

2021 Evaluation of the Groundwater Monitoring Program at the Grand Junction, Colorado, Site

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Abbreviations

CCR	<i>Code of Colorado Regulations</i>
CDPHE	Colorado Department of Public Health and Environment
COC	constituent of concern
DOE	U.S. Department of Energy
ft	feet
IC	institutional control
LM	Office of Legacy Management
LTS&M Plan	Long-Term Surveillance and Maintenance Plan
mg/L	milligrams per liter
NFA	no further action
UMTRCA	Uranium Mill Tailings Radiation Control Act

1.0 Introduction

The *Long-Term Surveillance and Maintenance Plan for the Grand Junction, Colorado, Site* (DOE 2021), hereafter referred to as the Long-Term Surveillance and Maintenance Plan (LTS&M Plan), requires an evaluation of the groundwater monitoring program at the end of each 5-year monitoring period. The last monitoring period ended in 2020. As stated in the LTS&M Plan, the “evaluation will be documented in a report that includes a presentation of monitoring data and an evaluation of the progress of natural flushing of the alluvial aquifer,” and “results and recommendations from this evaluation will be documented in a report that will be submitted to CDPHE for review.” Therefore, the purpose of this report is to present monitoring data, evaluate the progress of natural flushing in the alluvial aquifer, and propose a revised monitoring program based on the evaluation. This report with recommendations for revisions to the monitoring program will be submitted to the Colorado Department of Public Health and Environment (CDPHE) for approval. If recommended changes to the monitoring program are approved by CDPHE, the LTS&M Plan will be updated to reflect the revised monitoring program.

2.0 Site Conditions

2.1 Surface Remediation

The U.S. Department of Energy (DOE) cleaned up the mill tailings and associated materials at the Grand Junction, Colorado, Site under its Surplus Facilities Management Program. Because the materials at the site were identical to those generated at Uranium Mill Tailings Radiation Control Act (UMTRCA) Title I sites, the Grand Junction site was cleaned up to UMTRCA standards, and wastes were disposed of in the Grand Junction UMTRCA Title I disposal cell. However, unlike UMTRCA Title I sites, the Grand Junction site does not come under the authority of the U.S. Nuclear Regulatory Commission. CDPHE has been the sole regulator for the site. The majority of surface cleanup of the site was completed in 1994, and remediation of the last building was completed in 2014.

2.2 Institutional Controls (ICs)

Site groundwater and surface water contain contaminants in concentrations exceeding regulatory limits. ICs have been established as part of the remedy to prevent use of and exposure to contaminated water. ICs refer to nonengineering measures, usually legal controls that are designed to prevent or limit exposure to hazardous substances left in place or to assure effectiveness of the remedy (EPA 2004).

ICs that have been applied to the site include:

- Restrictions on the use of groundwater, surface water, gravel mining, and consumption of aquatic life from surface water.
- Warning signs around the South Pond, North Pond, and wetlands areas that inform the public that surface waters are contaminated and that swimming in, taking fish from, extracting, and drinking the surface water are prohibited in the ponds and wetlands areas (DOE 2001a).
- Controls to prevent disturbing a decommissioned well that contains radium foil.

The controls and obligations of involved parties are defined in the quitclaim deed (DOE 2001c) and enforceable agreement between DOE and CDPHE (CDPHE 2001) recorded in Mesa County. These controls will survive subsequent property transfers and will be monitored by the DOE Office of Legacy Management (LM) and enforced by CDPHE through Comprehensive Environmental Response, Compensation, and Liability Act authorities, as specified in the quitclaim deed and enforceable agreement.

2.3 Hydrogeology

There are two important hydrogeologic units at the Grand Junction site: the unconsolidated alluvial aquifer along the Gunnison River and the underlying Morrison Formation aquitard. These two units and the Gunnison River are the controlling factors in contaminant migration and discharge to the river. The alluvial aquifer consists of two facies, a silty sand unit overlying a basal unit of poorly sorted, unconsolidated sands and gravels. These facies are laterally consistent across the Grand Junction site. The alluvial aquifer is bounded on the east by the Morrison Formation and on the west and north by the Gunnison River and is open to the south, where it continues along the east bank of the river (DOE 1989b).

The alluvial aquifer connects hydraulically with the Gunnison River, and recharge of the aquifer is due mainly to fluctuations in the river and, to a lesser extent, precipitation. The thickness of the alluvial aquifer averages between 20 and 25 feet (ft), with depth to ground water ranging from 5 to 10 ft below ground surface over much of the site. Aquifer pumping tests indicate that the alluvial aquifer has hydraulic conductivities ranging between 30 and 45 ft per day. Specific yield values of approximately 0.05 over a saturated thickness of 14 ft were determined by pumping tests. Water level measurements indicate that the general gradient is from south to north, and groundwater is discharged into the Gunnison River on the west and north boundaries of the site (DOE 1989b). Groundwater in the alluvial aquifer at the Grand Junction site is not used for any purpose, and ICs prevent future use.

2.4 Monitoring Program

Groundwater remediation of the site has been ongoing. The groundwater remedy selected for the site was natural flushing. Monitoring has been conducted annually since 2001, and the monitoring program has been reevaluated in accordance with the LTS&M Plan (DOE 2021).

According to the *Groundwater, Surface Water, and Sediment Compliance Action Plan for the U.S. Department of Energy, Grand Junction, Colorado, Office Facility*, “criteria for modifying or terminating groundwater and surface water monitoring will be (1) continued decrease in concentrations of COCs [constituents of concern] as predicted and observed, (2) compliance with regulatory limits, and (3) no unacceptable risks to human health and the environment resulting from site-related contamination” (DOE 2001b). Modifications may include changing or adding additional sample locations or changing the suite of analytes.

The analyte list in the LTS&M Plan was initially based on a consideration of water quality standards (groundwater and surface water), potential human health and ecological risks, general water quality indicators, and historical site monitoring results. Based on the 2006 monitoring program evaluation (DOE 2006), analyses for arsenic, chloride, chromium, gross alpha particle

activity, nitrate, and total dissolved solids were discontinued. In the 2011 monitoring program evaluation (DOE 2011), recommendations included making a reduction of analytes, adding an additional well, adding a method of determining when natural flushing is complete, and implementing a reduction in the sampling frequency. However, these recommendations did not receive CDPHE concurrence. In the 2016 monitoring program evaluation, a recommendation was made and a path forward presented for conditional closure of the site using CDPHE policy (CDPHE 2014); that recommendation and path forward are updated in this report. The monitoring program has not changed since 2006, with seven monitoring wells and six surface locations monitored for manganese (groundwater only), molybdenum, selenium, sulfate, and uranium.

3.0 Data Presentation

3.1 Groundwater

The groundwater monitoring network specified in the LTS&M Plan consists of seven monitoring wells (8-4S, 11-1S, GJ01-01, 6-2N, 14-13NA, GJ84-04, and 10-19N) completed in the alluvial aquifer. These wells are distributed throughout the site (Figure 1), and most have an extensive monitoring history. Groundwater samples were analyzed for manganese, molybdenum, selenium, sulfate, and uranium. Field measurements of pH, specific conductance, temperature, total alkalinity, turbidity, and groundwater level were conducted at each sampled location. Samples were collected according to the *Sampling and Analysis Plan for U. S. Department of Energy Office of Legacy Management Sites* (LMS/PRO/S04351). Groundwater data are presented in Appendix A.

A summary of groundwater monitoring results (in milligrams per liter [mg/L]) from 2016 to 2020 is presented in Table 1. Figure 2 through Figure 6 present analyte concentrations over time for each well in the long-term monitoring network.

Table 1. Summary of Analyte Concentrations in the Alluvial Aquifer from 2016^a to 2020

Analyte	Standard ^b or Background (mg/L)	Range (mg/L)	Mean (mg/L)	Number Exceeding Standard or Background
Manganese	0.72 ^c	0.28–4.7	1.81	24 out of 35
Molybdenum	0.21	0.012–0.12	0.055	0 out of 35
Selenium	0.05	0.00018–0.036	0.011	0 out of 35
Sulfate	1150 ^c	220–2700	1084	18 out of 35
Uranium	0.03	0.03–0.73	0.24	35 out of 35

Notes:

^a Samples for the 2016 sampling event were collected in December 2015.

^b Standards are from “The Basic Standards for Ground Water” in 5 CCR 1002-41.

^c Background for manganese and sulfate are the maximum concentration observed in upgradient monitoring wells GJ84-09 and GJ84-10.

Abbreviation:

CCR = Code of Colorado Regulations



Figure 1. Monitoring Network at the Grand Junction, Colorado, Site

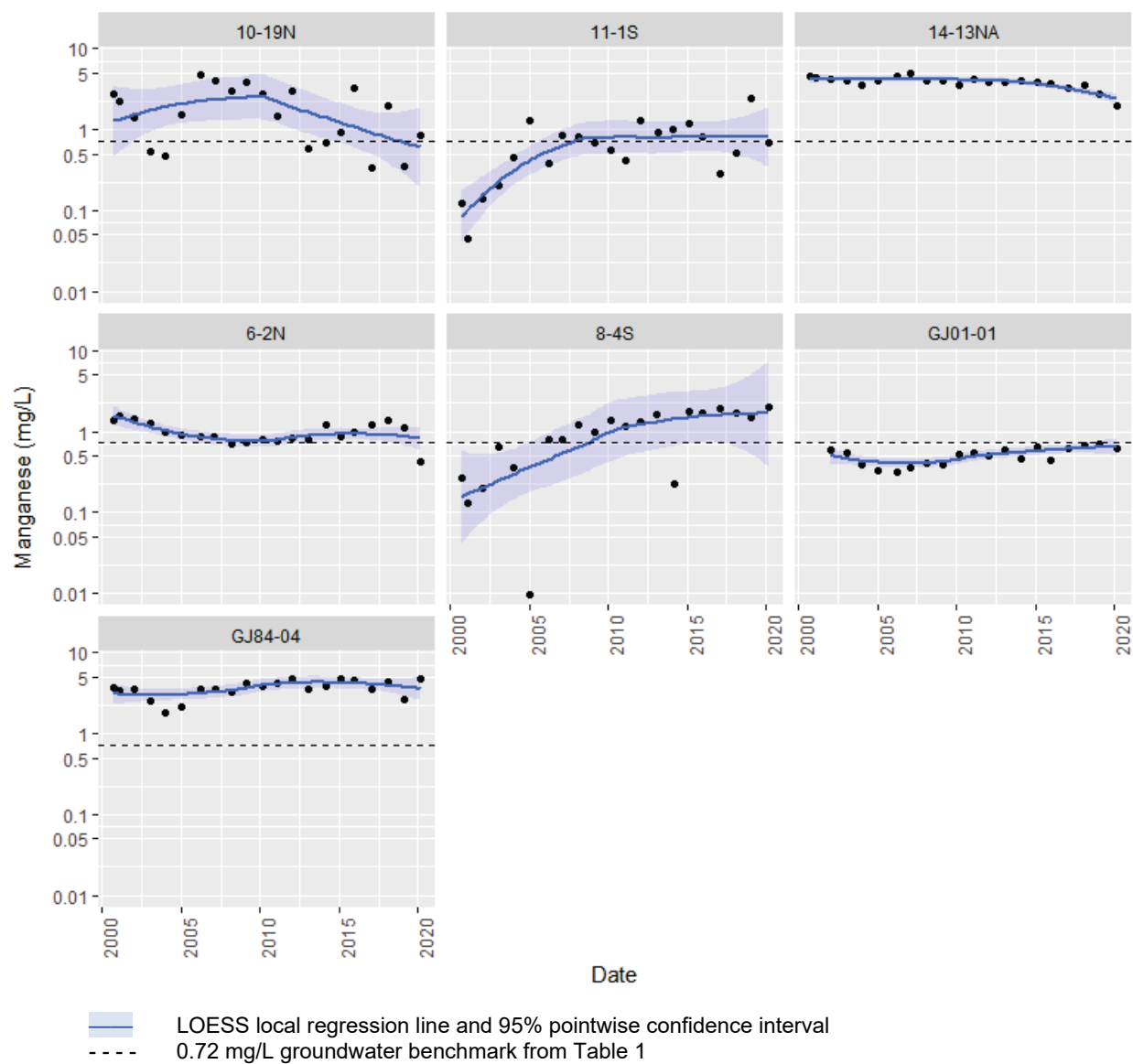


Figure 2. Manganese Concentrations in Groundwater, 2000 to 2020

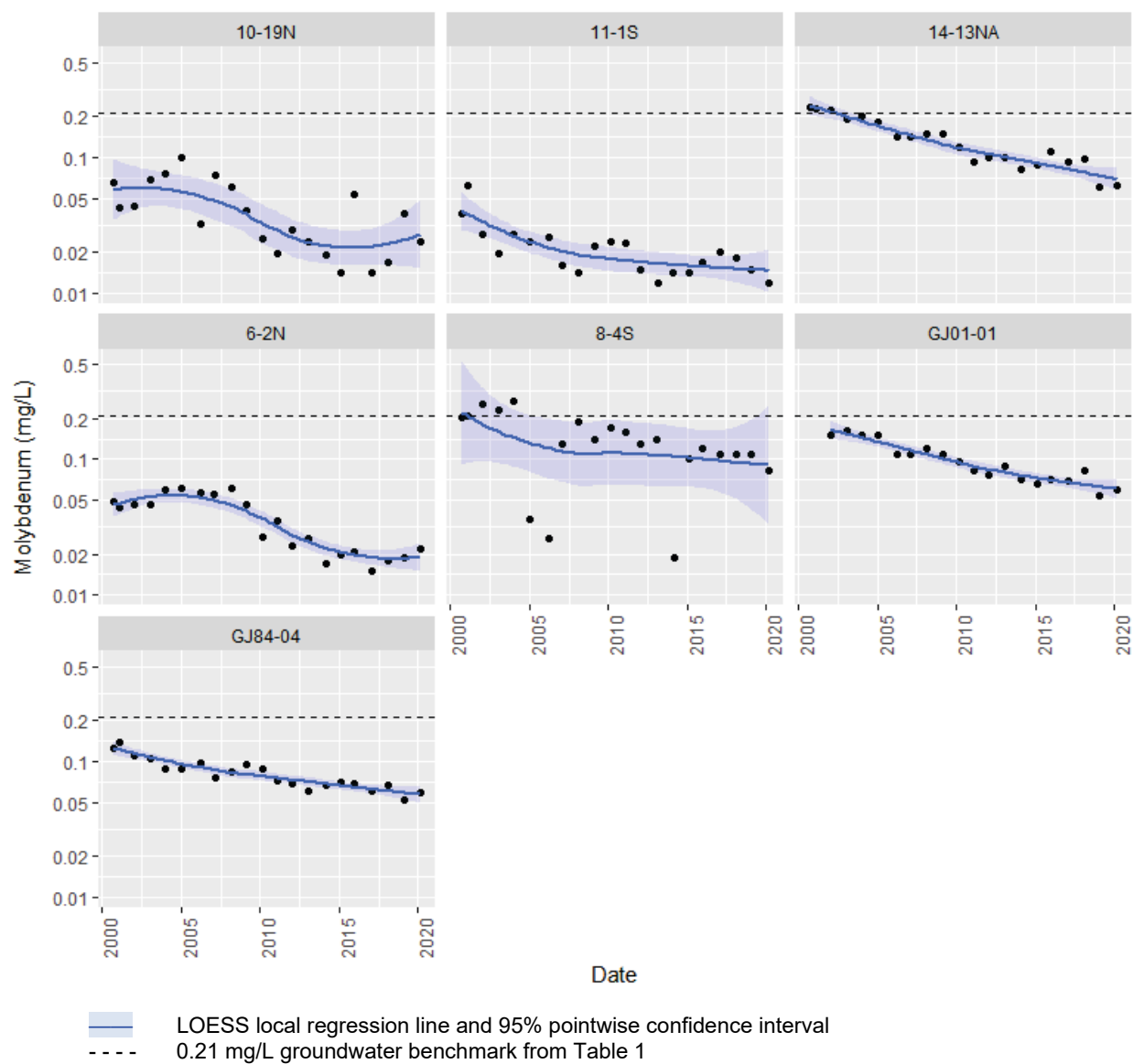


Figure 3. Molybdenum Concentrations in Groundwater, 2000 to 2020

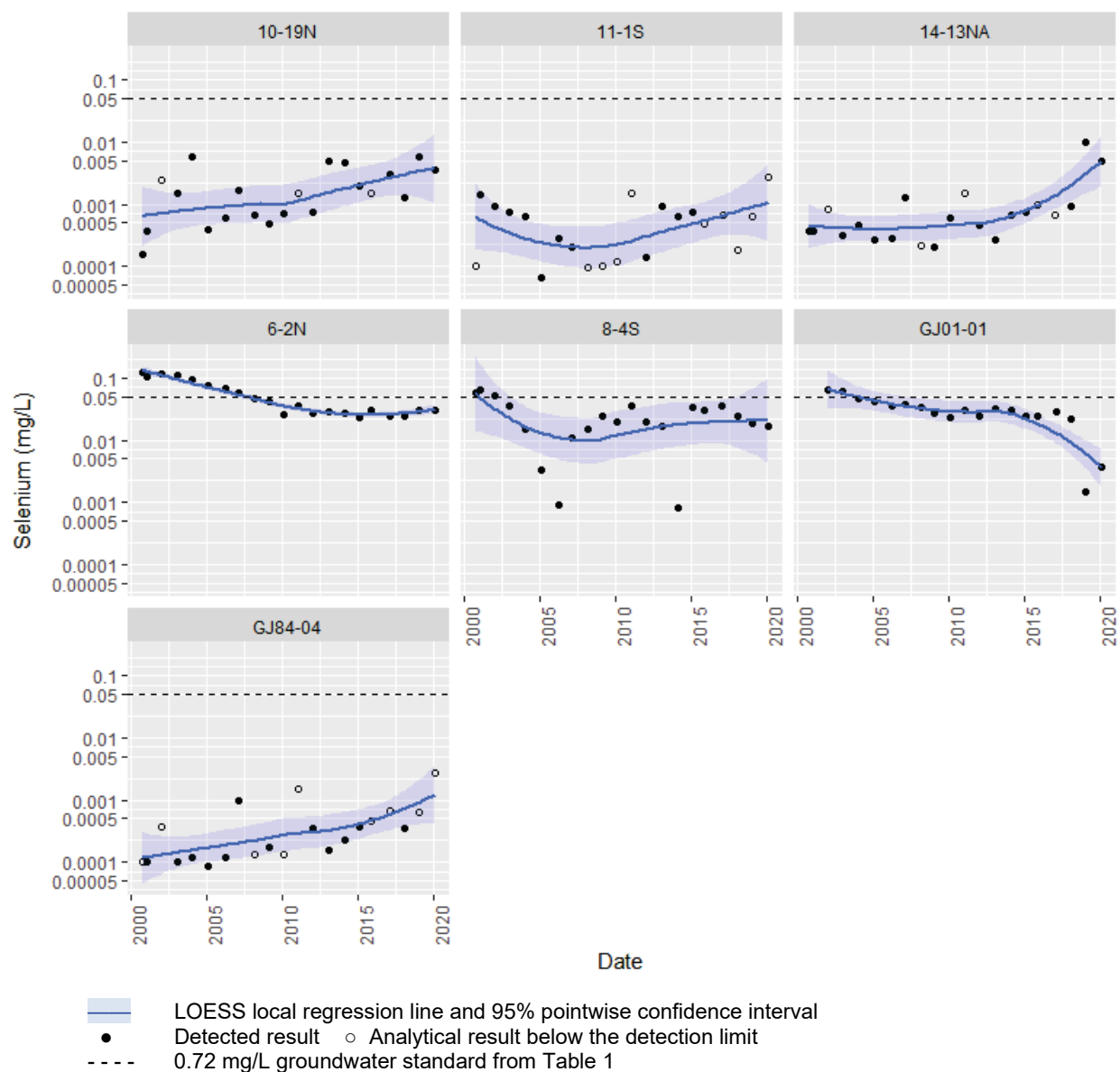


Figure 4. Selenium Concentrations in Groundwater, 2000 to 2021

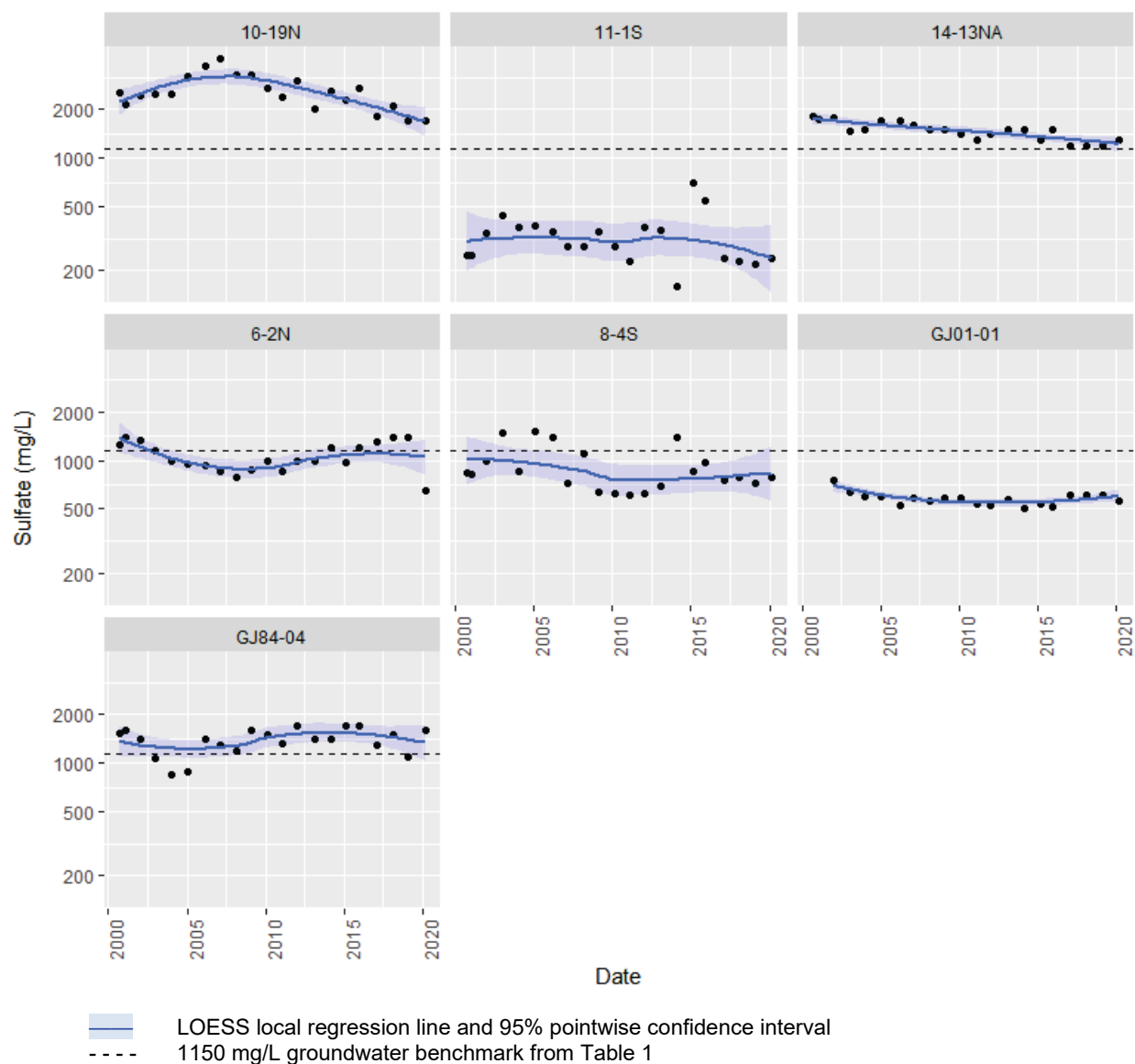


Figure 5. Sulfate Concentrations in Groundwater, 2000 to 2021

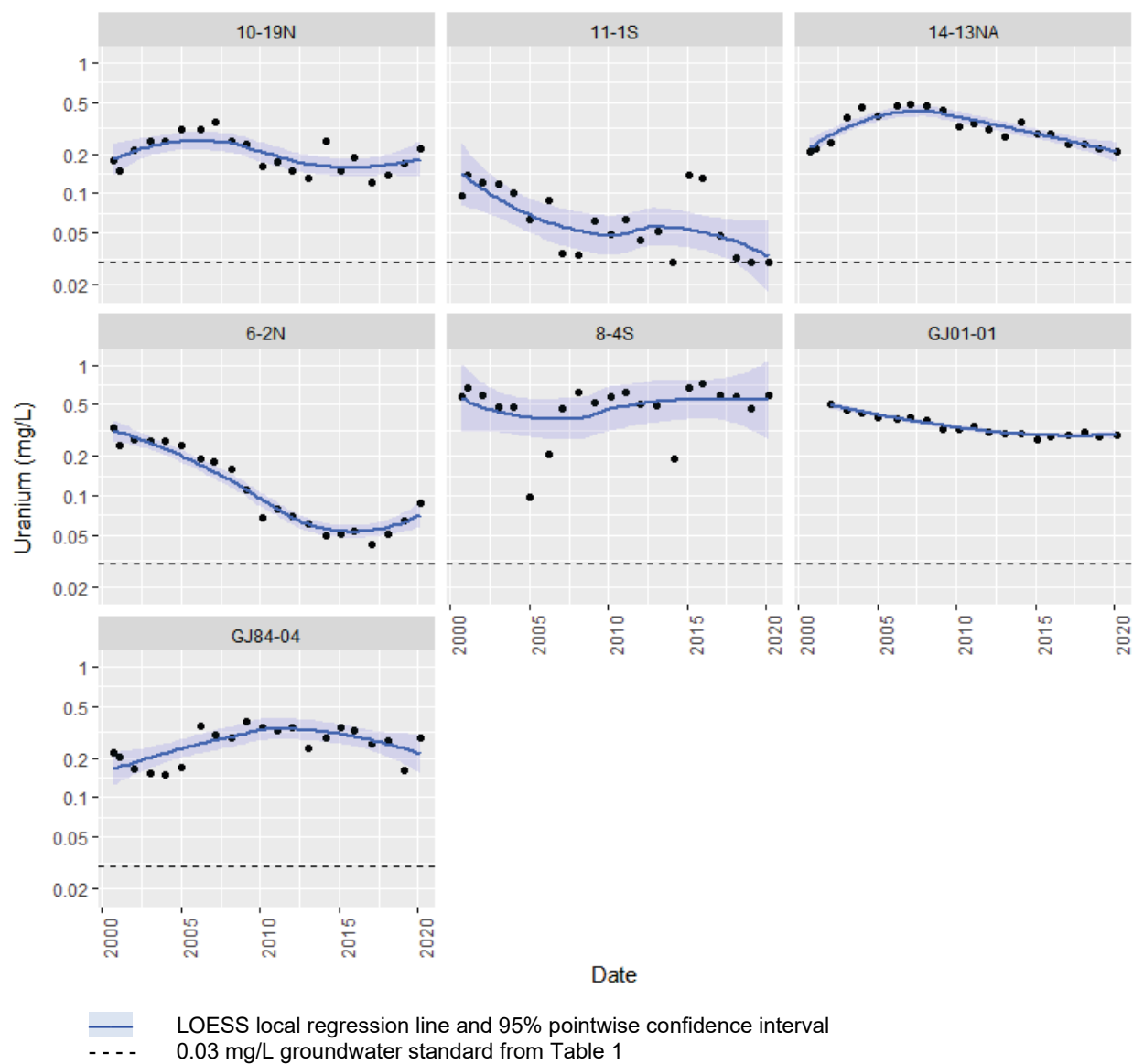


Figure 6. Uranium Concentrations in Groundwater, 2000 to 2021

3.2 Surface Water

The surface water monitoring network specified in the LTS&M Plan consists of six locations, including three Gunnison River locations, one wetlands location, the North Pond, and the South Pond (Figure 1). Monitoring at the Upper Gunnison location provides background river water quality to better assess concentrations of constituents of concern in samples collected adjacent to and downstream of the site. Monitoring of the Upper-Mid Gunnison and Lower Gunnison locations provides an assessment of impacts to the Gunnison River from groundwater discharge adjacent to and downstream of the site, respectively. The North Pond, South Pond, and Wetland Area represent all surface water features at the site and are established monitoring locations with extensive historical data.

The North and South Ponds and the sampling location for the Wetland Area are manmade features that are considered “created” or “constructed” wetlands under Colorado Surface Water Regulations (Volume 5 *Code of Colorado Regulations* Section 1002-31 [5 CCR 1002-31]). Although the Wetland Area sampling location contains water throughout the year (it was excavated below the average low groundwater elevation), it is the only wetlands area that typically has water in the late winter when sampling is scheduled. The wetlands at the north end of the site are dry most of the year and typically contain water only during the spring runoff.

As specified in the LTS&M Plan, surface water samples were analyzed for molybdenum, selenium, sulfate, and uranium (manganese was analyzed for groundwater only). Field measurements of pH, specific conductance, temperature, total alkalinity, and turbidity were conducted at each sampled location. Samples were collected according to the *Sampling and Analysis Plan for U. S. Department of Energy Office of Legacy Management Sites*.

The ponded surface water areas at the site are considered to be created wetlands; therefore, only narrative standards¹ (5 CCR 1002-31), not numerical standards, apply to these waters. However, any site-related contamination present in ponded surface water is the result of groundwater discharge to the surface water body; therefore, even though numerical standards do not apply to these waters, groundwater standards are provided as benchmarks for comparisons purposes only. Numerical surface water standards do apply to the Gunnison River. Summaries of analyte concentrations in onsite ponds and the Gunnison River are shown in Table 2 and Table 3, respectively. Analyte concentrations over time in surface water are presented in Figure 7 through Figure 10. Appendix B presents surface water data from 2016 to 2020.

¹ Waters in wetlands “shall be free from substances attributable to human-caused point source or nonpoint source discharge in amounts, concentrations or combinations which: (i) produce color, odor, changes in pH, or other conditions in such a degree as to create a nuisance or harm water quality dependent functions or impart any undesirable taste to significant edible aquatic species of the wetland; or (ii) are toxic to humans, animals, plants, or aquatic life of the wetland.”

Table 2. Summary of Analyte Concentrations^a in Onsite Surface Water from 2016^b to 2020

Analyte	Benchmark ^c (mg/L)	North Pond		South Pond		Wetland Area	
		Range ^d	Mean ^d	Range ^d	Mean ^d	Range ^d	Mean ^d
Molybdenum	0.21	0.0034–0.0073	0.0053	0.00813–0.086	0.043	0.027–1.3	0.32
Selenium	0.05	0.00058–0.0047	0.0021	0.00047–0.0015	0.00091	0.00055–0.005	0.0017
Sulfate	1150	300–2100	1027	133–1300	857	690–10000	4400
Uranium	0.03	0.032–0.15	0.09	0.0385–0.390	0.209	0.38–5.7	1.6

Notes:

^a Units of all data are given in mg/L.

^b The 2016 sampling event was conducted in December 2015.

^c Groundwater standards from Regulation 41, “The Basic Standards for Ground Water” (5 CCR 1002-41) (molybdenum, selenium, and uranium).

<https://www.sos.state.co.us/CCR/GenerateRulePdf.do?ruleVersionId=8819&fileName=5%20CCR%201002-41>, or background (maximum sulfate concentration from background wells GJ84-09 and GJ84-10).

^d Based on five observations from 2015 to 2020.

Table 3. Summary of Analyte Concentrations^a in the Gunnison River from 2016^b to 2020

Analyte	Standard ^c (mg/L)	Upper Gunnison		Upper-Mid Gunnison		Lower Gunnison	
		Range ^d	Mean ^d	Range ^d	Mean ^d	Range ^d	Mean ^d
Molybdenum	0.16	0.0021–0.0034	0.0026	0.0019–0.0045	0.0027	0.0021–0.0048	0.003
Selenium	0.0046	0.0032–0.0092	0.0054	0.0032–0.0063	0.0047	0.0031–0.0089	0.0049
Sulfate	480	220–480	326	220–450	320	260–530	357
Uranium	0.03	0.0051–0.0095	0.0071	0.0049–0.013	0.0077	0.0068–0.016	0.01

Notes:

^a Units of all data are given in mg/L.

^b The 2016 sampling event was conducted in December 2015.

^c Standards from Regulation 35, “Classifications and Numeric Standards for Gunnison and Lower Dolores River Basins” (5 CCR 1002-35),

<https://www.coloradosos.gov/CCR/GenerateRulePdf.do?ruleVersionId=10382&fileName=5%20CCR%201002-35>.

^d Based on five observations from 2015 to 2020.

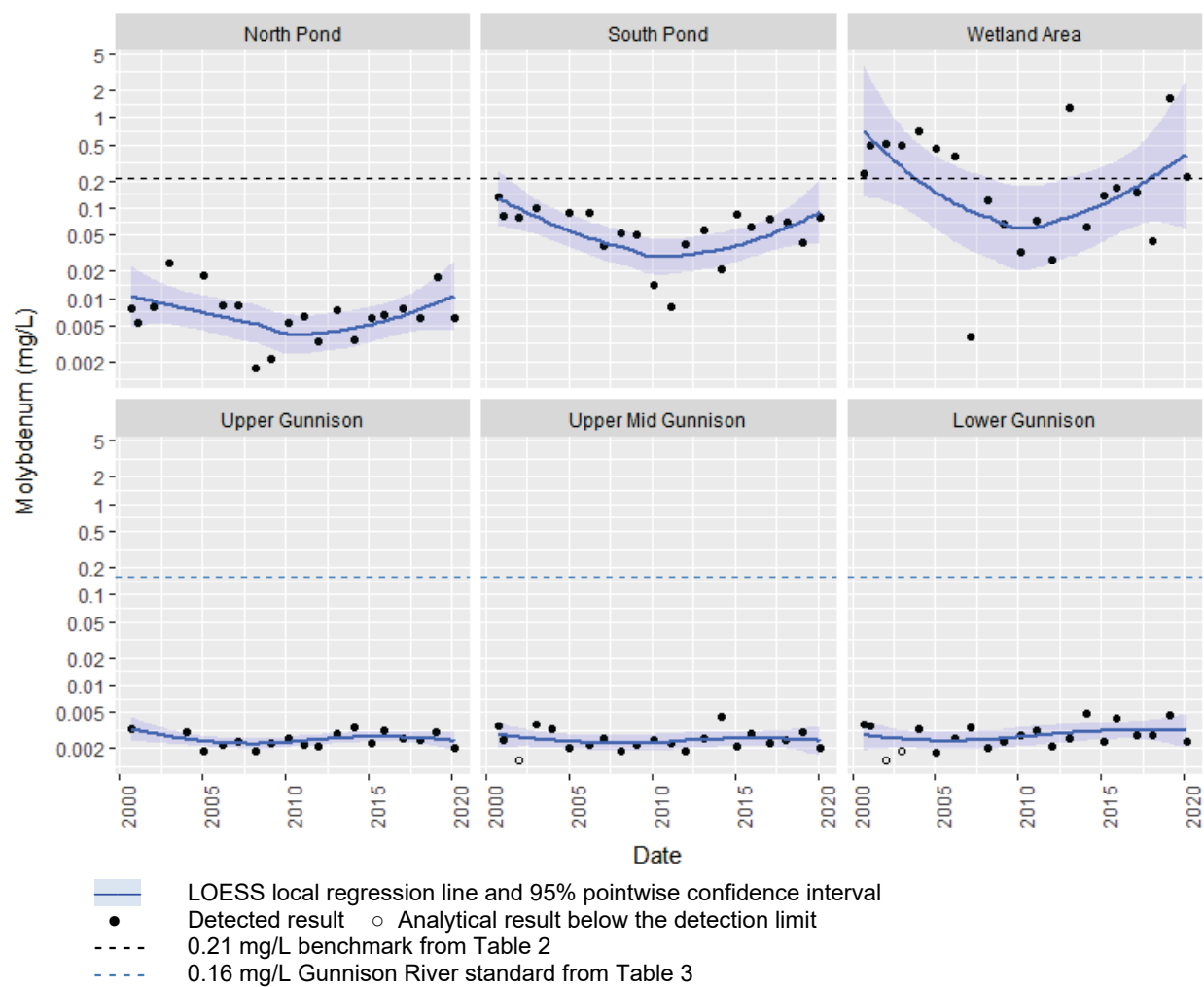


Figure 7. Molybdenum Concentrations in Surface Water, 2000 to 2020

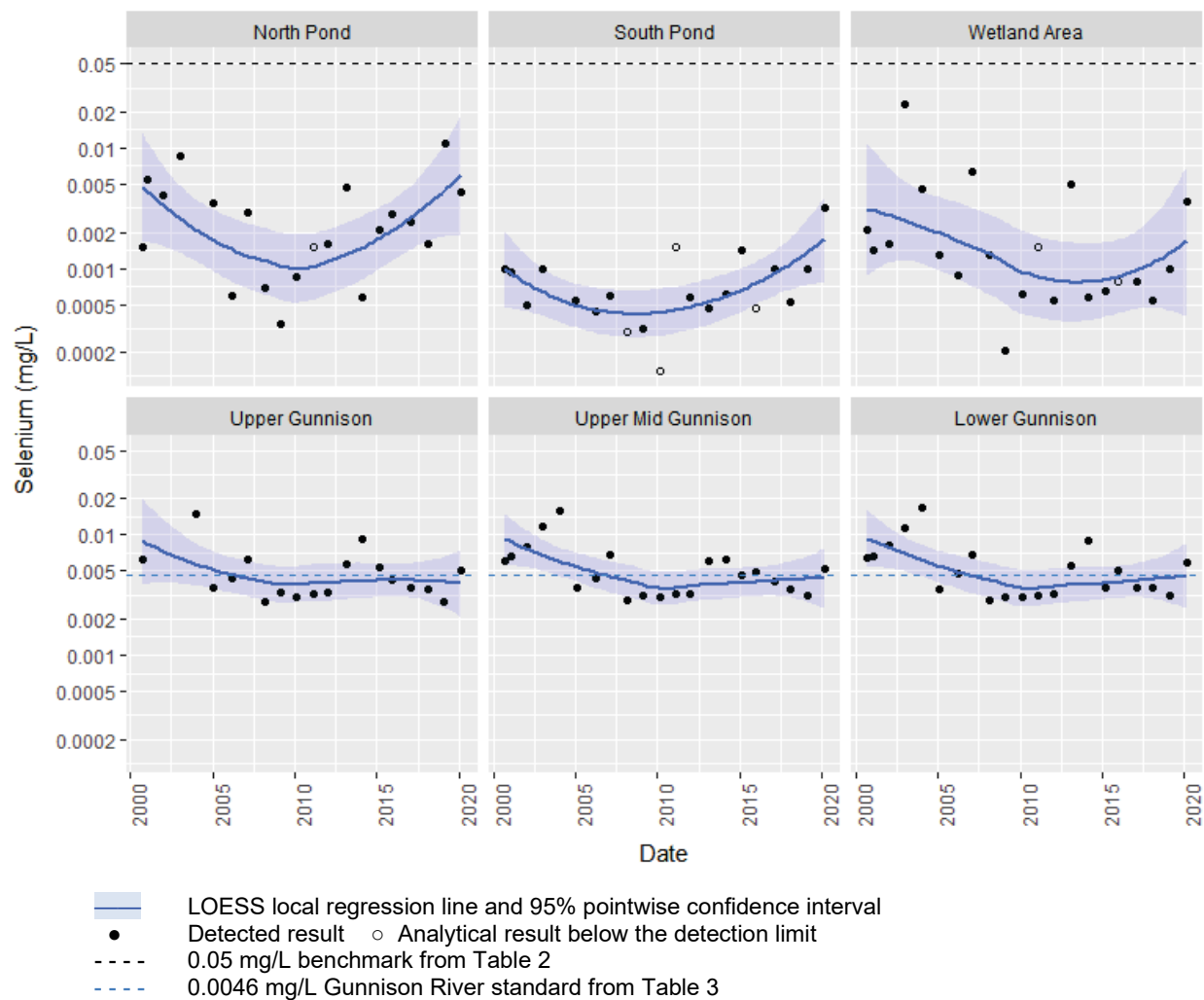


Figure 8. Selenium Concentrations in Surface Water, 2000 to 2020

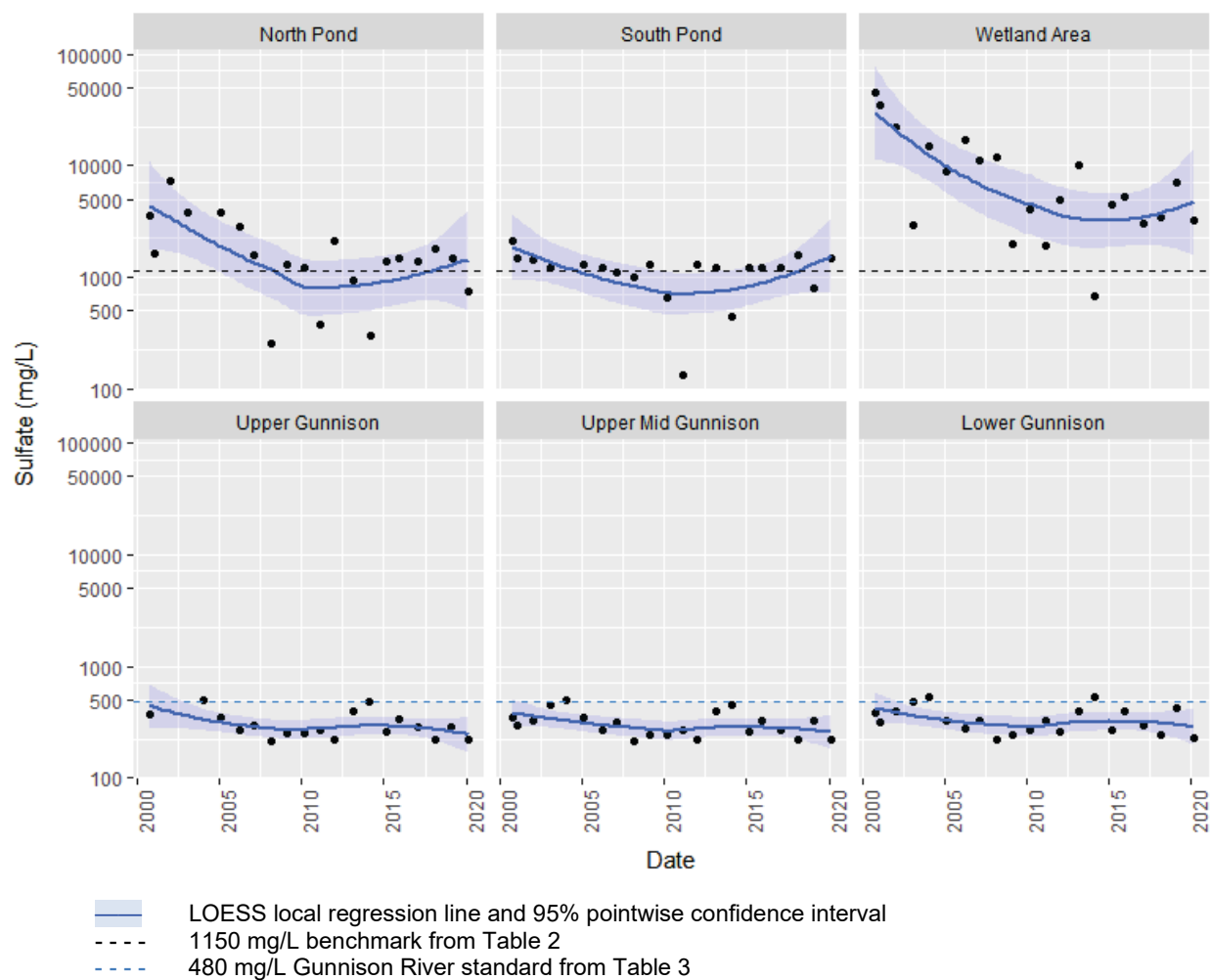


Figure 9. Sulfate Concentrations in Surface Water, 2000 to 2021

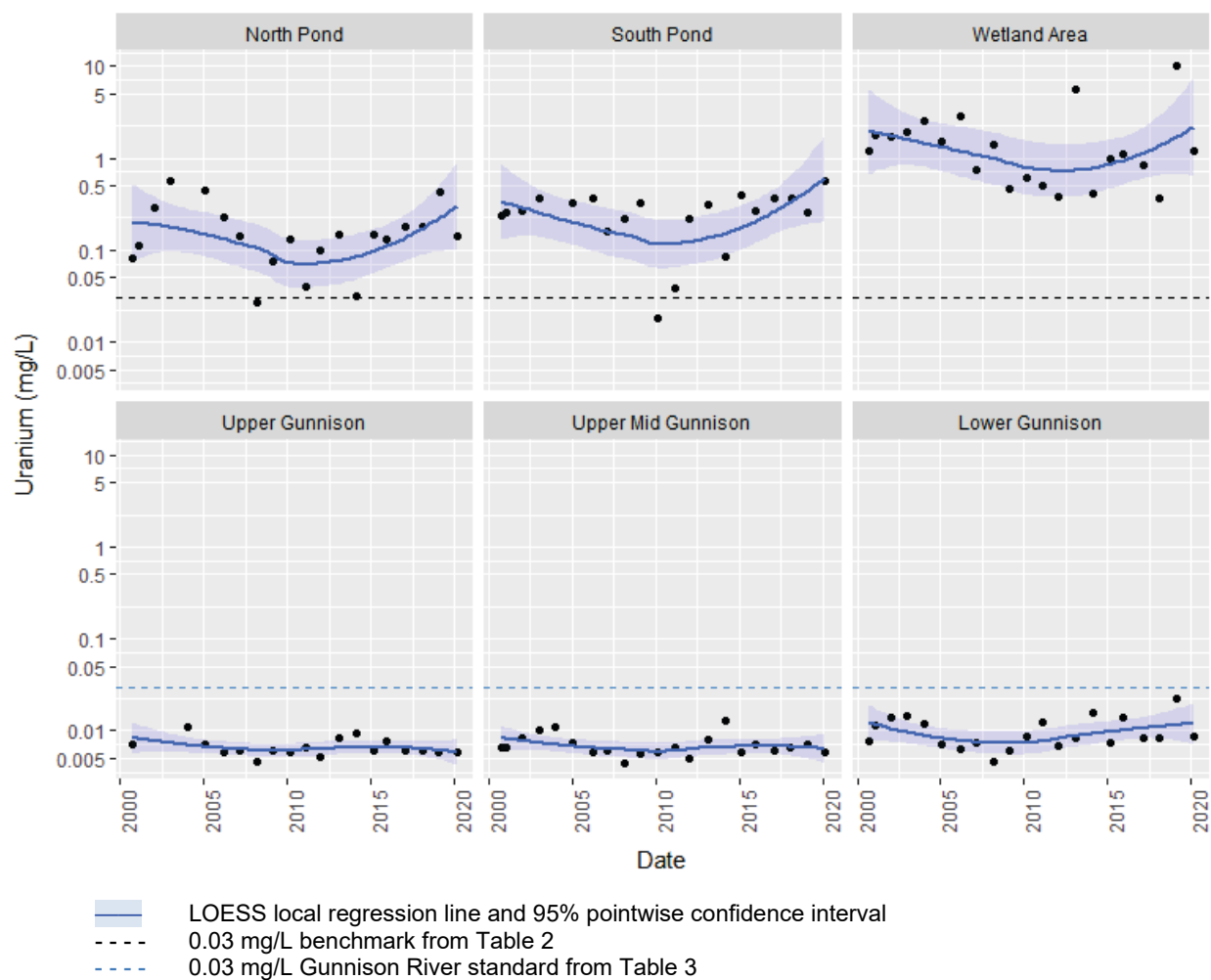






Figure 10. Uranium Concentrations in Surface Water, 2000 to 2021

4.0 Natural Flushing Assessment

Groundwater modeling has predicted that constituents of concern (COCs) in the alluvial aquifer will naturally flush to levels below applicable standards 50–80 years after the removal of soil contamination. Soil remediation commenced in 1989 with the signing of the Record of Decision (DOE 1989a). Most soil remediation was completed (except for small, deferred areas remaining [DOE 2001a] that were completed in 2014) in 1994 and signaled the beginning of the natural flushing period; therefore, 26 years have elapsed in the 50–80-year time frame predicted by the model.

As stated in the LTS&M Plan, a statistical evaluation of contaminant concentrations is required to assess the progress of natural flushing. To meet this objective, a trend analysis using the Mann-Kendall test (Gilbert 1987) was performed to assess the temporal behavior of contaminant concentrations. This test determines if an increasing trend, a decreasing trend, or no trend exists at a specified level of significance. For the purposes of evaluating trends at the Grand Junction site, a 95% level of significance ($\alpha = 0.05$) was used. Table 4 shows the number of samples, results of the trend analysis, p values to assess the strength of the trend (the closer to 0, the stronger the trend), and the 2020 results. In Table 4, the last column indicates whether natural flushing is completed, progressing, neutral, or regressing based on the following criteria:

-  **Completed:** Current COC concentrations are below the benchmark with a downward or no trend.
-  **Progressing:** Current COC concentrations are greater than the benchmark with a downward trend.
-  **Neutral:** Current COC concentrations are below benchmark the with an upward trend.
-  **Regressing:** Current COC concentrations are above the benchmark with an upward or no trend.

Although natural flushing is generally progressing at the Grand Junction site (Table 4 and Figure 11), obtaining compliance with the uranium groundwater standard within 50–80 years predicted by groundwater modeling is unlikely based on experience at other LM sites. Numerous sites with an initial natural flushing compliance strategy (e.g., the Rifle, Colorado, Disposal/Processing Site and the Riverton, Wyoming, Processing Site) are not meeting the flushing time predicted by the original groundwater models. These sites have characteristics (a shallow alluvial aquifer that has contaminated groundwater caused by former uranium milling activities) similar to those of the Grand Junction site, and the original conceptual site models were inadequate to explain site conditions and contaminant plume persistence and secondary sources (Dam et al. 2015).

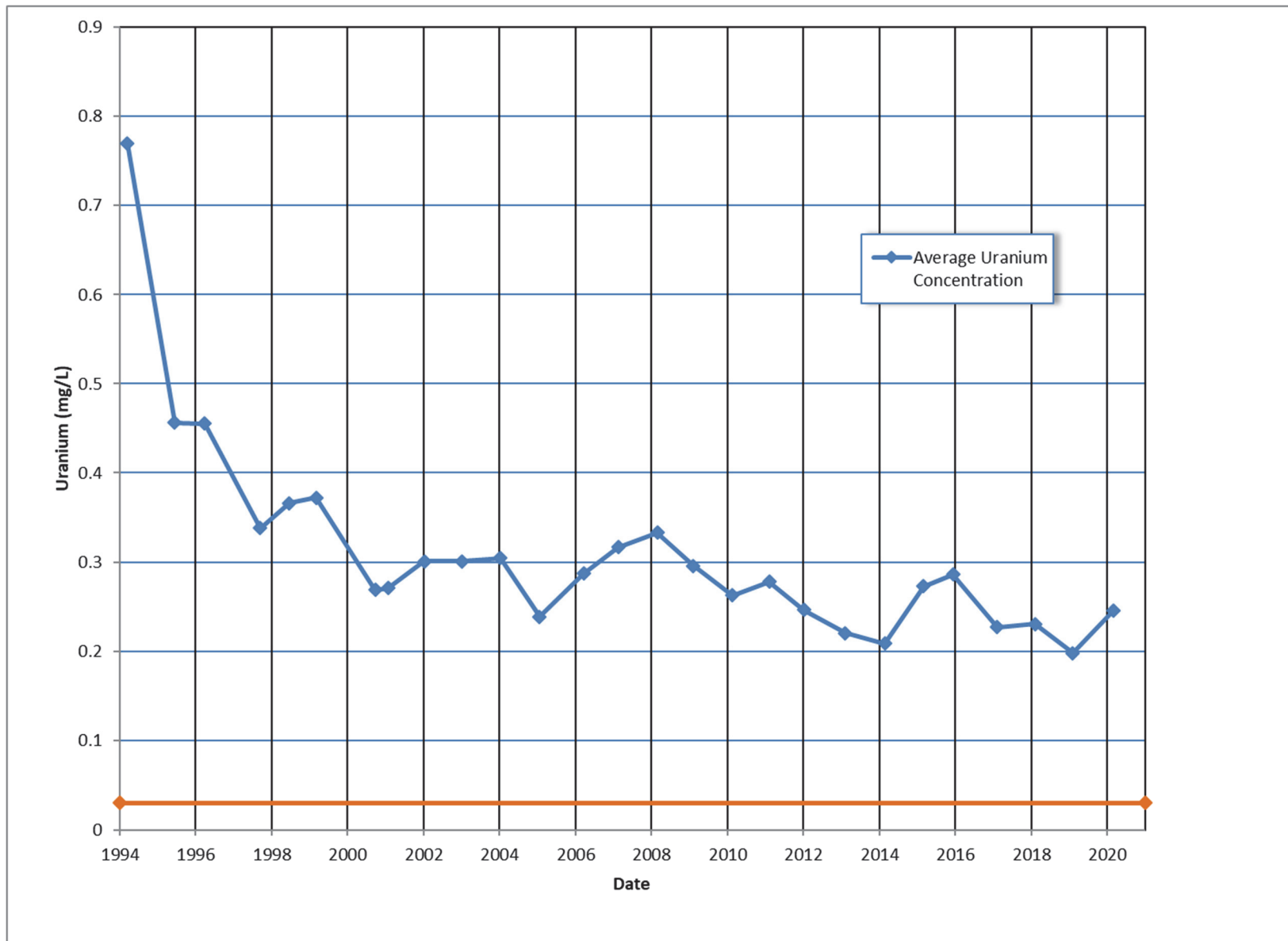
Table 4. Assessment of Contaminant Trends in Wells at the Grand Junction Site

Analyte	Location	Number of Samples	Trend ^a	p value	2020 Result (mg/L)	Benchmark ^b	Benchmark Exceeded in 2020? (Yes/No)	Natural Flushing Progress
Manganese	10-19N	22	None	0.1849	1.3	0.72	Yes	
	11-1S	22	Increasing	0.0277	0.65		No	
	14-13NA	22	Decreasing	0.0002	2.8		Yes	
	6-2N	22	None	0.1423	0.83		Yes	
	8-4S	22	Increasing	0.0000	1.3		Yes	
	GJ01-01	20	Increasing	0.0163	0.45		No	
	GJ84-04	22	None	0.0623	3.3		Yes	
Molybdenum	10-19N	22	Decreasing	0.0006	0.017	0.21	No	
	11-1S	22	Decreasing	0.0001	0.0045		No	
	14-13NA	22	Decreasing	0.0000	0.073		No	
	6-2N	22	Decreasing	0.0006	0.027		No	
	8-4S	22	Decreasing	0.0019	0.1		No	
	GJ01-01	20	Decreasing	0.0000	0.068		No	
	GJ84-04	22	Decreasing	0.0000	0.053		No	
Selenium	10-19N	22	Increasing	0.0093	0.0034	0.05	No	
	11-1S	22	None	0.3009	0.0028		No	
	14-13NA	22	None	0.0910	0.0028		No	
	6-2N	22	Decreasing	0.0000	0.032		No	
	8-4S	22	None	0.1842	0.0028		No	
	GJ01-01	20	Decreasing	0.0000	0.027		No	
	GJ84-04	22	None	0.1134	0.0028		No	
Sulfate	10-19N	22	Decreasing	0.0120	1100	1150	No	
	11-1S	22	None	0.2462	270		No	
	14-13NA	22	Decreasing	0.0001	1300		Yes	
	6-2N	22	None	0.9097	980		No	
	8-4S	22	None	0.0799	610		No	
	GJ01-01	20	None	0.2540	590		No	
	GJ84-04	22	None	0.4786	1300		Yes	
Uranium	10-19N	22	Decreasing	0.0391	0.11	0.03	Yes	
	11-1S	22	Decreasing	0.0019	0.039		Yes	
	14-13NA	22	Decreasing	0.0256	0.21		Yes	
	6-2N	22	Decreasing	0.0000	0.069		Yes	
	8-4S	22	None	0.9550	0.36		Yes	
	GJ01-01	20	Decreasing	0.0000	0.32		Yes	
	GJ84-04	22	None	0.5338	0.22		Yes	

Notes:

^a Data from 2000 to 2020.

^b Standards for molybdenum, selenium, and uranium are from Regulation 41, "The Basic Standards for Ground Water" (5 CCR 1002-41). Background concentrations are the maximum concentration observed in samples from upgradient wells GJ84-09 and GJ84-10.



Note: Average based on wells in the current long term monitoring network

Figure 11. Average Uranium Concentrations in the Alluvial Aquifer

5.0 Proposed Monitoring Program

Although natural flushing of the alluvial aquifer is progressing, complete restoration of the aquifer is unlikely as outlined in the previous section. Therefore, a new compliance strategy to conditionally close the site is proposed based on CDPHE policy. CDPHE's *Policy for Conditional Closure for Low-Threat Sites with Residual Ground Water Contamination* (CDPHE 2014) provides a path to conditional closure along with conditions that must be met for a conditional closure decision. This policy and associated guidance is intended for application at sites for which groundwater contamination is under CDPHE's regulatory authority, which applies to the Grand Junction site. It should be noted that sites closed under this policy are granted a "conditional closure" but not a "no further action" (NFA) determination. NFAs are reserved for sites that have met Regulation 41, "The Basic Standards for Ground Water" (5 CCR 1002-41). The guidance indicates that conditional closure may be obtained if 10 conditions are met. The 10 conditions along with current conditions at the Grand Junction site are displayed in Table 5.

Items 2 (plume configuration) and 3 (contaminant concentrations) in Table 5 need to be assessed before conditional closure can be granted. The monitoring network is adequate to provide data to assess the progress of natural flushing; however, it is not extensive enough to monitor the alluvial aquifer site-wide. Monitoring wells are missing from key areas of the aquifer, and areal monitoring well coverage is inadequate, with large areas of the aquifer unmonitored. Because the groundwater monitoring network is minimal (seven wells) and has limited coverage across the site (Figure 12), an expanded aquifer-wide groundwater monitoring network will be required to demonstrate a stable or contracting plume and stable or declining contaminant concentrations.

To assess items 2 and 3, a Geoprobe will be used to install temporary boreholes to sample groundwater from an extensive grid across the site every 5 years (Figure 12). This network will better define the contaminant plumes, track contaminant plumes over time, and provide data to determine if contaminant plumes and analyte concentrations are stable or decreasing. Using the Geoprobe to access and collect groundwater samples will provide extensive data at a relatively low cost compared to that of installing conventional monitoring wells.

Groundwater samples will be collected at one level across the site to assess the contaminant plume and analyte concentrations in the alluvial aquifer. Geoprobe rods will be driven at each temporary borehole location to approximately 16 ft below ground surface, which is the approximate middle of the saturated thickness of the alluvial aquifer during low groundwater (assuming 10 ft to groundwater and a 22 ft thickness of alluvial aquifer). A recent study of variation of groundwater aquifers at LM sites indicated that the alluvial aquifer at the Grand Junction site ranked low in vertical variation based on a statistical index (coefficient of variation) used to evaluate the data (DOE 2015). The relatively low vertical variation of the alluvial aquifer, sampling at low water every 5 years, and sampling at the same level in the alluvial aquifer are factors that should provide adequate comparability between sampling events to evaluate plume and contaminant stability.

Table 5. Conditional Closure Conditions at the Grand Junction Site

Item	CDPHE Conditions for Closure	Grand Junction Site Conditions
1	The source area has been remediated to the extent practicable.	Site soils removed to meet UMTRCA standards.
2	The plume size is either stable or decreasing in all dimensions.	Plume dimensions are contained based on site geology. Plume cannot expand and can only remain stable or decrease.
3	The concentrations of contaminants in the plume are either decreasing or predicted to decrease.	Average plume concentrations have declined over time using uranium as the main site-related indicator. Average concentrations are less than 10 times the standard.
4	The groundwater will meet Regulation 41 (5 CCR 1002-41) water quality standards within a reasonable period of time.	Natural flushing is progressing, and groundwater modeling estimates that standards could be met in 50–80 years; however, meeting groundwater standards is unlikely based on experience at similar sites.
5	Contaminant concentration trends are not dependent on the continued operation and maintenance of active remediation systems or containment systems.	Concentrations are declining due to source removal and natural flushing and attenuation processes. No active remediation is taking place.
6	There are no existing or reasonably anticipated exposures above standards or screening levels through cross-media transfer including volatilization into buildings.	There is a potential for cross-media transfer from groundwater to soil. Targeted soil sampling will be conducted to ensure screening levels are not exceeded and risk is acceptable
7	There are no uses of groundwater downgradient of the site that would be threatened by the plume.	The affected aquifer terminates at the downgradient site boundary, and the plume discharges to the Gunnison River. No downgradient groundwater is affected.
8	There is no discharge to surface water in excess of surface water standards.	Surface water in the Gunnison River has remained well below applicable standards with the exception of selenium, which has elevated ambient concentrations. Onsite ponds are considered to be “created wetlands.” Ponds have met the narrative standards required by Colorado water quality regulations.
9	There is no potential for the plume to cause an exceedance of a quality standard in an adjacent aquifer.	The affected aquifer is not hydraulically connected to any other aquifer either laterally or vertically. There is no potential for exceedance of a groundwater quality standard in an adjacent aquifer.
10	For sites that have satisfied all of the above conditions, the division will require either implementation of an IC in compliance with CRS 25-15-317–327 or alternate concentration limits in compliance with 6 CCR 1007-3 Part 264.94(b).	ICs are in place at the site.

Abbreviation:

CRS = *Colorado Revised Statutes*

The sampling grid displayed in Figure 12 was designed to provide extensive areal coverage of the alluvial aquifer. This sampling network is more extensive with more monitoring locations (73 boreholes and 7 monitoring wells) than in place during the height of remedial investigation study (52 monitoring wells) conducted in the late 1980s (DOE 1989b). This sampling network will provide data for the following key areas:

- Areas of the aquifer that are not covered by the current monitoring well network
- Former source areas (southwest dike area, former tailings area, northwest dike area, and the North Pond area) where groundwater contamination was initially the highest and where the potential for residual source material is the highest
- Northeast portions of the alluvial aquifer that will be the last area to naturally flush based on groundwater modeling results
- Downgradient portion (north) of the alluvial aquifer where contaminant plumes will terminate

Groundwater samples will be collected from each borehole and analyzed for uranium. Uranium will be used as the indicator parameter for conditional closure because:

- Uranium is widespread throughout the alluvial aquifer.
- Uranium exceeded the standard in all wells in the monitoring network in 2020 with concentrations up to an order of magnitude above the groundwater standard.
- Uranium was the constituent that was assessed in the groundwater modeling (DOE 1989b).

To justify a conditional closure, the following approach will be used:

- The uranium plume is defined as the surface area of the plume that is above the state groundwater standard of 0.03 mg/L. The plume boundary established from the initial Geoprobe sampling network will be used to determine if the plume is stable or decreasing.
- The mean uranium concentration will be determined from all sample locations in the Geoprobe sampling network (Figure 12), which includes existing monitoring wells. The mean concentration established from the initial sampling of the Geoprobe network will be compared with the average from the subsequent 5-year monitoring event.
- Results of the comparison of plume size and concentration will be used to determine if site closure can be justified on the grounds of either a shrinking plume (Table 5 conditions) or a stable plume (Table 6 conditions). Detailed information will be provided demonstrating that conditional closure is warranted. If necessary, site-specific standards will be proposed based on the most recent Geoprobe sampling results along with any recommendations for additional groundwater monitoring.

Most of the conditions for conditional closure have been met. CDPHE's guidance notes that while the department prefers remedies where plumes are attenuating, "there may be circumstances where a stable plume, neither shrinking nor increasing, at concentrations above the Colorado groundwater standard might also be protective of human health and the environment and therefore eligible for conditional closure" (line of evidence 4D [CDPHE 2014]). Site conditions that might warrant conditional closure for stable plumes include one or more of those listed in Table 6.

Table 6. Conditions that Warrant Conditional Closure with a Stable Plume

CDPHE Conditions for a Stable Plume	Applies to Grand Junction Site
There are no private or public groundwater production wells in close proximity to the site in question.	Yes
Existing groundwater quality is not suitable for use, including domestic or agricultural uses, because of naturally occurring constituents.	No
The contaminated aquifer is not capable of yielding a sufficient and sustainable quantity of water for domestic or agricultural purposes.	No
Hydrogeologic conditions are such that the contamination is of limited extent and relatively isolated from other nearby water-bearing formations.	Yes
The contaminant plume is of limited areal extent and confined to the facility property boundary, and ICs are used to limit access to this contamination.	Yes
Site-specific documentation is provided demonstrating that the constituent concentrations are naturally attenuating at a very slow rate.	Yes
The division established an alternate concentration limit that is higher than the Colorado groundwater standards.	No
The Water Quality Control Commission establishes a site-specific groundwater standard for an aquifer.	No
Other factors deemed appropriate on a site-specific basis.	Yes

The Grand Junction site meets five of the nine conditions listed in Table 6. Therefore, if the site plume cannot be demonstrated to be shrinking, it is possible that conditional closure could be warranted based on plume stability. The technical approach described in this section will provide information to better understand site conditions and fill in gaps in understanding of the current plume. Results can be used to demonstrate that conditional closure is warranted either because the plume is reducing in size or is stable and protective in its current configuration.

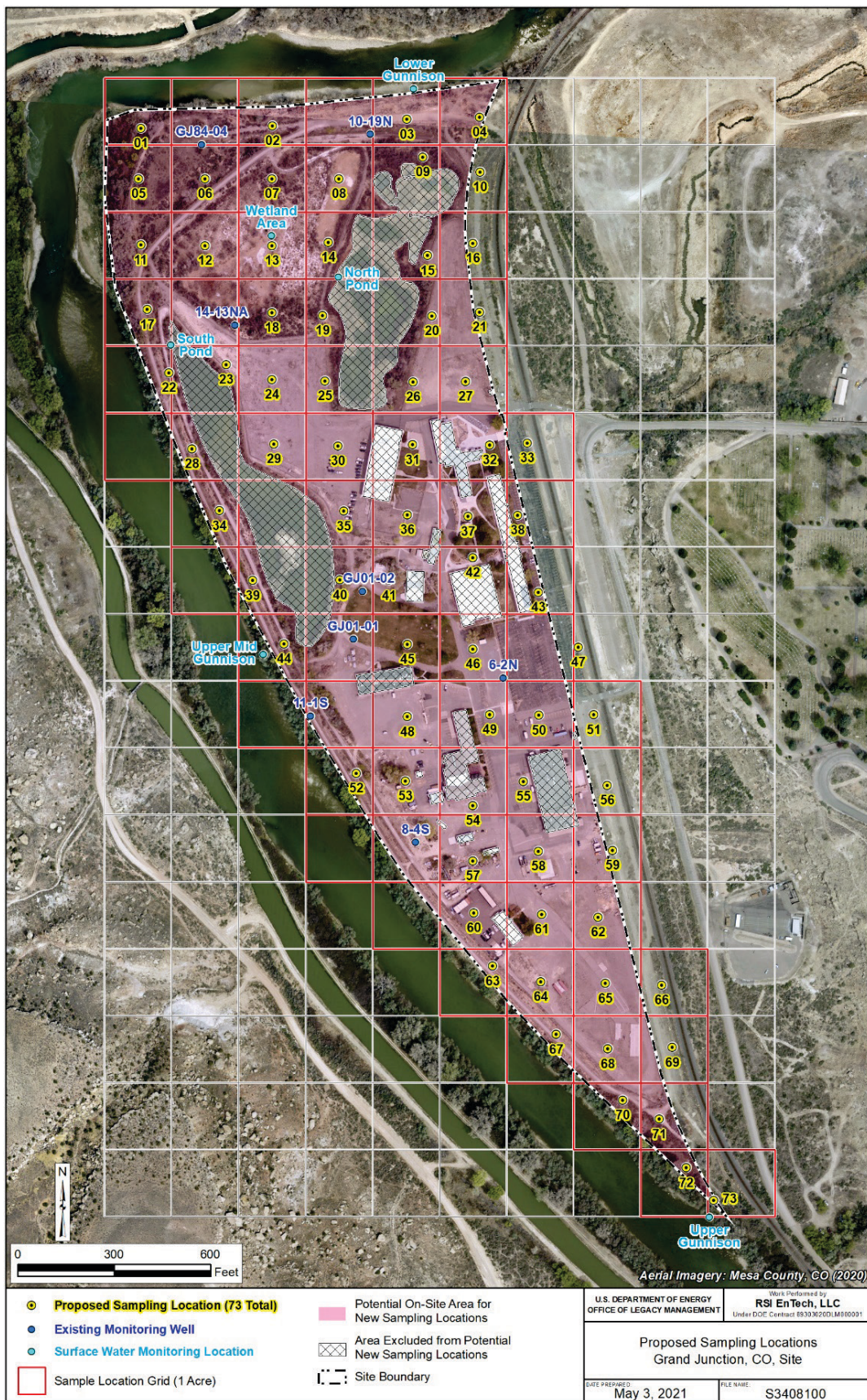


Figure 12. Proposed Geoprobe Borehole and Sampling Locations

6.0 Summary of Recommendations

The primary recommendation from this evaluation of the groundwater monitoring program is to pursue a conditional closure compliance strategy for the Grand Junction site in accordance with CDPHE policy. The specific components of this recommendation are:

- Reduce sampling frequency from annual to every 5 years.
- Conduct an extensive monitoring event every 5 years (for at least two sampling events) using temporary boreholes installed with a Geoprobe to collect groundwater samples and analyze the samples for uranium.
- Use the data from the 5-year monitoring events to assess plume stability or plume reduction and to determine if aquifer-wide uranium concentrations are stable or declining.
- Conduct a targeted soil sampling event to determine if residual uranium concentrations in soil pose an unacceptable risk to human health and the environment.
- Apply for conditional closure if the uranium plume is stable or reducing, uranium concentrations in groundwater are stable or declining, and residual uranium concentrations in soil do not pose a risk to human health and the environment.

The decision to pursue conditional closure of the site will be based on CDPHE approval. If approved, a work plan will be developed to guide the 5-year groundwater sampling events using the Geoprobe and the targeted soil sampling event. This work plan will include data quality objectives, safety considerations, a technical approach, sample locations, sampling procedures, environmental compliance, required training, and quality assurance measures.

7.0 References

5 CCR 1002-31. “The Basic Standards and Methodologies for Surface Water,” *Code of Colorado Regulations*.

5 CCR 1002-35. “Classifications and Numeric Standards for Gunnison and Lower Dolores River Basins,” *Code of Colorado Regulations*.

5 CCR 1002-41. “The Basic Standards for Ground Water,” *Code of Colorado Regulations*.

6 CCR 1007-3 Part 264. “Hazardous Waste—Standards for Owners and Operators of Hazardous Waste Treatment, Storage and Disposal Facilities,” *Code of Colorado Regulations*.

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Appendix A
Groundwater Data

GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (EQuIS201) FOR SITE GJO01, Grand Junction Site

REPORT DATE: 8/26/2021 10:09:47 AM

PARAMETER	LOCATION CODE/TYPE		SAMPLE DATE	SAMPLE TYPE	ZONE COMPLETION	FLOW REL.	RESULT	UNITS	QUALIFIERS LAB/DATA	QA	DETECTION LIMIT	UNCERTAINTY	
Alkalinity, Total (As CaCO3)													
Alkalinity, Total (As CaCO3)	10-19N	WL	12/9/2015	(T)F	AL	O	436	mg/L		F	#	-	-
Alkalinity, Total (As CaCO3)	10-19N	WL	2/7/2017	(T)F	AL	O	304	mg/L		F	#	-	-
Alkalinity, Total (As CaCO3)	10-19N	WL	2/5/2018	(N)F	AL	O	368	mg/L		F	#	-	-
Alkalinity, Total (As CaCO3)	10-19N	WL	2/5/2019	(N)F	AL	O	165	mg/L		F	#	-	-
Alkalinity, Total (As CaCO3)	10-19N	WL	2/26/2020	(N)F	AL	O	420	mg/L		F	#	-	-
Alkalinity, Total (As CaCO3)	11-1S	WL	12/9/2015	(T)F	AL	O	247	mg/L		F	#	-	-
Alkalinity, Total (As CaCO3)	11-1S	WL	2/7/2017	(T)F	AL	O	177	mg/L		F	#	-	-
Alkalinity, Total (As CaCO3)	11-1S	WL	2/5/2018	(N)F	AL	O	168	mg/L		F	#	-	-
Alkalinity, Total (As CaCO3)	11-1S	WL	2/4/2019	(N)F	AL	O	106	mg/L		F	#	-	-
Alkalinity, Total (As CaCO3)	11-1S	WL	2/26/2020	(N)F	AL	O	170	mg/L		F	#	-	-
Alkalinity, Total (As CaCO3)	14-13NA	WL	12/9/2015	(T)F	AL	O	361	mg/L		F	#	-	-
Alkalinity, Total (As CaCO3)	14-13NA	WL	2/7/2017	(T)F	AL	O	291	mg/L		F	#	-	-
Alkalinity, Total (As CaCO3)	14-13NA	WL	2/5/2018	(N)F	AL	O	337	mg/L		F	#	-	-
Alkalinity, Total (As CaCO3)	14-13NA	WL	2/5/2019	(N)F	AL	O	221	mg/L		F	#	-	-
Alkalinity, Total (As CaCO3)	14-13NA	WL	2/27/2020	(N)F	AL	O	357	mg/L		F	#	-	-
Alkalinity, Total (As CaCO3)	6-2N	WL	12/9/2015	(T)F	AL	O	254	mg/L		F	#	-	-
Alkalinity, Total (As CaCO3)	6-2N	WL	2/6/2017	(T)F	AL	O	186	mg/L		F	#	-	-

GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (EQUIS201) FOR SITE GJO01, Grand Junction Site

REPORT DATE: 8/26/2021 10:09:47 AM

PARAMETER	LOCATION CODE/TYPE		SAMPLE DATE	SAMPLE TYPE	ZONE COMPLETION	FLOW REL.	RESULT	UNITS	QUALIFIERS LAB/DATA		QA	DETECTION LIMIT	UNCERTAINTY
Alkalinity, Total (As CaCO3)	6-2N	WL	2/6/2018	(N)F	AL	O	230	mg/L		F	#	-	-
Alkalinity, Total (As CaCO3)	6-2N	WL	2/7/2019	(N)F	AL	O	182	mg/L		F	#	-	-
Alkalinity, Total (As CaCO3)	6-2N	WL	2/26/2020	(N)F	AL	O	242	mg/L		F	#	-	-
Alkalinity, Total (As CaCO3)	8-4S	WL	12/8/2015	(T)F	AL	O	333	mg/L		F	#	-	-
Alkalinity, Total (As CaCO3)	8-4S	WL	2/6/2017	(T)F	AL	O	252	mg/L		F	#	-	-
Alkalinity, Total (As CaCO3)	8-4S	WL	2/6/2018	(N)F	AL	O	296	mg/L		F	#	-	-
Alkalinity, Total (As CaCO3)	8-4S	WL	2/4/2019	(N)F	AL	O	187	mg/L		F	#	-	-
Alkalinity, Total (As CaCO3)	8-4S	WL	2/27/2020	(N)F	AL	O	260	mg/L		F	#	-	-
Alkalinity, Total (As CaCO3)	GJ01-01	WL	12/9/2015	(T)F	AL		291	mg/L		F	#	-	-
Alkalinity, Total (As CaCO3)	GJ01-01	WL	2/8/2017	(T)F	AL		286	mg/L		F	#	-	-
Alkalinity, Total (As CaCO3)	GJ01-01	WL	2/6/2018	(N)F	AL		302	mg/L		F	#	-	-
Alkalinity, Total (As CaCO3)	GJ01-01	WL	2/5/2019	(N)F	AL		231	mg/L		F	#	-	-
Alkalinity, Total (As CaCO3)	GJ01-01	WL	2/26/2020	(N)F	AL		284	mg/L		F	#	-	-
Alkalinity, Total (As CaCO3)	GJ84-04	WL	12/9/2015	(T)F	AL	D	354	mg/L		F	#	-	-
Alkalinity, Total (As CaCO3)	GJ84-04	WL	2/7/2017	(T)F	AL	D	300	mg/L		F	#	-	-
Alkalinity, Total (As CaCO3)	GJ84-04	WL	2/5/2018	(N)F	AL	D	105	mg/L		F	#	-	-
Alkalinity, Total (As CaCO3)	GJ84-04	WL	2/4/2019	(N)F	AL	D	196	mg/L		F	#	-	-
Alkalinity, Total (As CaCO3)	GJ84-04	WL	2/27/2020	(N)F	AL	D	368	mg/L		F	#	-	-

GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (EQuIS201) FOR SITE GJO01, Grand Junction Site

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PARAMETER	LOCATION CODE/TYPE		SAMPLE DATE	SAMPLE TYPE	ZONE COMPLETION	FLOW REL.	RESULT	UNITS	QUALIFIERS LAB/DATA	QA	DETECTION LIMIT	UNCERTAINTY	
Calcium													
Calcium	10-19N	WL	12/9/2015	(T)F	AL	O	360	mg/L		F	#	0.12	-
Calcium	10-19N	WL	12/9/2015	(T)D	AL	O	340	mg/L		F	#	0.12	-
Calcium	10-19N	WL	2/7/2017	(T)F	AL	O	300	mg/L		F	#	0.012	-
Calcium	11-1S	WL	12/9/2015	(T)F	AL	O	170	mg/L		F	#	0.024	-
Calcium	11-1S	WL	2/7/2017	(T)F	AL	O	90	mg/L		F	#	0.012	-
Calcium	14-13NA	WL	12/9/2015	(T)F	AL	O	270	mg/L		F	#	0.024	-
Calcium	14-13NA	WL	2/7/2017	(T)F	AL	O	280	mg/L		F	#	0.012	-
Calcium	6-2N	WL	12/9/2015	(T)F	AL	O	160	mg/L		F	#	0.024	-
Calcium	6-2N	WL	2/6/2017	(T)F	AL	O	200	mg/L		F	#	0.012	-
Calcium	8-4S	WL	12/8/2015	(T)F	AL	O	200	mg/L		F	#	0.024	-
Calcium	8-4S	WL	2/6/2017	(T)F	AL	O	190	mg/L		F	#	0.012	-
Calcium	GJ01-01	WL	12/9/2015	(T)F	AL		110	mg/L		F	#	0.024	-
Calcium	GJ01-01	WL	2/8/2017	(T)F	AL		150	mg/L		F	#	0.012	-
Calcium	GJ01-01	WL	2/8/2017	(T)D	AL		150	mg/L		F	#	0.012	-
Calcium	GJ84-04	WL	12/9/2015	(T)F	AL	D	280	mg/L		F	#	0.024	-
Calcium	GJ84-04	WL	2/7/2017	(T)F	AL	D	270	mg/L		F	#	0.012	-
Chloride													
Chloride	10-19N	WL	12/9/2015	(T)F	AL	O	300	mg/L		F	#	8	-
Chloride	10-19N	WL	12/9/2015	(T)D	AL	O	300	mg/L		F	#	8	-
Chloride	10-19N	WL	2/7/2017	(T)F	AL	O	220	mg/L		F	#	8	-
Chloride	11-1S	WL	12/9/2015	(T)F	AL	O	13	mg/L		F	#	2	-
Chloride	11-1S	WL	2/7/2017	(T)F	AL	O	5.7	mg/L		F	#	1	-
Chloride	14-13NA	WL	12/9/2015	(T)F	AL	O	120	mg/L		F	#	4	-
Chloride	14-13NA	WL	2/7/2017	(T)F	AL	O	100	mg/L		F	#	8	-

GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (EQuIS201) FOR SITE GJO01, Grand Junction Site

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PARAMETER	LOCATION CODE/TYPE		SAMPLE DATE	SAMPLE TYPE	ZONE COMPLETION	FLOW REL.	RESULT	UNITS	QUALIFIERS LAB/DATA		QA	DETECTION LIMIT	UNCERTAINTY
Chloride	6-2N	WL	12/9/2015	(T)F	AL	O	120	mg/L		F	#	4	-
Chloride	6-2N	WL	2/6/2017	(T)F	AL	O	120	mg/L		F	#	8	-
Chloride	8-4S	WL	12/8/2015	(T)F	AL	O	67	mg/L		F	#	4	-
Chloride	8-4S	WL	2/6/2017	(T)F	AL	O	53	mg/L		F	#	4	-
Chloride	GJ01-01	WL	12/9/2015	(T)F	AL		76	mg/L		F	#	2	-
Chloride	GJ01-01	WL	2/8/2017	(T)F	AL		63	mg/L		F	#	2	-
Chloride	GJ01-01	WL	2/8/2017	(T)D	AL		62	mg/L		F	#	2	-
Chloride	GJ84-04	WL	12/9/2015	(T)F	AL	D	160	mg/L		F	#	4	-
Chloride	GJ84-04	WL	2/7/2017	(T)F	AL	D	120	mg/L		F	#	8	-
Dissolved Oxygen													
Dissolved Oxygen	10-19N	WL	12/9/2015	(T)F	AL	O	1.73	mg/L		F	#	-	-
Dissolved Oxygen	10-19N	WL	2/7/2017	(T)F	AL	O	1.79	mg/L		F	#	-	-
Dissolved Oxygen	10-19N	WL	2/5/2018	(N)F	AL	O	0.68	mg/L		F	#	-	-
Dissolved Oxygen	11-1S	WL	12/9/2015	(T)F	AL	O	1.42	mg/L		F	#	-	-
Dissolved Oxygen	11-1S	WL	2/7/2017	(T)F	AL	O	0.64	mg/L		FJ	#	-	-
Dissolved Oxygen	11-1S	WL	2/5/2018	(N)F	AL	O	0.52	mg/L		F	#	-	-
Dissolved Oxygen	14-13NA	WL	12/9/2015	(T)F	AL	O	1.82	mg/L		F	#	-	-
Dissolved Oxygen	14-13NA	WL	2/7/2017	(T)F	AL	O	0.87	mg/L		FJ	#	-	-
Dissolved Oxygen	14-13NA	WL	2/5/2018	(N)F	AL	O	0.28	mg/L		F	#	-	-
Dissolved Oxygen	6-2N	WL	12/9/2015	(T)F	AL	O	1.42	mg/L		F	#	-	-
Dissolved Oxygen	6-2N	WL	2/6/2017	(T)F	AL	O	0.45	mg/L		F	#	-	-
Dissolved Oxygen	6-2N	WL	2/6/2018	(N)F	AL	O	0.48	mg/L		F	#	-	-
Dissolved Oxygen	8-4S	WL	12/8/2015	(T)F	AL	O	1.48	mg/L		F	#	-	-
Dissolved Oxygen	8-4S	WL	2/6/2017	(T)F	AL	O	0.52	mg/L		F	#	-	-
Dissolved Oxygen	8-4S	WL	2/6/2018	(N)F	AL	O	0.31	mg/L		F	#	-	-

GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (EQuIS201) FOR SITE GJO01, Grand Junction Site

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PARAMETER	LOCATION CODE/TYPE		SAMPLE DATE	SAMPLE TYPE	ZONE COMPLETION	FLOW REL.	RESULT	UNITS	QUALIFIERS LAB/DATA		QA	DETECTION LIMIT	UNCERTAINTY
Dissolved Oxygen	GJ01-01	WL	12/9/2015	(T)F	AL		1.26	mg/L		F	#	-	-
Dissolved Oxygen	GJ01-01	WL	2/8/2017	(T)F	AL		1.33	mg/L		F	#	-	-
Dissolved Oxygen	GJ01-01	WL	2/6/2018	(N)F	AL		0.31	mg/L		F	#	-	-
Dissolved Oxygen	GJ84-04	WL	12/9/2015	(T)F	AL	D	1.33	mg/L		F	#	-	-
Dissolved Oxygen	GJ84-04	WL	2/7/2017	(T)F	AL	D	0.49	mg/L		F	#	-	-
Dissolved Oxygen	GJ84-04	WL	2/5/2018	(N)F	AL	D	0.38	mg/L		F	#	-	-
Iron													
Iron	10-19N	WL	12/9/2015	(T)F	AL	O	0.22	mg/L	J	F	#	0.033	-
Iron	10-19N	WL	12/9/2015	(T)D	AL	O	0.18	mg/L	J	F	#	0.033	-
Iron	10-19N	WL	2/7/2017	(T)F	AL	O	0.13	mg/L		JF	#	0.0049	-
Iron	11-1S	WL	12/9/2015	(T)F	AL	O	0.17	mg/L		F	#	0.0067	-
Iron	11-1S	WL	2/7/2017	(T)F	AL	O	0.1	mg/L		JF	#	0.0049	-
Iron	14-13NA	WL	12/9/2015	(T)F	AL	O	0.12	mg/L		F	#	0.0067	-
Iron	14-13NA	WL	2/7/2017	(T)F	AL	O	0.042	mg/L	J	UF	#	0.0049	-
Iron	6-2N	WL	12/9/2015	(T)F	AL	O	0.022	mg/L	J	F	#	0.0067	-
Iron	6-2N	WL	2/6/2017	(T)F	AL	O	0.009	mg/L	J	UF	#	0.0049	-
Iron	8-4S	WL	12/8/2015	(T)F	AL	O	0.025	mg/L	J	F	#	0.0067	-
Iron	8-4S	WL	2/6/2017	(T)F	AL	O	0.13	mg/L		JF	#	0.0049	-
Iron	GJ01-01	WL	12/9/2015	(T)F	AL		0.0067	mg/L	U	F	#	0.0067	-
Iron	GJ01-01	WL	2/8/2017	(T)F	AL		0.01	mg/L	J	UF	#	0.0049	-
Iron	GJ01-01	WL	2/8/2017	(T)D	AL		0.012	mg/L	J	UF	#	0.0049	-
Iron	GJ84-04	WL	12/9/2015	(T)F	AL	D	0.081	mg/L	J	F	#	0.0067	-
Iron	GJ84-04	WL	2/7/2017	(T)F	AL	D	0.15	mg/L		JF	#	0.0049	-
Magnesium													
Magnesium	10-19N	WL	12/9/2015	(T)F	AL	O	210	mg/L		F	#	0.15	-

GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (EQuIS201) FOR SITE GJO01, Grand Junction Site

REPORT DATE: 8/26/2021 10:09:48 AM

PARAMETER	LOCATION CODE/TYPE		SAMPLE DATE	SAMPLE TYPE	ZONE COMPLETION	FLOW REL.	RESULT	UNITS	QUALIFIERS LAB/DATA		QA	DETECTION LIMIT	UNCERTAINTY
Magnesium	10-19N	WL	12/9/2015	(T)D	AL	O	200	mg/L		F	#	0.15	-
Magnesium	10-19N	WL	2/7/2017	(T)F	AL	O	160	mg/L		F	#	0.013	-
Magnesium	11-1S	WL	12/9/2015	(T)F	AL	O	54	mg/L		F	#	0.03	-
Magnesium	11-1S	WL	2/7/2017	(T)F	AL	O	28	mg/L		F	#	0.013	-
Magnesium	14-13NA	WL	12/9/2015	(T)F	AL	O	66	mg/L		F	#	0.03	-
Magnesium	14-13NA	WL	2/7/2017	(T)F	AL	O	67	mg/L		F	#	0.013	-
Magnesium	6-2N	WL	12/9/2015	(T)F	AL	O	43	mg/L		F	#	0.03	-
Magnesium	6-2N	WL	2/6/2017	(T)F	AL	O	51	mg/L		F	#	0.013	-
Magnesium	8-4S	WL	12/8/2015	(T)F	AL	O	70	mg/L		F	#	0.03	-
Magnesium	8-4S	WL	2/6/2017	(T)F	AL	O	61	mg/L		F	#	0.013	-
Magnesium	GJ01-01	WL	12/9/2015	(T)F	AL		45	mg/L		F	#	0.03	-
Magnesium	GJ01-01	WL	2/8/2017	(T)F	AL		57	mg/L		F	#	0.013	-
Magnesium	GJ01-01	WL	2/8/2017	(T)D	AL		56	mg/L		F	#	0.013	-
Magnesium	GJ84-04	WL	12/9/2015	(T)F	AL	D	75	mg/L		F	#	0.03	-
Magnesium	GJ84-04	WL	2/7/2017	(T)F	AL	D	67	mg/L		F	#	0.013	-
Manganese													
Manganese	10-19N	WL	12/9/2015	(T)F	AL	O	3.3	mg/L		F	#	0.0012	-
Manganese	10-19N	WL	12/9/2015	(T)D	AL	O	3.3	mg/L		F	#	0.0012	-
Manganese	10-19N	WL	2/7/2017	(T)F	AL	O	0.34	mg/L		F	#	0.00011	-
Manganese	10-19N	WL	2/5/2018	(T)F	AL	O	2	mg/L		F	#	0.00032	-
Manganese	10-19N	WL	2/5/2019	(T)F	AL	O	0.35	mg/L		F	#	0.00036	-
Manganese	10-19N	WL	2/26/2020	(T)F	AL	O	0.84	mg/L		F	#	0.0049	-
Manganese	11-1S	WL	12/9/2015	(T)F	AL	O	0.81	mg/L		F	#	0.00024	-
Manganese	11-1S	WL	2/7/2017	(T)F	AL	O	0.28	mg/L		F	#	0.00011	-
Manganese	11-1S	WL	2/5/2018	(T)F	AL	O	0.51	mg/L		F	#	0.00032	-

GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (EQuIS201) FOR SITE GJO01, Grand Junction Site

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PARAMETER	LOCATION CODE/TYPE		SAMPLE DATE	SAMPLE TYPE	ZONE COMPLETION	FLOW REL.	RESULT	UNITS	QUALIFIERS LAB/DATA		QA	DETECTION LIMIT	UNCERTAINTY
Manganese	11-1S	WL	2/4/2019	(T)F	AL	O	2.4	mg/L		F	#	0.00036	-
Manganese	11-1S	WL	2/26/2020	(T)F	AL	O	0.68	mg/L		F	#	0.0049	-
Manganese	14-13NA	WL	12/9/2015	(T)F	AL	O	3.7	mg/L		F	#	0.00024	-
Manganese	14-13NA	WL	2/7/2017	(T)F	AL	O	3.3	mg/L		F	#	0.00011	-
Manganese	14-13NA	WL	2/5/2018	(T)F	AL	O	3.5	mg/L		F	#	0.00032	-
Manganese	14-13NA	WL	2/5/2019	(T)F	AL	O	2.7	mg/L		F	#	0.00036	-
Manganese	14-13NA	WL	2/27/2020	(T)F	AL	O	2	mg/L		F	#	0.0049	-
Manganese	6-2N	WL	12/9/2015	(T)F	AL	O	1	mg/L		F	#	0.00024	-
Manganese	6-2N	WL	2/6/2017	(T)F	AL	O	1.2	mg/L		F	#	0.00011	-
Manganese	6-2N	WL	2/6/2018	(T)F	AL	O	1.4	mg/L		F	#	0.00032	-
Manganese	6-2N	WL	2/7/2019	(T)F	AL	O	1.1	mg/L		F	#	0.00036	-
Manganese	6-2N	WL	2/26/2020	(T)F	AL	O	0.43	mg/L		F	#	0.0049	-
Manganese	8-4S	WL	12/8/2015	(T)F	AL	O	1.7	mg/L		F	#	0.00024	-
Manganese	8-4S	WL	2/6/2017	(T)F	AL	O	1.9	mg/L		F	#	0.00011	-
Manganese	8-4S	WL	2/6/2018	(T)F	AL	O	1.7	mg/L		FJ	#	0.00032	-
Manganese	8-4S	WL	2/4/2019	(T)D	AL	O	1.5	mg/L		F	#	0.00036	-
Manganese	8-4S	WL	2/4/2019	(T)F	AL	O	1.5	mg/L		F	#	0.00036	-
Manganese	8-4S	WL	2/27/2020	(T)D	AL	O	1.9	mg/L		F	#	0.0049	-
Manganese	8-4S	WL	2/27/2020	(T)F	AL	O	2	mg/L		F	#	0.0049	-
Manganese	GJ01-01	WL	12/9/2015	(T)F	AL		0.44	mg/L		F	#	0.00024	-
Manganese	GJ01-01	WL	2/8/2017	(T)F	AL		0.63	mg/L		F	#	0.00011	-
Manganese	GJ01-01	WL	2/8/2017	(T)D	AL		0.62	mg/L		F	#	0.00011	-
Manganese	GJ01-01	WL	2/6/2018	(T)F	AL		0.66	mg/L		F	#	0.00032	-
Manganese	GJ01-01	WL	2/5/2019	(T)F	AL		0.71	mg/L		F	#	0.00036	-
Manganese	GJ01-01	WL	2/26/2020	(T)F	AL		0.61	mg/L		F	#	0.0049	-

GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (EQuIS201) FOR SITE GJO01, Grand Junction Site

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PARAMETER	LOCATION CODE/TYPE		SAMPLE DATE	SAMPLE TYPE	ZONE COMPLETION	FLOW REL.	RESULT	UNITS	QUALIFIERS LAB/DATA		QA	DETECTION LIMIT	UNCERTAINTY
Manganese	GJ84-04	WL	12/9/2015	(T)F	AL	D	4.6	mg/L		F	#	0.00024	-
Manganese	GJ84-04	WL	2/7/2017	(T)F	AL	D	3.5	mg/L		F	#	0.00011	-
Manganese	GJ84-04	WL	2/5/2018	(T)D	AL	D	4.4	mg/L		F	#	0.00032	-
Manganese	GJ84-04	WL	2/5/2018	(T)F	AL	D	4.3	mg/L		F	#	0.00032	-
Manganese	GJ84-04	WL	2/4/2019	(T)F	AL	D	2.6	mg/L		F	#	0.00036	-
Manganese	GJ84-04	WL	2/27/2020	(T)F	AL	D	4.7	mg/L		F	#	0.0049	-
Molybdenum													
Molybdenum	10-19N	WL	12/9/2015	(T)F	AL	O	0.053	mg/L		F	#	0.00032	-
Molybdenum	10-19N	WL	12/9/2015	(T)D	AL	O	0.048	mg/L		F	#	0.00032	-
Molybdenum	10-19N	WL	2/7/2017	(T)F	AL	O	0.014	mg/L		F	#	0.00032	-
Molybdenum	10-19N	WL	2/5/2018	(T)F	AL	O	0.017	mg/L		F	#	0.00015	-
Molybdenum	10-19N	WL	2/5/2019	(T)F	AL	O	0.039	mg/L		F	#	0.000079	-
Molybdenum	10-19N	WL	2/26/2020	(T)F	AL	O	0.024	mg/L		F	#	0.00046	-
Molybdenum	11-1S	WL	12/9/2015	(T)F	AL	O	0.017	mg/L		F	#	0.00032	-
Molybdenum	11-1S	WL	2/7/2017	(T)F	AL	O	0.02	mg/L		F	#	0.00032	-
Molybdenum	11-1S	WL	2/5/2018	(T)F	AL	O	0.018	mg/L		F	#	0.00015	-
Molybdenum	11-1S	WL	2/4/2019	(T)F	AL	O	0.015	mg/L		F	#	0.000079	-
Molybdenum	11-1S	WL	2/26/2020	(T)F	AL	O	0.012	mg/L		F	#	0.00046	-
Molybdenum	14-13NA	WL	12/9/2015	(T)F	AL	O	0.11	mg/L		F	#	0.00032	-
Molybdenum	14-13NA	WL	2/7/2017	(T)F	AL	O	0.093	mg/L		F	#	0.00032	-
Molybdenum	14-13NA	WL	2/5/2018	(T)F	AL	O	0.097	mg/L		F	#	0.00015	-
Molybdenum	14-13NA	WL	2/5/2019	(T)F	AL	O	0.061	mg/L		F	#	0.000079	-
Molybdenum	14-13NA	WL	2/27/2020	(T)F	AL	O	0.062	mg/L		F	#	0.00046	-
Molybdenum	6-2N	WL	12/9/2015	(T)F	AL	O	0.021	mg/L		F	#	0.00032	-
Molybdenum	6-2N	WL	2/6/2017	(T)F	AL	O	0.015	mg/L		F	#	0.00032	-

GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (EQuIS201) FOR SITE GJO01, Grand Junction Site

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PARAMETER	LOCATION CODE/TYPE		SAMPLE DATE	SAMPLE TYPE	ZONE COMPLETION	FLOW REL.	RESULT	UNITS	QUALIFIERS LAB/DATA		QA	DETECTION LIMIT	UNCERTAINTY
Molybdenum	6-2N	WL	2/6/2018	(T)F	AL	O	0.018	mg/L		F	#	0.00015	-
Molybdenum	6-2N	WL	2/7/2019	(T)F	AL	O	0.019	mg/L		F	#	0.000079	-
Molybdenum	6-2N	WL	2/26/2020	(T)F	AL	O	0.022	mg/L		F	#	0.00046	-
Molybdenum	8-4S	WL	12/8/2015	(T)F	AL	O	0.12	mg/L		F	#	0.00032	-
Molybdenum	8-4S	WL	2/6/2017	(T)F	AL	O	0.11	mg/L		F	#	0.00032	-
Molybdenum	8-4S	WL	2/6/2018	(T)F	AL	O	0.11	mg/L		F	#	0.00015	-
Molybdenum	8-4S	WL	2/4/2019	(T)D	AL	O	0.11	mg/L		F	#	0.000079	-
Molybdenum	8-4S	WL	2/4/2019	(T)F	AL	O	0.11	mg/L		F	#	0.000079	-
Molybdenum	8-4S	WL	2/27/2020	(T)D	AL	O	0.082	mg/L		F	#	0.00046	-
Molybdenum	8-4S	WL	2/27/2020	(T)F	AL	O	0.082	mg/L		F	#	0.00046	-
Molybdenum	GJ01-01	WL	12/9/2015	(T)F	AL		0.071	mg/L		F	#	0.00032	-
Molybdenum	GJ01-01	WL	2/8/2017	(T)F	AL		0.069	mg/L		F	#	0.00032	-
Molybdenum	GJ01-01	WL	2/8/2017	(T)D	AL		0.066	mg/L		F	#	0.00032	-
Molybdenum	GJ01-01	WL	2/6/2018	(T)F	AL		0.083	mg/L		F	#	0.00015	-
Molybdenum	GJ01-01	WL	2/5/2019	(T)F	AL		0.054	mg/L		F	#	0.000079	-
Molybdenum	GJ01-01	WL	2/26/2020	(T)F	AL		0.059	mg/L		F	#	0.00046	-
Molybdenum	GJ84-04	WL	12/9/2015	(T)F	AL	D	0.069	mg/L		F	#	0.00032	-
Molybdenum	GJ84-04	WL	2/7/2017	(T)F	AL	D	0.061	mg/L		F	#	0.00032	-
Molybdenum	GJ84-04	WL	2/5/2018	(T)D	AL	D	0.067	mg/L		F	#	0.00015	-
Molybdenum	GJ84-04	WL	2/5/2018	(T)F	AL	D	0.066	mg/L		F	#	0.00015	-
Molybdenum	GJ84-04	WL	2/4/2019	(T)F	AL	D	0.052	mg/L		F	#	0.000079	-
Molybdenum	GJ84-04	WL	2/27/2020	(T)F	AL	D	0.059	mg/L		F	#	0.00046	-
Nitrate + Nitrite as Nitrogen													
Nitrate + Nitrite as Nitrogen	10-19N	WL	12/9/2015	(T)F	AL	O	0.02	mg/L		F	#	0.01	-

GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (EQuIS201) FOR SITE GJO01, Grand Junction Site

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PARAMETER	LOCATION CODE/TYPE		SAMPLE DATE	SAMPLE TYPE	ZONE COMPLETION	FLOW REL.	RESULT	UNITS	QUALIFIERS LAB/DATA		QA	DETECTION LIMIT	UNCERTAINTY
Nitrate + Nitrite as Nitrogen	10-19N	WL	12/9/2015	(T)D	AL	O	0.017	mg/L		F	#	0.01	-
Nitrate + Nitrite as Nitrogen	10-19N	WL	2/7/2017	(T)F	AL	O	0.024	mg/L		F	#	0.01	-
Nitrate + Nitrite as Nitrogen	11-1S	WL	12/9/2015	(T)F	AL	O	0.01	mg/L	U	F	#	0.01	-
Nitrate + Nitrite as Nitrogen	11-1S	WL	2/7/2017	(T)F	AL	O	0.027	mg/L		F	#	0.01	-
Nitrate + Nitrite as Nitrogen	14-13NA	WL	12/9/2015	(T)F	AL	O	0.036	mg/L		F	#	0.01	-
Nitrate + Nitrite as Nitrogen	14-13NA	WL	2/7/2017	(T)F	AL	O	0.044	mg/L		F	#	0.01	-
Nitrate + Nitrite as Nitrogen	6-2N	WL	12/9/2015	(T)F	AL	O	0.84	mg/L		F	#	0.01	-
Nitrate + Nitrite as Nitrogen	6-2N	WL	2/6/2017	(T)F	AL	O	1.3	mg/L		F	#	0.01	-
Nitrate + Nitrite as Nitrogen	8-4S	WL	12/8/2015	(T)F	AL	O	1.1	mg/L		F	#	0.05	-
Nitrate + Nitrite as Nitrogen	8-4S	WL	2/6/2017	(T)F	AL	O	3.6	mg/L	N	JF	#	0.1	-
Nitrate + Nitrite as Nitrogen	GJ01-01	WL	12/9/2015	(T)F	AL		3.3	mg/L		F	#	0.05	-
Nitrate + Nitrite as Nitrogen	GJ01-01	WL	2/8/2017	(T)F	AL		3.3	mg/L		F	#	0.1	-
Nitrate + Nitrite as Nitrogen	GJ01-01	WL	2/8/2017	(T)D	AL		3.2	mg/L		F	#	0.1	-
Nitrate + Nitrite as Nitrogen	GJ84-04	WL	12/9/2015	(T)F	AL	D	0.022	mg/L		F	#	0.01	-
Nitrate + Nitrite as Nitrogen	GJ84-04	WL	2/7/2017	(T)F	AL	D	0.01	mg/L	U	F	#	0.01	-
Oxidation Reduction Potential													
Oxidation Reduction Potential	10-19N	WL	12/9/2015	(T)F	AL	O	27.5	mV		F	#	-	-
Oxidation Reduction Potential	10-19N	WL	2/7/2017	(T)F	AL	O	123.1	mV		F	#	-	-

GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (EQUIS201) FOR SITE GJO01, Grand Junction Site

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PARAMETER	LOCATION CODE/TYPE		SAMPLE DATE	SAMPLE TYPE	ZONE COMPLETION	FLOW REL.	RESULT	UNITS	QUALIFIERS LAB/DATA		QA	DETECTION LIMIT	UNCERTAINTY
Oxidation Reduction Potential	10-19N	WL	2/5/2018	(N)F	AL	O	134	mV		F	#	-	-
Oxidation Reduction Potential	11-1S	WL	12/9/2015	(T)F	AL	O	27.5	mV		F	#	-	-
Oxidation Reduction Potential	11-1S	WL	2/7/2017	(T)F	AL	O	67	mV		F	#	-	-
Oxidation Reduction Potential	11-1S	WL	2/5/2018	(N)F	AL	O	91.9	mV		F	#	-	-
Oxidation Reduction Potential	14-13NA	WL	12/9/2015	(T)F	AL	O	42.4	mV		F	#	-	-
Oxidation Reduction Potential	14-13NA	WL	2/7/2017	(T)F	AL	O	14.5	mV		F	#	-	-
Oxidation Reduction Potential	14-13NA	WL	2/5/2018	(N)F	AL	O	125.2	mV		F	#	-	-
Oxidation Reduction Potential	6-2N	WL	12/9/2015	(T)F	AL	O	184.6	mV		F	#	-	-
Oxidation Reduction Potential	6-2N	WL	2/6/2017	(T)F	AL	O	176	mV		F	#	-	-
Oxidation Reduction Potential	6-2N	WL	2/6/2018	(N)F	AL	O	184.3	mV		F	#	-	-
Oxidation Reduction Potential	8-4S	WL	12/8/2015	(T)F	AL	O	108	mV		F	#	-	-
Oxidation Reduction Potential	8-4S	WL	2/6/2017	(T)F	AL	O	154	mV		F	#	-	-
Oxidation Reduction Potential	8-4S	WL	2/6/2018	(N)F	AL	O	178.3	mV		F	#	-	-
Oxidation Reduction Potential	GJ01-01	WL	12/9/2015	(T)F	AL		172.5	mV		F	#	-	-
Oxidation Reduction Potential	GJ01-01	WL	2/8/2017	(T)F	AL		205.1	mV		F	#	-	-
Oxidation Reduction Potential	GJ01-01	WL	2/6/2018	(N)F	AL		177.2	mV		F	#	-	-
Oxidation Reduction Potential	GJ84-04	WL	12/9/2015	(T)F	AL	D	-33.2	mV		F	#	-	-
Oxidation Reduction Potential	GJ84-04	WL	2/7/2017	(T)F	AL	D	24.5	mV		F	#	-	-

GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (EQuIS201) FOR SITE GJO01, Grand Junction Site

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PARAMETER	LOCATION CODE/TYPE		SAMPLE DATE	SAMPLE TYPE	ZONE COMPLETION	FLOW REL.	RESULT	UNITS	QUALIFIERS LAB/DATA		QA	DETECTION LIMIT	UNCERTAINTY
Oxidation Reduction Potential	GJ84-04	WL	2/5/2018	(N)F	AL	D	168.1	mV		F	#	-	-
pH													
pH	10-19N	WL	12/9/2015	(T)F	AL	O	7.15	s.u.		F	#	-	-
pH	10-19N	WL	2/7/2017	(T)F	AL	O	7.07	s.u.		F	#	-	-
pH	10-19N	WL	2/5/2018	(N)F	AL	O	7.04	s.u.		F	#	-	-
pH	10-19N	WL	2/5/2019	(N)F	AL	O	7.36	s.u.		F	#	-	-
pH	10-19N	WL	2/26/2020	(N)F	AL	O	7.28	s.u.		F	#	-	-
pH	11-1S	WL	12/9/2015	(T)F	AL	O	7.29	s.u.		F	#	-	-
pH	11-1S	WL	2/7/2017	(T)F	AL	O	7.29	s.u.		F	#	-	-
pH	11-1S	WL	2/5/2018	(N)F	AL	O	7.44	s.u.		F	#	-	-
pH	11-1S	WL	2/4/2019	(N)F	AL	O	7.05	s.u.		F	#	-	-
pH	11-1S	WL	2/26/2020	(N)F	AL	O	7.56	s.u.		F	#	-	-
pH	14-13NA	WL	12/9/2015	(T)F	AL	O	7.19	s.u.		F	#	-	-
pH	14-13NA	WL	2/7/2017	(T)F	AL	O	7.08	s.u.		F	#	-	-
pH	14-13NA	WL	2/5/2018	(N)F	AL	O	7.16	s.u.		F	#	-	-
pH	14-13NA	WL	2/5/2019	(N)F	AL	O	7.07	s.u.		F	#	-	-
pH	14-13NA	WL	2/27/2020	(N)F	AL	O	7.3	s.u.		F	#	-	-
pH	6-2N	WL	12/9/2015	(T)F	AL	O	7.68	s.u.		F	#	-	-
pH	6-2N	WL	2/6/2017	(T)F	AL	O	7.52	s.u.		F	#	-	-
pH	6-2N	WL	2/6/2018	(N)F	AL	O	7.58	s.u.		F	#	-	-
pH	6-2N	WL	2/7/2019	(N)F	AL	O	7.34	s.u.		F	#	-	-
pH	6-2N	WL	2/26/2020	(N)F	AL	O	7.7	s.u.		F	#	-	-
pH	8-4S	WL	12/8/2015	(T)F	AL	O	7.28	s.u.		F	#	-	-
pH	8-4S	WL	2/6/2017	(T)F	AL	O	7.19	s.u.		F	#	-	-
pH	8-4S	WL	2/6/2018	(N)F	AL	O	7.23	s.u.		F	#	-	-

GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (EQUIS201) FOR SITE GJO01, Grand Junction Site

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PARAMETER	LOCATION CODE/TYPE		SAMPLE DATE	SAMPLE TYPE	ZONE COMPLETION	FLOW REL.	RESULT	UNITS	QUALIFIERS LAB/DATA		QA	DETECTION LIMIT	UNCERTAINTY
pH	8-4S	WL	2/4/2019	(N)F	AL	O	6.94	s.u.		F	#	-	-
pH	8-4S	WL	2/27/2020	(N)F	AL	O	7.3	s.u.		F	#	-	-
pH	GJ01-01	WL	12/9/2015	(T)F	AL		7.44	s.u.		F	#	-	-
pH	GJ01-01	WL	2/8/2017	(T)F	AL		7.22	s.u.		F	#	-	-
pH	GJ01-01	WL	2/6/2018	(N)F	AL		7.27	s.u.		F	#	-	-
pH	GJ01-01	WL	2/5/2019	(N)F	AL		7.43	s.u.		F	#	-	-
pH	GJ01-01	WL	2/26/2020	(N)F	AL		7.62	s.u.		F	#	-	-
pH	GJ84-04	WL	12/9/2015	(T)F	AL	D	7.2	s.u.		F	#	-	-
pH	GJ84-04	WL	2/7/2017	(T)F	AL	D	7.08	s.u.		F	#	-	-
pH	GJ84-04	WL	2/5/2018	(N)F	AL	D	7.1	s.u.		F	#	-	-
pH	GJ84-04	WL	2/4/2019	(N)F	AL	D	6.96	s.u.		F	#	-	-
pH	GJ84-04	WL	2/27/2020	(N)F	AL	D	7.26	s.u.		F	#	-	-
Potassium													
Potassium	10-19N	WL	12/9/2015	(T)F	AL	O	18	mg/L		F	#	0.26	-
Potassium	10-19N	WL	12/9/2015	(T)D	AL	O	19	mg/L		F	#	0.26	-
Potassium	10-19N	WL	2/7/2017	(T)F	AL	O	24	mg/L		F	#	0.11	-
Potassium	11-1S	WL	12/9/2015	(T)F	AL	O	4.6	mg/L		F	#	0.052	-
Potassium	11-1S	WL	2/7/2017	(T)F	AL	O	3.9	mg/L		F	#	0.11	-
Potassium	14-13NA	WL	12/9/2015	(T)F	AL	O	19	mg/L		F	#	0.052	-
Potassium	14-13NA	WL	2/7/2017	(T)F	AL	O	26	mg/L		F	#	0.11	-
Potassium	6-2N	WL	12/9/2015	(T)F	AL	O	9.8	mg/L		F	#	0.052	-
Potassium	6-2N	WL	2/6/2017	(T)F	AL	O	16	mg/L		F	#	0.11	-
Potassium	8-4S	WL	12/8/2015	(T)F	AL	O	8.8	mg/L		F	#	0.052	-
Potassium	8-4S	WL	2/6/2017	(T)F	AL	O	12	mg/L		F	#	0.11	-
Potassium	GJ01-01	WL	12/9/2015	(T)F	AL		6.9	mg/L		F	#	0.052	-

GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (EQuIS201) FOR SITE GJO01, Grand Junction Site

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PARAMETER	LOCATION CODE/TYPE		SAMPLE DATE	SAMPLE TYPE	ZONE COMPLETION	FLOW REL.	RESULT	UNITS	QUALIFIERS LAB/DATA		QA	DETECTION LIMIT	UNCERTAINTY
Potassium	GJ01-01	WL	2/8/2017	(T)F	AL		9.5	mg/L		F	#	0.11	-
Potassium	GJ01-01	WL	2/8/2017	(T)D	AL		9.6	mg/L		F	#	0.11	-
Potassium	GJ84-04	WL	12/9/2015	(T)F	AL	D	13	mg/L		F	#	0.052	-
Potassium	GJ84-04	WL	2/7/2017	(T)F	AL	D	19	mg/L		F	#	0.11	-
Selenium													
Selenium	10-19N	WL	12/9/2015	(T)F	AL	O	0.0015	mg/L		UF	#	0.00032	-
Selenium	10-19N	WL	12/9/2015	(T)D	AL	O	0.0011	mg/L		UF	#	0.00032	-
Selenium	10-19N	WL	2/7/2017	(T)F	AL	O	0.0031	mg/L		F	#	0.00066	-
Selenium	10-19N	WL	2/5/2018	(T)F	AL	O	0.0013	mg/L	J	F	#	0.00018	-
Selenium	10-19N	WL	2/5/2019	(T)F	AL	O	0.0059	mg/L	J	F	#	0.00065	-
Selenium	10-19N	WL	2/26/2020	(T)F	AL	O	0.0035	mg/L	J	F	#	0.0028	-
Selenium	11-1S	WL	12/9/2015	(T)F	AL	O	0.00048	mg/L	J	UF	#	0.00032	-
Selenium	11-1S	WL	2/7/2017	(T)F	AL	O	0.00066	mg/L	U	F	#	0.00066	-
Selenium	11-1S	WL	2/5/2018	(T)F	AL	O	0.00018	mg/L	U	F	#	0.00018	-
Selenium	11-1S	WL	2/4/2019	(T)F	AL	O	0.00065	mg/L	U	F	#	0.00065	-
Selenium	11-1S	WL	2/26/2020	(T)F	AL	O	0.0028	mg/L	U	F	#	0.0028	-
Selenium	14-13NA	WL	12/9/2015	(T)F	AL	O	0.00097	mg/L	J	UF	#	0.00032	-
Selenium	14-13NA	WL	2/7/2017	(T)F	AL	O	0.00066	mg/L	U	F	#	0.00066	-
Selenium	14-13NA	WL	2/5/2018	(T)F	AL	O	0.00094	mg/L	J	F	#	0.00018	-
Selenium	14-13NA	WL	2/5/2019	(T)F	AL	O	0.01	mg/L		F	#	0.00065	-
Selenium	14-13NA	WL	2/27/2020	(T)F	AL	O	0.005	mg/L	J	F	#	0.0028	-
Selenium	6-2N	WL	12/9/2015	(T)F	AL	O	0.03	mg/L		F	#	0.00032	-
Selenium	6-2N	WL	2/6/2017	(T)F	AL	O	0.024	mg/L		F	#	0.00066	-
Selenium	6-2N	WL	2/6/2018	(T)F	AL	O	0.025	mg/L		F	#	0.00018	-
Selenium	6-2N	WL	2/7/2019	(T)F	AL	O	0.031	mg/L		F	#	0.00065	-

GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (EQuIS201) FOR SITE GJO01, Grand Junction Site

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PARAMETER	LOCATION CODE/TYPE		SAMPLE DATE	SAMPLE TYPE	ZONE COMPLETION	FLOW REL.	RESULT	UNITS	QUALIFIERS LAB/DATA		QA	DETECTION LIMIT	UNCERTAINTY
Selenium	6-2N	WL	2/26/2020	(T)F	AL	O	0.031	mg/L		F	#	0.0028	-
Selenium	8-4S	WL	12/8/2015	(T)F	AL	O	0.03	mg/L		F	#	0.00032	-
Selenium	8-4S	WL	2/6/2017	(T)F	AL	O	0.036	mg/L		F	#	0.00066	-
Selenium	8-4S	WL	2/6/2018	(T)F	AL	O	0.025	mg/L		F	#	0.00018	-
Selenium	8-4S	WL	2/4/2019	(T)D	AL	O	0.018	mg/L		F	#	0.00065	-
Selenium	8-4S	WL	2/4/2019	(T)F	AL	O	0.019	mg/L		F	#	0.00065	-
Selenium	8-4S	WL	2/27/2020	(T)D	AL	O	0.016	mg/L		F	#	0.0028	-
Selenium	8-4S	WL	2/27/2020	(T)F	AL	O	0.017	mg/L		F	#	0.0028	-
Selenium	GJ01-01	WL	12/9/2015	(T)F	AL		0.025	mg/L		F	#	0.00032	-
Selenium	GJ01-01	WL	2/8/2017	(T)F	AL		0.029	mg/L		F	#	0.00066	-
Selenium	GJ01-01	WL	2/8/2017	(T)D	AL		0.027	mg/L		F	#	0.00066	-
Selenium	GJ01-01	WL	2/6/2018	(T)F	AL		0.022	mg/L		F	#	0.00018	-
Selenium	GJ01-01	WL	2/5/2019	(T)F	AL		0.0015	mg/L	J	F	#	0.00065	-
Selenium	GJ01-01	WL	2/26/2020	(T)F	AL		0.0037	mg/L	J	F	#	0.0028	-
Selenium	GJ84-04	WL	12/9/2015	(T)F	AL	D	0.00047	mg/L	J	UF	#	0.00032	-
Selenium	GJ84-04	WL	2/7/2017	(T)F	AL	D	0.00066	mg/L	U	F	#	0.00066	-
Selenium	GJ84-04	WL	2/5/2018	(T)D	AL	D	0.00018	mg/L	U	F	#	0.00018	-
Selenium	GJ84-04	WL	2/5/2018	(T)F	AL	D	0.00035	mg/L	J	F	#	0.00018	-
Selenium	GJ84-04	WL	2/4/2019	(T)F	AL	D	0.00065	mg/L	U	F	#	0.00065	-
Selenium	GJ84-04	WL	2/27/2020	(T)F	AL	D	0.0028	mg/L	U	F	#	0.0028	-
Sodium													
Sodium	10-19N	WL	12/9/2015	(T)F	AL	O	680	mg/L		F	#	0.23	-
Sodium	10-19N	WL	12/9/2015	(T)D	AL	O	700	mg/L		F	#	0.23	-
Sodium	10-19N	WL	2/7/2017	(T)F	AL	O	530	mg/L		F	#	0.066	-
Sodium	11-1S	WL	12/9/2015	(T)F	AL	O	74	mg/L		F	#	0.047	-

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PARAMETER	LOCATION CODE/TYPE		SAMPLE DATE	SAMPLE TYPE	ZONE COMPLETION	FLOW REL.	RESULT	UNITS	QUALIFIERS LAB/DATA		QA	DETECTION LIMIT	UNCERTAINTY
Sodium	11-1S	WL	2/7/2017	(T)F	AL	O	50	mg/L		F	#	0.0066	-
Sodium	14-13NA	WL	12/9/2015	(T)F	AL	O	410	mg/L		F	#	0.047	-
Sodium	14-13NA	WL	2/7/2017	(T)F	AL	O	380	mg/L		F	#	0.066	-
Sodium	6-2N	WL	12/9/2015	(T)F	AL	O	380	mg/L		F	#	0.047	-
Sodium	6-2N	WL	2/6/2017	(T)F	AL	O	460	mg/L		F	#	0.066	-
Sodium	8-4S	WL	12/8/2015	(T)F	AL	O	250	mg/L		F	#	0.047	-
Sodium	8-4S	WL	2/6/2017	(T)F	AL	O	230	mg/L		F	#	0.066	-
Sodium	GJ01-01	WL	12/9/2015	(T)F	AL		190	mg/L		F	#	0.047	-
Sodium	GJ01-01	WL	2/8/2017	(T)F	AL		190	mg/L		F	#	0.066	-
Sodium	GJ01-01	WL	2/8/2017	(T)D	AL		190	mg/L		F	#	0.066	-
Sodium	GJ84-04	WL	12/9/2015	(T)F	AL	D	460	mg/L		F	#	0.047	-
Sodium	GJ84-04	WL	2/7/2017	(T)F	AL	D	430	mg/L		F	#	0.066	-
Specific Conductance													
Specific Conductance	10-19N	WL	12/9/2015	(T)F	AL	O	5171	umhos/cm		F	#	-	-
Specific Conductance	10-19N	WL	2/7/2017	(T)F	AL	O	4216	umhos/cm		F	#	-	-
Specific Conductance	10-19N	WL	2/5/2018	(N)F	AL	O	4475	umhos/cm		F	#	-	-
Specific Conductance	10-19N	WL	2/5/2019	(N)F	AL	O	3075	umhos/cm		F	#	-	-
Specific Conductance	10-19N	WL	2/26/2020	(N)F	AL	O	4044	umhos/cm		F	#	-	-
Specific Conductance	11-1S	WL	12/9/2015	(T)F	AL	O	1392	umhos/cm		F	#	-	-
Specific Conductance	11-1S	WL	2/7/2017	(T)F	AL	O	836	umhos/cm		F	#	-	-
Specific Conductance	11-1S	WL	2/5/2018	(N)F	AL	O	747	umhos/cm		F	#	-	-
Specific Conductance	11-1S	WL	2/4/2019	(N)F	AL	O	691	umhos/cm		F	#	-	-

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PARAMETER	LOCATION CODE/TYPE		SAMPLE DATE	SAMPLE TYPE	ZONE COMPLETION	FLOW REL.	RESULT	UNITS	QUALIFIERS LAB/DATA		QA	DETECTION LIMIT	UNCERTAINTY
Specific Conductance	11-1S	WL	2/26/2020	(N)F	AL	O	816	umhos/cm		F	#	-	-
Specific Conductance	14-13NA	WL	12/9/2015	(T)F	AL	O	3298	umhos/cm		F	#	-	-
Specific Conductance	14-13NA	WL	2/7/2017	(T)F	AL	O	3037	umhos/cm		F	#	-	-
Specific Conductance	14-13NA	WL	2/5/2018	(N)F	AL	O	2944	umhos/cm		F	#	-	-
Specific Conductance	14-13NA	WL	2/5/2019	(N)F	AL	O	2878	umhos/cm		F	#	-	-
Specific Conductance	14-13NA	WL	2/27/2020	(N)F	AL	O	3173	umhos/cm		F	#	-	-
Specific Conductance	6-2N	WL	12/9/2015	(T)F	AL	O	2730	umhos/cm		F	#	-	-
Specific Conductance	6-2N	WL	2/6/2017	(T)F	AL	O	3097	umhos/cm		F	#	-	-
Specific Conductance	6-2N	WL	2/6/2018	(N)F	AL	O	3203	umhos/cm		F	#	-	-
Specific Conductance	6-2N	WL	2/7/2019	(N)F	AL	O	2979	umhos/cm		F	#	-	-
Specific Conductance	6-2N	WL	2/26/2020	(N)F	AL	O	2182	umhos/cm		F	#	-	-
Specific Conductance	8-4S	WL	12/8/2015	(T)F	AL	O	2333	umhos/cm		F	#	-	-
Specific Conductance	8-4S	WL	2/6/2017	(T)F	AL	O	2121	umhos/cm		F	#	-	-
Specific Conductance	8-4S	WL	2/6/2018	(N)F	AL	O	1976	umhos/cm		F	#	-	-
Specific Conductance	8-4S	WL	2/4/2019	(N)F	AL	O	1806	umhos/cm		F	#	-	-
Specific Conductance	8-4S	WL	2/27/2020	(N)F	AL	O	2120	umhos/cm		F	#	-	-
Specific Conductance	GJ01-01	WL	12/9/2015	(T)F	AL		1646	umhos/cm		F	#	-	-
Specific Conductance	GJ01-01	WL	2/8/2017	(T)F	AL		1798	umhos/cm		F	#	-	-

GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (EQuIS201) FOR SITE GJO01, Grand Junction Site

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PARAMETER	LOCATION CODE/TYPE		SAMPLE DATE	SAMPLE TYPE	ZONE COMPLETION	FLOW REL.	RESULT	UNITS	QUALIFIERS LAB/DATA		QA	DETECTION LIMIT	UNCERTAINTY
Specific Conductance	GJ01-01	WL	2/6/2018	(N)F	AL		1746	umhos/cm		F	#	-	-
Specific Conductance	GJ01-01	WL	2/5/2019	(N)F	AL		1756	umhos/cm		F	#	-	-
Specific Conductance	GJ01-01	WL	2/26/2020	(N)F	AL		1758	umhos/cm		F	#	-	-
Specific Conductance	GJ84-04	WL	12/9/2015	(T)F	AL	D	3565	umhos/cm		F	#	-	-
Specific Conductance	GJ84-04	WL	2/7/2017	(T)F	AL	D	3318	umhos/cm		F	#	-	-
Specific Conductance	GJ84-04	WL	2/5/2018	(N)F	AL	D	3344	umhos/cm		F	#	-	-
Specific Conductance	GJ84-04	WL	2/4/2019	(N)F	AL	D	2525	umhos/cm		F	#	-	-
Specific Conductance	GJ84-04	WL	2/27/2020	(N)F	AL	D	3734	umhos/cm		F	#	-	-
Sulfate													
Sulfate	10-19N	WL	12/9/2015	(T)F	AL	O	2700	mg/L		F	#	20	-
Sulfate	10-19N	WL	12/9/2015	(T)D	AL	O	2700	mg/L		F	#	20	-
Sulfate	10-19N	WL	2/7/2017	(T)F	AL	O	1800	mg/L		F	#	20	-
Sulfate	10-19N	WL	2/5/2018	(N)F	AL	O	2100	mg/L		F	#	7.5	-
Sulfate	10-19N	WL	2/5/2019	(N)F	AL	O	1700	mg/L		F	#	15	-
Sulfate	10-19N	WL	2/26/2020	(N)F	AL	O	1700	mg/L		F	#	26	-
Sulfate	11-1S	WL	12/9/2015	(T)F	AL	O	540	mg/L		F	#	5	-
Sulfate	11-1S	WL	2/7/2017	(T)F	AL	O	240	mg/L	N	F	#	2.5	-
Sulfate	11-1S	WL	2/5/2018	(N)F	AL	O	230	mg/L		F	#	1.5	-
Sulfate	11-1S	WL	2/4/2019	(N)F	AL	O	220	mg/L		F	#	3	-
Sulfate	11-1S	WL	2/26/2020	(N)F	AL	O	240	mg/L		F	#	2.6	-
Sulfate	14-13NA	WL	12/9/2015	(T)F	AL	O	1500	mg/L		F	#	10	-
Sulfate	14-13NA	WL	2/7/2017	(T)F	AL	O	1200	mg/L		F	#	20	-

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PARAMETER	LOCATION CODE/TYPE		SAMPLE DATE	SAMPLE TYPE	ZONE COMPLETION	FLOW REL.	RESULT	UNITS	QUALIFIERS LAB/DATA		QA	DETECTION LIMIT	UNCERTAINTY
Sulfate	14-13NA	WL	2/5/2018	(N)F	AL	O	1200	mg/L		F	#	7.5	-
Sulfate	14-13NA	WL	2/5/2019	(N)F	AL	O	1200	mg/L		F	#	15	-
Sulfate	14-13NA	WL	2/27/2020	(N)F	AL	O	1300	mg/L		F	#	11	-
Sulfate	6-2N	WL	12/9/2015	(T)F	AL	O	1200	mg/L		F	#	10	-
Sulfate	6-2N	WL	2/6/2017	(T)F	AL	O	1300	mg/L		F	#	20	-
Sulfate	6-2N	WL	2/6/2018	(N)F	AL	O	1400	mg/L		F	#	7.5	-
Sulfate	6-2N	WL	2/7/2019	(N)F	AL	O	1400	mg/L		F	#	15	-
Sulfate	6-2N	WL	2/26/2020	(N)F	AL	O	650	mg/L		F	#	5.3	-
Sulfate	8-4S	WL	12/8/2015	(T)F	AL	O	970	mg/L		F	#	10	-
Sulfate	8-4S	WL	2/6/2017	(T)F	AL	O	750	mg/L		F	#	10	-
Sulfate	8-4S	WL	2/6/2018	(N)F	AL	O	780	mg/L		F	#	3	-
Sulfate	8-4S	WL	2/4/2019	(N)D	AL	O	720	mg/L		F	#	6	-
Sulfate	8-4S	WL	2/4/2019	(N)F	AL	O	730	mg/L		F	#	6	-
Sulfate	8-4S	WL	2/27/2020	(N)D	AL	O	790	mg/L		F	#	5.3	-
Sulfate	8-4S	WL	2/27/2020	(N)F	AL	O	790	mg/L		F	#	11	-
Sulfate	GJ01-01	WL	12/9/2015	(T)F	AL		520	mg/L		F	#	5	-
Sulfate	GJ01-01	WL	2/8/2017	(T)F	AL		610	mg/L		F	#	5	-
Sulfate	GJ01-01	WL	2/8/2017	(T)D	AL		610	mg/L		F	#	5	-
Sulfate	GJ01-01	WL	2/6/2018	(N)F	AL		610	mg/L		F	#	3	-
Sulfate	GJ01-01	WL	2/5/2019	(N)F	AL		610	mg/L		F	#	6	-
Sulfate	GJ01-01	WL	2/26/2020	(N)F	AL		560	mg/L		F	#	5.3	-
Sulfate	GJ84-04	WL	12/9/2015	(T)F	AL	D	1700	mg/L		F	#	10	-
Sulfate	GJ84-04	WL	2/7/2017	(T)F	AL	D	1300	mg/L		F	#	20	-
Sulfate	GJ84-04	WL	2/5/2018	(N)D	AL	D	1500	mg/L		F	#	7.5	-
Sulfate	GJ84-04	WL	2/5/2018	(N)F	AL	D	1500	mg/L		F	#	7.5	-

GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (EQUIS201) FOR SITE GJO01, Grand Junction Site

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PARAMETER	LOCATION CODE/TYPE		SAMPLE DATE	SAMPLE TYPE	ZONE COMPLETION	FLOW REL.	RESULT	UNITS	QUALIFIERS LAB/DATA		QA	DETECTION LIMIT	UNCERTAINTY
Sulfate	GJ84-04	WL	2/4/2019	(N)F	AL	D	1100	mg/L		F	#	15	-
Sulfate	GJ84-04	WL	2/27/2020	(N)F	AL	D	1600	mg/L		F	#	11	-
Temperature													
Temperature	10-19N	WL	12/9/2015	(T)F	AL	O	12.7	C		F	#	-	-
Temperature	10-19N	WL	2/7/2017	(T)F	AL	O	11.87	C		F	#	-	-
Temperature	10-19N	WL	2/5/2018	(N)F	AL	O	12.73	C		F	#	-	-
Temperature	10-19N	WL	2/5/2019	(N)F	AL	O	10.09	C		F	#	-	-
Temperature	10-19N	WL	2/26/2020	(N)F	AL	O	10.51	C		F	#	-	-
Temperature	11-1S	WL	12/9/2015	(T)F	AL	O	11.88	C		F	#	-	-
Temperature	11-1S	WL	2/7/2017	(T)F	AL	O	12.56	C		F	#	-	-
Temperature	11-1S	WL	2/5/2018	(N)F	AL	O	13.26	C		F	#	-	-
Temperature	11-1S	WL	2/4/2019	(N)F	AL	O	12.91	C		F	#	-	-
Temperature	11-1S	WL	2/26/2020	(N)F	AL	O	12.07	C		F	#	-	-
Temperature	14-13NA	WL	12/9/2015	(T)F	AL	O	14.04	C		F	#	-	-
Temperature	14-13NA	WL	2/7/2017	(T)F	AL	O	13.66	C		F	#	-	-
Temperature	14-13NA	WL	2/5/2018	(N)F	AL	O	14.82	C		F	#	-	-
Temperature	14-13NA	WL	2/5/2019	(N)F	AL	O	14.14	C		F	#	-	-
Temperature	14-13NA	WL	2/27/2020	(N)F	AL	O	13.17	C		F	#	-	-
Temperature	6-2N	WL	12/9/2015	(T)F	AL	O	15.56	C		F	#	-	-
Temperature	6-2N	WL	2/6/2017	(T)F	AL	O	18.72	C		F	#	-	-
Temperature	6-2N	WL	2/6/2018	(N)F	AL	O	19.25	C		F	#	-	-
Temperature	6-2N	WL	2/7/2019	(N)F	AL	O	16.81	C		F	#	-	-
Temperature	6-2N	WL	2/26/2020	(N)F	AL	O	16.69	C		F	#	-	-
Temperature	8-4S	WL	12/8/2015	(T)F	AL	O	13.65	C		F	#	-	-
Temperature	8-4S	WL	2/6/2017	(T)F	AL	O	14.47	C		F	#	-	-

GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (EQuIS201) FOR SITE GJO01, Grand Junction Site

REPORT DATE: 8/26/2021 10:09:51 AM

PARAMETER	LOCATION CODE/TYPE		SAMPLE DATE	SAMPLE TYPE	ZONE COMPLETION	FLOW REL.	RESULT	UNITS	QUALIFIERS LAB/DATA		QA	DETECTION LIMIT	UNCERTAINTY
Temperature	8-4S	WL	2/6/2018	(N)F	AL	O	14.85	C		F	#	-	-
Temperature	8-4S	WL	2/4/2019	(N)F	AL	O	13.56	C		F	#	-	-
Temperature	8-4S	WL	2/27/2020	(N)F	AL	O	13.78	C		F	#	-	-
Temperature	GJ01-01	WL	12/9/2015	(T)F	AL		13.46	C		F	#	-	-
Temperature	GJ01-01	WL	2/8/2017	(T)F	AL		13.91	C		F	#	-	-
Temperature	GJ01-01	WL	2/6/2018	(N)F	AL		15.19	C		F	#	-	-
Temperature	GJ01-01	WL	2/5/2019	(N)F	AL		14.52	C		F	#	-	-
Temperature	GJ01-01	WL	2/26/2020	(N)F	AL		14.43	C		F	#	-	-
Temperature	GJ84-04	WL	12/9/2015	(T)F	AL	D	11.87	C		F	#	-	-
Temperature	GJ84-04	WL	2/7/2017	(T)F	AL	D	12.61	C		F	#	-	-
Temperature	GJ84-04	WL	2/5/2018	(N)F	AL	D	13.23	C		F	#	-	-
Temperature	GJ84-04	WL	2/4/2019	(N)F	AL	D	12.29	C		F	#	-	-
Temperature	GJ84-04	WL	2/27/2020	(N)F	AL	D	12.51	C		F	#	-	-
Turbidity													
Turbidity	10-19N	WL	12/9/2015	(T)F	AL	O	2.16	NTU		F	#	-	-
Turbidity	10-19N	WL	2/7/2017	(T)F	AL	O	3.9	NTU		F	#	-	-
Turbidity	10-19N	WL	2/5/2018	(N)F	AL	O	2.6	NTU		F	#	-	-
Turbidity	10-19N	WL	2/5/2019	(N)F	AL	O	3.23	NTU		F	#	-	-
Turbidity	10-19N	WL	2/26/2020	(N)F	AL	O	5.56	NTU		F	#	-	-
Turbidity	11-1S	WL	12/9/2015	(T)F	AL	O	7.29	NTU		F	#	-	-
Turbidity	11-1S	WL	2/7/2017	(T)F	AL	O	3.34	NTU		F	#	-	-
Turbidity	11-1S	WL	2/5/2018	(N)F	AL	O	1.23	NTU		F	#	-	-
Turbidity	11-1S	WL	2/4/2019	(N)F	AL	O	3.26	NTU		F	#	-	-
Turbidity	11-1S	WL	2/26/2020	(N)F	AL	O	5.2	NTU		F	#	-	-
Turbidity	14-13NA	WL	12/9/2015	(T)F	AL	O	3.42	NTU		F	#	-	-

GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (EQuIS201) FOR SITE GJO01, Grand Junction Site

REPORT DATE: 8/26/2021 10:09:52 AM

PARAMETER	LOCATION CODE/TYPE		SAMPLE DATE	SAMPLE TYPE	ZONE COMPLETION	FLOW REL.	RESULT	UNITS	QUALIFIERS LAB/DATA		QA	DETECTION LIMIT	UNCERTAINTY
Turbidity	14-13NA	WL	2/7/2017	(T)F	AL	O	0.7	NTU		F	#	-	-
Turbidity	14-13NA	WL	2/5/2018	(N)F	AL	O	1.94	NTU		F	#	-	-
Turbidity	14-13NA	WL	2/5/2019	(N)F	AL	O	1.04	NTU		F	#	-	-
Turbidity	14-13NA	WL	2/27/2020	(N)F	AL	O	0.55	NTU		F	#	-	-
Turbidity	6-2N	WL	12/9/2015	(T)F	AL	O	1.14	NTU		F	#	-	-
Turbidity	6-2N	WL	2/6/2017	(T)F	AL	O	1.16	NTU		F	#	-	-
Turbidity	6-2N	WL	2/6/2018	(N)F	AL	O	1.2	NTU		F	#	-	-
Turbidity	6-2N	WL	2/7/2019	(N)F	AL	O	1.5	NTU		F	#	-	-
Turbidity	6-2N	WL	2/26/2020	(N)F	AL	O	0.43	NTU		F	#	-	-
Turbidity	8-4S	WL	12/8/2015	(T)F	AL	O	1.11	NTU		F	#	-	-
Turbidity	8-4S	WL	2/6/2017	(T)F	AL	O	5.06	NTU		F	#	-	-
Turbidity	8-4S	WL	2/6/2018	(N)F	AL	O	2.1	NTU		F	#	-	-
Turbidity	8-4S	WL	2/4/2019	(N)F	AL	O	0.77	NTU		F	#	-	-
Turbidity	8-4S	WL	2/27/2020	(N)F	AL	O	2.29	NTU		F	#	-	-
Turbidity	GJ01-01	WL	12/9/2015	(T)F	AL		1.3	NTU		F	#	-	-
Turbidity	GJ01-01	WL	2/8/2017	(T)F	AL		0.39	NTU		F	#	-	-
Turbidity	GJ01-01	WL	2/6/2018	(N)F	AL		0.8	NTU		F	#	-	-
Turbidity	GJ01-01	WL	2/5/2019	(N)F	AL		1.61	NTU		F	#	-	-
Turbidity	GJ01-01	WL	2/26/2020	(N)F	AL		1.58	NTU		F	#	-	-
Turbidity	GJ84-04	WL	12/9/2015	(T)F	AL	D	1.8	NTU		F	#	-	-
Turbidity	GJ84-04	WL	2/7/2017	(T)F	AL	D	0.96	NTU		F	#	-	-
Turbidity	GJ84-04	WL	2/5/2018	(N)F	AL	D	1.85	NTU		F	#	-	-
Turbidity	GJ84-04	WL	2/4/2019	(N)F	AL	D	3.49	NTU		F	#	-	-
Turbidity	GJ84-04	WL	2/27/2020	(N)F	AL	D	2.4	NTU		F	#	-	-

GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (EQuIS201) FOR SITE GJO01, Grand Junction Site

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PARAMETER	LOCATION CODE/TYPE		SAMPLE DATE	SAMPLE TYPE	ZONE COMPLETION	FLOW REL.	RESULT	UNITS	QUALIFIERS LAB/DATA	QA	DETECTION LIMIT	UNCERTAINTY	
Uranium													
Uranium	10-19N	WL	12/9/2015	(T)F	AL	O	0.19	mg/L		F	#	0.000029	-
Uranium	10-19N	WL	12/9/2015	(T)D	AL	O	0.18	mg/L		F	#	0.000029	-
Uranium	10-19N	WL	2/7/2017	(T)F	AL	O	0.12	mg/L		F	#	0.000012	-
Uranium	10-19N	WL	2/5/2018	(T)F	AL	O	0.14	mg/L		F	#	0.000022	-
Uranium	10-19N	WL	2/5/2019	(T)F	AL	O	0.17	mg/L		F	#	0.0000049	-
Uranium	10-19N	WL	2/26/2020	(T)F	AL	O	0.22	mg/L		F	#	0.00004	-
Uranium	11-1S	WL	12/9/2015	(T)F	AL	O	0.13	mg/L		F	#	0.000029	-
Uranium	11-1S	WL	2/7/2017	(T)F	AL	O	0.047	mg/L		F	#	0.000012	-
Uranium	11-1S	WL	2/5/2018	(T)F	AL	O	0.032	mg/L		F	#	0.000022	-
Uranium	11-1S	WL	2/4/2019	(T)F	AL	O	0.03	mg/L		F	#	0.0000049	-
Uranium	11-1S	WL	2/26/2020	(T)F	AL	O	0.03	mg/L		F	#	0.00004	-
Uranium	14-13NA	WL	12/9/2015	(T)F	AL	O	0.29	mg/L		F	#	0.000029	-
Uranium	14-13NA	WL	2/7/2017	(T)F	AL	O	0.24	mg/L		F	#	0.000012	-
Uranium	14-13NA	WL	2/5/2018	(T)F	AL	O	0.24	mg/L		F	#	0.000022	-
Uranium	14-13NA	WL	2/5/2019	(T)F	AL	O	0.22	mg/L		F	#	0.0000049	-
Uranium	14-13NA	WL	2/27/2020	(T)F	AL	O	0.21	mg/L		F	#	0.00004	-
Uranium	6-2N	WL	12/9/2015	(T)F	AL	O	0.053	mg/L		F	#	0.000029	-
Uranium	6-2N	WL	2/6/2017	(T)F	AL	O	0.042	mg/L		F	#	0.000012	-
Uranium	6-2N	WL	2/6/2018	(T)F	AL	O	0.051	mg/L		F	#	0.000022	-
Uranium	6-2N	WL	2/7/2019	(T)F	AL	O	0.065	mg/L		F	#	0.0000049	-
Uranium	6-2N	WL	2/26/2020	(T)F	AL	O	0.087	mg/L		F	#	0.00004	-
Uranium	8-4S	WL	12/8/2015	(T)F	AL	O	0.73	mg/L		F	#	0.000029	-
Uranium	8-4S	WL	2/6/2017	(T)F	AL	O	0.59	mg/L		F	#	0.000012	-
Uranium	8-4S	WL	2/6/2018	(T)F	AL	O	0.57	mg/L		F	#	0.000022	-

GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (EQuIS201) FOR SITE GJO01, Grand Junction Site

REPORT DATE: 8/26/2021 10:09:52 AM

PARAMETER	LOCATION CODE/TYPE		SAMPLE DATE	SAMPLE TYPE	ZONE COMPLETION	FLOW REL.	RESULT	UNITS	QUALIFIERS LAB/DATA		QA	DETECTION LIMIT	UNCERTAINTY
Uranium	8-4S	WL	2/4/2019	(T)D	AL	O	0.46	mg/L		F	#	0.0000049	-
Uranium	8-4S	WL	2/4/2019	(T)F	AL	O	0.46	mg/L		F	#	0.0000049	-
Uranium	8-4S	WL	2/27/2020	(T)D	AL	O	0.57	mg/L		F	#	0.00004	-
Uranium	8-4S	WL	2/27/2020	(T)F	AL	O	0.59	mg/L		F	#	0.00004	-
Uranium	GJ01-01	WL	12/9/2015	(T)F	AL		0.28	mg/L		F	#	0.000029	-
Uranium	GJ01-01	WL	2/8/2017	(T)F	AL		0.29	mg/L		F	#	0.000012	-
Uranium	GJ01-01	WL	2/8/2017	(T)D	AL		0.29	mg/L		F	#	0.000012	-
Uranium	GJ01-01	WL	2/6/2018	(T)F	AL		0.31	mg/L		F	#	0.000022	-
Uranium	GJ01-01	WL	2/5/2019	(T)F	AL		0.28	mg/L		F	#	0.0000049	-
Uranium	GJ01-01	WL	2/26/2020	(T)F	AL		0.29	mg/L		F	#	0.00004	-
Uranium	GJ84-04	WL	12/9/2015	(T)F	AL	D	0.33	mg/L		F	#	0.000029	-
Uranium	GJ84-04	WL	2/7/2017	(T)F	AL	D	0.26	mg/L		F	#	0.000012	-
Uranium	GJ84-04	WL	2/5/2018	(T)D	AL	D	0.28	mg/L		F	#	0.000022	-
Uranium	GJ84-04	WL	2/5/2018	(T)F	AL	D	0.27	mg/L		F	#	0.000022	-
Uranium	GJ84-04	WL	2/4/2019	(T)F	AL	D	0.16	mg/L		F	#	0.0000049	-
Uranium	GJ84-04	WL	2/27/2020	(T)F	AL	D	0.29	mg/L		F	#	0.00004	-

ZONES OF COMPLETION:

AL ALLUVIUM

LOCATION TYPE:

WL WELL

DATA QUALIFIERS:

F Low flow sampling method used.
 G Possible grout contamination, pH > 9.
 J Estimated Value.
 L Less than 3 bore volumes purged prior to sampling.

GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (EQuIS201) FOR SITE GJO01, Grand Junction Site

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N	Tentatively identified compound (TIC).
Q	Qualitative result due to sampling technique
R	Unusable result.
U	Parameter analyzed for but was not detected.
X	Location is undefined.

LAB QUALIFIERS:

*	Replicate analysis not within control limits.
+	Correlation coefficient for MSA < 0.995.
>	Result above upper detection limit.
A	TIC is a suspected aldol-condensation product.
B	Inorganic: Result is between the IDL and CRDL. Organic & Radiochemistry: Analyte also found in method blank.
C	Pesticide result confirmed by GC-MS.
D	Analyte determined in diluted sample.
E	Inorganic: Estimate value because of interference, see case narrative. Organic: Analyte exceeded calibration range of the GC-MS.
H	Holding time expired, value suspect.
I	Increased detection limit due to required dilution.
J	Estimated Value.
M	GFAA duplicate injection precision not met.
N	Inorganic or radiochemical: Spike sample recovery not within control limits. Organic: Tentatively identified compound (TIC).
P	> 25% difference in detected pesticide or Aroclor concentrations between 2 columns.
S	Result determined by method of standard addition (MSA).
U	Parameter analyzed for but was not detected.
W	Post-digestion spike outside control limits while sample absorbance < 50% of analytical spike absorbance.
X	Laboratory defined qualifier, see case narrative.
Y	Laboratory defined qualifier, see case narrative.
Z	Laboratory defined qualifier, see case narrative.

SAMPLE TYPES:

Fraction:

(T) Total (for metal concentrations)

(D) Dissolved (for dissolved or filtered metal concentrations)

(N) Organic (or other) constituents for which neither total nor dissolved is applicable

Type Codes:

F-Field Sample

R-Replicate

FR-Field Sample with Replicates

D-Duplicate

N-Not Known

S-Split Sample

GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (EQuIS201) FOR SITE GJO01, Grand Junction Site

REPORT DATE: 8/26/2021 10:09:52 AM

**FLOW
CODES:**

- | | | | | | |
|---|------------|---|----------------|---|---------------|
| B | BACKGROUND | C | CROSS GRADIENT | D | DOWN GRADIENT |
| F | OFF-SITE | N | UNKNOWN | O | ON-SITE |
| U | UPGRADIENT | | | | |

QA QUALIFIER: # = validated according to Quality Assurance guidelines.

Appendix B

Surface Water Data

SURFACE WATER QUALITY DATA BY PARAMETER (EQuIS800) FOR SITE GJO01, Grand Junction Site

REPORT DATE: 8/26/2021 10:12:25 AM

PARAMETER	LOCATION CODE	SAMPLE DATE	SAMPLE TYPE	RESULT	UNITS	QUALIFIERS LAB/DATA	QA	DETECT. LIMIT	UNCERTAINTY
Alkalinity, Total (As CaCO3)									
Alkalinity, Total (As CaCO3)	Lower Gunnison	12/10/2015	(T)F	174	mg/L		#	-	-
Alkalinity, Total (As CaCO3)	Lower Gunnison	2/7/2017	(T)F	120	mg/L		#	-	-
Alkalinity, Total (As CaCO3)	Lower Gunnison	2/5/2018	(N)F	58	mg/L		#	-	-
Alkalinity, Total (As CaCO3)	Lower Gunnison	2/5/2019	(N)F	77	mg/L		#	-	-
Alkalinity, Total (As CaCO3)	Lower Gunnison	2/26/2020	(N)F	134	mg/L		#	-	-
Alkalinity, Total (As CaCO3)	North Pond	12/10/2015	(T)F	230	mg/L		#	-	-
Alkalinity, Total (As CaCO3)	North Pond	2/7/2017	(T)F	200	mg/L		#	-	-
Alkalinity, Total (As CaCO3)	North Pond	2/5/2018	(N)F	86	mg/L		#	-	-
Alkalinity, Total (As CaCO3)	North Pond	3/5/2019	(N)F	190	mg/L		#	-	-
Alkalinity, Total (As CaCO3)	North Pond	2/27/2020	(N)F	201.429	mg/L		#	-	-
Alkalinity, Total (As CaCO3)	South Pond	12/10/2015	(D)F	124	mg/L		#	-	-
Alkalinity, Total (As CaCO3)	South Pond	2/7/2017	(T)F	117	mg/L		#	-	-
Alkalinity, Total (As CaCO3)	South Pond	2/6/2018	(N)F	180	mg/L		#	-	-
Alkalinity, Total (As CaCO3)	South Pond	2/5/2019	(D)F	55	mg/L		#	-	-
Alkalinity, Total (As CaCO3)	South Pond	2/26/2020	(N)F	202	mg/L		#	-	-
Alkalinity, Total (As CaCO3)	Upper Gunnison	12/8/2015	(T)F	154	mg/L		#	-	-
Alkalinity, Total (As CaCO3)	Upper Gunnison	2/7/2017	(T)F	114	mg/L		#	-	-
Alkalinity, Total (As CaCO3)	Upper Gunnison	2/5/2018	(N)F	96	mg/L		#	-	-
Alkalinity, Total (As CaCO3)	Upper Gunnison	2/5/2019	(N)F	100	mg/L		#	-	-
Alkalinity, Total (As CaCO3)	Upper Gunnison	2/26/2020	(N)F	128	mg/L		#	-	-
Alkalinity, Total (As CaCO3)	Upper Mid Gunnison	12/10/2015	(T)F	149	mg/L		#	-	-
Alkalinity, Total (As CaCO3)	Upper Mid Gunnison	2/7/2017	(T)F	139	mg/L		#	-	-
Alkalinity, Total (As CaCO3)	Upper Mid Gunnison	2/5/2018	(N)F	38	mg/L		#	-	-
Alkalinity, Total (As CaCO3)	Upper Mid Gunnison	2/4/2019	(N)F	90	mg/L		#	-	-
Alkalinity, Total (As CaCO3)	Upper Mid Gunnison	2/26/2020	(N)F	127	mg/L		#	-	-

SURFACE WATER QUALITY DATA BY PARAMETER (EQuIS800) FOR SITE GJO01, Grand Junction Site

REPORT DATE: 8/26/2021 10:12:26 AM

PARAMETER	LOCATION CODE	SAMPLE DATE	SAMPLE TYPE	RESULT	UNITS	QUALIFIERS LAB/DATA		QA	DETECT. LIMIT	UNCERTAINTY
Alkalinity, Total (As CaCO3)	Wetland Area	12/10/2015	(T)F	252	mg/L			#	-	-
Alkalinity, Total (As CaCO3)	Wetland Area	2/7/2017	(T)F	135	mg/L			#	-	-
Alkalinity, Total (As CaCO3)	Wetland Area	2/5/2018	(N)F	72	mg/L			#	-	-
Alkalinity, Total (As CaCO3)	Wetland Area	2/5/2019	(D)F	218	mg/L			#	-	-
Alkalinity, Total (As CaCO3)	Wetland Area	2/27/2020	(N)F	221	mg/L			#	-	-
Calcium										
Calcium	Lower Gunnison	12/10/2015	(T)F	100	mg/L			#	0.024	-
Calcium	Lower Gunnison	2/7/2017	(T)F	94	mg/L			#	0.012	-
Calcium	North Pond	12/10/2015	(T)F	200	mg/L			#	0.024	-
Calcium	North Pond	2/7/2017	(T)F	210	mg/L			#	0.012	-
Calcium	South Pond	12/10/2015	(D)F	110	mg/L			#	0.024	-
Calcium	South Pond	2/7/2017	(T)F	130	mg/L			#	0.012	-
Calcium	Upper Gunnison	12/8/2015	(T)F	98	mg/L			#	0.024	-
Calcium	Upper Gunnison	2/7/2017	(T)F	91	mg/L			#	0.012	-
Calcium	Upper Mid Gunnison	12/10/2015	(T)F	92	mg/L			#	0.024	-
Calcium	Upper Mid Gunnison	2/7/2017	(T)F	90	mg/L			#	0.012	-
Calcium	Wetland Area	12/10/2015	(T)F	320	mg/L			#	0.12	-
Calcium	Wetland Area	2/7/2017	(T)F	170	mg/L			#	0.012	-
Chloride										
Chloride	Lower Gunnison	12/10/2015	(T)F	16	mg/L			#	1	-
Chloride	Lower Gunnison	2/7/2017	(T)F	9.8	mg/L			#	1	-
Chloride	North Pond	12/10/2015	(T)F	190	mg/L			#	4	-
Chloride	North Pond	2/7/2017	(T)F	210	mg/L			#	8	-
Chloride	South Pond	12/10/2015	(D)F	82	mg/L			#	4	-
Chloride	South Pond	2/7/2017	(T)F	88	mg/L			#	8	-
Chloride	Upper Gunnison	12/8/2015	(T)F	9.3	mg/L			#	1	-
Chloride	Upper Gunnison	2/7/2017	(T)F	8.6	mg/L			#	1	-
Chloride	Upper Mid Gunnison	12/10/2015	(T)F	9.4	mg/L			#	1	-
Chloride	Upper Mid Gunnison	2/7/2017	(T)F	7.8	mg/L			#	1	-
Chloride	Wetland Area	12/10/2015	(T)F	540	mg/L			#	20	-
Chloride	Wetland Area	2/7/2017	(T)F	370	mg/L			#	10	-

SURFACE WATER QUALITY DATA BY PARAMETER (EQuIS800) FOR SITE GJO01, Grand Junction Site

REPORT DATE: 8/26/2021 10:12:26 AM

PARAMETER	LOCATION CODE	SAMPLE DATE	SAMPLE TYPE	RESULT	UNITS	QUALIFIERS LAB/DATA		QA	DETECT. LIMIT	UNCERTAINTY
Dissolved Oxygen										
Dissolved Oxygen	Lower Gunnison	12/10/2015	(T)F	12.73	mg/L			#	-	-
Dissolved Oxygen	Lower Gunnison	2/7/2017	(T)F	10.2	mg/L			#	-	-
Dissolved Oxygen	Lower Gunnison	2/5/2018	(N)F	11.62	mg/L			#	-	-
Dissolved Oxygen	North Pond	12/10/2015	(T)F	9.31	mg/L			#	-	-
Dissolved Oxygen	North Pond	2/7/2017	(T)F	8.82	mg/L		J	#	-	-
Dissolved Oxygen	North Pond	2/5/2018	(N)F	11.26	mg/L			#	-	-
Dissolved Oxygen	South Pond	12/10/2015	(T)F	14.93	mg/L			#	-	-
Dissolved Oxygen	South Pond	2/7/2017	(T)F	11.14	mg/L			#	-	-
Dissolved Oxygen	South Pond	2/6/2018	(N)F	10.68	mg/L			#	-	-
Dissolved Oxygen	Upper Gunnison	12/8/2015	(T)F	12.64	mg/L			#	-	-
Dissolved Oxygen	Upper Gunnison	2/7/2017	(T)F	12.15	mg/L			#	-	-
Dissolved Oxygen	Upper Gunnison	2/5/2018	(N)F	11.36	mg/L			#	-	-
Dissolved Oxygen	Upper Mid Gunnison	12/10/2015	(T)F	12.59	mg/L			#	-	-
Dissolved Oxygen	Upper Mid Gunnison	2/7/2017	(T)F	10.05	mg/L		J	#	-	-
Dissolved Oxygen	Upper Mid Gunnison	2/5/2018	(N)F	12.05	mg/L			#	-	-
Dissolved Oxygen	Wetland Area	12/10/2015	(T)F	12.34	mg/L			#	-	-
Dissolved Oxygen	Wetland Area	2/7/2017	(T)F	11.4	mg/L			#	-	-
Dissolved Oxygen	Wetland Area	2/5/2018	(N)F	6.88	mg/L			#	-	-
Iron										
Iron	Lower Gunnison	12/10/2015	(T)F	0.073	mg/L	J		#	0.0067	-
Iron	Lower Gunnison	2/7/2017	(T)F	0.11	mg/L		J	#	0.0049	-
Iron	North Pond	12/10/2015	(T)F	0.063	mg/L	J		#	0.0067	-
Iron	North Pond	2/7/2017	(T)F	0.32	mg/L			#	0.0049	-
Iron	South Pond	12/10/2015	(D)F	0.026	mg/L	J		#	0.0067	-
Iron	South Pond	2/7/2017	(T)F	0.11	mg/L		J	#	0.0049	-
Iron	Upper Gunnison	12/8/2015	(T)F	0.14	mg/L			#	0.0067	-
Iron	Upper Gunnison	2/7/2017	(T)F	0.18	mg/L		J	#	0.0049	-
Iron	Upper Mid Gunnison	12/10/2015	(T)F	0.09	mg/L	J		#	0.0067	-
Iron	Upper Mid Gunnison	2/7/2017	(T)F	0.14	mg/L		J	#	0.0049	-
Iron	Wetland Area	12/10/2015	(T)F	0.28	mg/L	J		#	0.033	-
Iron	Wetland Area	2/7/2017	(T)F	0.18	mg/L		J	#	0.0049	-
Magnesium										
Magnesium	Lower Gunnison	12/10/2015	(T)F	37	mg/L			#	0.03	-

SURFACE WATER QUALITY DATA BY PARAMETER (EQuIS800) FOR SITE GJO01, Grand Junction Site

REPORT DATE: 8/26/2021 10:12:26 AM

PARAMETER	LOCATION CODE	SAMPLE DATE	SAMPLE TYPE	RESULT	UNITS	QUALIFIERS LAB/DATA	QA	DETECT. LIMIT	UNCERTAINTY
Magnesium	Lower Gunnison	2/7/2017	(T)F	34	mg/L		#	0.013	-
Magnesium	North Pond	12/10/2015	(T)F	120	mg/L		#	0.03	-
Magnesium	North Pond	2/7/2017	(T)F	130	mg/L		#	0.013	-
Magnesium	South Pond	12/10/2015	(D)F	84	mg/L		#	0.03	-
Magnesium	South Pond	2/7/2017	(T)F	95	mg/L		#	0.013	-
Magnesium	Upper Gunnison	12/8/2015	(T)F	34	mg/L		#	0.03	-
Magnesium	Upper Gunnison	2/7/2017	(T)F	33	mg/L		#	0.013	-
Magnesium	Upper Mid Gunnison	12/10/2015	(T)F	33	mg/L		#	0.03	-
Magnesium	Upper Mid Gunnison	2/7/2017	(T)F	33	mg/L		#	0.013	-
Magnesium	Wetland Area	12/10/2015	(T)F	240	mg/L		#	0.15	-
Magnesium	Wetland Area	2/7/2017	(T)F	140	mg/L		#	0.013	-
Manganese									
Manganese	Lower Gunnison	2/7/2017	(T)F	0.065	mg/L		#	0.00011	-
Manganese	North Pond	2/7/2017	(T)F	0.19	mg/L		#	0.00011	-
Manganese	South Pond	2/7/2017	(T)F	0.037	mg/L		#	0.00011	-
Manganese	Upper Gunnison	2/7/2017	(T)F	0.042	mg/L		#	0.00011	-
Manganese	Upper Mid Gunnison	2/7/2017	(T)F	0.037	mg/L		#	0.00011	-
Manganese	Wetland Area	2/7/2017	(T)F	0.034	mg/L		#	0.00011	-
Molybdenum									
Molybdenum	Lower Gunnison	12/10/2015	(T)F	0.0043	mg/L		#	0.00032	-
Molybdenum	Lower Gunnison	2/7/2017	(T)F	0.0028	mg/L		#	0.00032	-
Molybdenum	Lower Gunnison	2/5/2018	(T)F	0.0028	mg/L		#	0.00015	-
Molybdenum	Lower Gunnison	2/5/2019	(T)F	0.0047	mg/L		#	0.000079	-
Molybdenum	Lower Gunnison	2/26/2020	(T)F	0.0024	mg/L		#	0.00046	-
Molybdenum	North Pond	12/10/2015	(T)F	0.0065	mg/L		#	0.00032	-
Molybdenum	North Pond	2/7/2017	(T)F	0.0079	mg/L		#	0.00032	-
Molybdenum	North Pond	2/5/2018	(T)F	0.006	mg/L		#	0.00015	-
Molybdenum	North Pond	3/5/2019	(D)F	0.017	mg/L		#	0.000079	-
Molybdenum	North Pond	2/27/2020	(T)F	0.006	mg/L		#	0.00046	-
Molybdenum	South Pond	12/10/2015	(D)F	0.063	mg/L		#	0.00032	-
Molybdenum	South Pond	2/7/2017	(T)F	0.076	mg/L		#	0.00032	-
Molybdenum	South Pond	2/6/2018	(T)F	0.069	mg/L		#	0.00015	-
Molybdenum	South Pond	2/5/2019	(D)F	0.042	mg/L		#	0.000079	-
Molybdenum	South Pond	2/26/2020	(T)F	0.079	mg/L		#	0.00046	-
Molybdenum	Upper Gunnison	12/8/2015	(T)F	0.0032	mg/L		#	0.00032	-

SURFACE WATER QUALITY DATA BY PARAMETER (EQuIS800) FOR SITE GJO01, Grand Junction Site

REPORT DATE: 8/26/2021 10:12:27 AM

PARAMETER	LOCATION CODE	SAMPLE DATE	SAMPLE TYPE	RESULT	UNITS	QUALIFIERS LAB/DATA		QA	DETECT. LIMIT	UNCERTAINTY
Molybdenum	Upper Gunnison	2/7/2017	(T)F	0.0026	mg/L			#	0.00032	-
Molybdenum	Upper Gunnison	2/5/2018	(T)F	0.0025	mg/L			#	0.00015	-
Molybdenum	Upper Gunnison	2/5/2019	(T)F	0.003	mg/L			#	0.000079	-
Molybdenum	Upper Gunnison	2/26/2020	(T)F	0.002	mg/L			#	0.00046	-
Molybdenum	Upper Mid Gunnison	12/10/2015	(T)F	0.0029	mg/L			#	0.00032	-
Molybdenum	Upper Mid Gunnison	2/7/2017	(T)F	0.0023	mg/L			#	0.00032	-
Molybdenum	Upper Mid Gunnison	2/5/2018	(T)F	0.0025	mg/L			#	0.00015	-
Molybdenum	Upper Mid Gunnison	2/4/2019	(T)F	0.003	mg/L			#	0.000079	-
Molybdenum	Upper Mid Gunnison	2/26/2020	(T)F	0.002	mg/L	J		#	0.00046	-
Molybdenum	Wetland Area	12/10/2015	(T)F	0.17	mg/L			#	0.00032	-
Molybdenum	Wetland Area	2/7/2017	(T)F	0.15	mg/L			#	0.00032	-
Molybdenum	Wetland Area	2/5/2018	(D)F	0.043	mg/L			#	0.00015	-
Molybdenum	Wetland Area	2/5/2019	(D)F	1.6	mg/L			#	0.000079	-
Molybdenum	Wetland Area	2/27/2020	(T)F	0.22	mg/L			#	0.00046	-
Nitrate + Nitrite as Nitrogen										
Nitrate + Nitrite as Nitrogen	Lower Gunnison	12/10/2015	(T)F	0.61	mg/L			#	0.01	-
Nitrate + Nitrite as Nitrogen	Lower Gunnison	2/7/2017	(T)F	0.47	mg/L			#	0.01	-
Nitrate + Nitrite as Nitrogen	North Pond	12/10/2015	(T)F	0.022	mg/L		J	#	0.01	-
Nitrate + Nitrite as Nitrogen	North Pond	2/7/2017	(T)F	0.01	mg/L	U		#	0.01	-
Nitrate + Nitrite as Nitrogen	South Pond	12/10/2015	(D)F	0.01	mg/L		J	#	0.01	-
Nitrate + Nitrite as Nitrogen	South Pond	2/7/2017	(T)F	0.01	mg/L	U		#	0.01	-
Nitrate + Nitrite as Nitrogen	Upper Gunnison	12/8/2015	(T)F	0.61	mg/L			#	0.01	-
Nitrate + Nitrite as Nitrogen	Upper Gunnison	2/7/2017	(T)F	0.5	mg/L			#	0.01	-
Nitrate + Nitrite as Nitrogen	Upper Mid Gunnison	12/10/2015	(T)F	0.61	mg/L			#	0.01	-
Nitrate + Nitrite as Nitrogen	Upper Mid Gunnison	2/7/2017	(T)F	0.46	mg/L			#	0.01	-
Nitrate + Nitrite as Nitrogen	Wetland Area	12/10/2015	(T)F	0.01	mg/L	U		#	0.01	-
Nitrate + Nitrite as Nitrogen	Wetland Area	2/7/2017	(T)F	0.01	mg/L	U		#	0.01	-
Oxidation Reduction Potential										
Oxidation Reduction Potential	Lower Gunnison	12/10/2015	(T)F	184.1	mV			#	-	-

SURFACE WATER QUALITY DATA BY PARAMETER (EQuIS800) FOR SITE GJO01, Grand Junction Site

REPORT DATE: 8/26/2021 10:12:27 AM

PARAMETER	LOCATION CODE	SAMPLE DATE	SAMPLE TYPE	RESULT	UNITS	QUALIFIERS LAB/DATA		QA	DETECT. LIMIT	UNCERTAINTY
Oxidation Reduction Potential	Lower Gunnison	2/7/2017	(T)F	169.1	mV			#	-	-
Oxidation Reduction Potential	Lower Gunnison	2/5/2018	(N)F	196	mV			#	-	-
Oxidation Reduction Potential	North Pond	12/10/2015	(T)F	210.6	mV			#	-	-
Oxidation Reduction Potential	North Pond	2/7/2017	(T)F	184.7	mV			#	-	-
Oxidation Reduction Potential	North Pond	2/5/2018	(N)F	208.9	mV			#	-	-
Oxidation Reduction Potential	South Pond	12/10/2015	(T)F	216.5	mV			#	-	-
Oxidation Reduction Potential	South Pond	2/7/2017	(T)F	187	mV			#	-	-
Oxidation Reduction Potential	South Pond	2/6/2018	(N)F	208.4	mV			#	-	-
Oxidation Reduction Potential	Upper Gunnison	12/8/2015	(T)F	67	mV			#	-	-
Oxidation Reduction Potential	Upper Gunnison	2/7/2017	(T)F	178.6	mV			#	-	-
Oxidation Reduction Potential	Upper Gunnison	2/5/2018	(N)F	221.5	mV			#	-	-
Oxidation Reduction Potential	Upper Mid Gunnison	12/10/2015	(T)F	171.4	mV			#	-	-
Oxidation Reduction Potential	Upper Mid Gunnison	2/7/2017	(T)F	65.6	mV			#	-	-
Oxidation Reduction Potential	Upper Mid Gunnison	2/5/2018	(N)F	208.6	mV			#	-	-
Oxidation Reduction Potential	Wetland Area	12/10/2015	(T)F	225.7	mV			#	-	-
Oxidation Reduction Potential	Wetland Area	2/7/2017	(T)F	102.4	mV			#	-	-
Oxidation Reduction Potential	Wetland Area	2/5/2018	(N)F	216.4	mV			#	-	-
pH										
pH	Lower Gunnison	12/10/2015	(T)F	8.6	s.u.			#	-	-
pH	Lower Gunnison	2/7/2017	(T)F	8.43	s.u.			#	-	-
pH	Lower Gunnison	2/5/2018	(N)F	8.28	s.u.			#	-	-
pH	Lower Gunnison	2/5/2019	(N)F	8.03	s.u.			#	-	-
pH	Lower Gunnison	2/26/2020	(N)F	8.39	s.u.			#	-	-
pH	North Pond	12/10/2015	(T)F	7.93	s.u.			#	-	-
pH	North Pond	2/7/2017	(T)F	8.07	s.u.			#	-	-
pH	North Pond	2/5/2018	(N)F	7.94	s.u.			#	-	-
pH	North Pond	3/5/2019	(N)F	7.49	s.u.			#	-	-
pH	North Pond	2/27/2020	(N)F	8.1	s.u.			#	-	-
pH	South Pond	12/10/2015	(T)F	8.91	s.u.			#	-	-

SURFACE WATER QUALITY DATA BY PARAMETER (EQuIS800) FOR SITE GJO01, Grand Junction Site

REPORT DATE: 8/26/2021 10:12:27 AM

PARAMETER	LOCATION CODE	SAMPLE DATE	SAMPLE TYPE	RESULT	UNITS	QUALIFIERS LAB/DATA		QA	DETECT. LIMIT	UNCERTAINTY
pH	South Pond	2/7/2017	(T)F	8.41	s.u.			#	-	-
pH	South Pond	2/6/2018	(N)F	6.35	s.u.			#	-	-
pH	South Pond	2/5/2019	(N)F	8.25	s.u.			#	-	-
pH	South Pond	2/26/2020	(N)F	8.15	s.u.			#	-	-
pH	Upper Gunnison	12/8/2015	(T)F	8.48	s.u.			#	-	-
pH	Upper Gunnison	2/7/2017	(T)F	7.97	s.u.			#	-	-
pH	Upper Gunnison	2/5/2019	(N)F	7.6	s.u.			#	-	-
pH	Upper Gunnison	2/26/2020	(N)F	7.48	s.u.			#	-	-
pH	Upper Mid Gunnison	12/10/2015	(T)F	8.72	s.u.			#	-	-
pH	Upper Mid Gunnison	2/7/2017	(T)F	8.42	s.u.			#	-	-
pH	Upper Mid Gunnison	2/5/2018	(N)F	7.76	s.u.			#	-	-
pH	Upper Mid Gunnison	2/4/2019	(N)F	7.91	s.u.			#	-	-
pH	Upper Mid Gunnison	2/26/2020	(N)F	8.37	s.u.			#	-	-
pH	Wetland Area	12/10/2015	(T)F	8.29	s.u.			#	-	-
pH	Wetland Area	2/7/2017	(T)F	8.63	s.u.			#	-	-
pH	Wetland Area	2/5/2018	(N)F	8.04	s.u.			#	-	-
pH	Wetland Area	2/5/2019	(N)F	8.29	s.u.			#	-	-
pH	Wetland Area	2/27/2020	(N)F	8.12	s.u.			#	-	-
Potassium										
Potassium	Lower Gunnison	12/10/2015	(T)F	3.6	mg/L			#	0.052	-
Potassium	Lower Gunnison	2/7/2017	(T)F	3.9	mg/L			#	0.11	-
Potassium	North Pond	12/10/2015	(T)F	16	mg/L			#	0.052	-
Potassium	North Pond	2/7/2017	(T)F	26	mg/L			#	0.11	-
Potassium	South Pond	12/10/2015	(D)F	18	mg/L			#	0.052	-
Potassium	South Pond	2/7/2017	(T)F	28	mg/L			#	0.11	-
Potassium	Upper Gunnison	12/8/2015	(T)F	3.6	mg/L			#	0.052	-
Potassium	Upper Gunnison	2/7/2017	(T)F	3.7	mg/L			#	0.11	-
Potassium	Upper Mid Gunnison	12/10/2015	(T)F	3.5	mg/L			#	0.052	-
Potassium	Upper Mid Gunnison	2/7/2017	(T)F	3.7	mg/L			#	0.11	-
Potassium	Wetland Area	12/10/2015	(T)F	58	mg/L			#	0.26	-
Potassium	Wetland Area	2/7/2017	(T)F	60	mg/L			#	0.11	-
Selenium										
Selenium	Lower Gunnison	12/10/2015	(T)F	0.005	mg/L			#	0.00032	-

SURFACE WATER QUALITY DATA BY PARAMETER (EQuIS800) FOR SITE GJO01, Grand Junction Site

REPORT DATE: 8/26/2021 10:12:28 AM

PARAMETER	LOCATION CODE	SAMPLE DATE	SAMPLE TYPE	RESULT	UNITS	QUALIFIERS LAB/DATA		QA	DETECT. LIMIT	UNCERTAINTY
Selenium	Lower Gunnison	2/7/2017	(T)F	0.0036	mg/L			#	0.00066	-
Selenium	Lower Gunnison	2/5/2018	(T)F	0.0036	mg/L	J		#	0.00018	-
Selenium	Lower Gunnison	2/5/2019	(T)F	0.0031	mg/L	J		#	0.00065	-
Selenium	Lower Gunnison	2/26/2020	(T)F	0.0058	mg/L	J		#	0.0028	-
Selenium	North Pond	12/10/2015	(T)F	0.0028	mg/L			#	0.00032	-
Selenium	North Pond	2/7/2017	(T)F	0.0024	mg/L			#	0.00066	-
Selenium	North Pond	2/5/2018	(T)F	0.0016	mg/L	J		#	0.00018	-
Selenium	North Pond	3/5/2019	(D)F	0.011	mg/L			#	0.00065	-
Selenium	North Pond	2/27/2020	(T)F	0.0043	mg/L	J		#	0.0028	-
Selenium	South Pond	12/10/2015	(D)F	0.00046	mg/L	J	U	#	0.00032	-
Selenium	South Pond	2/7/2017	(T)F	0.001	mg/L	J		#	0.00066	-
Selenium	South Pond	2/6/2018	(T)F	0.00052	mg/L	J		#	0.00018	-
Selenium	South Pond	2/5/2019	(D)F	0.001	mg/L	J		#	0.00065	-
Selenium	South Pond	2/26/2020	(T)F	0.0032	mg/L	J		#	0.0028	-
Selenium	Upper Gunnison	12/8/2015	(T)F	0.0042	mg/L			#	0.00032	-
Selenium	Upper Gunnison	2/7/2017	(T)F	0.0036	mg/L			#	0.00066	-
Selenium	Upper Gunnison	2/5/2018	(T)F	0.0035	mg/L	J		#	0.00018	-
Selenium	Upper Gunnison	2/5/2019	(T)F	0.0028	mg/L	J		#	0.00065	-
Selenium	Upper Gunnison	2/26/2020	(T)F	0.0051	mg/L	J		#	0.0028	-
Selenium	Upper Mid Gunnison	12/10/2015	(T)F	0.0049	mg/L			#	0.00032	-
Selenium	Upper Mid Gunnison	2/7/2017	(T)F	0.0041	mg/L			#	0.00066	-
Selenium	Upper Mid Gunnison	2/5/2018	(T)F	0.0035	mg/L	J		#	0.00018	-
Selenium	Upper Mid Gunnison	2/4/2019	(T)F	0.0031	mg/L	J		#	0.00065	-
Selenium	Upper Mid Gunnison	2/26/2020	(T)F	0.0052	mg/L	J		#	0.0028	-
Selenium	Wetland Area	12/10/2015	(T)F	0.00078	mg/L	J	U	#	0.00032	-
Selenium	Wetland Area	2/7/2017	(T)F	0.00077	mg/L	J		#	0.00066	-
Selenium	Wetland Area	2/5/2018	(D)F	0.00054	mg/L	J		#	0.00018	-
Selenium	Wetland Area	2/5/2019	(D)F	0.001	mg/L	J		#	0.00065	-
Selenium	Wetland Area	2/27/2020	(T)F	0.0036	mg/L	J		#	0.0028	-
Sodium										
Sodium	Lower Gunnison	12/10/2015	(T)F	72	mg/L			#	0.047	-
Sodium	Lower Gunnison	2/7/2017	(T)F	56	mg/L			#	0.0066	-
Sodium	North Pond	12/10/2015	(T)F	410	mg/L			#	0.047	-
Sodium	North Pond	2/7/2017	(T)F	450	mg/L			#	0.066	-

SURFACE WATER QUALITY DATA BY PARAMETER (EQuIS800) FOR SITE GJO01, Grand Junction Site

REPORT DATE: 8/26/2021 10:12:28 AM

PARAMETER	LOCATION CODE	SAMPLE DATE	SAMPLE TYPE	RESULT	UNITS	QUALIFIERS LAB/DATA	QA	DETECT. LIMIT	UNCERTAINTY
Sodium	South Pond	12/10/2015	(D)F	340	mg/L		#	0.047	-
Sodium	South Pond	2/7/2017	(T)F	360	mg/L		#	0.066	-
Sodium	Upper Gunnison	12/8/2015	(T)F	61	mg/L		#	0.047	-
Sodium	Upper Gunnison	2/7/2017	(T)F	51	mg/L		#	0.0066	-
Sodium	Upper Mid Gunnison	12/10/2015	(T)F	61	mg/L		#	0.047	-
Sodium	Upper Mid Gunnison	2/7/2017	(T)F	51	mg/L		#	0.0066	-
Sodium	Wetland Area	12/10/2015	(T)F	1900	mg/L		#	0.23	-
Sodium	Wetland Area	2/7/2017	(T)F	1100	mg/L		#	0.066	-
Specific Conductance									
Specific Conductance	Lower Gunnison	12/10/2015	(T)F	1076	umhos/cm		#	-	-
Specific Conductance	Lower Gunnison	2/7/2017	(T)F	907	umhos/cm		#	-	-
Specific Conductance	Lower Gunnison	2/5/2018	(N)F	803	umhos/cm		#	-	-
Specific Conductance	Lower Gunnison	2/5/2019	(N)F	1011	umhos/cm		#	-	-
Specific Conductance	Lower Gunnison	2/26/2020	(N)F	778	umhos/cm		#	-	-
Specific Conductance	North Pond	12/10/2015	(T)F	3404	umhos/cm		#	-	-
Specific Conductance	North Pond	2/7/2017	(T)F	3446	umhos/cm		#	-	-
Specific Conductance	North Pond	2/5/2018	(N)F	3808	umhos/cm		#	-	-
Specific Conductance	North Pond	3/5/2019	(N)F	2993	umhos/cm		#	-	-
Specific Conductance	North Pond	2/27/2020	(N)F	2094	umhos/cm		#	-	-
Specific Conductance	South Pond	12/10/2015	(T)F	2565	umhos/cm		#	-	-
Specific Conductance	South Pond	2/7/2017	(T)F	2727	umhos/cm		#	-	-
Specific Conductance	South Pond	2/6/2018	(N)F	3219	umhos/cm		#	-	-
Specific Conductance	South Pond	2/5/2019	(N)F	1875	umhos/cm		#	-	-
Specific Conductance	South Pond	2/26/2020	(N)F	3249	umhos/cm		#	-	-
Specific Conductance	Upper Gunnison	12/8/2015	(T)F	953	umhos/cm		#	-	-
Specific Conductance	Upper Gunnison	2/7/2017	(T)F	857	umhos/cm		#	-	-
Specific Conductance	Upper Gunnison	2/5/2018	(N)F	748	umhos/cm		#	-	-
Specific Conductance	Upper Gunnison	2/5/2019	(N)F	988	umhos/cm		#	-	-

SURFACE WATER QUALITY DATA BY PARAMETER (EQuIS800) FOR SITE GJO01, Grand Junction Site

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PARAMETER	LOCATION CODE	SAMPLE DATE	SAMPLE TYPE	RESULT	UNITS	QUALIFIERS LAB/DATA		QA	DETECT. LIMIT	UNCERTAINTY
Specific Conductance	Upper Gunnison	2/26/2020	(N)F	735	umhos/cm			#	-	-
Specific Conductance	Upper Mid Gunnison	12/10/2015	(T)F	898	umhos/cm			#	-	-
Specific Conductance	Upper Mid Gunnison	2/7/2017	(T)F	851	umhos/cm			#	-	-
Specific Conductance	Upper Mid Gunnison	2/5/2018	(N)F	765	umhos/cm			#	-	-
Specific Conductance	Upper Mid Gunnison	2/4/2019	(N)F	890	umhos/cm			#	-	-
Specific Conductance	Upper Mid Gunnison	2/26/2020	(N)F	754	umhos/cm			#	-	-
Specific Conductance	Wetland Area	12/10/2015	(T)F	9530	umhos/cm			#	-	-
Specific Conductance	Wetland Area	2/7/2017	(T)F	6473	umhos/cm			#	-	-
Specific Conductance	Wetland Area	2/5/2018	(N)F	7048	umhos/cm			#	-	-
Specific Conductance	Wetland Area	2/5/2019	(N)F	12795	umhos/cm			#	-	-
Specific Conductance	Wetland Area	2/27/2020	(N)F	7038	umhos/cm			#	-	-
Sulfate										
Sulfate	Lower Gunnison	12/10/2015	(T)F	400	mg/L			#	2.5	-
Sulfate	Lower Gunnison	2/7/2017	(T)F	300	mg/L			#	2.5	-
Sulfate	Lower Gunnison	2/5/2018	(N)F	240	mg/L			#	7.5	-
Sulfate	Lower Gunnison	2/5/2019	(N)F	420	mg/L			#	6	-
Sulfate	Lower Gunnison	2/26/2020	(N)F	230	mg/L			#	2.6	-
Sulfate	North Pond	12/10/2015	(T)F	1500	mg/L			#	10	-
Sulfate	North Pond	2/7/2017	(T)F	1400	mg/L			#	20	-
Sulfate	North Pond	2/5/2018	(N)F	1800	mg/L			#	7.5	-
Sulfate	North Pond	3/5/2019	(N)F	1500	mg/L			#	6	-
Sulfate	North Pond	2/27/2020	(N)F	750	mg/L			#	11	-
Sulfate	South Pond	12/10/2015	(D)F	1200	mg/L			#	10	-
Sulfate	South Pond	2/7/2017	(T)F	1200	mg/L			#	20	-
Sulfate	South Pond	2/6/2018	(N)F	1600	mg/L			#	7.5	-
Sulfate	South Pond	2/5/2019	(N)F	800	mg/L			#	6	-
Sulfate	South Pond	2/26/2020	(N)F	1500	mg/L			#	11	-
Sulfate	Upper Gunnison	12/8/2015	(T)F	340	mg/L			#	2.5	-
Sulfate	Upper Gunnison	2/7/2017	(T)F	290	mg/L			#	2.5	-
Sulfate	Upper Gunnison	2/5/2018	(N)F	220	mg/L			#	7.5	-
Sulfate	Upper Gunnison	2/5/2019	(N)F	290	mg/L			#	3	-
Sulfate	Upper Gunnison	2/26/2020	(N)F	220	mg/L			#	2.6	-

SURFACE WATER QUALITY DATA BY PARAMETER (EQuIS800) FOR SITE GJO01, Grand Junction Site

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PARAMETER	LOCATION CODE	SAMPLE DATE	SAMPLE TYPE	RESULT	UNITS	QUALIFIERS LAB/DATA		QA	DETECT. LIMIT	UNCERTAINTY
Sulfate	Upper Mid Gunnison	12/10/2015	(T)F	330	mg/L			#	2.5	-
Sulfate	Upper Mid Gunnison	2/7/2017	(T)F	270	mg/L			#	2.5	-
Sulfate	Upper Mid Gunnison	2/5/2018	(N)F	220	mg/L			#	7.5	-
Sulfate	Upper Mid Gunnison	2/4/2019	(N)F	330	mg/L			#	3	-
Sulfate	Upper Mid Gunnison	2/26/2020	(N)F	220	mg/L			#	2.6	-
Sulfate	Wetland Area	12/10/2015	(T)F	5300	mg/L			#	50	-
Sulfate	Wetland Area	2/7/2017	(T)F	3000	mg/L			#	25	-
Sulfate	Wetland Area	2/5/2018	(N)F	3500	mg/L			#	15	-
Sulfate	Wetland Area	2/5/2019	(N)F	7000	mg/L			#	30	-
Sulfate	Wetland Area	2/27/2020	(N)F	3200	mg/L			#	26	-
Temperature										
Temperature	Lower Gunnison	12/10/2015	(T)F	1.64	C			#	-	-
Temperature	Lower Gunnison	2/7/2017	(T)F	5.76	C			#	-	-
Temperature	Lower Gunnison	2/5/2018	(N)F	6.68	C			#	-	-
Temperature	Lower Gunnison	2/5/2019	(N)F	5.91	C			#	-	-
Temperature	Lower Gunnison	2/26/2020	(N)F	3.05	C			#	-	-
Temperature	North Pond	12/10/2015	(T)F	2.17	C			#	-	-
Temperature	North Pond	2/7/2017	(T)F	6.99	C			#	-	-
Temperature	North Pond	2/5/2018	(N)F	7	C			#	-	-
Temperature	North Pond	3/5/2019	(N)F	13.27	C			#	-	-
Temperature	North Pond	2/27/2020	(N)F	9.15	C			#	-	-
Temperature	South Pond	12/10/2015	(T)F	1.51	C			#	-	-
Temperature	South Pond	2/7/2017	(T)F	6.3	C			#	-	-
Temperature	South Pond	2/6/2018	(N)F	7.95	C			#	-	-
Temperature	South Pond	2/5/2019	(N)F	5.18	C			#	-	-
Temperature	South Pond	2/26/2020	(N)F	6.62	C			#	-	-
Temperature	Upper Gunnison	12/8/2015	(T)F	2.41	C			#	-	-
Temperature	Upper Gunnison	2/7/2017	(T)F	5.64	C			#	-	-
Temperature	Upper Gunnison	2/5/2018	(N)F	8.79	C			#	-	-
Temperature	Upper Gunnison	2/5/2019	(N)F	5.8	C			#	-	-
Temperature	Upper Gunnison	2/26/2020	(N)F	2.34	C			#	-	-
Temperature	Upper Mid Gunnison	12/10/2015	(T)F	1.91	C			#	-	-
Temperature	Upper Mid Gunnison	2/7/2017	(T)F	7.15	C			#	-	-

SURFACE WATER QUALITY DATA BY PARAMETER (EQuIS800) FOR SITE GJO01, Grand Junction Site

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PARAMETER	LOCATION CODE	SAMPLE DATE	SAMPLE TYPE	RESULT	UNITS	QUALIFIERS LAB/DATA		QA	DETECT. LIMIT	UNCERTAINTY
Temperature	Upper Mid Gunnison	2/5/2018	(N)F	7.09	C			#	-	-
Temperature	Upper Mid Gunnison	2/4/2019	(N)F	6.56	C			#	-	-
Temperature	Upper Mid Gunnison	2/26/2020	(N)F	3.87	C			#	-	-
Temperature	Wetland Area	12/10/2015	(T)F	1.82	C			#	-	-
Temperature	Wetland Area	2/7/2017	(T)F	7.73	C			#	-	-
Temperature	Wetland Area	2/5/2018	(N)F	8.48	C			#	-	-
Temperature	Wetland Area	2/5/2019	(N)F	8.47	C			#	-	-
Temperature	Wetland Area	2/27/2020	(N)F	7.06	C			#	-	-
Turbidity										
Turbidity	Lower Gunnison	12/10/2015	(T)F	5.37	NTU			#	-	-
Turbidity	Lower Gunnison	2/7/2017	(T)F	4.78	NTU			#	-	-
Turbidity	Lower Gunnison	2/5/2018	(N)F	4.44	NTU			#	-	-
Turbidity	Lower Gunnison	2/5/2019	(N)F	8.85	NTU			#	-	-
Turbidity	Lower Gunnison	2/26/2020	(N)F	4.58	NTU			#	-	-
Turbidity	North Pond	12/10/2015	(T)F	2.51	NTU			#	-	-
Turbidity	North Pond	2/7/2017	(T)F	9.68	NTU			#	-	-
Turbidity	North Pond	2/5/2018	(N)F	5.22	NTU			#	-	-
Turbidity	North Pond	3/5/2019	(N)F	93.3	NTU			#	-	-
Turbidity	North Pond	2/27/2020	(N)F	5.4	NTU			#	-	-
Turbidity	South Pond	12/10/2015	(T)F	10.5	NTU			#	-	-
Turbidity	South Pond	2/7/2017	(T)F	6.6	NTU			#	-	-
Turbidity	South Pond	2/6/2018	(N)F	7.56	NTU			#	-	-
Turbidity	South Pond	2/5/2019	(N)F	13.5	NTU			#	-	-
Turbidity	South Pond	2/26/2020	(N)F	6.69	NTU			#	-	-
Turbidity	Upper Gunnison	12/8/2015	(T)F	4.65	NTU			#	-	-
Turbidity	Upper Gunnison	2/7/2017	(T)F	8.45	NTU			#	-	-
Turbidity	Upper Gunnison	2/5/2018	(N)F	3.29	NTU			#	-	-
Turbidity	Upper Gunnison	2/5/2019	(N)F	9.15	NTU			#	-	-
Turbidity	Upper Gunnison	2/26/2020	(N)F	6.09	NTU			#	-	-
Turbidity	Upper Mid Gunnison	12/10/2015	(T)F	5.31	NTU			#	-	-
Turbidity	Upper Mid Gunnison	2/7/2017	(T)F	4.05	NTU			#	-	-
Turbidity	Upper Mid Gunnison	2/5/2018	(N)F	3.18	NTU			#	-	-
Turbidity	Upper Mid Gunnison	2/4/2019	(N)F	5.52	NTU			#	-	-

SURFACE WATER QUALITY DATA BY PARAMETER (EQuIS800) FOR SITE GJO01, Grand Junction Site

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PARAMETER	LOCATION CODE	SAMPLE DATE	SAMPLE TYPE	RESULT	UNITS	QUALIFIERS LAB/DATA		QA	DETECT. LIMIT	UNCERTAINTY
Turbidity	Upper Mid Gunnison	2/26/2020	(N)F	5.15	NTU			#	-	-
Turbidity	Wetland Area	12/10/2015	(T)F	4.53	NTU			#	-	-
Turbidity	Wetland Area	2/7/2017	(T)F	5.68	NTU			#	-	-
Turbidity	Wetland Area	2/5/2018	(N)F	25.6	NTU			#	-	-
Turbidity	Wetland Area	2/5/2019	(N)F	12.5	NTU			#	-	-
Turbidity	Wetland Area	2/27/2020	(N)F	3.96	NTU			#	-	-
Uranium										
Uranium	Lower Gunnison	12/10/2015	(T)F	0.014	mg/L	E	J	#	0.000029	-
Uranium	Lower Gunnison	2/7/2017	(T)F	0.0082	mg/L			#	0.000012	-
Uranium	Lower Gunnison	2/5/2018	(T)F	0.0084	mg/L			#	0.000022	-
Uranium	Lower Gunnison	2/5/2019	(T)F	0.022	mg/L			#	0.0000049	-
Uranium	Lower Gunnison	2/26/2020	(T)F	0.0087	mg/L			#	0.00004	-
Uranium	North Pond	12/10/2015	(T)F	0.13	mg/L			#	0.000029	-
Uranium	North Pond	2/7/2017	(T)F	0.18	mg/L			#	0.000012	-
Uranium	North Pond	2/5/2018	(T)F	0.18	mg/L			#	0.000022	-
Uranium	North Pond	3/5/2019	(D)F	0.42	mg/L			#	0.0000049	-
Uranium	North Pond	2/27/2020	(T)F	0.14	mg/L			#	0.00004	-
Uranium	South Pond	12/10/2015	(D)F	0.27	mg/L			#	0.000029	-
Uranium	South Pond	2/7/2017	(T)F	0.36	mg/L			#	0.000012	-
Uranium	South Pond	2/6/2018	(T)F	0.36	mg/L			#	0.000022	-
Uranium	South Pond	2/5/2019	(D)F	0.26	mg/L			#	0.0000049	-
Uranium	South Pond	2/26/2020	(T)F	0.56	mg/L			#	0.00004	-
Uranium	Upper Gunnison	12/8/2015	(T)F	0.0077	mg/L			#	0.000029	-
Uranium	Upper Gunnison	2/7/2017	(T)F	0.0061	mg/L			#	0.000012	-
Uranium	Upper Gunnison	2/5/2018	(T)F	0.0062	mg/L			#	0.000022	-
Uranium	Upper Gunnison	2/5/2019	(T)F	0.0058	mg/L			#	0.0000049	-
Uranium	Upper Gunnison	2/26/2020	(T)F	0.0058	mg/L			#	0.00004	-
Uranium	Upper Mid Gunnison	12/10/2015	(T)F	0.007	mg/L			#	0.000029	-
Uranium	Upper Mid Gunnison	2/7/2017	(T)F	0.0062	mg/L			#	0.000012	-
Uranium	Upper Mid Gunnison	2/5/2018	(T)F	0.0066	mg/L			#	0.000022	-
Uranium	Upper Mid Gunnison	2/4/2019	(T)F	0.007	mg/L			#	0.0000049	-
Uranium	Upper Mid Gunnison	2/26/2020	(T)F	0.0058	mg/L			#	0.00004	-
Uranium	Wetland Area	12/10/2015	(T)F	1.1	mg/L			#	0.00029	-
Uranium	Wetland Area	2/7/2017	(T)F	0.84	mg/L			#	0.000012	-

SURFACE WATER QUALITY DATA BY PARAMETER (EQuIS800) FOR SITE GJO01, Grand Junction Site

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Uranium	Wetland Area	2/5/2018	(D)F	0.36	mg/L		#	0.000022	-
Uranium	Wetland Area	2/5/2019	(D)F	10	mg/L		#	0.000049	-
Uranium	Wetland Area	2/27/2020	(T)F	1.2	mg/L		#	0.00004	-

DATA QUALIFIERS:

- F Low flow sampling method used.
- G Possible grout contamination, pH > 9.
- J Estimated Value.
- L Less than 3 bore volumes purged prior to sampling.
- N Tentatively identified compound (TIC).
- Q Qualitative result due to sampling technique
- R Unusable result.
- U Parameter analyzed for but was not detected.
- X Location is undefined.

LAB QUALIFIERS:

- * Replicate analysis not within control limits.
- + Correlation coefficient for MSA < 0.995.
- > Result above upper detection limit.
- A TIC is a suspected aldol-condensation product.
- B Inorganic: Result is between the IDL and CRDL. Organic & Radiochemistry: Analyte also found in method blank.
- C Pesticide result confirmed by GC-MS.
- D Analyte determined in diluted sample.
- E Inorganic: Estimate value because of interference, see case narrative. Organic: Analyte exceeded calibration range of the GC-MS.
- H Holding time expired, value suspect.
- I Increased detection limit due to required dilution.
- J Estimated Value.
- M GFAA duplicate injection precision not met.
- N Inorganic or radiochemical: Spike sample recovery not within control limits. Organic: Tentatively identified compound (TIC).
- P > 25% difference in detected pesticide or Aroclor concentrations between 2 columns.
- S Result determined by method of standard addition (MSA).
- U Parameter analyzed for but was not detected.
- W Post-digestion spike outside control limits while sample absorbance < 50% of analytical spike absorbance.
- X Laboratory defined qualifier, see case narrative.
- Y Laboratory defined qualifier, see case narrative.
- Z Laboratory defined qualifier, see case narrative.

SAMPLE TYPES:

- (T) Total (for metal concentrations)
- (D) Dissolved (for dissolved or filtered metal concentrations)
- (N) Organic (or other) constituents for which neither total nor dissolved is applicable

Type Codes: F-Field Sample R-Replicate FR-Field Sample with Replicates
D-Duplicate N-Not Known S-Split Sample

QA QUALIFIER: # = validated according to Quality Assurance guidelines.