*******
	03/10/2022	QAT	Quality Assurance Completed	IMAGE	*******

Water Right Information

WR File Nbr	Acres	Diversion	Consumptive	Purpose of Use
C 04556	0	0		MON MONITORING WELL
**Point of Diversion				
C 04556 POD1		589816	3573264	
C 04556 POD2		589891	3573239	
C 04556 POD3		589915	3573259	

Remarks

"THREE GROUNDWATER MONITORING WELLS (MW-11, MW-12, AND MW-13) ARE PROPOSED TO BE INSTALLED AT COORDINATES LOCATIONS ABOVE FOR SEMI ANNUAL GROUNDWATER MONITORING."

Conditions

1A Depth of the well shall not exceed the thickness of the valley fill.

4 No water shall be appropriated and beneficially used under this permit.

B The well shall be drilled by a driller licensed in the State of New Mexico in accordance with 72-12-12 NMSA 1978. A licensed driller shall not be required for the construction of a well driven without the use of a drill rig, provided that the casing shall not exceed two and three-eighths (2 3/8) inches outside diameter.

C The well driller must file the well record with the State Engineer and the applicant within 30 days after the well is drilled or driven. It is the well owner's responsibility to ensure that the well driller files the well record. The well driller may obtain the well record form from any District Office or the Office of the State Engineer website.

6 The well authorized by this permit shall be plugged completely using the following method per Rules and Regulations Governing Well Driller Licensing, Construction, Repair and Plugging of Wells; Subsection C of 19.27.4.30 NMAC unless an alternative plugging method is proposed by the well owner and approved by the State Engineer upon completion of the permitted use. All pumping appurtenance shall be removed from the well prior to plugging. To plug a well, the entire well shall be filled from the bottom upwards to ground surface using a tremie pipe. The bottom of the tremie shall remain submerged in the sealant throughout the entire sealing process; other placement methods may be acceptable

7 The Permittee shall utilize the highest and best technology available to ensure conservation of water to the maximum extent practical.

P The well shall be constructed, maintained, and operated to prevent inter-aquifer exchange of water and to prevent loss of hydraulic head between hydrogeologic zones.

Q The State Engineer retains jurisdiction over this permit.

R Pursuant to section 72-8-1 NMSA 1978, the permittee shall allow the State Engineer and OSE representatives entry upon private property for the performance of their respective duties, including access to the ditch or acequia to measure flow and also to the well for meter reading and water level measurement.

---

x

Action of the State Engineer

**** See Image For Any Additional Conditions of Approval ****

Approval Code: A - Approved

Action Date: 07/08/2021

Log Due Date: 07/08/2022

State Engineer: John R. D Antonio,

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

New Mexico Office of the State Engineer
Water Right Summary

get image list

WR File Number: C 04556 **Subbasin:** CUB **Cross Reference:** -

Primary Purpose: MON MONITORING WELL

Primary Status: PMT PERMIT

Total Acres: **Subfile:** - **Header:** -

Total Diversion: 0 **Cause/Case:** -

Agent: ARCADIS US INC/CHEVRON ENVIRO

Contact: SARAH REBECCA JOHNSON

Documents on File

	Trn #	Doc	File/Act	Status 1	Status 2	Transaction Desc.	From/ To	Acres	Diversion	Consumptive
get images	699785	EXPL	2021-07-08	PMT	LOG	C 04556 POD1-3	T	0	0	

Current Points of Diversion

(NAD83 UTM in meters)

POD Number	Well Tag	Source	Q 64	Q16	Q4	Sec	Tws	Rng	X	Y	Other Location Desc
C 04556 POD1	NA	Shallow	4	3	1	24	23S	28E	589720	3573237	MW-11
C 04556 POD2	NA	Shallow	4	3	1	24	23S	28E	589891	3573239	MW-12
C 04556 POD3	NA	Shallow	4	3	1	24	23S	28E	590567	3573265	MW-13

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

---------------------------------- WARNING --
Some of the data that you have obtained from this U.S. Geological Survey database
may not have received Director's approval. Any such data values are qualified
as provisional and are subject to revision. Provisional data are released on the
condition that neither the USGS nor the United States Government may be held liable
for any damages resulting from its use.
#
Additional info: https://help.waterdata.usgs.gov/policies/provisional-data-statement
#
File-format description: https://help.waterdata.usgs.gov/faq/about-tab-delimited-output
Automated-retrieval info: https://help.waterdata.usgs.gov/faq/automated-retrievals
#
Contact: gs-w_support_nwisweb@usgs.gov
retrieved: 2022-01-25 12:36:05 EST   (nadww01)
#
US Geological Survey groundwater levels
#
Data for the following 1 site(s) are contained in this file
USGS 321701104034401 23S.28E.23.33344

#
The fields in this file include:
----
agency_cd   Agency code
site_no   USGS site number
site_tp_cd   Site type code
lev_dt   Date level measured
lev_tm   Time level measured
lev_tz_cd   Time datum
lev_va   Water-level value in feet below land surface
sl_lev_va   Water-level value in feet above specific vertical datum
sl_datum_cd   Referenced vertical datum
lev_status_cd Status
lev_agency_cd Measuring agency
lev_dt_acy_cd Water-level date-time accuracy
lev_acy_cd   Water-level accuracy
lev_src_cd   Source of measurement
lev_meth_cd   Method of measurement
lev_age_cd   Water-level approval status
#
Referenced agency codes (lev_agency_cd) included in this output:
#
""   Not determined
USGS   U.S. Geological Survey
#
Referenced site type codes (site_tp_cd) included in this output:
#
GW   Well
#
Referenced vertical datum codes (sl_datum_cd) included in this output:
#
NAVD88   North American Vertical Datum of 1988
NGVD29   National Geodetic Vertical Datum of 1929

#
Referenced water-level site status codes (lev_status_cd) included in this output:
#
1 Static
#
Referenced water-level date-time accuracy codes (lev_dt_acy_cd) included in this output:
#
D Date is accurate to the Day
m Date is accurate to the Minute
#
Referenced water-level accuracy codes (lev_acy_cd) included in this output:
#
"" Not determined
#
Referenced source of measurement codes (lev_src_cd) included in this output:
#
"" Not determined
S Measured by personnel of reporting agency.
#
Referenced method of measurement codes (lev_meth_cd) included in this output:
#
S Steel-tape measurement.
Z Other.
#
Referenced water-level approval-status codes (lev_age_cd) included in this output:
#
A Approved for publication -- Processing and review completed.
#

agency_cd	site_no	site_tp_cd	lev_dt	lev_tm	lev_tz_cd	lev_va	sl_lev_va	sl_datum_cd	lev_status_cd	lev_agency_cd	lev_dt_acy_cd	lev_acy_cd	lev_src_cd	lev_meth_cd	lev_age_cd
5s	15s	6s	10d	5d	5s	12s	12s	10s	1s	5s	1s	1s	1s	1s	1s
USGS	321701104034401	GW	1978-01-19			2950.36	NGVD29	1		D			Z	A	
USGS	321701104034401	GW	1978-01-19			2951.92	NAVD88	1		D			Z	A	
USGS	321701104034401	GW	1978-01-19			71.08		1		D			Z	A	
USGS	321701104034401	GW	1983-01-26			2978.51	NGVD29	1		D			Z	A	
USGS	321701104034401	GW	1983-01-26			2980.07	NAVD88	1		D			Z	A	
USGS	321701104034401	GW	1983-01-26			42.93		1		D			Z	A	
USGS	321701104034401	GW	1988-02-12			2983.46	NGVD29	1		D			Z	A	
USGS	321701104034401	GW	1988-02-12			2985.02	NAVD88	1		D			Z	A	
USGS	321701104034401	GW	1988-02-12			37.98		1		D			Z	A	
USGS	321701104034401	GW	1993-02-03			2983.64	NGVD29	1		D			S	A	
USGS	321701104034401	GW	1993-02-03			2985.20	NAVD88	1		D			S	A	
USGS	321701104034401	GW	1993-02-03			37.80		1		D			S	A	
USGS	321701104034401	GW	1995-07-19			2982.71	NGVD29	1		D			S	A	
USGS	321701104034401	GW	1995-07-19			2984.27	NAVD88	1		D			S	A	
USGS	321701104034401	GW	1995-07-19			38.73		1		D			S	A	
USGS	321701104034401	GW	1996-01-24			2983.08	NGVD29	1		D			S	A	
USGS	321701104034401	GW	1996-01-24			2984.64	NAVD88	1		D			S	A	
USGS	321701104034401	GW	1996-01-24			38.36		1		D			S	A	
USGS	321701104034401	GW	2003-01-28			2973.22	NGVD29	1	USGS	D			S	S	A
USGS	321701104034401	GW	2003-01-28			2974.78	NAVD88	1	USGS	D			S	S	A
USGS	321701104034401	GW	2003-01-28			48.22		1	USGS	D			S	S	A

USGS	321701104034401	GW	2013-01-11	19:00	UTC		2965.27	NGVD29	1	USGS	m		
S	S	A											
USGS	321701104034401	GW	2013-01-11	19:00	UTC		2966.83	NAVD88	1	USGS	m		
S	S	A											
USGS	321701104034401	GW	2013-01-11	19:00	UTC	56.17			1	USGS	m		S
S	A												
USGS	321701104034401	GW	2018-02-13	17:40	UTC		2978.59	NGVD29	1	USGS	m		
S	S	A											
USGS	321701104034401	GW	2018-02-13	17:40	UTC		2980.15	NAVD88	1	USGS	m		
S	S	A											
USGS	321701104034401	GW	2018-02-13	17:40	UTC	42.85			1	USGS	m		S
S	A												
USGS	321701104034401	GW	2021-02-24	17:43	UTC		2973.45	NGVD29	1	USGS	m		
S	S	A											
USGS	321701104034401	GW	2021-02-24	17:43	UTC		2975.01	NAVD88	1	USGS	m		
S	S	A											
USGS	321701104034401	GW	2021-02-24	17:43	UTC	47.99			1	USGS	m		S
S	A												

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USGS 321615104014601 23S.29E.30.331322

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Well Site

DESCRIPTION:

Latitude 32°16'15", Longitude 104°01'46" NAD27
Eddy County, New Mexico , Hydrologic Unit 13060011
Well depth: 89 feet
Land surface altitude: 2,962 feet above NAVD88.
Well completed in "Other aquifers" (N9999OTHER) national aquifer.
Well completed in "Alluvium, Bolson Deposits and Other Surface Deposits" (110AVMB) local aquifer

AVAILABLE DATA:

Data Type	Begin Date	End Date	Count
Field groundwater-level measurements	1954-11-08	1954-11-08	1
Revisions	Unavailable (site:0) (timeseries:0)		

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USGS 321634104023501 23S.28E.25.312

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Well Site

DESCRIPTION:

Latitude 32°16'29", Longitude 104°02'46" NAD27
Eddy County, New Mexico , Hydrologic Unit 13060011
Well depth: 96 feet
Land surface altitude: 2,992 feet above NGVD29.
Well completed in "Other aquifers" (N9999OTHER) national aquifer.
Well completed in "Alluvium, Bolson Deposits and Other Surface Deposits" (110AVMB) local aquifer

AVAILABLE DATA:

Data Type	Begin Date	End Date	Count
Field groundwater-level measurements	1954-11-02	1954-11-02	1
Revisions	Unavailable (site:0) (timeseries:0)		

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USGS 321652104021901 23S.28E.25.213131

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Well Site

DESCRIPTION:

Latitude 32°16'52", Longitude 104°02'19" NAD27
Eddy County, New Mexico , Hydrologic Unit 13060011
Well depth: 200 feet
Land surface altitude: 2,982 feet above NAVD88.
Well completed in "Other aquifers" (N9999OTHER) national aquifer.
Well completed in "Alluvium, Bolson Deposits and Other Surface Deposits" (110AVMB) local aquifer

AVAILABLE DATA:

Data Type	Begin Date	End Date	Count
Field groundwater-level measurements	1946-11-06	2003-01-28	12
Revisions	Unavailable (site:0) (timeseries:0)		

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USGS 321652104021902 23S.28E.25.213131A

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Well Site

DESCRIPTION:

Latitude 32°16'52", Longitude 104°02'19" NAD27
Eddy County, New Mexico , Hydrologic Unit 13060011
Well depth: 80 feet
Land surface altitude: 2,982 feet above NAVD88.
Well completed in "Other aquifers" (N9999OTHER) national aquifer.
Well completed in "Alluvium, Bolson Deposits and Other Surface Deposits" (110AVMB) local aquifer

AVAILABLE DATA:

Data Type	Begin Date	End Date	Count
Field groundwater-level measurements	1955-01-18	1996-01-24	25
Revisions	Unavailable (site:0) (timeseries:0)		

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USGS 321727104023901 23S.28E.24.13434

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Well Site

DESCRIPTION:

Latitude 32°17'27", Longitude 104°02'39" NAD27
Eddy County, New Mexico , Hydrologic Unit 13060011
Well depth: 96 feet
Land surface altitude: 2,993 feet above NAVD88.
Well completed in "Other aquifers" (N9999OTHER) national aquifer.
Well completed in "Alluvium, Bolson Deposits and Other Surface Deposits" (110AVMB) local aquifer

AVAILABLE DATA:

Data Type	Begin Date	End Date	Count
Field groundwater-level measurements	1946-09-05	2003-01-28	36
Revisions	Unavailable (site:0) (timeseries:0)		

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USGS 321818104025001 23S.28E.13.31111

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Well Site

DESCRIPTION:

Latitude 32°18'18", Longitude 104°02'50" NAD27
Eddy County, New Mexico , Hydrologic Unit 13060011
Well depth: 210 feet
Land surface altitude: 2,976 feet above NAVD88.
Well completed in "Other aquifers" (N9999OTHER) national aquifer.
Well completed in "Alluvium, Bolson Deposits and Other Surface Deposits" (110AVMB) local aquifer

AVAILABLE DATA:

Data Type	Begin Date	End Date	Count
Field groundwater-level measurements	1983-01-26	1996-01-25	5
Revisions	Unavailable (site:0) (timeseries:0)		

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USGS 321821104025501 23S.28E.14.244323

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Well Site

DESCRIPTION:

Latitude 32°18'21", Longitude 104°02'55" NAD27
Eddy County, New Mexico , Hydrologic Unit 13060011
Well depth: 132 feet
Land surface altitude: 2,973 feet above NAVD88.
Well completed in "Other aquifers" (N9999OTHER) national aquifer.
Well completed in "Alluvium, Bolson Deposits and Other Surface Deposits" (110AVMB) local aquifer

AVAILABLE DATA:

Data Type	Begin Date	End Date	Count
Field groundwater-level measurements	1954-09-10	1954-09-10	1
Revisions	Unavailable (site:0) (timeseries:0)		

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USGS 321825104025901 23S.28E.14.243221

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Well Site

DESCRIPTION:

Latitude 32°18'25", Longitude 104°02'59" NAD27
Eddy County, New Mexico , Hydrologic Unit 13060011
Well depth: 130 feet
Land surface altitude: 2,980 feet above NAVD88.
Well completed in "Other aquifers" (N9999OTHER) national aquifer.
Well completed in "Alluvium, Bolson Deposits and Other Surface Deposits" (110AVMB) local aquifer

AVAILABLE DATA:

Data Type	Begin Date	End Date	Count
Field groundwater-level measurements	1954-09-07	1954-10-07	2
Revisions	Unavailable (site:0) (timeseries:0)		

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USGS 321828104024301 23S.28E.13.13142

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Well Site

DESCRIPTION:

Latitude 32°18'28", Longitude 104°02'43" NAD27
Eddy County, New Mexico , Hydrologic Unit 13060011
Well depth: 40 feet
Land surface altitude: 2,980 feet above NAVD88.
Well completed in "Other aquifers" (N9999OTHER) national aquifer.
Well completed in "Alluvium, Bolson Deposits and Other Surface Deposits" (110AVMB) local aquifer

AVAILABLE DATA:

Data Type	Begin Date	End Date	Count
Field groundwater-level measurements	1950-05-01	1950-05-01	1
Revisions	Unavailable (site:0) (timeseries:0)		

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USGS 321828104024601 23S.28E.13.13141

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Well Site

DESCRIPTION:

Latitude 32°18'28", Longitude 104°02'46" NAD27
Eddy County, New Mexico , Hydrologic Unit 13060011
Well depth: 79 feet
Land surface altitude: 2,980 feet above NAVD88.
Well completed in "Other aquifers" (N9999OTHER) national aquifer.
Well completed in "Alluvium, Bolson Deposits and Other Surface Deposits" (110AVMB) local aquifer

AVAILABLE DATA:

Data Type	Begin Date	End Date	Count
Field groundwater-level measurements	1950-05-01	1950-05-01	1
Revisions	Unavailable (site:0) (timeseries:0)		

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USGS 321830104030301 23S.28E.14.241141

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Well Site

DESCRIPTION:

Latitude 32°18'26.4", Longitude 104°03'06.0" NAD83
Eddy County, New Mexico , Hydrologic Unit 13060011
Well depth: 80 feet
Land surface altitude: 2,973 feet above NAVD88.
Well completed in "Other aquifers" (N9999OTHER) national aquifer.
Well completed in "Alluvium, Bolson Deposits and Other Surface Deposits" (110AVMB) local aquifer

AVAILABLE DATA:

Data Type	Begin Date	End Date	Count
Field groundwater-level measurements	1954-09-07	2018-02-01	9
Revisions	Unavailable (site:0) (timeseries:0)		

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USGS 321832104022001 23S.28E.13.142

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Well Site

DESCRIPTION:

Latitude 32°18'32", Longitude 104°02'20" NAD27
Eddy County, New Mexico , Hydrologic Unit 13060011
Well depth: 45 feet
Land surface altitude: 2,972 feet above NAVD88.
Well completed in "Other aquifers" (N9999OTHER) national aquifer.
Well completed in "Alluvium, Bolson Deposits and Other Surface Deposits" (110AVMB) local aquifer

AVAILABLE DATA:

Data Type	Begin Date	End Date	Count
Field groundwater-level measurements	1950-05-01	1950-05-01	1
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USGS 321836104031001 23S.28E.14.214141

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Well Site

DESCRIPTION:

Latitude 32°18'36", Longitude 104°03'10" NAD27
Eddy County, New Mexico , Hydrologic Unit 13060011
Well depth: not determined.
Land surface altitude: 2,979 feet above NAVD88.
Well completed in "Other aquifers" (N9999OTHER) national aquifer.
Well completed in "Alluvium, Bolson Deposits and Other Surface Deposits" (110AVMB) local aquifer

AVAILABLE DATA:

Data Type	Begin Date	End Date	Count
Field groundwater-level measurements	1954-09-10	1954-09-10	1
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New Mexico Office of the State Engineer
Water Right Summary

WR File Number: C 00501 A **Subbasin:** CUB **Cross Reference:** -

Primary Purpose: IRR IRRIGATION

Primary Status: ADJ ADJUDICATED

Total Acres: 102 **Subfile:** 23 28 15 H I K **Header:** -

Total Diversion: 443.64 **Cause/Case:** -

Owner: HENRY E MCDONALD

Owner: JACKIE D MCDONALD

Documents on File

Trn #	Doc	File/Act	Status 1	Status 2	Transaction Desc.	From/ To	Acres	Diversion	Consumptive
347132	COWNF	2005-11-28	CHG	PRC	C 00501 A THRU C-501-AS2	T	0	0	
356193	ORDER	2003-12-27	ADJ	PRC	SP 6 AND C 501 A	T	102	443.64	
215850	COWNF	2001-10-15	CHG	PRC	C 00501 A THRU C 00501 AS-2	T	0	0	
170633	ADM	1999-12-09	PMT	APR	C-501-A	T	0	0	

Current Points of Diversion

POD Number	Well Tag	Source	Q 64	Q16	Q4	Sec	Tws	Rng	(NAD83 UTM in meters) X	Y	Other Location Desc
C 00501 A		Shallow	3	3	4	15	23S	28E	587179	3573958*	
C 00501 AS		Shallow	3	2	3	15	23S	28E	586766	3574353	
C 00501 AS2		Shallow				15	23S	28E	587074	3574653*	
SP 00006			4	1	3	12	21S	26E	570265	3595078	AVALON DAM GATE TO CID MAIN CA

***An (*) after northing value indicates UTM location was derived from PLSS - see Help**

Priority Summary

Priority	Status	Acres	Diversion	Pod Number	
04/30/1947	ADJ	38.4	141.964	C 00501 A	Shallow
				C 00501 AS	Shallow
				C 00501 AS2	Shallow
				SP 00006	

Place of Use

Q 256	Q 64	Q16	Q4	Sec	Tws	Rng	Acres	Diversion	CU	Use	Priority	Status	Other Location Desc
			3	15	23S	28E	102	443.64		IRR		ADJ	

Source

Acres	Diversion	CU	Use	Priority	Source Description
102	306		IRR		GW

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

New Mexico Office of the State Engineer
Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Twn	Rng	X	Y
	C 00501 A	3	3	4	15	23S	28E	587179	3573958*

Driller License: **Driller Company:**
Driller Name:

Drill Start Date: **Drill Finish Date:** **Plug Date:**
Log File Date: **PCW Rcv Date:** **Source:** Shallow
Pump Type: **Pipe Discharge Size:** **Estimated Yield:**
Casing Size: **Depth Well:** **Depth Water:**

Meter Number: 586 **Meter Make:** WATER SPEC
Meter Serial Number: 934654 **Meter Multiplier:** 1.0000
Number of Dials: 3 **Meter Type:** Diversion
Unit of Measure: Acre-Feet **Return Flow Percent:**
Usage Multiplier: **Reading Frequency:**

Meter Readings (in Acre-Feet)

Read Date	Year	Mtr Reading	Flag	Rdr	Comment	Mtr Amount	Online
12/29/1998	1999	0	A	ms		0	
06/15/1999	1999	0	A	ms		0	
09/10/1999	1999	0	A	ms		0	
12/22/1999	1999	0	A	ms		0	
03/24/2000	2000	0	A	ms		0	
04/06/2000	2000	0	A	mb		0	
06/14/2000	2000	0	A	mb		0	
07/07/2000	2000	0	A	mb		0	
09/18/2000	2000	0	A	mb		0	
10/19/2000	2000	0	A	mb		0	
12/29/2000	2000	0	A	RPT		0	
03/31/2001	2001	0	A	RPT		0	
06/29/2001	2001	0	A	RPT		0	
09/26/2001	2001	0	A	ms		0	
09/30/2001	2001	0	A	RPT		0	
11/07/2001	2001	0	A	AM		0	
09/03/2002	2002	125	A	ms		125.096	
01/13/2003	2002	138	A	ms		12.359	
04/02/2003	2003	143	A	ms		5.640	
06/04/2003	2003	187	A	ms		44.270	
08/20/2003	2003	270	A	ab		83.001	
10/27/2003	2003	329	A	TW		58.785	
01/07/2004	2003	329	A	ab		0	
04/27/2004	2004	352	A	TW		22.582	
07/15/2004	2004	361	A	TW		8.875	

10/20/2004	2004	361	A	TW	0
01/03/2005	2004	361	A	TW	0
03/31/2005	2005	361	A	JW	0
07/06/2005	2005	361	A	JW	0
10/19/2005	2005	361	A	TW	0
01/05/2006	2005	361	A	TW	0
04/06/2006	2006	361	A	tw	0.076
07/06/2006	2006	361	A	tw	0
01/09/2007	2006	361	A	tw	0
07/03/2007	2007	361	A	tw	0
10/10/2007	2007	361	A	tw	0
01/03/2008	2007	361	A	tw	0
04/24/2008	2008	361	A	tw	0
07/17/2008	2008	364	A	tw	3.350
10/02/2008	2008	364	A	tw	0
01/15/2009	2008	364	A	tw	0
04/22/2009	2009	389	A	tw	24.477
08/04/2009	2009	417	A	tw	28.677
01/06/2010	2009	417	A	tw	0
06/02/2010	2010	417	A	tw	0
01/12/2011	2010	417	A	tw	0
01/23/2012	2011	527	A	tw	109.720
03/12/2012	2012	529	A	tw	1.700
07/24/2012	2012	573	A	tw	44.531
02/12/2013	2012	608	A	tw	34.896
11/05/2013	2013	748	A	tw	139.908
06/10/2014	2014	750	A	tw	1.924
01/27/2015	2014	750	A	tw	0
07/24/2015	2015	750	A	tw	0

x

**YTD Meter Amounts:	Year	Amount
	1999	0
	2000	0
	2001	0
	2002	137.455
	2003	191.696
	2004	31.457
	2005	0
	2006	0.076
	2007	0
	2008	3.350
	2009	53.154
	2010	0
	2011	109.720
	2012	81.127
	2013	139.908
	2014	1.924
	2015	0

x

***UTM location was derived from PLSS - see Help**

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POINT OF DIVERSION
SUMMARY

New Mexico Office of the State Engineer
Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
	C 00869 S2	3	3	3	23	23S	28E	587996	3572343*

Driller License: **Driller Company:**
Driller Name:

Drill Start Date: **Drill Finish Date:** **Plug Date:**
Log File Date: **PCW Rcv Date:** **Source:** Shallow
Pump Type: **Pipe Discharge Size:** **Estimated Yield:**
Casing Size: **Depth Well:** **Depth Water:**

Meter Number: 583 **Meter Make:** MCCROMETER
Meter Serial Number: 03-12-01585 **Meter Multiplier:** 1.0000
Number of Dials: 3 **Meter Type:** Diversion
Unit of Measure: Acre-Feet **Return Flow Percent:**
Usage Multiplier: **Reading Frequency:** Quarterly

Meter Readings (in Acre-Feet)

Read Date	Year	Mtr Reading	Flag	Rdr	Comment	Mtr Amount	Online
01/04/2000	2000	79	A	MB		0	
02/05/2000	2000	79	A	ms		0.150	
04/06/2000	2000	106	A	ms		27.570	
07/07/2000	2000	117	A	ms		10.630	
10/09/2000	2000	138	A	ms		21.060	
01/05/2001	2000	138	A	ms		0	
11/08/2001	2001	376	A	ms		237.920	
10/22/2002	2002	753	A	ms		376.680	
01/03/2003	2002	753	A	ms		0	
03/31/2003	2003	780	A	ms		27.460	
03/31/2003	2003	0	A	ms		0	
06/03/2003	2003	138	A	ms		137.520	
08/20/2003	2003	326	A	ab		188.530	
10/27/2003	2003	476	A	TW		149.962	
01/06/2004	2003	476	A	ab		0	
04/28/2004	2004	544	A	TW		68.364	
07/14/2004	2004	557	A	TW		12.390	
10/20/2004	2004	557	A	TW		0	
01/03/2005	2004	557	A	TW		0.261	
01/30/2005	2005	557	A	TW		0	
03/30/2005	2005	577	A	ms		19.934	
07/06/2005	2005	577	A	JW		0	
10/18/2005	2005	578	A	TW		1.477	
01/05/2006	2005	579	A	TW		0.783	
04/05/2006	2006	579	A	tw		0	

07/06/2006	2006	579	A	tw	0
01/04/2007	2006	611	A	tw	31.392
07/03/2007	2007	611	A	tw	0
10/10/2007	2007	611	A	tw	0
01/03/2008	2007	629	A	tw	18.280
04/24/2008	2008	652	A	tw	23.040
07/16/2008	2008	692	A	tw	39.770
10/02/2008	2008	692	A	tw	0
01/15/2009	2008	692	A	tw	0
04/22/2009	2009	700	A	tw	8.240
06/07/2009	2009	719	A	tw	18.710
01/06/2010	2009	719	A	tw	0.070
06/02/2010	2010	719	A	tw	0
01/12/2011	2010	729	A	tw	10.310
01/23/2012	2011	880	A	tw	151.080
03/12/2012	2012	891	A	tw	10.420
07/12/2012	2012	997	A	tw	106.800
02/12/2013	2012	109	A	tw	111.380
02/13/2013	2013	0	A	tw	0
11/05/2013	2013	93	A	tw	93.254
06/10/2014	2014	93	A	tw	0
01/27/2015	2014	93	A	tw	0
07/24/2015	2015	93	A	tw	0
03/01/2016	2016	93	A	tw	0
08/09/2016	2016	93	A	tw	0
12/08/2016	2016	93	A	tw	0
07/20/2017	2017	93	A	tw	0
01/08/2018	2017	93	A	tw	0

x

**YTD Meter Amounts:	Year	Amount
	1999	0
	2000	59.410
	2001	237.920
	2002	376.680
	2003	503.472
	2004	81.015
	2005	22.194
	2006	31.392
	2007	18.280
	2008	62.810
	2009	27.020
	2010	10.310
	2011	151.080
	2012	228.600
	2013	93.254
	2014	0
	2015	0
	2016	0
	2017	0

Meter Number:	584	**Meter Make:**	
Meter Serial Number:	93852646	**Meter Multiplier:**	1.0000
Number of Dials:	5	**Meter Type:**	Power Child
Unit of Measure:	Kilowatt Hours	**Return Flow Percent:**	
Usage Multiplier:		**Reading Frequency:**	

Meter Readings in (Kilowatt Hours)

Read Date	Year	Mtr Reading	Flag	Rdr	Comment	Mtr Amount	Online
03/17/1999	1999	2	A	ms		0	
04/01/1999	1999	118	A	ms		116.000	
05/15/1999	1999	446	A	ms		328.000	
09/27/1999	1999	447	A	ms		1.000	
01/04/2000	1999	679	A	ms		232.000	
04/06/2000	2000	831	A	mb		152.000	
07/07/2000	2000	893	A	MB		62.000	
10/19/2000	2000	1088	A	mb		195.000	
04/26/2001	2001	1580	A	ms		492.000	
07/20/2001	2001	2101	A	ms		521.000	

**YTD Meter Amounts:	Year	Amount
	1999	677.000
	2000	409.000
	2001	1013.000

***UTM location was derived from PLSS - see Help**

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4/14/23 7:48 AM POINT OF DIVERSION SUMMARY

New Mexico Office of the State Engineer
Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Twn	Rng	X	Y
	C 01303	4	4	2	36	23S	28E	591041	3569943*

Driller License: **Driller Company:**
Driller Name:

Drill Start Date: **Drill Finish Date:** **Plug Date:**
Log File Date: **PCW Rcv Date:** 12/14/1966 **Source:** Shallow
Pump Type: TURBIN **Pipe Discharge Size:** **Estimated Yield:**
Casing Size: **Depth Well:** **Depth Water:**

Meter Number: 5918 **Meter Make:** WATER SPEC
Meter Serial Number: 935184-8 **Meter Multiplier:** 1.0000
Number of Dials: 3 **Meter Type:** Diversion
Unit of Measure: Acre-Feet **Return Flow Percent:**
Usage Multiplier: **Reading Frequency:**

Meter Readings (in Acre-Feet)

Read Date	Year	Mtr Reading	Flag	Rdr	Comment	Mtr Amount	Online
09/11/2002	2002	0	A	ms		0	
09/11/2002	2002	83	A	ms		82.790	
04/01/2003	2002	100	A	MS		17.690	
06/10/2003	2003	100	A	ms		0	
08/20/2003	2003	100	A	ab		0	
01/06/2004	2003	100	A	ab		0	
05/12/2004	2004	100	A	TW		0	

**YTD Meter Amounts:	Year	Amount
	2002	100.480
	2003	0
	2004	0

***UTM location was derived from PLSS - see Help**

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New Mexico Office of the State Engineer
Water Right Summary

WR File Number: C 01303 **Subbasin:** CUB **Cross Reference:** -

Primary Purpose: IRR IRRIGATION

Primary Status: ADJ ADJUDICATED

Total Acres: 10 **Subfile:** 23 28 36 A B **Header:** -

Total Diversion: 39.97 **Cause/Case:** -

Owner: GEORGE ANNIS

Owner: SARAH M. WISDOM ANNIS

Current Points of Diversion

(NAD83 UTM in meters)

POD Number	Well Tag	Source	Q 64	Q16	Q4	Sec	Tws	Rng	X	Y	Other Location Desc
C 01303		Shallow	4	4	2	36	23S	28E	591041	3569943*	
SP 00006			4	1	3	12	21S	26E	570265	3595078	AVALON DAM GATE TO CID MAIN CA

***An (*) after northing value indicates UTM location was derived from PLSS - see Help**

Priority Summary

Priority	Status	Acres	Diversion	Pod Number	
10/22/1965	ADJ	10	39.97	C 01303	Shallow
				SP 00006	

Place of Use

Q 256	Q 64	Q16	Q4	Sec	Tws	Rng	Acres	Diversion	CU	Use	Priority	Status	Other Location Desc
			36	23S	28E		10	36.97		IRR		APP	
		2	36	23S	28E		50.5	186.698		IRR		ADJ	
		4	36	23S	28E		25.5	94.273		IRR		ADJ	
	1	2	36	23S	28E		9.2	27.6		IRR	10/22/1965	LIC	
	1	4	36	23S	28E		7.2	21.6		IRR	10/22/1965	LIC	
	1	4	36	23S	28E		11	33		IRR		PMT	
	2	2	36	23S	28E		6.4	19.2		IRR	10/22/1965	LIC	
	2	3	36	23S	28E		20	60		IRR		PMT	
	2	4	36	23S	28E		9	27		IRR	10/22/1965	LIC	
	2	4	36	23S	28E		0	0		IRR		PMT	INCLUDED IN PREVIOUSLY DESCRIBED ACREAGE.
	3	2	36	23S	28E		8.5	25.5		IRR	10/22/1965	LIC	
	3	4	36	23S	28E		16.2	48.6		IRR	10/22/1965	LIC	
	4	2	36	23S	28E		10	30		IRR		PMT	WEST 24 ACRES.
	4	2	36	23S	28E		19.5	58.5		IRR	10/22/1965	LIC	

Source

Acres	Diversion	CU	Use	Priority	Source Description
76	228		IRR	10/22/1965	GW
76	280.972		IRR		GW
10	36.97		IRR		GW

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WATER RIGHT
SUMMARY

ATTACHMENT 5

Updated S1AP Project Schedule

Updated Stage 1 Abatement Plan Schedule (April 2023)

Task #	Task ID	Start Date	Finish Date	NMED Approval	Notes
---	Approval of Modified Stage 1 Abatement Plan Proposal		11/18/2022	11/18/2022	NMED approval date of 11/18/2022
---	Quarterly Project Status Meetings with the NMED	5/1/2023	2/18/2025		Quarterly meetings with the NMED to discuss status of S1AP and planned activities for upcoming quarter (target 2 weeks after submittal of quarterly progress reports)
	Q2 2023	5/1/2023	5/1/2023		
	Q3 2023	8/14/2023	8/14/2023		
	Q4 2023	11/13/2023	11/13/2023		
	Q1 2024	2/14/2024	2/14/2024		
	Q2 2024	5/15/2024	5/15/2024		
	Q3 2024	8/14/2024	8/14/2024		
	Q4 2024	11/15/2024	11/15/2024		
	Q1 2025	2/18/2025	2/18/2025		
---	Compile and Evaluate Existing Information	12/5/2022	4/15/2023		Results of the data gap analysis will be presented as an attachment to the summary S1AP quarterly progress report covering the period when the gap analysis is completed (Q1 2023 Quarterly Report).
1	Data Gap Analysis	2/1/2023	4/15/2023		
2	Further Investigate Site Geology and Hydrogeology	11/18/2022	2/28/2025		90 days following receipt of analytical results from final quarter of S1AP investigation, assume final quarterly lab results will be available by 11/30/2024
2a	Well Inventory	12/5/2022	4/15/2023		Results of the updated well inventory will be presented as an attachment to the summary S1AP quarterly progress report covering the period when the gap analysis is completed (Q1 2023 Quarterly Report).
2b	Define the Extent of Potential Impacts to Groundwater from Mosaic Discharges	11/18/2022	2/28/2025		90 days following receipt of analytical results from final quarter of S1AP investigation, assume final quarterly lab results will be available by 11/30/2024
2c	Characterize the Hydrogeologic Conditions Between Laguna Grande and the Pecos River	11/18/2022	2/28/2025		90 days following receipt of analytical results from final quarter of S1AP investigation, assume final quarterly lab results will be available by 11/30/2024
2d	Characterize the Hydrogeologic Conditions West of the Pecos River	11/18/2022	2/28/2025		90 days following receipt of analytical results from final quarter of S1AP investigation, assume final quarterly lab results will be available by 11/30/2024
	Attempt to Obtain Access Agreements with Landowners	11/18/2022	6/30/2023		Assume access agreements from landowners will be obtained by 6/30/2023
	Quarterly Monitoring of West Side Wells	7/17/2023	10/11/2024		6 quarterly monitoring events, assume they will start with the July 2023 (Q3) monitoring event, and reporting to occur with quarterly progress reporting (Task 12a), final Quarterly Report to be submitted on 1/31/2025
	Q3 2023 Quarterly Monitoring	7/17/2023	7/31/2023		
	Q4 2023 Quarterly Monitoring	10/16/2023	10/31/2023		
	Q1 2024 Quarterly Monitoring	1/15/2024	1/31/2024		
	Q2 2024 Quarterly Monitoring	4/15/2024	4/30/2024		
	Q3 2024 Quarterly Monitoring	7/15/2024	7/31/2024		
	Q4 2024 Quarterly Monitoring	10/14/2024	10/31/2024		
2e	Characterize the Hydrogeologic Connection Between the Pecos River and Groundwater	11/18/2022	2/28/2025		90 days following receipt of analytical results from final quarter of S1AP investigation, assume final quarterly lab results will be available by 11/30/2024
3	Further Investigate Site Surface Water Hydrology	11/18/2022	2/28/2025		90 days following receipt of analytical results from final quarter of S1AP investigation, assume final quarterly lab results will be available by 11/30/2024
4	Characterization of the Waste Stream Discharged from the Plant Site to the Salt Stack and Laguna Grande	11/18/2022	2/28/2025		90 days following receipt of analytical results from final quarter of S1AP investigation, assume final quarterly lab results will be available by 11/30/2024
5	Suspended Clay Particles to the Laguna Grande Brine Management Area	11/18/2022	2/28/2025		90 days following receipt of analytical results from final quarter of S1AP investigation, assume final quarterly lab results will be available by 11/30/2024

Updated Stage 1 Abatement Plan Schedule (April 2023)

Task #	Task ID	Start Date	Finish Date	NMED Approval	Notes
6	Producer Operations and Impacts to Groundwater and the Pecos River	11/18/2022	2/28/2025		90 days following receipt of analytical results from final quarter of S1AP investigation, assume final quarterly lab results will be available by 11/30/2024
7	Study Hydrologic Conditions Present in the Area of Monitoring Well LG-2	12/13/2021	10/7/2022		Drilling started on 12/13/2021. Draft installation report submitted to Sarah Gonzales (Mosaic) on 3/7/2022, and the final installation report was submitted to Sarah Gonzales on 10/7/2022 and assumed to have been submitted to the NMED on that day.
8	Water Balance Analysis Within Nash Draw	11/18/2022	2/28/2025		90 days following receipt of analytical results from final quarter of S1AP investigation, assume final quarterly lab results will be available by 11/30/2024
9	Proposed Monitoring Plan	12/5/2022	12/18/2022	1/18/2023	30 days from approval of the Modified S1AP Proposal by NMED
10	Quality Assurance Plan	12/5/2022	1/23/2023	3/17/2023	60 days from approval of the Modified S1AP Proposal by NMED, 7 day extension approved by NMED and plan was submitted to the NMED on 1/23/2023. Conditional Approval
11	Site Health and Safety Plan	12/5/2022	1/23/2023	3/9/2023	60 days from approval of the Modified S1AP Proposal by NMED, 7 day extension approved by NMED and plan was submitted to the NMED on 1/23/2023
12	Stage 1 Abatement Plan Reporting	4/1/2023	6/28/2025		
12a	Summary Quarterly Progress Reports	4/1/2023	1/31/2025		Quarterly Progress reports to be submitted by 4/30 (Q1), 7/31 (Q2), 10/31 (Q3), and 1/31 (Q4) of each year for a period of 2 years (8 Quarters), beginning with the Q1 2023 report that will be submitted on 4/30/2023
	Q1 2023 Quarterly Progress Report	4/1/2023	4/15/2023		
	Q2 2023 Quarterly Progress Report	7/1/2023	7/31/2023		
	Q3 2023 Quarterly Progress Report	10/1/2023	10/31/2023		
	Q4 2023 Quarterly Progress Report	1/1/2024	1/31/2024		
	Q1 2024 Quarterly Progress Report	4/1/2024	4/30/2024		
	Q2 2024 Quarterly Progress Report	7/1/2024	7/31/2024		
	Q3 2024 Quarterly Progress Report	10/1/2024	10/31/2024		
	Q4 2024 Quarterly Progress Report	1/1/2025	1/31/2025		
12b	Draft Final Site Investigation Report	11/30/2024	2/28/2025		90 days following receipt of analytical results from final quarter of S1AP investigation, assume final quarterly lab results will be available by 11/30/2024
	Final Site Investigation Report	3/30/2025	6/28/2025		90 days following receipt of NMED's comments on Final Site Investigation Report, assume NMED provides review comments on draft report back in 30 days



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