STATE OF COLORADO

Lennberg - DNR, Patrick <patrick.lennberg@state.co.us>

GCC Pueblo - RY2021 Annual Groundwater Report M2002-004

1 message

Amy Veek <aveek@gcc.com> Fri, Jan 28, 2022 at 2:11 PM
To: "Lennberg - DNR, Patrick" <patrick.lennberg@state.co.us>
Cc: Alarcon Alejandro <aalarcon@gcc.com>, Vance Sarah <svance@gcc.com>, Landon Beck <lbeck@resourcehydrogeologic.com>

Good Afternoon Patrick,

Attached is the Annual Groundwater Report for the monitoring performed at GCC's Pueblo Plant in 2021. Please let me know if you have any questions or if you would like to receive a hard copy of the report.

Regards,

Amy

80 YEARS

Amy Veek

Environmental Engineer - Pueblo

O: 719-647-6861

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aveek@gcc.com

2 attachments

2021 Pueblo Annual GW Report Cover Letter 1.28.2022.pdf
244K

GCC Rio Grande Pueblo Plant 2021 Annual Groundwater Report - FINAL_26JAN2022.pdf
18485K

January 28, 2022

Mr. Patrick Lennberg
Colorado Division of Reclamation, Mining, and Safety
Department of Natural Resources
1313 Sherman Street, Room 215
Denver, CO 80203

Submitted electronically to patrick.lennberg@state.co.us

Re: GCC Rio Grande Inc Pueblo Facility, DRMS Permit M-2002-004
Reporting Year 2021 Annual Groundwater Report

Dear Mr. Lennberg:

GCC Rio Grande Inc. (GCC) owns and operates the Pueblo cement plant and associated on-site limestone quarry operations. Enclosed is the 2021 Annual Groundwater Report prepared on behalf of GCC by Resource Hydrogeologic Services, Inc. for this facility.

GCC looks forward to continue working with the Colorado Division of Reclamation, Mining & Safety (DRMS) on the groundwater monitoring at the Pueblo facility. If you have questions or concerns regarding this submittal, please do not hesitate to contact me at (719) 647-6861.

Sincerely,

Amy Veek
Environmental Engineer

Enclosure

CC: Alex Alarcon, GCC
Sarah Vance, GCC
Landon Beck, RHS

2021 GCC Rio Grande Pueblo Plant Annual Groundwater Report

Submitted to:
GCC Rio Grande, Inc.

Date:
January 26, 2022

Resource Hydrogeologic Services, Inc.
232 Ute Pass West
Durango, CO 81301
Tel: (970) 459-4865
Email info@resourcehydrogeologic.com

RESOURCE HYDROGEOLOGIC SERVICES

TABLE OF CONTENTS

INTRODUCTION

This Annual Groundwater Report provides a compilation and interpretation of groundwater monitoring data to the Colorado Division of Reclamation, Mining and Safety (CDRMS) for the GCC Rio Grande, Inc. (GCC) Pueblo Cement Plant and Quarry (the facility) and documents groundwater monitoring activities, results and interpretations for 2021. This satisfies a requirement of the CDRMS Mining Permit M-2002-004, specifically under the approved Technical Revision 7 (TR-07). To best support these efforts, GCC maintains a quality assurance/quality control (QA/QC) program to:

- Conduct GCC compliance staff and contractor training on water quality sampling for all GCC monitoring locations, equipment and methodologies, with detailed written procedure for groundwater monitoring provided in the facility Sampling and Analysis Plan approved under TR-07.
- Collect all water quality field data with an industry-standard multi-parameter device with electronic data deliverable (EDD) output for all field data.
- Conduct industry-standard, 10% random QA/QC lab sample submittals for duplicate and field blank water quality samples.
- Utilize EDDs produced by the contract environmental analytical laboratory for all data analyses.
- Conduct Level IV data validation of all compliance groundwater analytical laboratory reporting.
- Compile and manage all water quality and level data in a geo-referenced Microsoft Access database.

GROUNDWATER MONITORING

GROUNDWATER MONITORING LOCATIONS

In 2021 GCC monitored four groundwater monitoring wells at the facility, which are shown on the location map included as **Figure 1**:

- MW-5 completed in unconsolidated surficial/overburden sediments above bedrock at a location presumed to be downgradient of the entire facility, including both the quarry and plant.
- MW-6 completed in the Fort Hayes Limestone just down-dip, and presumed to be downgradient of mine panel 2 and upgradient of the plant.
- MW-7 completed in the Fort Hayes Limestone just down-dip, and presumed to be downgradient of mine panel 2 and upgradient of the plant. This well is completed across a fault in the Fort Hayes Limestone that was documented when exposed during the mining of Panel 2. MW-7 is located approximately 25 feet northwest of MW-6 and is screened over the same interval.
- MW-8 was in installed in February of 2020 and is completed in the Codell Sandstone, just down-dip, and presumed to be downgradient of mine panel 2 and upgradient of the plant. MW-8 is located approximately 25 feet northeast of MW-7.

GROUNDWATER MONITORING DATA COLLECTION

Groundwater monitoring was conducted quarterly in 2021 at MW-6, MW-7, and MW-8. MW-5, which has been observed as dry since installation in 2008, was monitored in 2021Q2, 2021Q3 and 2021Q4 and as with all previous years, was found to be dry in each event.

For the wet monitoring wells MW-6, MW-7, and MW-8, depth to water measurements, and field water quality parameters temperature, pH and specific conductance were documented for each monitoring event. These monitoring events also included water sample collection for submittal and analysis by an accredited environmental analytical laboratory.

Industry-standard protocol for groundwater sample collection was utilized, specifically applying the Colorado Department of Public Health and Environment (CDPHE) Suggested Sampling Protocol for Ground Water Monitoring Wells. This protocol is the foundation for the Sampling and Analysis Plan (SAP) approved by CDRMS in 2020 as TR-07 and adopted by GCC as the site-specific, stand-alone document guiding groundwater monitoring at the facility.

Groundwater was purged and sampled by means of disposable plastic bailer for all monitoring events in 2021. Three-casing volumes were purged prior to sample collection, or otherwise until the well was purged dry and revisited to collect a sample at a later time when adequate volume was present to fill all required sample bottles. MW-6 and MW-8 demonstrate low-head, low-yield conditions typically resulting in a purge that evacuates the well bore. At MW-6, a period of several hours was required to allow recovery in order to obtain a representative water quality sample for all monitoring events except in Q2 when the yield was adequate for sampling immediately following the three-volume purge. However, MW-7, the adjacent well completed across a known local Fort Hayes fault, is a relatively high-head, high-yield monitoring well in which production to obtain a representative water quality sample has been adequate to collect immediately following the three well bore purge. MW-8 exhibits even lower-yield conditions than MW-6; typically needing a one-to-two-week timeframe for water levels to recover to yield adequate volume for sample collection. In 2021 MW-8 was purged dry one week before sampling for laboratory submittal, which then coincided with both purging and sampling at MW-6 and MW-7. **Table 1** includes field parameters for each sample event and **Attachment 1** is a compilation of all MW-5, MW-6, MW-7, and MW-8 “Groundwater Sampling Record” field forms completed by the sampler for 2021 monitoring.

The CDRMS-required groundwater compliance constituents for the facility are given in **Table 1**. These constituents are required by TR-06 and represent the CDPHE Water Quality Control Commission Regulation 41, the basic standards for groundwater (herein after, reference standards). GCC is specifically subject to Table 3 of that document, Agricultural Standards, CDPHE 2016.

FUTURE GROUNDWATER MONITORING EXPANSION

In 2021, Technical Revision 8 (TR-08) was submitted by GCC and approved by DRMS in a letter dated June 4, 2021. TR-08 was a work plan to install six permanent bedrock monitoring wells and potentially one permanent unconsolidated colluvium monitoring well at the facility to increase the spatial distribution of site water quality monitoring and allow determination of groundwater gradient and flow direction. While the required post-installation documentation on these monitoring wells is forthcoming in a separate report to be prepared by RHS, in short, the well installations were completed in December 2021. Six bedrock monitoring wells were installed and developed at the planned locations, however the site of the potential colluvium monitoring well was dry therefore no colluvial well was installed. Surveying of the as-built monitoring wells for latitude, longitude, northing, and easting of casing location, ground elevation and elevation of the top of PVC casing is scheduled for the end of January 2022, which will complete the TR-08 well installation project.

Another Technical Revision to the mine permit shall be submitted to DRMS in early 2022 proposing modifications to the existing approved SAP (TR-07) to include quarterly monitoring of the relevant new monitoring wells, specifying monitoring and documentation methodologies. GCC intends to begin monitoring of the new wells in 2022Q1.

GROUNDWATER MONITORING DATA ANALYSIS

GROUNDWATER QUALITY

Beginning in 2021Q2, groundwater samples were analyzed for major cation and anion constituents per TR-08 to supplement the existing analytical suite and support interpretations of major ion chemistry in groundwater. Analytical results from water quality samples collected from MW-6, MW-7, and MW-8 are presented in **Table 1**. and compared to CDPHE Colorado Water Quality Control Commission agricultural use reference standards (CDPHE, 2016). Complete analytical laboratory reports for 2021 are provided as **Attachment 2**.

A graphical analysis of water quality results from the two Fort Hayes Limestone (MW-6 and MW-7) and Codell Sandstone (MW-8) groundwater samples are shown in Stiff diagrams for major ions and in time series plots for pH, manganese, and selenium.

Figure 2 shows the major ion concentrations at each monitoring location, beginning in 2021Q2. Concentrations are given in milli-equivalents (milligrams of solute mass divided by ionic weight and multiplied by ionic charge) per liter so the ionic balance between positive and negative ions can be seen in each analysis. As shown in **Figure 2**, the Fort Hayes Limestone (MW-6 and MW-7) is generally magnesium-sulfate to sodium-potassium-sulfate type. The underlying Codell Sandstone has a stronger sodium-potassium signature when compared with the Fort Hayes Limestone groundwater. The Codell Sandstone is also a sulfate dominant water (**Figure 2**).

Figure 3 plots water quality constituents (pH, manganese, and selenium) over time. Observed water quality in the Fort Hayes Limestone at locations MW-6 and MW-7 is characterized by neutral pH, and total dissolved solids (TDS) ranging from 4,720 to 7,477 µS/cm. Generally, concentrations of analyzed constituents were less than the applicable reference standards, with a few exceptions. Concentrations of manganese at MW-6 consistently exceeded the reference standard of 0.2 mg/L for samples collected at MW-6 between 2018 and 2021. Although manganese exceeds the reference standard, the Colorado Water Quality Control Commission issued a decision that the reference standard is only applicable where pH values are less than 6.0. Because all water quality samples have a measured pH value of greater than 6.0, less emphasis is placed on the exceedance of manganese of the reference standard. No exceedances of manganese were observed in MW-7. Selenium exceeds the reference standard for four of nine (44%) and seven of nine (approximately 80%) samples collected from MW-6 and MW-7, respectively. The occurrence and abundance of selenium in groundwater of the Fort Hayes Limestone is likely attributed to naturally-occurring seleniferous minerals deposited in a marine environment (Bern and Stogner, 2017).

Although both MW-6 and MW-7 were completed in Fort Hayes Limestone in relatively close proximity to one another, differences observed in groundwater chemistry identify the mechanism for groundwater flow through faults and fracture zones, instead of continuous horizontal flow paths. Additionally, the drilling and well completion across the observed fault system possibly created new flow paths which can be expected to create dynamic water quality conditions for some time until a new equilibrium is reached. Groundwater under hydrostatic confining pressure derived from fractures will flow from discrete fractures into the wellbore and travel within the filter pack to contact fresh rock surfaces that had not previously been exposed to groundwater, also contributing to an evolution of groundwater chemistry.

An additional monitoring well, MW-8, was installed in the underlying Codell Sandstone to support the definition of site-wide and regional groundwater flow paths and provide additional basis to evaluate potential impacts from site activities. Major ion chemistry of Codell Sandstone groundwater is presented in **Figure 2** and is described above. Groundwater chemistry at MW-8 exhibits neutral pH and TDS ranging from 3,852 to 9,179 µS/cm. Exceedances of the groundwater quality reference standards were documented for both boron and manganese in 2021. Similar to the Fort Hayes groundwater, the pH does not fall below 6.0 in any measurement. Therefore, less emphasis is placed on the exceedance of manganese of the reference standard. The water quality standard for boron was also updated from 0.75 mg/L to 5.0 mg/L in TR-08 because the groundwater in the Codell Sandstone is not a source of water for agricultural use. With the updated reference standard in place, no exceedances of boron were observed. Further monitoring of groundwater quality in the Codell Sandstone will provide additional support to the overall evaluation of groundwater quality conceptual understanding of site groundwater.

QUALITY ASSURANCE/QUALITY CONTROL

In 2021 GCC collected and submitted one blind duplicate sample in all quarterly sampling events, which is given sample ID MW-2B. These duplicates were reported to have constituent concentrations within acceptable ranges of the named sample, which was MW-7 in quarters one, two, and three, and MW-8 in quarter four.

Future compliance groundwater sampling will continue to include standard submittal of 10% QA/QC blind duplicate or field blank samples per quarter (one sample for up to ten sites).

Beginning in 2020 and now continued in 2021, per the approved SAP, the compliance groundwater data were validated at EPA Level III (EPA Stage 2B) with a minimum of 10% validated as EPA raw data review. All laboratory standard delivery groups (SDGs) are Level IV. The groundwater data validation for 2021 found that the laboratory has complied with the requested methods and the data is considered fully useable for project purposes with the consideration of the following qualifications regarding holding times. The nitrate and nitrate/nitrite data for all samples submitted in 2021Q2 and 2021Q3 exceeded holding times by approximately 12 hours. This nitrite data was qualified as rejected as it exceeded the 48-hour method 353.2 hold time. The samples were received at approximately the 48-hour hold time maximum due to UPS overnight air delivery delays (without explanation given by UPS). However, the total nitrogen data are qualified as estimated and are considered useable for project purposes. The data quality review report, prepared by Diane Short & Associates, Inc., is included here as **Attachment 3**. Section II of this attached report discusses the holding time issues in detail and specifically states on page 2:

> *"In this set of data, nitrate and nitrite results have been flagged by the laboratory as out of hold in SDG L65969 and in SDG L68204. The analysis has exceeded the 48-hr hold time for individual determination of nitrate or nitrite. The results could be biased due to microbial degradation or formation of nitrate and nitrite. The bias is typically thought to be low, but a positive bias is also possible. In this case, the outliers are only about 12 hours beyond the hold time. Any degradation is likely to be insignificant during this brief time since the samples were kept cold, which suppresses microbial activity."*

Additionally, the attached data quality review report identified one TDS analysis (MW-6 in 2021Q2) as exceeding the method holding time. As discussed in that report in Section II on page 3:

> *"In addition, one TDS analysis in SDG L65969 was analyzed at a dilution 7 days after the expiration of the 7-day hold time, and that result is qualified accordingly. The original result contained more than 200 mg of final residue, and the method specifies that there must be less than 200 mg. Therefore, the laboratory reanalyzed the sample. The reason for the 200-mg method limit is to avoid a crust over the solid material that prevents proper drying. This phenomenon is dependent on the area over which the residue is distributed, so different laboratory evaporation dishes used in this*

method may produce different results. From the raw data review, the original result was essentially the same as the second analysis so there is not likely to be a bias due to the hold time outlier for TDS."

While the TDS holding time issue was seemingly due to the contract laboratory waiting too long to start the particular analysis of concern despite receiving the sample with adequate time, the nitrate/nitrate holding time issues are recognized to have continued from 2020 due to shipment delays. As such, prior to the 2021Q4 sampling event, the contract laboratory (ACZ Laboratories in Steamboat Springs, CO) was consulted regarding options to ensure delivery was within one-day to meet the 48-hour holding time for nitrate/nitrite. ACZ advised that shipments originating in the Front Range outbound to Steamboat Springs by UPS ground service will arrive in one day, while they have observed both UPS and FedEx "overnight" deliveries from other clients in the Front Range typically taking 2-3 days to arrive during the Covid-19 pandemic era. Therefore, starting with shipment of the 2021Q4 samples, UPS ground service has been utilized, shipping the chilled and properly preserved samples on the same day as collection for a more reliable one-day delivery method.

GROUNDWATER LEVEL

Bedrock groundwater level monitoring data for the facility in 2021 included two Fort Hayes Limestone monitoring wells, and one Codell Sandstone monitoring well. Shallow groundwater at the facility was not observed to be present in 2021; the single unconsolidated surficial/overburden well MW-5 has been documented dry since installation in 2008. Of the two Fort Hayes monitoring wells MW-6 and MW-7, evaluation to date of water level monitoring appears to indicate that MW-6 demonstrates that the non-faulted Fort Hayes Limestone hosts a groundwater pressure regime that is derived from limited fracture networks with relatively low hydraulic conductivity and storage. However, as displayed in **Figure 2**, over the course of monitoring in 2020, the static water level at MW-6 tracked with MW-7. This appeared to complete the pressure regime equilibration that was evolving since these wells were installed and water level monitoring began in January 2018, although in 2021 the measured water levels in these two wells deviated substantially in 2021Q1 through 2021Q2 with MW-6 returning to a lower (deeper) water level trend similar to what was observed in 2019. It appears that the lower yield MW-6 water levels deviate to lower levels during the spring and summer monitoring events when compared to MW-7. This suggests that MW-6 exhibits a delayed seasonal groundwater recharge effect when compared to MW-7. This is consistent with an interpretation that MW-7 is completed across a local fault and has been documented by all monitoring events to be a higher yield well than MW-6 despite the same completion depths and a horizontal distance apart of approximately 25 feet. By the 2021Q3 monitoring event on August 31st, the two levels were within 0.25 feet of each other and then at the 2021Q4 monitoring event on November 18th within 0.11 feet of each other. An elevation survey of all water level measurement reference points (top of 2-inch PVC casing) at all facility compliance monitoring wells is planned for January 2022 and will yield high-accuracy spatial data to normalize measured groundwater levels to potentiometric groundwater elevations beginning in 2022Q1.

MW-8, the Codell Sandstone monitoring well at this location, which was a completely dry borehole at the time it was drilled in February 2020, only wetted after approximately a week. It appears that by the September 16, 2020 monitoring event all three monitoring wells at this location had roughly equivalent depth to water measurements, all measured to be within 0.13 feet of each other. In the time since, the MW-8 pressure regime has continued to evolve and in the last two quarters of 2021 the measured water levels in this underlying Codell Sandstone well are higher (less deep) by approximately seven feet than the measured water levels in the adjacent MW-6 and MW-7 Fort Hayes Limestone wells. This indicates that at this location the underlying Codell Sandstone has a higher potentiometric groundwater elevation than the overlying Fort Hayes Limestone, which means that there is currently a documented upward groundwater gradient from the Codell to the Fort Hayes. If this is found to be the case at other locations at the facility once monitoring begins at the new well locations, it has significant implications to the site hydrogeologic conceptual model with respect to the potential groundwater recharge source(s) to the mined Fort Hayes Limestone. Specifically, this could indicate that the Fort Hayes groundwater recharge source is not only from surficial precipitation recharge in the southwest upland and up-dip areas of the facility, but also from the underlying Codell Sandstone. Furthermore, the fault that has been identified running through quarry panel 2 and the MW-6/MW-7/MW-8 location can be reasonably expected to extend not only through the Fort Hayes Limestone, but also the underlying Codell Sandstone by rule of geologic superposition. In areas where this fault, as well as other faults documented by exposure in previously quarried areas, are permeable, conditions exist to allow transmission of groundwater. These geologic structures may allow the over-pressured Codell Sandstone groundwater the preferential pathways to flow upwards into the Fort Hayes Limestone.

Additionally, a facility bedrock groundwater pressure regime in which the water-bearing strata underlying the mined interval (the floor rock) exhibits an upward gradient would substantially decrease the probability for potential groundwater impacts within the Fort Hayes Limestone to migrate downwards into the Codell Sandstone.

Note that while the hydrograph presented as **Figure 4** is based on measured depths to water without conversion to potentiometric groundwater elevation, these locations are on a flat-graded wellsite pad. High-accuracy surveying of all facility monitoring wells is planned for January 2022 and will assist with further defining the extent of Fort Hayes limestone and Codell sandstone hydraulic communication and delineation of the bedrock vertical pressure gradient at this location as well as the newly installed twinned Fort Hayes/Codell monitoring locations.

RECOMMENDATIONS

To further support the characterization of groundwater at the facility, a Technical Revision to the mining permit to revise the current SAP is planned for submittal to DRMS in early 2022 following completion of the 2021 well installation program documentation and review, as required by TR-08. Recommendations to modify that SAP are to:

- Add the appropriate new monitoring wells to the compliance groundwater monitoring program.

- Install dedicated 12-volt electric submersible stainless steel low-flow environmental sampling pumps at all wet compliance wells (including previously existing wet monitoring wells MW-6, MW-7, MW-8) to replace the current bailer-purging methodology for collection of all compliance field parameters and laboratory samples.
- Implement use of mobile field tablet forms at all compliance groundwater monitoring wells to replace traditional paper field forms for more robust documentation system allowing for immediate cloud-based file back-up, integration of site photos, EDD data export to the facility groundwater monitoring database, while decreasing potential for field documentation typos and errors through use of drop-down menus, pre-populated static data fields, internally calculated fields, and location-specific data range boundaries that act as guardrails during field data entry.

REFERENCES

Bern, C.R., and Stogner, R.W. Sr., 2017. The Niobrara Formation as a Challenge to Water Quality in the Arkansas River, Colorado, USA. Journal of Hydrology: Regional Studies, Volume 12, pp. 181-195. August.

Colorado Department of Public Health and Environment (CDPHE), Water Quality Control Commission, 2016. Regulation No. 41, The Basic Standards for Ground Water (5 CCR 1002-41), December 30.

Colorado Department of Public Health and Environment (CDPHE), Water Quality Control Commission, Undated. Suggested Sampling Protocol for Ground Water Monitoring Wells.

GCC Rio Grande Inc., by Resource Hydrogeologic Services, Inc., 2021. Technical Revision 8 to Mining Permit No. M-2002-004 – Work Plan for 2021 Monitoring Well Installation Program, GCC Rio Grande, Inc. Pueblo Plant Pueblo Colorado, May 25.

GCC Rio Grande Inc., 2020. Technical Revision 7 to Mining Permit No. M-2002-004 – Sampling and Analysis Plan for Environmental Groundwater Monitoring, March 13.

TABLES

Table 1 (Page 1 of 2). GCC Quarterly Compliance Groundwater Monitoring Data 2018-2021.

Location ID	Sample Date	Depth to Water (ft TOC)	Field pH (SU)	Field Specific Conductance (µS/cm)	Field Temperature (Degrees C)	Total Dissolved Solids (mg/L)	Total Alkalinity (mg/L)	Bicarbonate as CaCO3 (mg/L)	Carbonate as CaCO3	Hydroxide as CaCO3	Chloride (mg/L)	Sulfate (mg/L)	Fluoride (mg/L)	Nitrate (mg/L)	Nitrate/Nitrite (mg/L)	Nitrite (mg/L)	Aluminum (mg/L	Arsenic (mg/L)	Beryllium (mg/L)
MW-5	12/9/2019	DRY																	
MW-5	9/17/2020	DRY																	
MW-5	11/23/2020	DRY																	
MW-5	5/12/2021	DRY																	
MW-5	11/18/2021	DRY																	
MW-6	1/3/2018	48.24	6.95	4720	14	----	----	----	----	----	----	----	----	----	<0.020	----	0.636	<0.03	<0.005
MW-6	4/27/2018	41.31	7.2	6200	16.3	5030	----	----	----	----	----	----	<1.0	<0.10	<0.020	<0.040	<0.2	<0.03	<0.005
MW-6	9/26/2018	DRY																	
MW-6	12/12/2018	42.91	7.39	6500	14.9	----	----	----	----	----	----	----	<1.0	----	<0.020	<0.040	<0.2	<0.03	<0.005
MW-6	3/7/2019	56.03	Inadequate volume for representative field parameters or lab sample submittal																
MW-6	6/12/2019	43.92	7.14	5975	17.8	5620	----	----	----	----	----	----	0.6	12	12.1	0.03	0.5	<0.2	<0.05
MW-6	9/19/2019	28.15	----	----	----	5860	----	----	----	----	----	----	0.6	11	11.1	0.08	<0.3	0.0004	<0.05
MW-6	12/9/2019	30.44	----	----	----	5460	----	----	----	----	----	----	0.8	8.1	8.12	0.02	<0.3	<0.001	<0.05
MW-6	3/9/2020	32.30	7.22	5591	16.5	5780	----	----	----	----	----	----	0.7	2.02	2.58	0.56	<0.3	0.0005	<0.05
MW-6	9/16/2020	29.78	7.2	5405	16.7	5480	----	----	----	----	----	----	0.5	0.05	0.05	<0.01	0.19	0.0009	<0.01
MW-6	11/23/2020	30.92	7.25	5425	14.3	5300	----	----	----	----	----	----	0.57	1.62	1.63	0.012	<0.25	<0.001	<0.05
MW-6	2/22/2021	36.61	7.55	5684	15.8	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MW-6	5/19/2021	46.32	7.43	5945	14.9	----	524	524	<2	<2	109	3200	0.57	0.03	0.032	<0.01	<0.05	0.00237	<0.01
MW-6	8/31/2021	26.18	7.32	6170	16.1	----	459	459	<2	<2	74.3	3390	0.58	4.2	4.24	0.038	<0.05	<0.001	<0.01
MW-6	11/18/2021	29.70	7.18	7477	14.2	----	450	450	<2	<2	76.1	3750	0.62	0.846	0.846	<0.01	<0.05	<0.001	<0.01
MW-7	1/3/2018	42.91	6.86	4765	15	5510	----	----	----	----	----	----	0.415	----	<0.020	<1.00	1.35	0.00949	<0.005
MW-7	4/27/2018	39.09	6.85	5820	15	5270	----	----	----	----	----	----	<0.50	<0.050	<0.100	<0.020	<0.2	<0.03	<0.005
MW-7	9/26/2018	DRY																	
MW-7	12/12/2018	37.84	6.9	6093	14	----	----	----	----	----	----	----	<1.0	----	<0.020	<0.040	<0.2	<0.03	<0.005
MW-7	3/7/2019	40.79	6.95	6020	13.7	5640	----	----	----	----	----	----	----	----	0.0144		<0.2	<0.03	<0.005
MW-7	6/12/2019	31.25	6.95	5997	18	5700	----	----	----	----	----	----	0.5	1.73	1.74	0.01	<0.3	<0.2	<0.05
MW-7	9/18/2019	27.89	----	----	----	6740	----	----	----	----	----	----	0.5	10	10.1	0.02	0.4	0.0003	<0.05
MW-7	12/9/2019	29.51	----	----	----	5320	----	----	----	----	----	----	0.5	14	14.3	0.08	<0.3	<0.001	<0.05
MW-7	3/9/2020	32.46	7.01	6459	15.8	6540	----	----	----	----	----	----	0.4	15	14.9	0.06	<0.3	<0.0002	<0.05
MW-7	9/16/2020	29.65	7.17	4772	15.2	4950	----	----	----	----	----	----	0.4	11	11	0.03	0.16	<0.0002	<0.01
MW-7	11/23/2020	30.40	7.16	4999	14.3	5070	----	----	----	----	----	----	0.47	11	11.2	0.039	<0.25	<0.001	<0.05
MW-7	2/22/2021	32.87	7.55	6077	14.4	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MW-7	5/19/2021	30.83	7.51	5464	15.2	----	309	309	<2	<2	51	3430	0.4	7.51	7.54	0.027	<0.05	<0.0002	<0.01
MW-7	8/31/2021	25.79	7.15	6061	15.4	----	467	467	<2	<2	95.5	3360	0.52	0.91	0.907	<0.01	<0.05	<0.001	<0.01
MW-7	11/18/2021	29.45	6.94	6589	13.9	----	299	299	<2	<2	52.9	3700	0.53	3.84	3.84	<0.01	<0.05	<0.001	<0.01
MW-8	3/9/2020	43.78	Inadequate volume for representative field parameters or lab sample submittal at time of water level measurement and then COVID-19 restrictions enacted before well could be revisited following purge																
MW-8	9/16/2020	29.74	Inadequate volume for representative field parameters or lab sample submittal after purge - sample collected 9/28/20 because well took 2 weeks to recover																
MW-8	9/28/2020	57.43	7.26	9179	14.7	7900	----	----	----	----	----	----	0.9	<0.02	<0.02	<0.01	<0.25	0.0138	<0.05
MW-8	11/9/2020	37.26	Inadequate volume for representative field parameters or lab sample submittal after purge - sample collected 11/23/20 because well took 2 weeks to recover																
MW-8	11/23/2020	39.73	7.11	5327	13.9	4060	----	----	----	----	----	----	1.14	<0.050	<0.02	<0.01	<0.25	0.00219	<0.05
MW-8	2/22/2021	----	7.65	5476	14.8	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MW-8	5/19/2021	----	7.60	5571	16.1	----	1200	1200	<2	<2	316	1520	0.89	0.99	1.01	0.016	<0.05	0.00155	<0.01
MW-8	8/31/2021	----	7.32	6077	17.8	----	1080	1080	<2	<2	272	1820	1	<0.02	0.022	0.014	<0.05	0.00124	<0.01
MW-8	11/18/2021	----	7.14	3852	14.7	----	1140	1140	<2	<2	283	1920	0.9	0.068	0.096	0.028	<0.05	<0.001	<0.01
Field QA/QC Samples																			
MW-6 (duplicate)	9/19/2019	----	----	----	----	6020	----	----	----	----	----	----	0.7	11	10.8	0.08	<0.3	0.0004	<0.05
MW-7 (duplicate)	6/12/2019	----	----	----	----	5600	----	----	----	----	----	----	0.9	1.28	1.28	<0.01	<0.3	<0.2	<0.05
MW-7 (duplicate)	11/9/2019	----	----	----	----	5510	----	----	----	----	----	----	0.5	15	14.7	0.08	<0.3	<0.001	<0.05
MW-7 (duplicate)	3/9/2020	----	----	----	----	6530	----	----	----	----	----	----	0.4	15	14.5	0.05	<0.3	<0.0002	<0.05
MW-7 (duplicate)	9/16/2020	----	----	----	----	5040	----	----	----	----	----	----	0.4	11	10.9	0.03	0.11	<0.0002	<0.01
MW-7 (duplicate)	5/19/2021	----	----	----	----	----	291	291	<2	<2	50.7	3280	0.43	7.45	7.48	0.028	<0.05	<0.0002	<0.01
MW-7 (duplicate)	8/31/2021	----	----	----	----	----	464	464	<2	<2	109	3480	0.53	0.91	0.907	<0.01	<0.05	<0.001	<0.01
MW-8 (duplicate)	11/23/2020	----	----	----	----	4040	----	----	----	----	----	----	1.15	<0.050	<0.02	<0.01	<0.25	0.00234	<0.05
MW-8 (duplicate)	11/18/2021	----	----	----	----	----	1130	1130	<2	<2	288	1920	0.89	0.078	0.107	0.029	<0.05	0.00084	<0.01
CDPHE Regulation 41 Table 3 Groundwater Quality Reference Standards (Agricultural Use)			*6.5 -8.5*	----	----	----							*2*	----	*100*	*10*	*5.0*	*0.10*	*0.10*

Notes:
Concentrations in bold indicate exceedance of CDPHE Groundwater Quality Reference Standard for Agricultural Use.
MW-5 has been dry since installation and initial monitoring on 4/13/2013.
2020Q2 monitoring not conducted due to COVID-19 restrictions.

Table 1 (Page 2 of 2). GCC Quarterly Compliance Groundwater Monitoring Data 2018-2021.

Location ID	Sample Date	Boron (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Cobalt (mg/L)	Copper (mg/L)	Calcium (mg/L)	Iron (mg/L)	Lead (mg/L)	Lithium (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Mercury (mg/L)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Vanadium (mg/L)	Zinc (mg/L)	Barium (mg/L)
MW-5	12/9/2019																			
MW-5	9/17/2020																			
MW-5	11/23/2020																			
MW-5	5/12/2021																			
MW-5	11/18/2021																			
MW-6	1/3/2018	0.633	<0.005	<0.005	0.00423	0.0061	----	0.474	<0.01	0.664	----	**0.591**	<0.0002	0.0289	----	<0.03	----	<0.005	0.0248	----
MW-6	4/27/2018	0.654	<0.005	<0.005	0.0188	<0.01	----	0.0556	<0.01	0.689	----	**1.14**	<0.0002	0.0688	----	<0.03	----	<0.005	<0.01	0.032
MW-6	9/26/2018																			
MW-6	12/12/2018	0.624	<0.005	<0.005	0.00601	<0.01	----	<0.1	0.00399	0.476	----	**0.663**	<0.0002	0.0171	----	0.00619	----	0.00116	0.00899	----
MW-6	3/7/2019	DRY																	DRY	
MW-6	6/12/2019	0.5	0.0003	<0.05	<0.05	<0.05	----	0.8	0.0022	0.52	----	**0.97**	<0.0002	0.15	----	**0.0966**	----	<0.03	<0.05	----
MW-6	9/19/2019	0.3	0.00026	<0.05	0.05	<0.05	----	0.3	0.0004	0.49	----	**0.58**	<0.0002	0.13	----	**0.14**	----	<0.03	<0.05	----
MW-6	12/9/2019	0.3	<0.0003	<0.05	<0.05	<0.05	----	<0.2	<0.0005	0.49	----	**0.49**	<0.0002	0.11	----	**0.088**	----	<0.03	<0.05	----
MW-6	3/9/2020	0.3	0.00016	<0.05	<0.05	0.06	----	<0.2	<0.0001	0.48	----	**0.4**	<0.0002	0.11	----	**0.0401**	----	<0.03	<0.05	----
MW-6	9/16/2020	0.31	0.00011	0.01	0.03	<0.01	----	0.19	0.0006	0.486	----	**0.39**	<0.0002	0.088	----	0.0064	----	<0.01	0.02	----
MW-6	11/23/2020	0.325	<0.00025	<0.05	<0.05	<0.05	----	<0.3	<0.0005	0.448	----	**0.334**	<0.0002	0.114	----	0.0155	----	<0.05	0.11	----
MW-6	2/22/2021	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MW-6	5/19/2021	0.378	0.000058	<0.02	<0.02	<0.01	315	0.127	<0.0001	0.472	344	**0.357**	<0.0002	0.0579	9.94	0.00233	810	<0.01	<0.02	----
MW-6	8/31/2021	0.24	<0.00025	<0.02	<0.02	<0.01	410	<0.06	<0.0005	0.491	498	**0.279**	<0.0002	0.0845	11.2	0.0148	575	<0.01	<0.02	----
MW-6	11/18/2021	0.245	<0.00025	<0.1	<0.02	<0.01	383	<0.06	<0.0005	0.469	473	**0.241**	<0.0002	0.0763	10.3	0.0153	589	<0.01	<0.02	----
MW-7	1/3/2018	0.461	<0.005	<0.005	0.00135	0.00555	----	1.39	<0.01	0.779	----	0.20	<0.0002	0.0163	----	<0.03	----	0.0023	0.0267	----
MW-7	4/27/2018	0.441	<0.005	<0.005	<0.005	<0.01	----	0.249	<0.01	0.665	----	0.166	<0.0002	0.00607	----	<0.03	----	<0.005	<0.01	0.0142
MW-7	9/26/2018																			
MW-7	12/12/2018	0.446	<0.005	<0.005	<0.005	<0.01	----	0.242	<0.01	0.571	----	0.101	<0.0002	0.00359	----	<0.03	----	<0.005	0.0102	----
MW-7	3/7/2019	0.427	<0.005	<0.005	0.00197	<0.01	----	0.297	<0.01	0.557	----	0.152	<0.0002	0.008	----	<0.03	----	<0.005	0.00956	----
MW-7	6/12/2019	0.4	<0.04	<0.05	<0.05	<0.05	----	<0.2	<0.2	0.62	----	0.14	<0.0002	<0.04	----	0.0087	----	<0.03	<0.05	----
MW-7	9/18/2019	0.3	0.00015	<0.05	<0.05	<0.05	----	0.8	0.001	0.48	----	0.1	<0.0002	<0.04	----	**0.0762**	----	<0.03	<0.05	----
MW-7	12/9/2019	0.2	<0.0003	<0.05	<0.05	<0.05	----	<0.2	<0.0005	0.44	----	<0.05	<0.0002	<0.04	----	**0.0903**	----	<0.03	<0.05	----
MW-7	3/9/2020	0.2	0.00011	<0.05	<0.05	<0.05	----	<0.2	<0.0001	0.6	----	<0.05	<0.0002	<0.04	----	**0.0701**	----	<0.03	<0.05	----
MW-7	9/16/2020	0.14	0.00007	0.01	<0.01	<0.01	----	0.15	0.0002	0.428	----	0.01	<0.0002	0.013	----	**0.0655**	----	<0.01	<0.02	----
MW-7	11/23/2020	0.153	<0.00025	<0.05	<0.05	<0.05	----	<0.3	<0.0005	0.376	----	<0.05	<0.0002	<0.04	----	**0.0452**	----	<0.05	<0.1	----
MW-7	2/22/2021	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MW-7	5/19/2021	0.139	0.000057	<0.02	<0.02	<0.01	460	<0.06	<0.0001	0.473	530	<0.01	<0.0002	0.0229	13.7	**0.0401**	393	<0.01	<0.02	----
MW-7	8/31/2021	0.313	<0.00025	<0.02	<0.02	<0.01	391	<0.06	<0.0005	0.521	397	0.067	<0.0002	0.0155	10.8	0.0115	666	<0.01	<0.02	----
MW-7	11/18/2021	0.187	<0.00025	<0.1	<0.02	<0.01	429	<0.06	<0.0005	0.375	386	0.06	<0.0002	0.0157	10.6	**0.0284**	402	<0.01	<0.02	----
MW-8	3/9/2020																			
MW-8	9/16/2020																			
MW-8	9/28/2020	1.2	<0.00025	<0.05	<0.05	<0.05	----	2.62	<0.0005	0.51		**0.299**	<0.0002	<0.04		0.00075		<0.05	<0.1	----
MW-8	11/9/2020																			
MW-8	11/23/2020	0.817	<0.00025	<0.05	<0.05	<0.05		<0.3	<0.0005	0.333		**0.249**	<0.0002	<0.04		<0.0005		<0.05	<0.1	----
MW-8	2/22/2021	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MW-8	5/19/2021	0.886	0.000065	<0.04	<0.02	<0.01	93.1	<0.06	0.00016	0.365	31.2	**0.275**	<0.0002	<0.008	6.18	0.00024	1250	<0.01	<0.02	----
MW-8	8/31/2021	0.784	<0.00025	<0.02	<0.02	<0.01	111	<0.06	<0.0005	0.383	38.5	**0.319**	<0.0002	<0.008	5.93	<0.0005	1300	<0.01	<0.02	----
MW-8	11/18/2021	0.798	<0.00025	<0.1	<0.02	<0.01	107	<0.06	<0.0005	0.378	46.5	**0.265**	<0.0002	<0.008	6.44	<0.0005	1150	<0.02	<0.02	----
Field QA/QC Samples																				
MW-6 (duplicate)	9/19/2019	0.3	0.00031	<0.05	0.05	<0.05	----	0.3	0.0005	0.48	----	**0.57**	<0.0002	0.15	----	**0.141**	----	<0.03	<0.05	----
MW-7 (duplicate)	6/12/2019	0.4	<0.04	<0.05	<0.05	<0.05	----	0.2	<0.2	0.61	----	0.14	<0.0002	<0.04	----	0.0084	----	<0.03	<0.05	----
MW-7 (duplicate)	11/9/2019	0.2	<0.0003	<0.05	<0.05	<0.05	----	<0.2	<0.0005	0.44	----	<0.05	<0.0002	<0.04	----	**0.0903**	----	<0.03	<0.05	----
MW-7 (duplicate)	3/9/2020	0.1	0.0001	<0.05	<0.05	<0.05	----	<0.2	<0.0001	0.6	----	<0.05	<0.0002	<0.04	----	**0.0704**	----	<0.03	<0.05	----
MW-7 (duplicate)	9/16/2020	0.13	0.00007	0.01	<0.01	<0.01	----	0.12	0.0002	0.425	----	0.01	<0.0002	0.01	----	**0.0654**	----	<0.01	<0.02	----
MW-7 (duplicate)	5/19/2021	0.139	0.000068	<0.02	<0.02	<0.01	457	<0.06	<0.0001	0.469	528	<0.01	<0.0002	0.0119	13.9	**0.0398**	390	<0.01	<0.02	----
MW-7 (duplicate)	8/31/2021	0.309	<0.00025	<0.02	<0.02	<0.01	390	<0.06	<0.0005	0.52	396	0.066	<0.0002	0.017	10.9	0.0109	661	<0.01	<0.02	----
MW-8 (duplicate)	11/23/2020	0.834	<0.00025	<0.05	<0.05	<0.05	----	<0.3	<0.0005	0.337	----	**0.253**	<0.0002	<0.04	----	<0.0005	----	<0.05	<0.1	----
MW-8 (duplicate)	11/18/2021	0.809	<0.0001	<0.04	<0.02	<0.01	104	<0.06	<0.0002	0.38	43.2	**0.27**	<0.0002	<0.008	6.31	<0.0002	1150	<0.02	<0.02	----
CDPHE Regulation 41 Table 3 Groundwater Quality Reference Standards (Agricultural Use)		*5.0*	*0.01*	*0.10*	*0.05*	*0.2*		*5.0*	*0.10*	*2.5*		*0.20*	*0.01*	*0.20*		*0.02*		*0.10*	*2.0*	----

Notes:
Concentrations in bold indicate exceedance of CDPHE Groundwater Quality Reference Standard for Agricultural Use.
MW-5 has been dry since installation and initial monitoring on 4/13/2013.
2020Q2 monitoring not conducted due to COVID-19 restrictions.

FIGURES

Figure 1. GCC site map with 2021 compliance groundwater monitoring locations.

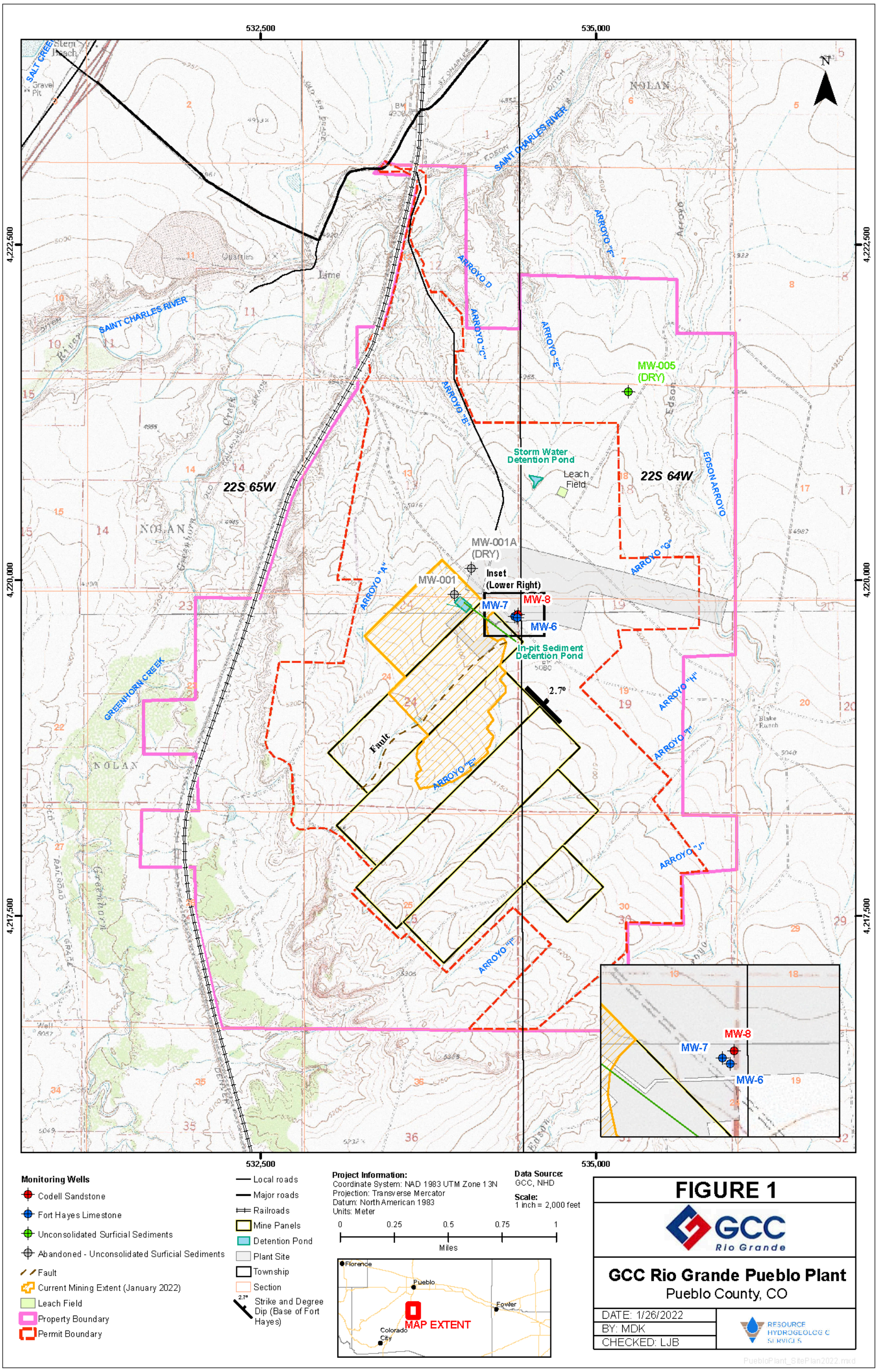


Figure 2. GCC Rio Grande Pueblo Plant 2021 Stiff Diagrams.

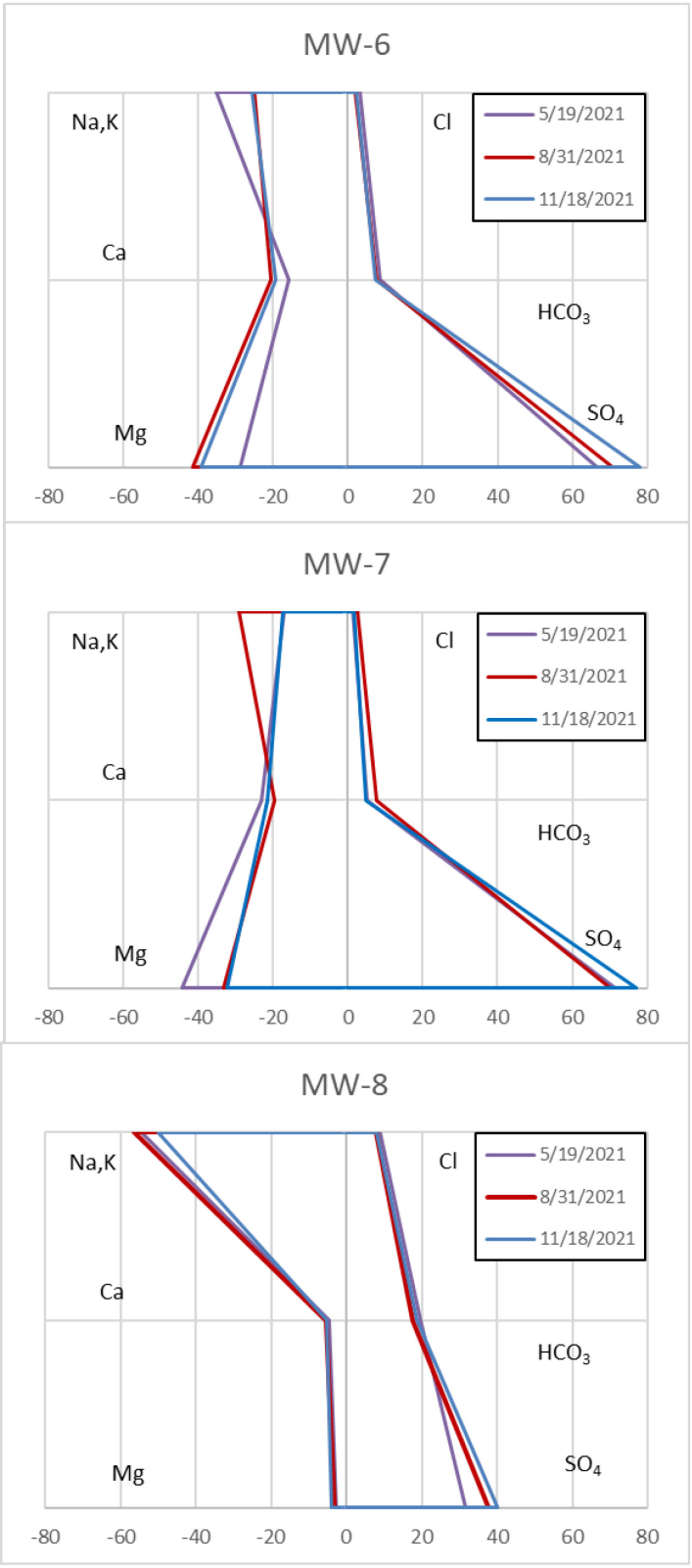


Figure 3. GCC Rio Grande Pueblo Plant pH, Mn, Se Time Series Plots – Full Period of Record.

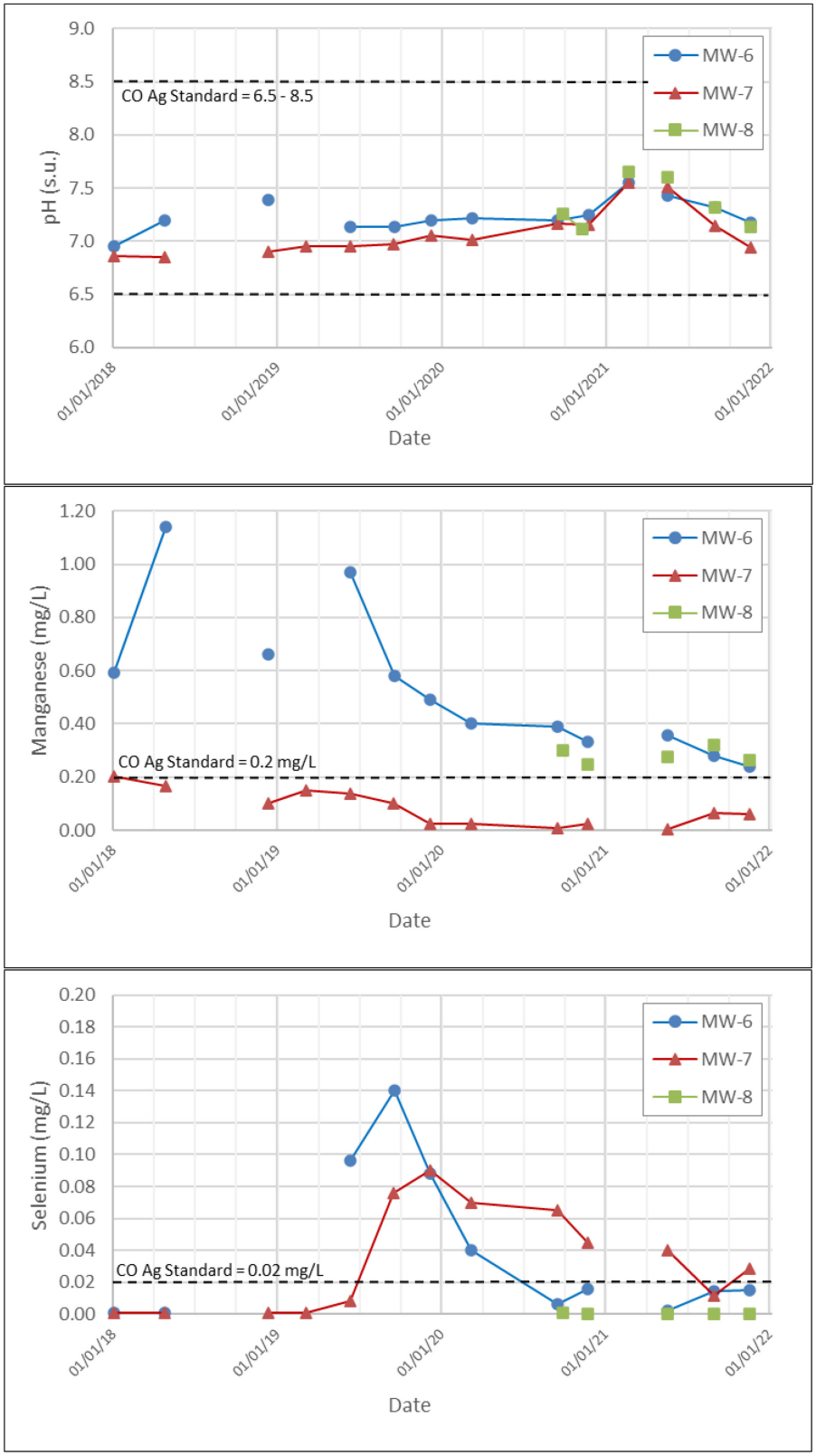
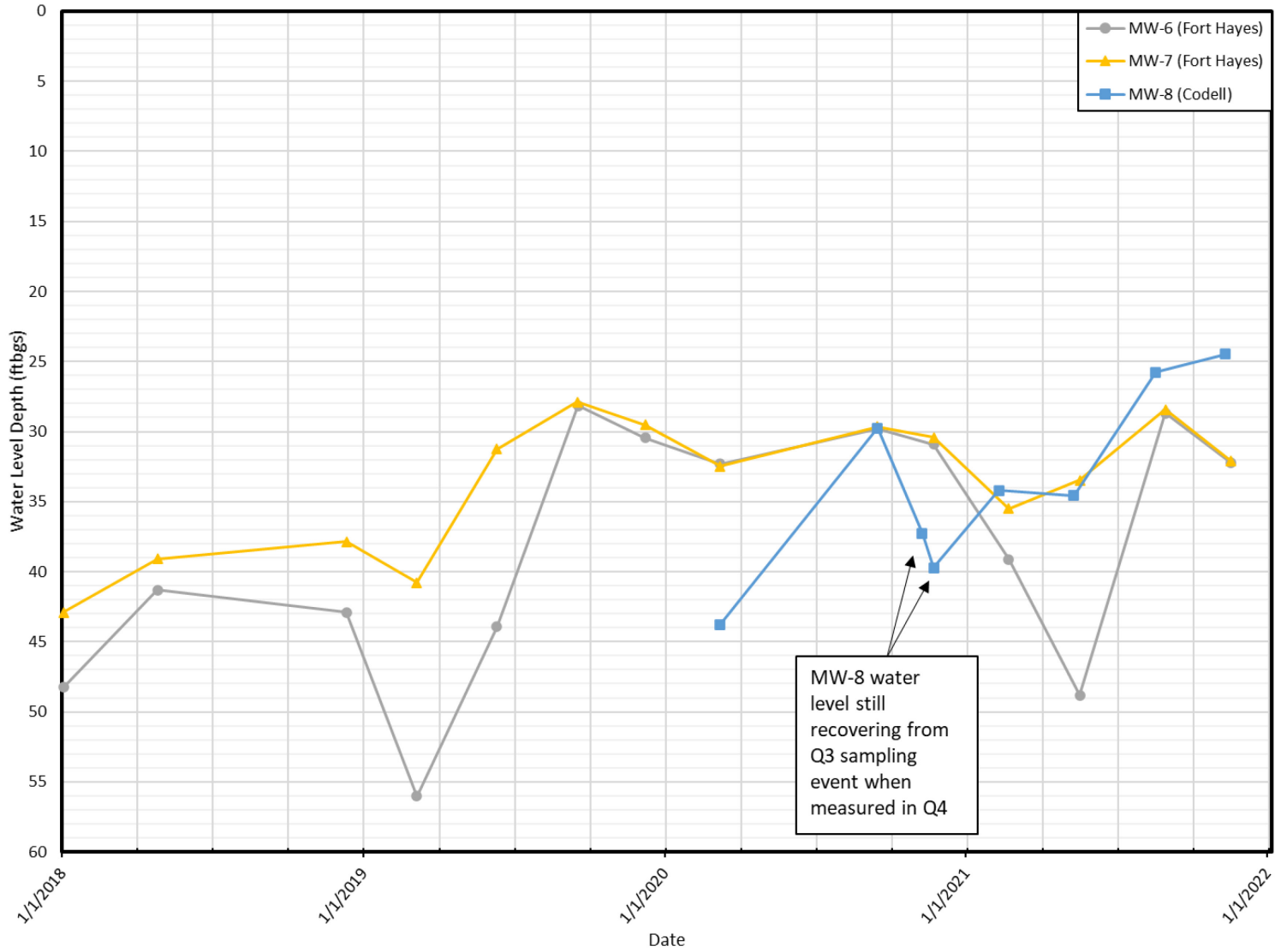


Figure 4. GCC Rio Grande Pueblo Plant Bedrock Groundwater Hydrograph – Full Period of Record 2018-2021.



ATTACHMENT 1 - GCC Groundwater Sampling Field Records

GROUNDWATER SAMPLING RECORD

SAMPLE No. MW-60

Project No: 1@ 2021 GW Sampling | Location: GCC Rio Grande | Page 1 of 1

Date: 2/22/21 | Weather Conditions: 47°F / Sunny | Personnel: S. Lopez

Comments: ~~MW-60~~

INSTRUMENTS USED

Instrument	Manufacturer/Model	Serial No.	Calibration
Water Level Probe	Geotech WLM	8250013	4 3.97 @ 16.70
pH Meter	YSI Pro Plus	15A104851	Std: 4 (7) 10 @ 7.01 °C Reading 12.9 — Slope:
pH Meter			Std: 4 7 (10) @ 10.03 °C Reading 13.7
Conductivity Meter			Std: 1413 uS @ 25 °C Reading 1420
Conductivity Meter			Std: _____ uS @ 25 °C Reading _____
Temperature			
Other:			

Filtration: 0.45 micron in-line high capacity disposable filter.

WELL PURGING INFORMATION

Casing Diameter (inches): 2" | Borehole Diameter (inches): | Screened Interval (ft. BGL):

Depth to Water (ft below MP): 39.11 | Total Depth (ft): 59.56 | Casing Volume (gal): 3.33 (gal/ft: 1.5" = 0.092; 2" = 0.163; 4" = 0.653)

Purging Method:

Comments: Monitoring point (MP) is the top of the PVC well casing.

Date/ Time	Vol. Purged (gal)	Depth to Water (feet below MP)	pH	Conductivity (uS @ 25 deg C)	Temp (deg C)	Appearance (color, sediment, etc.)	Comments
0953	Initial	39.11	7.31	5379	14.2	Clear, no odor	
1010	3	46.07	7.72	5474	14.6	"	
1023	6	51.73	7.70	5545	14.7	"	
1033	9	58.52	7.53	5618	14.8		
1033	10	Purged dry @ ~9 gal					

Cumulative Volume Purged: (gallons) (casing vol)

WELL SAMPLING INFORMATION

Sampling Equipment: Bailer

Comments:

SAMPLING MEASUREMENTS:

Date/ Time	Depth to Water (feet below MP)	Depth Sampled (feet below MP)	pH	Conductivity (uS @ 25 deg C)	Temp (deg C)	Other	Other	Comments
2/22/21 1325	57.01	57.01	7.55	5684	15.7	Clear	H2O, no odor	

SAMPLE HANDLING:

Date/ Time	Aliquots: Volume (ml)	Aliquots: Bottle Composition	Aliquots: Quantity	Filtered (Y/N)	Preserved (type)	Comments

Field QA/QC Samples Collected (type. Sample No.):

Equipment Decontamination: N/A

Waste Disposal:

Signature of Field Personnel:

GCC RIO GRANDE, INC.
Pueblo, CO

GROUNDWATER SAMPLING RECORD

SAMPLE No. MW-7

Project No: 10 26 8r 2021 GW Sampling | Location: GCC Rio Grande | Page 1 of 1

Date: 2/22/21 | Weather Conditions: 50°F / Sunny | Personnel: S. Leggs

Comments: Duplicate Taken

INSTRUMENTS USED

Instrument	Manufacturer/Model	Serial No.	Calibration
Water Level Probe	Geotech WLM	8250013	④ 16.7° 3.97
pH Meter	YSI Pro Plus	15A104951	Std: 4 ⑦ 10 @ 13.9 °C Reading 7.01 — Slope:
pH Meter			Std: 4 7 ⑩ @ 13.7 °C Reading 10.03
Conductivity Meter			Std: 1413 uS @ 25 °C Reading 1420
Conductivity Meter			Std: _____ uS @ 25 °C Reading _____
Temperature			
Other.			

Filtration: 0.45 micron in-line high capacity disposable filter.

WELL PURGING INFORMATION

Casing Diameter (inches): | Borehole Diameter (inches): | Screened Interval (ft. BGL):

Depth to Water (ft below MP): 35.51 | Total Depth (ft): 59.30 | Casing Volume (gal): 3.85 (gal/ft: 1.5" = 0.092; 2" = 0.163; 4" = 0.653)

Purging Method: Bailer

Comments: Monitoring point (MP) is the top of the PVC well casing.

12 gal

Date/ Time	Vol. Purged (gal)	Depth to Water (feet below MP)	pH	Conductivity (uS @ 25 deg C)	Temp (deg C)	Appearance (color, sediment, etc.)	Comments
1130	Initial	35.51	7.53	6109	15.4	Lt Brown, no	odor
1148	3	37.76	7.50	6016.2	14.7	"	
1156	6	37.45	7.57	6101	14.4	Clear - No	Odor
1209	9	37.76	7.53	6089	14.5	Lt Brown -	No odor
1227	12	37.91	7.55	6077	14.4	"	

Cumulative Volume Purged: (gallons) (casing vol)

WELL SAMPLING INFORMATION

Sampling Equipment:

Comments:

SAMPLING MEASUREMENTS:

Date/ Time	Depth to Water (feet below MP)	Depth Sampled (feet below MP)	pH	Conductivity (uS @ 25 deg C)	Temp (deg C)	Other	Other	Comments
1227	37.91	59.91	7.55	6077	14.4	Lt Brown -	No Odor	

SAMPLE HANDLING:

Date/ Time	Aliquots: Volume (ml)	Aliquots: Bottle Composition	Aliquots: Quantity	Filtered (Y/N)	Preserved (type)	Comments

Field QA/QC Samples Collected (type, Sample No.): Duplicate MW-28 taken

Equipment Decontamination: N/A

Waste Disposal:

Signature of Field Personnel:

GCC RIO GRANDE, INC.
Pueblo, CO

GROUNDWATER SAMPLING RECORD

SAMPLE No. MW-8

Project No: 1Q 2021 GW Sampling | Location: GCC Rio Grande | Page 1 of 1

Date: 2/10/21 & 2/22/21 | Weather Conditions: 42°F / Sunny | Personnel: T. Jarman / S. Legg

Comments: Purged 2/10/21 ; Sampled 2/22/21

INSTRUMENTS USED

Instrument	Manufacturer/Model	Serial No.	Calibration
Water Level Probe	Geotech MLM	82500813	4 16.7 3.97
pH Meter	YSI Pro Plus	15A104951	Std: 4 (7) 10 @ 13.1 °C Reading 7.01 — Slope:
pH Meter	↑	↑	Std: 4 7 (10) @ 13.7 °C Reading 10.03
Specific Conductance Meter			Std: 1413 uS @ 25 °C Reading 1420
Specific Conductance Meter			Std: _____ uS @ 25 °C Reading _____
Temperature			
Other:	↓	↓	

Filtration: 0.45 micron in-line high capacity disposable filter.

WELL PURGING INFORMATION

Casing Diameter (inches): 2" | Borehole Diameter (inches): | Screened Interval (ft. BGL):

Depth to Water (ft below MP): 34.21' | Total Depth (ft): 66.00' | Casing Volume (gal): 5.01 (gal/ft: 1.5" = 0.09; 2" = 0.16; 4" = 0.65)

Purging Method:

Comments: Monitoring point (MP) is the top of the PVC well casing.

2/10/21 Date/ Time	Vol. Purged (gal)	Depth to Water (feet below MP)	pH	Specific Conductance (uS @ 25 deg C)	Temp (deg C)	Appearance (color, sediment, etc.)	Comments
1121	Initial	34.21	7.13	5290	12.0	greyish, sulfur odor	
1126	1	35.51	7.18	5308	12.4	"	
1133	2	46.62	7.18	5301	13.3	clear, sulfur odor	
1140	3	49.09	7.22	5299	13.6	"	
1150	4	55.95	7.28	5390	13.4	"	
1157	5	61.51	7.38	5403	13.4	"	
	Total = 66.00						

Cumulative Volume Purged: (gallons) (casing vol)

WELL SAMPLING INFORMATION

Sampling Equipment: Bailer

Comments:

SAMPLING MEASUREMENTS:

Date/ Time	Depth to Water (feet below MP)	Depth Sampled (feet below MP)	pH	Specific Conductance (uS @ 25 deg C)	Temp (deg C)	Other	Other	Comments
2/22/21 1300	40.91	42.91	7.65	5476	14.8	Clear		

SAMPLE HANDLING:

Date/ Time	Aliquots: Volume (ml)	Aliquots: Bottle Composition	Aliquots: Quantity	Filtered (Y/N)	Preserved (type)	Comments

Field QA/QC Samples Collected (type, Sample No.):

Equipment Decontamination: N/A

Waste Disposal:

Signature of Field Personnel:

GCC RIO GRANDE, INC.
Pueblo, CO

GROUNDWATER SAMPLING RECORD

SAMPLE No. MW-5

Project No: 2Q 2021 GW Sampling | Location: GCC Pueblo - Rio Grande | Page 1 of 1

Date: 5/12/21 | Weather Conditions: Overcast. | Personnel: Scott Lee

Comments:

INSTRUMENTS USED

Instrument	Manufacturer/Model	Serial No.	Calibration
Water Level Probe			Std (2) 7.00 @ 13.7°C Reading 3.99 SU
pH Meter			Std: 4 (7) 10 @ 13.9 °C Reading 7.02 Slope
pH Meter			Std: 4 7 (10) @ 13.7 °C Reading 10.04
Specific Conductance Meter			Std: 13.3 uS @ 25 °C Reading 1412
Specific Conductance Meter			Std: _____ uS @ 25 °C Reading _____
Temperature			
Other: ORP / DO			219.9 mV Std 220.0 mV

Filtration 0.45 micron in-line high capacity disposable filter.

WELL PURGING INFORMATION

Casing Diameter (inches): | Borehole Diameter (inches): | Screened Interval (ft BGL):

Depth to Water (ft below MP): N/A | Total Depth (ft): 26.48 | Casing Volume (gal): (gal/ft: 1.5" = 0.09, 2" = 0.16, 4" = 0.65)

Purging Method:

Comments: Monitoring point (MP) is the top of the PVC well casing.

Date Time	Vol. Purged (gal)	Depth to Water (feet below MP)	pH	Specific Conductance (uS @ 25 deg C)	Temp (deg C)	Appearance (color, sediment, etc.)	Comments
N/A - DRY WELL							

Cumulative Volume Purged: (gallons) (casing vol)

WELL SAMPLING INFORMATION

Sampling Equipment:

Comments:

SAMPLING MEASUREMENTS:

Date Time	Depth to Water (feet below MP)	Depth Sampled (feet below MP)	pH	Specific Conductance (uS @ 25 deg C)	Temp (deg C)	Other	Other	Comments

SAMPLE HANDLING:

Date Time	Aliquots			Filtered (Y/N)	Preserved (type)	Comments
	Volume (ml)	Bottle Composition	Quantity			

Field QA/QC Samples Collected (type, Sample No.):

Equipment Decontamination:

Waste Disposal:

Signature of Field Personnel:

GCC RIO GRANDE, INC.
Pueblo, CO

GROUNDWATER SAMPLING RECORD

SAMPLE No. MW 6

Project No: 20 2021 GW | Location: GCC Rio Grande | Page 1 of 1

Date: 5/19/21 | Weather Conditions: Sunny, 57°F | Personnel: B. Heggs

Comments:

INSTRUMENTS USED

Instrument	Manufacturer/Model	Serial No.	Calibration
Water Level Probe	Geotech WLM	8250013	(4) 19.8 3.98
pH Meter	YSI PRO Plus	15A100495	Std. 4 (7) 10 @ 20.0 °C Reading 7.02 Slope.
pH Meter	↑	↑	Std. 4 7 (10) @ 21.0 °C Reading 10.03
Specific Conductance Meter			Std: 1413 uS @ 25 °C Reading 1413
~~Specific Conductance Meter~~ ORP			Std: 220 mV @ 25 °C Reading 218.7
Temperature			20.7°C 98.9% DO
Other: DO	↓	↓	20.7°C 98.9%

Filtration 0.45 micron in-line high capacity disposable filter.

WELL PURGING INFORMATION

Casing Diameter (inches): 2" | Borehole Diameter (inches): | Screened Interval (ft. BGL):

Depth to Water (ft below MP): 48.82 | Total Depth (ft): 59.58 | Casing Volume (gal): 5.46 1.77 (gal ft: 1.5" = 0.09; 2" = 0.16; 4" = 0.65) 1.77 5/6

Purging Method: Bailer

Comments: Monitoring point (MP) is the top of the PVC well casing.

Date/ Time	Vol. Purged (gal)	Depth to Water (feet below MP)	pH	Specific Conductance (uS @ 25 deg C)	Temp (deg C)	Appearance (color, sediment, etc.)	ORP	DO	Comments
1015	Initial	49.82	8.18	5736	15.0	clear	126.4	0.53	clear, no odor
1023	~~1~~	51.82	7.49	5741	15.2	clear	101.6	0.83	"
1029	2	53.68	7.40	5752	14.8	"	87.3	0.92	
1033	3	55.84	7.39	5777	14.8	"	68.7	1.06	
1040	4	57.12	7.40	5941	15.0	many sed. (brn)	22.3	1.07	
1049	5	58.48	7.41	5917	14.9	"	~~11.4~~ -27.7	1.14	

Cumulative Volume Purged: (gallons) (casing vol)

WELL SAMPLING INFORMATION

Sampling Equipment: Bailer

Comments:

SAMPLING MEASUREMENTS:

Date/ Time	Depth to Water (feet below MP)	Depth Sampled (feet below MP)	pH	Specific Conductance (uS @ 25 deg C)	Temp (deg C)	Other	Other	ORP	DO	Comments
1057	58.96	58.96	7.43	5945	14.9	No odor	Heavy Sed.	6.3	1.55	

SAMPLE HANDLING:

Date/ Time	Aliquots			Filtered (Y/N)	Preserved (type)	Comments
	Volume (ml)	Bottle Composition	Quantity			

Field QA/QC Samples Collected (type, Sample No.):

Equipment Decontamination:

N/A - fresh equipment used

Waste Disposal:

Signature of Field Personnel:

GCC RIO GRANDE, INC.
Pueblo, CO

GROUNDWATER SAMPLING RECORD

SAMPLE No. MW-7

Project No: 20 2021 GW Sampling | Location: GCC Rio Grande | Page 1 of 1

Date: 5/19/21 | Weather Conditions: Sunny, 57°F | Personnel: Scott Lugo

Comments: Duplicate collected

INSTRUMENTS USED

Instrument	Manufacturer/Model	Serial No.	Calibration
Water Level Probe	Geotech WLM	8250013	(4) 19.8 3.98
pH Meter	YSI Pro Plus	15A104951	Std: 4 (7) 10 @ 20.0 °C Reading 7.07 Slope:
pH Meter	YSI Pro Plus		Std: 4 7 (10) @ 21.0 °C Reading 10.03
Specific Conductance Meter	YSI Pro Plus		Std: 1413 uS @ 25 °C Reading 1413
~~Specific Conductance Meter~~ ORP	YSI Pro Plus		Std: 220 mV @ 25 °C Reading 218.7
Temperature			
Other:	DO		20.7°C 98.9%

Filtration 0.45 micron in-line high capacity disposable filter.

WELL PURGING INFORMATION

Casing Diameter (inches): 2" | Borehole Diameter (inches): | Screened Interval (ft. BGL):

Depth to Water (ft below MP): 33.47 | Total Depth (ft): 58.96 | Casing Volume (gal): 4.07 (gal ft: 1.5" = 0.09; 2" = 0.16; 4" = 0.65) 12.2

Purging Method: Bailer

Comments: Monitoring point (MP) is the top of the PVC well casing.

5/19/21

Date Time	Vol. Purged (gal)	Depth to Water (feet below MP)	pH	Specific Conductance (uS @ 25 deg C)	Temp (deg C)	Appearance (color, sediment, etc.)	ORP	DO	Comments
1130	Initial	33.47	7.54	5677	15.0	clear - no odor	46.6	1.26	
1142	3	34.80	7.53	5417	14.9	brown sed.	40.9	1.12	
1154	6	34.70	7.50	5350	14.7	"	54.4	1.43	
1208	9	35.14	7.50	5337	14.6	"	64.7	2.56	
1223	13	34.88	7.51	5390	14.9	"	74.1	2.51	
		Purge	Collected						

Cumulative Volume Purged: (gallons) (casing vol)

WELL SAMPLING INFORMATION

Sampling Equipment: Bailer

Comments:

SAMPLING MEASUREMENTS:

Date Time	Depth to Water (feet below MP)	Depth Sampled (feet below MP)	pH	Specific Conductance (uS @ 25 deg C)	Temp (deg C)	Other	Other	ORP	DO	Comments
1234	13.0	34.81	7.51	5464	15.2	Brown	sed	71.8	2.36	

SAMPLE HANDLING:

Date Time	Aliquots: Volume (ml)	Aliquots: Bottle Composition	Aliquots: Quantity	Filtered (Y/N)	Preserved (type)	Comments

Field QA/QC Samples Collected (type, Sample No.): MW-2B @ 1245

Equipment Decontamination: N/A - fresh equipment used

Waste Disposal:

Signature of Field Personnel:

GCC RIO GRANDE, INC.
Pueblo, CO

GROUNDWATER SAMPLING RECORD

SAMPLE No. MW-8

Project No: 2Q 2021 GW Sampling | Location: GCC - Rio Grande | Page 1 of 1

Date: 5/12/21; 5/19/21 | Weather Conditions: Overcast, 45°F | Personnel: S. Lugo

Comments: Purged on 5/12/21, sample collected on 5/19/21

INSTRUMENTS USED

Instrument	Manufacturer/Model	Serial No.
Water Level Probe	Geotech	8250013
pH Meter	YSI Pro Plus	15A101495
pH Meter		
Specific Conductance Meter		
Specific Conductance Meter	ORP	
Temperature		
Other:	DO	

5/19 Calibration — 5/12

(4) @ 19.8°C 3.98 — 3.99

Std. 4 (7) 10 @ 20.0 °C Reading 7.02 — Slope 7.03

Std. 4 7 (10) @ 21.0 °C Reading 10.03 — 10.02

Std. 1413 uS @ 25 °C Reading 1413 — 1412

Std. 220 mV @ 25 °C Reading 218.7 — 219.9

Filtration: 0.45 micron in-line high capacity disposable filter.

WELL PURGING INFORMATION

Casing Diameter (inches): 2" | Borehole Diameter (inches): | Screened Interval (ft. BGL):

Depth to Water (ft below MP): 34.56 | Total Depth (ft): 65.75 | Casing Volume (gal): 5.08 (gal/ft: 1.5" = 0.09; 2" = 0.16; 4" = 0.65)

Purging Method: Bailer

Comments: Monitoring point (MP) is the top of the PVC well casing.

	Date Time	Vol. Purged (gal)	Depth to Water (feet below MP)	pH	Specific Conductance (uS @ 25 deg C)	Temp (deg C)	Appearance (color, sediment, etc.)	Comments	ORP	DO
5/12	1015	Initial	34.56	7.39	5084	14.5	clear, strong sulfur odor, minor foam			
	1020	1	41.71	7.45	4966	14.2	light/fine white sediment, slight sulfur odor, mild foam			
	1025	2	47.67	7.48	4941	14.2	"	"		
	1031	3	52.13	7.49	4949	14.3	"	"	-125.3	0.76
	1039	4	58.03	7.52	4990	14.3	"	"	-137.4	1.18
	1049	4.75	65.52	7.62	5082	14.3			-158.3	1.21
			No sample collected; Insufficient water							

Cumulative Volume Purged: 4.75 (gallons) (casing vol)

WELL SAMPLING INFORMATION

Sampling Equipment:

Comments:

SAMPLING MEASUREMENTS:

	Date Time	Depth to Water (feet below MP)	Depth Sampled (feet below MP)	pH	Specific Conductance (uS @ 25 deg C)	Temp (deg C)	Other	Other	ORP	DO	Comments
5/19	1253	51.97	51.97	7.60	5571	16.1	clear, minor foam, no odor		-38.1	4.32	

SAMPLE HANDLING:

Date Time	Aliquots: Volume (ml)	Aliquots: Bottle Composition	Aliquots: Quantity	Filtered (Y/N)	Preserved (type)	Comments

Field QA/QC Samples Collected (type, Sample No.):

Equipment Decontamination: N/A - fresh equipment used

Waste Disposal:

Signature of Field Personnel:

GCC RIO GRANDE, INC.
Pueblo, CO

5/12/21 MW-6 DTW: 49.52
MW-7 DTW: 35.13

GROUNDWATER SAMPLING RECORD

SAMPLE No. MW-6

Project No: 30 2021 GW Sampling | Location: GCC - Rio Grande | Page 1 of 1

Date: 8/31/21 | Weather Conditions: Sunny | Personnel: S. Legg

Comments:

INSTRUMENTS USED

Instrument	Manufacturer/Model	Serial No.	Calibration
Water Level Probe	Geotech WLM	8250913	4 32.4 3.99
pH Meter	YSI Pro Plus	15A104951	Std: 4 (7) 10 @ 23.7 °C Reading 7.01 Slope:
pH Meter			Std: 4 7 (10) @ 23.8 °C Reading 10.01
Conductivity Meter			Std: 1413 uS @ 25 °C Reading 1415
Conductivity Meter			Std: ____ uS @ 25 °C Reading ____
~~Temperature~~ ORP			220 mV 220.2
Other: DO			98.9%

Filtration: 0.45 micron in-line high capacity disposable filter.

WELL PURGING INFORMATION

Casing Diameter (inches): 2" | Borehole Diameter (inches): | Screened Interval (ft. BGL):

Depth to Water (ft below MP): 28.68 | Total Depth (ft): 59.52 | Casing Volume (gal): 5.03 (gal/ft: 1.5" = 0.092; 2" = 0.163; 4" = 0.653)

Purging Method: Bailer ~15 gal

Comments: Monitoring point (MP) is the top of the PVC well casing.

Date/ Time	Vol. Purged (gal)	Depth to Water (feet below MP)	pH	Conductivity (uS @ 25 deg C)	Temp (deg C)	ORP Appearance (color, sediment, etc.)	DO	Appearance/ Comments
8/31 0940	Initial	59.52	7.39	6184	16.0	253.9	0.64	Clear H2O, no odor
0947	3	36.76	7.15	6230	15.1	215.7	0.97	Clear H2O, no odor, light sed mat
0957	6	43.23	7.15	6105	15.0	204.6	0.77	"
1026	9	49.90	7.15	6118	15.2	194.4	0.70	"
1041	12	55.08	7.18	6180	15.3	138.2	1.26	Lt Brown sed., no odor
1051	13.5	59.17	7.20	6207	15.5	171.8	1.58	

Cumulative Volume Purged: (gallons) (casing vol)

WELL SAMPLING INFORMATION

Sampling Equipment: Bailer

Comments:

SAMPLING MEASUREMENTS:

Date/ Time	Depth to Water (feet below MP)	Depth Sampled (feet below MP)	pH	Conductivity (uS @ 25 deg C)	Temp (deg C)	Other ORP	Other DO	Comments
1330	57.65	57.65	7.32	6170	16.1	147.3	5.19	clear H2O, no odor

SAMPLE HANDLING:

Date/ Time	Aliquots: Volume (ml)	Aliquots: Bottle Composition	Aliquots: Quantity	Filtered (Y/N)	Preserved (type)	Comments

Field QA/QC Samples Collected (type, Sample No.):

Equipment Decontamination: N/A

Waste Disposal: N/A

Signature of Field Personnel: Scott Legg

GCC RIO GRANDE, INC.
Pueblo, CO

GROUNDWATER SAMPLING RECORD

SAMPLE No. MW-7 & MW-28

Project No: 3Q 2021 GW Sampling | Location: GCC Rio Grande | Page 1 of 1

Date: 8/31/21 | Weather Conditions: Sunny 88°F | Personnel: S. Leyy

Comments:

INSTRUMENTS USED

Instrument	Manufacturer/Model	Serial No.	Calibration
Water Level Probe	Geotech WLM	R2.50013	4 23.4 3.99
pH Meter	YSI Pro Plus	15A104951	Std: 4 ○ 10 @ 23.7 °C Reading 7.01 (Slope)
pH Meter			Std: 4 7 (10) @ 23.5 °C Reading 10.01
Specific Conductance Meter			Std: 1413 uS @ 25 °C Reading 1415
Specific Conductance Meter			Std: _____ uS @ 25 °C Reading _____
~~Temperature~~ ORP			220 mV 220.2
~~Other~~: DO			98.9%

Filtration: 0.45 micron in-line high capacity disposable filter.

WELL PURGING INFORMATION

Casing Diameter (inches): | Borehole Diameter (inches): | Screened Interval (ft. BGL):

Depth to Water (ft below MP): 28.43 | Total Depth (ft): 59.40 | Casing Volume (gal): 5.05 (gal ft: 1.5" = 0.09; 2" = 0.16; 4" = 0.65)

Purging Method: Bailer ~15 gal

Comments: Monitoring point (MP) is the top of the PVC well casing.

Date/ Time	Vol. Purged (gal)	Depth to Water (feet below MP)	pH	Specific Conductance (uS @ 25 deg C)	Temp (deg C)	ORP (color, sediment, etc.)	Appearance DO	Comments
8/31/21 1135	Initial	28.43	7.13	6246	15.6	146.3	1.19	clear H2O, no odor
1145	~~10~~	30.37	7.14	6150	15.1	143.4	1.26	"
1155	~~15~~	30.40	7.13	6164	15.1	138.7	0.76	"
1202	~~~~	30.39	7.15	6133	15.1	121.7	0.89	"
1210	~~25~~	31.14	7.18	6105	15.3	108.1	1.09	"

Cumulative Volume Purged: 15.25 (gallons) (casing vol)

WELL SAMPLING INFORMATION

Sampling Equipment: Bailer

Comments: Duplicate collected

SAMPLING MEASUREMENTS: ~~Bailer~~ YSI called same day

Date/ Time	Depth to Water (feet below MP)	Depth Sampled (feet below MP)	pH	Specific Conductance (uS @ 25 deg C)	Temp (deg C)	Other ORP	Other DO	Comments
8/31/21 1220	29.68	32.68	7.15	6061	15.4	106 / 106.1	0.76	clear H2O, no odor

SAMPLE HANDLING:

Date/ Time	Aliquots: Volume (ml)	Aliquots: Bottle Composition	Aliquots: Quantity	Filtered (Y/N)	Preserved (type)	Comments

Field QA/QC Samples Collected (type, Sample No.): Duplicate MW-28 taken

Equipment Decontamination: N/A

Waste Disposal: N/A

Signature of Field Personnel: Scott Leyy

GCC RIO GRANDE, INC.
Pueblo, CO

GROUNDWATER SAMPLING RECORD

SAMPLE No. MW-8

Project No: 30 2021 GW Sample | Location: GCC-Rio Grande | Page 1 of 1

Date: 8/19/21 | Weather Conditions: Sunny, 85°F | Personnel: S. Lesz

Comments: Well purged dry on 8/19/21 returned to sample on

INSTRUMENTS USED

Instrument	Manufacturer/Model	Serial No.	Calibration
Water Level Probe	Geotech	82500013	4 23.4 3.97
pH Meter	YSI Pro Plus	15A104951	Std: 4 7 10 @ 23.0 °C Reading 7.02 Slope:
pH Meter			Std: 4 7 10 @ 23.1 °C Reading 9.96
Specific Conductance Meter			Std: 1413 uS @ 25 °C Reading 1415
~~Specific Conductance Meter~~ ORP			Std: 220 mV @ 25 °C Reading 220.2
Temperature			
Other: DO			99.7%

Filtration 0.45 micron in-line high capacity disposable filter.

WELL PURGING INFORMATION

Casing Diameter (inches): 2 | Borehole Diameter (inches): | Screened Interval (ft. BGL):

Depth to Water (ft below MP): 25.75 | Total Depth (ft): 65.92 | Casing Volume (gal): 6.55 (gal/ft: 1.5" = 0.09; 2" = 0.16; 4" = 0.65) 19.65

Purging Method: Bailer

Comments: Monitoring point (MP) is the top of the PVC well casing.

Date/ Time	Vol. Purged (gal)	Depth to Water (feet below MP)	pH	Specific Conductance (uS @ 25 deg C)	Temp (deg C)	Appearance (color, sediment, etc.)	ORP	DO	Comments
8/19/21 11:47	Initial	25.75	7.23	5292	16.1	turbid white parts	-216.9	0.61	sulfur odor
12:02	4	51.13	7.31	5109	16.5	Clear, "	-210.3	1.70	no odor
12:22	8	64.88	7.51	6028	16.1	dark, brown, turbid	-212.3	2.01	sulfur odor
Purged dry @ 1238 on 8/19/21									
8/19/21 1238	~8.5	65.79	7.59	6113	15.5	dark, highly turbid	-416.9	2.10	slight sulfur odor

Cumulative Volume Purged: 8.5 (gallons) (casing vol)

WELL SAMPLING INFORMATION

Sampling Equipment: Bailer

Comments: Well purged dry on 8/19, sample collected on 8/31/21. See MW-6 + MW-7 for equipment calibrations

SAMPLING MEASUREMENTS:

Date/ Time	Depth to Water (feet below MP)	Depth Sampled (feet below MP)	pH	Specific Conductance (uS @ 25 deg C)	Temp (deg C)	Other ORP	Other DO	Comments
8/31/21 13:00	39.19	42.19	7.32	6077	17.8	117.6	1.85	clear H2O, slight sulfur odor no foam

SAMPLE HANDLING:

Date/ Time	Aliquots: Volume (ml)	Aliquots: Bottle Composition	Aliquots: Quantity	Filtered (Y/N)	Preserved (type)	Comments

Field QA/QC Samples Collected (type, Sample No.):

Equipment Decontamination: N/A

Waste Disposal: N/A

Signature of Field Personnel: Scott Lesz

GCC RIO GRANDE, INC.
Pueblo, CO

GROUNDWATER SAMPLING RECORD

SAMPLE No. MW-5

Project No: 4Q 2021 GW | Location: GCC Rio Grande | Page 1 of 1

Date: 11/18/21 | Weather Conditions: Clear ~ 35°F | Personnel: Ben Kelland

Comments:

INSTRUMENTS USED

Instrument	Manufacturer/Model	Serial No.	Calibration
Water Level Probe	Geotech WLM	8250013	
pH Meter			Std: 4 7 10 @ ____ °C Reading ____ Slope:
pH Meter	N/A	N/A	Std: 4 7 10 @ ____ °C Reading ____
Specific Conductance Meter			Std: ____ uS @ 25 °C Reading ____
Specific Conductance Meter			Std: ____ uS @ 25 °C Reading ____
Temperature			
Other:			

Filtration: 0.45 micron in-line high capacity disposable filter.

WELL PURGING INFORMATION

Casing Diameter (inches): | Borehole Diameter (inches): | Screened Interval (ft. BGL):

Depth to Water (ft below MP): N/A | Total Depth (ft): 26.50 | Casing Volume (gal): (gal/ft: 1.5" = 0.09; 2" = 0.16; 4" = 0.65)

Purging Method:

Comments: Monitoring point (MP) is the top of the PVC well casing.

Date/ Time	Vol. Purged (gal)	Depth to Water (feet below MP)	pH	Specific Conductance (uS @ 25 deg C)	Temp (deg C)	Appearance (color, sediment, etc.)	Comments
	N/A - DRY WELL						

Cumulative Volume Purged: (gallons) (casing vol)

WELL SAMPLING INFORMATION

Sampling Equipment:

Comments:

SAMPLING MEASUREMENTS:

Date/ Time	Depth to Water (feet below MP)	Depth Sampled (feet below MP)	pH	Specific Conductance (uS @ 25 deg C)	Temp (deg C)	Other	Other	Comments

SAMPLE HANDLING:

Date/ Time	Aliquots: Volume (ml)	Aliquots: Bottle Composition	Aliquots: Quantity	Filtered (Y/N)	Preserved (type)	Comments

Field QA/QC Samples Collected (type, Sample No.):

Equipment Decontamination: N/A

Waste Disposal: N/A

Signature of Field Personnel:

GCC RIO GRANDE, INC.
Pueblo, CO

GROUNDWATER SAMPLING RECORD

SAMPLE No. MW-6

Project No: ~~3826-HH27~~ 4Q21 | Location: GCC Pueblo Rio Grande | Page 1 of 1

Date: 11/16/21 | Weather Conditions: Cold ~29° | Personnel: Ben Kelland

Comments:

INSTRUMENTS USED

Instrument	Manufacturer/Model	Serial No.	Calibration
Water Level Probe	Geotech UXM	8250013	
pH Meter	YSI Pro +	15A104951	Std: 4 7 10 @ 11.0 °C Reading 4.02, 6.98, 10.07 — Slope: 57.4
pH Meter	↕	↕	Std: 4 7 10 @ 11.0 °C Reading
Conductivity Meter			Std: 1413 uS @ 25 °C Reading 1375
Conductivity Meter			Std: uS @ 25 °C Reading
~~Temperature~~ ORP			220 mV 219.7 mV
Other: DO			N/A 99.6%

Filtration: 0.45 micron in-line high capacity disposable filter.

WELL PURGING INFORMATION

Casing Diameter (inches): 2 | Borehole Diameter (inches): | Screened Interval (ft. BGL):

Depth to Water (ft below MP): 32.2 | Total Depth (ft): 59.51 | Casing Volume (gal): 4.46 (gal/ft: 1.5" = 0.092; 2" = 0.163; 4" = 0.653) 13.38

Purging Method: Bailer

Comments: Monitoring point (MP) is the top of the PVC well casing.

Date/ Time	Vol. Purged (gal)	Depth to Water (feet below MP)	pH	Conductivity (uS @ 25 deg C)	Temp (deg C)	DO / ORP Appearance (color, sediment, etc.)		Comments
9:58	Initial	32.23	7.12	6675	13.9	3.55	216.4	clear, no odor
9:51	4	41.81	6.87	7227	13.9	0.93	196.4	"
10:21	8	50.10	6.87	7387	14.2	0.97	177.1	"
10:51	12	57.3	6.89	7412	14.3	0.95	169.3	clear, no odor

Dry

Cumulative Volume Purged: 12 (gallons) 4.46 (casing vol)

WELL SAMPLING INFORMATION

Sampling Equipment: Bailer

Comments:

SAMPLING MEASUREMENTS:

Date/ Time	Depth to Water (feet below MP)	Depth Sampled (feet below MP)	pH	Conductivity (uS @ 25 deg C)	Temp (deg C)	Other DO	Other ORP	Comments
14:28	56.09	56.09	7.16	7477	14.2	1.37	136.8	clear, no odor

SAMPLE HANDLING:

Date/ Time	Aliquots: Volume (ml)	Aliquots: Bottle Composition	Aliquots: Quantity	Filtered (Y/N)	Preserved (type)	Comments

Field QA/QC Samples Collected (type, Sample No.):

Equipment Decontamination: N/A

Waste Disposal: N/A

Signature of Field Personnel:

GCC RIO GRANDE, INC.
Pueblo, CO

GROUNDWATER SAMPLING RECORD

SAMPLE No. MW-7

Project No: ~~3826-J1122~~, 4Q 2021 GW	Location: GCC Pueblo - Rio Grand		Page 1 of 1
Date: 11/18/21	Weather Conditions: Cold ~33°	Personnel: Ben Kellogg	
Comments:			

INSTRUMENTS USED

Instrument	Manufacturer/Model	Serial No.	Calibration	
Water Level Probe	Geotech WLM	8250073	4 11.0°C 4.02	
pH Meter	YSI Pro +	15A101951	Std: 4 (7) 10 @ 11.0 °C Reading 6.98	Slope:
pH Meter	↑	↑	Std: 4 7 (10) @ 11.0 °C Reading 10.01	
Conductivity Meter	|	|	Std: 1413 uS @ 25 °C Reading 1375 uS see MW-6A	
~~Conductivity Meter~~ ORP	|	|	Std: 220 mV @ 25 °C Reading 219.7	
~~Temperature~~ DO	↓	↓	99.6%	
Other:				
Filtration	0.45 micron in-line high capacity disposable filter.			

WELL PURGING INFORMATION

Casing Diameter (inches): 2	Borehole Diameter (inches):	Screened Interval (ft. BGL):	
Depth to Water (ft below MP): 32.09	Total Depth (ft): 59.39	Casing Volume (gal): 4.46	(gal/ft: 1.5" = 0.092; 2" = 0.163; 4" = 0.653)
Purging Method: Bailer			13.38
Comments: Monitoring point (MP) is the top of the PVC well casing.			

Date/ Time	Vol. Purged (gal)	Depth to Water (feet below MP)	pH	Conductivity (uS @ 25 deg C)	Temp (deg C)	DO	ORP	Comments
11:10	Initial	32.09	6.93	6805	14.2	1.42	156.9	
11:25	4.5	33.00	6.93	6711	14.1	2.34	151.5	
11:38	9.0	33.12	6.97	6424	14.0	1.34	116.7	
11:53	13.5	33.10	6.97	6407	14.1	1.31	110.3	

(Appearance column header: Appearance (color, sediment, etc.))

Cumulative Volume Purged: (gallons) (casing vol)

WELL SAMPLING INFORMATION

Sampling Equipment: Bailer

Comments:

SAMPLING MEASUREMENTS:

Date/ Time	Depth to Water (feet below MP)	Depth Sampled (feet below MP)	pH	Conductivity (uS @ 25 deg C)	Temp (deg C)	Other DO	Other ORP	Comments
12:01	32.81	32.81	6.94	6589	13.7	1.29	109.2	Slight yellow tint

SAMPLE HANDLING:

Date/ Time	Volume (ml)	Bottle Composition	Quantity	Filtered (Y/N)	Preserved (type)	Comments

Field QA QC Samples Collected (type. Sample No.):

Equipment Decontamination: N/A

Waste Disposal: N/A

Signature of Field Personnel: [signature]	GCC RIO GRANDE. INC. Pueblo, CO

GROUNDWATER SAMPLING RECORD

SAMPLE No. MW-8 & MW-23

Project No: 3826-111221 (Q4 2021 GW)

Location: GCC Pueblo - Rio Grande

Page 1 of 1

Date: 11/12/21

Weather Conditions: Clear ~50°

Personnel: Ben Holland

Comments: Duplicate collected

INSTRUMENTS USED

Instrument	Manufacturer/Model	Serial No.	Calibration
Water Level Probe	WLM - Geotech	825 0013	4 11.0°C 4.02
pH Meter	YSI Pro +	15A104951	Std: 4 (7) 10 @ 11.0 °C Reading 6.98 — Slope:
pH Meter	↑	↑	Std: 4 7 (10) @ 11.0 °C Reading 10.01
~~Conductivity Meter~~ ORP			Std: 220 mV @ 25 °C Reading 219.7 mV
Conductivity Meter			Std: 1413 uS @ 25 °C Reading 1375 uS/cm
Temperature			
Other: DO	↓	↓	99.6%

Filtration: 0.45 micron in-line high capacity disposable filter.

WELL PURGING INFORMATION

Casing Diameter (inches): 2 — Borehole Diameter (inches): — Screened Interval (ft. BGL):

Depth to Water (ft below MP): 29.46 — Total Depth (ft): 65.99 — Casing Volume (gal): 5.96 (gal/ft: 1.5" = 0.092; 2" = 0.163; 4" = 0.653)

Purging Method: Bailer — 17.88

Comments: Monitoring point (MP) is the top of the PVC well casing.

Date/ Time	Vol. Purged (gal)	Depth to Water (feet below MP)	pH	Conductivity (uS @ 25 deg C)	Temp (deg C)	Appearance (color, sediment, etc.)	Comments
12:14	Initial	29.46	7.01	5408	16.0	clear	clear H2O, no odor
13:26	4	47.25	7.45	5985	15.6	"	"
13:40	8	62.08	7.57	5993	15.4	turbid	light brown ~~solids~~
	Purged dry @ 13:49						

Cumulative Volume Purged: (gallons) (casing vol)

WELL SAMPLING INFORMATION

Sampling Equipment: Bailer

Comments: Bailed 11/12/21, sampled 1st draw on 11/18/21

SAMPLING MEASUREMENTS:

Date/ Time	Depth to Water (feet below MP)	Depth Sampled (feet below MP)	pH	Conductivity (uS @ 25 deg C)	Temp (deg C)	Other DO	Other ORP	Comments
11/18 13:51	59.85	59.85	7.14	3852	14.7	4.21	683	clear, no odor

SAMPLE HANDLING:

Date/ Time	Aliquots: Volume (ml)	Aliquots: Bottle Composition	Aliquots: Quantity	Filtered (Y/N)	Preserved (type)	Comments

Field QA/QC Samples Collected (type, Sample No.): Dup collected MW-2B

Equipment Decontamination: N/A

Waste Disposal: N/A

Signature of Field Personnel:

GCC RIO GRANDE, INC.
Pueblo, CO

ATTACHMENT 2 - GCC Groundwater Sampling Analytical Lab Reports

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Analytical Report

March 04, 2021

Report to:
Diana Furman
GCC Rio Grande
3372 Lime Road
Pueblo, CO 81004

Bill to:
Diana Furman
GCC Rio Grande
3372 Lime Road
Pueblo, CO 81004

Project ID:
ACZ Project ID: L64379

Diana Furman:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on February 23, 2021. This project has been assigned to ACZ's project number, L64379. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under L64379. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

Except as noted, the test results for the methods and parameters listed on ACZ's current NELAC certificate letter (#ACZ) meet all requirements of NELAC.

This report shall be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

All samples and sub-samples associated with this project will be disposed of after April 03, 2021. If the samples are determined to be hazardous, additional charges apply for disposal (typically $11/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical raw data reports for ten years.

If you have any questions or other needs, please contact your Project Manager.

Bill Lane has reviewed and approved this report

GCC Rio Grande
Project ID:
Sample ID: MW-6

ACZ Sample ID: ***L64379-01***
Date Sampled: *02/22/21 13:25*
Date Received: *02/23/21*
Sample Matrix: *Groundwater*

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	5	<0.25	U		mg/L	0.25	1.25	02/27/21 2:03	jlw
Arsenic, dissolved	M200.8 ICP-MS	5	<0.001	U		mg/L	0.001	0.005	03/01/21 14:09	mfm
Beryllium, dissolved	M200.7 ICP	5	<0.05	U		mg/L	0.05	0.25	02/27/21 2:03	jlw
Boron, dissolved	M200.7 ICP	5	0.330	B		mg/L	0.1	0.5	02/27/21 2:03	jlw
Cadmium, dissolved	M200.8 ICP-MS	5	<0.00025	U		mg/L	0.00025	0.00125	03/01/21 14:09	mfm
Chromium, dissolved	M200.7 ICP	5	<0.05	U		mg/L	0.05	0.25	02/27/21 2:03	jlw
Cobalt, dissolved	M200.7 ICP	5	<0.05	U		mg/L	0.05	0.25	02/27/21 2:03	jlw
Copper, dissolved	M200.7 ICP	5	<0.05	U		mg/L	0.05	0.25	02/27/21 2:03	jlw
Iron, dissolved	M200.7 ICP	5	<0.3	U		mg/L	0.3	0.75	02/27/21 2:03	jlw
Lead, dissolved	M200.8 ICP-MS	5	<0.0005	U		mg/L	0.0005	0.0025	03/01/21 14:09	mfm
Lithium, dissolved	M200.7 ICP	5	0.476			mg/L	0.04	0.2	02/27/21 2:03	jlw
Manganese, dissolved	M200.7 ICP	5	0.315			mg/L	0.05	0.25	02/27/21 2:03	jlw
Mercury, dissolved	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	03/03/21 14:38	llr
Nickel, dissolved	M200.7 ICP	5	0.0810	B		mg/L	0.04	0.2	02/27/21 2:03	jlw
Selenium, dissolved	M200.8 ICP-MS	5	0.00487			mg/L	0.0005	0.00125	03/01/21 14:09	mfm
Vanadium, dissolved	M200.7 ICP	5	<0.05	U		mg/L	0.05	0.125	02/27/21 2:03	jlw
Zinc, dissolved	M200.7 ICP	5	<0.1	U		mg/L	0.1	0.25	02/27/21 2:03	jlw

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Fluoride	SM4500F-C	1	0.62			mg/L	0.11	0.35	02/26/21 15:25	eep
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2		0.07	B		mg/L	0.02	0.1	03/04/21 0:00	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	0.067	B		mg/L	0.02	0.1	02/23/21 22:18	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	<0.01	U	*	mg/L	0.01	0.05	02/23/21 22:18	pjb
Residue, Filterable (TDS) @180C	SM2540C	2	5780		*	mg/L	40	80	02/23/21 20:56	jck

GCC Rio Grande
Project ID:
Sample ID: MW-7

ACZ Sample ID: ***L64379-02***
Date Sampled: *02/22/21 12:27*
Date Received: *02/23/21*
Sample Matrix: *Groundwater*

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	5	<0.25	U		mg/L	0.25	1.25	02/27/21 2:06	jlw
Arsenic, dissolved	M200.8 ICP-MS	5	<0.001	U		mg/L	0.001	0.005	03/01/21 14:11	mfm
Beryllium, dissolved	M200.7 ICP	5	<0.05	U		mg/L	0.05	0.25	02/27/21 2:06	jlw
Boron, dissolved	M200.7 ICP	5	0.196	B		mg/L	0.1	0.5	02/27/21 2:06	jlw
Cadmium, dissolved	M200.8 ICP-MS	5	<0.00025	U		mg/L	0.00025	0.00125	03/01/21 14:11	mfm
Chromium, dissolved	M200.7 ICP	5	<0.05	U		mg/L	0.05	0.25	02/27/21 2:06	jlw
Cobalt, dissolved	M200.7 ICP	5	<0.05	U		mg/L	0.05	0.25	02/27/21 2:06	jlw
Copper, dissolved	M200.7 ICP	5	<0.05	U		mg/L	0.05	0.25	02/27/21 2:06	jlw
Iron, dissolved	M200.7 ICP	5	<0.3	U		mg/L	0.3	0.75	02/27/21 2:06	jlw
Lead, dissolved	M200.8 ICP-MS	5	<0.0005	U		mg/L	0.0005	0.0025	03/01/21 14:11	mfm
Lithium, dissolved	M200.7 ICP	5	0.634			mg/L	0.04	0.2	02/27/21 2:06	jlw
Manganese, dissolved	M200.7 ICP	5	<0.05	U		mg/L	0.05	0.25	02/27/21 2:06	jlw
Mercury, dissolved	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	03/03/21 14:39	llr
Nickel, dissolved	M200.7 ICP	5	<0.04	U		mg/L	0.04	0.2	02/27/21 2:06	jlw
Selenium, dissolved	M200.8 ICP-MS	5	0.0348			mg/L	0.0005	0.00125	03/01/21 14:11	mfm
Vanadium, dissolved	M200.7 ICP	5	<0.05	U		mg/L	0.05	0.125	02/27/21 2:06	jlw
Zinc, dissolved	M200.7 ICP	5	<0.1	U		mg/L	0.1	0.25	02/27/21 2:06	jlw

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Fluoride	SM4500F-C	1	0.49			mg/L	0.11	0.35	02/26/21 15:29	eep
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2		9.9			mg/L	0.1	0.5	03/04/21 0:00	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	5	9.98			mg/L	0.1	0.5	02/23/21 22:46	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	0.068		*	mg/L	0.01	0.05	02/23/21 22:19	pjb
Residue, Filterable (TDS) @180C	SM2540C	2	6500		*	mg/L	40	80	02/23/21 20:58	jck

GCC Rio Grande
Project ID:
Sample ID: MW-2B

ACZ Sample ID: ***L64379-03***
Date Sampled: *02/22/21 12:42*
Date Received: *02/23/21*
Sample Matrix: *Groundwater*

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	1	<0.05	U		mg/L	0.05	0.25	02/27/21 2:16	jlw
Arsenic, dissolved	M200.8 ICP-MS	5	<0.001	U		mg/L	0.001	0.005	03/01/21 14:13	mfm
Beryllium, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	02/27/21 2:16	jlw
Boron, dissolved	M200.7 ICP	1	0.167			mg/L	0.02	0.1	02/27/21 2:16	jlw
Cadmium, dissolved	M200.8 ICP-MS	5	<0.00025	U		mg/L	0.00025	0.00125	03/01/21 14:13	mfm
Chromium, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	02/27/21 2:16	jlw
Cobalt, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	02/27/21 2:16	jlw
Copper, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	02/27/21 2:16	jlw
Iron, dissolved	M200.7 ICP	1	<0.06	U		mg/L	0.06	0.15	02/27/21 2:16	jlw
Lead, dissolved	M200.8 ICP-MS	5	<0.0005	U		mg/L	0.0005	0.0025	03/01/21 14:13	mfm
Lithium, dissolved	M200.7 ICP	1	0.619			mg/L	0.008	0.04	02/27/21 2:16	jlw
Manganese, dissolved	M200.7 ICP	1	0.020	B		mg/L	0.01	0.05	02/27/21 2:16	jlw
Mercury, dissolved	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	03/03/21 14:42	llr
Nickel, dissolved	M200.7 ICP	1	0.0197	B		mg/L	0.008	0.04	02/27/21 2:16	jlw
Selenium, dissolved	M200.8 ICP-MS	5	0.0329			mg/L	0.0005	0.00125	03/01/21 14:13	mfm
Vanadium, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.025	02/27/21 2:16	jlw
Zinc, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	02/27/21 2:16	jlw

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Fluoride	SM4500F-C	1	0.49			mg/L	0.11	0.35	02/26/21 15:34	eep
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2		10			mg/L	0.1	0.5	03/04/21 0:00	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	5	10.3			mg/L	0.1	0.5	02/23/21 22:47	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	0.068		*	mg/L	0.01	0.05	02/23/21 22:20	pjb
Residue, Filterable (TDS) @180C	SM2540C	2	6460			mg/L	40	80	02/24/21 10:56	scd

GCC Rio Grande
Project ID:
Sample ID: MW-8

ACZ Sample ID: ***L64379-04***
Date Sampled: *02/22/21 13:00*
Date Received: *02/23/21*
Sample Matrix: *Groundwater*

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	1	<0.05	U		mg/L	0.05	0.25	02/27/21 2:20	jlw
Arsenic, dissolved	M200.8 ICP-MS	5	0.00350	B		mg/L	0.001	0.005	03/01/21 14:15	mfm
Beryllium, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	02/27/21 2:20	jlw
Boron, dissolved	M200.7 ICP	1	0.848			mg/L	0.02	0.1	02/27/21 2:20	jlw
Cadmium, dissolved	M200.8 ICP-MS	5	<0.00025	U		mg/L	0.00025	0.00125	03/01/21 14:15	mfm
Chromium, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	02/27/21 2:20	jlw
Cobalt, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	02/27/21 2:20	jlw
Copper, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	02/27/21 2:20	jlw
Iron, dissolved	M200.7 ICP	1	<0.06	U		mg/L	0.06	0.15	02/27/21 2:20	jlw
Lead, dissolved	M200.8 ICP-MS	5	<0.0005	U		mg/L	0.0005	0.0025	03/01/21 14:15	mfm
Lithium, dissolved	M200.7 ICP	1	0.360			mg/L	0.008	0.04	02/27/21 2:20	jlw
Manganese, dissolved	M200.7 ICP	1	0.307			mg/L	0.01	0.05	02/27/21 2:20	jlw
Mercury, dissolved	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	03/03/21 14:45	llr
Nickel, dissolved	M200.7 ICP	1	<0.008	U		mg/L	0.008	0.04	02/27/21 2:20	jlw
Selenium, dissolved	M200.8 ICP-MS	5	<0.0005	U		mg/L	0.0005	0.00125	03/01/21 14:15	mfm
Vanadium, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.025	02/27/21 2:20	jlw
Zinc, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	02/27/21 2:20	jlw

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Fluoride	SM4500F-C	1	1.10			mg/L	0.11	0.35	02/26/21 15:39	eep
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2		<0.02	U		mg/L	0.02	0.1	03/04/21 0:00	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	<0.02	U		mg/L	0.02	0.1	02/23/21 22:53	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	<0.01	U	*	mg/L	0.01	0.05	02/23/21 22:22	pjb
Residue, Filterable (TDS) @180C	SM2540C	10	4180			mg/L	200	400	02/24/21 10:59	scd

Report Header Explanations

Batch	A distinct set of samples analyzed at a specific time
Found	Value of the QC Type of interest
Limit	Upper limit for RPD, in %.
Lower	Lower Recovery Limit, in % (except for LCSS, mg/Kg)
MDL	Method Detection Limit. Same as Minimum Reporting Limit unless omitted or equal to the PQL (see comment #5). Allows for instrument and annual fluctuations.
PCN/SCN	A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis
PQL	Practical Quantitation Limit. Synonymous with the EPA term "minimum level".
QC	True Value of the Control Sample or the amount added to the Spike
Rec	Recovered amount of the true value or spike added, in % (except for LCSS, mg/Kg)
RPD	Relative Percent Difference, calculation used for Duplicate QC Types
Upper	Upper Recovery Limit, in % (except for LCSS, mg/Kg)
Sample	Value of the Sample of interest

QC Sample Types

AS	Analytical Spike (Post Digestion)	*LCSWD*	Laboratory Control Sample - Water Duplicate
ASD	Analytical Spike (Post Digestion) Duplicate	*LFB*	Laboratory Fortified Blank
CCB	Continuing Calibration Blank	*LFM*	Laboratory Fortified Matrix
CCV	Continuing Calibration Verification standard	*LFMD*	Laboratory Fortified Matrix Duplicate
DUP	Sample Duplicate	*LRB*	Laboratory Reagent Blank
ICB	Initial Calibration Blank	*MS*	Matrix Spike
ICV	Initial Calibration Verification standard	*MSD*	Matrix Spike Duplicate
ICSAB	Inter-element Correction Standard - A plus B solutions	*PBS*	Prep Blank - Soil
LCSS	Laboratory Control Sample - Soil	*PBW*	Prep Blank - Water
LCSSD	Laboratory Control Sample - Soil Duplicate	*PQV*	Practical Quantitation Verification standard
LCSW	Laboratory Control Sample - Water	*SDL*	Serial Dilution

QC Sample Type Explanations

Blanks	Verifies that there is no or minimal contamination in the prep method or calibration procedure.
Control Samples	Verifies the accuracy of the method, including the prep procedure.
Duplicates	Verifies the precision of the instrument and/or method.
Spikes/Fortified Matrix	Determines sample matrix interferences, if any.
Standard	Verifies the validity of the calibration.

ACZ Qualifiers (Qual)

B	Analyte concentration detected at a value between MDL and PQL. The associated value is an estimated quantity.
H	Analysis exceeded method hold time. pH is a field test with an immediate hold time.
L	Target analyte response was below the laboratory defined negative threshold.
U	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit.

Method References

(1) EPA 600/4-83-020. Methods for Chemical Analysis of Water and Wastes, March 1983.
(2) EPA 600/R-93-100. Methods for the Determination of Inorganic Substances in Environmental Samples, August 1993.
(3) EPA 600/R-94-111. Methods for the Determination of Metals in Environmental Samples - Supplement I, May 1994.
(4) EPA SW-846. Test Methods for Evaluating Solid Waste.
(5) Standard Methods for the Examination of Water and Wastewater.

Comments

(1) QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.
(2) Soil, Sludge, and Plant matrices for Inorganic analyses are reported on a dry weight basis.
(3) Animal matrices for Inorganic analyses are reported on an "as received" basis.
(4) An asterisk in the "XQ" column indicates there is an extended qualifier and/or certification qualifier associated with the result.
(5) If the MDL equals the PQL or the MDL column is omitted, the PQL is the reporting limit.

For a complete list of ACZ's Extended Qualifiers, please click:
https://acz.com/wp-content/uploads/2019/04/Ext-Qual-List.pdf

REP001.03.15.02

GCC Rio Grande

ACZ Project ID: ***L64379***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Aluminum, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG515012													
WG515012ICV	ICV	02/27/21 1:18	II210219-1	2		1.997	mg/L	100	95	105			
WG515012ICB	ICB	02/27/21 1:24				U	mg/L		-0.15	0.15			
WG515012PQV	PQV	02/27/21 1:27	II210204-2	.250325		.25	mg/L	100	70	130			
WG515012SIC	SIC	02/27/21 1:30	II210118-1	200.510325		205.1	mg/L	102	1	200			
WG515012LFB	LFB	02/27/21 1:37	II210208-3	1.0013		1.034	mg/L	103	85	115			
L64373-02AS	AS	02/27/21 1:47	II210208-3	1.0013	U	1.018	mg/L	102	85	115			
L64373-02ASD	ASD	02/27/21 1:50	II210208-3	1.0013	U	1.021	mg/L	102	85	115	0	20	
WG515012CCV1	CCV	02/27/21 2:09	II210219-2	1		.987	mg/L	99	90	110			
WG515012CCB1	CCB	02/27/21 2:13				U	mg/L		-0.15	0.15			
WG515012CCV2	CCV	02/27/21 2:49	II210219-2	1		.981	mg/L	98	90	110			
WG515012CCB2	CCB	02/27/21 2:53				U	mg/L		-0.15	0.15			
WG515012CCV3	CCV	02/27/21 3:13	II210219-2	1		.991	mg/L	99	90	110			
WG515012CCB3	CCB	02/27/21 3:16				U	mg/L		-0.15	0.15			

Arsenic, dissolved M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG515108													
WG515108ICV	ICV	03/01/21 13:33	MS210115-2	.05		.04936	mg/L	99	90	110			
WG515108ICB	ICB	03/01/21 13:35				U	mg/L		-0.00044	0.00044			
WG515108LFB	LFB	03/01/21 13:37	MS201228-2	.05005		.04477	mg/L	89	85	115			
WG515108CCV1	CCV	03/01/21 13:55	MS210212-2	.1001		.09754	mg/L	97	90	110			
WG515108CCB1	CCB	03/01/21 13:57				U	mg/L		-0.0006	0.0006			
WG515108CCV2	CCV	03/01/21 14:16	MS210212-2	.1001		.0995	mg/L	99	90	110			
WG515108CCB2	CCB	03/01/21 14:18				U	mg/L		-0.0006	0.0006			
L64418-01AS	AS	03/01/21 14:25	MS201228-2	.05005	.00065	.052	mg/L	103	70	130			
L64418-01ASD	ASD	03/01/21 14:27	MS201228-2	.05005	.00065	.04968	mg/L	98	70	130	5	20	
WG515108CCV3	CCV	03/01/21 14:29	MS210212-2	.1001		.09931	mg/L	99	90	110			
WG515108CCB3	CCB	03/01/21 14:31				U	mg/L		-0.0006	0.0006			

Beryllium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG515012													
WG515012ICV	ICV	02/27/21 1:18	II210219-1	2		1.967	mg/L	98	95	105			
WG515012ICB	ICB	02/27/21 1:24				U	mg/L		-0.03	0.03			
WG515012PQV	PQV	02/27/21 1:27	II210204-2	.05		.052	mg/L	104	70	130			
WG515012SIC	SIC	02/27/21 1:30	II210118-1	.1		.097	mg/L	97	80	120			
WG515012LFB	LFB	02/27/21 1:37	II210208-3	.5		.507	mg/L	101	85	115			
L64373-02AS	AS	02/27/21 1:47	II210208-3	.5	U	.498	mg/L	100	85	115			
L64373-02ASD	ASD	02/27/21 1:50	II210208-3	.5	U	.495	mg/L	99	85	115	1	20	
WG515012CCV1	CCV	02/27/21 2:09	II210219-2	1		.983	mg/L	98	90	110			
WG515012CCB1	CCB	02/27/21 2:13				U	mg/L		-0.03	0.03			
WG515012CCV2	CCV	02/27/21 2:49	II210219-2	1		.97	mg/L	97	90	110			
WG515012CCB2	CCB	02/27/21 2:53				U	mg/L		-0.03	0.03			
WG515012CCV3	CCV	02/27/21 3:13	II210219-2	1		.929	mg/L	93	90	110			
WG515012CCB3	CCB	02/27/21 3:16				U	mg/L		-0.03	0.03			

GCC Rio Grande

ACZ Project ID: ***L64379***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Boron, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG515012													
WG515012ICV	ICV	02/27/21 1:18	II210219-1	2		1.967	mg/L	98	95	105			
WG515012ICB	ICB	02/27/21 1:24				U	mg/L		-0.06	0.06			
WG515012PQV	PQV	02/27/21 1:27	II210204-2	.1001		.11	mg/L	110	70	130			
WG515012SIC	SIC	02/27/21 1:30	II210118-1	.1001		.098	mg/L	98	80	120			
WG515012LFB	LFB	02/27/21 1:37	II210208-3	.5005		.513	mg/L	102	85	115			
L64373-02AS	AS	02/27/21 1:47	II210208-3	.5005	U	.514	mg/L	103	85	115			
L64373-02ASD	ASD	02/27/21 1:50	II210208-3	.5005	U	.512	mg/L	102	85	115	0	20	
WG515012CCV1	CCV	02/27/21 2:09	II210219-2	1		.979	mg/L	98	90	110			
WG515012CCB1	CCB	02/27/21 2:13				U	mg/L		-0.06	0.06			
WG515012CCV2	CCV	02/27/21 2:49	II210219-2	1		.97	mg/L	97	90	110			
WG515012CCB2	CCB	02/27/21 2:53				U	mg/L		-0.06	0.06			
WG515012CCV3	CCV	02/27/21 3:13	II210219-2	1		.925	mg/L	93	90	110			
WG515012CCB3	CCB	02/27/21 3:16				U	mg/L		-0.06	0.06			

Cadmium, dissolved M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG515108													
WG515108ICV	ICV	03/01/21 13:33	MS210115-2	.05		.054229	mg/L	108	90	110			
WG515108ICB	ICB	03/01/21 13:35				U	mg/L		-0.00011	0.00011			
WG515108LFB	LFB	03/01/21 13:37	MS201228-2	.05005		.048649	mg/L	97	85	115			
WG515108CCV1	CCV	03/01/21 13:55	MS210212-2	.1001		.104948	mg/L	105	90	110			
WG515108CCB1	CCB	03/01/21 13:57				U	mg/L		-0.00015	0.00015			
WG515108CCV2	CCV	03/01/21 14:16	MS210212-2	.1001		.103959	mg/L	104	90	110			
WG515108CCB2	CCB	03/01/21 14:18				U	mg/L		-0.00015	0.00015			
L64418-01AS	AS	03/01/21 14:25	MS201228-2	.05005	U	.051924	mg/L	104	70	130			
L64418-01ASD	ASD	03/01/21 14:27	MS201228-2	.05005	U	.050898	mg/L	102	70	130	2	20	
WG515108CCV3	CCV	03/01/21 14:29	MS210212-2	.1001		.105446	mg/L	105	90	110			
WG515108CCB3	CCB	03/01/21 14:31				U	mg/L		-0.00015	0.00015			

Chromium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG515012													
WG515012ICV	ICV	02/27/21 1:18	II210219-1	2		1.961	mg/L	98	95	105			
WG515012ICB	ICB	02/27/21 1:24				U	mg/L		-0.03	0.03			
WG515012PQV	PQV	02/27/21 1:27	II210204-2	.05015		.051	mg/L	102	70	130			
WG515012SIC	SIC	02/27/21 1:30	II210118-1	.1003		.09	mg/L	90	80	120			
WG515012LFB	LFB	02/27/21 1:37	II210208-3	.502		.508	mg/L	101	85	115			
L64373-02AS	AS	02/27/21 1:47	II210208-3	.502	U	.497	mg/L	99	85	115			
L64373-02ASD	ASD	02/27/21 1:50	II210208-3	.502	U	.502	mg/L	100	85	115	1	20	
WG515012CCV1	CCV	02/27/21 2:09	II210219-2	1		.989	mg/L	99	90	110			
WG515012CCB1	CCB	02/27/21 2:13				U	mg/L		-0.03	0.03			
WG515012CCV2	CCV	02/27/21 2:49	II210219-2	1		.986	mg/L	99	90	110			
WG515012CCB2	CCB	02/27/21 2:53				U	mg/L		-0.03	0.03			
WG515012CCV3	CCV	02/27/21 3:13	II210219-2	1		.938	mg/L	94	90	110			
WG515012CCB3	CCB	02/27/21 3:16				U	mg/L		-0.03	0.03			

GCC Rio Grande

ACZ Project ID: ***L64379***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Cobalt, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG515012													
WG515012ICV	ICV	02/27/21 1:18	II210219-1	2.004		1.913	mg/L	95	95	105			
WG515012ICB	ICB	02/27/21 1:24				U	mg/L		-0.03	0.03			
WG515012PQV	PQV	02/27/21 1:27	II210204-2	.05		.048	mg/L	96	70	130			
WG515012SIC	SIC	02/27/21 1:30	II210118-1	.1		.089	mg/L	89	80	120			
WG515012LFB	LFB	02/27/21 1:37	II210208-3	.5005		.492	mg/L	98	85	115			
L64373-02AS	AS	02/27/21 1:47	II210208-3	.5005	U	.483	mg/L	97	85	115			
L64373-02ASD	ASD	02/27/21 1:50	II210208-3	.5005	U	.482	mg/L	96	85	115	0	20	
WG515012CCV1	CCV	02/27/21 2:09	II210219-2	1.002		.965	mg/L	96	90	110			
WG515012CCB1	CCB	02/27/21 2:13				U	mg/L		-0.03	0.03			
WG515012CCV2	CCV	02/27/21 2:49	II210219-2	1.002		.958	mg/L	96	90	110			
WG515012CCB2	CCB	02/27/21 2:53				U	mg/L		-0.03	0.03			
WG515012CCV3	CCV	02/27/21 3:13	II210219-2	1.002		.913	mg/L	91	90	110			
WG515012CCB3	CCB	02/27/21 3:16				U	mg/L		-0.03	0.03			

Copper, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG515012													
WG515012ICV	ICV	02/27/21 1:18	II210219-1	2		1.947	mg/L	97	95	105			
WG515012ICB	ICB	02/27/21 1:24				U	mg/L		-0.03	0.03			
WG515012PQV	PQV	02/27/21 1:27	II210204-2	.0501		.051	mg/L	102	70	130			
WG515012SIC	SIC	02/27/21 1:30	II210118-1	.1002		.103	mg/L	103	80	120			
WG515012LFB	LFB	02/27/21 1:37	II210208-3	.5015		.51	mg/L	102	85	115			
L64373-02AS	AS	02/27/21 1:47	II210208-3	.5015	.019	.501	mg/L	96	85	115			
L64373-02ASD	ASD	02/27/21 1:50	II210208-3	.5015	.019	.502	mg/L	96	85	115	0	20	
WG515012CCV1	CCV	02/27/21 2:09	II210219-2	1		.971	mg/L	97	90	110			
WG515012CCB1	CCB	02/27/21 2:13				U	mg/L		-0.03	0.03			
WG515012CCV2	CCV	02/27/21 2:49	II210219-2	1		.967	mg/L	97	90	110			
WG515012CCB2	CCB	02/27/21 2:53				U	mg/L		-0.03	0.03			
WG515012CCV3	CCV	02/27/21 3:13	II210219-2	1		.925	mg/L	93	90	110			
WG515012CCB3	CCB	02/27/21 3:16				U	mg/L		-0.03	0.03			

GCC Rio Grande

ACZ Project ID: ***L64379***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Fluoride SM4500F-C

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG515015													
WG515015ICV	ICV	02/26/21 13:08	WC210213-2	2.002		2.01	mg/L	100	90	110			
WG515015ICB	ICB	02/26/21 13:16				U	mg/L		-0.33	0.33			
WG515015PQV	PQV	02/26/21 13:20	WC210130-1	.35105		.36	mg/L	103	70	130			
WG515015LFB1	LFB	02/26/21 13:25	WC201221-2	5.015		5.12	mg/L	102	90	110			
WG515015CCV1	CCV	02/26/21 14:39	WC210213-2	2.002		2.02	mg/L	101	90	110			
WG515015CCB1	CCB	02/26/21 14:47				U	mg/L		-0.33	0.33			
WG515015CCV2	CCV	02/26/21 15:43	WC210226-7	2.002		2.06	mg/L	103	90	110			
WG515015CCB2	CCB	02/26/21 15:52				U	mg/L		-0.33	0.33			
L64403-02AS	AS	02/26/21 16:17	WC201221-2	5.015	.14	5.5	mg/L	107	90	110			
L64403-02ASD	ASD	02/26/21 16:21	WC201221-2	5.015	.14	5.45	mg/L	106	90	110	1	20	
WG515015LFB2	LFB	02/26/21 16:25	WC201221-2	5.015		5.12	mg/L	102	90	110			
WG515015CCV3	CCV	02/26/21 16:50	WC210226-7	2.002		2.05	mg/L	102	90	110			
WG515015CCB3	CCB	02/26/21 16:58				U	mg/L		-0.33	0.33			
WG515015CCV4	CCV	02/26/21 17:50	WC210226-7	2.002		2.08	mg/L	104	90	110			
WG515015CCB4	CCB	02/26/21 17:58				U	mg/L		-0.33	0.33			
WG515015CCV5	CCV	02/26/21 18:40	WC210226-7	2.002		2.09	mg/L	104	90	110			
WG515015CCB5	CCB	02/26/21 18:47				U	mg/L		-0.33	0.33			

Iron, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG515012													
WG515012ICV	ICV	02/27/21 1:18	II210219-1	2		1.94	mg/L	97	95	105			
WG515012ICB	ICB	02/27/21 1:24				U	mg/L		-0.18	0.18			
WG515012PQV	PQV	02/27/21 1:27	II210204-2	.15027		.147	mg/L	98	70	130			
WG515012SIC	SIC	02/27/21 1:30	II210118-1	200.51027		190.5	mg/L	95	1	200			
WG515012LFB	LFB	02/27/21 1:37	II210208-3	1.0018		1.037	mg/L	104	85	115			
L64373-02AS	AS	02/27/21 1:47	II210208-3	1.0018	.627	1.592	mg/L	96	85	115			
L64373-02ASD	ASD	02/27/21 1:50	II210208-3	1.0018	.627	1.586	mg/L	96	85	115	0	20	
WG515012CCV1	CCV	02/27/21 2:09	II210219-2	1		.968	mg/L	97	90	110			
WG515012CCB1	CCB	02/27/21 2:13				U	mg/L		-0.18	0.18			
WG515012CCV2	CCV	02/27/21 2:49	II210219-2	1		.972	mg/L	97	90	110			
WG515012CCB2	CCB	02/27/21 2:53				U	mg/L		-0.18	0.18			
WG515012CCV3	CCV	02/27/21 3:13	II210219-2	1		1.08	mg/L	108	90	110			
WG515012CCB3	CCB	02/27/21 3:16				.075	mg/L		-0.18	0.18			

GCC Rio Grande

ACZ Project ID: ***L64379***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Lead, dissolved M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG515108													
WG515108ICV	ICV	03/01/21 13:33	MS210115-2	.05		.0532	mg/L	106	90	110			
WG515108ICB	ICB	03/01/21 13:35				U	mg/L		-0.00022	0.00022			
WG515108LFB	LFB	03/01/21 13:37	MS201228-2	.05005		.0492	mg/L	98	85	115			
WG515108CCV1	CCV	03/01/21 13:55	MS210212-2	.25025		.24774	mg/L	99	90	110			
WG515108CCB1	CCB	03/01/21 13:57				U	mg/L		-0.0003	0.0003			
WG515108CCV2	CCV	03/01/21 14:16	MS210212-2	.25025		.25505	mg/L	102	90	110			
WG515108CCB2	CCB	03/01/21 14:18				U	mg/L		-0.0003	0.0003			
L64418-01AS	AS	03/01/21 14:25	MS201228-2	.05005	.00012	.04876	mg/L	97	70	130			
L64418-01ASD	ASD	03/01/21 14:27	MS201228-2	.05005	.00012	.04801	mg/L	96	70	130	2	20	
WG515108CCV3	CCV	03/01/21 14:29	MS210212-2	.25025		.2389	mg/L	95	90	110			
WG515108CCB3	CCB	03/01/21 14:31				U	mg/L		-0.0003	0.0003			

Lithium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG515012													
WG515012ICV	ICV	02/27/21 1:18	II210219-1	2		1.9675	mg/L	98	95	105			
WG515012ICB	ICB	02/27/21 1:24				U	mg/L		-0.024	0.024			
WG515012PQV	PQV	02/27/21 1:27	II210204-2	.03988		.0418	mg/L	105	70	130			
WG515012SIC	SIC	02/27/21 1:30	II210118-1	.0997		.1003	mg/L	101	80	120			
WG515012LFB	LFB	02/27/21 1:37	II210208-3	.997		1.02	mg/L	102	85	115			
L64373-02AS	AS	02/27/21 1:47	II210208-3	.997	.0111	1.02	mg/L	101	85	115			
L64373-02ASD	ASD	02/27/21 1:50	II210208-3	.997	.0111	1.011	mg/L	100	85	115	1	20	
WG515012CCV1	CCV	02/27/21 2:09	II210219-2	1		.9774	mg/L	98	90	110			
WG515012CCB1	CCB	02/27/21 2:13				U	mg/L		-0.024	0.024			
WG515012CCV2	CCV	02/27/21 2:49	II210219-2	1		.9693	mg/L	97	90	110			
WG515012CCB2	CCB	02/27/21 2:53				U	mg/L		-0.024	0.024			
WG515012CCV3	CCV	02/27/21 3:13	II210219-2	1		.9288	mg/L	93	90	110			
WG515012CCB3	CCB	02/27/21 3:16				U	mg/L		-0.024	0.024			

Manganese, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG515012													
WG515012ICV	ICV	02/27/21 1:18	II210219-1	2		1.94	mg/L	97	95	105			
WG515012ICB	ICB	02/27/21 1:24				U	mg/L		-0.03	0.03			
WG515012PQV	PQV	02/27/21 1:27	II210204-2	.0501		.048	mg/L	96	70	130			
WG515012SIC	SIC	02/27/21 1:30	II210118-1	50.1001		47.11	mg/L	94	1	200			
WG515012LFB	LFB	02/27/21 1:37	II210208-3	.5005		.483	mg/L	97	85	115			
L64373-02AS	AS	02/27/21 1:47	II210208-3	.5005	.065	.54	mg/L	95	85	115			
L64373-02ASD	ASD	02/27/21 1:50	II210208-3	.5005	.065	.536	mg/L	94	85	115	1	20	
WG515012CCV1	CCV	02/27/21 2:09	II210219-2	1		.974	mg/L	97	90	110			
WG515012CCB1	CCB	02/27/21 2:13				U	mg/L		-0.03	0.03			
WG515012CCV2	CCV	02/27/21 2:49	II210219-2	1		.966	mg/L	97	90	110			
WG515012CCB2	CCB	02/27/21 2:53				U	mg/L		-0.03	0.03			
WG515012CCV3	CCV	02/27/21 3:13	II210219-2	1		.95	mg/L	95	90	110			
WG515012CCB3	CCB	02/27/21 3:16				.011	mg/L		-0.03	0.03			

GCC Rio Grande

ACZ Project ID: ***L64379***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Mercury, dissolved M245.1 CVAA

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG515174													
WG515174ICV	ICV	03/03/21 14:31	HG210118-2	.005		.00505	mg/L	101	95	105			
WG515174ICB	ICB	03/03/21 14:32				U	mg/L		-0.0002	0.0002			
WG515174LRB	LRB	03/03/21 14:34				U	mg/L		-0.00044	0.00044			
WG515174LFB	LFB	03/03/21 14:35	HG210301-3	.002002		.00188	mg/L	94	85	115			
L64379-02LFM	LFM	03/03/21 14:40	HG210301-3	.002002	U	.00188	mg/L	94	85	115			
L64379-02LFMD	LFMD	03/03/21 14:41	HG210301-3	.002002	U	.00187	mg/L	93	85	115	1	20	
WG515174CCV1	CCV	03/03/21 14:43	HG210118-2	.005		.00511	mg/L	102	90	110			
WG515174CCB1	CCB	03/03/21 14:44				U	mg/L		-0.0002	0.0002			
WG515174CCV2	CCV	03/03/21 14:54	HG210118-2	.005		.00476	mg/L	95	90	110			
WG515174CCB2	CCB	03/03/21 14:55				U	mg/L		-0.0002	0.0002			
WG515174CCV3	CCV	03/03/21 15:02	HG210118-2	.005		.00484	mg/L	97	90	110			
WG515174CCB3	CCB	03/03/21 15:03				U	mg/L		-0.0002	0.0002			

Nickel, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG515012													
WG515012ICV	ICV	02/27/21 1:18	II210219-1	2		1.9442	mg/L	97	95	105			
WG515012ICB	ICB	02/27/21 1:24				U	mg/L		-0.024	0.024			
WG515012PQV	PQV	02/27/21 1:27	II210204-2	.04016		.0424	mg/L	106	70	130			
WG515012SIC	SIC	02/27/21 1:30	II210118-1	.1004		.0941	mg/L	94	80	120			
WG515012LFB	LFB	02/27/21 1:37	II210208-3	.502		.5061	mg/L	101	85	115			
L64373-02AS	AS	02/27/21 1:47	II210208-3	.502	U	.4988	mg/L	99	85	115			
L64373-02ASD	ASD	02/27/21 1:50	II210208-3	.502	U	.4986	mg/L	99	85	115	0	20	
WG515012CCV1	CCV	02/27/21 2:09	II210219-2	1		.9784	mg/L	98	90	110			
WG515012CCB1	CCB	02/27/21 2:13				U	mg/L		-0.024	0.024			
WG515012CCV2	CCV	02/27/21 2:49	II210219-2	1		.9786	mg/L	98	90	110			
WG515012CCB2	CCB	02/27/21 2:53				U	mg/L		-0.024	0.024			
WG515012CCV3	CCV	02/27/21 3:13	II210219-2	1		.9316	mg/L	93	90	110			
WG515012CCB3	CCB	02/27/21 3:16				U	mg/L		-0.024	0.024			

Nitrate/Nitrite as N, dissolved M353.2 - Automated Cadmium Reduction

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG514840													
WG514840ICV	ICV	02/23/21 21:59	WI210218-5	2.416		2.383	mg/L	99	90	110			
WG514840ICB	ICB	02/23/21 22:00				U	mg/L		-0.02	0.02			
WG514840LFB	LFB	02/23/21 22:04	WI201001-11	2		2.005	mg/L	100	90	110			
WG514840CCV1	CCV	02/23/21 22:14	WI210217-1	2		2.04	mg/L	102	90	110			
WG514840CCB1	CCB	02/23/21 22:17				U	mg/L		-0.02	0.02			
WG514840CCV2	CCV	02/23/21 22:30	WI210217-1	2		2.044	mg/L	102	90	110			
WG514840CCB2	CCB	02/23/21 22:33				U	mg/L		-0.02	0.02			
L64372-01AS	AS	02/23/21 22:39	WI201001-11	40	22.5	63.894	mg/L	103	90	110			
L64373-01DUP	DUP	02/23/21 22:41			14.4	14.291	mg/L				1	20	
WG514840CCV3	CCV	02/23/21 22:49	WI210217-1	2		2.058	mg/L	103	90	110			
WG514840CCB3	CCB	02/23/21 22:51				U	mg/L		-0.02	0.02			
WG514840CCV4	CCV	02/23/21 23:04	WI210217-1	2		2.062	mg/L	103	90	110			
WG514840CCB4	CCB	02/23/21 23:07				U	mg/L		-0.02	0.02			

GCC Rio Grande

ACZ Project ID: ***L64379***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Nitrite as N, dissolved M353.2 - Automated Cadmium Reduction

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG514840													
WG514840ICV	ICV	02/23/21 21:59	WI210218-5	.609		.602	mg/L	99	90	110			
WG514840ICB	ICB	02/23/21 22:00				U	mg/L		-0.01	0.01			
WG514840LFB	LFB	02/23/21 22:04	WI201001-11	1		.996	mg/L	100	90	110			
L64372-01AS	AS	02/23/21 22:06	WI201001-11	1	.886	1.807	mg/L	92	90	110			
L64373-01DUP	DUP	02/23/21 22:09			U	U	mg/L				0	20	RA
WG514840CCV1	CCV	02/23/21 22:14	WI210217-1	1		1.009	mg/L	101	90	110			
WG514840CCB1	CCB	02/23/21 22:17				U	mg/L		-0.01	0.01			
WG514840CCV2	CCV	02/23/21 22:30	WI210217-1	1		1.006	mg/L	101	90	110			
WG514840CCB2	CCB	02/23/21 22:33				U	mg/L		-0.01	0.01			
WG514840CCV3	CCV	02/23/21 22:49	WI210217-1	1		1	mg/L	100	90	110			
WG514840CCB3	CCB	02/23/21 22:51				U	mg/L		-0.01	0.01			
WG514840CCV4	CCV	02/23/21 23:04	WI210217-1	1		1.011	mg/L	101	90	110			
WG514840CCB4	CCB	02/23/21 23:07				U	mg/L		-0.01	0.01			

Residue, Filterable (TDS) @180C SM2540C

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG514839													
WG514839PBW	PBW	02/23/21 20:30				U	mg/L		-20	20			
WG514839LCSW	LCSW	02/23/21 20:32	PCN62449	1000		998	mg/L	100	80	120			
L64355-01DUP	DUP	02/23/21 20:37			U	U	mg/L				0	10	RA
WG514864													
WG514864PBW	PBW	02/24/21 10:30				U	mg/L		-20	20			
WG514864LCSW	LCSW	02/24/21 10:31	PCN62449	1000		984	mg/L	98	80	120			
L64379-03DUP	DUP	02/24/21 10:57			6460	6396	mg/L				1	10	
L64393-01DUP	DUP	02/24/21 11:02			1790	1784	mg/L				0	10	

Selenium, dissolved M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG515108													
WG515108ICV	ICV	03/01/21 13:33	MS210115-2	.05		.05004	mg/L	100	90	110			
WG515108ICB	ICB	03/01/21 13:35				U	mg/L		-0.00022	0.00022			
WG515108LFB	LFB	03/01/21 13:37	MS201228-2	.05		.04395	mg/L	88	85	115			
WG515108CCV1	CCV	03/01/21 13:55	MS210212-2	.25		.24525	mg/L	98	90	110			
WG515108CCB1	CCB	03/01/21 13:57				.00012	mg/L		-0.0003	0.0003			
WG515108CCV2	CCV	03/01/21 14:16	MS210212-2	.25		.25054	mg/L	100	90	110			
WG515108CCB2	CCB	03/01/21 14:18				.00013	mg/L		-0.0003	0.0003			
L64418-01AS	AS	03/01/21 14:25	MS201228-2	.05	.00062	.05321	mg/L	105	70	130			
L64418-01ASD	ASD	03/01/21 14:27	MS201228-2	.05	.00062	.05097	mg/L	101	70	130	4	20	
WG515108CCV3	CCV	03/01/21 14:29	MS210212-2	.25		.24983	mg/L	100	90	110			
WG515108CCB3	CCB	03/01/21 14:31				.0002	mg/L		-0.0003	0.0003			

GCC Rio Grande

ACZ Project ID: ***L64379***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Vanadium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG515012													
WG515012ICV	ICV	02/27/21 1:18	II210219-1	2		1.969	mg/L	98	95	105			
WG515012ICB	ICB	02/27/21 1:24				U	mg/L		-0.015	0.015			
WG515012PQV	PQV	02/27/21 1:27	II210204-2	.024975		.026	mg/L	104	70	130			
WG515012SIC	SIC	02/27/21 1:30	II210118-1	.0999		.082	mg/L	82	80	120			
WG515012LFB	LFB	02/27/21 1:37	II210208-3	.5005		.5128	mg/L	102	85	115			
L64373-02AS	AS	02/27/21 1:47	II210208-3	.5005	U	.5088	mg/L	102	85	115			
L64373-02ASD	ASD	02/27/21 1:50	II210208-3	.5005	U	.504	mg/L	101	85	115	1	20	
WG515012CCV1	CCV	02/27/21 2:09	II210219-2	1		.984	mg/L	98	90	110			
WG515012CCB1	CCB	02/27/21 2:13				U	mg/L		-0.03	0.03			
WG515012CCV2	CCV	02/27/21 2:49	II210219-2	1		.982	mg/L	98	90	110			
WG515012CCB2	CCB	02/27/21 2:53				U	mg/L		-0.03	0.03			
WG515012CCV3	CCV	02/27/21 3:13	II210219-2	1		.938	mg/L	94	90	110			
WG515012CCB3	CCB	02/27/21 3:16				U	mg/L		-0.03	0.03			

Zinc, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG515012													
WG515012ICV	ICV	02/27/21 1:18	II210219-1	2		1.957	mg/L	98	95	105			
WG515012ICB	ICB	02/27/21 1:24				U	mg/L		-0.06	0.06			
WG515012PQV	PQV	02/27/21 1:27	II210204-2	.0502		.052	mg/L	104	70	130			
WG515012SIC	SIC	02/27/21 1:30	II210118-1	.1004		.096	mg/L	96	80	120			
WG515012LFB	LFB	02/27/21 1:37	II210208-3	.50075		.503	mg/L	100	85	115			
L64373-02AS	AS	02/27/21 1:47	II210208-3	.50075	U	.497	mg/L	99	85	115			
L64373-02ASD	ASD	02/27/21 1:50	II210208-3	.50075	U	.505	mg/L	101	85	115	2	20	
WG515012CCV1	CCV	02/27/21 2:09	II210219-2	1		.974	mg/L	97	90	110			
WG515012CCB1	CCB	02/27/21 2:13				U	mg/L		-0.06	0.06			
WG515012CCV2	CCV	02/27/21 2:49	II210219-2	1		.973	mg/L	97	90	110			
WG515012CCB2	CCB	02/27/21 2:53				U	mg/L		-0.06	0.06			
WG515012CCV3	CCV	02/27/21 3:13	II210219-2	1		1.463	mg/L	146	90	110			VC
WG515012CCB3	CCB	02/27/21 3:16				.295	mg/L		-0.06	0.06			BE

Inorganic Extended Qualifier Report

GCC Rio Grande ACZ Project ID: ***L64379***

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L64379-01	WG514840	Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG514839	Residue, Filterable (TDS) @180C	SM2540C	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
L64379-02	WG514840	Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG514839	Residue, Filterable (TDS) @180C	SM2540C	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
L64379-03	WG514840	Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
L64379-04	WG514840	Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).

Certification Qualifiers

GCC Rio Grande ACZ Project ID: ***L64379***

No certification qualifiers associated with this analysis

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Sample Receipt

GCC Rio Grande

ACZ Project ID: L64379
Date Received: 02/23/2021 10:31
Received By:
Date Printed: 2/24/2021

Receipt Verification

	YES	NO	NA
1) Is a foreign soil permit included for applicable samples?			X
2) Is the Chain of Custody form or other directive shipping papers present?	X		
3) Does this project require special handling procedures such as CLP protocol?		X	
4) Are any samples NRC licensable material?			X
5) If samples are received past hold time, proceed with requested short hold time analyses?	X		
6) Is the Chain of Custody form complete and accurate?	X		
7) Were any changes made to the Chain of Custody form prior to ACZ receiving the samples?		X	

Samples/Containers

	YES	NO	NA
8) Are all containers intact and with no leaks?	X		
9) Are all labels on containers and are they intact and legible?	X		
10) Do the sample labels and Chain of Custody form match for Sample ID, Date, and Time?	X		
11) For preserved bottle types, was the pH checked and within limits? [1]	X		
12) Is there sufficient sample volume to perform all requested work?	X		
13) Is the custody seal intact on all containers?			X
14) Are samples that require zero headspace acceptable?			X
15) Are all sample containers appropriate for analytical requirements?	X		
16) Is there an Hg-1631 trip blank present?			X
17) Is there a VOA trip blank present?			X
18) Were all samples received within hold time?	X		

NA indicates Not Applicable

Chain of Custody Related Remarks

Client Contact Remarks

Shipping Containers

Cooler Id	Temp(°C)	Temp Criteria(°C)	Rad(µR/Hr)	Custody Seal Intact?
NA34616	-0.4	<=6.0	15	N/A

Was ice present in the shipment container(s)?

Yes - Wet ice was present in the shipment container(s).

Client must contact an ACZ Project Manager if analysis should not proceed for samples received outside of their thermal preservation acceptance criteria.

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Sample Receipt

GCC Rio Grande

ACZ Project ID:	L64379
Date Received:	02/23/2021 10:31
Received By:	
Date Printed:	2/24/2021

[1] The preservation of the following bottle types is not checked at sample receipt: Orange (oil and grease), Purple (total cyanide), Pink (dissolved cyanide), Brown (arsenic speciation), Sterile (fecal coliform), EDTA (sulfite), HCl preserved vial (organics), Na2S2O3 preserved vial (organics), and HG-1631 (total/dissolved mercury by method 1631).

ACZ Laboratories, Inc. L64379

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

CHAIN of CUSTODY

Report to:

Name: Diana Furman
Company: GCC Rio Grande Inc.
E-mail: dfurman@gcc.com
Address: 3372 Lime Road, Pueblo, CO 81004
Telephone: (719)647-6861

Copy of Report to:

Name:
Company:
E-mail:
Telephone:

Invoice to:

Name: Diana Furman
Company: GCC Rio Grande Inc.
E-mail: dfurman@gcc.com
Address: 3372 Lime Road, Pueblo, CO 81004
Telephone: (719)647-6861

If sample(s) received past holding time (HT), or if insufficient HT remains to complete analysis before expiration, shall ACZ proceed with requested short HT analyses? YES ☒ NO ☐

If "NO" then ACZ will contact client for further instruction. If neither "YES" nor "NO" is indicated, ACZ will proceed with the requested analyses, even if HT is expired, and data will be qualified

Are samples for SDWA Compliance Monitoring? Yes ☐ No ☒

If yes, please include state forms. Results will be reported to PQL for Colorado.

Sampler's Name: ____________ **Sampler's Site Information** State CO Zip code 81004 Time Zone MDT

***Sampler's Signature:** ____________

*I attest to the authenticity and validity of this sample. I understand that intentionally mislabeling the time/date/location or tampering with the sample in anyway, is considered fraud and punishable by State Law.

PROJECT INFORMATION

Quote #: GW-COMPLIANCE 03/27/2019
PO#: N/A
Reporting state for compliance testing: Colorado
Check box if samples include NRC licensed material? ☐

ANALYSES REQUESTED (*attach list or use quote number*)

SAMPLE IDENTIFICATION	DATE:TIME	Matrix	# of Containers	Per attached quote but no pH							
MW-6	02/22/21 : 1325	GW	3	☒	☐	☐	☐	☐	☐	☐	☐
MW-7	02/22/21 : 1227	GW	3	☒	☐	☐	☐	☐	☐	☐	☐
MW-2B	02/22/21 : 1242	GW	3	☒	☐	☐	☐	☐	☐	☐	☐
MW-8	02/22/21 : 1300	GW	3	☒	☐	☐	☐	☐	☐	☐	☐
				☐	☐	☐	☐	☐	☐	☐	☐
				☐	☐	☐	☐	☐	☐	☐	☐
				☐	☐	☐	☐	☐	☐	☐	☐
				☐	☐	☐	☐	☐	☐	☐	☐
				☐	☐	☐	☐	☐	☐	☐	☐
				☐	☐	☐	☐	☐	☐	☐	☐

Matrix: SW (Surface Water) · GW (Ground Water) · WW (Waste Water) · DW (Drinking Water) · SL (Sludge) · SO (Soil) · OL (Oil) · Other (Specify)

REMARKS

Please refer to ACZ's terms & conditions located on the reverse side of this COC.

RELINQUISHED BY:	DATE:TIME	RECEIVED BY:	DATE:TIME
[signature]	2/22/21 : 1415	[signature]	2/23/21 10:31

FRMAD050.06.14.14 White - Return with sample. Yellow - Retain for your records.

L64379 Chain of Custod

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Analytical Report

June 10, 2021

Report to:
Greg Gannon
GCC Rio Grande
3372 Lime Road
Pueblo, CO 81004

cc: Landon Beck

Bill to:
Greg Gannon
GCC Rio Grande
3372 Lime Road
Pueblo, CO 81004

Project ID:
ACZ Project ID: L65969

Greg Gannon:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on May 21, 2021. This project has been assigned to ACZ's project number, L65969. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under L65969. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

Except as noted, the test results for the methods and parameters listed on ACZ's current NELAC certificate letter (#ACZ) meet all requirements of NELAC.

This report shall be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

All samples and sub-samples associated with this project will be disposed of after June 10, 2022. If the samples are determined to be hazardous, additional charges apply for disposal (typically $11/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical raw data reports for ten years.

If you have any questions or other needs, please contact your Project Manager.

Bill Lane has reviewed and approved this report

GCC Rio Grande
Project ID:
Sample ID: MW-6

ACZ Sample ID: ***L65969-01***
Date Sampled: *05/19/21 10:57*
Date Received: *05/21/21*
Sample Matrix: *Groundwater*

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	1	<0.05	U		mg/L	0.05	0.25	05/25/21 21:57	jlw
Arsenic, dissolved	M200.8 ICP-MS	1	0.00237			mg/L	0.0002	0.001	05/27/21 17:18	bsu
Beryllium, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	05/25/21 21:57	jlw
Boron, dissolved	M200.7 ICP	1	0.378			mg/L	0.03	0.1	05/25/21 21:57	jlw
Cadmium, dissolved	M200.8 ICP-MS	1	0.000058	B		mg/L	0.00005	0.00025	05/27/21 17:18	bsu
Calcium, dissolved	M200.7 ICP	1	315		*	mg/L	0.1	0.5	05/25/21 21:57	jlw
Chromium, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	05/26/21 16:26	jlw
Cobalt, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	05/25/21 21:57	jlw
Copper, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	05/25/21 21:57	jlw
Iron, dissolved	M200.7 ICP	1	0.127	B	*	mg/L	0.06	0.15	05/25/21 21:57	jlw
Lead, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	05/27/21 17:18	bsu
Lithium, dissolved	M200.7 ICP	1	0.472			mg/L	0.008	0.04	05/25/21 21:57	jlw
Magnesium, dissolved	M200.7 ICP	1	344			mg/L	0.2	1	05/25/21 21:57	jlw
Manganese, dissolved	M200.7 ICP	1	0.357		*	mg/L	0.01	0.05	05/25/21 21:57	jlw
Mercury, dissolved	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	05/24/21 13:47	mlh
Nickel, dissolved	M200.7 ICP	1	0.0579			mg/L	0.008	0.04	05/25/21 21:57	jlw
Potassium, dissolved	M200.7 ICP	1	9.94			mg/L	0.2	1	05/25/21 21:57	jlw
Selenium, dissolved	M200.8 ICP-MS	1	0.00233			mg/L	0.0001	0.00025	05/27/21 17:18	bsu
Sodium, dissolved	M200.7 ICP	1	810		*	mg/L	0.2	1	05/25/21 21:57	jlw
Vanadium, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.025	05/25/21 21:57	jlw
Zinc, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	05/25/21 21:57	jlw

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration									
Bicarbonate as CaCO3		1	524			mg/L	2	20	05/26/21 0:00	eep
Carbonate as CaCO3		1	<2	U		mg/L	2	20	05/26/21 0:00	eep
Hydroxide as CaCO3		1	<2	U		mg/L	2	20	05/26/21 0:00	eep
Total Alkalinity		1	524			mg/L	2	20	05/26/21 0:00	eep
Chloride	SM4500Cl-E	10	109		*	mg/L	5	20	06/09/21 11:36	wtc
Fluoride	SM4500F-C	1	0.57		*	mg/L	0.15	0.35	05/28/21 20:15	eep
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2		0.03	BH		mg/L	0.02	0.1	06/10/21 0:00	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	0.032	BH	*	mg/L	0.02	0.1	05/22/21 0:48	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	<0.01	UH	*	mg/L	0.01	0.05	05/22/21 0:48	pjb
Residue, Filterable (TDS) @180C	SM2540C	5	5430	H	*	mg/L	100	200	06/02/21 12:17	jck
Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	100	3200			mg/L	100	500	06/04/21 9:44	syw

GCC Rio Grande
Project ID:
Sample ID: MW-7

ACZ Sample ID: ***L65969-02***
Date Sampled: *05/19/21 12:30*
Date Received: *05/21/21*
Sample Matrix: *Groundwater*

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	1	<0.05	U		mg/L	0.05	0.25	05/25/21 22:07	jlw
Arsenic, dissolved	M200.8 ICP-MS	1	<0.0002	U		mg/L	0.0002	0.001	05/27/21 17:20	bsu
Beryllium, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	05/25/21 22:07	jlw
Boron, dissolved	M200.7 ICP	1	0.139			mg/L	0.03	0.1	05/25/21 22:07	jlw
Cadmium, dissolved	M200.8 ICP-MS	1	0.000057	B		mg/L	0.00005	0.00025	05/27/21 17:20	bsu
Calcium, dissolved	M200.7 ICP	1	460		*	mg/L	0.1	0.5	05/25/21 22:07	jlw
Chromium, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	05/26/21 16:29	jlw
Cobalt, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	05/25/21 22:07	jlw
Copper, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	05/25/21 22:07	jlw
Iron, dissolved	M200.7 ICP	1	<0.06	U	*	mg/L	0.06	0.15	05/25/21 22:07	jlw
Lead, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	05/27/21 17:20	bsu
Lithium, dissolved	M200.7 ICP	1	0.473			mg/L	0.008	0.04	05/25/21 22:07	jlw
Magnesium, dissolved	M200.7 ICP	1	530			mg/L	0.2	1	05/25/21 22:07	jlw
Manganese, dissolved	M200.7 ICP	1	<0.01	U	*	mg/L	0.01	0.05	05/25/21 22:07	jlw
Mercury, dissolved	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	05/24/21 13:48	mlh
Nickel, dissolved	M200.7 ICP	1	0.0229	B		mg/L	0.008	0.04	05/25/21 22:07	jlw
Potassium, dissolved	M200.7 ICP	1	13.7			mg/L	0.2	1	05/25/21 22:07	jlw
Selenium, dissolved	M200.8 ICP-MS	1	0.0401			mg/L	0.0001	0.00025	05/27/21 17:20	bsu
Sodium, dissolved	M200.7 ICP	1	393		*	mg/L	0.2	1	05/25/21 22:07	jlw
Vanadium, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.025	05/25/21 22:07	jlw
Zinc, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	05/25/21 22:07	jlw

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration									
Bicarbonate as CaCO3		1	309			mg/L	2	20	05/26/21 0:00	eep
Carbonate as CaCO3		1	<2	U		mg/L	2	20	05/26/21 0:00	eep
Hydroxide as CaCO3		1	<2	U		mg/L	2	20	05/26/21 0:00	eep
Total Alkalinity		1	309			mg/L	2	20	05/26/21 0:00	eep
Chloride	SM4500Cl-E	1	51.0		*	mg/L	0.5	2	06/09/21 10:57	wtc
Fluoride	SM4500F-C	1	0.40		*	mg/L	0.15	0.35	05/28/21 20:33	eep
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2		7.51	H		mg/L	0.08	0.4	06/10/21 0:00	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	4	7.54	H	*	mg/L	0.08	0.4	05/22/21 1:16	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	0.027	BH	*	mg/L	0.01	0.05	05/22/21 0:50	pjb
Residue, Filterable (TDS) @180C	SM2540C	2	5550			mg/L	40	80	05/25/21 14:17	emk
Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	100	3430			mg/L	100	500	06/04/21 9:44	syw

GCC Rio Grande
Project ID:
Sample ID: MW-8

ACZ Sample ID: ***L65969-03***
Date Sampled: *05/19/21 12:53*
Date Received: *05/21/21*
Sample Matrix: *Groundwater*

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	1	<0.05	U		mg/L	0.05	0.25	05/25/21 22:11	jlw
Arsenic, dissolved	M200.8 ICP-MS	1	0.00155			mg/L	0.0002	0.001	05/27/21 17:22	bsu
Beryllium, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	05/25/21 22:11	jlw
Boron, dissolved	M200.7 ICP	1	0.886			mg/L	0.03	0.1	05/25/21 22:11	jlw
Cadmium, dissolved	M200.8 ICP-MS	1	0.000065	B		mg/L	0.00005	0.00025	05/27/21 17:22	bsu
Calcium, dissolved	M200.7 ICP	1	93.1		*	mg/L	0.1	0.5	05/25/21 22:11	jlw
Chromium, dissolved	M200.7 ICP	2	<0.04	U		mg/L	0.04	0.1	05/26/21 16:39	jlw
Cobalt, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	05/25/21 22:11	jlw
Copper, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	05/25/21 22:11	jlw
Iron, dissolved	M200.7 ICP	1	<0.06	U	*	mg/L	0.06	0.15	05/25/21 22:11	jlw
Lead, dissolved	M200.8 ICP-MS	1	0.00016	B		mg/L	0.0001	0.0005	05/27/21 17:22	bsu
Lithium, dissolved	M200.7 ICP	1	0.365			mg/L	0.008	0.04	05/25/21 22:11	jlw
Magnesium, dissolved	M200.7 ICP	1	31.2			mg/L	0.2	1	05/25/21 22:11	jlw
Manganese, dissolved	M200.7 ICP	1	0.275		*	mg/L	0.01	0.05	05/25/21 22:11	jlw
Mercury, dissolved	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	05/25/21 14:52	mlh
Nickel, dissolved	M200.7 ICP	1	<0.008	U		mg/L	0.008	0.04	05/25/21 22:11	jlw
Potassium, dissolved	M200.7 ICP	1	6.18			mg/L	0.2	1	05/25/21 22:11	jlw
Selenium, dissolved	M200.8 ICP-MS	1	0.00024	B		mg/L	0.0001	0.00025	05/27/21 17:22	bsu
Sodium, dissolved	M200.7 ICP	2	1250		*	mg/L	0.4	2	05/26/21 16:39	jlw
Vanadium, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.025	05/25/21 22:11	jlw
Zinc, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	05/25/21 22:11	jlw

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration									
Bicarbonate as CaCO3		1	1200			mg/L	2	20	05/26/21 0:00	eep
Carbonate as CaCO3		1	<2	U		mg/L	2	20	05/26/21 0:00	eep
Hydroxide as CaCO3		1	<2	U		mg/L	2	20	05/26/21 0:00	eep
Total Alkalinity		1	1200			mg/L	2	20	05/26/21 0:00	eep
Chloride	SM4500Cl-E	10	316		*	mg/L	5	20	06/09/21 11:36	wtc
Fluoride	SM4500F-C	1	0.89			mg/L	0.15	0.35	05/28/21 20:47	eep
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2		0.99	H		mg/L	0.02	0.1	06/10/21 0:00	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	1.01	H	*	mg/L	0.02	0.1	05/22/21 1:17	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	0.016	BH	*	mg/L	0.01	0.05	05/22/21 0:52	pjb
Residue, Filterable (TDS) @180C	SM2540C	5	3890			mg/L	100	200	05/25/21 14:19	emk
Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	50	1520			mg/L	50	250	06/04/21 9:32	syw

GCC Rio Grande
Project ID:
Sample ID: MW-2B

ACZ Sample ID: ***L65969-04***
Date Sampled: *05/19/21 12:45*
Date Received: *05/21/21*
Sample Matrix: *Groundwater*

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	1	<0.05	U		mg/L	0.05	0.25	05/25/21 22:14	jlw
Arsenic, dissolved	M200.8 ICP-MS	1	<0.0002	U		mg/L	0.0002	0.001	05/27/21 17:23	bsu
Beryllium, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	05/25/21 22:14	jlw
Boron, dissolved	M200.7 ICP	1	0.139			mg/L	0.03	0.1	05/25/21 22:14	jlw
Cadmium, dissolved	M200.8 ICP-MS	1	0.000068	B		mg/L	0.00005	0.00025	05/27/21 17:23	bsu
Calcium, dissolved	M200.7 ICP	1	457		*	mg/L	0.1	0.5	05/25/21 22:14	jlw
Chromium, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	05/26/21 16:43	jlw
Cobalt, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	05/25/21 22:14	jlw
Copper, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	05/25/21 22:14	jlw
Iron, dissolved	M200.7 ICP	1	<0.06	U	*	mg/L	0.06	0.15	05/25/21 22:14	jlw
Lead, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	05/27/21 17:23	bsu
Lithium, dissolved	M200.7 ICP	1	0.469			mg/L	0.008	0.04	05/25/21 22:14	jlw
Magnesium, dissolved	M200.7 ICP	1	528			mg/L	0.2	1	05/25/21 22:14	jlw
Manganese, dissolved	M200.7 ICP	1	<0.01	U	*	mg/L	0.01	0.05	05/25/21 22:14	jlw
Mercury, dissolved	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	05/25/21 14:53	mlh
Nickel, dissolved	M200.7 ICP	1	0.0119	B		mg/L	0.008	0.04	05/25/21 22:14	jlw
Potassium, dissolved	M200.7 ICP	1	13.9			mg/L	0.2	1	05/25/21 22:14	jlw
Selenium, dissolved	M200.8 ICP-MS	1	0.0398			mg/L	0.0001	0.00025	05/27/21 17:23	bsu
Sodium, dissolved	M200.7 ICP	1	390		*	mg/L	0.2	1	05/25/21 22:14	jlw
Vanadium, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.025	05/25/21 22:14	jlw
Zinc, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	05/25/21 22:14	jlw

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration									
Bicarbonate as CaCO3		1	291			mg/L	2	20	05/26/21 0:00	eep
Carbonate as CaCO3		1	<2	U		mg/L	2	20	05/26/21 0:00	eep
Hydroxide as CaCO3		1	<2	U		mg/L	2	20	05/26/21 0:00	eep
Total Alkalinity		1	291			mg/L	2	20	05/26/21 0:00	eep
Chloride	SM4500Cl-E	1	50.7		*	mg/L	0.5	2	06/09/21 10:57	wtc
Fluoride	SM4500F-C	1	0.43			mg/L	0.15	0.35	05/28/21 20:55	eep
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2		7.45	H		mg/L	0.08	0.4	06/10/21 0:00	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	4	7.48	H	*	mg/L	0.08	0.4	05/22/21 1:19	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	0.028	BH	*	mg/L	0.01	0.05	05/22/21 0:53	pjb
Residue, Filterable (TDS) @180C	SM2540C	5	5590			mg/L	100	200	05/25/21 14:21	emk
Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	100	3280			mg/L	100	500	06/04/21 9:44	syw

Report Header Explanations

Batch	A distinct set of samples analyzed at a specific time
Found	Value of the QC Type of interest
Limit	Upper limit for RPD, in %.
Lower	Lower Recovery Limit, in % (except for LCSS, mg/Kg)
MDL	Method Detection Limit. Same as Minimum Reporting Limit unless omitted or equal to the PQL (see comment #5). Allows for instrument and annual fluctuations.
PCN/SCN	A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis
PQL	Practical Quantitation Limit. Synonymous with the EPA term "minimum level".
QC	True Value of the Control Sample or the amount added to the Spike
Rec	Recovered amount of the true value or spike added, in % (except for LCSS, mg/Kg)
RPD	Relative Percent Difference, calculation used for Duplicate QC Types
Upper	Upper Recovery Limit, in % (except for LCSS, mg/Kg)
Sample	Value of the Sample of interest

QC Sample Types

AS	Analytical Spike (Post Digestion)	*LCSWD*	Laboratory Control Sample - Water Duplicate
ASD	Analytical Spike (Post Digestion) Duplicate	*LFB*	Laboratory Fortified Blank
CCB	Continuing Calibration Blank	*LFM*	Laboratory Fortified Matrix
CCV	Continuing Calibration Verification standard	*LFMD*	Laboratory Fortified Matrix Duplicate
DUP	Sample Duplicate	*LRB*	Laboratory Reagent Blank
ICB	Initial Calibration Blank	*MS*	Matrix Spike
ICV	Initial Calibration Verification standard	*MSD*	Matrix Spike Duplicate
ICSAB	Inter-element Correction Standard - A plus B solutions	*PBS*	Prep Blank - Soil
LCSS	Laboratory Control Sample - Soil	*PBW*	Prep Blank - Water
LCSSD	Laboratory Control Sample - Soil Duplicate	*PQV*	Practical Quantitation Verification standard
LCSW	Laboratory Control Sample - Water	*SDL*	Serial Dilution

QC Sample Type Explanations

Blanks	Verifies that there is no or minimal contamination in the prep method or calibration procedure.
Control Samples	Verifies the accuracy of the method, including the prep procedure.
Duplicates	Verifies the precision of the instrument and/or method.
Spikes/Fortified Matrix	Determines sample matrix interferences, if any.
Standard	Verifies the validity of the calibration.

ACZ Qualifiers (Qual)

B	Analyte concentration detected at a value between MDL and PQL. The associated value is an estimated quantity.
H	Analysis exceeded method hold time. pH is a field test with an immediate hold time.
L	Target analyte response was below the laboratory defined negative threshold.
U	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit.

Method References

(1)	EPA 600/4-83-020. Methods for Chemical Analysis of Water and Wastes, March 1983.
(2)	EPA 600/R-93-100. Methods for the Determination of Inorganic Substances in Environmental Samples, August 1993.
(3)	EPA 600/R-94-111. Methods for the Determination of Metals in Environmental Samples - Supplement I, May 1994.
(4)	EPA SW-846. Test Methods for Evaluating Solid Waste.
(5)	Standard Methods for the Examination of Water and Wastewater.

Comments

(1)	QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.
(2)	Soil, Sludge, and Plant matrices for Inorganic analyses are reported on a dry weight basis.
(3)	Animal matrices for Inorganic analyses are reported on an "as received" basis.
(4)	An asterisk in the "XQ" column indicates there is an extended qualifier and/or certification qualifier associated with the result.
(5)	If the MDL equals the PQL or the MDL column is omitted, the PQL is the reporting limit.

For a complete list of ACZ's Extended Qualifiers, please click:
https://acz.com/wp-content/uploads/2019/04/Ext-Qual-List.pdf

REP001.03.15.02

GCC Rio Grande

ACZ Project ID: ***L65969***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Alkalinity as CaCO3 SM2320B - Titration

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG519880													
WG519880PBW1	PBW	05/25/21 18:28				4.5	mg/L		-20	20			
WG519880LCSW3	LCSW	05/25/21 18:46	WC210517-8	820.0001		773.8	mg/L	94	90	110			
WG519880PQV2	PQV	05/25/21 18:57	WC200729-2	20		20.9	mg/L	105	50	150			
WG519880LCSW6	LCSW	05/25/21 22:01	WC210517-8	820.0001		778.4	mg/L	95	90	110			
WG519880PBW2	PBW	05/25/21 22:08				U	mg/L		-20	20			
WG519880LCSW9	LCSW	05/26/21 1:26	WC210517-8	820.0001		796.3	mg/L	97	90	110			
WG519880PBW3	PBW	05/26/21 1:33				U	mg/L		-20	20			
L65971-06DUP	DUP	05/26/21 5:03			30.3	30.1	mg/L				1	20	
WG519880LCSW12	LCSW	05/26/21 5:23	WC210517-8	820.0001		798.1	mg/L	97	90	110			
WG519880PBW4	PBW	05/26/21 5:30				U	mg/L		-20	20			
WG519880LCSW15	LCSW	05/26/21 8:16	WC210517-8	820.0001		788.6	mg/L	96	90	110			

Aluminum, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG519844													
WG519844ICV	ICV	05/25/21 21:08	II210514-2	2		2.027	mg/L	101	95	105			
WG519844ICB	ICB	05/25/21 21:14				U	mg/L		-0.15	0.15			
WG519844PQV	PQV	05/25/21 21:18	II210503-4	.250325		.225	mg/L	90	70	130			
WG519844SIC	SIC	05/25/21 21:21	II210506-2	200.510325		205.2	mg/L	102	1	200			
WG519844LFB	LFB	05/25/21 21:28	II210507-4	1.0013		1.006	mg/L	100	85	115			
L65954-05AS	AS	05/25/21 21:51	II210507-4	2.0026	.789	2.826	mg/L	102	85	115			
L65954-05ASD	ASD	05/25/21 21:54	II210507-4	2.0026	.789	2.858	mg/L	103	85	115	1	20	
WG519844CCV1	CCV	05/25/21 22:01	II210517-1	1		.961	mg/L	96	90	110			
WG519844CCB1	CCB	05/25/21 22:04				U	mg/L		-0.15	0.15			
WG519844CCV2	CCV	05/25/21 22:17	II210517-1	1		.967	mg/L	97	90	110			
WG519844CCB2	CCB	05/25/21 22:21				U	mg/L		-0.15	0.15			

Arsenic, dissolved M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG520028													
WG520028ICV	ICV	05/27/21 16:53	MS210503-1	.05		.05067	mg/L	101	90	110			
WG520028ICB	ICB	05/27/21 16:54				U	mg/L		-0.00044	0.00044			
WG520028LFB	LFB	05/27/21 16:56	MS210420-3	.05005		.04909	mg/L	98	85	115			
L65863-02AS	AS	05/27/21 17:02	MS210420-3	.05005	.00203	.05425	mg/L	104	70	130			
L65863-02ASD	ASD	05/27/21 17:04	MS210420-3	.05005	.00203	.05321	mg/L	102	70	130	2	20	
WG520028CCV1	CCV	05/27/21 17:11	MS210521-8	.1001		.09912	mg/L	99	90	110			
WG520028CCB1	CCB	05/27/21 17:13				U	mg/L		-0.0006	0.0006			
L65982-01AS	AS	05/27/21 17:27	MS210420-3	.05005	.00132	.05046	mg/L	98	70	130			
L65982-01ASD	ASD	05/27/21 17:29	MS210420-3	.05005	.00132	.04952	mg/L	96	70	130	2	20	
WG520028CCV2	CCV	05/27/21 17:33	MS210521-8	.1001		.10026	mg/L	100	90	110			
WG520028CCB2	CCB	05/27/21 17:34				U	mg/L		-0.0006	0.0006			
WG520028CCV3	CCV	05/27/21 17:49	MS210521-8	.1001		.0994	mg/L	99	90	110			
WG520028CCB3	CCB	05/27/21 17:51				U	mg/L		-0.0006	0.0006			

GCC Rio Grande

ACZ Project ID: ***L65969***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Beryllium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG519844													
WG519844ICV	ICV	05/25/21 21:08	II210514-2	2		1.954	mg/L	98	95	105			
WG519844ICB	ICB	05/25/21 21:14				U	mg/L		-0.03	0.03			
WG519844PQV	PQV	05/25/21 21:18	II210503-4	.05		.049	mg/L	98	70	130			
WG519844SIC	SIC	05/25/21 21:21	II210506-2	.1		.098	mg/L	98	80	120			
WG519844LFB	LFB	05/25/21 21:28	II210507-4	.5		.498	mg/L	100	85	115			
L65954-05AS	AS	05/25/21 21:51	II210507-4	1	U	.979	mg/L	98	85	115			
L65954-05ASD	ASD	05/25/21 21:54	II210507-4	1	U	.984	mg/L	98	85	115	1	20	
WG519844CCV1	CCV	05/25/21 22:01	II210517-1	1		.989	mg/L	99	90	110			
WG519844CCB1	CCB	05/25/21 22:04				U	mg/L		-0.03	0.03			
WG519844CCV2	CCV	05/25/21 22:17	II210517-1	1		.992	mg/L	99	90	110			
WG519844CCB2	CCB	05/25/21 22:21				U	mg/L		-0.03	0.03			

Boron, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG519844													
WG519844ICV	ICV	05/25/21 21:08	II210514-2	2		1.997	mg/L	100	95	105			
WG519844ICB	ICB	05/25/21 21:14				U	mg/L		-0.09	0.09			
WG519844PQV	PQV	05/25/21 21:18	II210503-4	.1001		.095	mg/L	95	70	130			
WG519844SIC	SIC	05/25/21 21:21	II210506-2	.1001		.09	mg/L	90	80	120			
WG519844LFB	LFB	05/25/21 21:28	II210507-4	.5005		.508	mg/L	101	85	115			
L65954-05AS	AS	05/25/21 21:51	II210507-4	1.001	.225	1.244	mg/L	102	85	115			
L65954-05ASD	ASD	05/25/21 21:54	II210507-4	1.001	.225	1.282	mg/L	106	85	115	3	20	
WG519844CCV1	CCV	05/25/21 22:01	II210517-1	1		.995	mg/L	100	90	110			
WG519844CCB1	CCB	05/25/21 22:04				U	mg/L		-0.09	0.09			
WG519844CCV2	CCV	05/25/21 22:17	II210517-1	1		.993	mg/L	99	90	110			
WG519844CCB2	CCB	05/25/21 22:21				U	mg/L		-0.09	0.09			

Cadmium, dissolved M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG520028													
WG520028ICV	ICV	05/27/21 16:53	MS210503-1	.05		.051202	mg/L	102	90	110			
WG520028ICB	ICB	05/27/21 16:54				U	mg/L		-0.00011	0.00011			
WG520028LFB	LFB	05/27/21 16:56	MS210420-3	.05005		.048927	mg/L	98	85	115			
L65863-02AS	AS	05/27/21 17:02	MS210420-3	.05005	.000119	.048165	mg/L	96	70	130			
L65863-02ASD	ASD	05/27/21 17:04	MS210420-3	.05005	.000119	.047888	mg/L	95	70	130	1	20	
WG520028CCV1	CCV	05/27/21 17:11	MS210521-8	.1001		.099665	mg/L	100	90	110			
WG520028CCB1	CCB	05/27/21 17:13				U	mg/L		-0.00015	0.00015			
L65982-01AS	AS	05/27/21 17:27	MS210420-3	.05005	.00204	.051845	mg/L	100	70	130			
L65982-01ASD	ASD	05/27/21 17:29	MS210420-3	.05005	.00204	.050997	mg/L	98	70	130	2	20	
WG520028CCV2	CCV	05/27/21 17:33	MS210521-8	.1001		.100134	mg/L	100	90	110			
WG520028CCB2	CCB	05/27/21 17:34				U	mg/L		-0.00015	0.00015			
WG520028CCV3	CCV	05/27/21 17:49	MS210521-8	.1001		.099756	mg/L	100	90	110			
WG520028CCB3	CCB	05/27/21 17:51				U	mg/L		-0.00015	0.00015			

GCC Rio Grande

ACZ Project ID: ***L65969***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Calcium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG519844													
WG519844ICV	ICV	05/25/21 21:08	II210514-2	100		97.86	mg/L	98	95	105			
WG519844ICB	ICB	05/25/21 21:14				U	mg/L		-0.3	0.3			
WG519844PQV	PQV	05/25/21 21:18	II210503-4	.5006		.53	mg/L	106	70	130			
WG519844SIC	SIC	05/25/21 21:21	II210506-2	200.5606		198.8	mg/L	99	1	200			
WG519844LFB	LFB	05/25/21 21:28	II210507-4	67.98753		69.44	mg/L	102	85	115			
L65954-05AS	AS	05/25/21 21:51	II210507-4	135.97506	704	812.8	mg/L	80	85	115			M3
L65954-05ASD	ASD	05/25/21 21:54	II210507-4	135.97506	704	817.4	mg/L	83	85	115	1	20	M3
WG519844CCV1	CCV	05/25/21 22:01	II210517-1	50		49.82	mg/L	100	90	110			
WG519844CCB1	CCB	05/25/21 22:04				U	mg/L		-0.3	0.3			
WG519844CCV2	CCV	05/25/21 22:17	II210517-1	50		49.81	mg/L	100	90	110			
WG519844CCB2	CCB	05/25/21 22:21				U	mg/L		-0.3	0.3			

Chloride SM4500Cl-E

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG520642													
WG520642ICB	ICB	06/09/21 8:51				U	mg/L		-1.5	1.5			
WG520642ICV	ICV	06/09/21 8:51	WI210503-1	54.89		55.03	mg/L	100	90	110			
WG520642CCV1	CCV	06/09/21 10:55	WI210203-7	50.05		49.46	mg/L	99	90	110			
WG520642CCB1	CCB	06/09/21 10:55				U	mg/L		-1.5	1.5			
WG520642LFB1	LFB	06/09/21 10:55	WI200327-3	30.03		30.86	mg/L	103	90	110			
WG520642CCV2	CCV	06/09/21 10:57	WI210203-7	50.05		49.64	mg/L	99	90	110			
WG520642CCB2	CCB	06/09/21 10:57				U	mg/L		-1.5	1.5			
L65969-02DUP	DUP	06/09/21 10:57			51	51.05	mg/L				0	20	
WG520642CCV3	CCV	06/09/21 10:59	WI210203-7	50.05		49.28	mg/L	98	90	110			
WG520642CCB3	CCB	06/09/21 10:59				U	mg/L		-1.5	1.5			
WG520642LFB2	LFB	06/09/21 10:59	WI200327-3	30.03		30.21	mg/L	101	90	110			
WG520642CCV4	CCV	06/09/21 11:04	WI210203-7	50.05		49.36	mg/L	99	90	110			
WG520642CCB4	CCB	06/09/21 11:04				U	mg/L		-1.5	1.5			
WG520642CCV5	CCV	06/09/21 11:05	WI210203-7	50.05		49.1	mg/L	98	90	110			
WG520642CCB5	CCB	06/09/21 11:05				U	mg/L		-1.5	1.5			
WG520642CCV6	CCV	06/09/21 11:36	WI210203-7	50.05		49.03	mg/L	98	90	110			
WG520642CCB6	CCB	06/09/21 11:36				U	mg/L		-1.5	1.5			
L65969-03AS	AS	06/09/21 11:36	10XCL	30	316	328.97	mg/L	43	90	110			M3
WG520642CCV7	CCV	06/09/21 11:38	WI210203-7	50.05		49.71	mg/L	99	90	110			
WG520642CCB7	CCB	06/09/21 11:38				U	mg/L		-1.5	1.5			
WG520642CCV8	CCV	06/09/21 12:02	WI210203-7	50.05		48.96	mg/L	98	90	110			
WG520642CCB8	CCB	06/09/21 12:02				U	mg/L		-1.5	1.5			
WG520642CCV9	CCV	06/09/21 12:04	WI210203-7	50.05		49.14	mg/L	98	90	110			
WG520642CCB9	CCB	06/09/21 12:04				U	mg/L		-1.5	1.5			

GCC Rio Grande

ACZ Project ID: ***L65969***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Chromium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG519909													
WG519909ICV	ICV	05/26/21 15:41	II210514-2	2		1.961	mg/L	98	95	105			
WG519909ICB	ICB	05/26/21 15:47				U	mg/L		-0.06	0.06			
WG519909PQV	PQV	05/26/21 15:50	II210503-4	.0502		.054	mg/L	108	70	130			
WG519909SIC	SIC	05/26/21 15:53	II210506-2	.1004		.097	mg/L	97	80	120			
WG519909LFB	LFB	05/26/21 16:00	II210507-4	.502		.498	mg/L	99	85	115			
L65954-05AS	AS	05/26/21 16:20	II210507-4	1.004	U	.978	mg/L	97	85	115			
L65954-05ASD	ASD	05/26/21 16:23	II210507-4	1.004	U	.975	mg/L	97	85	115	0	20	
WG519909CCV1	CCV	05/26/21 16:33	II210517-1	1		.985	mg/L	99	90	110			
WG519909CCB1	CCB	05/26/21 16:36				U	mg/L		-0.06	0.06			
WG519909CCV2	CCV	05/26/21 16:46	II210517-1	1		.988	mg/L	99	90	110			
WG519909CCB2	CCB	05/26/21 16:49				U	mg/L		-0.06	0.06			

Cobalt, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG519844													
WG519844ICV	ICV	05/25/21 21:08	II210514-2	2.004		1.944	mg/L	97	95	105			
WG519844ICB	ICB	05/25/21 21:14				U	mg/L		-0.06	0.06			
WG519844PQV	PQV	05/25/21 21:18	II210503-4	.05005		.048	mg/L	96	70	130			
WG519844SIC	SIC	05/25/21 21:21	II210506-2	.1001		.091	mg/L	91	80	120			
WG519844LFB	LFB	05/25/21 21:28	II210507-4	.5005		.482	mg/L	96	85	115			
L65954-05AS	AS	05/25/21 21:51	II210507-4	1.001	.176	1.137	mg/L	96	85	115			
L65954-05ASD	ASD	05/25/21 21:54	II210507-4	1.001	.176	1.154	mg/L	98	85	115	1	20	
WG519844CCV1	CCV	05/25/21 22:01	II210517-1	1.002		.988	mg/L	99	90	110			
WG519844CCB1	CCB	05/25/21 22:04				U	mg/L		-0.06	0.06			
WG519844CCV2	CCV	05/25/21 22:17	II210517-1	1.002		.986	mg/L	98	90	110			
WG519844CCB2	CCB	05/25/21 22:21				U	mg/L		-0.06	0.06			

Copper, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG519844													
WG519844ICV	ICV	05/25/21 21:08	II210514-2	2		1.908	mg/L	95	95	105			
WG519844ICB	ICB	05/25/21 21:14				U	mg/L		-0.03	0.03			
WG519844PQV	PQV	05/25/21 21:18	II210503-4	.0502		.049	mg/L	98	70	130			
WG519844SIC	SIC	05/25/21 21:21	II210506-2	.10035		.1	mg/L	100	80	120			
WG519844LFB	LFB	05/25/21 21:28	II210507-4	.502		.491	mg/L	98	85	115			
L65954-05AS	AS	05/25/21 21:51	II210507-4	1.004	.18	1.172	mg/L	99	85	115			
L65954-05ASD	ASD	05/25/21 21:54	II210507-4	1.004	.18	1.17	mg/L	99	85	115	0	20	
WG519844CCV1	CCV	05/25/21 22:01	II210517-1	1		.962	mg/L	96	90	110			
WG519844CCB1	CCB	05/25/21 22:04				U	mg/L		-0.03	0.03			
WG519844CCV2	CCV	05/25/21 22:17	II210517-1	1		.962	mg/L	96	90	110			
WG519844CCB2	CCB	05/25/21 22:21				U	mg/L		-0.03	0.03			

GCC Rio Grande

ACZ Project ID: ***L65969***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Fluoride SM4500F-C

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG520126													
WG520126ICV	ICV	05/28/21 18:32	WC210526-1	2.002		2.06	mg/L	103	90	110			
WG520126ICB	ICB	05/28/21 18:39				U	mg/L		-0.3	0.3			
WG520126PQV	PQV	05/28/21 18:43	WC210330-2	.35105		.35	mg/L	100	70	130			
WG520126LFB	LFB	05/28/21 18:46	WC201221-2	5.015		5.15	mg/L	103	90	110			
WG520126CCV1	CCV	05/28/21 20:18	WC210526-1	2.002		1.93	mg/L	96	90	110			
WG520126CCB1	CCB	05/28/21 20:25				U	mg/L		-0.3	0.3			
L65969-02AS	AS	05/28/21 20:36	WC201221-2	5.015	.4	4.57	mg/L	83	90	110			M2
L65969-02ASD	ASD	05/28/21 20:39	WC201221-2	5.015	.4	4.55	mg/L	83	90	110	0	20	M2
WG520126CCV2	CCV	05/28/21 21:37	WC210526-1	2.002		2	mg/L	100	90	110			
WG520126CCB2	CCB	05/28/21 21:45				U	mg/L		-0.3	0.3			
L66008-01AS	AS	05/28/21 22:01	WC201221-2	5.015	U	4.88	mg/L	97	90	110			
L66008-01ASD	ASD	05/28/21 22:05	WC201221-2	5.015	U	4.88	mg/L	97	90	110	0	20	
WG520126CCV3	CCV	05/28/21 22:24	WC210526-1	2.002		2	mg/L	100	90	110			
WG520126CCB3	CCB	05/28/21 22:31				U	mg/L		-0.3	0.3			

Iron, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG519844													
WG519844ICV	ICV	05/25/21 21:08	II210514-2	2		1.97	mg/L	99	95	105			
WG519844ICB	ICB	05/25/21 21:14				U	mg/L		-0.18	0.18			
WG519844PQV	PQV	05/25/21 21:18	II210503-4	.15027		.138	mg/L	92	70	130			
WG519844SIC	SIC	05/25/21 21:21	II210506-2	200.17027		190.1	mg/L	95	1	200			
WG519844LFB	LFB	05/25/21 21:28	II210507-4	1.0018		.995	mg/L	99	85	115			
L65954-05AS	AS	05/25/21 21:51	II210507-4	2.0036	8.27	9.908	mg/L	82	85	115			M3
L65954-05ASD	ASD	05/25/21 21:54	II210507-4	2.0036	8.27	9.974	mg/L	85	85	115	1	20	
WG519844CCV1	CCV	05/25/21 22:01	II210517-1	1		.958	mg/L	96	90	110			
WG519844CCB1	CCB	05/25/21 22:04				U	mg/L		-0.18	0.18			
WG519844CCV2	CCV	05/25/21 22:17	II210517-1	1		.961	mg/L	96	90	110			
WG519844CCB2	CCB	05/25/21 22:21				U	mg/L		-0.18	0.18			

Lead, dissolved M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG520028													
WG520028ICV	ICV	05/27/21 16:53	MS210503-1	.05		.05036	mg/L	101	90	110			
WG520028ICB	ICB	05/27/21 16:54				U	mg/L		-0.00022	0.00022			
WG520028LFB	LFB	05/27/21 16:56	MS210420-3	.05005		.04821	mg/L	96	85	115			
L65863-02AS	AS	05/27/21 17:02	MS210420-3	.05005	U	.04927	mg/L	98	70	130			
L65863-02ASD	ASD	05/27/21 17:04	MS210420-3	.05005	U	.0489	mg/L	98	70	130	1	20	
WG520028CCV1	CCV	05/27/21 17:11	MS210521-8	.25025		.24674	mg/L	99	90	110			
WG520028CCB1	CCB	05/27/21 17:13				U	mg/L		-0.0003	0.0003			
L65982-01AS	AS	05/27/21 17:27	MS210420-3	.05005	.0002	.04887	mg/L	97	70	130			
L65982-01ASD	ASD	05/27/21 17:29	MS210420-3	.05005	.0002	.04821	mg/L	96	70	130	1	20	
WG520028CCV2	CCV	05/27/21 17:33	MS210521-8	.25025		.24835	mg/L	99	90	110			
WG520028CCB2	CCB	05/27/21 17:34				U	mg/L		-0.0003	0.0003			
WG520028CCV3	CCV	05/27/21 17:49	MS210521-8	.25025		.24794	mg/L	99	90	110			
WG520028CCB3	CCB	05/27/21 17:51				U	mg/L		-0.0003	0.0003			

GCC Rio Grande

ACZ Project ID: ***L65969***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Lithium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG519844													
WG519844ICV	ICV	05/25/21 21:08	II210514-2	2		1.967	mg/L	98	95	105			
WG519844ICB	ICB	05/25/21 21:14				U	mg/L		-0.024	0.024			
WG519844PQV	PQV	05/25/21 21:18	II210503-4	.03996		.0354	mg/L	89	70	130			
WG519844SIC	SIC	05/25/21 21:21	II210506-2	.0999		.0951	mg/L	95	80	120			
WG519844LFB	LFB	05/25/21 21:28	II210507-4	.999		.9902	mg/L	99	85	115			
L65954-05AS	AS	05/25/21 21:51	II210507-4	1.998	.0388	2.008	mg/L	99	85	115			
L65954-05ASD	ASD	05/25/21 21:54	II210507-4	1.998	.0388	2.072	mg/L	102	85	115	3	20	
WG519844CCV1	CCV	05/25/21 22:01	II210517-1	1		.983	mg/L	98	90	110			
WG519844CCB1	CCB	05/25/21 22:04				U	mg/L		-0.024	0.024			
WG519844CCV2	CCV	05/25/21 22:17	II210517-1	1		.983	mg/L	98	90	110			
WG519844CCB2	CCB	05/25/21 22:21				U	mg/L		-0.024	0.024			

Magnesium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG519844													
WG519844ICV	ICV	05/25/21 21:08	II210514-2	100		96.58	mg/L	97	95	105			
WG519844ICB	ICB	05/25/21 21:14				U	mg/L		-0.6	0.6			
WG519844PQV	PQV	05/25/21 21:18	II210503-4	1.0001		.94	mg/L	94	70	130			
WG519844SIC	SIC	05/25/21 21:21	II210506-2	201.0201		201.3	mg/L	100	1	200			
WG519844LFB	LFB	05/25/21 21:28	II210507-4	50.00302		49.86	mg/L	100	85	115			
L65954-05AS	AS	05/25/21 21:51	II210507-4	100.00604	102	197.3	mg/L	95	85	115			
L65954-05ASD	ASD	05/25/21 21:54	II210507-4	100.00604	102	199	mg/L	97	85	115	1	20	
WG519844CCV1	CCV	05/25/21 22:01	II210517-1	50		49.18	mg/L	98	90	110			
WG519844CCB1	CCB	05/25/21 22:04				U	mg/L		-0.6	0.6			
WG519844CCV2	CCV	05/25/21 22:17	II210517-1	50		48.83	mg/L	98	90	110			
WG519844CCB2	CCB	05/25/21 22:21				U	mg/L		-0.6	0.6			

Manganese, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG519844													
WG519844ICV	ICV	05/25/21 21:08	II210514-2	2		1.937	mg/L	97	95	105			
WG519844ICB	ICB	05/25/21 21:14				U	mg/L		-0.03	0.03			
WG519844PQV	PQV	05/25/21 21:18	II210503-4	.05005		.046	mg/L	92	70	130			
WG519844SIC	SIC	05/25/21 21:21	II210506-2	50.10005		47.66	mg/L	95	1	200			
WG519844LFB	LFB	05/25/21 21:28	II210507-4	.5005		.486	mg/L	97	85	115			
L65954-05AS	AS	05/25/21 21:51	II210507-4	1.001	7.95	8.574	mg/L	62	85	115			M3
L65954-05ASD	ASD	05/25/21 21:54	II210507-4	1.001	7.95	8.63	mg/L	68	85	115	1	20	M3
WG519844CCV1	CCV	05/25/21 22:01	II210517-1	1		.98	mg/L	98	90	110			
WG519844CCB1	CCB	05/25/21 22:04				U	mg/L		-0.03	0.03			
WG519844CCV2	CCV	05/25/21 22:17	II210517-1	1		.98	mg/L	98	90	110			
WG519844CCB2	CCB	05/25/21 22:21				U	mg/L		-0.03	0.03			

GCC Rio Grande

ACZ Project ID: ***L65969***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Mercury, dissolved M245.1 CVAA

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG519741													
WG519741ICV	ICV	05/24/21 13:18	HG210329-2	.00501		.00512	mg/L	102	95	105			
WG519741ICB	ICB	05/24/21 13:19				U	mg/L		-0.0002	0.0002			
WG519741PQV	PQV	05/24/21 13:19	HG210513-3	.001001		.00093	mg/L	93	70	130			
WG519741LRB	LRB	05/24/21 13:20				U	mg/L		-0.00044	0.00044			
WG519741LFB	LFB	05/24/21 13:21	HG210513-4	.002002		.00194	mg/L	97	85	115			
WG519741CCV1	CCV	05/24/21 13:29	HG210329-2	.00501		.00547	mg/L	109	90	110			
WG519741CCB1	CCB	05/24/21 13:30				U	mg/L		-0.0002	0.0002			
L65927-01LFM	LFM	05/24/21 13:39	HG210513-4	.002002	U	.00195	mg/L	97	85	115			
WG519741CCV2	CCV	05/24/21 13:40	HG210329-2	.00501		.00539	mg/L	108	90	110			
WG519741CCB2	CCB	05/24/21 13:41				U	mg/L		-0.0002	0.0002			
L65927-01LFMD	LFMD	05/24/21 13:42	HG210513-4	.002002	U	.002	mg/L	100	85	115	3	20	
WG519741CCV3	CCV	05/24/21 13:49	HG210329-2	.00501		.0055	mg/L	110	90	110			
WG519741CCB3	CCB	05/24/21 13:50				U	mg/L		-0.0002	0.0002			
WG519827													
WG519827ICV	ICV	05/25/21 13:57	HG210329-2	.00501		.00515	mg/L	103	90	110			
WG519827ICB	ICB	05/25/21 13:57				U	mg/L		-0.0006	0.0006			
WG519830													
WG519830CCV1	CCV	05/25/21 14:34	HG210329-2	.00501		.00525	mg/L	105	90	110			
WG519830CCB1	CCB	05/25/21 14:35				U	mg/L		-0.0002	0.0002			
WG519830PQV	PQV	05/25/21 14:36	HG210513-3	.001001		.00104	mg/L	104	70	130			
WG519830LRB	LRB	05/25/21 14:37				U	mg/L		-0.00044	0.00044			
WG519830LFB	LFB	05/25/21 14:38	HG210513-4	.002002		.00197	mg/L	98	85	115			
WG519830CCV2	CCV	05/25/21 14:46	HG210329-2	.00501		.00523	mg/L	104	90	110			
WG519830CCB2	CCB	05/25/21 14:47				U	mg/L		-0.0002	0.0002			
L65969-04LFM	LFM	05/25/21 14:54	HG210513-4	.002002	U	.00191	mg/L	95	85	115			
L65969-04LFMD	LFMD	05/25/21 14:55	HG210513-4	.002002	U	.00189	mg/L	94	85	115	1	20	
WG519830CCV3	CCV	05/25/21 14:56	HG210329-2	.00501		.00529	mg/L	106	90	110			
WG519830CCB3	CCB	05/25/21 14:57				U	mg/L		-0.0002	0.0002			

Nickel, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG519844													
WG519844ICV	ICV	05/25/21 21:08	II210514-2	2		1.9288	mg/L	96	95	105			
WG519844ICB	ICB	05/25/21 21:14				U	mg/L		-0.024	0.024			
WG519844PQV	PQV	05/25/21 21:18	II210503-4	.04016		.0426	mg/L	106	70	130			
WG519844SIC	SIC	05/25/21 21:21	II210506-2	.1004		.0926	mg/L	92	80	120			
WG519844LFB	LFB	05/25/21 21:28	II210507-4	.5		.4885	mg/L	98	85	115			
L65954-05AS	AS	05/25/21 21:51	II210507-4	1	.351	1.2862	mg/L	94	85	115			
L65954-05ASD	ASD	05/25/21 21:54	II210507-4	1	.351	1.3182	mg/L	97	85	115	2	20	
WG519844CCV1	CCV	05/25/21 22:01	II210517-1	1		.987	mg/L	99	90	110			
WG519844CCB1	CCB	05/25/21 22:04				U	mg/L		-0.024	0.024			
WG519844CCV2	CCV	05/25/21 22:17	II210517-1	1		.974	mg/L	97	90	110			
WG519844CCB2	CCB	05/25/21 22:21				U	mg/L		-0.024	0.024			

GCC Rio Grande

ACZ Project ID: ***L65969***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Nitrate/Nitrite as N, dissolved M353.2 - Automated Cadmium Reduction

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG519719													
WG519719ICV	ICV	05/21/21 22:15	WI210302-17	2.416		2.416	mg/L	100	90	110			
WG519719ICB	ICB	05/21/21 22:16				U	mg/L		-0.02	0.02			
WG519723													
WG519723CCV1	CCV	05/22/21 0:21	WI210520-7	2		2.026	mg/L	101	90	110			
WG519723CCB1	CCB	05/22/21 0:24				U	mg/L		-0.02	0.02			
WG519723LFB	LFB	05/22/21 0:25	WI210331-13	2		2.078	mg/L	104	90	110			
WG519723CCV2	CCV	05/22/21 0:37	WI210520-7	2		2.015	mg/L	101	90	110			
WG519723CCB2	CCB	05/22/21 0:40				U	mg/L		-0.02	0.02			
L65876-02AS	AS	05/22/21 0:47	WI210331-13	2	.119	2.124	mg/L	100	90	110			
L65969-01DUP	DUP	05/22/21 0:49			.032	.039	mg/L				20	20	RA
WG519723CCV3	CCV	05/22/21 0:54	WI210520-7	2		2.028	mg/L	101	90	110			
WG519723CCB3	CCB	05/22/21 0:57				U	mg/L		-0.02	0.02			
WG519723CCV4	CCV	05/22/21 1:11	WI210520-7	2		2.028	mg/L	101	90	110			
WG519723CCB4	CCB	05/22/21 1:14				U	mg/L		-0.02	0.02			
WG519723CCV5	CCV	05/22/21 1:21	WI210520-7	2		2.013	mg/L	101	90	110			
WG519723CCB5	CCB	05/22/21 1:24				U	mg/L		-0.02	0.02			

Nitrite as N, dissolved M353.2 - Automated Cadmium Reduction

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG519719													
WG519719ICV	ICV	05/21/21 22:15	WI210302-17	.609		.622	mg/L	102	90	110			
WG519719ICB	ICB	05/21/21 22:16				U	mg/L		-0.01	0.01			
WG519723													
WG519723CCV1	CCV	05/22/21 0:21	WI210520-7	1		.961	mg/L	96	90	110			
WG519723CCB1	CCB	05/22/21 0:24				U	mg/L		-0.01	0.01			
WG519723LFB	LFB	05/22/21 0:25	WI210331-13	1		.989	mg/L	99	90	110			
WG519723CCV2	CCV	05/22/21 0:37	WI210520-7	1		.955	mg/L	96	90	110			
WG519723CCB2	CCB	05/22/21 0:40				U	mg/L		-0.01	0.01			
L65876-02AS	AS	05/22/21 0:47	WI210331-13	1	U	.933	mg/L	93	90	110			
L65969-01DUP	DUP	05/22/21 0:49			U	U	mg/L				0	20	RA
WG519723CCV3	CCV	05/22/21 0:54	WI210520-7	1		.958	mg/L	96	90	110			
WG519723CCB3	CCB	05/22/21 0:57				U	mg/L		-0.01	0.01			
WG519723CCV4	CCV	05/22/21 1:11	WI210520-7	1		.957	mg/L	96	90	110			
WG519723CCB4	CCB	05/22/21 1:14				U	mg/L		-0.01	0.01			
WG519723CCV5	CCV	05/22/21 1:21	WI210520-7	1		.961	mg/L	96	90	110			
WG519723CCB5	CCB	05/22/21 1:24				U	mg/L		-0.01	0.01			

GCC Rio Grande

ACZ Project ID: ***L65969***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Potassium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG519844													
WG519844ICV	ICV	05/25/21 21:08	II210514-2	20		19.51	mg/L	98	95	105			
WG519844ICB	ICB	05/25/21 21:14				U	mg/L		-0.6	0.6			
WG519844PQV	PQV	05/25/21 21:18	II210503-4	1.004		1	mg/L	100	70	130			
WG519844SIC	SIC	05/25/21 21:21	II210506-2	1.004		1.02	mg/L	102	80	120			
WG519844LFB	LFB	05/25/21 21:28	II210507-4	100.0157		100.1	mg/L	100	85	115			
L65954-05AS	AS	05/25/21 21:51	II210507-4	200.0314	124	322.8	mg/L	99	85	115			
L65954-05ASD	ASD	05/25/21 21:54	II210507-4	200.0314	124	324.4	mg/L	100	85	115	0	20	
WG519844CCV1	CCV	05/25/21 22:01	II210517-1	10		10.27	mg/L	103	90	110			
WG519844CCB1	CCB	05/25/21 22:04				.31	mg/L		-0.6	0.6			
WG519844CCV2	CCV	05/25/21 22:17	II210517-1	10		10.35	mg/L	104	90	110			
WG519844CCB2	CCB	05/25/21 22:21				.45	mg/L		-0.6	0.6			

Residue, Filterable (TDS) @180C SM2540C

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG519862													
WG519862PBW	PBW	05/25/21 14:00				U	mg/L		-20	20			
WG519862LCSW	LCSW	05/25/21 14:01	PCN62899	1000		988	mg/L	99	80	120			
L65969-04DUP	DUP	05/25/21 14:23			5590	5450	mg/L				3	10	
WG520265													
WG520265PBW	PBW	06/02/21 12:10				U	mg/L		-20	20			
WG520265LCSW	LCSW	06/02/21 12:12	PCN63554	1000		1002	mg/L	100	80	120			
L66149-01DUP	DUP	06/02/21 12:25			3010	3014	mg/L				0	10	

Selenium, dissolved M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG520028													
WG520028ICV	ICV	05/27/21 16:53	MS210503-1	.05		.05075	mg/L	102	90	110			
WG520028ICB	ICB	05/27/21 16:54				U	mg/L		-0.00022	0.00022			
WG520028LFB	LFB	05/27/21 16:56	MS210420-3	.05		.0495	mg/L	99	85	115			
L65863-02AS	AS	05/27/21 17:02	MS210420-3	.05	.00019	.05447	mg/L	109	70	130			
L65863-02ASD	ASD	05/27/21 17:04	MS210420-3	.05	.00019	.05352	mg/L	107	70	130	2	20	
WG520028CCV1	CCV	05/27/21 17:11	MS210521-8	.25		.24153	mg/L	97	90	110			
WG520028CCB1	CCB	05/27/21 17:13				U	mg/L		-0.0003	0.0003			
L65982-01AS	AS	05/27/21 17:27	MS210420-3	.05	U	.0508	mg/L	102	70	130			
L65982-01ASD	ASD	05/27/21 17:29	MS210420-3	.05	U	.05014	mg/L	100	70	130	1	20	
WG520028CCV2	CCV	05/27/21 17:33	MS210521-8	.25		.24691	mg/L	99	90	110			
WG520028CCB2	CCB	05/27/21 17:34				U	mg/L		-0.0003	0.0003			
WG520028CCV3	CCV	05/27/21 17:49	MS210521-8	.25		.2471	mg/L	99	90	110			
WG520028CCB3	CCB	05/27/21 17:51				U	mg/L		-0.0003	0.0003			

GCC Rio Grande

ACZ Project ID: ***L65969***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Sodium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG519844													
WG519844ICV	ICV	05/25/21 21:08	II210514-2	100		96.33	mg/L	96	95	105			
WG519844ICB	ICB	05/25/21 21:14				U	mg/L		-0.6	0.6			
WG519844PQV	PQV	05/25/21 21:18	II210503-4	.998		.98	mg/L	98	70	130			
WG519844SIC	SIC	05/25/21 21:21	II210506-2	.998		1.04	mg/L	104	80	120			
WG519844LFB	LFB	05/25/21 21:28	II210507-4	100.0605		99.13	mg/L	99	85	115			
L65954-05AS	AS	05/25/21 21:51	II210507-4	200.121	664	829.2	mg/L	83	85	115			M3
L65954-05ASD	ASD	05/25/21 21:54	II210507-4	200.121	664	829.2	mg/L	83	85	115	0	20	M3
WG519844CCV1	CCV	05/25/21 22:01	II210517-1	50		49.16	mg/L	98	90	110			
WG519844CCB1	CCB	05/25/21 22:04				.5	mg/L		-0.6	0.6			
WG519844CCV2	CCV	05/25/21 22:17	II210517-1	50		49.24	mg/L	98	90	110			
WG519844CCB2	CCB	05/25/21 22:21				.69	mg/L		-0.6	0.6			BB
WG519909													
WG519909ICV	ICV	05/26/21 15:41	II210514-2	100		97.53	mg/L	98	95	105			
WG519909ICB	ICB	05/26/21 15:47				U	mg/L		-0.6	0.6			
WG519909PQV	PQV	05/26/21 15:50	II210503-4	.998		.99	mg/L	99	70	130			
WG519909SIC	SIC	05/26/21 15:53	II210506-2	.998		1.07	mg/L	107	80	120			
WG519909LFB	LFB	05/26/21 16:00	II210507-4	100.0605		99.68	mg/L	100	85	115			
L65954-05AS	AS	05/26/21 16:20	II210507-4	200.121	669	824	mg/L	77	85	115			M3
L65954-05ASD	ASD	05/26/21 16:23	II210507-4	200.121	669	839.6	mg/L	85	85	115	2	20	
WG519909CCV1	CCV	05/26/21 16:33	II210517-1	50		49.07	mg/L	98	90	110			
WG519909CCB1	CCB	05/26/21 16:36				.35	mg/L		-0.6	0.6			
WG519909CCV2	CCV	05/26/21 16:46	II210517-1	50		48.89	mg/L	98	90	110			
WG519909CCB2	CCB	05/26/21 16:49				.31	mg/L		-0.6	0.6			

GCC Rio Grande

ACZ Project ID: ***L65969***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Sulfate D516-02/-07/-11 - TURBIDIMETRIC

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG520205													
WG520205ICB	ICB	06/04/21 8:56				U	mg/L		-3	3			
WG520205ICV	ICV	06/04/21 8:56	WI210531-2	20.46		19.7	mg/L	96	90	110			
WG520205CCV1	CCV	06/04/21 9:04	WI210531-3	25		24.9	mg/L	100	90	110			
WG520205CCB1	CCB	06/04/21 9:04				U	mg/L		-3	3			
WG520205LFB	LFB	06/04/21 9:04	WI210105-3	10		10.4	mg/L	104	90	110			
WG520205CCV2	CCV	06/04/21 9:06	WI210531-3	25		24.9	mg/L	100	90	110			
WG520205CCB2	CCB	06/04/21 9:06				U	mg/L		-3	3			
WG520205CCV3	CCV	06/04/21 9:08	WI210531-3	25		24.9	mg/L	100	90	110			
WG520205CCB3	CCB	06/04/21 9:08				U	mg/L		-3	3			
WG520205CCV4	CCV	06/04/21 9:10	WI210531-3	25		25	mg/L	100	90	110			
WG520205CCB4	CCB	06/04/21 9:10				U	mg/L		-3	3			
WG520205CCV5	CCV	06/04/21 9:13	WI210531-3	25		24.5	mg/L	98	90	110			
WG520205CCB5	CCB	06/04/21 9:13				U	mg/L		-3	3			
WG520205CCV6	CCV	06/04/21 9:14	WI210531-3	25		24.9	mg/L	100	90	110			
WG520205CCB6	CCB	06/04/21 9:15				U	mg/L		-3	3			
L65986-01AS	AS	06/04/21 9:18	SO4TURB5X	10	68.5	78.4	mg/L	99	90	110			
WG520205CCV7	CCV	06/04/21 9:21	WI210531-3	25		24.8	mg/L	99	90	110			
WG520205CCB7	CCB	06/04/21 9:21				U	mg/L		-3	3			
WG520205CCV8	CCV	06/04/21 9:21	WI210531-3	25		24.7	mg/L	99	90	110			
WG520205CCB8	CCB	06/04/21 9:21				U	mg/L		-3	3			
WG520205CCV9	CCV	06/04/21 9:30	WI210531-3	25		25.1	mg/L	100	90	110			
WG520205CCB9	CCB	06/04/21 9:30				U	mg/L		-3	3			
WG520205CCV10	CCV	06/04/21 9:32	WI210531-3	25		25	mg/L	100	90	110			
WG520205CCB10	CCB	06/04/21 9:32				U	mg/L		-3	3			
WG520205CCV11	CCV	06/04/21 9:42	WI210531-3	25		25	mg/L	100	90	110			
WG520205CCB11	CCB	06/04/21 9:42				U	mg/L		-3	3			
L65969-04DUP	DUP	06/04/21 9:44			3280	3422.6	mg/L				4	20	
WG520205CCV12	CCV	06/04/21 9:44	WI210531-3	25		24.9	mg/L	100	90	110			
WG520205CCB12	CCB	06/04/21 9:45				U	mg/L		-3	3			
WG520205CCV13	CCV	06/04/21 9:52	WI210531-3	25		25.1	mg/L	100	90	110			
WG520205CCB13	CCB	06/04/21 9:52				U	mg/L		-3	3			
WG520205CCV14	CCV	06/04/21 9:53	WI210531-3	25		24.8	mg/L	99	90	110			
WG520205CCB14	CCB	06/04/21 9:53				U	mg/L		-3	3			

Vanadium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG519844													
WG519844ICV	ICV	05/25/21 21:08	II210514-2	2		1.973	mg/L	99	95	105			
WG519844ICB	ICB	05/25/21 21:14				U	mg/L		-0.015	0.015			
WG519844PQV	PQV	05/25/21 21:18	II210503-4	.025025		.022	mg/L	88	70	130			
WG519844SIC	SIC	05/25/21 21:21	II210506-2	.1001		.093	mg/L	93	80	120			
WG519844LFB	LFB	05/25/21 21:28	II210507-4	.5005		.5099	mg/L	102	85	115			
L65954-05AS	AS	05/25/21 21:51	II210507-4	1.001	U	1.011	mg/L	101	85	115			
L65954-05ASD	ASD	05/25/21 21:54	II210507-4	1.001	U	1.024	mg/L	102	85	115	1	20	
WG519844CCV1	CCV	05/25/21 22:01	II210517-1	1		.995	mg/L	100	90	110			
WG519844CCB1	CCB	05/25/21 22:04				U	mg/L		-0.03	0.03			
WG519844CCV2	CCV	05/25/21 22:17	II210517-1	1		1	mg/L	100	90	110			
WG519844CCB2	CCB	05/25/21 22:21				U	mg/L		-0.03	0.03			

GCC Rio Grande

ACZ Project ID: ***L65969***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Zinc, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG519844													
WG519844ICV	ICV	05/25/21 21:08	II210514-2	2		1.944	mg/L	97	95	105			
WG519844ICB	ICB	05/25/21 21:14				U	mg/L		-0.06	0.06			
WG519844PQV	PQV	05/25/21 21:18	II210503-4	.05015		.047	mg/L	94	70	130			
WG519844SIC	SIC	05/25/21 21:21	II210506-2	.1003		.095	mg/L	95	80	120			
WG519844LFB	LFB	05/25/21 21:28	II210507-4	.50075		.498	mg/L	99	85	115			
L65954-05AS	AS	05/25/21 21:51	II210507-4	1.0015	2.7	3.56	mg/L	86	85	115			
L65954-05ASD	ASD	05/25/21 21:54	II210507-4	1.0015	2.7	3.59	mg/L	89	85	115	1	20	
WG519844CCV1	CCV	05/25/21 22:01	II210517-1	1		.983	mg/L	98	90	110			
WG519844CCB1	CCB	05/25/21 22:04				U	mg/L		-0.06	0.06			
WG519844CCV2	CCV	05/25/21 22:17	II210517-1	1		.972	mg/L	97	90	110			
WG519844CCB2	CCB	05/25/21 22:21				U	mg/L		-0.06	0.06			

GCC Rio Grande ACZ Project ID: ***L65969***

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L65969-01	WG519844	Calcium, dissolved	M200.7 ICP	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG520642	Chloride	SM4500Cl-E	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG520126	Fluoride	SM4500F-C	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG519844	Iron, dissolved	M200.7 ICP	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
		Manganese, dissolved	M200.7 ICP	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG519723	Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	H3	Sample was received and analyzed past holding time.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	H3	Sample was received and analyzed past holding time.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG520265	Residue, Filterable (TDS) @180C	SM2540C	H2	Initial analysis within holding time. Reanalysis for the required dilution was past holding time.
	WG519844	Sodium, dissolved	M200.7 ICP	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.

GCC Rio Grande ACZ Project ID: ***L65969***

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L65969-02	WG519844	Calcium, dissolved	M200.7 ICP	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG520642	Chloride	SM4500Cl-E	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG520126	Fluoride	SM4500F-C	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG519844	Iron, dissolved	M200.7 ICP	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
		Manganese, dissolved	M200.7 ICP	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG519723	Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	HE	Analysis performed past holding time. Method holding time is less than or equal to 7 days and sample was received with less than half of the holding time remaining (refer to item C5 of ACZ's Terms & Conditions).
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	HE	Analysis performed past holding time. Method holding time is less than or equal to 7 days and sample was received with less than half of the holding time remaining (refer to item C5 of ACZ's Terms & Conditions).
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG519844	Sodium, dissolved	M200.7 ICP	BB	Target analyte detected in calibration blank at or above acceptance limit. Sample value was > 10X the concentration in the calibration blank.
			M200.7 ICP	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.

GCC Rio Grande ACZ Project ID: ***L65969***

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L65969-03	WG519844	Calcium, dissolved	M200.7 ICP	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG520642	Chloride	SM4500Cl-E	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG519844	Iron, dissolved	M200.7 ICP	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
		Manganese, dissolved	M200.7 ICP	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG519723	Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	HE	Analysis performed past holding time. Method holding time is less than or equal to 7 days and sample was received with less than half of the holding time remaining (refer to item C5 of ACZ's Terms & Conditions).
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	HE	Analysis performed past holding time. Method holding time is less than or equal to 7 days and sample was received with less than half of the holding time remaining (refer to item C5 of ACZ's Terms & Conditions).
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG519909	Sodium, dissolved	M200.7 ICP	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.

GCC Rio Grande ACZ Project ID: ***L65969***

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L65969-04	WG519844	Calcium, dissolved	M200.7 ICP	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG520642	Chloride	SM4500Cl-E	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG519844	Iron, dissolved	M200.7 ICP	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
		Manganese, dissolved	M200.7 ICP	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG519723	Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	HE	Analysis performed past holding time. Method holding time is less than or equal to 7 days and sample was received with less than half of the holding time remaining (refer to item C5 of ACZ's Terms & Conditions).
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	HE	Analysis performed past holding time. Method holding time is less than or equal to 7 days and sample was received with less than half of the holding time remaining (refer to item C5 of ACZ's Terms & Conditions).
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG519844	Sodium, dissolved	M200.7 ICP	BB	Target analyte detected in calibration blank at or above acceptance limit. Sample value was > 10X the concentration in the calibration blank.
			M200.7 ICP	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Sample Receipt

GCC Rio Grande

ACZ Project ID: L65969
Date Received: 05/21/2021 11:05
Received By:
Date Printed: 5/24/2021

Receipt Verification

	YES	NO	NA
1) Is a foreign soil permit included for applicable samples?			X
2) Is the Chain of Custody form or other directive shipping papers present?	X		
3) Does this project require special handling procedures such as CLP protocol?		X	
4) Are any samples NRC licensable material?			X
5) If samples are received past hold time, proceed with requested short hold time analyses?	X		
6) Is the Chain of Custody form complete and accurate?	X		
7) Were any changes made to the Chain of Custody form prior to ACZ receiving the samples?	X		

A change was made in the Remarks section prior to ACZ custody.

A change was made in the Remarks section prior to ACZ custody.

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A change was made in the Remarks section prior to ACZ custody.

Samples/Containers

	YES	NO	NA
8) Are all containers intact and with no leaks?	X		
9) Are all labels on containers and are they intact and legible?	X		
10) Do the sample labels and Chain of Custody form match for Sample ID, Date, and Time?	X		
11) For preserved bottle types, was the pH checked and within limits? [1]	X		
12) Is there sufficient sample volume to perform all requested work?	X		
13) Is the custody seal intact on all containers?			X
14) Are samples that require zero headspace acceptable?			X
15) Are all sample containers appropriate for analytical requirements?	X		
16) Is there an Hg-1631 trip blank present?			X
17) Is there a VOA trip blank present?			X
18) Were all samples received within hold time?		X	

Some parameters were received past hold time.

NA indicates Not Applicable

Chain of Custody Related Remarks

Client Contact Remarks

Shipping Containers

Cooler Id	Temp(°C)	Temp Criteria(°C)	Rad(µR/Hr)	Custody Seal Intact?

GCC Rio Grande

ACZ Project ID: L65969
Date Received: 05/21/2021 11:05
Received By:
Date Printed: 5/24/2021

NA35131	4.1	<=6.0	15	Yes

Was ice present in the shipment container(s)?

Yes - Wet ice was present in the shipment container(s).

Client must contact an ACZ Project Manager if analysis should not proceed for samples received outside of their thermal preservation acceptance criteria.

[1] The preservation of the following bottle types is not checked at sample receipt: Orange (oil and grease), Purple (total cyanide), Pink (dissolved cyanide), Brown (arsenic speciation), Sterile (fecal coliform), EDTA (sulfite), HCl preserved vial (organics), Na2S2O3 preserved vial (organics), and HG-1631 (total/dissolved mercury by method 1631).

ACZ Laboratories, Inc. L65969

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

CHAIN of CUSTODY

Report to:

Name: Greg Gannon	Address: 3372 Lime Road, Pueblo CO 81004
Company: GCC Rio Grande Inc.	
E-mail: ggannon@gcc.com	Telephone: 406.285.4977

Copy of Report to:

Name: Landon Beck	E-mail: lbeck@resourcehydrogeologic.com
Company: Resource Hydrogeologic Co	Telephone: 970.459.4865

Invoice to:

Name: Greg Gannon	Address: 3372 Lime Road, Pueblo CO 81004
Company: GCC Rio Grande Inc.	
E-mail: ggannon@gcc.com	Telephone: 406.285.4977

If sample(s) received past holding time (HT), or if insufficient HT remains to complete analysis before expiration, shall ACZ proceed with requested short HT analyses? YES [X] NO [ ]

If "NO" then ACZ will contact client for further instruction. If neither "YES" nor "NO" is indicated, ACZ will proceed with the requested analyses, even if HT is expired, and data will be qualified

Are samples for SDWA Compliance Monitoring? Yes [ ] No [X]

If yes, please include state forms. Results will be reported to PQL for Colorado.

Sampler's Name: S. Leggs **Sampler's Site Information** **State** CO **Zip code** 81004 **Time Zone** MTN

***Sampler's Signature:** [signature]

*I attest to the authenticity and validity of this sample. I understand that intentionally mislabeling the time/date/location or tampering with the sample in anyway, is considered fraud and punishable by State Law.

PROJECT INFORMATION

Quote #: GW-COMPLIANCE SUITE

PO#: N/A

Reporting state for compliance testing: CO

Check box if samples include NRC licensed material? [ ]

ANALYSES REQUESTED *(attach list or use quote number)*

SAMPLE IDENTIFICATION	DATE:TIME	Matrix	# of Containers	Per attached quote, no pH							
MW-6	5/19/21 : 1057	GW	3	[X]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
MW-7	5/19/21 : 1230	GW	3	[X]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
MW-8	5/19/21 : 1253	GW	3	[X]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
MW-2B	5/19/21 : 1245	GW	3	[X]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
				[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
				[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
				[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
				[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
				[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
				[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]

Matrix: SW (Surface Water) · GW (Ground Water) · WW (Waste Water) · DW (Drinking Water) · SL (Sludge) · SO (Soil) · OL (Oil) · Other (Specify)

REMARKS

Updated quote includes major ions

Please refer to ACZ's terms & conditions located on the reverse side of this COC.

RELINQUISHED BY:	DATE:TIME	RECEIVED BY:	DATE:TIME
[signature]	5/19/21 : 1330	[signature]	5/21/21 11:05

FRMAD050.06.14.14 White - Return with sample. Yellow - Retain for your records.

L65969 Chain of Custody

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Analytical Report

September 20, 2021

Report to:
Greg Gannon
GCC Rio Grande
3372 Lime Road
Pueblo, CO 81004

cc: Landon Beck

Bill to:
Greg Gannon
GCC Rio Grande
3372 Lime Road
Pueblo, CO 81004

Project ID:
ACZ Project ID: L68204

Greg Gannon:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on September 02, 2021. This project has been assigned to ACZ's project number, L68204. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under L68204. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

Except as noted, the test results for the methods and parameters listed on ACZ's current NELAC certificate letter (#ACZ) meet all requirements of NELAC.

This report shall be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

All samples and sub-samples associated with this project will be disposed of after September 20, 2022. If the samples are determined to be hazardous, additional charges apply for disposal (typically $11/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical raw data reports for ten years.

If you have any questions or other needs, please contact your Project Manager.

Bill Lane has reviewed and approved this report

GCC Rio Grande
Project ID:
Sample ID: MW-6

ACZ Sample ID: ***L68204-01***
Date Sampled: *08/31/21 13:30*
Date Received: *09/02/21*
Sample Matrix: *Groundwater*

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	1	<0.05	U		mg/L	0.05	0.25	09/10/21 17:59	jlw
Arsenic, dissolved	M200.8 ICP-MS	5	<0.001	U		mg/L	0.001	0.005	09/14/21 13:19	mfm
Beryllium, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	09/10/21 17:59	jlw
Boron, dissolved	M200.7 ICP	1	0.240			mg/L	0.03	0.1	09/10/21 17:59	jlw
Cadmium, dissolved	M200.8 ICP-MS	5	<0.00025	U		mg/L	0.00025	0.00125	09/14/21 13:19	mfm
Calcium, dissolved	M200.7 ICP	1	410		*	mg/L	0.1	0.5	09/10/21 17:59	jlw
Chromium, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	09/10/21 17:59	jlw
Cobalt, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	09/10/21 17:59	jlw
Copper, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	09/10/21 17:59	jlw
Iron, dissolved	M200.7 ICP	1	<0.06	U		mg/L	0.06	0.15	09/10/21 17:59	jlw
Lead, dissolved	M200.8 ICP-MS	5	<0.0005	U		mg/L	0.0005	0.0025	09/14/21 13:19	mfm
Lithium, dissolved	M200.7 ICP	1	0.491			mg/L	0.008	0.04	09/10/21 17:59	jlw
Magnesium, dissolved	M200.7 ICP	1	498		*	mg/L	0.2	1	09/10/21 17:59	jlw
Manganese, dissolved	M200.7 ICP	1	0.279			mg/L	0.01	0.05	09/10/21 17:59	jlw
Mercury, dissolved	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	09/08/21 14:19	mlh
Nickel, dissolved	M200.7 ICP	1	0.0845			mg/L	0.008	0.04	09/10/21 17:59	jlw
Potassium, dissolved	M200.7 ICP	1	11.2			mg/L	0.2	1	09/10/21 17:59	jlw
Selenium, dissolved	M200.8 ICP-MS	5	0.0148			mg/L	0.0005	0.00125	09/16/21 13:33	mfm
Sodium, dissolved	M200.7 ICP	1	575		*	mg/L	0.2	1	09/10/21 17:59	jlw
Vanadium, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.025	09/10/21 17:59	jlw
Zinc, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	09/10/21 17:59	jlw

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration									
Bicarbonate as CaCO3		1	459			mg/L	2	20	09/11/21 0:00	eep
Carbonate as CaCO3		1	<2	U		mg/L	2	20	09/11/21 0:00	eep
Hydroxide as CaCO3		1	<2	U		mg/L	2	20	09/11/21 0:00	eep
Total Alkalinity		1	459		*	mg/L	2	20	09/11/21 0:00	eep
Chloride	SM4500Cl-E	1	74.3			mg/L	0.5	2	09/13/21 16:14	md
Fluoride	SM4500F-C	1	0.58			mg/L	0.15	0.35	09/15/21 17:22	eep
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2		4.20	H		mg/L	0.04	0.2	09/20/21 0:00	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	2	4.24	H	*	mg/L	0.04	0.2	09/03/21 1:57	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	0.038	BH	*	mg/L	0.01	0.05	09/03/21 1:39	pjb
Residue, Filterable (TDS) @180C	SM2540C	2	6100			mg/L	40	80	09/07/21 14:15	jck
Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	100	3390		*	mg/L	100	500	09/15/21 11:28	wtc

GCC Rio Grande
Project ID:
Sample ID: MW-7

ACZ Sample ID: ***L68204-02***
Date Sampled: *08/31/21 12:20*
Date Received: *09/02/21*
Sample Matrix: *Groundwater*

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	1	<0.05	U		mg/L	0.05	0.25	09/10/21 18:03	jlw
Arsenic, dissolved	M200.8 ICP-MS	5	<0.001	U		mg/L	0.001	0.005	09/14/21 13:21	mfm
Beryllium, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	09/10/21 18:03	jlw
Boron, dissolved	M200.7 ICP	1	0.313			mg/L	0.03	0.1	09/10/21 18:03	jlw
Cadmium, dissolved	M200.8 ICP-MS	5	<0.00025	U		mg/L	0.00025	0.00125	09/14/21 13:21	mfm
Calcium, dissolved	M200.7 ICP	1	391		*	mg/L	0.1	0.5	09/10/21 18:03	jlw
Chromium, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	09/10/21 18:03	jlw
Cobalt, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	09/10/21 18:03	jlw
Copper, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	09/10/21 18:03	jlw
Iron, dissolved	M200.7 ICP	1	<0.06	U		mg/L	0.06	0.15	09/10/21 18:03	jlw
Lead, dissolved	M200.8 ICP-MS	5	<0.0005	U		mg/L	0.0005	0.0025	09/14/21 13:21	mfm
Lithium, dissolved	M200.7 ICP	1	0.521			mg/L	0.008	0.04	09/10/21 18:03	jlw
Magnesium, dissolved	M200.7 ICP	1	397		*	mg/L	0.2	1	09/10/21 18:03	jlw
Manganese, dissolved	M200.7 ICP	1	0.067			mg/L	0.01	0.05	09/10/21 18:03	jlw
Mercury, dissolved	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	09/08/21 14:20	mlh
Nickel, dissolved	M200.7 ICP	1	0.0155	B		mg/L	0.008	0.04	09/10/21 18:03	jlw
Potassium, dissolved	M200.7 ICP	1	10.8			mg/L	0.2	1	09/10/21 18:03	jlw
Selenium, dissolved	M200.8 ICP-MS	5	0.0115			mg/L	0.0005	0.00125	09/16/21 13:35	mfm
Sodium, dissolved	M200.7 ICP	1	666		*	mg/L	0.2	1	09/10/21 18:03	jlw
Vanadium, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.025	09/10/21 18:03	jlw
Zinc, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	09/10/21 18:03	jlw

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration									
Bicarbonate as CaCO3		1	467			mg/L	2	20	09/11/21 0:00	eep
Carbonate as CaCO3		1	<2	U		mg/L	2	20	09/11/21 0:00	eep
Hydroxide as CaCO3		1	<2	U		mg/L	2	20	09/11/21 0:00	eep
Total Alkalinity		1	467			mg/L	2	20	09/11/21 0:00	eep
Chloride	SM4500Cl-E	1	95.5			mg/L	0.5	2	09/13/21 16:14	md
Fluoride	SM4500F-C	1	0.52			mg/L	0.15	0.35	09/15/21 17:30	eep
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2		0.91	H		mg/L	0.02	0.1	09/20/21 0:00	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	0.907	H	*	mg/L	0.02	0.1	09/03/21 1:40	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	<0.01	UH	*	mg/L	0.01	0.05	09/03/21 1:40	pjb
Residue, Filterable (TDS) @180C	SM2540C	2	5790			mg/L	40	80	09/07/21 14:17	jck
Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	100	3360		*	mg/L	100	500	09/15/21 11:08	wtc

GCC Rio Grande
Project ID:
Sample ID: MW-8

ACZ Sample ID: ***L68204-03***
Date Sampled: *08/31/21 13:00*
Date Received: *09/02/21*
Sample Matrix: *Groundwater*

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	1	<0.05	U		mg/L	0.05	0.25	09/10/21 18:06	jlw
Arsenic, dissolved	M200.8 ICP-MS	5	0.00124	B		mg/L	0.001	0.005	09/14/21 13:23	mfm
Beryllium, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	09/10/21 18:06	jlw
Boron, dissolved	M200.7 ICP	1	0.784			mg/L	0.03	0.1	09/10/21 18:06	jlw
Cadmium, dissolved	M200.8 ICP-MS	5	<0.00025	U		mg/L	0.00025	0.00125	09/14/21 13:23	mfm
Calcium, dissolved	M200.7 ICP	1	111		*	mg/L	0.1	0.5	09/10/21 18:06	jlw
Chromium, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	09/10/21 18:06	jlw
Cobalt, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	09/10/21 18:06	jlw
Copper, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	09/10/21 18:06	jlw
Iron, dissolved	M200.7 ICP	1	<0.06	U		mg/L	0.06	0.15	09/10/21 18:06	jlw
Lead, dissolved	M200.8 ICP-MS	5	<0.0005	U		mg/L	0.0005	0.0025	09/14/21 13:23	mfm
Lithium, dissolved	M200.7 ICP	1	0.383			mg/L	0.008	0.04	09/10/21 18:06	jlw
Magnesium, dissolved	M200.7 ICP	1	38.5		*	mg/L	0.2	1	09/10/21 18:06	jlw
Manganese, dissolved	M200.7 ICP	1	0.319			mg/L	0.01	0.05	09/10/21 18:06	jlw
Mercury, dissolved	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	09/08/21 14:21	mlh
Nickel, dissolved	M200.7 ICP	1	<0.008	U		mg/L	0.008	0.04	09/10/21 18:06	jlw
Potassium, dissolved	M200.7 ICP	1	5.93			mg/L	0.2	1	09/10/21 18:06	jlw
Selenium, dissolved	M200.8 ICP-MS	5	<0.0005	U		mg/L	0.0005	0.00125	09/16/21 13:36	mfm
Sodium, dissolved	M200.7 ICP	5	1300			mg/L	1	5	09/14/21 16:42	jlw
Vanadium, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.025	09/10/21 18:06	jlw
Zinc, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	09/10/21 18:06	jlw

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration									
Bicarbonate as CaCO3		1	1080			mg/L	2	20	09/11/21 0:00	eep
Carbonate as CaCO3		1	<2	U		mg/L	2	20	09/11/21 0:00	eep
Hydroxide as CaCO3		1	<2	U		mg/L	2	20	09/11/21 0:00	eep
Total Alkalinity		1	1080			mg/L	2	20	09/11/21 0:00	eep
Chloride	SM4500Cl-E	5	272			mg/L	2.5	10	09/13/21 16:47	md
Fluoride	SM4500F-C	1	1.00			mg/L	0.15	0.35	09/15/21 17:38	eep
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2		<0.02	UH		mg/L	0.02	0.1	09/20/21 0:00	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	0.022	BH	*	mg/L	0.02	0.1	09/03/21 1:42	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	0.014	BH	*	mg/L	0.01	0.05	09/03/21 1:42	pjb
Residue, Filterable (TDS) @180C	SM2540C	2	4250			mg/L	40	80	09/07/21 14:20	jck
Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	60	1820		*	mg/L	60	300	09/15/21 11:09	wtc

GCC Rio Grande
Project ID:
Sample ID: MW-2B

ACZ Sample ID: ***L68204-04***
Date Sampled: *08/31/21 12:35*
Date Received: *09/02/21*
Sample Matrix: *Groundwater*

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	1	<0.05	U		mg/L	0.05	0.25	09/10/21 18:09	jlw
Arsenic, dissolved	M200.8 ICP-MS	5	<0.001	U		mg/L	0.001	0.005	09/14/21 13:24	mfm
Beryllium, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	09/10/21 18:09	jlw
Boron, dissolved	M200.7 ICP	1	0.309			mg/L	0.03	0.1	09/10/21 18:09	jlw
Cadmium, dissolved	M200.8 ICP-MS	5	<0.00025	U		mg/L	0.00025	0.00125	09/14/21 13:24	mfm
Calcium, dissolved	M200.7 ICP	1	390		*	mg/L	0.1	0.5	09/10/21 18:09	jlw
Chromium, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	09/10/21 18:09	jlw
Cobalt, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	09/10/21 18:09	jlw
Copper, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	09/10/21 18:09	jlw
Iron, dissolved	M200.7 ICP	1	<0.06	U		mg/L	0.06	0.15	09/10/21 18:09	jlw
Lead, dissolved	M200.8 ICP-MS	5	<0.0005	U		mg/L	0.0005	0.0025	09/14/21 13:24	mfm
Lithium, dissolved	M200.7 ICP	1	0.520			mg/L	0.008	0.04	09/10/21 18:09	jlw
Magnesium, dissolved	M200.7 ICP	1	396		*	mg/L	0.2	1	09/10/21 18:09	jlw
Manganese, dissolved	M200.7 ICP	1	0.066			mg/L	0.01	0.05	09/10/21 18:09	jlw
Mercury, dissolved	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	09/08/21 14:26	mlh
Nickel, dissolved	M200.7 ICP	1	0.0170	B		mg/L	0.008	0.04	09/10/21 18:09	jlw
Potassium, dissolved	M200.7 ICP	1	10.9			mg/L	0.2	1	09/10/21 18:09	jlw
Selenium, dissolved	M200.8 ICP-MS	5	0.0109			mg/L	0.0005	0.00125	09/16/21 13:42	mfm
Sodium, dissolved	M200.7 ICP	1	661		*	mg/L	0.2	1	09/10/21 18:09	jlw
Vanadium, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.025	09/10/21 18:09	jlw
Zinc, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	09/10/21 18:09	jlw

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration									
Bicarbonate as CaCO3		1	464			mg/L	2	20	09/11/21 0:00	eep
Carbonate as CaCO3		1	<2	U		mg/L	2	20	09/11/21 0:00	eep
Hydroxide as CaCO3		1	<2	U		mg/L	2	20	09/11/21 0:00	eep
Total Alkalinity		1	464		*	mg/L	2	20	09/11/21 0:00	eep
Chloride	SM4500Cl-E	5	109		*	mg/L	2.5	10	09/13/21 16:47	md
Fluoride	SM4500F-C	1	0.53			mg/L	0.15	0.35	09/15/21 17:46	eep
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2		0.91	H		mg/L	0.02	0.1	09/20/21 0:00	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	0.907	H	*	mg/L	0.02	0.1	09/03/21 1:50	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	<0.01	UH	*	mg/L	0.01	0.05	09/03/21 1:50	pjb
Residue, Filterable (TDS) @180C	SM2540C	2	5760			mg/L	40	80	09/07/21 14:23	jck
Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	120	3480		*	mg/L	120	600	09/15/21 11:09	wtc

Report Header Explanations

Batch	A distinct set of samples analyzed at a specific time
Found	Value of the QC Type of interest
Limit	Upper limit for RPD, in %.
Lower	Lower Recovery Limit, in % (except for LCSS, mg/Kg)
MDL	Method Detection Limit. Same as Minimum Reporting Limit unless omitted or equal to the PQL (see comment #5). Allows for instrument and annual fluctuations.
PCN/SCN	A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis
PQL	Practical Quantitation Limit. Synonymous with the EPA term "minimum level".
QC	True Value of the Control Sample or the amount added to the Spike
Rec	Recovered amount of the true value or spike added, in % (except for LCSS, mg/Kg)
RPD	Relative Percent Difference, calculation used for Duplicate QC Types
Upper	Upper Recovery Limit, in % (except for LCSS, mg/Kg)
Sample	Value of the Sample of interest

QC Sample Types

AS	Analytical Spike (Post Digestion)	*LCSWD*	Laboratory Control Sample - Water Duplicate
ASD	Analytical Spike (Post Digestion) Duplicate	*LFB*	Laboratory Fortified Blank
CCB	Continuing Calibration Blank	*LFM*	Laboratory Fortified Matrix
CCV	Continuing Calibration Verification standard	*LFMD*	Laboratory Fortified Matrix Duplicate
DUP	Sample Duplicate	*LRB*	Laboratory Reagent Blank
ICB	Initial Calibration Blank	*MS*	Matrix Spike
ICV	Initial Calibration Verification standard	*MSD*	Matrix Spike Duplicate
ICSAB	Inter-element Correction Standard - A plus B solutions	*PBS*	Prep Blank - Soil
LCSS	Laboratory Control Sample - Soil	*PBW*	Prep Blank - Water
LCSSD	Laboratory Control Sample - Soil Duplicate	*PQV*	Practical Quantitation Verification standard
LCSW	Laboratory Control Sample - Water	*SDL*	Serial Dilution

QC Sample Type Explanations

Blanks	Verifies that there is no or minimal contamination in the prep method or calibration procedure.
Control Samples	Verifies the accuracy of the method, including the prep procedure.
Duplicates	Verifies the precision of the instrument and/or method.
Spikes/Fortified Matrix	Determines sample matrix interferences, if any.
Standard	Verifies the validity of the calibration.

ACZ Qualifiers (Qual)

B	Analyte concentration detected at a value between MDL and PQL. The associated value is an estimated quantity.
H	Analysis exceeded method hold time. pH is a field test with an immediate hold time.
L	Target analyte response was below the laboratory defined negative threshold.
U	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit.

Method References

(1) EPA 600/4-83-020. Methods for Chemical Analysis of Water and Wastes, March 1983.
(2) EPA 600/R-93-100. Methods for the Determination of Inorganic Substances in Environmental Samples, August 1993.
(3) EPA 600/R-94-111. Methods for the Determination of Metals in Environmental Samples - Supplement I, May 1994.
(4) EPA SW-846. Test Methods for Evaluating Solid Waste.
(5) Standard Methods for the Examination of Water and Wastewater.

Comments

(1) QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.
(2) Soil, Sludge, and Plant matrices for Inorganic analyses are reported on a dry weight basis.
(3) Animal matrices for Inorganic analyses are reported on an "as received" basis.
(4) An asterisk in the "XQ" column indicates there is an extended qualifier and/or certification qualifier associated with the result.
(5) If the MDL equals the PQL or the MDL column is omitted, the PQL is the reporting limit.

For a complete list of ACZ's Extended Qualifiers, please click:
https://acz.com/wp-content/uploads/2019/04/Ext-Qual-List.pdf

REP001.03.15.02

GCC Rio Grande

ACZ Project ID: ***L68204***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Alkalinity as CaCO3 SM2320B - Titration

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG526961													
WG526961PBW1	PBW	09/10/21 20:17				2.6	mg/L		-20	20			
WG526961LCSW3	LCSW	09/10/21 20:34	WC210908-1	820.0001		784.1	mg/L	96	90	110			
WG526961LCSW6	LCSW	09/10/21 23:25	WC210908-1	820.0001		793	mg/L	97	90	110			
WG526961PBW2	PBW	09/10/21 23:32				U	mg/L		-20	20			
L68204-03DUP	DUP	09/11/21 1:14			1080	1078.7	mg/L				0	20	
L68219-08DUP	DUP	09/11/21 2:40			U	U	mg/L				0	20	RA
WG526961LCSW9	LCSW	09/11/21 2:57	WC210908-1	820.0001		794	mg/L	97	90	110			
WG526961PBW3	PBW	09/11/21 3:05				U	mg/L		-20	20			
WG526961LCSW12	LCSW	09/11/21 6:26	WC210908-1	820.0001		815.1	mg/L	99	90	110			
WG526961PBW4	PBW	09/11/21 6:34				U	mg/L		-20	20			
WG526961LCSW15	LCSW	09/11/21 10:35	WC210908-1	820.0001		811.4	mg/L	99	90	110			

Aluminum, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG526939													
WG526939ICV	ICV	09/10/21 16:41	II210826-1	2		2.016	mg/L	101	95	105			
WG526939ICB	ICB	09/10/21 16:47				U	mg/L		-0.15	0.15			
WG526939PQV	PQV	09/10/21 16:51	II210901-4	.250325		.25	mg/L	100	70	130			
WG526939SIC	SIC	09/10/21 16:54	II210907-1	200.410325		205.3	mg/L	102	1	200			
WG526939LFB	LFB	09/10/21 17:00	II210910-2	1.0008		1.02	mg/L	102	85	115			
WG526939CCV1	CCV	09/10/21 17:33	II210826-2	1		1.003	mg/L	100	90	110			
WG526939CCB1	CCB	09/10/21 17:36				U	mg/L		-0.15	0.15			
WG526939CCV2	CCV	09/10/21 18:13	II210826-2	1		.993	mg/L	99	90	110			
WG526939CCB2	CCB	09/10/21 18:16				U	mg/L		-0.15	0.15			
L68204-04AS	AS	09/10/21 18:19	II210910-2	1.0008	U	1.081	mg/L	108	85	115			
L68204-04ASD	ASD	09/10/21 18:23	II210910-2	1.0008	U	1.079	mg/L	108	85	115	0	20	
WG526939CCV3	CCV	09/10/21 18:36	II210826-2	1		.994	mg/L	99	90	110			
WG526939CCB3	CCB	09/10/21 18:39				U	mg/L		-0.15	0.15			

Arsenic, dissolved M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG527157													
WG527157ICV	ICV	09/14/21 13:14	MS210727-2	.05		.05016	mg/L	100	90	110			
WG527157ICB	ICB	09/14/21 13:15				U	mg/L		-0.00044	0.00044			
WG527157LFB	LFB	09/14/21 13:17	MS210827-2	.05005		.05058	mg/L	101	85	115			
L68208-01AS	AS	09/14/21 13:28	MS210827-2	.05005	.00085	.05481	mg/L	108	70	130			
L68208-01ASD	ASD	09/14/21 13:30	MS210827-2	.05005	.00085	.0536	mg/L	105	70	130	2	20	
WG527157CCV1	CCV	09/14/21 13:35	MS210909-2	.1001		.0959	mg/L	96	90	110			
WG527157CCB1	CCB	09/14/21 13:37				U	mg/L		-0.0006	0.0006			
WG527157CCV2	CCV	09/14/21 13:57	MS210909-2	.1001		.10011	mg/L	100	90	110			
WG527157CCB2	CCB	09/14/21 13:59				U	mg/L		-0.0006	0.0006			
WG527157CCV3	CCV	09/14/21 14:10	MS210909-2	.1001		.09949	mg/L	99	90	110			
WG527157CCB3	CCB	09/14/21 14:12				U	mg/L		-0.0006	0.0006			

GCC Rio Grande

ACZ Project ID: ***L68204***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Beryllium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG526939													
WG526939ICV	ICV	09/10/21 16:41	II210826-1	2		1.965	mg/L	98	95	105			
WG526939ICB	ICB	09/10/21 16:47				U	mg/L		-0.03	0.03			
WG526939PQV	PQV	09/10/21 16:51	II210901-4	.05		.052	mg/L	104	70	130			
WG526939SIC	SIC	09/10/21 16:54	II210907-1	.1		.099	mg/L	99	80	120			
WG526939LFB	LFB	09/10/21 17:00	II210910-2	.5005		.495	mg/L	99	85	115			
WG526939CCV1	CCV	09/10/21 17:33	II210826-2	1		.991	mg/L	99	90	110			
WG526939CCB1	CCB	09/10/21 17:36				U	mg/L		-0.03	0.03			
WG526939CCV2	CCV	09/10/21 18:13	II210826-2	1		.984	mg/L	98	90	110			
WG526939CCB2	CCB	09/10/21 18:16				U	mg/L		-0.03	0.03			
L68204-04AS	AS	09/10/21 18:19	II210910-2	.5005	U	.474	mg/L	95	85	115			
L68204-04ASD	ASD	09/10/21 18:23	II210910-2	.5005	U	.472	mg/L	94	85	115	0	20	
WG526939CCV3	CCV	09/10/21 18:36	II210826-2	1		.986	mg/L	99	90	110			
WG526939CCB3	CCB	09/10/21 18:39				U	mg/L		-0.03	0.03			

Boron, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG526939													
WG526939ICV	ICV	09/10/21 16:41	II210826-1	2		1.99	mg/L	100	95	105			
WG526939ICB	ICB	09/10/21 16:47				U	mg/L		-0.09	0.09			
WG526939PQV	PQV	09/10/21 16:51	II210901-4	.1001		.1	mg/L	100	70	130			
WG526939SIC	SIC	09/10/21 16:54	II210907-1	.1001		.092	mg/L	92	80	120			
WG526939LFB	LFB	09/10/21 17:00	II210910-2	.5005		.498	mg/L	100	85	115			
WG526939CCV1	CCV	09/10/21 17:33	II210826-2	1		.99	mg/L	99	90	110			
WG526939CCB1	CCB	09/10/21 17:36				U	mg/L		-0.09	0.09			
WG526939CCV2	CCV	09/10/21 18:13	II210826-2	1		.987	mg/L	99	90	110			
WG526939CCB2	CCB	09/10/21 18:16				U	mg/L		-0.09	0.09			
L68204-04AS	AS	09/10/21 18:19	II210910-2	.5005	.309	.806	mg/L	99	85	115			
L68204-04ASD	ASD	09/10/21 18:23	II210910-2	.5005	.309	.805	mg/L	99	85	115	0	20	
WG526939CCV3	CCV	09/10/21 18:36	II210826-2	1		.986	mg/L	99	90	110			
WG526939CCB3	CCB	09/10/21 18:39				U	mg/L		-0.09	0.09			

Cadmium, dissolved M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG527157													
WG527157ICV	ICV	09/14/21 13:14	MS210727-2	.05		.050184	mg/L	100	90	110			
WG527157ICB	ICB	09/14/21 13:15				U	mg/L		-0.00011	0.00011			
WG527157LFB	LFB	09/14/21 13:17	MS210827-2	.05005		.048698	mg/L	97	85	115			
L68208-01AS	AS	09/14/21 13:28	MS210827-2	.05005	.000744	.052514	mg/L	103	70	130			
L68208-01ASD	ASD	09/14/21 13:30	MS210827-2	.05005	.000744	.051068	mg/L	101	70	130	3	20	
WG527157CCV1	CCV	09/14/21 13:35	MS210909-2	.1001		.094361	mg/L	94	90	110			
WG527157CCB1	CCB	09/14/21 13:37				U	mg/L		-0.00015	0.00015			
WG527157CCV2	CCV	09/14/21 13:57	MS210909-2	.1001		.096508	mg/L	96	90	110			
WG527157CCB2	CCB	09/14/21 13:59				U	mg/L		-0.00015	0.00015			
WG527157CCV3	CCV	09/14/21 14:10	MS210909-2	.1001		.096185	mg/L	96	90	110			
WG527157CCB3	CCB	09/14/21 14:12				U	mg/L		-0.00015	0.00015			

GCC Rio Grande

ACZ Project ID: ***L68204***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Calcium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG526939													
WG526939ICV	ICV	09/10/21 16:41	II210826-1	100		97.85	mg/L	98	95	105			
WG526939ICB	ICB	09/10/21 16:47				U	mg/L		-0.3	0.3			
WG526939PQV	PQV	09/10/21 16:51	II210901-4	.50015		.53	mg/L	106	70	130			
WG526939SIC	SIC	09/10/21 16:54	II210907-1	200.56015		193.5	mg/L	96	1	200			
WG526939LFB	LFB	09/10/21 17:00	II210910-2	67.98972		67.13	mg/L	99	85	115			
WG526939CCV1	CCV	09/10/21 17:33	II210826-2	50		49.31	mg/L	99	90	110			
WG526939CCB1	CCB	09/10/21 17:36				U	mg/L		-0.3	0.3			
WG526939CCV2	CCV	09/10/21 18:13	II210826-2	50		49.43	mg/L	99	90	110			
WG526939CCB2	CCB	09/10/21 18:16				U	mg/L		-0.3	0.3			
L68204-04AS	AS	09/10/21 18:19	II210910-2	67.98972	390	442.2	mg/L	77	85	115			M3
L68204-04ASD	ASD	09/10/21 18:23	II210910-2	67.98972	390	436.7	mg/L	69	85	115	1	20	M3
WG526939CCV3	CCV	09/10/21 18:36	II210826-2	50		49.28	mg/L	99	90	110			
WG526939CCB3	CCB	09/10/21 18:39				U	mg/L		-0.3	0.3			

Chloride SM4500Cl-E

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG527058													
WG527058ICV	ICV	09/13/21 16:07	WI210503-1	54.89		54.85	mg/L	100	90	110			
WG527058ICB	ICB	09/13/21 16:07				.65	mg/L		-1.5	1.5			
WG527058LFB1	LFB	09/13/21 16:08	WI210908-11	29.97		31.14	mg/L	104	90	110			
L68200-05AS	AS	09/13/21 16:09	WI210908-11	29.97	16.7	46.54	mg/L	100	90	110			
L68200-06DUP	DUP	09/13/21 16:10			17.1	16.83	mg/L				2	20	
WG527058CCV1	CCV	09/13/21 16:13	WI210203-7	50.05		50.5	mg/L	101	90	110			
WG527058CCB1	CCB	09/13/21 16:13				U	mg/L		-1.5	1.5			
L68208-01DUP	DUP	09/13/21 16:17			.82	.66	mg/L				22	20	RA
WG527058CCV2	CCV	09/13/21 16:19	WI210203-7	50.05		50.22	mg/L	100	90	110			
WG527058CCB2	CCB	09/13/21 16:20				U	mg/L		-1.5	1.5			
WG527058LFB2	LFB	09/13/21 16:23	WI210908-11	29.97		30.3	mg/L	101	90	110			
WG527058CCV3	CCV	09/13/21 16:25	WI210203-7	50.05		50.31	mg/L	101	90	110			
WG527058CCB3	CCB	09/13/21 16:26				U	mg/L		-1.5	1.5			
WG527058CCV4	CCV	09/13/21 16:30	WI210203-7	50.05		51.66	mg/L	103	90	110			
WG527058CCB4	CCB	09/13/21 16:30				U	mg/L		-1.5	1.5			
WG527058CCV5	CCV	09/13/21 16:45	WI210203-7	50.05		51.46	mg/L	103	90	110			
WG527058CCB5	CCB	09/13/21 16:46				U	mg/L		-1.5	1.5			
WG527058CCV6	CCV	09/13/21 16:48	WI210203-7	50.05		51.81	mg/L	104	90	110			
WG527058CCB6	CCB	09/13/21 16:48				.51	mg/L		-1.5	1.5			
WG527058CCV7	CCV	09/13/21 16:59	WI210203-7	50.05		50.55	mg/L	101	90	110			
WG527058CCB7	CCB	09/13/21 16:59				U	mg/L		-1.5	1.5			
L68204-04AS	AS	09/13/21 17:00	5XCL	30	109	133.4	mg/L	81	90	110			M2
WG527058CCV8	CCV	09/13/21 17:00	WI210203-7	50.05		52.36	mg/L	105	90	110			
WG527058CCB8	CCB	09/13/21 17:01				.52	mg/L		-1.5	1.5			

GCC Rio Grande

ACZ Project ID: ***L68204***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Chromium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG526939													
WG526939ICV	ICV	09/10/21 16:41	II210826-1	2		1.974	mg/L	99	95	105			
WG526939ICB	ICB	09/10/21 16:47				U	mg/L		-0.06	0.06			
WG526939PQV	PQV	09/10/21 16:51	II210901-4	.0502		.047	mg/L	94	70	130			
WG526939SIC	SIC	09/10/21 16:54	II210907-1	.1004		.081	mg/L	81	80	120			
WG526939LFB	LFB	09/10/21 17:00	II210910-2	.5005		.494	mg/L	99	85	115			
WG526939CCV1	CCV	09/10/21 17:33	II210826-2	1		.993	mg/L	99	90	110			
WG526939CCB1	CCB	09/10/21 17:36				U	mg/L		-0.06	0.06			
WG526939CCV2	CCV	09/10/21 18:13	II210826-2	1		.994	mg/L	99	90	110			
WG526939CCB2	CCB	09/10/21 18:16				U	mg/L		-0.06	0.06			
L68204-04AS	AS	09/10/21 18:19	II210910-2	.5005	U	.488	mg/L	98	85	115			
L68204-04ASD	ASD	09/10/21 18:23	II210910-2	.5005	U	.488	mg/L	98	85	115	0	20	
WG526939CCV3	CCV	09/10/21 18:36	II210826-2	1		.991	mg/L	99	90	110			
WG526939CCB3	CCB	09/10/21 18:39				U	mg/L		-0.06	0.06			

Cobalt, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG526939													
WG526939ICV	ICV	09/10/21 16:41	II210826-1	2.01		1.959	mg/L	97	95	105			
WG526939ICB	ICB	09/10/21 16:47				U	mg/L		-0.06	0.06			
WG526939PQV	PQV	09/10/21 16:51	II210901-4	.05005		.049	mg/L	98	70	130			
WG526939SIC	SIC	09/10/21 16:54	II210907-1	.1001		.091	mg/L	91	80	120			
WG526939LFB	LFB	09/10/21 17:00	II210910-2	.5005		.482	mg/L	96	85	115			
WG526939CCV1	CCV	09/10/21 17:33	II210826-2	1.005		.995	mg/L	99	90	110			
WG526939CCB1	CCB	09/10/21 17:36				U	mg/L		-0.06	0.06			
WG526939CCV2	CCV	09/10/21 18:13	II210826-2	1.005		.991	mg/L	99	90	110			
WG526939CCB2	CCB	09/10/21 18:16				U	mg/L		-0.06	0.06			
L68204-04AS	AS	09/10/21 18:19	II210910-2	.5005	U	.472	mg/L	94	85	115			
L68204-04ASD	ASD	09/10/21 18:23	II210910-2	.5005	U	.473	mg/L	95	85	115	0	20	
WG526939CCV3	CCV	09/10/21 18:36	II210826-2	1.005		.991	mg/L	99	90	110			
WG526939CCB3	CCB	09/10/21 18:39				U	mg/L		-0.06	0.06			

Copper, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG526939													
WG526939ICV	ICV	09/10/21 16:41	II210826-1	2		1.952	mg/L	98	95	105			
WG526939ICB	ICB	09/10/21 16:47				U	mg/L		-0.03	0.03			
WG526939PQV	PQV	09/10/21 16:51	II210901-4	.05		.05	mg/L	100	70	130			
WG526939SIC	SIC	09/10/21 16:54	II210907-1	.1		.101	mg/L	101	80	120			
WG526939LFB	LFB	09/10/21 17:00	II210910-2	.5		.496	mg/L	99	85	115			
WG526939CCV1	CCV	09/10/21 17:33	II210826-2	1		.975	mg/L	98	90	110			
WG526939CCB1	CCB	09/10/21 17:36				U	mg/L		-0.03	0.03			
WG526939CCV2	CCV	09/10/21 18:13	II210826-2	1		.971	mg/L	97	90	110			
WG526939CCB2	CCB	09/10/21 18:16				U	mg/L		-0.03	0.03			
L68204-04AS	AS	09/10/21 18:19	II210910-2	.5	U	.5	mg/L	100	85	115			
L68204-04ASD	ASD	09/10/21 18:23	II210910-2	.5	U	.501	mg/L	100	85	115	0	20	
WG526939CCV3	CCV	09/10/21 18:36	II210826-2	1		.971	mg/L	97	90	110			
WG526939CCB3	CCB	09/10/21 18:39				U	mg/L		-0.03	0.03			

GCC Rio Grande

ACZ Project ID: ***L68204***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Fluoride SM4500F-C

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG527249													
WG527249ICV	ICV	09/15/21 15:35	WC210903-1	2.002		2.04	mg/L	102	90	110			
WG527249ICB	ICB	09/15/21 15:40				U	mg/L		-0.3	0.3			
WG527249PQV	PQV	09/15/21 15:44	WC210803-3	.3514		.36	mg/L	102	70	130			
WG527249LFB1	LFB	09/15/21 15:47	WC210803-9	5.02		4.74	mg/L	94	90	110			
L68077-04AS	AS	09/15/21 16:23	WC210803-9	5.02	U	4.55	mg/L	91	90	110			
L68077-04ASD	ASD	09/15/21 16:31	WC210803-9	5.02	U	4.59	mg/L	91	90	110	1	20	
WG527249CCV1	CCV	09/15/21 16:58	WC210903-1	2.002		2.09	mg/L	104	90	110			
WG527249CCB1	CCB	09/15/21 17:06				U	mg/L		-0.3	0.3			
WG527249CCV2	CCV	09/15/21 18:56	WC210903-1	2.002		2.11	mg/L	105	90	110			
WG527249CCB2	CCB	09/15/21 19:04				U	mg/L		-0.3	0.3			
L68221-01AS	AS	09/15/21 19:20	WC210803-9	5.02	.31	5.19	mg/L	97	90	110			
L68221-01ASD	ASD	09/15/21 19:28	WC210803-9	5.02	.31	5.21	mg/L	98	90	110	0	20	
WG527249LFB2	LFB	09/15/21 19:56	WC210803-9	5.02		4.76	mg/L	95	90	110			
WG527249CCV3	CCV	09/15/21 20:30	WC210903-1	2.002		2.11	mg/L	105	90	110			
WG527249CCB3	CCB	09/15/21 20:38				U	mg/L		-0.3	0.3			
WG527249CCV4	CCV	09/15/21 22:13	WC210903-1	2.002		2.13	mg/L	106	90	110			
WG527249CCB4	CCB	09/15/21 22:21				U	mg/L		-0.3	0.3			
WG527249CCV5	CCV	09/15/21 23:40	WC210903-1	2.002		2.11	mg/L	105	90	110			
WG527249CCB5	CCB	09/15/21 23:48				U	mg/L		-0.3	0.3			

Iron, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG526939													
WG526939ICV	ICV	09/10/21 16:41	II210826-1	2		1.977	mg/L	99	95	105			
WG526939ICB	ICB	09/10/21 16:47				U	mg/L		-0.18	0.18			
WG526939PQV	PQV	09/10/21 16:51	II210901-4	.150015		.149	mg/L	99	70	130			
WG526939SIC	SIC	09/10/21 16:54	II210907-1	200.170015		192.5	mg/L	96	1	200			
WG526939LFB	LFB	09/10/21 17:00	II210910-2	1.0001		1.017	mg/L	102	85	115			
WG526939CCV1	CCV	09/10/21 17:33	II210826-2	1		1.005	mg/L	101	90	110			
WG526939CCB1	CCB	09/10/21 17:36				U	mg/L		-0.18	0.18			
WG526939CCV2	CCV	09/10/21 18:13	II210826-2	1		1.004	mg/L	100	90	110			
WG526939CCB2	CCB	09/10/21 18:16				U	mg/L		-0.18	0.18			
L68204-04AS	AS	09/10/21 18:19	II210910-2	1.0001	U	1.017	mg/L	102	85	115			
L68204-04ASD	ASD	09/10/21 18:23	II210910-2	1.0001	U	1.022	mg/L	102	85	115	0	20	
WG526939CCV3	CCV	09/10/21 18:36	II210826-2	1		.995	mg/L	100	90	110			
WG526939CCB3	CCB	09/10/21 18:39				U	mg/L		-0.18	0.18			

GCC Rio Grande

ACZ Project ID: ***L68204***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Lead, dissolved M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG527157													
WG527157ICV	ICV	09/14/21 13:14	MS210727-2	.05		.05138	mg/L	103	90	110			
WG527157ICB	ICB	09/14/21 13:15				U	mg/L		-0.00022	0.00022			
WG527157LFB	LFB	09/14/21 13:17	MS210827-2	.05005		.04997	mg/L	100	85	115			
L68208-01AS	AS	09/14/21 13:28	MS210827-2	.05005	.00048	.05219	mg/L	103	70	130			
L68208-01ASD	ASD	09/14/21 13:30	MS210827-2	.05005	.00048	.05122	mg/L	101	70	130	2	20	
WG527157CCV1	CCV	09/14/21 13:35	MS210909-2	.25025		.23798	mg/L	95	90	110			
WG527157CCB1	CCB	09/14/21 13:37				U	mg/L		-0.0003	0.0003			
WG527157CCV2	CCV	09/14/21 13:57	MS210909-2	.25025		.24182	mg/L	97	90	110			
WG527157CCB2	CCB	09/14/21 13:59				.00012	mg/L		-0.0003	0.0003			
WG527157CCV3	CCV	09/14/21 14:10	MS210909-2	.25025		.23909	mg/L	96	90	110			
WG527157CCB3	CCB	09/14/21 14:12				.00012	mg/L		-0.0003	0.0003			

Lithium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG526939													
WG526939ICV	ICV	09/10/21 16:41	II210826-1	2		1.9772	mg/L	99	95	105			
WG526939ICB	ICB	09/10/21 16:47				U	mg/L		-0.024	0.024			
WG526939PQV	PQV	09/10/21 16:51	II210901-4	.03996		.0391	mg/L	98	70	130			
WG526939SIC	SIC	09/10/21 16:54	II210907-1	.0999		.0995	mg/L	100	80	120			
WG526939LFB	LFB	09/10/21 17:00	II210910-2	.999		.9742	mg/L	98	85	115			
WG526939CCV1	CCV	09/10/21 17:33	II210826-2	1		.9821	mg/L	98	90	110			
WG526939CCB1	CCB	09/10/21 17:36				U	mg/L		-0.024	0.024			
WG526939CCV2	CCV	09/10/21 18:13	II210826-2	1		.9754	mg/L	98	90	110			
WG526939CCB2	CCB	09/10/21 18:16				U	mg/L		-0.024	0.024			
L68204-04AS	AS	09/10/21 18:19	II210910-2	.999	.52	1.508	mg/L	99	85	115			
L68204-04ASD	ASD	09/10/21 18:23	II210910-2	.999	.52	1.514	mg/L	99	85	115	0	20	
WG526939CCV3	CCV	09/10/21 18:36	II210826-2	1		.9797	mg/L	98	90	110			
WG526939CCB3	CCB	09/10/21 18:39				U	mg/L		-0.024	0.024			

Magnesium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG526939													
WG526939ICV	ICV	09/10/21 16:41	II210826-1	100		95.67	mg/L	96	95	105			
WG526939ICB	ICB	09/10/21 16:47				U	mg/L		-0.6	0.6			
WG526939PQV	PQV	09/10/21 16:51	II210901-4	1.0001		1.05	mg/L	105	70	130			
WG526939SIC	SIC	09/10/21 16:54	II210907-1	201.0201		199.7	mg/L	99	1	200			
WG526939LFB	LFB	09/10/21 17:00	II210910-2	49.99828		47.68	mg/L	95	85	115			
WG526939CCV1	CCV	09/10/21 17:33	II210826-2	50		47.93	mg/L	96	90	110			
WG526939CCB1	CCB	09/10/21 17:36				U	mg/L		-0.6	0.6			
WG526939CCV2	CCV	09/10/21 18:13	II210826-2	50		48.34	mg/L	97	90	110			
WG526939CCB2	CCB	09/10/21 18:16				U	mg/L		-0.6	0.6			
L68204-04AS	AS	09/10/21 18:19	II210910-2	49.99828	396	434.1	mg/L	76	85	115			M3
L68204-04ASD	ASD	09/10/21 18:23	II210910-2	49.99828	396	429.2	mg/L	66	85	115	1	20	M3
WG526939CCV3	CCV	09/10/21 18:36	II210826-2	50		48.04	mg/L	96	90	110			
WG526939CCB3	CCB	09/10/21 18:39				U	mg/L		-0.6	0.6			

GCC Rio Grande

ACZ Project ID: ***L68204***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Manganese, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG526939													
WG526939ICV	ICV	09/10/21 16:41	II210826-1	2		1.951	mg/L	98	95	105			
WG526939ICB	ICB	09/10/21 16:47				U	mg/L		-0.03	0.03			
WG526939PQV	PQV	09/10/21 16:51	II210901-4	.05005		.049	mg/L	98	70	130			
WG526939SIC	SIC	09/10/21 16:54	II210907-1	50.10005		46.79	mg/L	93	1	200			
WG526939LFB	LFB	09/10/21 17:00	II210910-2	.5005		.498	mg/L	100	85	115			
WG526939CCV1	CCV	09/10/21 17:33	II210826-2	1		.988	mg/L	99	90	110			
WG526939CCB1	CCB	09/10/21 17:36				U	mg/L		-0.03	0.03			
WG526939CCV2	CCV	09/10/21 18:13	II210826-2	1		.985	mg/L	99	90	110			
WG526939CCB2	CCB	09/10/21 18:16				U	mg/L		-0.03	0.03			
L68204-04AS	AS	09/10/21 18:19	II210910-2	.5005	.066	.555	mg/L	98	85	115			
L68204-04ASD	ASD	09/10/21 18:23	II210910-2	.5005	.066	.552	mg/L	97	85	115	1	20	
WG526939CCV3	CCV	09/10/21 18:36	II210826-2	1		.984	mg/L	98	90	110			
WG526939CCB3	CCB	09/10/21 18:39				U	mg/L		-0.03	0.03			

Mercury, dissolved M245.1 CVAA

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG526711													
WG526711ICV	ICV	09/08/21 11:29	HG210830-3	.00501		.00497	mg/L	99	95	105			
WG526711ICB	ICB	09/08/21 11:30				U	mg/L		-0.0002	0.0002			
WG526731													
WG526731CCV1	CCV	09/08/21 14:11	HG210830-3	.00501		.00525	mg/L	105	90	110			
WG526731CCB1	CCB	09/08/21 14:12				U	mg/L		-0.0002	0.0002			
WG526731PQV	PQV	09/08/21 14:13	HG210830-8	.001001		.00085	mg/L	85	70	130			
WG526731LRB	LRB	09/08/21 14:14				U	mg/L		-0.00044	0.00044			
WG526731LFB	LFB	09/08/21 14:15	HG210830-6	.002002		.00179	mg/L	89	85	115			
L68204-03LFM	LFM	09/08/21 14:22	HG210830-6	.002002	U	.00183	mg/L	91	85	115			
WG526731CCV2	CCV	09/08/21 14:23	HG210830-3	.00501		.00499	mg/L	100	90	110			
WG526731CCB2	CCB	09/08/21 14:24				U	mg/L		-0.0002	0.0002			
L68204-03LFMD	LFMD	09/08/21 14:25	HG210830-6	.002002	U	.00184	mg/L	92	85	115	1	20	
WG526731CCV3	CCV	09/08/21 14:34	HG210830-3	.00501		.00497	mg/L	99	90	110			
WG526731CCB3	CCB	09/08/21 14:35				U	mg/L		-0.0002	0.0002			
WG526731CCV4	CCV	09/08/21 14:40	HG210830-3	.00501		.00498	mg/L	99	90	110			
WG526731CCB4	CCB	09/08/21 14:41				U	mg/L		-0.0002	0.0002			

GCC Rio Grande

ACZ Project ID: ***L68204***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Nickel, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG526939													
WG526939ICV	ICV	09/10/21 16:41	II210826-1	2		1.9758	mg/L	99	95	105			
WG526939ICB	ICB	09/10/21 16:47				U	mg/L		-0.024	0.024			
WG526939PQV	PQV	09/10/21 16:51	II210901-4	.04		.04	mg/L	100	70	130			
WG526939SIC	SIC	09/10/21 16:54	II210907-1	.1		.0943	mg/L	94	80	120			
WG526939LFB	LFB	09/10/21 17:00	II210910-2	.5		.4933	mg/L	99	85	115			
WG526939CCV1	CCV	09/10/21 17:33	II210826-2	1		1.005	mg/L	101	90	110			
WG526939CCB1	CCB	09/10/21 17:36				U	mg/L		-0.024	0.024			
WG526939CCV2	CCV	09/10/21 18:13	II210826-2	1		1.007	mg/L	101	90	110			
WG526939CCB2	CCB	09/10/21 18:16				U	mg/L		-0.024	0.024			
L68204-04AS	AS	09/10/21 18:19	II210910-2	.5	.017	.4924	mg/L	95	85	115			
L68204-04ASD	ASD	09/10/21 18:23	II210910-2	.5	.017	.4942	mg/L	95	85	115	0	20	
WG526939CCV3	CCV	09/10/21 18:36	II210826-2	1		1.003	mg/L	100	90	110			
WG526939CCB3	CCB	09/10/21 18:39				U	mg/L		-0.024	0.024			

Nitrate/Nitrite as N, dissolved M353.2 - Automated Cadmium Reduction

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG526531													
WG526531ICV	ICV	09/03/21 1:13	WI210603-7	2.416		2.362	mg/L	98	90	110			
WG526531ICB	ICB	09/03/21 1:14				U	mg/L		-0.02	0.02			
WG526531PQV	PQV	09/03/21 1:18	WI210331-14	.1		.097	mg/L	97	70	130			
WG526531LFB	LFB	09/03/21 1:19	WI210331-13	2		2.097	mg/L	105	90	110			
L68133-01AS	AS	09/03/21 1:21	WI210331-13	2	U	2.063	mg/L	103	90	110			
L68133-02DUP	DUP	09/03/21 1:24			.681	.668	mg/L				2	20	
WG526531CCV1	CCV	09/03/21 1:28	WI210828-1	2		2.086	mg/L	104	90	110			
WG526531CCB1	CCB	09/03/21 1:31				U	mg/L		-0.02	0.02			
L68204-02AS	AS	09/03/21 1:41	WI210331-13	2	.907	3.061	mg/L	108	90	110			
L68204-03DUP	DUP	09/03/21 1:44			.022	.033	mg/L				40	20	RA
WG526531CCV2	CCV	09/03/21 1:45	WI210828-1	2		2.119	mg/L	106	90	110			
WG526531CCB2	CCB	09/03/21 1:48				U	mg/L		-0.02	0.02			
WG526531CCV3	CCV	09/03/21 2:01	WI210828-1	2		2.096	mg/L	105	90	110			
WG526531CCB3	CCB	09/03/21 2:04				U	mg/L		-0.02	0.02			

GCC Rio Grande

ACZ Project ID: ***L68204***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Nitrite as N, dissolved M353.2 - Automated Cadmium Reduction

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG526531													
WG526531ICV	ICV	09/03/21 1:13	WI210603-7	.609		.584	mg/L	96	90	110			
WG526531ICB	ICB	09/03/21 1:14				U	mg/L		-0.01	0.01			
WG526531PQV	PQV	09/03/21 1:18	WI210331-14	.05		.051	mg/L	102	70	130			
WG526531LFB	LFB	09/03/21 1:19	WI210331-13	1		1.004	mg/L	100	90	110			
L68133-01AS	AS	09/03/21 1:21	WI210331-13	1	U	.994	mg/L	99	90	110			
L68133-02DUP	DUP	09/03/21 1:24			U	U	mg/L				0	20	RA
WG526531CCV1	CCV	09/03/21 1:28	WI210828-1	1		.983	mg/L	98	90	110			
WG526531CCB1	CCB	09/03/21 1:31				U	mg/L		-0.01	0.01			
L68204-02AS	AS	09/03/21 1:41	WI210331-13	1	U	1.027	mg/L	103	90	110			
L68204-03DUP	DUP	09/03/21 1:44			.014	.014	mg/L				0	20	RA
WG526531CCV2	CCV	09/03/21 1:45	WI210828-1	1		.993	mg/L	99	90	110			
WG526531CCB2	CCB	09/03/21 1:48				U	mg/L		-0.01	0.01			
WG526531CCV3	CCV	09/03/21 2:01	WI210828-1	1		.992	mg/L	99	90	110			
WG526531CCB3	CCB	09/03/21 2:04				U	mg/L		-0.01	0.01			

Potassium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG526939													
WG526939ICV	ICV	09/10/21 16:41	II210826-1	20		19.8	mg/L	99	95	105			
WG526939ICB	ICB	09/10/21 16:47				U	mg/L		-0.6	0.6			
WG526939PQV	PQV	09/10/21 16:51	II210901-4	.9958		1.06	mg/L	106	70	130			
WG526939SIC	SIC	09/10/21 16:54	II210907-1	.9958		1.08	mg/L	108	80	120			
WG526939LFB	LFB	09/10/21 17:00	II210910-2	99.96008		97.78	mg/L	98	85	115			
WG526939CCV1	CCV	09/10/21 17:33	II210826-2	10		9.88	mg/L	99	90	110			
WG526939CCB1	CCB	09/10/21 17:36				U	mg/L		-0.6	0.6			
WG526939CCV2	CCV	09/10/21 18:13	II210826-2	10		10.12	mg/L	101	90	110			
WG526939CCB2	CCB	09/10/21 18:16				.28	mg/L		-0.6	0.6			
L68204-04AS	AS	09/10/21 18:19	II210910-2	99.96008	10.9	112	mg/L	101	85	115			
L68204-04ASD	ASD	09/10/21 18:23	II210910-2	99.96008	10.9	112	mg/L	101	85	115	0	20	
WG526939CCV3	CCV	09/10/21 18:36	II210826-2	10		10.12	mg/L	101	90	110			
WG526939CCB3	CCB	09/10/21 18:39				.28	mg/L		-0.6	0.6			

Residue, Filterable (TDS) @180C SM2540C

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG526687													
WG526687PBW	PBW	09/07/21 14:10				U	mg/L		-20	20			
WG526687LCSW	LCSW	09/07/21 14:12	PCN64129	1000		998	mg/L	100	80	120			
L68244-02DUP	DUP	09/07/21 14:41			324	324	mg/L				0	10	

GCC Rio Grande

ACZ Project ID: ***L68204***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Selenium, dissolved M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG527379													
WG527379ICV	ICV	09/16/21 13:20	MS210727-2	.05		.0503	mg/L	101	90	110			
WG527379ICB	ICB	09/16/21 13:21				.00012	mg/L		-0.00022	0.00022			
WG527379LFB	LFB	09/16/21 13:31	MS210827-2	.05		.04655	mg/L	93	85	115			
L68204-03AS	AS	09/16/21 13:38	MS210827-2	.25	U	.2091	mg/L	84	70	130			
L68204-03ASD	ASD	09/16/21 13:40	MS210827-2	.25	U	.22762	mg/L	91	70	130	8	20	
WG527379CCV1	CCV	09/16/21 13:49	MS210909-2	.25		.24021	mg/L	96	90	110			
WG527379CCB1	CCB	09/16/21 13:51				.00013	mg/L		-0.0003	0.0003			
WG527379CCV2	CCV	09/16/21 14:12	MS210909-2	.25		.24758	mg/L	99	90	110			
WG527379CCB2	CCB	09/16/21 14:14				.00012	mg/L		-0.0003	0.0003			
WG527379CCV3	CCV	09/16/21 14:25	MS210909-2	.25		.2368	mg/L	95	90	110			
WG527379CCB3	CCB	09/16/21 14:26				.00017	mg/L		-0.0003	0.0003			

Sodium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG526939													
WG526939ICV	ICV	09/10/21 16:41	II210826-1	100		99.83	mg/L	100	95	105			
WG526939ICB	ICB	09/10/21 16:47				U	mg/L		-0.6	0.6			
WG526939PQV	PQV	09/10/21 16:51	II210901-4	1.0053		1.01	mg/L	100	70	130			
WG526939SIC	SIC	09/10/21 16:54	II210907-1	1.0053		1.08	mg/L	107	80	120			
WG526939LFB	LFB	09/10/21 17:00	II210910-2	100.007		98.81	mg/L	99	85	115			
WG526939CCV1	CCV	09/10/21 17:33	II210826-2	50		49.56	mg/L	99	90	110			
WG526939CCB1	CCB	09/10/21 17:36				U	mg/L		-0.6	0.6			
WG526939CCV2	CCV	09/10/21 18:13	II210826-2	50		49.65	mg/L	99	90	110			
WG526939CCB2	CCB	09/10/21 18:16				.24	mg/L		-0.6	0.6			
L68204-04AS	AS	09/10/21 18:19	II210910-2	100.007	661	744.4	mg/L	83	85	115			M3
L68204-04ASD	ASD	09/10/21 18:23	II210910-2	100.007	661	738.5	mg/L	77	85	115	1	20	M3
WG526939CCV3	CCV	09/10/21 18:36	II210826-2	50		49.48	mg/L	99	90	110			
WG526939CCB3	CCB	09/10/21 18:39				.2	mg/L		-0.6	0.6			
WG527044													
WG527044ICV	ICV	09/14/21 16:04	II210826-1	100		100.6	mg/L	101	95	105			
WG527044ICB	ICB	09/14/21 16:10				U	mg/L		-0.6	0.6			
WG527044PQV	PQV	09/14/21 16:13	II210901-4	1.0053		.99	mg/L	98	70	130			
WG527044SIC	SIC	09/14/21 16:17	II210907-1	1.0053		1.12	mg/L	111	80	120			
WG527044LFB	LFB	09/14/21 16:23	II210910-2	100.007		99.78	mg/L	100	85	115			
WG527044CCV1	CCV	09/14/21 16:55	II210826-2	50		50.16	mg/L	100	90	110			
WG527044CCB1	CCB	09/14/21 16:58				U	mg/L		-0.6	0.6			
L68291-03AS	AS	09/14/21 17:02	II210910-2	100.007	3.49	103.3	mg/L	100	85	115			
L68291-03ASD	ASD	09/14/21 17:05	II210910-2	100.007	3.49	102.5	mg/L	99	85	115	1	20	
WG527044CCV2	CCV	09/14/21 17:34	II210826-2	50		49.56	mg/L	99	90	110			
WG527044CCB2	CCB	09/14/21 17:37				U	mg/L		-0.6	0.6			
WG527044CCV3	CCV	09/14/21 17:56	II210826-2	50		49.42	mg/L	99	90	110			
WG527044CCB3	CCB	09/14/21 18:00				U	mg/L		-0.6	0.6			

GCC Rio Grande

ACZ Project ID: ***L68204***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Sulfate D516-02/-07/-11 - TURBIDIMETRIC

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG527177													
WG527177ICB	ICB	09/15/21 9:54				U	mg/L		-3	3			
WG527177ICV	ICV	09/15/21 9:54	WI210909-1	20.46		19.9	mg/L	97	90	110			
WG527177CCV1	CCV	09/15/21 10:21	WI210909-2	25		25.9	mg/L	104	90	110			
WG527177CCB1	CCB	09/15/21 10:21				U	mg/L		-3	3			
WG527177LFB	LFB	09/15/21 10:21	WI210105-3	10		9.2	mg/L	92	90	110			
WG527177CCV2	CCV	09/15/21 10:23	WI210909-2	25		25.7	mg/L	103	90	110			
WG527177CCB2	CCB	09/15/21 10:23				U	mg/L		-3	3			
WG527177CCV3	CCV	09/15/21 10:25	WI210909-2	25		25.6	mg/L	102	90	110			
WG527177CCB3	CCB	09/15/21 10:25				U	mg/L		-3	3			
WG527177CCV4	CCV	09/15/21 10:46	WI210909-2	25		25.6	mg/L	102	90	110			
WG527177CCB4	CCB	09/15/21 10:46				U	mg/L		-3	3			
L68241-01DUP	DUP	09/15/21 10:46			87.1	86	mg/L				1	20	
WG527177CCV5	CCV	09/15/21 10:48	WI210909-2	25		25.4	mg/L	102	90	110			
WG527177CCB5	CCB	09/15/21 10:48				U	mg/L		-3	3			
WG527177CCV6	CCV	09/15/21 10:52	WI210909-2	25		24.8	mg/L	99	90	110			
WG527177CCB6	CCB	09/15/21 10:52				U	mg/L		-3	3			
WG527177CCV7	CCV	09/15/21 10:53	WI210909-2	25		25.4	mg/L	102	90	110			
WG527177CCB7	CCB	09/15/21 10:53				U	mg/L		-3	3			
WG527177CCV8	CCV	09/15/21 11:06	WI210909-2	25		25.7	mg/L	103	90	110			
WG527177CCB8	CCB	09/15/21 11:06				U	mg/L		-3	3			
L68209-02AS	AS	09/15/21 11:08	SO4TURB20X	10	758	750.6	mg/L	-74	90	110			M3
WG527177CCV9	CCV	09/15/21 11:08	WI210909-2	25		24.2	mg/L	97	90	110			
WG527177CCB9	CCB	09/15/21 11:08				U	mg/L		-3	3			
WG527177CCV10	CCV	09/15/21 11:10	WI210909-2	25		25.1	mg/L	100	90	110			
WG527177CCB10	CCB	09/15/21 11:10				U	mg/L		-3	3			
WG527177CCV11	CCV	09/15/21 11:28	WI210909-2	25		26	mg/L	104	90	110			
WG527177CCB11	CCB	09/15/21 11:28				U	mg/L		-3	3			
WG527177CCV12	CCV	09/15/21 11:29	WI210909-2	25		25.4	mg/L	102	90	110			
WG527177CCB12	CCB	09/15/21 11:29				U	mg/L		-3	3			

Vanadium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG526939													
WG526939ICV	ICV	09/10/21 16:41	II210826-1	2		1.959	mg/L	98	95	105			
WG526939ICB	ICB	09/10/21 16:47				U	mg/L		-0.015	0.015			
WG526939PQV	PQV	09/10/21 16:51	II210901-4	.025025		.025	mg/L	100	70	130			
WG526939SIC	SIC	09/10/21 16:54	II210907-1	.1001		.085	mg/L	85	80	120			
WG526939LFB	LFB	09/10/21 17:00	II210910-2	.5005		.4961	mg/L	99	85	115			
WG526939CCV1	CCV	09/10/21 17:33	II210826-2	1		.982	mg/L	98	90	110			
WG526939CCB1	CCB	09/10/21 17:36				U	mg/L		-0.03	0.03			
WG526939CCV2	CCV	09/10/21 18:13	II210826-2	1		.979	mg/L	98	90	110			
WG526939CCB2	CCB	09/10/21 18:16				U	mg/L		-0.03	0.03			
L68204-04AS	AS	09/10/21 18:19	II210910-2	.5005	U	.4823	mg/L	96	85	115			
L68204-04ASD	ASD	09/10/21 18:23	II210910-2	.5005	U	.482	mg/L	96	85	115	0	20	
WG526939CCV3	CCV	09/10/21 18:36	II210826-2	1		.98	mg/L	98	90	110			
WG526939CCB3	CCB	09/10/21 18:39				U	mg/L		-0.03	0.03			

GCC Rio Grande

ACZ Project ID: ***L68204***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Zinc, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG526939													
WG526939ICV	ICV	09/10/21 16:41	II210826-1	2		1.965	mg/L	98	95	105			
WG526939ICB	ICB	09/10/21 16:47				U	mg/L		-0.06	0.06			
WG526939PQV	PQV	09/10/21 16:51	II210901-4	.05015		.049	mg/L	98	70	130			
WG526939SIC	SIC	09/10/21 16:54	II210907-1	.1003		.096	mg/L	96	80	120			
WG526939LFB	LFB	09/10/21 17:00	II210910-2	.50045		.508	mg/L	102	85	115			
WG526939CCV1	CCV	09/10/21 17:33	II210826-2	1		.982	mg/L	98	90	110			
WG526939CCB1	CCB	09/10/21 17:36				U	mg/L		-0.06	0.06			
WG526939CCV2	CCV	09/10/21 18:13	II210826-2	1		.987	mg/L	99	90	110			
WG526939CCB2	CCB	09/10/21 18:16				U	mg/L		-0.06	0.06			
L68204-04AS	AS	09/10/21 18:19	II210910-2	.50045	U	.524	mg/L	105	85	115			
L68204-04ASD	ASD	09/10/21 18:23	II210910-2	.50045	U	.525	mg/L	105	85	115	0	20	
WG526939CCV3	CCV	09/10/21 18:36	II210826-2	1		.984	mg/L	98	90	110			
WG526939CCB3	CCB	09/10/21 18:39				U	mg/L		-0.06	0.06			

GCC Rio Grande ACZ Project ID: ***L68204***

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L68204-01	WG526939	Calcium, dissolved	M200.7 ICP	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
		Magnesium, dissolved	M200.7 ICP	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG526531	Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	HE	Analysis performed past holding time. Method holding time is less than or equal to 7 days and sample was received with less than half of the holding time remaining (refer to item C5 of ACZ's Terms & Conditions).
		Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	HE	Analysis performed past holding time. Method holding time is less than or equal to 7 days and sample was received with less than half of the holding time remaining (refer to item C5 of ACZ's Terms & Conditions).
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG526939	Sodium, dissolved	M200.7 ICP	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG527177	Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG526961	Total Alkalinity	SM2320B - Titration	ZW	Method deviation. The sample was centrifuged prior to analysis due to high solid content.
L68204-02	WG526939	Calcium, dissolved	M200.7 ICP	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
		Magnesium, dissolved	M200.7 ICP	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG526531	Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	HE	Analysis performed past holding time. Method holding time is less than or equal to 7 days and sample was received with less than half of the holding time remaining (refer to item C5 of ACZ's Terms & Conditions).
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	HE	Analysis performed past holding time. Method holding time is less than or equal to 7 days and sample was received with less than half of the holding time remaining (refer to item C5 of ACZ's Terms & Conditions).
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG526939	Sodium, dissolved	M200.7 ICP	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG527177	Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.

GCC Rio Grande ACZ Project ID: ***L68204***

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L68204-03	WG526939	Calcium, dissolved	M200.7 ICP	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
		Magnesium, dissolved	M200.7 ICP	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG526531	Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	HE	Analysis performed past holding time. Method holding time is less than or equal to 7 days and sample was received with less than half of the holding time remaining (refer to item C5 of ACZ's Terms & Conditions).
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	HE	Analysis performed past holding time. Method holding time is less than or equal to 7 days and sample was received with less than half of the holding time remaining (refer to item C5 of ACZ's Terms & Conditions).
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG527177	Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
L68204-04	WG526939	Calcium, dissolved	M200.7 ICP	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG527058	Chloride	SM4500Cl-E	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
			SM4500Cl-E	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG526939	Magnesium, dissolved	M200.7 ICP	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG526531	Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	HE	Analysis performed past holding time. Method holding time is less than or equal to 7 days and sample was received with less than half of the holding time remaining (refer to item C5 of ACZ's Terms & Conditions).
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	HE	Analysis performed past holding time. Method holding time is less than or equal to 7 days and sample was received with less than half of the holding time remaining (refer to item C5 of ACZ's Terms & Conditions).
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG526939	Sodium, dissolved	M200.7 ICP	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG527177	Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG526961	Total Alkalinity	SM2320B - Titration	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).

Certification Qualifiers

GCC Rio Grande ACZ Project ID: ***L68204***

No certification qualifiers associated with this analysis

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Sample Receipt

GCC Rio Grande

ACZ Project ID: L68204
Date Received: 09/02/2021 11:12
Received By:
Date Printed: 9/3/2021

Receipt Verification

	YES	NO	NA
1) Is a foreign soil permit included for applicable samples?			X
2) Is the Chain of Custody form or other directive shipping papers present?	X		
3) Does this project require special handling procedures such as CLP protocol?		X	
4) Are any samples NRC licensable material?			X
5) If samples are received past hold time, proceed with requested short hold time analyses?	X		
6) Is the Chain of Custody form complete and accurate?	X		
7) Were any changes made to the Chain of Custody form prior to ACZ receiving the samples?		X	

Samples/Containers

	YES	NO	NA
8) Are all containers intact and with no leaks?	X		
9) Are all labels on containers and are they intact and legible?	X		
10) Do the sample labels and Chain of Custody form match for Sample ID, Date, and Time?	X		
11) For preserved bottle types, was the pH checked and within limits? [1]	X		
12) Is there sufficient sample volume to perform all requested work?	X		
13) Is the custody seal intact on all containers?			X
14) Are samples that require zero headspace acceptable?			X
15) Are all sample containers appropriate for analytical requirements?	X		
16) Is there an Hg-1631 trip blank present?			X
17) Is there a VOA trip blank present?			X
18) Were all samples received within hold time?	X		

NA indicates Not Applicable

Chain of Custody Related Remarks

Client Contact Remarks

Shipping Containers

Cooler Id	Temp(°C)	Temp Criteria(°C)	Rad(µR/Hr)	Custody Seal Intact?
NA35837	2.7	<=6.0	15	Yes

Was ice present in the shipment container(s)?

Yes - Wet ice was present in the shipment container(s).

Client must contact an ACZ Project Manager if analysis should not proceed for samples received outside of their thermal preservation acceptance criteria.

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Sample Receipt

GCC Rio Grande

ACZ Project ID:	L68204
Date Received:	09/02/2021 11:12
Received By:	
Date Printed:	9/3/2021

[1] The preservation of the following bottle types is not checked at sample receipt: Orange (oil and grease), Purple (total cyanide), Pink (dissolved cyanide), Brown (arsenic speciation), Sterile (fecal coliform), EDTA (sulfite), HCl preserved vial (organics), Na2S2O3 preserved vial (organics), and HG-1631 (total/dissolved mercury by method 1631).

ACZ Laboratories, Inc. L68204

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

CHAIN of CUSTODY

Report to:

Name: Greg Gannon
Company: GCC Rio Grande Inc.
E-mail: ggannon@gcc.com
Address: 3372 Lime Road, Pueblo CO 81004
Telephone: 406.285.4977

Copy of Report to:

Name: Landon Beck
Company: Resource Hydrogeologic Co
E-mail: lbeck@resourcehydrogeologic.com
Telephone: 970.459.4865

Invoice to:

Name: Greg Gannon
Company: GCC Rio Grande Inc.
E-mail: ggannon@gcc.com
Address: 3372 Lime Road, Pueblo CO 81004
Telephone: 406.285.4977

If sample(s) received past holding time (HT), or if insufficient HT remains to complete analysis before expiration, shall ACZ proceed with requested short HT analyses? YES [X] NO [ ]

If "NO" then ACZ will contact client for further instruction. If neither "YES" nor "NO" is indicated, ACZ will proceed with the requested analyses, even if HT is expired, and data will be qualified

Are samples for SDWA Compliance Monitoring? Yes [ ] No [X]

If yes, please include state forms. Results will be reported to PQL for Colorado.

Sampler's Name: S. Legg **Sampler's Site Information** State CO Zip code 80804 Time Zone MT

***Sampler's Signature:** [signature]

*I attest to the authenticity and validity of this sample. I understand that intentionally mislabeling the time/date/location or tampering with the sample in anyway, is considered fraud and punishable by State Law.

PROJECT INFORMATION — ANALYSES REQUESTED *(attach list or use quote number)*

Quote #: GW-COMPLIANCE SUITE
PO#: N/A
Reporting state for compliance testing: CO
Check box if samples include NRC licensed material? [ ]

SAMPLE IDENTIFICATION	DATE:TIME	Matrix	# of Containers	Per attached quote, no pH							
MW-6	8/31/21 : 1330	GW	3	[X]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
MW-7	8/31/21 : 1230	GW	3	[X]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
MW-8	8/31/21 : 1300	GW	3	[X]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
MW-2B	8/31/21 : 1235	GW	3	[X]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
				[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
				[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
				[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
				[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
				[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
				[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]

Matrix: SW (Surface Water) · GW (Ground Water) · WW (Waste Water) · DW (Drinking Water) · SL (Sludge) · SO (Soil) · OL (Oil) · Other (Specify)

REMARKS

Please refer to ACZ's terms & conditions located on the reverse side of this COC.

RELINQUISHED BY:	DATE:TIME	RECEIVED BY:	DATE:TIME
[signature]	8/31/21 : 1400	[signature] 9/2/21	11:12

FRMAD050.06.14.14 White - Return with sample. Yellow - Retain for your records.

L68204 Chain of Custod

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Analytical Report

December 09, 2021

Report to:
Greg Gannon
GCC Rio Grande
3372 Lime Road
Pueblo, CO 81004

Bill to:
Greg Gannon
GCC Rio Grande
3372 Lime Road
Pueblo, CO 81004

Project ID:
ACZ Project ID: L70041

Greg Gannon:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on November 19, 2021. This project has been assigned to ACZ's project number, L70041. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under L70041. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

Except as noted, the test results for the methods and parameters listed on ACZ's current NELAC certificate letter (#ACZ) meet all requirements of NELAC.

This report shall be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

All samples and sub-samples associated with this project will be disposed of after December 09, 2022. If the samples are determined to be hazardous, additional charges apply for disposal (typically $11/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical raw data reports for ten years.

If you have any questions or other needs, please contact your Project Manager.

Bill Lane has reviewed and approved this report

GCC Rio Grande
Project ID:
Sample ID: MW-6

ACZ Sample ID: ***L70041-01***
Date Sampled: *11/18/21 14:28*
Date Received: *11/19/21*
Sample Matrix: *Groundwater*

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	1	<0.05	U		mg/L	0.05	0.25	11/29/21 18:30	kja
Arsenic, dissolved	M200.8 ICP-MS	5	<0.001	U		mg/L	0.001	0.005	12/01/21 10:59	mfm
Beryllium, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	11/29/21 18:30	kja
Boron, dissolved	M200.7 ICP	1	0.245			mg/L	0.03	0.1	11/29/21 18:30	kja
Cadmium, dissolved	M200.8 ICP-MS	5	<0.00025	U		mg/L	0.00025	0.00125	12/01/21 10:59	mfm
Calcium, dissolved	M200.7 ICP	1	383			mg/L	0.1	0.5	11/29/21 18:30	kja
Chromium, dissolved	M200.7 ICP	5	<0.1	U		mg/L	0.1	0.25	11/30/21 21:46	kja
Cobalt, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	11/29/21 18:30	kja
Copper, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	11/29/21 18:30	kja
Iron, dissolved	M200.7 ICP	1	<0.06	U		mg/L	0.06	0.15	11/29/21 18:30	kja
Lead, dissolved	M200.8 ICP-MS	5	<0.0005	U		mg/L	0.0005	0.0025	12/03/21 17:25	mfm
Lithium, dissolved	M200.7 ICP	1	0.469			mg/L	0.008	0.04	11/29/21 18:30	kja
Magnesium, dissolved	M200.7 ICP	1	473			mg/L	0.2	1	11/29/21 18:30	kja
Manganese, dissolved	M200.7 ICP	1	0.241			mg/L	0.01	0.05	11/29/21 18:30	kja
Mercury, dissolved	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	11/24/21 12:42	mlh
Nickel, dissolved	M200.7 ICP	1	0.0763			mg/L	0.008	0.04	11/29/21 18:30	kja
Potassium, dissolved	M200.7 ICP	1	10.3			mg/L	0.2	1	11/29/21 18:30	kja
Selenium, dissolved	M200.8 ICP-MS	5	0.0153			mg/L	0.0005	0.00125	12/03/21 17:25	mfm
Sodium, dissolved	M200.7 ICP	1	589		*	mg/L	0.2	1	11/29/21 18:30	kja
Vanadium, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.025	11/30/21 12:10	jlw
Zinc, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	11/29/21 18:30	kja

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration									
Bicarbonate as CaCO3		1	450			mg/L	2	20	12/01/21 0:00	jck
Carbonate as CaCO3		1	<2	U		mg/L	2	20	12/01/21 0:00	jck
Hydroxide as CaCO3		1	<2	U		mg/L	2	20	12/01/21 0:00	jck
Total Alkalinity		1	450			mg/L	2	20	12/01/21 0:00	jck
Chloride	SM4500Cl-E	1	76.1		*	mg/L	0.5	2	12/03/21 11:11	md
Fluoride	SM4500F-C	1	0.62			mg/L	0.15	0.35	12/02/21 21:05	eep
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2		0.846			mg/L	0.02	0.1	12/09/21 0:00	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	0.846		*	mg/L	0.02	0.1	11/20/21 1:06	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	<0.01	U	*	mg/L	0.01	0.05	11/20/21 0:58	pjb
Residue, Filterable (TDS) @180C	SM2540C	5	5670		*	mg/L	100	200	11/24/21 14:22	anc
Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	100	3750		*	mg/L	100	500	12/03/21 16:31	wtc

GCC Rio Grande
Project ID:
Sample ID: MW-7

ACZ Sample ID: ***L70041-02***
Date Sampled: *11/18/21 12:01*
Date Received: *11/19/21*
Sample Matrix: *Groundwater*

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	1	<0.05	U		mg/L	0.05	0.25	11/29/21 18:33	kja
Arsenic, dissolved	M200.8 ICP-MS	5	<0.001	U		mg/L	0.001	0.005	12/01/21 11:01	mfm
Beryllium, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	11/29/21 18:33	kja
Boron, dissolved	M200.7 ICP	1	0.187			mg/L	0.03	0.1	11/29/21 18:33	kja
Cadmium, dissolved	M200.8 ICP-MS	5	<0.00025	U		mg/L	0.00025	0.00125	12/01/21 11:01	mfm
Calcium, dissolved	M200.7 ICP	1	429			mg/L	0.1	0.5	11/29/21 18:33	kja
Chromium, dissolved	M200.7 ICP	5	<0.1	U		mg/L	0.1	0.25	11/30/21 21:49	kja
Cobalt, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	11/29/21 18:33	kja
Copper, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	11/29/21 18:33	kja
Iron, dissolved	M200.7 ICP	1	<0.06	U		mg/L	0.06	0.15	11/29/21 18:33	kja
Lead, dissolved	M200.8 ICP-MS	5	<0.0005	U		mg/L	0.0005	0.0025	12/03/21 17:27	mfm
Lithium, dissolved	M200.7 ICP	1	0.375			mg/L	0.008	0.04	11/29/21 18:33	kja
Magnesium, dissolved	M200.7 ICP	1	386			mg/L	0.2	1	11/29/21 18:33	kja
Manganese, dissolved	M200.7 ICP	1	0.060			mg/L	0.01	0.05	11/29/21 18:33	kja
Mercury, dissolved	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	11/24/21 12:45	mlh
Nickel, dissolved	M200.7 ICP	1	0.0157	B		mg/L	0.008	0.04	11/29/21 18:33	kja
Potassium, dissolved	M200.7 ICP	1	10.6			mg/L	0.2	1	11/29/21 18:33	kja
Selenium, dissolved	M200.8 ICP-MS	5	0.0284		*	mg/L	0.0005	0.00125	12/01/21 11:01	mfm
Sodium, dissolved	M200.7 ICP	1	402		*	mg/L	0.2	1	11/29/21 18:33	kja
Vanadium, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.025	11/30/21 12:13	jlw
Zinc, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	11/29/21 18:33	kja

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration									
Bicarbonate as CaCO3		1	299			mg/L	2	20	12/01/21 0:00	jck
Carbonate as CaCO3		1	<2	U		mg/L	2	20	12/01/21 0:00	jck
Hydroxide as CaCO3		1	<2	U		mg/L	2	20	12/01/21 0:00	jck
Total Alkalinity		1	299			mg/L	2	20	12/01/21 0:00	jck
Chloride	SM4500Cl-E	1	52.9		*	mg/L	0.5	2	12/03/21 11:11	md
Fluoride	SM4500F-C	1	0.53			mg/L	0.15	0.35	12/02/21 21:13	eep
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2		3.84			mg/L	0.02	0.1	12/09/21 0:00	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	3.84		*	mg/L	0.02	0.1	11/20/21 0:59	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	<0.01	U	*	mg/L	0.01	0.05	11/20/21 0:59	pjb
Residue, Filterable (TDS) @180C	SM2540C	2	4810		*	mg/L	40	80	11/24/21 14:24	anc
Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	100	3700		*	mg/L	100	500	12/03/21 16:31	wtc

GCC Rio Grande
Project ID:
Sample ID: MW-2B

ACZ Sample ID: ***L70041-03***
Date Sampled: *11/18/21 14:06*
Date Received: *11/19/21*
Sample Matrix: *Groundwater*

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	1	<0.05	U		mg/L	0.05	0.25	11/29/21 18:37	kja
Arsenic, dissolved	M200.8 ICP-MS	2	0.00084	B		mg/L	0.0004	0.002	12/01/21 11:03	mfm
Beryllium, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	11/29/21 18:37	kja
Boron, dissolved	M200.7 ICP	1	0.809			mg/L	0.03	0.1	11/29/21 18:37	kja
Cadmium, dissolved	M200.8 ICP-MS	2	<0.0001	U		mg/L	0.0001	0.0005	12/01/21 11:03	mfm
Calcium, dissolved	M200.7 ICP	1	104			mg/L	0.1	0.5	11/29/21 18:37	kja
Chromium, dissolved	M200.7 ICP	2	<0.04	U		mg/L	0.04	0.1	11/30/21 21:52	kja
Cobalt, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	11/29/21 18:37	kja
Copper, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	11/29/21 18:37	kja
Iron, dissolved	M200.7 ICP	1	<0.06	U		mg/L	0.06	0.15	11/29/21 18:37	kja
Lead, dissolved	M200.8 ICP-MS	2	<0.0002	U		mg/L	0.0002	0.001	12/03/21 17:29	mfm
Lithium, dissolved	M200.7 ICP	1	0.380			mg/L	0.008	0.04	11/29/21 18:37	kja
Magnesium, dissolved	M200.7 ICP	1	43.2			mg/L	0.2	1	11/29/21 18:37	kja
Manganese, dissolved	M200.7 ICP	1	0.270			mg/L	0.01	0.05	11/29/21 18:37	kja
Mercury, dissolved	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	11/24/21 12:46	mlh
Nickel, dissolved	M200.7 ICP	1	<0.008	U		mg/L	0.008	0.04	11/29/21 18:37	kja
Potassium, dissolved	M200.7 ICP	1	6.31			mg/L	0.2	1	11/29/21 18:37	kja
Selenium, dissolved	M200.8 ICP-MS	2	<0.0002	U	*	mg/L	0.0002	0.0005	12/01/21 11:03	mfm
Sodium, dissolved	M200.7 ICP	2	1150			mg/L	0.4	2	11/30/21 12:17	jlw
Vanadium, dissolved	M200.7 ICP	2	<0.02	U		mg/L	0.02	0.05	11/30/21 12:17	jlw
Zinc, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	11/29/21 18:37	kja

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration									
Bicarbonate as CaCO3		1	1130			mg/L	2	20	12/01/21 0:00	jck
Carbonate as CaCO3		1	<2	U		mg/L	2	20	12/01/21 0:00	jck
Hydroxide as CaCO3		1	<2	U		mg/L	2	20	12/01/21 0:00	jck
Total Alkalinity		1	1130			mg/L	2	20	12/01/21 0:00	jck
Chloride	SM4500Cl-E	5	288		*	mg/L	2.5	10	12/03/21 11:40	md
Fluoride	SM4500F-C	1	0.89			mg/L	0.15	0.35	12/02/21 21:21	eep
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2		0.078	B		mg/L	0.02	0.1	12/09/21 0:00	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	0.107		*	mg/L	0.02	0.1	11/20/21 1:00	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	0.029	B	*	mg/L	0.01	0.05	11/20/21 1:00	pjb
Residue, Filterable (TDS) @180C	SM2540C	5	3900		*	mg/L	100	200	11/24/21 14:27	anc
Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	75	1920		*	mg/L	75	375	12/03/21 15:20	wtc

GCC Rio Grande
Project ID:
Sample ID: MW-8

ACZ Sample ID: ***L70041-04***
Date Sampled: *11/18/21 13:51*
Date Received: *11/19/21*
Sample Matrix: *Groundwater*

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	1	<0.05	U		mg/L	0.05	0.25	11/29/21 18:47	kja
Arsenic, dissolved	M200.8 ICP-MS	5	<0.001	U		mg/L	0.001	0.005	12/01/21 11:05	mfm
Beryllium, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	11/29/21 18:47	kja
Boron, dissolved	M200.7 ICP	1	0.798			mg/L	0.03	0.1	11/29/21 18:47	kja
Cadmium, dissolved	M200.8 ICP-MS	5	<0.00025	U		mg/L	0.00025	0.00125	12/01/21 11:05	mfm
Calcium, dissolved	M200.7 ICP	1	107			mg/L	0.1	0.5	11/29/21 18:47	kja
Chromium, dissolved	M200.7 ICP	5	<0.1	U		mg/L	0.1	0.25	11/30/21 21:55	kja
Cobalt, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	11/29/21 18:47	kja
Copper, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	11/29/21 18:47	kja
Iron, dissolved	M200.7 ICP	1	<0.06	U		mg/L	0.06	0.15	11/29/21 18:47	kja
Lead, dissolved	M200.8 ICP-MS	5	<0.0005	U		mg/L	0.0005	0.0025	12/03/21 17:30	mfm
Lithium, dissolved	M200.7 ICP	1	0.378			mg/L	0.008	0.04	11/29/21 18:47	kja
Magnesium, dissolved	M200.7 ICP	1	46.5			mg/L	0.2	1	11/29/21 18:47	kja
Manganese, dissolved	M200.7 ICP	1	0.265			mg/L	0.01	0.05	11/29/21 18:47	kja
Mercury, dissolved	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	11/24/21 12:47	mlh
Nickel, dissolved	M200.7 ICP	1	<0.008	U		mg/L	0.008	0.04	11/29/21 18:47	kja
Potassium, dissolved	M200.7 ICP	1	6.44			mg/L	0.2	1	11/29/21 18:47	kja
Selenium, dissolved	M200.8 ICP-MS	5	<0.0005	U	*	mg/L	0.0005	0.00125	12/01/21 11:05	mfm
Sodium, dissolved	M200.7 ICP	2	1150			mg/L	0.4	2	11/30/21 12:20	jlw
Vanadium, dissolved	M200.7 ICP	2	<0.02	U		mg/L	0.02	0.05	11/30/21 12:20	jlw
Zinc, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	11/29/21 18:47	kja

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration									
Bicarbonate as CaCO3		1	1140			mg/L	2	20	12/01/21 0:00	jck
Carbonate as CaCO3		1	<2	U		mg/L	2	20	12/01/21 0:00	jck
Hydroxide as CaCO3		1	<2	U		mg/L	2	20	12/01/21 0:00	jck
Total Alkalinity		1	1140			mg/L	2	20	12/01/21 0:00	jck
Chloride	SM4500Cl-E	5	283		*	mg/L	2.5	10	12/03/21 11:41	md
Fluoride	SM4500F-C	1	0.90			mg/L	0.15	0.35	12/08/21 18:29	eep
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2		0.068	B		mg/L	0.02	0.1	12/09/21 0:00	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	0.096	B	*	mg/L	0.02	0.1	11/20/21 1:02	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	0.028	B	*	mg/L	0.01	0.05	11/20/21 1:02	pjb
Residue, Filterable (TDS) @180C	SM2540C	5	4040		*	mg/L	100	200	11/24/21 14:30	anc
Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	75	1920		*	mg/L	75	375	12/03/21 15:20	wtc

Report Header Explanations

Batch	A distinct set of samples analyzed at a specific time
Found	Value of the QC Type of interest
Limit	Upper limit for RPD, in %.
Lower	Lower Recovery Limit, in % (except for LCSS, mg/Kg)
MDL	Method Detection Limit. Same as Minimum Reporting Limit unless omitted or equal to the PQL (see comment #5). Allows for instrument and annual fluctuations.
PCN/SCN	A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis
PQL	Practical Quantitation Limit. Synonymous with the EPA term "minimum level".
QC	True Value of the Control Sample or the amount added to the Spike
Rec	Recovered amount of the true value or spike added, in % (except for LCSS, mg/Kg)
RPD	Relative Percent Difference, calculation used for Duplicate QC Types
Upper	Upper Recovery Limit, in % (except for LCSS, mg/Kg)
Sample	Value of the Sample of interest

QC Sample Types

AS	Analytical Spike (Post Digestion)	*LCSWD*	Laboratory Control Sample - Water Duplicate
ASD	Analytical Spike (Post Digestion) Duplicate	*LFB*	Laboratory Fortified Blank
CCB	Continuing Calibration Blank	*LFM*	Laboratory Fortified Matrix
CCV	Continuing Calibration Verification standard	*LFMD*	Laboratory Fortified Matrix Duplicate
DUP	Sample Duplicate	*LRB*	Laboratory Reagent Blank
ICB	Initial Calibration Blank	*MS*	Matrix Spike
ICV	Initial Calibration Verification standard	*MSD*	Matrix Spike Duplicate
ICSAB	Inter-element Correction Standard - A plus B solutions	*PBS*	Prep Blank - Soil
LCSS	Laboratory Control Sample - Soil	*PBW*	Prep Blank - Water
LCSSD	Laboratory Control Sample - Soil Duplicate	*PQV*	Practical Quantitation Verification standard
LCSW	Laboratory Control Sample - Water	*SDL*	Serial Dilution

QC Sample Type Explanations

Blanks	Verifies that there is no or minimal contamination in the prep method or calibration procedure.
Control Samples	Verifies the accuracy of the method, including the prep procedure.
Duplicates	Verifies the precision of the instrument and/or method.
Spikes/Fortified Matrix	Determines sample matrix interferences, if any.
Standard	Verifies the validity of the calibration.

ACZ Qualifiers (Qual)

B	Analyte concentration detected at a value between MDL and PQL. The associated value is an estimated quantity.
H	Analysis exceeded method hold time. pH is a field test with an immediate hold time.
L	Target analyte response was below the laboratory defined negative threshold.
U	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit.

Method References

(1) EPA 600/4-83-020. Methods for Chemical Analysis of Water and Wastes, March 1983.
(2) EPA 600/R-93-100. Methods for the Determination of Inorganic Substances in Environmental Samples, August 1993.
(3) EPA 600/R-94-111. Methods for the Determination of Metals in Environmental Samples - Supplement I, May 1994.
(4) EPA SW-846. Test Methods for Evaluating Solid Waste.
(5) Standard Methods for the Examination of Water and Wastewater.

Comments

(1) QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.
(2) Soil, Sludge, and Plant matrices for Inorganic analyses are reported on a dry weight basis.
(3) Animal matrices for Inorganic analyses are reported on an "as received" basis.
(4) An asterisk in the "XQ" column indicates there is an extended qualifier and/or certification qualifier associated with the result.
(5) If the MDL equals the PQL or the MDL column is omitted, the PQL is the reporting limit.

For a complete list of ACZ's Extended Qualifiers, please click:
https://acz.com/wp-content/uploads/2019/04/Ext-Qual-List.pdf

REP001.03.15.02

GCC

ACZ Project ID: ***L70041***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Alkalinity as CaCO3 SM2320B - Titration

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG532647													
WG532647PBW1	PBW	11/30/21 19:08				U	mg/L		-20	20			
WG532647LCSW3	LCSW	11/30/21 19:30	WC211118-1	820.0001		816.6	mg/L	100	90	110			
WG532647PQV2	PQV	11/30/21 19:40	WC210630-2	20		24.4	mg/L	122	50	150			
WG532647LCSW6	LCSW	11/30/21 22:20	WC211118-1	820.0001		820.8	mg/L	100	90	110			
WG532647PBW2	PBW	11/30/21 22:27				4.7	mg/L		-20	20			
WG532647LCSW9	LCSW	12/01/21 1:34	WC211118-1	820.0001		823.8	mg/L	100	90	110			
WG532647PBW3	PBW	12/01/21 1:41				4.9	mg/L		-20	20			
L70041-03DUP	DUP	12/01/21 3:55			1130	1156.6	mg/L				2	20	
L70082-01DUP	DUP	12/01/21 5:56			1130	1139.2	mg/L				1	20	
WG532647LCSW12	LCSW	12/01/21 6:16	WC211118-1	820.0001		808.9	mg/L	99	90	110			
WG532647PBW4	PBW	12/01/21 6:24				U	mg/L		-20	20			
WG532647LCSW15	LCSW	12/01/21 9:56	WC211118-1	820.0001		817	mg/L	100	90	110			

Aluminum, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG532511													
WG532511ICV	ICV	11/29/21 18:04	II211118-1	2		1.992	mg/L	100	95	105			
WG532511ICB	ICB	11/29/21 18:10				U	mg/L		-0.15	0.15			
WG532511PQV	PQV	11/29/21 18:14	II211104-2	.250325		.213	mg/L	85	70	130			
WG532511SIC	SIC	11/29/21 18:17	II211027-2	200.410325		209.1	mg/L	104	1	200			
WG532511LFB	LFB	11/29/21 18:24	II211118-4	1.0008		1.01	mg/L	101	85	115			
L70041-03AS	AS	11/29/21 18:40	II211118-4	1.0008	U	1.013	mg/L	101	85	115			
L70041-03ASD	ASD	11/29/21 18:43	II211118-4	1.0008	U	1.008	mg/L	101	85	115	0	20	
WG532511CCV1	CCV	11/29/21 18:57	II211118-2	1		.973	mg/L	97	90	110			
WG532511CCB1	CCB	11/29/21 19:00				U	mg/L		-0.15	0.15			
WG532511CCV2	CCV	11/29/21 19:36	II211118-2	1		.973	mg/L	97	90	110			
WG532511CCB2	CCB	11/29/21 19:39				U	mg/L		-0.15	0.15			
WG532511CCV3	CCV	11/29/21 19:58	II211118-2	1		.977	mg/L	98	90	110			
WG532511CCB3	CCB	11/29/21 20:01				U	mg/L		-0.15	0.15			

Arsenic, dissolved M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG532669													
WG532669ICV	ICV	12/01/21 10:10	MS211013-2	.05		.05181	mg/L	104	90	110			
WG532669ICB	ICB	12/01/21 10:12				U	mg/L		-0.00044	0.00044			
WG532669LFB	LFB	12/01/21 10:14	MS211115-2	.05005		.05071	mg/L	101	85	115			
WG532669CCV1	CCV	12/01/21 10:32	MS211119-2	.1001		.10336	mg/L	103	90	110			
WG532669CCB1	CCB	12/01/21 10:34				U	mg/L		-0.0006	0.0006			
L69990-14AS	AS	12/01/21 10:48	MS211115-2	.05005	.00221	.05603	mg/L	108	70	130			
L69990-14ASD	ASD	12/01/21 10:50	MS211115-2	.05005	.00221	.05073	mg/L	97	70	130	10	20	
WG532669CCV2	CCV	12/01/21 10:54	MS211119-2	.1001		.10101	mg/L	101	90	110			
WG532669CCB2	CCB	12/01/21 10:56				U	mg/L		-0.0006	0.0006			
WG532669CCV3	CCV	12/01/21 11:06	MS211119-2	.1001		.10077	mg/L	101	90	110			
WG532669CCB3	CCB	12/01/21 11:08				U	mg/L		-0.0006	0.0006			

GCC

ACZ Project ID: ***L70041***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Beryllium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG532511													
WG532511ICV	ICV	11/29/21 18:04	II211118-1	2		1.952	mg/L	98	95	105			
WG532511ICB	ICB	11/29/21 18:10				U	mg/L		-0.03	0.03			
WG532511PQV	PQV	11/29/21 18:14	II211104-2	.05		.045	mg/L	90	70	130			
WG532511SIC	SIC	11/29/21 18:17	II211027-2	.1		.092	mg/L	92	80	120			
WG532511LFB	LFB	11/29/21 18:24	II211118-4	.5005		.493	mg/L	99	85	115			
L70041-03AS	AS	11/29/21 18:40	II211118-4	.5005	U	.475	mg/L	95	85	115			
L70041-03ASD	ASD	11/29/21 18:43	II211118-4	.5005	U	.475	mg/L	95	85	115	0	20	
WG532511CCV1	CCV	11/29/21 18:57	II211118-2	1		.982	mg/L	98	90	110			
WG532511CCB1	CCB	11/29/21 19:00				U	mg/L		-0.03	0.03			
WG532511CCV2	CCV	11/29/21 19:36	II211118-2	1		.981	mg/L	98	90	110			
WG532511CCB2	CCB	11/29/21 19:39				U	mg/L		-0.03	0.03			
WG532511CCV3	CCV	11/29/21 19:58	II211118-2	1		.981	mg/L	98	90	110			
WG532511CCB3	CCB	11/29/21 20:01				U	mg/L		-0.03	0.03			

Boron, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG532511													
WG532511ICV	ICV	11/29/21 18:04	II211118-1	2		1.98	mg/L	99	95	105			
WG532511ICB	ICB	11/29/21 18:10				U	mg/L		-0.09	0.09			
WG532511PQV	PQV	11/29/21 18:14	II211104-2	.1001		.092	mg/L	92	70	130			
WG532511SIC	SIC	11/29/21 18:17	II211027-2	.1001		.084	mg/L	84	80	120			
WG532511LFB	LFB	11/29/21 18:24	II211118-4	.5005		.5	mg/L	100	85	115			
L70041-03AS	AS	11/29/21 18:40	II211118-4	.5005	.809	1.256	mg/L	89	85	115			
L70041-03ASD	ASD	11/29/21 18:43	II211118-4	.5005	.809	1.266	mg/L	91	85	115	1	20	
WG532511CCV1	CCV	11/29/21 18:57	II211118-2	1		.992	mg/L	99	90	110			
WG532511CCB1	CCB	11/29/21 19:00				U	mg/L		-0.09	0.09			
WG532511CCV2	CCV	11/29/21 19:36	II211118-2	1		.984	mg/L	98	90	110			
WG532511CCB2	CCB	11/29/21 19:39				U	mg/L		-0.09	0.09			
WG532511CCV3	CCV	11/29/21 19:58	II211118-2	1		.976	mg/L	98	90	110			
WG532511CCB3	CCB	11/29/21 20:01				U	mg/L		-0.09	0.09			

Cadmium, dissolved M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG532669													
WG532669ICV	ICV	12/01/21 10:10	MS211013-2	.05		.051195	mg/L	102	90	110			
WG532669ICB	ICB	12/01/21 10:12				.000108	mg/L		-0.00011	0.00011			
WG532669LFB	LFB	12/01/21 10:14	MS211115-2	.05005		.049899	mg/L	100	85	115			
WG532669CCV1	CCV	12/01/21 10:32	MS211119-2	.1001		.102532	mg/L	102	90	110			
WG532669CCB1	CCB	12/01/21 10:34				U	mg/L		-0.00015	0.00015			
L69990-14AS	AS	12/01/21 10:48	MS211115-2	.05005	U	.051052	mg/L	102	70	130			
L69990-14ASD	ASD	12/01/21 10:50	MS211115-2	.05005	U	.046486	mg/L	93	70	130	9	20	
WG532669CCV2	CCV	12/01/21 10:54	MS211119-2	.1001		.101576	mg/L	101	90	110			
WG532669CCB2	CCB	12/01/21 10:56				U	mg/L		-0.00015	0.00015			
WG532669CCV3	CCV	12/01/21 11:06	MS211119-2	.1001		.102548	mg/L	102	90	110			
WG532669CCB3	CCB	12/01/21 11:08				.000051	mg/L		-0.00015	0.00015			

GCC

ACZ Project ID: ***L70041***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Calcium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG532511													
WG532511ICV	ICV	11/29/21 18:04	II211118-1	100		97.86	mg/L	98	95	105			
WG532511ICB	ICB	11/29/21 18:10				.18	mg/L		-0.3	0.3			
WG532511PQV	PQV	11/29/21 18:14	II211104-2	.50015		.63	mg/L	126	70	130			
WG532511SIC	SIC	11/29/21 18:17	II211027-2	200.56015		194.5	mg/L	97	1	200			
WG532511LFB	LFB	11/29/21 18:24	II211118-4	67.98808		68.63	mg/L	101	85	115			
L70041-03AS	AS	11/29/21 18:40	II211118-4	67.98808	104	166	mg/L	91	85	115			
L70041-03ASD	ASD	11/29/21 18:43	II211118-4	67.98808	104	165.7	mg/L	91	85	115	0	20	
WG532511CCV1	CCV	11/29/21 18:57	II211118-2	50		48.83	mg/L	98	90	110			
WG532511CCB1	CCB	11/29/21 19:00				.15	mg/L		-0.3	0.3			
WG532511CCV2	CCV	11/29/21 19:36	II211118-2	50		48.69	mg/L	97	90	110			
WG532511CCB2	CCB	11/29/21 19:39				.14	mg/L		-0.3	0.3			
WG532511CCV3	CCV	11/29/21 19:58	II211118-2	50		48.65	mg/L	97	90	110			
WG532511CCB3	CCB	11/29/21 20:01				.15	mg/L		-0.3	0.3			

Chloride SM4500Cl-E

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG532858													
WG532858ICV	ICV	12/03/21 10:59	WI210503-1	54.89		53.96	mg/L	98	90	110			
WG532858ICB	ICB	12/03/21 11:00				U	mg/L		-1.5	1.5			
WG532858LFB1	LFB	12/03/21 11:00	WI210908-11	29.97		30.36	mg/L	101	90	110			
WG532858CCV1	CCV	12/03/21 11:06	WI211201-1	49.95		53.59	mg/L	107	90	110			
WG532858CCB1	CCB	12/03/21 11:06				U	mg/L		-1.5	1.5			
L70022-01AS	AS	12/03/21 11:09	WI210908-11	29.97	72.5	96.67	mg/L	81	90	110			M2
WG532858CCV2	CCV	12/03/21 11:12	WI211201-1	49.95		54.27	mg/L	109	90	110			
WG532858CCB2	CCB	12/03/21 11:12				U	mg/L		-1.5	1.5			
WG532858LFB2	LFB	12/03/21 11:15	WI210908-11	29.97		29.63	mg/L	99	90	110			
WG532858CCV3	CCV	12/03/21 11:18	WI211201-1	49.95		53.84	mg/L	108	90	110			
WG532858CCB3	CCB	12/03/21 11:18				U	mg/L		-1.5	1.5			
WG532858CCV4	CCV	12/03/21 11:22	WI211201-1	49.95		54.33	mg/L	109	90	110			
WG532858CCB4	CCB	12/03/21 11:23				U	mg/L		-1.5	1.5			
WG532858CCV5	CCV	12/03/21 11:38	WI211201-1	49.95		54.25	mg/L	109	90	110			
WG532858CCB5	CCB	12/03/21 11:38				U	mg/L		-1.5	1.5			
L70022-02DUP	DUP	12/03/21 11:40			159	157.56	mg/L				1	20	
WG532858CCV6	CCV	12/03/21 11:42	WI211201-1	49.95		53.76	mg/L	108	90	110			
WG532858CCB6	CCB	12/03/21 11:42				.74	mg/L		-1.5	1.5			
WG532858CCV9	CCV	12/03/21 12:15	WI211201-1	49.95		53.88	mg/L	108	90	110			
WG532858CCB9	CCB	12/03/21 12:16				U	mg/L		-1.5	1.5			
WG532858CCV10	CCV	12/03/21 12:17	WI211201-1	49.95		54.63	mg/L	109	90	110			
WG532858CCB10	CCB	12/03/21 12:17				.56	mg/L		-1.5	1.5			

GCC

ACZ Project ID: ***L70041***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Chromium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG532631													
WG532631ICV	ICV	11/30/21 21:15	II211118-1	2		1.95	mg/L	98	95	105			
WG532631ICB	ICB	11/30/21 21:21				U	mg/L		-0.06	0.06			
WG532631PQV	PQV	11/30/21 21:24	II211104-2	.0502		.05	mg/L	100	70	130			
WG532631SIC	SIC	11/30/21 21:27	II211027-2	.1004		.103	mg/L	103	80	120			
WG532631LFB	LFB	11/30/21 21:33	II211118-4	.5005		.49	mg/L	98	85	115			
L70065-01AS	AS	11/30/21 22:01	II211118-4	.5005	U	.512	mg/L	102	85	115			
WG532631CCV1	CCV	11/30/21 22:04	II211118-2	1		.996	mg/L	100	90	110			
WG532631CCB1	CCB	11/30/21 22:07				U	mg/L		-0.06	0.06			
L70065-01ASD	ASD	11/30/21 22:10	II211118-4	.5005	U	.505	mg/L	101	85	115	1	20	
WG532631CCV2	CCV	11/30/21 22:40	II211118-2	1		.97	mg/L	97	90	110			
WG532631CCB2	CCB	11/30/21 22:43				U	mg/L		-0.06	0.06			
WG532631CCV3	CCV	11/30/21 23:02	II211118-2	1		.98	mg/L	98	90	110			
WG532631CCB3	CCB	11/30/21 23:05				U	mg/L		-0.06	0.06			

Cobalt, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG532511													
WG532511ICV	ICV	11/29/21 18:04	II211118-1	2.01		2.005	mg/L	100	95	105			
WG532511ICB	ICB	11/29/21 18:10				U	mg/L		-0.06	0.06			
WG532511PQV	PQV	11/29/21 18:14	II211104-2	.05005		.047	mg/L	94	70	130			
WG532511SIC	SIC	11/29/21 18:17	II211027-2	.1001		.091	mg/L	91	80	120			
WG532511LFB	LFB	11/29/21 18:24	II211118-4	.5005		.496	mg/L	99	85	115			
L70041-03AS	AS	11/29/21 18:40	II211118-4	.5005	U	.485	mg/L	97	85	115			
L70041-03ASD	ASD	11/29/21 18:43	II211118-4	.5005	U	.486	mg/L	97	85	115	0	20	
WG532511CCV1	CCV	11/29/21 18:57	II211118-2	1.005		1.016	mg/L	101	90	110			
WG532511CCB1	CCB	11/29/21 19:00				U	mg/L		-0.06	0.06			
WG532511CCV2	CCV	11/29/21 19:36	II211118-2	1.005		1.012	mg/L	101	90	110			
WG532511CCB2	CCB	11/29/21 19:39				U	mg/L		-0.06	0.06			
WG532511CCV3	CCV	11/29/21 19:58	II211118-2	1.005		1.008	mg/L	100	90	110			
WG532511CCB3	CCB	11/29/21 20:01				U	mg/L		-0.06	0.06			

Copper, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG532511													
WG532511ICV	ICV	11/29/21 18:04	II211118-1	2		1.942	mg/L	97	95	105			
WG532511ICB	ICB	11/29/21 18:10				U	mg/L		-0.03	0.03			
WG532511PQV	PQV	11/29/21 18:14	II211104-2	.05		.047	mg/L	94	70	130			
WG532511SIC	SIC	11/29/21 18:17	II211027-2	.1		.097	mg/L	97	80	120			
WG532511LFB	LFB	11/29/21 18:24	II211118-4	.5		.488	mg/L	98	85	115			
L70041-03AS	AS	11/29/21 18:40	II211118-4	.5	U	.489	mg/L	98	85	115			
L70041-03ASD	ASD	11/29/21 18:43	II211118-4	.5	U	.485	mg/L	97	85	115	1	20	
WG532511CCV1	CCV	11/29/21 18:57	II211118-2	1		.974	mg/L	97	90	110			
WG532511CCB1	CCB	11/29/21 19:00				U	mg/L		-0.03	0.03			
WG532511CCV2	CCV	11/29/21 19:36	II211118-2	1		.974	mg/L	97	90	110			
WG532511CCB2	CCB	11/29/21 19:39				U	mg/L		-0.03	0.03			
WG532511CCV3	CCV	11/29/21 19:58	II211118-2	1		.975	mg/L	98	90	110			
WG532511CCB3	CCB	11/29/21 20:01				U	mg/L		-0.03	0.03			

GCC

ACZ Project ID: ***L70041***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Fluoride SM4500F-C

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG532786													
WG532786ICV	ICV	12/02/21 12:57	WC211129-1	2.002		2.09	mg/L	104	90	110			
WG532786ICB	ICB	12/02/21 13:04				U	mg/L		-0.3	0.3			
WG532786PQV	PQV	12/02/21 13:09	WC211011-2	.3514		.36	mg/L	102	70	130			
WG532786LFB1	LFB	12/02/21 13:13	WC210803-9	5.02		5.02	mg/L	100	90	110			
WG532786CCV1	CCV	12/02/21 14:51	WC211129-1	2.002		2.18	mg/L	109	90	110			
WG532786CCB1	CCB	12/02/21 14:57				U	mg/L		-0.3	0.3			
WG532786CCV2	CCV	12/02/21 16:27	WC211129-1	2.002		2.11	mg/L	105	90	110			
WG532786CCB2	CCB	12/02/21 16:35				U	mg/L		-0.3	0.3			
WG532786LFB2	LFB	12/02/21 17:38	WC210803-9	5.02		4.84	mg/L	96	90	110			
WG532786CCV3	CCV	12/02/21 18:21	WC211129-1	2.002		2.05	mg/L	102	90	110			
WG532786CCB3	CCB	12/02/21 18:28				U	mg/L		-0.3	0.3			
WG532786CCV4	CCV	12/02/21 20:01	WC211129-1	2.002		2.12	mg/L	106	90	110			
WG532786CCB4	CCB	12/02/21 20:09				U	mg/L		-0.3	0.3			
L69990-16AS	AS	12/02/21 20:25	WC210803-9	5.02	.18	5.05	mg/L	97	90	110			
L69990-16ASD	ASD	12/02/21 20:33	WC210803-9	5.02	.18	5.05	mg/L	97	90	110	0	20	
WG532786CCV5	CCV	12/02/21 21:33	WC211129-1	2.002		2.09	mg/L	104	90	110			
WG532786CCB5	CCB	12/02/21 21:41				U	mg/L		-0.3	0.3			
WG533168													
WG533168ICV	ICV	12/08/21 17:10	WC211129-1	2.002		2.13	mg/L	106	90	110			
WG533168ICB	ICB	12/08/21 17:14				U	mg/L		-0.3	0.3			
WG533168PQV	PQV	12/08/21 17:19	WC211203-1	.3514		.36	mg/L	102	70	130			
WG533168LFB1	LFB	12/08/21 17:23	WC210803-9	5.02		5.17	mg/L	103	90	110			
WG533168CCV1	CCV	12/08/21 18:49	WC211129-1	2.002		2.17	mg/L	108	90	110			
WG533168CCB1	CCB	12/08/21 18:57				U	mg/L		-0.3	0.3			
L70065-01AS	AS	12/08/21 19:13	WC210803-9	5.02	U	5.14	mg/L	102	90	110			
L70065-01ASD	ASD	12/08/21 19:21	WC210803-9	5.02	U	5.14	mg/L	102	90	110	0	20	
WG533168CCV2	CCV	12/08/21 20:21	WC211129-1	2.002		2.18	mg/L	109	90	110			
WG533168CCB2	CCB	12/08/21 20:29				U	mg/L		-0.3	0.3			
WG533168LFB2	LFB	12/08/21 21:13	WC210803-9	5.02		5.29	mg/L	105	90	110			
WG533168CCV3	CCV	12/08/21 21:33	WC211129-1	2.002		2.17	mg/L	108	90	110			
WG533168CCB3	CCB	12/08/21 21:41				U	mg/L		-0.3	0.3			
WG533168CCV4	CCV	12/08/21 22:52	WC211129-1	2.002		2.2	mg/L	110	90	110			
WG533168CCB4	CCB	12/08/21 22:57				U	mg/L		-0.3	0.3			

GCC

ACZ Project ID: ***L70041***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Iron, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG532511													
WG532511ICV	ICV	11/29/21 18:04	II211118-1	2		1.953	mg/L	98	95	105			
WG532511ICB	ICB	11/29/21 18:10				U	mg/L		-0.18	0.18			
WG532511PQV	PQV	11/29/21 18:14	II211104-2	.150015		.142	mg/L	95	70	130			
WG532511SIC	SIC	11/29/21 18:17	II211027-2	200.170015		197.2	mg/L	99	1	200			
WG532511LFB	LFB	11/29/21 18:24	II211118-4	1.0001		1.002	mg/L	100	85	115			
L70041-03AS	AS	11/29/21 18:40	II211118-4	1.0001	U	.979	mg/L	98	85	115			
L70041-03ASD	ASD	11/29/21 18:43	II211118-4	1.0001	U	.971	mg/L	97	85	115	1	20	
WG532511CCV1	CCV	11/29/21 18:57	II211118-2	1		.984	mg/L	98	90	110			
WG532511CCB1	CCB	11/29/21 19:00				U	mg/L		-0.18	0.18			
WG532511CCV2	CCV	11/29/21 19:36	II211118-2	1		.986	mg/L	99	90	110			
WG532511CCB2	CCB	11/29/21 19:39				U	mg/L		-0.18	0.18			
WG532511CCV3	CCV	11/29/21 19:58	II211118-2	1		.982	mg/L	98	90	110			
WG532511CCB3	CCB	11/29/21 20:01				U	mg/L		-0.18	0.18			

Lead, dissolved M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG532909													
WG532909ICV	ICV	12/03/21 16:38	MS211013-2	.05		.0525	mg/L	105	90	110			
WG532909ICB	ICB	12/03/21 16:40				U	mg/L		-0.00022	0.00022			
WG532909LFB	LFB	12/03/21 16:42	MS211115-2	.05005		.05173	mg/L	103	85	115			
WG532909CCV1	CCV	12/03/21 17:00	MS211119-2	.25025		.24581	mg/L	98	90	110			
WG532909CCB1	CCB	12/03/21 17:02				U	mg/L		-0.0003	0.0003			
L69990-14AS	AS	12/03/21 17:14	MS211115-2	.05005	U	.05223	mg/L	104	70	130			
L69990-14ASD	ASD	12/03/21 17:16	MS211115-2	.05005	U	.0529	mg/L	106	70	130	1	20	
WG532909CCV2	CCV	12/03/21 17:21	MS211119-2	.25025		.24844	mg/L	99	90	110			
WG532909CCB2	CCB	12/03/21 17:23				U	mg/L		-0.0003	0.0003			
WG532909CCV3	CCV	12/03/21 17:32	MS211119-2	.25025		.25099	mg/L	100	90	110			
WG532909CCB3	CCB	12/03/21 17:34				U	mg/L		-0.0003	0.0003			
WG532909CCV4	CCV	12/03/21 17:41	MS211119-2	.25025		.25348	mg/L	101	90	110			
WG532909CCB4	CCB	12/03/21 17:43				U	mg/L		-0.0003	0.0003			

Lithium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG532511													
WG532511ICV	ICV	11/29/21 18:04	II211118-1	2		1.9982	mg/L	100	95	105			
WG532511ICB	ICB	11/29/21 18:10				U	mg/L		-0.024	0.024			
WG532511PQV	PQV	11/29/21 18:14	II211104-2	.03996		.0339	mg/L	85	70	130			
WG532511SIC	SIC	11/29/21 18:17	II211027-2	.0999		.0938	mg/L	94	80	120			
WG532511LFB	LFB	11/29/21 18:24	II211118-4	.999		1.006	mg/L	101	85	115			
L70041-03AS	AS	11/29/21 18:40	II211118-4	.999	.38	1.381	mg/L	100	85	115			
L70041-03ASD	ASD	11/29/21 18:43	II211118-4	.999	.38	1.381	mg/L	100	85	115	0	20	
WG532511CCV1	CCV	11/29/21 18:57	II211118-2	1		.9959	mg/L	100	90	110			
WG532511CCB1	CCB	11/29/21 19:00				U	mg/L		-0.024	0.024			
WG532511CCV2	CCV	11/29/21 19:36	II211118-2	1		.9958	mg/L	100	90	110			
WG532511CCB2	CCB	11/29/21 19:39				U	mg/L		-0.024	0.024			
WG532511CCV3	CCV	11/29/21 19:58	II211118-2	1		.9975	mg/L	100	90	110			
WG532511CCB3	CCB	11/29/21 20:01				U	mg/L		-0.024	0.024			

GCC

ACZ Project ID: ***L70041***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Magnesium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG532511													
WG532511ICV	ICV	11/29/21 18:04	II211118-1	100		95.43	mg/L	95	95	105			
WG532511ICB	ICB	11/29/21 18:10				U	mg/L		-0.6	0.6			
WG532511PQV	PQV	11/29/21 18:14	II211104-2	1.0001		1.14	mg/L	114	70	130			
WG532511SIC	SIC	11/29/21 18:17	II211027-2	201.0201		204.9	mg/L	102	1	200			
WG532511LFB	LFB	11/29/21 18:24	II211118-4	49.99847		48.72	mg/L	97	85	115			
L70041-03AS	AS	11/29/21 18:40	II211118-4	49.99847	43.2	88.98	mg/L	92	85	115			
L70041-03ASD	ASD	11/29/21 18:43	II211118-4	49.99847	43.2	88.93	mg/L	91	85	115	0	20	
WG532511CCV1	CCV	11/29/21 18:57	II211118-2	50		47.51	mg/L	95	90	110			
WG532511CCB1	CCB	11/29/21 19:00				U	mg/L		-0.6	0.6			
WG532511CCV2	CCV	11/29/21 19:36	II211118-2	50		47.57	mg/L	95	90	110			
WG532511CCB2	CCB	11/29/21 19:39				U	mg/L		-0.6	0.6			
WG532511CCV3	CCV	11/29/21 19:58	II211118-2	50		47.28	mg/L	95	90	110			
WG532511CCB3	CCB	11/29/21 20:01				U	mg/L		-0.6	0.6			

Manganese, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG532511													
WG532511ICV	ICV	11/29/21 18:04	II211118-1	2		1.953	mg/L	98	95	105			
WG532511ICB	ICB	11/29/21 18:10				U	mg/L		-0.03	0.03			
WG532511PQV	PQV	11/29/21 18:14	II211104-2	.05005		.044	mg/L	88	70	130			
WG532511SIC	SIC	11/29/21 18:17	II211027-2	50.10005		47.62	mg/L	95	1	200			
WG532511LFB	LFB	11/29/21 18:24	II211118-4	.499		.497	mg/L	100	85	115			
L70041-03AS	AS	11/29/21 18:40	II211118-4	.499	.27	.742	mg/L	95	85	115			
L70041-03ASD	ASD	11/29/21 18:43	II211118-4	.499	.27	.741	mg/L	94	85	115	0	20	
WG532511CCV1	CCV	11/29/21 18:57	II211118-2	1		.985	mg/L	99	90	110			
WG532511CCB1	CCB	11/29/21 19:00				U	mg/L		-0.03	0.03			
WG532511CCV2	CCV	11/29/21 19:36	II211118-2	1		.983	mg/L	98	90	110			
WG532511CCB2	CCB	11/29/21 19:39				U	mg/L		-0.03	0.03			
WG532511CCV3	CCV	11/29/21 19:58	II211118-2	1		.982	mg/L	98	90	110			
WG532511CCB3	CCB	11/29/21 20:01				U	mg/L		-0.03	0.03			

GCC

ACZ Project ID: ***L70041***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Mercury, dissolved M245.1 CVAA

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG532380													
WG532380ICV	ICV	11/24/21 9:50	HG211115-3	.00501		.00498	mg/L	99	95	105			
WG532380ICB	ICB	11/24/21 9:51				U	mg/L		-0.0002	0.0002			
WG532322													
WG532322CCV1	CCV	11/24/21 12:17	HG211115-3	.00501		.00491	mg/L	98	90	110			
WG532322CCB1	CCB	11/24/21 12:17				U	mg/L		-0.0002	0.0002			
WG532322PQV	PQV	11/24/21 12:18	HG211115-5	.001001		.00097	mg/L	97	70	130			
WG532322LRB	LRB	11/24/21 12:19				U	mg/L		-0.00044	0.00044			
WG532322LFB	LFB	11/24/21 12:20	HG211115-6	.002002		.00193	mg/L	96	85	115			
WG532322CCV2	CCV	11/24/21 12:28	HG211115-3	.00501		.00527	mg/L	105	90	110			
WG532322CCB2	CCB	11/24/21 12:29				U	mg/L		-0.0002	0.0002			
WG532322CCV3	CCV	11/24/21 12:39	HG211115-3	.00501		.00523	mg/L	104	90	110			
WG532322CCB3	CCB	11/24/21 12:40				U	mg/L		-0.0002	0.0002			
L70041-01LFM	LFM	11/24/21 12:43	HG211115-6	.002002	U	.00191	mg/L	95	85	115			
L70041-01LFMD	LFMD	11/24/21 12:44	HG211115-6	.002002	U	.00187	mg/L	93	85	115	2	20	
WG532322CCV4	CCV	11/24/21 12:48	HG211115-3	.00501		.00511	mg/L	102	90	110			
WG532322CCB4	CCB	11/24/21 12:49				U	mg/L		-0.0002	0.0002			

Nickel, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG532511													
WG532511ICV	ICV	11/29/21 18:04	II211118-1	2		1.9562	mg/L	98	95	105			
WG532511ICB	ICB	11/29/21 18:10				U	mg/L		-0.024	0.024			
WG532511PQV	PQV	11/29/21 18:14	II211104-2	.04		.0411	mg/L	103	70	130			
WG532511SIC	SIC	11/29/21 18:17	II211027-2	.1		.101	mg/L	101	80	120			
WG532511LFB	LFB	11/29/21 18:24	II211118-4	.5		.4988	mg/L	100	85	115			
L70041-03AS	AS	11/29/21 18:40	II211118-4	.5	U	.4859	mg/L	97	85	115			
L70041-03ASD	ASD	11/29/21 18:43	II211118-4	.5	U	.4881	mg/L	98	85	115	0	20	
WG532511CCV1	CCV	11/29/21 18:57	II211118-2	1		.9994	mg/L	100	90	110			
WG532511CCB1	CCB	11/29/21 19:00				U	mg/L		-0.024	0.024			
WG532511CCV2	CCV	11/29/21 19:36	II211118-2	1		.9967	mg/L	100	90	110			
WG532511CCB2	CCB	11/29/21 19:39				U	mg/L		-0.024	0.024			
WG532511CCV3	CCV	11/29/21 19:58	II211118-2	1		.9893	mg/L	99	90	110			
WG532511CCB3	CCB	11/29/21 20:01				U	mg/L		-0.024	0.024			

Nitrate/Nitrite as N, dissolved M353.2 - Automated Cadmium Reduction

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG532147													
WG532147ICV	ICV	11/20/21 0:20	WI210904-1	2.4161		2.268	mg/L	94	90	110			
WG532147ICB	ICB	11/20/21 0:21				U	mg/L		-0.02	0.02			
WG532147LFB	LFB	11/20/21 0:25	WI211001-5	2		1.996	mg/L	100	90	110			
WG532147CCV1	CCV	11/20/21 0:35	WI211113-1	2		1.953	mg/L	98	90	110			
WG532147CCB1	CCB	11/20/21 0:38				U	mg/L		-0.02	0.02			
L70021-02AS	AS	11/20/21 0:47	WI211001-5	2	.9	2.853	mg/L	98	90	110			
L70022-01DUP	DUP	11/20/21 0:50			.123	.123	mg/L				0	20	RA
WG532147CCV2	CCV	11/20/21 0:52	WI211113-1	2		1.951	mg/L	98	90	110			
WG532147CCB2	CCB	11/20/21 0:55				U	mg/L		-0.02	0.02			
WG532147CCV3	CCV	11/20/21 1:09	WI211113-1	2		1.929	mg/L	96	90	110			
WG532147CCB3	CCB	11/20/21 1:13				U	mg/L		-0.02	0.02			

GCC

ACZ Project ID: ***L70041***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Nitrite as N, dissolved M353.2 - Automated Cadmium Reduction

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG532147													
WG532147ICV	ICV	11/20/21 0:20	WI210904-1	.6089		.585	mg/L	96	90	110			
WG532147ICB	ICB	11/20/21 0:21				U	mg/L		-0.01	0.01			
WG532147LFB	LFB	11/20/21 0:25	WI211001-5	1		.976	mg/L	98	90	110			
WG532147CCV1	CCV	11/20/21 0:35	WI211113-1	1		.985	mg/L	99	90	110			
WG532147CCB1	CCB	11/20/21 0:38				U	mg/L		-0.01	0.01			
L70021-02AS	AS	11/20/21 0:47	WI211001-5	1	U	.982	mg/L	98	90	110			
L70022-01DUP	DUP	11/20/21 0:50			.022	.021	mg/L				5	20	RA
WG532147CCV2	CCV	11/20/21 0:52	WI211113-1	1		.979	mg/L	98	90	110			
WG532147CCB2	CCB	11/20/21 0:55				U	mg/L		-0.01	0.01			
WG532147CCV3	CCV	11/20/21 1:09	WI211113-1	1		.984	mg/L	98	90	110			
WG532147CCB3	CCB	11/20/21 1:13				U	mg/L		-0.01	0.01			

Potassium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG532511													
WG532511ICV	ICV	11/29/21 18:04	II211118-1	20		19.83	mg/L	99	95	105			
WG532511ICB	ICB	11/29/21 18:10				U	mg/L		-0.6	0.6			
WG532511PQV	PQV	11/29/21 18:14	II211104-2	.9958		1.1	mg/L	110	70	130			
WG532511SIC	SIC	11/29/21 18:17	II211027-2	.9958		1.09	mg/L	109	80	120			
WG532511LFB	LFB	11/29/21 18:24	II211118-4	99.96008		100.7	mg/L	101	85	115			
L70041-03AS	AS	11/29/21 18:40	II211118-4	99.96008	6.31	107	mg/L	101	85	115			
L70041-03ASD	ASD	11/29/21 18:43	II211118-4	99.96008	6.31	106.2	mg/L	100	85	115	1	20	
WG532511CCV1	CCV	11/29/21 18:57	II211118-2	10		10.1	mg/L	101	90	110			
WG532511CCB1	CCB	11/29/21 19:00				U	mg/L		-0.6	0.6			
WG532511CCV2	CCV	11/29/21 19:36	II211118-2	10		10	mg/L	100	90	110			
WG532511CCB2	CCB	11/29/21 19:39				U	mg/L		-0.6	0.6			
WG532511CCV3	CCV	11/29/21 19:58	II211118-2	10		9.96	mg/L	100	90	110			
WG532511CCB3	CCB	11/29/21 20:01				U	mg/L		-0.6	0.6			

Residue, Filterable (TDS) @180C SM2540C

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG532428													
WG532428PBW	PBW	11/24/21 14:04				U	mg/L		-20	20			
WG532428LCSW	LCSW	11/24/21 14:06	PCN64720	1000		970	mg/L	97	80	120			
L70043-01DUP	DUP	11/24/21 14:35			1860	1868	mg/L				0	10	

GCC

ACZ Project ID: ***L70041***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Selenium, dissolved M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG532669													
WG532669ICV	ICV	12/01/21 10:10	MS211013-2	.05		.05242	mg/L	105	90	110			
WG532669ICB	ICB	12/01/21 10:12				U	mg/L		-0.00022	0.00022			
WG532669LFB	LFB	12/01/21 10:14	MS211115-2	.05		.05192	mg/L	104	85	115			
WG532669CCV1	CCV	12/01/21 10:32	MS211119-2	.25		.26251	mg/L	105	90	110			
L69990-14AS	AS	12/01/21 10:48	MS211115-2	.05	.00011	.05642	mg/L	113	70	130			
L69990-14ASD	ASD	12/01/21 10:50	MS211115-2	.05	.00011	.0517	mg/L	103	70	130	9	20	
WG532669CCV2	CCV	12/01/21 10:54	MS211119-2	.25		.26119	mg/L	104	90	110			
WG532669CCB2	CCB	12/01/21 10:56				.0004	mg/L		-0.0003	0.0003			BB BE
WG532669CCV3	CCV	12/01/21 11:06	MS211119-2	.25		.26203	mg/L	105	90	110			
WG532669CCB3	CCB	12/01/21 11:08				.00042	mg/L		-0.0003	0.0003			BB BE
WG532909													
WG532909ICV	ICV	12/03/21 16:38	MS211013-2	.05		.05181	mg/L	104	90	110			
WG532909ICB	ICB	12/03/21 16:40				U	mg/L		-0.00022	0.00022			
WG532909LFB	LFB	12/03/21 16:42	MS211115-2	.05		.04997	mg/L	100	85	115			
WG532909CCV1	CCV	12/03/21 17:00	MS211119-2	.25		.24441	mg/L	98	90	110			
WG532909CCB1	CCB	12/03/21 17:02				.0003	mg/L		-0.0003	0.0003			BE
L69990-14AS	AS	12/03/21 17:14	MS211115-2	.05	U	.05432	mg/L	109	70	130			
L69990-14ASD	ASD	12/03/21 17:16	MS211115-2	.05	U	.05452	mg/L	109	70	130	0	20	
WG532909CCV2	CCV	12/03/21 17:21	MS211119-2	.25		.23788	mg/L	95	90	110			
WG532909CCB2	CCB	12/03/21 17:23				.00018	mg/L		-0.0003	0.0003			
WG532909CCV3	CCV	12/03/21 17:32	MS211119-2	.25		.25189	mg/L	101	90	110			
WG532909CCB3	CCB	12/03/21 17:34				.00024	mg/L		-0.0003	0.0003			
WG532909CCV4	CCV	12/03/21 17:41	MS211119-2	.25		.25579	mg/L	102	90	110			
WG532909CCB4	CCB	12/03/21 17:43				.00015	mg/L		-0.0003	0.0003			

GCC

ACZ Project ID: ***L70041***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Sodium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG532511													
WG532511ICV	ICV	11/29/21 18:04	II211118-1	100		99.34	mg/L	99	95	105			
WG532511ICB	ICB	11/29/21 18:10				U	mg/L		-0.6	0.6			
WG532511PQV	PQV	11/29/21 18:14	II211104-2	1.0053		1.04	mg/L	103	70	130			
WG532511SIC	SIC	11/29/21 18:17	II211027-2	1.0053		1.08	mg/L	107	80	120			
WG532511LFB	LFB	11/29/21 18:24	II211118-4	100.0086		100.9	mg/L	101	85	115			
L70041-03AS	AS	11/29/21 18:40	II211118-4	100.0086	1220	1248	mg/L	28	85	115			M3
L70041-03ASD	ASD	11/29/21 18:43	II211118-4	100.0086	1220	1252	mg/L	32	85	115	0	20	M3
WG532511CCV1	CCV	11/29/21 18:57	II211118-2	50		49.86	mg/L	100	90	110			
WG532511CCB1	CCB	11/29/21 19:00				.23	mg/L		-0.6	0.6			
WG532511CCV2	CCV	11/29/21 19:36	II211118-2	50		49.68	mg/L	99	90	110			
WG532511CCB2	CCB	11/29/21 19:39				U	mg/L		-0.6	0.6			
WG532511CCV3	CCV	11/29/21 19:58	II211118-2	50		49.66	mg/L	99	90	110			
WG532511CCB3	CCB	11/29/21 20:01				U	mg/L		-0.6	0.6			
WG532584													
WG532584ICV	ICV	11/30/21 11:49	II211118-1	100		99.52	mg/L	100	95	105			
WG532584ICB	ICB	11/30/21 11:55				U	mg/L		-0.6	0.6			
WG532584PQV	PQV	11/30/21 11:58	II211104-2	1.0053		1.01	mg/L	100	70	130			
WG532584SIC	SIC	11/30/21 12:01	II211027-2	1.0053		1.06	mg/L	105	80	120			
WG532584LFB	LFB	11/30/21 12:07	II211118-4	100.0086		98.45	mg/L	98	85	115			
L70067-01AS	AS	11/30/21 12:35	II211118-4	100.0086	7.04	105.7	mg/L	99	85	115			
WG532584CCV1	CCV	11/30/21 12:38	II211118-2	50		49.47	mg/L	99	90	110			
WG532584CCB1	CCB	11/30/21 12:41				U	mg/L		-0.6	0.6			
L70067-01ASD	ASD	11/30/21 12:44	II211118-4	100.0086	7.04	106.5	mg/L	99	85	115	1	20	
WG532584CCV2	CCV	11/30/21 12:50	II211118-2	50		49.2	mg/L	98	90	110			
WG532584CCB2	CCB	11/30/21 12:53				U	mg/L		-0.6	0.6			

GCC

ACZ Project ID: ***L70041***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Sulfate D516-02/-07/-11 - TURBIDIMETRIC

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG532901													
WG532901ICB	ICB	12/03/21 10:47				U	mg/L		-3	3			
WG532901ICV	ICV	12/03/21 10:47	WI211129-1	20		20.7	mg/L	104	90	110			
WG532901CCV1	CCV	12/03/21 14:41	WI211129-2	25		25.6	mg/L	102	90	110			
WG532901CCB1	CCB	12/03/21 14:41				U	mg/L		-3	3			
WG532901LFB	LFB	12/03/21 14:41	WI210105-3	10		10.8	mg/L	108	90	110			
L70030-01DUP	DUP	12/03/21 14:41			16.3	15.8	mg/L				3	20	
WG532901CCV2	CCV	12/03/21 14:43	WI211129-2	25		25.5	mg/L	102	90	110			
WG532901CCB2	CCB	12/03/21 14:43				U	mg/L		-3	3			
WG532901CCV3	CCV	12/03/21 14:44	WI211129-2	25		25.4	mg/L	102	90	110			
WG532901CCB3	CCB	12/03/21 14:44				U	mg/L		-3	3			
WG532901CCV4	CCV	12/03/21 14:46	WI211129-2	25		25.3	mg/L	101	90	110			
WG532901CCB4	CCB	12/03/21 14:46				U	mg/L		-3	3			
WG532901CCV5	CCV	12/03/21 14:51	WI211129-2	25		25	mg/L	100	90	110			
WG532901CCB5	CCB	12/03/21 14:51				U	mg/L		-3	3			
WG532901CCV6	CCV	12/03/21 14:54	WI211129-2	25		25.1	mg/L	100	90	110			
WG532901CCB6	CCB	12/03/21 14:54				U	mg/L		-3	3			
WG532901CCV7	CCV	12/03/21 15:20	WI211129-2	25		25.2	mg/L	101	90	110			
WG532901CCB7	CCB	12/03/21 15:20				U	mg/L		-3	3			
WG532901CCV8	CCV	12/03/21 15:21	WI211129-2	25		25.2	mg/L	101	90	110			
WG532901CCB8	CCB	12/03/21 15:22				U	mg/L		-3	3			
WG532901CCV9	CCV	12/03/21 16:31	WI211129-2	25		25.1	mg/L	100	90	110			
WG532901CCB9	CCB	12/03/21 16:31				U	mg/L		-3	3			
L70041-01AS	AS	12/03/21 16:31	SO4TURB20X	50	3750	3783.9	mg/L	68	90	110			M3
WG532901CCV10	CCV	12/03/21 16:33	WI211129-2	25		25.1	mg/L	100	90	110			
WG532901CCB10	CCB	12/03/21 16:33				U	mg/L		-3	3			
WG532901CCV11	CCV	12/03/21 16:35	WI211129-2	25		25	mg/L	100	90	110			
WG532901CCB11	CCB	12/03/21 16:35				U	mg/L		-3	3			

Vanadium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG532584													
WG532584ICV	ICV	11/30/21 11:49	II211118-1	2		2.037	mg/L	102	95	105			
WG532584ICB	ICB	11/30/21 11:55				U	mg/L		-0.015	0.015			
WG532584PQV	PQV	11/30/21 11:58	II211104-2	.025025		.024	mg/L	96	70	130			
WG532584SIC	SIC	11/30/21 12:01	II211027-2	.1001		.101	mg/L	101	80	120			
WG532584LFB	LFB	11/30/21 12:07	II211118-4	.5005		.5036	mg/L	101	85	115			
L70067-01AS	AS	11/30/21 12:35	II211118-4	.5005	U	.4932	mg/L	99	85	115			
WG532584CCV1	CCV	11/30/21 12:38	II211118-2	1		1.005	mg/L	101	90	110			
WG532584CCB1	CCB	11/30/21 12:41				U	mg/L		-0.03	0.03			
L70067-01ASD	ASD	11/30/21 12:44	II211118-4	.5005	U	.505	mg/L	101	85	115	2	20	
WG532584CCV2	CCV	11/30/21 12:50	II211118-2	1		.982	mg/L	98	90	110			
WG532584CCB2	CCB	11/30/21 12:53				U	mg/L		-0.03	0.03			

GCC

ACZ Project ID: ***L70041***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Zinc, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG532511													
WG532511ICV	ICV	11/29/21 18:04	II211118-1	2		1.998	mg/L	100	95	105			
WG532511ICB	ICB	11/29/21 18:10				U	mg/L		-0.06	0.06			
WG532511PQV	PQV	11/29/21 18:14	II211104-2	.05015		.047	mg/L	94	70	130			
WG532511SIC	SIC	11/29/21 18:17	II211027-2	.1003		.095	mg/L	95	80	120			
WG532511LFB	LFB	11/29/21 18:24	II211118-4	.50045		.517	mg/L	103	85	115			
L70041-03AS	AS	11/29/21 18:40	II211118-4	.50045	U	.523	mg/L	105	85	115			
L70041-03ASD	ASD	11/29/21 18:43	II211118-4	.50045	U	.524	mg/L	105	85	115	0	20	
WG532511CCV1	CCV	11/29/21 18:57	II211118-2	1		.999	mg/L	100	90	110			
WG532511CCB1	CCB	11/29/21 19:00				U	mg/L		-0.06	0.06			
WG532511CCV2	CCV	11/29/21 19:36	II211118-2	1		.998	mg/L	100	90	110			
WG532511CCB2	CCB	11/29/21 19:39				U	mg/L		-0.06	0.06			
WG532511CCV3	CCV	11/29/21 19:58	II211118-2	1		.994	mg/L	99	90	110			
WG532511CCB3	CCB	11/29/21 20:01				U	mg/L		-0.06	0.06			

GCC Rio Grande ACZ Project ID: ***L70041***

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L70041-01	WG532858	Chloride	SM4500Cl-E	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG532147	Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG532428	Residue, Filterable (TDS) @180C	SM2540C	N1	See Case Narrative.
	WG532511	Sodium, dissolved	M200.7 ICP	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG532901	Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
L70041-02	WG532858	Chloride	SM4500Cl-E	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG532147	Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG532428	Residue, Filterable (TDS) @180C	SM2540C	N1	See Case Narrative.
	WG532669	Selenium, dissolved	M200.8 ICP-MS	BB	Target analyte detected in calibration blank at or above acceptance limit. Sample value was > 10X the concentration in the calibration blank.
	WG532511	Sodium, dissolved	M200.7 ICP	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG532901	Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
L70041-03	WG532858	Chloride	SM4500Cl-E	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG532147	Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG532428	Residue, Filterable (TDS) @180C	SM2540C	N1	See Case Narrative.
	WG532669	Selenium, dissolved	M200.8 ICP-MS	BE	Target analyte in continuing calibration blank (CCB) at or above the acceptance criteria. Target analyte was not detected in the sample [< MDL].
	WG532901	Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Extended Qualifier Report

GCC Rio Grande

ACZ Project ID: ***L70041***

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L70041-04	WG532858	Chloride	SM4500Cl-E	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG532147	Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG532428	Residue, Filterable (TDS) @180C	SM2540C	N1	See Case Narrative.
	WG532669	Selenium, dissolved	M200.8 ICP-MS	BE	Target analyte in continuing calibration blank (CCB) at or above the acceptance criteria. Target analyte was not detected in the sample [< MDL].
	WG532901	Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.

Certification Qualifiers

GCC Rio Grande ACZ Project ID: ***L70041***

No certification qualifiers associated with this analysis

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Sample Receipt

GCC Rio Grande

ACZ Project ID: L70041
Date Received: 11/19/2021 11:37
Received By:
Date Printed: 11/22/2021

Receipt Verification

	YES	NO	NA
1) Is a foreign soil permit included for applicable samples?			X
2) Is the Chain of Custody form or other directive shipping papers present?	X		
3) Does this project require special handling procedures such as CLP protocol?		X	
4) Are any samples NRC licensable material?			X
5) If samples are received past hold time, proceed with requested short hold time analyses?	X		
6) Is the Chain of Custody form complete and accurate?	X		
7) Were any changes made to the Chain of Custody form prior to ACZ receiving the samples?		X	

Samples/Containers

	YES	NO	NA
8) Are all containers intact and with no leaks?	X		
9) Are all labels on containers and are they intact and legible?	X		
10) Do the sample labels and Chain of Custody form match for Sample ID, Date, and Time?	X		
11) For preserved bottle types, was the pH checked and within limits? [1]	X		
12) Is there sufficient sample volume to perform all requested work?	X		
13) Is the custody seal intact on all containers?			X
14) Are samples that require zero headspace acceptable?			X
15) Are all sample containers appropriate for analytical requirements?	X		
16) Is there an Hg-1631 trip blank present?			X
17) Is there a VOA trip blank present?			X
18) Were all samples received within hold time?	X		

NA indicates Not Applicable

Chain of Custody Related Remarks

Client Contact Remarks

Shipping Containers

Cooler Id	Temp(°C)	Temp Criteria(°C)	Rad(µR/Hr)	Custody Seal Intact?
6635	1.1	<=6.0	15	N/A

Was ice present in the shipment container(s)?

Yes - Wet ice was present in the shipment container(s).

Client must contact an ACZ Project Manager if analysis should not proceed for samples received outside of their thermal preservation acceptance criteria.

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Sample Receipt

GCC Rio Grande

ACZ Project ID:	L70041
Date Received:	11/19/2021 11:37
Received By:	
Date Printed:	11/22/2021

[1] The preservation of the following bottle types is not checked at sample receipt: Orange (oil and grease), Purple (total cyanide), Pink (dissolved cyanide), Brown (arsenic speciation), Sterile (fecal coliform), EDTA (sulfite), HCl preserved vial (organics), Na2S2O3 preserved vial (organics), and HG-1631 (total/dissolved mercury by method 1631).

ACZ Laboratories, Inc. L70041

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

CHAIN of CUSTODY

Report to:

Name: Diana Furman
Company: GCC Rio Grande Inc.
E-mail: dfurman@gcc.com
Address: 3372 Lime Road, Pueblo, CO 81004
Telephone: (719)647-6861

Copy of Report to:

Name: Ben Kelland
Company: Aquionix
E-mail: bkelland@aquionix.com
Telephone: (310) 890-5380

Invoice to:

Name: Diana Furman
Company: GCC Rio Grande Inc.
E-mail: dfurman@gcc.com
Address: 3372 Lime Road, Pueblo, CO 81004
Telephone: (719)647-6861

If sample(s) received past holding time (HT), or if insufficient HT remains to complete analysis before expiration, shall ACZ proceed with requested short HT analyses? YES [X] NO [ ]

If "NO" then ACZ will contact client for further instruction. If neither "YES" nor "NO" is indicated, ACZ will proceed with the requested analyses, even if HT is expired, and data will be qualified

Are samples for SDWA Compliance Monitoring? Yes [ ] No [X]

If yes, please include state forms. Results will be reported to PQL for Colorado.

Sampler's Name: Ben Kelland **Sampler's Site Information** State CO Zip code 81004 Time Zone MDT

***Sampler's Signature:** [signature]

*I attest to the authenticity and validity of this sample. I understand that intentionally mislabeling the time/date/location or tampering with the sample in anyway, is considered fraud and punishable by State Law.

PROJECT INFORMATION

Quote #: GW-COMPLIANCE 03/27/2019
PO#: N/A
Reporting state for compliance testing: Colorado
Check box if samples include NRC licensed material? [ ]

ANALYSES REQUESTED *(attach list or use quote number)*

SAMPLE IDENTIFICATION	DATE:TIME	Matrix	# of Containers	Per attached quote but no pH							
MW-6	11/18/21 14:28	GW	3	[X]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
MW-7	11/18/21 12:01	GW	3	[X]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
MW-2B	11/18/21 14:06	GW	3	[X]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
MW-8	11/18/21 13:51	GW	3	[X]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
				[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
				[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
				[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
				[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
				[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
				[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]

Matrix: SW (Surface Water) · (GW) (Ground Water) · WW (Waste Water) · DW (Drinking Water) · SL (Sludge) · SO (Soil) · OL (Oil) · Other (Specify)

REMARKS

Please refer to ACZ's terms & conditions located on the reverse side of this COC.

RELINQUISHED BY:	DATE:TIME	RECEIVED BY:	DATE:TIME
[signature]	11/18/21 15:22	[signature]	11/19/21 11:37

FRMAD050.06.14.14 White - Return with sample. Yellow - Retain for your records.

L70041 Chain of Custod

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Bottle Order Packing List

Account: GCC/GCC Rio Grande
Bottle Order: BO48511
Internal Note:

Bill to Account: Bill to ACZ
Ship Date Requested: 11/12/2021
Request Placed at: 11/11/2021 16:11
Service Requested: UPS Ground

Sampling supplies

PACK	Qty	ACZ ID	Type	Description
1	1	COC	Chain of Custody	Chain of Custody, 1 for 10 samples.
2	2	SEAL	Custody Seal	Custody seals for cooler, two for each cooler.
1	1	RETURN	Return Address	Return Address label, one for each cooler.
12	18	LABELS	Sample Labels	ACZ supplied labels for sample containers
		TRIP HG		

ACZ Coolers

PACK	Qty	ACZ ID	Size	Weight	UPS Tracking Number
1	1	6635	Large	11	

Quote number: GW-COMPLIANCE
Sample Quantity: 6 [4]

Quarterly Groundwater Compliance Monitoring: 2019 4 samples
Client is responsible for necessary field filtering

PACK	Qty	Type	Size	Filter/Raw/Preserve	Instructions
4	1	GREEN PC	125 ML	Green pre-cleaned Filtered/Nitiric	Metals (dissolved including ICPMS) - Filter sample with .45 micron filter. Do not overfill as there is Nitric Acid in the bottle.
4	1	RAW	500 ML	Raw	Wet Chemistry (analyses that do not require preservative or filtration) - Completely fill container.
4	1	WHITE	250 ML	Filtered	Wet chemistry (dissolved) - Filter sample with .45 micron filter. Completely fill container.

Prepared By/Date: _____

wpl

ATTACHMENT 3 - GCC Groundwater Sampling Lab Data Validation Report

DIANE SHORT & ASSOCIATES, INC.
2634 S. Deframe Circle
Lakewood CO 80228
303:271-9642
dsa7cbc@eazyqaqc.com

INORGANIC DATA QUALITY REVIEW REPORT
METALS BY ICPMS, ICP, CVAA, WET CHEMISTRY AND SPECIAL METHODS

SDG	L64379, L65969, L68204, L70041
PROJECT	GCC Rio Grande – First through Fourth Quarters 2021, Resource Hydrogeologic Services and GCC
LABORATORY	ACZ Laboratories, Steamboat Springs, CO
SAMPLE MATRIX	Water SAMPLING DATE: 2/22; 5/19; 8/31, 11/18/2021
ANALYSES REQUESTED	EPA 200.7 (metals by ICP, dissolved), EPA 200.8 (metals by ICPMS, dissolved), EPA 245.1 (mercury, dissolved), SM4500F-C (Fluoride), M353.2 (nitrate + nitrite as nitrogen, nitrite as nitrogen, nitrate as nitrogen); SM2540C (total dissolved solids); D516-02/-07/-11 -Sulfate by turbidimetry; SM4500Cl-E (Chloride)
SAMPLE NUMBER	MW-6, MW-7, MW-2B and MW-8

DATA REVIEWER: John Huntington

QA REVIEWER: Diane Short & Associates, Inc. INITIALS/DATE: ___ DLS ___

Telephone Logs included Yes____ No __X_
Contractual Violations Yes____ No __X_

The Contract Laboratory Program National Functional Guidelines for Inorganic Data Review 2016 (NFG) and the requested EPA Methods, Methods of Chemical Analysis of Water and Wastes (MCAWW) and Standard Methods (SM, current updates) have been referenced by the reviewer to perform this data validation review. The review includes evaluation of calibration, holding times and Quality Control (QC) for all samples; and 10% review of transcription and calculation algorithms from the raw data. Determining the exact analytical sequence was performed to verify that the frequencies of QC sample analyses were met, where applicable, on 10% of the data. General comments regarding the data/analytical quality are part of the review when raw data are submitted. The reports use Diane Short & Associates (DSA) validation qualifiers in the text and tables that include the compilation of the reasons for qualification and the associated values, as defined in each section for QC outliers. The United States Environmental Protection Agency (EPA) qualifiers have been provided. The DSA qualifiers, EPA qualifiers, and validation codes are included in the Electronic Data Deliverable (EDD). Note: those items in this report which have an asterisk (*) are specific to inductively coupled plasma-mass spectrometry (ICP-MS) and may include inductively coupled plasma-atomic emission spectroscopy (ICP-AES) as applicable.

I. DELIVERABLES

All deliverables were present as specified in the Statement of Work (SOW), SW-846, or in the project contract. This includes the Case Narrative.

Yes X No _____

Data were submitted for EPA 200.7 (16 metals by ICP, dissolved), EPA 200.8 (4 metals by ICPMS, dissolved), EPA 245.1 (mercury, dissolved), SM4500F-C (Fluoride), M353.2 (nitrate + nitrite as nitrogen, nitrite as nitrogen, nitrate as nitrogen); SM2540C (total dissolved solids); D516-02/-07/-11 -Sulfate by turbidimetry; SM4500Cl-E (Chloride). Note that for these SDGS, pH was not requested. Note 12 ICP metals for 3rd quarter.

The data were validated at EPA Level III (EPA Stage 2B) with a minimum of 10% validated as EPA raw data review). All SDGs are Level IV.

The laboratory has reported detections to the MDL and has flagged results between the MDL and the PQL with a "B". This is noted because many laboratories use "J" instead of "B" for this purpose, so the meaning of this flag needs to be kept in mind when reviewing the data. The definition of lab flags is provided in the report in the Inorganic Reference section.

II. ANALYTICAL REPORT FORMS

A. The Analytical Report or Data Sheets are present and complete for all requested analyses.

Yes X No _____

B. Holding Times

1. The contract holding times were met for all analyses (time of sample receipt to date of analysis).

Yes X No _____ N/A _____

Data are qualified from date of collection to analysis, as presented in the next section.

2. The method holding times were met for all analyses (time of sample collection to date of analysis per the holding times in the project QAPP).

Yes _____ No X

The method holding times were met for all analyses, with the following clarifications and exceptions.

Results reported by the lab are qualified as JH#, where # is the number of days since sampling. An outlier that is greater than 4 x the hold time is rejected. Such results should be considered as estimates due to time and temperature changes in the samples.

In this set of data, nitrate and nitrite results have been flagged by the laboratory as out of hold in SDG L65969 and in SDG L68204. The analysis has exceeded the 48-hr hold time for individual determination of nitrate or nitrite. The results could be biased due to microbial degradation or formation of nitrate and nitrite. The bias is typically thought to be low, but a positive bias is also possible. In this case, the outliers are only about 12 hours beyond the hold time. Any degradation is likely to be insignificant during this brief time since the samples were kept cold, which suppresses microbial activity.

Note that the laboratory extended qualifier section of the report states that the hold time for nitrate and nitrite is 7 days, which is incorrect for the methods quoted. The laboratory has actually used 48 hours as stipulated by 40CFR. This is a report error that should be corrected but has no impact on the results.

In addition, one TDS analysis in SDG L65969 was analyzed at a dilution 7 days after the expiration of the 7-day hold time, and that result is qualified accordingly. The original result contained more than 200 mg of final

residue, and the method specifies that there must be less than 200 mg. Therefore, the laboratory reanalyzed the sample. The reason for the 200-mg method limit is to avoid a crust over the solid material that prevents proper drying. This phenomenon is dependent on the area over which the residue is distributed, so different laboratory evaporation dishes used in this method may produce different results. From the raw data review, the original result was essentially the same as the second analysis so there is not likely to be a bias due to the hold time outlier for TDS.
Qualifiers added are shown below and in the qualified EDD.

CLIENTID	LABID	ANALYTE	RESULT	QUAL	UNITS	MDL	PQL	DSA	EPA
MW-2B	L68204-04	Nitrate as N, dissolved	0.91	H	mg/L	0.02	0.1	JHT0.55	J-
MW-2B	L65969-04	Nitrate as N, dissolved	7.45	H	mg/L	0.08	0.4	JHT0.52	J-
MW-6	L68204-01	Nitrate as N, dissolved	4.20	H	mg/L	0.04	0.2	JHT0.52	J-
MW-6	L65969-01	Nitrate as N, dissolved	.03	BH	mg/L	0.02	0.1	JHT0.58	J-
MW-7	L68204-02	Nitrate as N, dissolved	0.91	H	mg/L	0.02	0.1	JHT0.56	J-
MW-7	L65969-02	Nitrate as N, dissolved	7.51	H	mg/L	0.08	0.4	JHT0.53	J-
MW-8	L68204-03	Nitrate as N, dissolved		UH	mg/L	0.02	0.1	UJHT0.53	UJ-
MW-8	L65969-03	Nitrate as N, dissolved	.99	H	mg/L	0.02	0.1	JHT0.52	J-
MW-2B	L68204-04	Nitrate/Nitrite as N, dissolved	0.907	H	mg/L	0.02	0.1	JHT0.55	J-
MW-2B	L65969-04	Nitrate/Nitrite as N, dissolved	7.48	H	mg/L	0.08	0.4	JHT0.52	J-
MW-6	L68204-01	Nitrate/Nitrite as N, dissolved	4.24	H	mg/L	0.04	0.2	JHT0.52	J-
MW-6	L65969-01	Nitrate/Nitrite as N, dissolved	0.032	BH	mg/L	0.02	0.1	JHT0.58	J-
MW-7	L68204-02	Nitrate/Nitrite as N, dissolved	0.907	H	mg/L	0.02	0.1	JHT0.56	J-
MW-7	L65969-02	Nitrate/Nitrite as N, dissolved	7.54	H	mg/L	0.08	0.4	JHT0.53	J-
MW-8	L68204-03	Nitrate/Nitrite as N, dissolved	0.022	BH	mg/L	0.02	0.1	JHT0.53	J-
MW-8	L65969-03	Nitrate/Nitrite as N, dissolved	1.01	H	mg/L	0.02	0.1	JHT0.52	J-

CLIENTID	LABID	ANALYTE	RESULT	QUAL	UNITS	MDL	PQL	DSA	EPA
MW-2B	L68204-04	Nitrite as N, dissolved		UH	mg/L	0.01	0.05	UJHT0.55	UJ-
MW-2B	L65969-04	Nitrite as N, dissolved	0.028	BH	mg/L	0.01	0.05	JHT0.52	J-
MW-6	L68204-01	Nitrite as N, dissolved	0.038	BH	mg/L	0.01	0.05	JHT0.51	J-
MW-6	L65969-01	Nitrite as N, dissolved		UH	mg/L	0.01	0.05	UJHT0.58	UJ-
MW-7	L68204-02	Nitrite as N, dissolved		UH	mg/L	0.01	0.05	UJHT0.56	UJ-
MW-7	L65969-02	Nitrite as N, dissolved	0.027	BH	mg/L	0.01	0.05	JHT0.51	J-
MW-8	L68204-03	Nitrite as N, dissolved	0.014	BH	mg/L	0.01	0.05	JHT0.53	J-
MW-8	L65969-03	Nitrite as N, dissolved	0.016	BH	mg/L	0.01	0.05	JHT0.52	J-
MW-6	L65969-01	Residue, Filterable (TDS) @180C	5430	H	mg/L	100	200	JHT7.06	J-

3. Samples were properly preserved to pH < 2 for metals, and applicable preservative was used for other methods.

Yes X No _____ N/A _____

C. Chains of Custody (COC)

Chains of Custody (COC) were reviewed and all fields were complete, signatures were present, and cross outs were clean and initialed.

Yes X No _____

All sample analyses were sent under a COC to ACZ Labs, Steamboat Springs, CO.

III. CALIBRATION AND STANDARDIZATION

1. Initial calibration, mass calibration, and resolution checks for both low and high mass isotopes were within 0.1 atomic mass unit (amu) of the true value. (*)

Yes X No _____

All requisite instrument tuning or performance measures were done according to the method requirements. (*).

US EPA Tune Check Sample reports were provided in the raw data and reports indicated the tunes passed in all cases.

2. Mass calibration and resolution checks for both low and high mass isotopes produced a peak width of approximately 0.6 to 0.9 amu at 10% peak height. (*)

Yes X No _____

3. Instrument Stability

A tuning solution was analyzed a minimum of four times, and the relative standard deviation (RSD) of absolute signals for all analytes was less than 5%. (*)

Yes X No _____

B. Instrument Performance and Calibration Standards

1. The Initial Calibration Verification (ICV) standard was within the required control limits of ± 10% of the established value for all analytes. (80 – 120% for mercury, 85 – 115% for Se species)

Yes X No _____

2. The Continuing Calibration Verification (CCV) standards were analyzed at the required frequency following every 10 analyses.

Yes X No _____
Sequencing was performed to verify that the frequencies were met for client samples and for proper application of the qualifiers.

3. The CCV standard percent recovery results were within the required control limits of 90 – 110% (80 – 120 % for mercury, 75 – 125% for Se species)

Yes X No _____
All CCVs were within criteria.

4. The correlation coefficients met the ≥ 0.995 criterion, as applicable to the method for mercury.

Yes X No _____

IV. CONTRACT REQUIRED DETECTION LIMIT (CRDL) STANDARDS

1. The 2x CRDL standards were analyzed for metals as required in the QAPP.

Yes X No _____ N/A _____

2. The 2x CRDL standards were within the required control limits of 70 – 130% (ICP: 50 – 150% for Lead, Antimony, and Thallium; ICPMS: 50 – 150% for Cobalt, Manganese, and Zinc).

Yes X No _____
All CRDLs were within criteria. A CRDL check is not required for Method 200.8. However, the laboratory initial calibration run each day has a low-level standard that is very near the reporting limit. This meets method requirements. The 200.7 method does include an RL Check standard that meets criteria.

V. INTERFERENCES

Isobaric Elemental and Molecular Interferences (* for ICP-MS)
The isotope selected was free of isobaric elemental and elemental interferences as measured by the Interference Check Sample Solutions A and AB (ICSA/ICSAB) for ICP-AES and ICP-MS.

Yes X No _____
Data are only qualified if the interfering analyte is present in the sample and at levels near the high end of the linear range of the instrument. Note that the interference check standards are only reported in the raw data for ICP. Method 200.8 (ICPMS) does not specify the use of interference check standards.

VI. LABORATORY REAGENT BLANK (LRB) OR PREPARATION BLANK

A. Blanks were prepared and analyzed at the required frequency of at least one per each set of samples.

Yes X No _____
The ICB is used as the method blank. This is acceptable since no digestion was performed on the samples prior to analysis.

B. All analytes in the blank were less than the MDL.

Yes X No _____
Analytes reported as contaminants in the Preparation Blank are qualified with the DSA qualifier "UMB#," where # is the value of the associated blank. Only detected data less than 10x the blank for metals or 5x the blank for other analyses are qualified. Such data are fully usable as non-detected values at the reported concentration or elevated reporting limit. All associated client field sample data were either non-detect or > 10x the blank for metals. Note that the preparation blanks are all run as totals and are applied to both total and dissolved samples.

SDG L70041: Dissolved cadmium and calcium had low-level detections in the associated ICB. However, cadmium was not detected in any sample, and calcium was present at levels much greater than the blank level. No qualifiers are required.

C. The source of contamination was corrected, and the samples were reanalyzed.

Yes _____ No _____ N/A X

VII. CALIBRATION BLANKS

The highest blank associated with any particular analyte is used for the qualification process and is the value entered after the DSA "B" blank-qualifier descriptor.

A. Calibration Blanks were prepared and analyzed at the required frequency after each set of 10 samples as required by the method.

Yes X No _____
Sequencing was required to verify association with client samples.

B. The Calibration Blank results were within the required control limits or did not require data qualification.

Yes X No _____ N/A _____
Analytes reported as contaminants in the Calibration Blanks are qualified with the DSA qualifier "UCB#," where # is the value of the blank. Such data are fully usable as non-detected values at the reported concentration or elevated reporting limit. Only detected data less than 10 × blank for metals and 5 × blank for other analyse are qualified.

There are several analytes detected in CCBs. However, these are all associated with non-detects in samples or else with sample results > 10x the CCB level. No qualifiers are required.

C. Field, decon rinse or other Field Blanks are contained and identified in the package.

Yes _____ No X N/A _____

D. The reported results for the Field Blanks are less than the CRDL or less than the MDL, whichever is lower.

Yes _____ No _____ N/A X

VIII. INTERNAL STANDARD RESPONSES (*)

A. A minimum of three internal standards were present in all standards and blanks at identical levels.

Yes X No _____

B. The absolute response of each internal standard (IS) was within the required EPA control limits of 60 – 125%.

Yes X No _____
For the analytes reported.

C. Dilutions were performed as required by the method to minimize errors if the internal standard analyte is naturally present in a sample.

Yes _____ No _____ N/A X

D. If not, the appropriate test procedures were performed, and the required corrections made.

Yes _____ No _____ N/A X

IX. MATRIX SPIKES

A. Matrix Spike and Matrix Spike Duplicate (MS/MSD) samples were prepared and analyzed at one per every 20 or fewer samples for each matrix and each sampling event per day as required.

Yes _____ No X
Matrix spikes, duplicates, and matrix spike duplicates were present, but none were specifically for client samples for Method 200.8. For wet chemistry, a matrix spike and a matrix duplicate are analyzed. The project manager will determine if the project frequency is met for these methods. Matrix spikes associated with this set of data are shown in the table below. It is recommended that the client collect Representative samples for each method and designate them to the laboratory to be used for the MS/MSDs. As these samples are collected quarterly, only 1 QC sample would be required per year.

The ICP-MS data (200.8) included MS/MSDs, but these were associated with a different project and are not applicable to these samples. Nitrate and nitrate (M353.2) had a MS and sample duplicate performed. Matrix spikes are not appropriate for the other methods performed.

Spiked Sample - SDG L68204	Methods
MW-2B	M200.7 ICP
MW-2B	SM4500Cl-E
MW-8	M245.1 CVAA
MW-8	M353.2 - Automated Cadmium Reduction
MW-7	M353.2 - Automated Cadmium Reduction
Spiked Sample – SDG L64379	Methods
MW-7	M245.1 CVAA
Spiked Sample -SDG L65969	Methods
MW-8	SM4500Cl-E
MW-7	SM4500F-C
MW-2B	M245.1 CVAA
Spiked Sample - SDG L70041	
MW-2B	M200.7 ICP

Spiked Sample - SDG L68204	Methods
MW-6	M245.1 CVAA
MW-6	D516-02/-07/-11 – TURBIDIMETRIC Sulfate

B. The MS/MSD percent recoveries were within the required control limits of 75 – 125%.

Yes X No _____ N/A _____

When matrix spikes are present, associated data are qualified with the DSA qualifier JMS#, where # is the value of the %R for the associated MS or MSD. Data may be biased high or low proportional to the spike recovery. The laboratory 'flags' data as M1 whether they are > 4x spike or within the qualifying limits. The laboratory flags are not recommended for use in evaluating the data as MS/MSD recoveries are not used for qualification of data if the result in the parent sample is > 4x the spike. Non-detected data are not qualified for high spikes. Only those MS/MSDs with parent samples in these projects are considered.

For some methods, such as Method 300.0 and Method 353.2, the laboratory uses a recovery window of 90-110%. Results are only qualified if the recoveries are outside the window specified above.

No samples are qualified for matrix spike outliers.

C. A Post Digestion Spike was prepared and analyzed if required.

Yes _____ No _____ N/A X

Not required in this case.

D. The MS/MSD samples were client samples.

Yes X No _____

MS/MSD analyses were also performed on client samples from other SDGs but are not pertinent for qualification.

X. MATRIX DUPLICATE

A. Matrix Duplicate samples were prepared and analyzed per every 20 samples for each matrix.

Yes X No _____

For nitrate, nitrite, chloride, and TDS the duplicate precision criteria are met.

Parent Sample L68204	Methods
MW-8	SM2320B - alkalinity
MW-7	M353.2 - Automated Cadmium Reduction
MW-7	SM2540C – TDS
Parent Sample L65969	Methods
MW-2B	SM2540C – TDS
MW-6	M353.2 - Automated Cadmium Reduction
MW-7	SM4500Cl-E
Parent Sample L64379	Methods
MW-2B	SM2540C – TDS
Parent Sample SDG L70041	Methods
MW-2B	SM2320B -alkalinity

B. The MS/MSD or MD relative percent difference (RPD) values were within the required control limit of ≤ 20 RPD for water samples or ≤ 35% RPD for soil samples. If either of the MD results is less than 5x RL, the RPD is not used. In that case the difference between the results is evaluated and the QC limit is the difference between the original and the duplicate results (± 1x RL for water samples or ± 2x RL for soil samples). If the parent sample result is greater than 4 x the spike concentration, the MS/MSD is not evaluated. Only detected results are qualified for MS/MSD RPD outliers. Only those MS/MSDs with parent samples in these projects are considered.

Yes X No _____
Data are qualified with the DSA qualifier JD#, where # is the value of the RPD for the associated MD or MS/MSD analyses, when there are outliers. In this case there are no qualifiers.

XI. LABORATORY CONTROL SAMPLE

A. Laboratory Control Samples (LCS) were prepared and analyzed per every 20 samples for each matrix.

Yes X No _____

B. The LCS recoveries were within the required control limits of 80 – 120% for metals and for wet chemistry analyses 85 – 115% .

Yes X No _____
All LCS analyses were within criteria.

XII. FIELD QC

A. Field QC samples were identified.

Yes X No _____
Sample MW-2B is a blind duplicate of sample MW-7 in all SDGs except L70041. For that SDG, MW-2B is a blind duplicate of sample MW-8.

B. Field duplicates were within the guidance limit of < 30% RPD for water samples or < 50% RPD for soil samples. If values are less than 5x RL, the water limit is ± 1x RL or the soil limit is ± 2x RL.

Yes X No _____ N/A _____

XIII. SERIAL DILUTION

A. Serial Dilutions were analyzed for every 20 samples if the analyte concentrations were greater than 50x IDL.

Yes X No _____ N/A _____
Analyte concentrations are too low to require serial dilutions.

B. The percent difference (% D) criteria of ± 10% were met.

Yes _____ No _____ N/A X
When outliers are present, data are qualified with the DSA qualifier JE#, where # is the %D. Data could be biased, usually high, due to non-linear matrix or chemical effects.

XIV. CALCULATIONS

A. Data calculations were checked when required, and significant figures were correctly reported.

Yes X No _____
Over 25% of the data were checked from the raw data to the EDD values for each method and each SDG.

B. Appropriate dilution factors were applied to the calculated sample concentrations.

Yes __X__ No _____

C. Data were acceptable for the total versus dissolved and the cation/ anion balance.
Yes _X__ No ___NA_____
Total metals were not requested, so the total vs dissolved check cannot be performed. For two of the SDGs, the analytes required for a minimal cation/anion balance are present, but this is not part of the scope for this validation. As part of the calculation check, one sample was checked (L68204-01) and passed Standard Methods criteria for cation-anion balance.

XV. OVERALL ASSESSMENT OF THE CASE

The laboratory has complied with the requested methods and the data is considered fully useable for project purposes with consideration of the following qualifications or comments.

Data were submitted for EPA 200.7 (16 metals by ICP, dissolved), EPA 200.8 (4 metals by ICPMS, dissolved), EPA 245.1 (mercury, dissolved), SM4500F-C (Fluoride), M353.2 (nitrate + nitrite as nitrogen, nitrite as nitrogen, nitrate as nitrogen); SM2540C (total dissolved solids); D516-02/-07/-11 -Sulfate by turbidimetry; SM4500Cl-E (Chloride). Note that for these SDGS, pH was not requested. Note 12 ICP metals for 3rd quarter.

The data were validated at EPA Level III (EPA Stage 2B) with a minimum of 10% validated as EPA raw data review). All SDGs are Level IV.

The laboratory has reported detections to the MDL and has flagged results between the MDL and the PQL with a "B". This is noted because many laboratories use "J" instead of "B" for this purpose, so the meaning of this flag needs to be kept in mind when reviewing the data. The definition of lab flags are provided in the report in the Inorganic Reference section.

Holding Times

The method holding times were met for all analyses, with the following clarifications and exceptions.

Results reported by the lab are qualified as JH#, where # is the number of days since sampling. An outlier that is greater than 4 x the hold time is rejected. Such results should be considered as estimates due to time and temperature changes in the samples.

In this set of data, nitrate and nitrite results have been flagged by the laboratory as out of hold in SDG L65969 and in SDG L68204. The analysis has exceeded the 48-hr hold time for individual determination of nitrate or nitrite. The results could be biased due to microbial degradation or formation of nitrate and nitrite. The bias is typically thought to be low, but a positive bias is also possible. In this case, the outliers are only about 12 hours beyond the hold time. Any degradation is likely to be insignificant during this brief time since the samples were kept cold, which suppresses microbial activity.

Note that the laboratory extended qualifier section of the report states that the hold time for nitrate and nitrite is 7 days, which is incorrect. The laboratory has actually used 48 hours as stipulated by 40CFR. This is a report error that should be corrected but has no impact on the results.

In addition, one TDS analysis in SDG L65969 was analyzed at a dilution 7 days after the expiration of the 7-day hold time, and that result is qualified accordingly. The original result contained more than 200 mg of final residue, and the method specifies that there must be less than 200 mg. Therefore, the laboratory reanalyzed the sample. The reason for the 200-mg method limit is to avoid a crust over the solid material that prevents proper drying. This phenomenon is dependent on the area over which the residue is distributed, so different laboratory

evaporation dishes used in this method may produce different results. From the raw data review, the original result was essentially the same as the second analysis so there is not likely to be a bias due to the hold time outlier for TDS.

Qualifiers added are shown below and in the qualified EDD.

Method Blanks

The ICB is used as the method blank. This is acceptable since no digestion was performed on the samples prior to analysis.

Analytes reported as contaminants in the Preparation Blank are qualified with the DSA qualifier "UMB#," where # is the value of the associated blank. Only detected data less than 10x the blank for metals or 5x the blank for other analyses are qualified. Such data are fully usable as non-detected values at the reported concentration or elevated reporting limit. All associated client field sample data were either non-detect or > 10x the blank for metals. Note that the preparation blanks are all run as totals and are applied to both total and dissolved samples.

SDG L70041: Dissolved cadmium and calcium had low-level detections in the associated ICB. However, cadmium was not detected in any sample, and calcium was present at levels much greater than the blank level. No qualifiers are required.

Continuing Calibration Blanks

Analytes reported as contaminants in the Calibration Blanks are qualified with the DSA qualifier "UCB#," where # is the value of the blank. Such data are fully usable as non-detected values at the reported concentration or elevated reporting limit. Only detected data less than 10 × blank for metals and 5 × blank for other analyses are qualified.

There are several analytes detected in CCBs. However, these are all associated with non-detects in samples or else with sample results > 10x the CCB level. No qualifiers are required.

Matrix Spikes, Matrix Spike Duplicates, and Matrix Duplicates

Matrix spikes, duplicates, and matrix spike duplicates were present but none were specifically for client samples for Method 200.8. For wet chemistry, a matrix spike and a matrix duplicate are analyzed. The project manager will determine if the project frequency is met for these methods. Matrix spikes associated with this set of data are shown in the table below. It is recommended that the client collect Representative samples for each method and designate them to the laboratory to be used for the MS/MSDs. As these samples are collected quarterly, only 1 QC sample would be required per year.

The ICP-MS data (200.8) included MS/MSDs, but these were associated with a different project and are not applicable to these samples. Nitrate and nitrate (M353.2) had a MS and sample duplicate performed. Matrix spikes are not appropriate for the other methods performed.

For some methods, such as Method 300.0 and Method 353.2, the laboratory uses a recovery window of 90-110%. Results are only qualified if the recoveries are outside the window specified above.

No samples are qualified for matrix spike outliers. Matrix duplicates were run for nitrate, nitrite, chloride, and TDS. The duplicate precision criteria are met.

Field QC

Sample MW-2B is a blind duplicate of sample MW-7 in all SDGs except L70041. For that SDG, MW-2B is a blind duplicate of sample MW-8. All are in control.

TABLE OF QUALIFIED DATA

CLIENTID	LABID	ANALYTE	RESULT	QUAL	UNITS	MDL	PQL	DSA	EPA
MW-2B	L68204-04	Nitrate as N, dissolved	0.91	H	mg/L	0.02	0.1	JHT0.55	J-
MW-2B	L65969-04	Nitrate as N, dissolved	7.45	H	mg/L	0.08	0.4	JHT0.52	J-
MW-6	L68204-01	Nitrate as N, dissolved	4.20	H	mg/L	0.04	0.2	JHT0.52	J-
MW-6	L65969-01	Nitrate as N, dissolved	.03	BH	mg/L	0.02	0.1	JHT0.58	J-
MW-7	L68204-02	Nitrate as N, dissolved	0.91	H	mg/L	0.02	0.1	JHT0.56	J-
MW-7	L65969-02	Nitrate as N, dissolved	7.51	H	mg/L	0.08	0.4	JHT0.53	J-
MW-8	L68204-03	Nitrate as N, dissolved		UH	mg/L	0.02	0.1	UJHT0.53	UJ-
MW-8	L65969-03	Nitrate as N, dissolved	.99	H	mg/L	0.02	0.1	JHT0.52	J-
MW-2B	L68204-04	Nitrate/Nitrite as N, dissolved	0.907	H	mg/L	0.02	0.1	JHT0.55	J-
MW-2B	L65969-04	Nitrate/Nitrite as N, dissolved	7.48	H	mg/L	0.08	0.4	JHT0.52	J-
MW-6	L68204-01	Nitrate/Nitrite as N, dissolved	4.24	H	mg/L	0.04	0.2	JHT0.52	J-
MW-6	L65969-01	Nitrate/Nitrite as N, dissolved	0.032	BH	mg/L	0.02	0.1	JHT0.58	J-
MW-7	L68204-02	Nitrate/Nitrite as N, dissolved	0.907	H	mg/L	0.02	0.1	JHT0.56	J-
MW-7	L65969-02	Nitrate/Nitrite as N, dissolved	7.54	H	mg/L	0.08	0.4	JHT0.53	J-
MW-8	L68204-03	Nitrate/Nitrite as N, dissolved	0.022	BH	mg/L	0.02	0.1	JHT0.53	J-
MW-8	L65969-03	Nitrate/Nitrite as N, dissolved	1.01	H	mg/L	0.02	0.1	JHT0.52	J-
MW-2B	L68204-04	Nitrite as N, dissolved		UH	mg/L	0.01	0.05	UJHT0.55	UJ-
MW-2B	L65969-04	Nitrite as N, dissolved	0.028	BH	mg/L	0.01	0.05	JHT0.52	J-

CLIENTID	LABID	ANALYTE	RESULT	QUAL	UNITS	MDL	PQL	DSA	EPA
MW-6	L68204-01	Nitrite as N, dissolved	0.038	BH	mg/L	0.01	0.05	JHT0.51	J-
MW-6	L65969-01	Nitrite as N, dissolved		UH	mg/L	0.01	0.05	UJHT0.58	UJ-
MW-7	L68204-02	Nitrite as N, dissolved		UH	mg/L	0.01	0.05	UJHT0.56	UJ-
MW-7	L65969-02	Nitrite as N, dissolved	0.027	BH	mg/L	0.01	0.05	JHT0.51	J-
MW-8	L68204-03	Nitrite as N, dissolved	0.014	BH	mg/L	0.01	0.05	JHT0.53	J-
MW-8	L65969-03	Nitrite as N, dissolved	0.016	BH	mg/L	0.01	0.05	JHT0.52	J-
MW-6	L65969-01	Residue, Filterable (TDS) @180C	5430	H	mg/L	100	200	JHT7.06	J-