STATE OF COLORADO

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

# Second Adequacy Review, 2022 Annual GW Report, Pueblo Cement Site, M-2002-004

1 message

**Parrish Lyle** <lparrish@gcc.com> Tue, Jun 6, 2023 at 3:14 PM
To: "amber.michels@state.co.us" <amber.michels@state.co.us>, "patrick.lennberg@state.co.us" <patrick.lennberg@state.co.us>

Good Afternoon.

Please find the attached response letter from GCC, as well as the links below to the updated full report.

2nd Response Letter (6/5/23) - https://www.dropbox.com/s/3tkmnmp7cxiutra/RHS%20Letter%20-%20GCC%20Pueblo%202nd%20Review%20Response%202022%20Annual%20GW%20Report%2005JUN2023.pdf?dl=0

Updated Report (6/5/23) - https://www.dropbox.com/s/6c5p90laa43n5wq/GCC%20Rio%20Grande%20Pueblo%20Plant%202022%20Annual%20Groundwater%20Report%20-%20FINAL%2005JUN2023.pdf?dl=0

Please reach out with any questions or comments.

Thank you,

Joey


GCC

Joey Parrish

Environmental Engineer - Trident

**O:** 406.285.4977

**C:** 406.920.1776

**GCC.com**


**RHS Letter - GCC Pueblo 2nd Review Response 2022 Annual GW Report 05JUN2023.pdf**
425K

RESOURCE HYDROGEOLOGIC SERVICES

June 5, 2023

File #: 2023-013-016-2

Ms. Amy Veek
GCC Rio Grande, Inc.
3372 Lime Road
Pueblo, CO 81004

**Attn: Amy Veek**
**Environmental Engineer**

Dear Ms. Veek,

**Re: Second Adequacy Review Response for the Pueblo Cement Plant and Quarry M-2002-004 2022 Annual Groundwater Report**

This letter addresses comments from the Division of Reclamation, Mining and Safety (Division) from Ms. Amber Michels, Environmental Protection Specialist, dated May 24, 2023. For ease of review, each Division comment has been restated in italics immediately followed by our corresponding response.

1. ***DRMS Initial Response:*** *In the Groundwater Monitoring Data Collection section, it is stated that all wells were sampled according to the methods in the approved TR-11. A review of the field sheets in Attachment 1 indicates there is information missing that demonstrates stability was achieved when three consecutive measurements did not vary more than 3% for conductivity and temperature, +/- 10 millivolts for ORP and +/- 0.1 standard units for pH and well purging was done at the lowest rate on the order of 0.03 to 0.1 gpm. Please provide information that demonstrates the stated conditions were met. If sampling deviated from the approved methods, please provide an explanation.*

   **GCC Initial Response:** All wells were in fact sampled according to the methods in the approved the TR-11 Sampling and Analysis Plan (TR-11 SAP). Per Section 3.3 in the TR-11 SAP, "The final field water quality parameters will be recorded in the mobile field form (Appendix A)." Those final field parameters are given for each sampling event in each respective field form, as shown in 2022 Annual Groundwater Report as Attachment 1. While the TR-11 SAP Section 3.4 discusses the well purging methodology which includes a demonstration to the sampler of field parameter stability when three consecutive measurements do not vary more than 3% for conductivity and temperature, +/- 10 millivolts for ORP and +/- 0.1 standard units for pH, only the final parameters are to be recorded on the mobile field form. For GCC's internal QAQC use, as well as for potential data requests such as this, all field water quality

measurements are data logged at 20-second intervals by the sampling team using their In-Situ AquaTroll 400 water quality sonde, which are time/date-stamped by location. Collectively these individual data log files represent a large data set that is processed only on an as-needed basis. If that level of detail is required to satisfy this Division comment, the full compilation of field water quality data log files, or a sample subset, can be provided electronically upon request.

Additionally, the purge and sampling flow rate (both the same for low-flow groundwater sampling) is already given in the mobile field forms under the Sampling Details → Sampling section with the Flow Rate (gpm) question.

***DRMS Second Response:*** *While the Operator states the sonde used recorded measurements every 20 seconds typically 3-5 minutes is required to allow sufficient time to pass for volume "turn over" of at least one flow-through-cell volume between measurements. The Division requests the Operator provide the last three consecutive measurements, at least 3 minutes apart, used to determine that parameters had stabilized and a sample could be collected.*

*In TR-11 it is stated that wells shall be pumped at the lowest practical rate possible, on the order of 0.03 to 0.1 gallons per minute (gpm). In the first quarter purging rates varied from 0.1 to 0.63 gpm, rates in the second quarter were from 0.01 gpm to 1.4 gpm, and rates in the third and fourth quarter varied from 0.02 gpm to 0.16 gpm. Please clarify how the pumping rates, primarily in quarters one and two, are in compliance with TR-11.*

*Low-flow sampling requires water level measurements to be collected during pumping to minimize drawdown in the well. USEPA guidance is to minimize drawdown not to exceed 0.3 feet while ASTM D6771-21 recommends 0.1 feet. If the minimal drawdown that can be achieved exceeds 0.3 feet, but remains stable, purging may continue. In the first quarter drawdown noted on the field sheets ranged from 3 to 106 feet with MW-9 showing an increase in water level at the end of sampling. It is stated that MW-14 sampled using a bailer and not sampled using low-flow groundwater sampling methods. Bailing is not sampling method discussed in TR-11 and the typical removal of three casing volumes prior to collecting a sample was not completed. Please discuss the sampling deviations that occurred in all quarters as it relates to water level drawdown and the apparent instability of the water level during purging and sampling. In addition, a discussion is required about sampling methods that deviated from those methods approved in TR-11. Note in the first quarter monitoring wells 6, 11 and 13 had 3 or close to 3 casing volumes removed during purging and this occurred again in the second quarter at monitoring wells 6 and 7.*

*A review of the purge data from quarters three and four indicates the total amount of water removed from the wells, prior to sample collection, was equal to the tubing volumes provided in TR-11 Table 3. The Division's interpretation of this data is the samples that were collected consisted of stagnate water*

*and not representative samples of formation water. The Division did note purging of MW-14 did exceed the tubing volume in both quarters. A response is required.*

***DRMS Second Response (Additional):*** *Pending the responses to item #1 above the Division, starting with the Second Quarter 2023, will require the Operator to begin submitting Quarterly Groundwater Monitoring Reports to demonstrate sampling can be conducted according to the approved methods and plans in the permit and consistent with industry standards. Collection of representative groundwater samples is required to demonstrate that affects to hydrologic balance are being minimized pursuant to Rule 3.1.6. The due dates for the quarterly groundwater monitoring reports are as follows:*

- *First quarter report due by May 1st of every year.*
- *Second quarter report due by August 1st of every year.*
- *Third quarter report due by November 1st of every year.*
- *Fourth quarter report due by February 1st of the following year.*

*Once the Operator has sufficiently demonstrated that samples can be collected in accordance with the approved methods the Division may allow the Operator to revert back to annual reporting.*

**GCC Second Response:** The point regarding flow-through-cell turnover time at extremely low flow rates is understood. GCC shall provide the last three consecutive water quality field parameter measurements, at least three minutes apart, used to determine that parameters have stabilized and a sample can be collected. As of the 2022Q2 compliance monitoring event conducted May 30-31, 2023, the mobile field form has been updated to record this additional information.

The point regarding low-flow sampling flow rates in excess of the targeted 0.03 to 0.1 gpm in 2022Q1 and 2022Q2 monitoring events is acknowledged. Initial training on the new TR-11 SAP was conducted between RHS and GCC in 2022Q1, and so in some cases the flow rates, as well as total purge volumes may have exceeded targets as the new system was learned. Following review of 2022Q2 data, discussion of monitoring methodology between RHS and GCC occurred to refresh these topics of the SAP procedure in order to better tune these parameters. As noted, in 2022Q3 and 2022Q4, these flow rate ranges tightened as monitoring methodology repetition and familiarity improved.

The point regarding minimizing drawdown for the low-flow sampling methodology is acknowledged. This aspect of the methodology was not fully understood by the samplers. GCC has now been re-trained during the 2022Q2 monitoring event to maintain pumping rates at the prescribed low-flow ranges in order to keep drawdown minimized to 0.3 feet from static or otherwise reduce the flow rate further to reduce drawdown to obtain level stabilization. Note that there is a misunderstanding regarding the MW-14 dedicated sampling pump due to a mistaken selection made on the mobile field form for 2022Q1. It is documented in the 2022 Annual Groundwater Report as a stainless steel bladder pump

(QED T1300), not a bailer. The mistake that occurred on that particular 2022Q1 form was not repeated again. So, to confirm, all compliance water quality data collected to date at MW-14 has been with this dedicated bladder pump system. Per TR-11, this system is operated by low-flow methodology. No sampling deviations occurred in any quarters.

The point regarding the tubing volume purge quantities is acknowledged. In discussion with the samplers, it appears that the target tubing volume values were entered as the final purge volumes by mistake. The field method was to begin final field parameter documentation after this volume was reached and upon parameter stability the sample was collected. Stagnant tubing volume water was not submitted for any site at any time to date.

2. *Table 2 needs to be updated to bold the sample results that exceed the standard, e.g. Fluoride, Arsenic, Cadmium, Cobalt, Lead and Selenium all have exceedances that need to be revised.*

**GCC Initial Response:** The Table 2 lab sample analyte exceedances have been updated to be shown in bold type, with a footnote for that designation.

***DRMS Second Response:*** *The remaining concentration exceedances have now been bolded in Table 2, except for those that state they are less than a value greater than what the agricultural standards are. See the following:*

- *Arsenic:*
  - *o MW-6, MW- 7, and MW-7 (duplicate) for June 2019*
- *Cadmium:*
  - *o MW-6 for June 2019*
- *Cobalt:*
  - *o MW-6, MW-7, MW-10, and MW-7 (duplicate) for May 2020*
- *Selenium:*
  - *o MW-6 for January 2018 and April 2018*
  - *o MW-7 for all the 2018 entries and March 2019*
- *Lead:*
  - *o MW-7 and MW-7 (duplicate) for June 2019*

*Please, either bold these entries, or provide a precise measurement that indicates the value is lower than the agriculture standards provided on Table 3 in the CDPHE Water Quality Control Commission Regulation 41 document.*

**GCC Second Response:** Upon further data review, it was found that the values previously reported and noted above for arsenic, cadmium, cobalt and lead were analyzed by ICP and thus higher detection/reporting limits. Within the same lab reporting second analyses were conducted with ICP-MS, with the appropriate lower detection/reporting limits. As requested, these values have been updated in Table 2 with the precise measurements indicating the values are lower than the applicable ag standards. For the selenium data noted, the lab-reported values of <0.03 mg/L were the best

available and so have now been bolded in Table 2 as requested. Also note that a typo was presumed in the reference to May 2020 data for cobalt as no monitoring was conducted that quarter due to COVID-19 restrictions. Applicable updated data was provided for May 2022 reporting.

5. *In Table 2, analyte results from samples that exceeded hold times need to be clearly indicated, e.g. 1Q2022 nitrite and nitrate/nitrite in MW-7 and MW-13, and TDS values for MW-9, MW-13, and duplicate for MW-7.*

**GCC Response:** Analyte results from samples that exceeded lab hold times have been shown as underlined in the updated Table 2, with a footnote for that designation.

***DRMS Response:*** *Table 2 now contains a footnote indicating the exceedance of method holding times through the use of an underline. However, the samples mentioned on page 9 of the narrative that specifically address exceeding holding times are not underlined in the table. Please underline the following items on Table 2:*

- *The samples for nitrate and nitrate/nitrite that exceeded holding times mentioned on page 9.*
- *The samples for TDS that exceeded holding times on page 9.*

**GCC Second Response:** The values for nitrate and nitrate/nitrite mentioned on page 9 regarding sample holding time exceedances have now been underlined in Table 2. Likewise, the values for TDS mentioned on page 9 regarding sample holding time exceedances have now been underlined in Table 2. Note that a date typo was found and corrected in the report; the previously referenced TDS holding time exceedances were in 2022Q2, not 2022Q1. Also, the reference to MW-13 was mistaken and has been corrected to MW-7.

Yours sincerely,

**Resource Hydrogeologic Services, Inc.**

Landon Beck
Principal Hydrogeologist

Enclosures/Attachments: Updated 2022 GCC Rio Grande Pueblo Plant Annual Groundwater Report
CC: Joey Parrish, Erick Hoon, Sarah Vance

# 2022 GCC Rio Grande Pueblo Plant Annual Groundwater Report

Submitted to:
**GCC Rio Grande, Inc.**

Date:
June 5, 2023

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

RESOURCE HYDROGEOLOGIC SERVICES

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# 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 2022. This satisfies a requirement of the CDRMS Mining Permit M-2002-004, specifically under the approved Technical Revision 11 (TR-11). 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-11.
- Collect all water quality field data with an industry-standard multi-parameter device with electronic data deliverable (EDD) output for all field data.
- Enter and document all water quality field monitoring data by mobile (digital/paperless) field monitoring logs specific to groundwater compliance locations which are automatically distributed to a third party, Resource Hydrogeologic Services (RHS) for same-day review following sampling.
- 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 EPA Level III (EPA Stage 2B) validation of all compliance groundwater analytical laboratory reporting with a minimum of 10% validated as EPA raw data review.
- Compile and manage all water quality and level data in a geo-referenced Microsoft Access database.

# GROUNDWATER MONITORING

## GROUNDWATER MONITORING LOCATIONS

In 2022 GCC monitored ten groundwater monitoring wells at the Facility, which are shown on the location map included as **Figure 1**. **Table 1** displays all of the monitoring well construction and survey data.

- MW-5 was installed in 2008 and completed in unconsolidated surficial/overburden sediments and immediately underlying weathered bedrock at a location downgradient of the entire Facility, including both the quarry and plant.
- MW-6 was installed in 2018 and completed in the Fort Hayes Limestone just down-dip, and downgradient of mine panel 2 and upgradient of the plant.
- MW-7 was installed in 2018 and completed in the Fort Hayes Limestone just down-dip, and 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 2020 and is completed in the Codell Sandstone, just down-dip, and downgradient of mine panel 2 and upgradient of the plant. MW-8 is located approximately 25 feet northeast of MW-7.
- MW-9 was installed in 2021 and is completed in the Codell Sandstone, up-dip, and upgradient of mine panel 4.
- MW-10 was installed in 2021 and is completed in the Blue Hills Shale, up-dip, and is upgradient of mine panel 4. MW-10 is located approximately 25 feet northeast of MW-9.
- MW-11 was installed in 2021 and is completed in the Fort Hayes Limestone just down-dip, and downgradient of mine panels 3 and 4.
- MW-12 was installed in 2021 and is completed in the Codell Sandstone, just down-dip, and downgradient of mine panels 3 and 4. MW-12 is located approximately 25 feet northeast of MW-11.
- MW-13 was installed in 2021 and is completed in the Fort Hayes Limestone, down-dip, and downgradient of the entire Facility, including both the quarry and plant.
- MW-14 was installed in 2021 and is completed in the Codell Sandstone, down-dip, and downgradient of the entire Facility, including both the quarry and plant. MW-14 is located approximately 25 feet northeast of MW-13.

## GROUNDWATER MONITORING DATA COLLECTION

Groundwater monitoring was conducted quarterly in 2022 at MW-6, MW-7, MW-8, MW-9, MW-10, MW-11, MW-12, MW-13, and MW-14. MW-5, which has been observed as dry since installation in 2008, was monitored in 2022Q2 and 2022Q4 and as with all previous years, was found to be dry in each event. Per the current SAP (TR-11), MW-5 is only monitored semi-annually which is typically in May/June and November/December.

For all of the wet monitoring wells MW-6, MW-7, MW-8, MW-9, MW-10, MW-11, MW-12, MW-13, and MW-14 depth to water measurements, and field water quality parameters temperature, pH, oxygen reduction potential (ORP), dissolved oxygen (DO), 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, which is the foundation for the Sampling and Analysis Plan (SAP) approved by CDRMS in 2022 as TR-11 and adopted by GCC as the site-specific, stand-alone document guiding groundwater monitoring at the Facility.

In 2022 groundwater was purged and sampled by means of dedicated variable speed 12-volt stainless steel pump systems designed for 2-inch monitoring wells (SS Sample Champ XL). The one exception to this was for sampling at MW-14, which is purged and sampled by a dedicated stainless steel bladder pump (QED T1300). All wells are sampled by low-flow methodology per the TR-11 SAP. Each monitoring well was pumped at the lowest practical rate possible, on the order of 0.03 to 0.1 gallons per

minute (gpm), to purge the calculated pump discharge tubing volume. Following the purging of the respective tubing volumes, stability was considered achieved and a water sample was collected for laboratory analysis when three consecutive measurements did not vary more that 3% for conductivity and temperature, +/- 10 millivolts for ORP, and +/- 0.1 standard units for pH. **Table 2** includes field parameters for each sample event and **Attachment 1** is a compilation of all compliance monitoring well "Groundwater Sampling Record" field forms completed by the monitoring team for 2022.

The CDRMS-required groundwater compliance constituents for the Facility are given in **Table 2**. These constituents are required by TR-11 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.

## 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. This has continued through 2022 under TR-11. Analytical results from water quality samples collected from all wet compliance monitoring wells are presented in **Table 2** and compared to CDPHE Colorado Water Quality Control Commission agricultural use reference standards (CDPHE, 2016). Complete analytical laboratory reports for 2022 are provided as **Attachment 2**.

A graphical analysis of water quality results from the Fort Hayes Limestone (MW-6, MW-7, MW-11, and MW-13), Codell Sandstone (MW-8, MW-9, MW-12, and MW-14), and Blue Hills Shale (MW-10) groundwater samples are presented in **Figures 2 through 7** and discussed below.

#### Major Ion Chemistry

Groundwater chemistry in the Fort Hayes Limestone is affected by local and regional structural controls on flow paths and residence times. For example, groundwater quality along the mine panel two fault, known at the Facility as the Damian fault (MW-6 and MW-7) is characterized by neutral pH and generally sodium-magnesium-sulfate type, whereas Fort Hayes groundwater in areas not associated with the Damian fault (MW-11 and MW-13) gains alkalinity as groundwater migrates downgradient and is characterized by neutral (MW-11) to alkaline (MW-13) pH and sodium-potassium-bicarbonate type. These differences in major ion chemistry along the different flow paths are presented graphically as Stiff Diagrams in **Figure 2**, where concentrations of major cations and anions (beginning in 2022Q1) are presented 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.

In comparison, the underlying Codell Sandstone has a stronger sodium-potassium signature when compared with the Fort Hayes Limestone groundwater. However, similar trends in the relative flow paths (i.e., groundwater in the vicinity of the Damian fault versus groundwater not in the vicinity of the fault) are observed. Upgradient groundwater (MW-9) and groundwater associated with the Damian fault (MW-8) is characterized by neutral pH and sodium-potassium-sulfate type, as shown in **Figure 3**. Codell groundwater not in the vicinity of the Damian fault (MW-12) and further downgradient (MW-14) are near alkaline and have a groundwater type of sodium-potassium-chloride.

MW-10 was completed upgradient of mine panel 4 in the Blue Hills Shale unit. Major ion chemistry in this location is similar to the groundwater composition in the Fort Hayes Limestone at MW-6 and MW-7, near the Damian fault. Upgradient groundwater in the Blue Hills Shale is neutral in pH and is sodium-potassium-sulfate groundwater type (**Figure 4**).

Based on the observed groundwater composition and trends as groundwater migrates from upgradient to downgradient areas, it is apparent that local preferential pathways affect the groundwater flow and residence times, which results in localized variability in chemistry within each water-bearing unit.

**Trace Element Chemistry Trends**

Analytical results from groundwater quality samples collected in the Fort Hayes Limestone, Codell Sandstone, and Blue Hills Shale were evaluated against the applicable reference standards (CDPHE, Regulation 41, Table 3, Groundwater Quality Reference Standards [Agricultural Use]) in **Table 2**, and selected constituent trends through time are presented in **Figures 5 through 7**. In general, constituent concentrations were below the applicable reference standards in all three units, with a few exceptions. **Figures 5, 6, and 7** present time series plots of selected constituents pH, manganese, fluoride, and selenium in the Fort Hayes Limestone, Codell Sandstone, and Blue Hills Shale, respectively.

In the Fort Hayes Limestone, 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 (**Figure 5**). Trends show declining concentrations between 2018 and 2022Q1, after which concentrations appear to be increasing (**Figure 5**), likely resulting from natural variation in the groundwater. No exceedances of manganese were observed on the opposite side of the Damian fault at MW-7 (**Figure 5**). Exceedances of manganese at upgradient location MW-9 and downgradient location MW-12, completed in the Codell Sandstone, were also observed, as shown in **Figure 6**. Only one discrete exceedance of the reference standard for manganese was observed in MW-10, during the 2022Q1 sampling event (**Figure 7)**. However, subsequent concentrations at this well have been over an order of magnitude less than the first sample collected in 2022Q1 (**Figure 7**). The observed variability in trends within each lithologic unit and through time may be due to variability in recharge

water quality and transport of constituents as groundwater migrates through the system. Although concentrations of manganese exceed the reference standard in some locations, 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.

Similar to the recent trends in manganese observed at MW-6, concentrations of cobalt and nickel have exceeded the reference standards in 2022Q3 (nickel) and 2022Q4 (cobalt and nickel), as shown in **Table 2**. Cobalt and nickel behave similarly in groundwater and can adsorbed by iron and manganese oxides (Hem, 2005). These observed changes in groundwater chemistry appear to be related to fluctuations in groundwater elevation and the wetting and drying of aquifer materials. MW-6 typically demonstrates unconfined conditions, whereby the measured water level is below the top of the well screen. The installation of six wells in 2021 has improved the understanding of groundwater flow and chemistry in each of the relevant hydrogeologic units present at the site. However, the source and distribution of constituents exceeding the standard, such as cobalt and nickel at MW-6, is not well defined and remains as a gap in the dataset. Continued monitoring of cobalt and nickel concentrations at MW-6, as well as new monitoring well locations discussed in the following data gap section will provide additional insight into the source and distribution of these constituents in groundwater.

Concentrations of fluoride have exceeded the reference standard in the downgradient Fort Hayes Limestone well, MW-13, and Codell Sandstone wells MW-12 and MW-14, as shown in **Figures 5 and 6**, respectively. Although concentrations of fluoride at MW-12 exceed the reference standard in 2022Q1 and 2022Q2, concentrations have since declined and no longer exceed the standard (**Figure 6**). Fluoride is a naturally-occurring constituent, usually present in ionic form in groundwater, and the solubility of fluoride-bearing minerals can be increased in waters that are generally low in calcium (Nordstrom and Smedley, 2022; Hem, 2005). In the downgradient wells where the highest concentration of fluoride occurs (MW-13 and MW-14), there is a corresponding low concentration of calcium in solution and increase in bicarbonate and carbonate alkalinity (**Table 2**). It is likely that groundwater in these locations is saturated with respect to calcite (CaCO3) and dissolved concentrations of calcite remain low as calcite precipitates, increasing the solubility of the fluoride ion in solution (Nordstrom and Smedley, 2022) Continued monitoring of fluoride concentrations at MW-13 and MW-14 will provide additional insight into the source and distribution of these constituents in groundwater. Additional monitoring recommendations are outlined in the following data gaps section. No exceedances of fluoride were observed in the upgradient Blue Hills Shale location (**Figure 7**).

Exceedances of the selenium reference standard were observed in three of the Fort Hayes Limestone wells: MW-6, MW-7, and MW-11 (**Figure 5**). The presence and abundance of elevated

selenium concentrations in groundwater of the Fort Hayes Limestone is likely attributed to naturally-occurring seleniferous minerals deposited in a marine environment (Bern and Stogner, 2017). No exceedances were observed for selenium in the Codell Sandstone (**Figure 6**) and Blue Hills Shale (**Figure 7**).

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 primary mechanism for groundwater flow through faults and fracture zones, instead of continuous horizontal flow paths.

**Facility Stormwater Detention Basin and Leach Field**

The Facility stormwater detention basin and leach field were constructed with a maximum disturbance depth of ten feet below ground surface in unconsolidated surficial sediments. Exploratory drilling conducted nearby to construct MW-13 and MW-14 at a distance of approximately 3/8-mile to the northeast of these structures documented the subsurface hydrostratigraphy. Per the GCC Pueblo TR-08 MW Installation Report (RHS 2022), silty soils containing limestone gravels are present from ground surface to approximately 12 feet depth. From 12 feet to 132 feet depth (120 feet thickness) is the Smokey Hill Shale, which was found to be completely dry. From 132 feet to about 176 feet is the mined Fort Hayes Limestone, which is an aquifer documented with 19 feet (8.2 PSI) of confined pressure at MW-13. This indicates that the first water below ground surface, the Fort Hayes Limestone aquifer at 132 feet to 176 feet, has an upward groundwater flow gradient but is confined by the Smokey Hill Shale. Based on these findings, the Smokey Hills Shale immediately underlying the stormwater detention basin and the leach field is likely a prolific aquitard at the base of these structures which prevents vertical hydraulic communication and thus prevents potential impacts to the MW-13 monitoring well, as well as the MW-14 monitoring well that is completed in the Codell Shale underlying the Fort Hayes Limestone completion interval of MW-13.

The source and distribution of fluoride at MW-13 and MW-14 is not well understood and remains as a data gap. However, there are supporting data and literature to suggest that fluoride is naturally more mobile under the geochemical conditions observed at these locations. Continued monitoring is recommended to further characterize concentrations of fluoride at these downgradient locations.

## QUALITY ASSURANCE/QUALITY CONTROL

In 2022 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 and two, and MW-8 in quarters three and 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 through 2022, 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 2022 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 results for the MW-13 and field duplicate MW-2B representing MW-7 in 2022Q1 exceeded holding time by approximately 12 hours. This nitrite data was qualified as it exceeded the 48-hour method 353.2 hold time, but is not rejected as it does not exceed 4X the method hold time. The samples were received at approximately the 48-hour hold time maximum due to UPS delivery delay. 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 L73169. 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 three TDS analyses (MW-9, MW-7 and field duplicate MW-2B representing MW-7 in 2022Q2) as exceeding the method holding time. As discussed in that report in Section II on page 3:

> *"In addition, two samples in SDG L73169 and one sample in SDG L73303 were out of hold for TDS. The original analysis in both cases was within hold time, but a reanalysis was required to dilute the samples to be within method requirements."*

While the TDS holding time issues were seemingly due to the contract laboratory waiting too long to confirm the initial results despite receiving the sample with adequate time, the nitrate/nitrate holding time issue is recognized to have continued from 2021 on one occasion due to shipment delays. As this was still an improvement from 2021, UPS ground service will continue to be utilized, shipping the chilled and properly preserved samples on the same day as collection for a demonstrated more reliable one-day delivery method than by air service.

## GROUNDWATER LEVEL

Bedrock groundwater level monitoring data for the Facility in 2022 included four Fort Hayes Limestone monitoring wells, four Codell Sandstone monitoring wells, and one Blue Hills Shale monitoring well. Shallow groundwater at the Facility was not observed to be present in 2022; the single unconsolidated surficial/overburden well MW-5 has been documented dry since installation in 2008. All as-built monitoring wells were surveyed by Clark Land Surveying, Inc. in January 2022 for latitude, longitude and elevation at both the top of casing water level reference points (TOC) and the ground surface at the concrete well pads. This data is presented in **Table 1**. With this survey, all monitoring well level data can now be plotted as potentiometric groundwater elevations, thus allowing determination of flow direction and horizontal gradient for both the Fort Hayes and Codell aquifers. Additionally, with greater spatial distribution of the twinned monitoring well pairs, the monitoring well level data can now be normalized for direct comparison to better quantify the vertical hydraulic gradient regime of these two aquifers across the Facility. **Figure 8** shows the groundwater elevation hydrograph for all wetted wells over the full period of record 2018-2022. To plot all Facility monitoring wells, the vertical scale is 400 feet so some resolution is lost in this general plot. To better demonstrate the vertical hydraulic gradients at each twinned monitoring well location, **Figures 9 through 12** are plotted with a vertical scale of 50 feet. Those figures demonstrate both the detailed potentiometric groundwater trends as well as the vertical hydraulic gradients of each twinned monitoring location.

### MW-6/MW-7/MW-8 Location

Previous to 2022, only two Fort Hayes monitoring wells, MW-6 and MW-7, existed at the Facility. MW-6 is screened across the non-faulted Fort Hayes. MW-7 is screened across the faulted Fort Hayes. Each of these wells are screened across the same depth intervals and are separated by a horizontal distance of approximately 25 feet. As shown in **Figure 1**, these wells are immediately downgradient of mine panel two. Evaluation of MW-6 water level monitoring data continues to demonstrate 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 9**, over the course of monitoring in 2022, the static water level at MW-6 tracked somewhat with MW-7. It appears that the lower yield MW-6 water levels deviated to lower levels during the winter 2022Q1 monitoring event when compared to MW-7. Since level monitoring began at these wells in 2018, at times both MW-6 and MW-7 have tracked very closely in potentiometric elevation indicating very little to no differential pressure gradient in the Fort Hayes across the fault. At other times the MW-7 well shows significantly higher potentiometric elevation than that of MW-6, as much as fifteen feet difference. Both MW-6 and MW-7 exhibit unconfined groundwater conditions, as the depth to water measurements have almost always been documented to be below the top of the screened interval This continues to suggest, as with past years, 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 the Damian fault and has been documented by all monitoring events to be a higher yield well than MW-6.

MW-8, the underlying Codell Sandstone monitoring well at this location, demonstrated higher potentiometric groundwater levels than at the adjacent overlying MW-6 and MW-7 at monitoring events in the second half of 2021 and in January 2022. However, the MW-8 potentiometric water level dropped below both MW-6 and MW-7 in 2022Q2 and 2022Q3 and then between MW-6 and MW-7 in 2022Q4.

As was discussed in the 2021 Annual Groundwater Report (RHS 2021), 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 Damian 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, where present, the preferential pathways to flow upwards into the Fort Hayes Limestone. It is further suggested that the MW-6/MW-7/MW-8 location may be located at or near the point of hydraulic balance between the two aquifers, in which the seasonality and magnitude of groundwater recharge, primarily derived from the fault, dictate that balance.

**MW-11/MW-12 Location**

Beginning in 2022, the new monitoring wells MW-11 (Fort Hayes) and MW-12 (Codell) were initiated into the Facility compliance monitoring program per the TR-11 SAP. As shown in **Figure 1**, this location is directly downgradient of mine panels three and four, which is generally cross-gradient from monitoring locations MW-6/MW-7/MW-8. The wells are located approximately 25 feet apart at ground surface, with MW-11 up-dip in relation to the deeper MW-12. **Figure 8** demonstrates cross-gradient conditions as groundwater potentiometric levels are similar in trend and magnitude between the locations. This location is also on the southeast side of the Damian fault crossing between MW-7 and MW-6. **Figure 10** shows the first five level monitoring events at MW-11 and MW-12; the first event on February 2, 2022 was at the time the dedicated sampling pump systems were installed. Both of these wells were developed in November 2021. While only one year and thus only one observed recharge season of level monitoring has been conducted to date, the initial trend shows a normal (downward) pressure gradient with respect to the Fort Hayes and underlying Codell and at this time is more distinct in magnitude than the vertical pressure gradient that has been observed at the MW-6/MW-7/MW-8 location. The maximum observed differential potentiometric pressure between MW-11 and MW-12 was approximately 23 feet in 2022Q2, but had decreased to approximately 16 feet in 2022Q4.

**MW-13/MW-14 Location**

Beginning in 2022, the new monitoring wells MW-13, completed in the Fort Hayes Limestone, and MW-14, completed in the Codell Sandstone, were initiated into the Facility compliance monitoring program per the TR-11 SAP. As shown in **Figure 1**, this location is downgradient of both the Facility quarry and plant. The wells are located approximately 25 feet apart at ground surface, with MW-13 up-dip in relation to the deeper MW-14. These monitoring wells are by far the deepest at the Facility (**Table 1**) as they are the most down-dip locations of all existing bedrock wells. **Figure 11** displays the first five level monitoring events at MW-13 and MW-14; the first event on February 2, 2022 was at the time the dedicated sampling pump systems were installed. MW-13 was developed in November 2021 and MW-14 was developed in December 2021. The MW-14 water level decreased almost 22 feet between the initial measurement on February 2, 2022 and the first quarterly monitoring event on March 28, 2022. As discussed in the GCC Rio Grande Pueblo Plant TR-08 Monitoring Wells Installation Report (RHS 2022), MW-14 was developed by hydro-jetting of potable water, so it is likely that the substantially elevated groundwater level at the initial measurement was still influenced from the development efforts. However, the MW-14 level trend beginning in 2022Q2 has shown significant increase and with the 2022Q4 level measurement, the Codell Sandstone is over-pressured relative to the Fort Hayes Limestone by almost 27 feet. This demonstrates that with increasing depth down-dip to the northeast the differential pressure between the Fort Hayes Limestone and the Codell Sandstone increases. Such a condition at this location supports the hypothesis that upgradient Fort Hayes Limestone monitoring locations are likely receiving recharge from the Codell Sandstone through one or more cross-cutting faults. Also notable is the small range of water level fluctuation at MW-13 in 2022, less than five feet, which is the lowest of all Fort Hayes Limestone wells. A small magnitude of water level fluctuation over time in this deeper setting suggests a greater distance from the groundwater recharge source than the other Fort Hayes Limestone monitoring wells MW-6, MW-7, and MW-11.

**MW-9/MW-10 Location**

Beginning in 2022, the new monitoring wells MW-9, completed in the Codell Sandstone, and MW-10, completed in the underlying Blue Hills Shale were initiated into the Facility compliance monitoring program per the TR-11 SAP. As shown in **Figure 1**, this location is upgradient of mine panel four. The wells are located approximately 25 feet apart at ground surface, with MW-9 up-dip in relation to the deeper MW-10. As documented in the GCC Rio Grande Pueblo Plant TR-08 Monitoring Wells Installation Report (RHS 2022), this location was planned as another Fort Hayes/Codell twinned pair of wells, however, the Fort Hayes Limestone was not found there once drilling commenced. It was then presumed that the Fort Hayes Limestone had been eroded in this arroyo location, leaving only the underlying Codell Sandstone and Blue Hills Shale as potential monitoring well completion intervals. An alternative upgradient Fort Hayes Limestone monitoring location was explored approximately 1/8-mile due north on a ridge line, however, the Fort Hayes Limestone was not encountered during drilling there either. **Figure 12** displays the first five level

monitoring events at MW-9 and MW-10; the first event on February 2, 2022 was at the time the dedicated sampling pump systems were installed. Both wells were developed in November 2021. Both wells are in near-hydraulic balance, with differential pressure observed at a maximum of approximately 0.75 feet throughout 2022. Further long-term level monitoring should confirm if the Codell Sandstone and Blue Hills Shale are hydraulically communicating at this location. Both wells exhibit confined pressure conditions indicating possible recharge is upgradient in the outcrop areas on the flanks of Greenhorn Creek to the southwest. Confined groundwater pressure observed at this location suggest that the quarry's Codell floor rock is also saturated under confining pressure, and thus not likely to accept potential stormwater run-off infiltration from the overlying quarry.

**Groundwater Flow Direction and Gradient**

With the 2021 bedrock monitoring well installations increasing the number and spatial distribution of monitoring points in the Fort Hayes and Codell aquifers at the Facility, groundwater potentiometric elevations can now be plotted to determine the respective flow directions and horizontal gradients. In these first Facility plots, groundwater contours were kept relatively large at 50 feet, which is still adequate to demonstrate the groundwater flow direction and gradient.

**Figure 13** presents a groundwater potentiometric elevation map for the Fort Hayes aquifer with level measurements collected at MW-6, MW-7, MW-11, and MW-13 in 2022Q4. The groundwater flow direction is on a bearing of 45° northeast in line with strata dip direction. The Fort Hayes groundwater gradient is calculated as 3.4% or 2.0°. The strata dip of the Fort Hayes has been estimated at 4.7% or 2.7°.

**Figure 14** presents a groundwater potentiometric elevation map for the Codell aquifer with level measurements collected at MW-8, MW-9, MW-12, and MW-14 in 2022Q4. The groundwater flow direction is on a bearing of 45° northeast in line with strata dip. The 50-foot contour spacing apparently increases downgradient across the Facility, which suggests a decreasing or flattening of the gradient to the northeast as the strata extends further into the basin. For the area including the quarry and planned future mine panels, the Codell groundwater gradient is calculated as 2.8% or 1.6°. For the area downgradient of the quarry, including the plant and to the permit boundary to the northeast, the Codell groundwater gradient is calculated as 2.5% or 1.4°. The strata dip of the Codell Sandstone has been estimated at 4.7% or 2.7°.

## GROUNDWATER CONCEPTUAL MODEL DATA GAPS

Expanded groundwater exploration in 2021 and subsequent initial monitoring of six new wells in 2022 at the Facility has significantly improved the groundwater conceptual model and thus the understanding of the groundwater flow regime. That phase of monitoring well installation has allowed identification of groundwater data gaps to be addressed in the next phase of hydrogeologic characterization drilling and monitoring well installation. High accuracy surveying of all Facility monitoring wells' elevation, latitude

and longitude now allows plotting of groundwater potentiometric levels in order to more accurately predict groundwater flow direction and the groundwater gradient. The now greater spatial distribution of Fort Hayes and Codell monitoring wells across the Facility has improved confidence that the groundwater flow direction for both of these intervals is to the northeast at an approximate bearing of 45° generally with strata dip direction. Based on 2022 data the initial calculation of groundwater gradient is approximately 3.4% (2.0°) in the Fort Hayes and 2.5% (1.4°) in the Codell.

### UPGRADIENT GROUNDWATER MONITORING GAPS

During the 2021 TR-08 exploration drilling and monitoring well installation program an attempt was made to complete twinned Fort Hayes and Codell monitoring wells upgradient from planned mine panel four, which were to be the first upgradient monitoring locations. Unfortunately, the Fort Hayes Limestone was not found to be present during drilling at three exploratory locations in the permitted vicinity of the current MW-9 and MW-10 locations, so those are completed as Blue Hills Shale and Codell Shale wells, respectively. It is therefore recommended that two upgradient locations where the Fort Hayes is known to be present from past limestone resource delineation drilling be identified, in consultation to the GCC Quarry Geology Team. These areas are shown on **Figure 16** in broad blue-shaded areas pending further review of suitable locations. One location should be upgradient (southwest) of mine panels one or two in Section 24, on the north side of the Damian fault, with sufficient setback from the reclaimed highwall. The second upgradient location should be in mine panels four or five in Section 25 as near to the southwest permit boundary as possible, on the south side of the Damian fault. A minimum of two twinned upgradient Fort Hayes and Codell bedrock monitoring well locations are important to improve the current upgradient groundwater data gap as the numerous faults identified across the mine panels may create heterogeneous conditions which affect the site groundwater regime flow and quality.

### DOWNGRADIENT GROUNDWATER MONITORING GAPS

As mining progresses to the southeast now entering into mine panel four, it is recommended that a pair of twinned Fort Hayes and Codell monitoring wells be installed downgradient (northeast) of mine panels four, five, and six. This location would ideally be in Section 19 along the Blake Ranch access road at the GCC eastern property boundary, as shown in **Figure 16,** although this location is out of the permit area. This location could be moved closer to the mine panels (southwest) and sited inside the permit boundary if it is unacceptable to the Division to place any monitoring wells outside of the permit area. This location may prove to be suitable as a future Facility groundwater point-of-compliance for the south/southeast portion of the mine permit area, but will otherwise also allow refinement and improvement of the accuracy of the potentiometry, which is currently only projected in this area for the Codell. It will also serve as a true baseline location downgradient of planned future mining, to be installed and monitored ahead of such mining.

One pair of twinned Fort Hayes and Codell monitoring wells are recommended for installation downgradient of MW-6, MW-7, and MW-8, and thus downgradient of mine panel two, as shown in **Figure 16**. This location is proposed roughly half of the distance between the aforementioned wells and the MW-13/MW-14 location, and is downgradient of the plant footprint. This location is critical to understanding the groundwater chemistry and potentiometric differences identified between the two established monitoring locations (MW-6/MW-7/MW-8 and MW-13/MW-14) which is possibly related to the deepening of the dipping strata away from shallow recharge sources in the vicinity of the quarry, as well as potentially influenced by known faults mapped through the quarry which very likely continue on trend to the northeast. This location will assist with determining if the MW-13/MW-14 location is suitable as a potential Facility groundwater point-of-compliance location, a goal which should be attained going into 2024.

Finally, a pair of twinned Fort Hayes and Codell monitoring wells are recommended for installation in the area downgradient from mine panel one, preferably in an area west to northwest of the plant footprint, as shown in **Figure 16**. This location would provide direct downgradient groundwater chemistry monitoring for the reclaimed mine panel one, which is currently not possible. This recommended location will also refine the Fort Hayes and Codell potentiometry to improve accuracy of the Facility groundwater flow direction and gradient interpretation, as well as provide more insight into the hydraulic gradient between the Fort Hayes Limestone and underlying Codell Sandstone.

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# TABLES

## Table 1. GCC Monitoring Well Construction and Survey Data.

| Monitoring Well ID | Year Installed | CDWR Receipt Number | CDWR Permit Number | UTM NAD 83 Zone 13N Easting (meters) | UTM NAD 83 Zone 13N Northing (meters) | Elevation - Top of PVC Casing - Water Level Measuring Point (ft) | Elevation - Ground Surface at Wellhead Cement Pad (ft) | Well Diameter (in) | Well Casing Material | Total Well Completion Depth (ftbgs) | Screened Interval (ftbgs) | Screened Filter Pack Interval (ftbgs) | Screened Interval Formation | Type of Dedicated Sampling Pump |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MW-5 | 2008 | 3632233 | 278490 | 533304.305 | 4217575.554 | 4966.65 | 4964.39 | 2 | SCH 40 PVC | 25.00 | 9.0-24.0 | 8.0-25.0 | Colluvium/Weathered Bedrock | None - Dry Well |
| MW-6 | 2018 | 3690376A | 312701 | 533308.582 | 4217579.756 | 5064.14 | 5061.62 | 2 | SCH 40 PVC | 56.40 | 30.9-56.4 | 28.0-56.7 | Fort Hayes Limestone | 12V ESP - SS Sample Champ XL |
| MW-7 | 2018 | 3690376B | 312702 | 534710.190 | 4219189.212 | 5063.75 | 5061.09 | 2 | SCH 40 PVC | 56.10 | 30.6-56.1 | 27.5-57.0 | Fort Hayes Limestone | 12V ESP - SS Sample Champ XL |
| MW-8 | 2020 | 3696266 | 316170 | 534714.843 | 4219193.313 | 5062.90 | 5060.74 | 2 | SCH 40 PVC | 63.10 | 58.1-62.9 | 57.0-64.3 | Codell Sandstone | 12V ESP - SS Sample Champ XL |
| MW-9 | 2021 | 10013525 | 323005 | 535148.659 | 4221153.094 | 5256.09 | 5253.97 | 2 | SCH 40 PVC | 40.30 | 30.0-40.0 | 20.9-42.0 | Codell Sandstone | 12V ESP - SS Sample Champ XL |
| MW-10 | 2021 | 10013526 | 323006 | 535153.271 | 4221157.369 | 5255.82 | 5253.60 | 2 | SCH 40 PVC | 80.30 | 50.0-80.0 | 47.0-81.5 | Blue Hills Shale | 12V ESP - SS Sample Champ XL |
| MW-11 | 2021 | 10013527 | 323007 | 534405.485 | 4219710.530 | 5084.30 | 5082.09 | 2 | SCH 40 PVC | 70.00 | 39.6-69.6 | 36.6-70.6 | Fort Hayes Limestone | 12V ESP - SS Sample Champ XL |
| MW-12 | 2021 | 10013528 | 323008 | 534407.927 | 4219719.209 | 5083.94 | 5081.64 | 2 | SCH 40 PVC | 86.50 | 76.2-86.2 | 73.1-86.6 | Codell Sandstone | 12V ESP - SS Sample Champ XL |
| MW-13 | 2021 | 10013529 | 323009 | 534401.520 | 4219714.939 | 4990.11 | 4987.93 | 2 | SCH 40 PVC | 175.33 | 135.0-175.0 | 135.0-175.0 | Fort Hayes Limestone | 12V ESP - SS Sample Champ XL |
| MW-14 | 2021 | 10013530 | 323010 | 535242.397 | 4221415.851 | 4989.92 | 4987.81 | 2 | SCH 40 PVC | 205.33 | 190.0-205.0 | 187.0-206.0 | Codell Sandstone | Bladder Pump - QED T1300 |

Coordinates Based Off State Plane Grid/NAD83 Colorado South. Vertical Datum Based of NAVD88.

## Table 2 (Page 1 of 3). GCC Quarterly Compliance Groundwater Monitoring Data 2018-2022.

| Location ID | Sample Date | Depth to Water (ft BTOC) | 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 (mg/L) | Hydroxide as CaCO3 (mg/L) | Chloride (mg/L) | Sulfate (mg/L) | Fluoride (mg/L) | Nitrate (mg/L) | Nitrate/Nitrite (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-5 | 3/24/2022 | DRY | | | | | | | | | | | | | |
| MW-5 | 5/10/2022 | DRY | | | | | | | | | | | | | |
| MW-5 | 11/8/2022 | DRY | | | | | | | | | | | | | |
| MW-6 | 1/3/2018 | 48.24 | 6.95 | 4720 | 14 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | <0.020 |
| MW-6 | 4/27/2018 | 41.31 | 7.20 | 6200 | 16.3 | 5,030 | ---- | ---- | ---- | ---- | ---- | ---- | <1.0 | <0.10 | <0.020 |
| MW-6 | 9/26/2018 | DRY | | | | | | | | | | | | | |
| MW-6 | 12/12/2018 | 42.91 | 7.39 | 6500 | 14.9 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | <1.0 | ---- | <0.020 |
| 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 | 5,620 | ---- | ---- | ---- | ---- | ---- | ---- | 0.60 | 12 | 12.1 |
| MW-6 | 9/19/2019 | 28.15 | ---- | ---- | ---- | 5,860 | ---- | ---- | ---- | ---- | ---- | ---- | 0.60 | 11 | 11.1 |
| MW-6 | 12/9/2019 | 30.44 | ---- | ---- | ---- | 5,460 | ---- | ---- | ---- | ---- | ---- | ---- | 0.80 | 8.1 | 8.12 |
| MW-6 | 3/9/2020 | 32.30 | 7.22 | 5591 | 16.5 | 5,780 | ---- | ---- | ---- | ---- | ---- | ---- | 0.70 | 2.02 | 2.58 |
| MW-6 | 9/16/2020 | 29.78 | 7.20 | 5405 | 16.7 | 5,480 | ---- | ---- | ---- | ---- | ---- | ---- | 0.50 | 0.05 | 0.05 |
| MW-6 | 11/23/2020 | 30.92 | 7.25 | 5425 | 14.3 | 5,300 | ---- | ---- | ---- | ---- | ---- | ---- | 0.57 | 1.62 | 1.63 |
| MW-6 | 2/22/2021 | 36.61 | 7.55 | 5684 | 15.8 | 5,780 | ---- | ---- | ---- | ---- | ---- | ---- | 0.62 | 0.07 | 0.067 |
| MW-6 | 5/19/2021 | 46.32 | 7.43 | 5945 | 14.9 | ---- | 524 | 524 | <2 | <2 | 109 | 3200 | 0.57 | 0.03 | 0.032 |
| 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 |
| MW-6 | 11/18/2021 | 29.70 | 7.18 | 7477 | 14.2 | ---- | 450 | 450 | <2 | <2 | 76.1 | 3750 | 0.62 | 0.846 | 0.85 |
| MW-6 | 3/22/2022 | 36.00 | 7.23 | 5322 | 14.0 | 5,200 | 321 | 321 | <2 | <2 | 48.5 | 3610 | 0.62 | 8.01 | 8.02 |
| MW-6 | 5/17/2022 | 36.94 | 7.03 | 5726 | 16.7 | 5,190 | 461 | 461 | <2 | <2 | 89.1 | 3140 | 0.57 | 3.24 | 3.25 |
| MW-6 | 8/15/2022 | 36.78 | 7.02 | 5404 | 20.5 | 5,410 | 421 | 421 | <2 | <2 | 68.7 | 3700 | 0.50 | 1.02 | 1.09 |
| MW-6 | 11/7/2022 | 33.62 | 6.92 | 5311 | 15.7 | 5,200 | 445 | 445 | <2 | <2 | 77.0 | 3180 | 0.79 | <0.02 | <0.02 |
| MW-7 | 1/3/2018 | 42.91 | 6.86 | 4765 | 15 | 5,510 | ---- | ---- | ---- | ---- | ---- | ---- | 0.42 | ---- | <0.020 |
| MW-7 | 4/27/2018 | 39.09 | 6.85 | 5820 | 15 | 5,270 | ---- | ---- | ---- | ---- | ---- | ---- | <0.50 | <0.050 | <0.100 |
| MW-7 | 9/26/2018 | DRY | | | | | | | | | | | | | |
| MW-7 | 12/12/2018 | 37.84 | 6.90 | 6093 | 14 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | <1.0 | ---- | <0.020 |
| MW-7 | 3/7/2019 | 40.79 | 6.95 | 6020 | 13.7 | 5,640 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 0.014 |
| MW-7 | 6/12/2019 | 31.25 | 6.95 | 5997 | 18 | 5,700 | ---- | ---- | ---- | ---- | ---- | ---- | 0.50 | 1.73 | 1.74 |
| MW-7 | 9/18/2019 | 27.89 | ---- | ---- | ---- | 6,740 | ---- | ---- | ---- | ---- | ---- | ---- | 0.50 | 10 | 10.1 |
| MW-7 | 12/9/2019 | 29.51 | ---- | ---- | ---- | 5,320 | ---- | ---- | ---- | ---- | ---- | ---- | 0.50 | 14 | 14.3 |
| MW-7 | 3/9/2020 | 32.46 | 7.01 | 6459 | 15.8 | 6,540 | ---- | ---- | ---- | ---- | ---- | ---- | 0.40 | 15 | 14.9 |
| MW-7 | 9/16/2020 | 29.65 | 7.17 | 4772 | 15.2 | 4,950 | ---- | ---- | ---- | ---- | ---- | ---- | 0.40 | 11 | 11.0 |
| MW-7 | 11/23/2020 | 30.40 | 7.16 | 4999 | 14.3 | 5,070 | ---- | ---- | ---- | ---- | ---- | ---- | 0.47 | 11 | 11.2 |
| MW-7 | 2/22/2021 | 32.87 | 7.55 | 6077 | 14.4 | 6,500 | ---- | ---- | ---- | ---- | ---- | ---- | 0.49 | 9.9 | 9.98 |
| MW-7 | 5/19/2021 | 30.83 | 7.51 | 5464 | 15.2 | ---- | 309 | 309 | <2 | <2 | 51 | 3430 | 0.40 | 7.51 | 7.54 |
| MW-7 | 8/31/2021 | 25.79 | 7.15 | 6061 | 15.4 | ---- | 467 | 467 | <2 | <2 | 96 | 3360 | 0.52 | 0.91 | 0.91 |
| MW-7 | 11/18/2021 | 29.45 | 6.94 | 6589 | 13.9 | ---- | 299 | 299 | <2 | <2 | 53 | 3700 | 0.53 | 3.84 | 3.84 |
| MW-7 | 3/22/2022 | 36.7 | 6.95 | 5654 | 15.1 | 5,760 | 491 | 491 | <2 | <2 | 94 | 3650 | 0.57 | 1.22 | 1.24 |
| MW-7 | 5/10/2022 | 37.61 | 6.86 | 5593 | 15.2 | 5,660 | 477 | 477 | <2 | <2 | 104 | 3240 | 0.58 | 0.186 | 0.19 |
| MW-7 | 8/15/2022 | 29.34 | 6.99 | 5905 | 20.0 | 6,170 | 484 | 484 | <2 | <2 | 97 | 3810 | 0.50 | 0.151 | 0.15 |
| MW-7 | 11/7/2022 | 33.53 | 7.08 | 4727 | 15.2 | 4,690 | 250 | 250 | <2 | <2 | 41 | 3000 | 0.37 | 4.65 | 4.65 |
| 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 | 7,900 | ---- | ---- | ---- | ---- | ---- | ---- | 0.90 | <0.02 | <0.02 |
| 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 | 4,060 | ---- | ---- | ---- | ---- | ---- | ---- | 1.14 | <0.050 | <0.02 |
| MW-8 | 2/22/2021 | 34.21 | 7.65 | 5476 | 14.8 | 4,180 | ---- | ---- | ---- | ---- | ---- | ---- | 1.10 | <0.02 | <0.02 |
| MW-8 | 5/19/2021 | 34.56 | 7.60 | 5571 | 16.1 | ---- | 1200 | 1200 | <2 | <2 | 316 | 1520 | 0.89 | 0.99 | 1.01 |
| MW-8 | 8/31/2021 | 25.75 | 7.32 | 6077 | 17.8 | ---- | 1080 | 1080 | <2 | <2 | 272 | 1820 | 1.00 | <0.02 | 0.022 |
| MW-8 | 11/18/2021 | 24.46 | 7.14 | 3852 | 14.7 | ---- | 1140 | 1140 | <2 | <2 | 283 | 1920 | 0.90 | 0.068 | 0.096 |
| MW-8 | 3/28/2022 | 36.35 | 7.13 | 4545 | 15.1 | 3,040 | 1020 | 1020 | <2 | <2 | 204 | 1090 | 0.92 | 0.029 | 0.041 |
| MW-8 | 5/17/2022 | 37.93 | 7.12 | 5556 | 18.0 | 3,630 | 1130 | 1130 | <2 | <2 | 315 | 1260 | 1.01 | <0.02 | <0.02 |
| MW-8 | 8/15/2022 | 30.25 | 7.18 | 5325 | 18.8 | 3,790 | 1090 | 1090 | <2 | <2 | 291 | 1510 | 1.09 | <0.02 | <0.02 |
| MW-8 | 11/7/2022 | 32.00 | 7.15 | 5236 | 16.1 | 3,840 | 1130 | 1130 | <2 | <2 | 297 | 1450 | 0.90 | <0.02 | <0.02 |
| MW-9 | 3/28/2022 | 26.16 | 6.55 | 4834 | 15.0 | 4,420 | 223 | 223 | <2 | <2 | 43.6 | 3200 | 0.49 | 0.513 | 1.38 |
| MW-9 | 5/17/2022 | 26.32 | 6.59 | 5486 | 16.9 | 4,390 | 232 | 232 | <2 | <2 | 44.4 | 2980 | 0.44 | 0.89 | 1.33 |
| MW-9 | 8/15/2022 | 26.42 | 6.86 | 4998 | 18.9 | 4,640 | 323 | 323 | <2 | <2 | 44.5 | 3160 | 0.43 | 0.038 | 0.038 |
| MW-9 | 11/7/2022 | 26.37 | 6.81 | 4959 | 16.2 | 4,590 | 347 | 347 | <2 | <2 | 45.9 | 2970 | 0.27 | <0.02 | <0.02 |
| MW-10 | 3/28/2022 | 26.35 | 7.43 | 5724 | 15.1 | 4,220 | 587 | 587 | <2 | <2 | 289 | 2380 | 0.99 | <0.02 | <0.02 |
| MW-10 | 5/17/2022 | 26.73 | 7.50 | 6205 | 18.0 | 4,170 | 627 | 627 | <2 | <2 | 358 | 1990 | 1.08 | <0.02 | <0.02 |
| MW-10 | 8/15/2022 | 26.04 | 7.56 | 5813 | 18.8 | 4,210 | 644 | 644 | <2 | <2 | 350 | 2240 | 1.16 | <0.02 | <0.02 |
| MW-10 | 11/7/2022 | 25.45 | 7.57 | 5698 | 15.3 | 4,030 | 656 | 656 | <2 | <2 | 376 | 1900 | 1.02 | <0.02 | <0.02 |
| MW-11 | 3/23/2022 | 58.41 | 7.39 | 2265 | 15.5 | 1,500 | 782 | 782 | <2 | <2 | 133 | 353 | 0.82 | <0.02 | <0.02 |
| MW-11 | 5/17/2022 | 59.41 | 7.39 | 2681 | 17.2 | 1,580 | 842 | 821 | 20.4 | <2 | 136 | 330 | 0.91 | <0.02 | 0.03 |
| MW-11 | 8/15/2022 | 54.00 | 7.37 | 2619 | 18.8 | 1,640 | 839 | 839 | <2 | <2 | 135 | 401 | 0.93 | <0.2 | <0.2 |
| MW-11 | 11/7/2022 | 57.23 | 7.35 | 2573 | 15.2 | 1,590 | 839 | 839 | <2 | <2 | 125 | 359 | 0.76 | <0.02 | <0.02 |
| MW-12 | 3/28/2022 | 63.48 | 8.19 | 2896 | 15.4 | 1,360 | 409 | 380 | 28.9 | <2 | 374 | 129 | **2.52** | <0.02 | <0.02 |
| MW-12 | 5/17/2022 | 81.76 | 8.04 | 3720 | 17.3 | 1,810 | 472 | 448 | 23.6 | <2 | 793 | 88.3 | **2.21** | 0.323 | 1.28 |
| MW-12 | 8/15/2022 | 79.28 | 7.69 | 4219 | 18.0 | 2,370 | 523 | 523 | <2 | <2 | 954 | 204 | 1.85 | 8.89 | 9.4 |
| MW-12 | 11/7/2022 | 72.80 | 7.67 | 4399 | 15.2 | 2,450 | 553 | 553 | <2 | <2 | 1000 | 195 | 1.65 | 4.18 | 5.7 |
| MW-13 | 3/23/2022 | 117.48 | 8.23 | 3872 | 16.9 | 2,430 | 1060 | 1030 | 28.8 | <2 | 573 | 234 | **5.41** | <0.02 | <0.02 |
| MW-13 | 5/10/2022 | 118.78 | 8.38 | 3190 | 17.5 | 2,150 | 995 | 933 | 61.8 | <2 | 566 | 88.5 | **6.06** | 0.109 | 0.11 |
| MW-13 | 8/15/2022 | 119.21 | 7.89 | 4115 | 19.1 | 2,610 | 1180 | 1180 | <2 | <2 | 606 | 172 | **6.46** | <0.02 | <0.02 |
| MW-13 | 11/8/2022 | 119.31 | 7.96 | 4251 | 16.0 | 2,540 | 1280 | 1230 | 52.5 | <2 | 643 | 122 | **6.51** | 0.04 | 0.064 |
| MW-14 | 3/28/2022 | 92.54 | 8.07 | 3669 | 17.5 | 2,300 | 866 | 800 | 65.9 | <2 | 473 | 353 | **2.35** | <0.02 | <0.02 |
| MW-14 | 5/17/2022 | 108.77 | 7.68 | 6741 | 17.2 | 3,610 | 1320 | 1300 | 27.4 | <2 | 1410 | 143 | **3.10** | 0.02 | 0.02 |
| MW-14 | 8/15/2022 | 95.53 | 7.66 | 5626 | 18.2 | 4,240 | 1300 | 1300 | <2 | <2 | 1480 | 321 | **3.10** | <0.02 | <0.02 |
| MW-14 | 11/8/2022 | 92.34 | 7.59 | 6395 | 15.5 | 4,410 | 1320 | 1320 | <2 | <2 | 1660 | 393 | **2.87** | <0.02 | <0.02 |
| Field QA/QC Samples | | | | | | | | | | | | | | | |
| MW-6 (duplicate) | 9/19/2019 | ---- | ---- | ---- | ---- | 6,020 | ---- | ---- | ---- | ---- | ---- | ---- | 0.70 | 11 | 10.8 |
| MW-7 (duplicate) | 6/12/2019 | ---- | ---- | ---- | ---- | 5,600 | ---- | ---- | ---- | ---- | ---- | ---- | 0.90 | 1.28 | 1.28 |
| MW-7 (duplicate) | 11/9/2019 | ---- | ---- | ---- | ---- | 5,510 | ---- | ---- | ---- | ---- | ---- | ---- | 0.50 | 15 | 14.7 |
| MW-7 (duplicate) | 3/9/2020 | ---- | ---- | ---- | ---- | 6,530 | ---- | ---- | ---- | ---- | ---- | ---- | 0.40 | 15 | 14.5 |
| MW-7 (duplicate) | 9/16/2020 | ---- | ---- | ---- | ---- | 5,040 | ---- | ---- | ---- | ---- | ---- | ---- | 0.40 | 11 | 10.9 |
| MW-7 (duplicate) | 2/22/2021 | ---- | ---- | ---- | ---- | 6,460 | ---- | ---- | ---- | ---- | ---- | ---- | 0.49 | 10 | 10.3 |
| MW-7 (duplicate) | 5/19/2021 | ---- | ---- | ---- | ---- | ---- | 291 | 291 | <2 | <2 | 50.7 | 3280 | 0.43 | 7.45 | 7.48 |
| MW-7 (duplicate) | 8/31/2021 | ---- | ---- | ---- | ---- | ---- | 464 | 464 | <2 | <2 | 109 | 3480 | 0.53 | 0.91 | 0.91 |
| MW-7 (duplicate) | 3/22/2022 | ---- | ---- | ---- | ---- | 5,730 | 492 | 492 | <2 | <2 | 93.9 | 3720 | 0.56 | 1.18 | 1.20 |
| MW-7 (duplicate) | 5/10/2022 | ---- | ---- | ---- | ---- | 5,660 | 490 | 490 | <2 | <2 | 104 | 3290 | 0.58 | 0.20 | 0.20 |
| MW-8 (duplicate) | 11/23/2020 | ---- | ---- | ---- | ---- | 4,040 | ---- | ---- | ---- | ---- | ---- | ---- | 1.15 | <0.050 | <0.02 |
| MW-8 (duplicate) | 11/18/2021 | ---- | ---- | ---- | ---- | ---- | 1130 | 1130 | <2 | <2 | 288 | 1920 | 0.89 | 0.078 | 0.107 |
| MW-8 (duplicate) | 8/15/2022 | ---- | ---- | ---- | ---- | 3,730 | 1100 | 1100 | <2 | <2 | 290 | 1560 | 1.07 | <0.02 | <0.02 |
| MW-8 (duplicate) | 11/7/2022 | ---- | ---- | ---- | ---- | 3,770 | 1110 | 1110 | <2 | <2 | 289 | 1460 | 0.93 | 0.26 | 0.26 |
| CDPHE Regulation 41 Table 3 Groundwater Quality Reference Standards (Agricultural Use)[1] | | | *6.5 -8.5* | ---- | ---- | *10,000* | ---- | ---- | ---- | ---- | ---- | ---- | *2* | ---- | *100* |

**Notes:**

-Concentrations in bold indicate exceedance of CDPHE Groundwater Quality Reference Standard for Agricultural Use as applicable to the facility.
-Underlined values exceeded the method hold time for analysis.
-The applicable facility standards established for boron (5.0 mg/L) and total dissolved solids (<10,000) are different than the CDPHE agricultural use standards; 0.75mg/L and 1.5 x background, respectively.
-MW-5 has been dry since installation and initial monitoring on 7/14/2008.
-2020Q2 monitoring not conducted due to COVID-19 restrictions.

## Table 2 (Page 2 of 3). GCC Quarterly Compliance Groundwater Monitoring Data 2018-2022.

| Location ID | Sample Date | Nitrite (mg/L) | Aluminum (mg/L) | Arsenic (mg/L) | Beryllium (mg/L) | 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) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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-5 | 3/24/2022 | | | | | | | | | | | | | | | |
| MW-5 | 5/10/2022 | | | | | | | | | | | | | | | |
| MW-5 | 11/8/2022 | | | | | | | | | | | | | | | |
| MW-6 | 1/3/2018 | ---- | 0.64 | <0.03 | <0.005 | 0.63 | <0.005 | <0.005 | 0.0042 | 0.006 | ---- | 0.47 | <0.01 | 0.66 | ---- | **0.59** |
| MW-6 | 4/27/2018 | <0.040 | <0.2 | <0.03 | <0.005 | 0.65 | <0.005 | <0.005 | 0.019 | <0.01 | ---- | 0.06 | <0.01 | 0.69 | ---- | **1.14** |
| MW-6 | 9/26/2018 | | | | | | | | | | | | | | | |
| MW-6 | 12/12/2018 | <0.040 | <0.2 | <0.03 | <0.005 | 0.62 | <0.005 | <0.005 | 0.0060 | <0.01 | ---- | <0.1 | 0.004 | 0.48 | ---- | **0.66** |
| MW-6 | 3/7/2019 | | | | | DRY | | | | | | | | | | |
| MW-6 | 6/12/2019 | 0.030 | 0.5 | <0.001 | <0.05 | 0.50 | 0.0003 | <0.05 | <0.05 | <0.05 | ---- | 0.80 | 0.002 | 0.52 | ---- | **0.97** |
| MW-6 | 9/19/2019 | 0.080 | <0.3 | 0.0004 | <0.05 | 0.30 | 0.00026 | <0.05 | 0.05 | <0.05 | ---- | 0.30 | 0.0004 | 0.49 | ---- | **0.58** |
| MW-6 | 12/9/2019 | 0.020 | <0.3 | <0.001 | <0.05 | 0.30 | <0.0003 | <0.05 | <0.05 | <0.05 | ---- | <0.2 | <0.0005 | 0.49 | ---- | **0.49** |
| MW-6 | 3/9/2020 | 0.560 | <0.3 | 0.0005 | <0.05 | 0.30 | 0.00016 | <0.05 | <0.05 | 0.06 | ---- | <0.2 | <0.0001 | 0.48 | ---- | **0.40** |
| MW-6 | 9/16/2020 | <0.01 | 0.19 | 0.0009 | <0.01 | 0.31 | 0.00011 | 0.01 | 0.03 | <0.01 | ---- | 0.19 | 0.0006 | 0.49 | ---- | **0.39** |
| MW-6 | 11/23/2020 | 0.012 | <0.25 | <0.001 | <0.05 | 0.33 | <0.00025 | <0.05 | <0.05 | <0.05 | ---- | <0.3 | <0.0005 | 0.45 | ---- | **0.33** |
| MW-6 | 2/22/2021 | <0.01 | <0.25 | <0.001 | <0.05 | 0.330 | <0.00025 | <0.05 | <0.05 | <0.05 | ---- | <0.3 | <0.0005 | 0.476 | ---- | **0.32** |
| MW-6 | 5/19/2021 | <0.01 | <0.05 | 0.00237 | <0.01 | 0.38 | 0.000058 | <0.02 | <0.02 | <0.01 | 315 | 0.13 | <0.0001 | 0.47 | 344 | **0.36** |
| MW-6 | 8/31/2021 | 0.038 | <0.05 | <0.001 | <0.01 | 0.24 | <0.00025 | <0.02 | <0.02 | <0.01 | 410 | <0.06 | <0.0005 | 0.49 | 498 | **0.28** |
| MW-6 | 11/18/2021 | <0.01 | <0.05 | <0.001 | <0.01 | 0.25 | <0.00025 | <0.1 | <0.02 | <0.01 | 383 | <0.06 | <0.0005 | 0.47 | 473 | **0.24** |
| MW-6 | 3/22/2022 | 0.011 | <0.25 | <0.001 | <0.05 | 0.21 | <0.00025 | <0.1 | <0.1 | <0.05 | 488 | <0.3 | <0.0005 | 0.43 | 460 | 0.08 |
| MW-6 | 5/17/2022 | 0.015 | <0.25 | <0.0002 | <0.05 | 0.32 | <0.00005 | <0.1 | 0.012 | <0.05 | 440 | <0.3 | <0.0001 | 0.46 | 422 | 0.20 |
| MW-6 | 8/15/2022 | 0.070 | <0.25 | 0.00040 | <0.05 | 0.19 | 0.000131 | <0.1 | 0.020 | <0.05 | 421 | 0.70 | <0.0001 | 0.43 | 410 | **0.29** |
| MW-6 | 11/7/2022 | <0.01 | <0.25 | <0.001 | <0.05 | 0.28 | <0.00025 | <0.1 | **0.061** | <0.05 | 414 | 0.32 | <0.0005 | 0.43 | 411 | **0.61** |
| MW-7 | 1/3/2018 | <1.00 | 1.35 | 0.00949 | <0.005 | 0.46 | <0.005 | <0.005 | 0.0014 | 0.00555 | ---- | 1.39 | <0.01 | 0.78 | ---- | 0.20 |
| MW-7 | 4/27/2018 | <0.020 | <0.2 | <0.03 | <0.005 | 0.44 | <0.005 | <0.005 | <0.005 | <0.01 | ---- | 0.25 | <0.01 | 0.67 | ---- | 0.17 |
| MW-7 | 9/26/2018 | | | | | | | | | | | | | | | |
| MW-7 | 12/12/2018 | <0.040 | <0.2 | <0.03 | <0.005 | 0.45 | <0.005 | <0.005 | <0.005 | <0.01 | ---- | 0.24 | <0.01 | 0.57 | ---- | 0.10 |
| MW-7 | 3/7/2019 | | <0.2 | <0.03 | <0.005 | 0.43 | <0.005 | <0.005 | 0.0020 | <0.01 | ---- | 0.30 | <0.01 | 0.56 | ---- | 0.15 |
| MW-7 | 6/12/2019 | 0.010 | <0.3 | <0.001 | <0.05 | 0.40 | <0.0003 | <0.05 | <0.05 | <0.05 | ---- | <0.2 | <0.0005 | 0.62 | ---- | 0.14 |
| MW-7 | 9/18/2019 | 0.020 | 0.40 | 0.0003 | <0.05 | 0.30 | 0.00015 | <0.05 | <0.05 | <0.05 | ---- | 0.80 | 0.001 | 0.48 | ---- | 0.10 |
| MW-7 | 12/9/2019 | 0.080 | <0.3 | <0.001 | <0.05 | 0.20 | <0.0003 | <0.05 | <0.05 | <0.05 | ---- | <0.2 | <0.0005 | 0.44 | ---- | <0.05 |
| MW-7 | 3/9/2020 | 0.060 | <0.3 | <0.0002 | <0.05 | 0.20 | 0.00011 | <0.05 | <0.05 | <0.05 | ---- | <0.2 | <0.0001 | 0.60 | ---- | <0.05 |
| MW-7 | 9/16/2020 | 0.030 | 0.16 | <0.0002 | <0.01 | 0.14 | 0.00007 | 0.01 | <0.01 | <0.01 | ---- | 0.15 | 0.0002 | 0.43 | ---- | 0.01 |
| MW-7 | 11/23/2020 | 0.039 | <0.25 | <0.001 | <0.05 | 0.15 | <0.00025 | <0.05 | <0.05 | <0.05 | ---- | <0.3 | <0.0005 | 0.38 | ---- | <0.05 |
| MW-7 | 2/22/2021 | 0.068 | <0.25 | <0.001 | <0.05 | 0.196 | <0.00025 | <0.05 | <0.05 | <0.05 | ---- | <0.3 | <0.0005 | 0.634 | ---- | <0.05 |
| MW-7 | 5/19/2021 | 0.027 | <0.05 | <0.0002 | <0.01 | 0.14 | 0.000057 | <0.02 | <0.02 | <0.01 | 460 | <0.06 | <0.0001 | 0.47 | 530 | <0.01 |
| MW-7 | 8/31/2021 | <0.01 | <0.05 | <0.001 | <0.01 | 0.31 | <0.00025 | <0.02 | <0.02 | <0.01 | 391 | <0.06 | <0.0005 | 0.52 | 397 | 0.07 |
| MW-7 | 11/18/2021 | <0.01 | <0.05 | <0.001 | <0.01 | 0.19 | <0.00025 | <0.1 | <0.02 | <0.01 | 429 | <0.06 | <0.0005 | 0.38 | 386 | 0.06 |
| MW-7 | 3/22/2022 | 0.02 | <0.25 | <0.001 | <0.05 | 0.39 | <0.00025 | <0.1 | <0.1 | <0.05 | 396 | <0.3 | <0.0005 | 0.55 | 428 | 0.06 |
| MW-7 | 5/10/2022 | <0.01 | <0.25 | <0.001 | <0.05 | 0.37 | <0.00025 | <0.1 | 0.0023 | <0.05 | 376 | <0.3 | <0.0005 | 0.55 | 392 | 0.09 |
| MW-7 | 8/15/2022 | <0.01 | <0.25 | 0.0004 | <0.05 | 0.29 | 0.000067 | <0.1 | 0.0028 | <0.05 | 346 | 0.44 | <0.0001 | 0.54 | 371 | 0.07 |
| MW-7 | 11/7/2022 | <0.01 | <0.25 | <0.001 | <0.05 | 0.16 | <0.00025 | <0.1 | 0.0018 | <0.05 | 454 | <0.3 | <0.0005 | 0.34 | 365 | <0.05 |
| MW-8 | 3/9/2020 | | | | | | | | | | | | | | | |
| MW-8 | 9/16/2020 | | | | | | | | | | | | | | | |
| MW-8 | 9/28/2020 | <0.01 | <0.25 | 0.0138 | <0.05 | 1.2 | <0.00025 | <0.05 | <0.05 | <0.05 | ---- | 2.62 | <0.0005 | 0.51 | | **0.30** |
| MW-8 | 11/9/2020 | | | | | | | | | | | | | | | |
| MW-8 | 11/23/2020 | <0.01 | <0.25 | 0.00219 | <0.05 | 0.82 | <0.00025 | <0.05 | <0.05 | <0.05 | ---- | <0.3 | <0.0005 | 0.33 | ---- | **0.25** |
| MW-8 | 2/22/2021 | <0.01 | <0.05 | 0.00350 | <0.01 | 0.848 | <0.00025 | <0.01 | <0.01 | <0.01 | ---- | <0.06 | <0.0005 | 0.360 | ---- | **0.31** |
| MW-8 | 5/19/2021 | 0.016 | <0.05 | 0.00155 | <0.01 | 0.89 | 0.000065 | <0.04 | <0.02 | <0.01 | 93.1 | <0.06 | 0.00016 | 0.37 | 31.2 | **0.28** |
| MW-8 | 8/31/2021 | 0.014 | <0.05 | 0.00124 | <0.01 | 0.78 | <0.00025 | <0.02 | <0.02 | <0.01 | 111 | <0.06 | <0.0005 | 0.38 | 38.5 | **0.32** |
| MW-8 | 11/18/2021 | 0.028 | <0.05 | <0.001 | <0.01 | 0.80 | <0.00025 | <0.1 | <0.02 | <0.01 | 107 | <0.06 | <0.0005 | 0.38 | 46.5 | **0.27** |
| MW-8 | 3/28/2022 | 0.012 | <0.1 | 0.00279 | <0.02 | 0.60 | <0.0001 | <0.04 | <0.04 | <0.02 | 59.8 | <0.12 | 0.00036 | 0.26 | 19.7 | 0.20 |
| MW-8 | 5/17/2022 | <0.01 | <0.1 | 0.00427 | <0.02 | 0.88 | <0.00005 | <0.04 | <0.04 | <0.02 | 77.1 | <0.12 | <0.0001 | 0.39 | 28.9 | **0.30** |
| MW-8 | 8/15/2022 | <0.01 | <0.1 | 0.00767 | <0.02 | 0.81 | <0.00005 | <0.04 | <0.04 | <0.02 | 68.1 | 0.83 | <0.0001 | 0.37 | 26.6 | **0.24** |
| MW-8 | 11/7/2022 | <0.01 | <0.1 | 0.00542 | <0.02 | 0.85 | <0.0001 | <0.04 | 0.00051 | <0.02 | 68.1 | 0.89 | <0.0002 | 0.37 | 27.1 | **0.24** |
| MW-9 | 3/28/2022 | 0.867 | 0.14 | <0.001 | <0.01 | 0.90 | <0.00025 | <0.02 | <0.02 | <0.01 | 367 | <0.06 | <0.0005 | 0.29 | 178 | **0.61** |
| MW-9 | 5/17/2022 | 0.44 | <0.25 | <0.0002 | <0.05 | 1.19 | <0.00005 | <0.1 | 0.0093 | <0.05 | 478 | <0.3 | <0.0001 | 0.36 | 216 | **0.76** |
| MW-9 | 8/15/2022 | <0.01 | <0.25 | 0.00058 | <0.05 | 1.15 | 0.000065 | <0.1 | 0.0040 | <0.05 | 417 | <0.3 | <0.0001 | 0.36 | 156 | **0.55** |
| MW-9 | 11/7/2022 | <0.01 | <0.25 | 0.0007 | <0.05 | 1.26 | <0.00025 | <0.1 | 0.0063 | 0.05 | 418 | 0.51 | <0.0005 | 0.38 | 158 | **0.55** |
| MW-10 | 3/28/2022 | <0.01 | <0.25 | 0.00289 | <0.05 | 0.99 | <0.00025 | <0.1 | <0.1 | <0.05 | 430 | <0.3 | 0.00055 | 0.31 | 198 | **0.69** |
| MW-10 | 5/17/2022 | <0.01 | <0.25 | 0.00321 | <0.05 | 1.59 | <0.00005 | <0.1 | 0.00102 | <0.05 | 82.6 | 0.51 | <0.0001 | 0.34 | 24.2 | 0.07 |
| MW-10 | 8/15/2022 | <0.01 | <0.25 | 0.00404 | <0.05 | 1.32 | <0.00005 | <0.1 | 0.000287 | <0.05 | 53.5 | 0.62 | 0.00021 | 0.31 | 16.2 | <0.05 |
| MW-10 | 11/7/2022 | <0.01 | <0.25 | 0.00264 | <0.05 | 1.40 | <0.00025 | <0.1 | <0.00025 | 0.06 | 46.2 | 0.53 | <0.0005 | 0.32 | 14.7 | <0.05 |
| MW-11 | 3/23/2022 | 0.017 | <0.05 | <0.002 | <0.01 | 0.41 | <0.0005 | <0.02 | <0.02 | <0.01 | 45.4 | <0.06 | <0.001 | 0.15 | 24.4 | <0.01 |
| MW-11 | 5/17/2022 | 0.033 | <0.05 | 0.00078 | <0.01 | 0.49 | <0.00005 | <0.02 | <0.02 | <0.01 | 52.4 | <0.06 | <0.0001 | 0.18 | 28.9 | 0.022 |
| MW-11 | 8/15/2022 | <0.01 | <0.05 | 0.00051 | <0.01 | 0.45 | <0.00005 | <0.02 | <0.02 | <0.01 | 47.2 | <0.06 | <0.0001 | 0.16 | 26.3 | <0.01 |
| MW-11 | 11/7/2022 | <0.01 | <0.05 | 0.00029 | <0.01 | 0.43 | <0.00005 | <0.02 | 0.0023 | <0.01 | 68.3 | <0.06 | <0.0001 | 0.15 | 33.9 | 0.02 |
| MW-12 | 3/28/2022 | 0.012 | <0.05 | 0.00464 | <0.01 | 0.60 | <0.00005 | <0.02 | <0.02 | <0.01 | 10.8 | <0.06 | <0.0001 | 0.11 | 3.12 | 0.01 |
| MW-12 | 5/17/2022 | 0.957 | <0.05 | 0.00233 | <0.01 | 0.80 | <0.00005 | <0.02 | <0.02 | <0.01 | 14.2 | <0.06 | <0.0001 | 0.17 | 4.55 | 0.03 |
| MW-12 | 8/15/2022 | 0.511 | <0.1 | 0.00157 | <0.02 | 0.79 | <0.00005 | <0.04 | <0.04 | <0.02 | 25.5 | <0.12 | <0.0002 | 0.19 | 6.19 | <0.02 |
| MW-12 | 11/7/2022 | 1.55 | <0.1 | 0.00081 | <0.02 | 0.84 | <0.0001 | <0.04 | 0.0017 | <0.02 | 26.2 | <0.12 | <0.0002 | 0.20 | 7.38 | 0.07 |
| MW-13 | 3/23/2022 | <0.01 | <0.1 | 0.00178 | <0.02 | 0.94 | <0.0001 | <0.04 | <0.04 | <0.02 | 5.46 | <0.12 | <0.0002 | 0.18 | 1.45 | <0.02 |
| MW-13 | 5/10/2022 | <0.01 | <0.1 | 0.00075 | <0.02 | 0.95 | <0.0001 | <0.04 | <0.04 | <0.02 | 4.13 | <0.12 | <0.0002 | 0.18 | 1.00 | <0.02 |
| MW-13 | 8/15/2022 | 0.029 | <0.1 | 0.00285 | <0.02 | 1.00 | <0.00005 | <0.04 | <0.04 | <0.02 | 7.84 | <0.12 | <0.0001 | 0.21 | 1.74 | <0.02 |
| MW-13 | 11/8/2022 | 0.024 | <0.1 | 0.00102 | <0.02 | 1.03 | <0.00025 | <0.04 | <0.00025 | <0.02 | 6.65 | <0.12 | <0.0002 | 0.23 | 1.67 | <0.02 |
| MW-14 | 3/28/2022 | <0.01 | <0.1 | 0.00533 | <0.02 | 1.46 | <0.0001 | <0.04 | <0.04 | <0.02 | 84.8 | <0.12 | <0.0002 | 0.32 | 23.3 | <0.02 |
| MW-14 | 5/17/2022 | <0.01 | <0.1 | 0.00382 | <0.02 | 1.26 | 0.000066 | <0.04 | <0.04 | <0.02 | 15.9 | <0.12 | <0.0001 | 0.40 | 4.75 | <0.02 |
| MW-14 | 8/15/2022 | <0.01 | <0.25 | 0.0059 | <0.05 | 1.17 | <0.00005 | <0.1 | 0.00075 | <0.05 | 17.3 | <0.3 | <0.0002 | 0.36 | 4.86 | <0.05 |
| MW-14 | 11/8/2022 | <0.01 | <0.25 | 0.00448 | <0.05 | 1.24 | <0.0005 | <0.1 | 0.00086 | <0.05 | 18 | 0.36 | <0.001 | 0.36 | 4.99 | <0.05 |
| Field QA/QC Samples | | | | | | | | | | | | | | | | |
| MW-6 (duplicate) | 9/19/2019 | 0.08 | <0.3 | 0.0004 | <0.05 | 0.30 | 0.00031 | <0.05 | 0.05 | <0.05 | ---- | 0.30 | 0.0005 | 0.48 | ---- | **0.57** |
| MW-7 (duplicate) | 6/12/2019 | <0.01 | <0.3 | <0.001 | <0.05 | 0.40 | <0.04 | <0.05 | <0.05 | <0.05 | ---- | 0.20 | <0.0005 | 0.61 | ---- | 0.14 |
| MW-7 (duplicate) | 11/9/2019 | 0.08 | <0.3 | <0.001 | <0.05 | 0.20 | <0.0003 | <0.05 | <0.05 | <0.05 | ---- | <0.2 | <0.0005 | 0.44 | ---- | <0.05 |
| MW-7 (duplicate) | 3/9/2020 | 0.05 | <0.3 | <0.0002 | <0.05 | 0.10 | 0.0001 | <0.05 | <0.05 | <0.05 | ---- | <0.2 | <0.0001 | 0.60 | ---- | <0.05 |
| MW-7 (duplicate) | 9/16/2020 | 0.03 | 0.11 | <0.0002 | <0.01 | 0.13 | 0.00007 | 0.01 | <0.01 | <0.01 | ---- | 0.12 | 0.0002 | 0.43 | ---- | 0.01 |
| MW-7 (duplicate) | 2/22/2021 | 0.068 | <0.05 | <0.001 | <0.01 | 0.17 | <0.00025 | <0.01 | <0.01 | <0.01 | ---- | <0.06 | <0.0005 | 0.619 | ---- | 0.020 |
| MW-7 (duplicate) | 5/19/2021 | 0.028 | <0.05 | <0.0002 | <0.01 | 0.14 | 0.000068 | <0.02 | <0.02 | <0.01 | 457 | <0.06 | <0.0001 | 0.47 | 528 | <0.01 |
| MW-7 (duplicate) | 8/31/2021 | <0.01 | <0.05 | <0.001 | <0.01 | 0.31 | <0.00025 | <0.02 | <0.02 | <0.01 | 390 | <0.06 | <0.0005 | 0.52 | 396 | 0.07 |
| MW-7 (duplicate) | 3/22/2022 | 0.018 | <0.25 | <0.001 | <0.05 | 0.35 | <0.00025 | <0.1 | <0.1 | <0.05 | 383 | <0.3 | <0.0005 | 0.52 | 431 | <0.05 |
| MW-7 (duplicate) | 5/10/2022 | <0.01 | <0.25 | <0.001 | <0.05 | 0.39 | <0.00025 | <0.1 | 0.0022 | <0.05 | 373 | <0.3 | <0.0005 | 0.56 | 389 | 0.10 |
| MW-8 (duplicate) | 11/23/2020 | <0.01 | <0.25 | 0.00234 | <0.05 | 0.83 | <0.00025 | <0.05 | <0.05 | <0.05 | ---- | <0.3 | <0.0005 | 0.34 | ---- | **0.25** |
| MW-8 (duplicate) | 11/18/2021 | 0.029 | <0.05 | 0.00084 | <0.01 | 0.81 | <0.0001 | <0.04 | <0.02 | <0.01 | 104 | <0.06 | <0.0002 | 0.38 | 43.2 | **0.27** |
| MW-8 (duplicate) | 8/15/2022 | <0.01 | <0.1 | 0.00788 | <0.02 | 0.80 | <0.00005 | <0.04 | <0.04 | <0.02 | 68.1 | 0.83 | <0.0001 | 0.36 | 26.5 | **0.24** |
| MW-8 (duplicate) | 11/7/2022 | <0.01 | <0.1 | 0.00533 | <0.02 | 0.87 | <0.0001 | <0.04 | 0.00052 | <0.02 | 69.6 | 0.86 | <0.0002 | 0.37 | 27.6 | **0.25** |
| CDPHE Regulation 41 Table 3 Groundwater Quality Reference Standards (Agricultural Use)[1] | | *10* | *5.0* | *0.10* | *0.10* | *5.0* | *0.01* | *0.10* | *0.05* | *0.2* | ---- | *5.0* | *0.10* | *2.5* | ---- | *0.20* |

**Notes:**

-Concentrations in bold indicate exceedance of CDPHE Groundwater Quality Reference Standard for Agricultural Use as applicable to the facility.
-Underlined values exceeded the method hold time for analysis.
-The applicable facility standards established for boron (5.0 mg/L) and total dissolved solids (<10,000) are different than the CDPHE agricultural use standards; 0.75mg/L and 1.5 x background, respectively.
-MW-5 has been dry since installation and initial monitoring on 7/14/2008.
-2020Q2 monitoring not conducted due to COVID-19 restrictions.

## Table 2 (Page 3 of 3). GCC Quarterly Compliance Groundwater Monitoring Data 2018-2022.

| Location ID | Sample Date | 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-5 | 3/24/2022 | | | | | | | | |
| MW-5 | 5/10/2022 | | | | | | | | |
| MW-5 | 11/8/2022 | | | | | | | | |
| MW-6 | 1/3/2018 | <0.0002 | 0.029 | ---- | **<0.03** | ---- | <0.005 | 0.025 | ---- |
| MW-6 | 4/27/2018 | <0.0002 | 0.069 | ---- | **<0.03** | ---- | <0.005 | <0.01 | 0.032 |
| MW-6 | 9/26/2018 | | | | | | | | |
| MW-6 | 12/12/2018 | <0.0002 | 0.017 | ---- | 0.0062 | ---- | 0.0012 | 0.009 | ---- |
| MW-6 | 3/7/2019 | | | | | | | DRY | |
| MW-6 | 6/12/2019 | <0.0002 | 0.150 | ---- | **0.0966** | ---- | <0.03 | <0.05 | ---- |
| MW-6 | 9/19/2019 | <0.0002 | 0.130 | ---- | **0.1400** | ---- | <0.03 | <0.05 | ---- |
| MW-6 | 12/9/2019 | <0.0002 | 0.110 | ---- | **0.0880** | ---- | <0.03 | <0.05 | ---- |
| MW-6 | 3/9/2020 | <0.0002 | 0.110 | ---- | **0.0401** | ---- | <0.03 | <0.05 | ---- |
| MW-6 | 9/16/2020 | <0.0002 | 0.088 | ---- | 0.0064 | ---- | <0.01 | 0.020 | ---- |
| MW-6 | 11/23/2020 | <0.0002 | 0.114 | ---- | 0.0155 | ---- | <0.05 | 0.110 | ---- |
| MW-6 | 2/22/2021 | <0.0002 | 0.0810 | ---- | 0.00487 | ---- | <0.05 | <0.1 | ---- |
| MW-6 | 5/19/2021 | <0.0002 | 0.058 | 9.9 | 0.0023 | 810 | <0.01 | <0.02 | ---- |
| MW-6 | 8/31/2021 | <0.0002 | 0.085 | 11.2 | 0.0148 | 575 | <0.01 | <0.02 | ---- |
| MW-6 | 11/18/2021 | <0.0002 | 0.076 | 10.3 | 0.0153 | 589 | <0.01 | <0.02 | ---- |
| MW-6 | 3/22/2022 | <0.0002 | <0.04 | 11.5 | **0.0465** | 362 | <0.05 | <0.1 | ---- |
| MW-6 | 5/17/2022 | <0.0002 | 0.121 | 10.9 | **0.0538** | 522 | <0.05 | <0.1 | ---- |
| MW-6 | 8/15/2022 | <0.0002 | **0.409** | 10.8 | 0.0112 | 456 | <0.05 | <0.1 | ---- |
| MW-6 | 11/7/2022 | <0.0002 | **0.320** | 10.3 | <0.0005 | 473 | <0.05 | <0.1 | ---- |
| MW-7 | 1/3/2018 | <0.0002 | 0.016 | ---- | **<0.03** | ---- | 0.0023 | 0.027 | ---- |
| MW-7 | 4/27/2018 | <0.0002 | 0.006 | ---- | **<0.03** | ---- | <0.005 | <0.01 | 0.0142 |
| MW-7 | 9/26/2018 | | | | | | | | |
| MW-7 | 12/12/2018 | <0.0002 | 0.004 | ---- | **<0.03** | ---- | <0.005 | 0.010 | ---- |
| MW-7 | 3/7/2019 | <0.0002 | 0.008 | ---- | **<0.03** | ---- | <0.005 | 0.010 | ---- |
| MW-7 | 6/12/2019 | <0.0002 | <0.04 | ---- | 0.0087 | ---- | <0.03 | <0.05 | ---- |
| MW-7 | 9/18/2019 | <0.0002 | <0.04 | ---- | **0.0762** | ---- | <0.03 | <0.05 | ---- |
| MW-7 | 12/9/2019 | <0.0002 | <0.04 | ---- | **0.0903** | ---- | <0.03 | <0.05 | ---- |
| MW-7 | 3/9/2020 | <0.0002 | <0.04 | ---- | **0.0701** | ---- | <0.03 | <0.05 | ---- |
| MW-7 | 9/16/2020 | <0.0002 | 0.013 | ---- | **0.0655** | ---- | <0.01 | <0.02 | ---- |
| MW-7 | 11/23/2020 | <0.0002 | <0.04 | ---- | **0.0452** | ---- | <0.05 | <0.1 | ---- |
| MW-7 | 2/22/2021 | <0.002 | <0.04 | ---- | **0.0348** | ---- | <0.05 | <0.1 | ---- |
| MW-7 | 5/19/2021 | <0.0002 | 0.023 | 13.7 | **0.0401** | 393 | <0.01 | <0.02 | ---- |
| MW-7 | 8/31/2021 | <0.0002 | 0.016 | 10.8 | 0.0115 | 666 | <0.01 | <0.02 | ---- |
| MW-7 | 11/18/2021 | <0.0002 | 0.016 | 10.6 | **0.0284** | 402 | <0.01 | <0.02 | ---- |
| MW-7 | 3/22/2022 | <0.0002 | <0.04 | 10.8 | 0.0114 | 671 | <0.05 | <0.1 | ---- |
| MW-7 | 5/10/2022 | <0.0002 | <0.04 | 10.1 | 0.0055 | 662 | <0.05 | <0.1 | ---- |
| MW-7 | 8/15/2022 | <0.0002 | <0.04 | 10.5 | 0.0008 | 703 | <0.05 | <0.1 | ---- |
| MW-7 | 11/7/2022 | <0.0002 | <0.04 | 11.3 | **0.0371** | 306 | <0.05 | <0.1 | ---- |
| MW-8 | 3/9/2020 | | | | | | | | |
| MW-8 | 9/16/2020 | | | | | | | | |
| MW-8 | 9/28/2020 | <0.0002 | <0.04 | | 0.0008 | | <0.05 | <0.1 | ---- |
| MW-8 | 11/9/2020 | | | | | | | | |
| MW-8 | 11/23/2020 | <0.0002 | <0.04 | ---- | <0.0005 | ---- | <0.05 | <0.1 | ---- |
| MW-8 | 2/22/2021 | <0.0002 | <0.008 | ---- | <0.0005 | ---- | <0.01 | <0.02 | ---- |
| MW-8 | 5/19/2021 | <0.0002 | <0.008 | 6.2 | 0.0002 | 1250 | <0.01 | <0.02 | ---- |
| MW-8 | 8/31/2021 | <0.0002 | <0.008 | 5.9 | <0.0005 | 1300 | <0.01 | <0.02 | ---- |
| MW-8 | 11/18/2021 | <0.0002 | <0.008 | 6.4 | <0.0005 | 1150 | <0.02 | <0.02 | ---- |
| MW-8 | 3/28/2022 | <0.0002 | <0.016 | 4.3 | <0.0002 | 805 | <0.02 | <0.04 | ---- |
| MW-8 | 5/17/2022 | <0.0002 | <0.016 | 5.3 | <0.0001 | 1180 | <0.02 | <0.04 | ---- |
| MW-8 | 8/15/2022 | <0.0002 | <0.016 | 5.4 | <0.0002 | 1110 | <0.02 | <0.04 | ---- |
| MW-8 | 11/7/2022 | <0.0002 | <0.016 | 5.4 | <0.0005 | 1160 | <0.02 | <0.04 | ---- |
| MW-9 | 3/28/2022 | <0.0002 | 0.022 | 8.1 | <0.0005 | 540 | <0.01 | <0.02 | ---- |
| MW-9 | 5/17/2022 | <0.0002 | <0.04 | 9.3 | 0.0003 | 694 | <0.05 | <0.1 | ---- |
| MW-9 | 8/15/2022 | <0.0002 | <0.04 | 9.5 | <0.0001 | 716 | <0.05 | <0.1 | ---- |
| MW-9 | 11/7/2022 | <0.0002 | <0.04 | 9.0 | <0.0001 | 741 | <0.05 | <0.1 | ---- |
| MW-10 | 3/28/2022 | <0.0002 | <0.04 | 8.9 | <0.0005 | 615 | <0.05 | <0.1 | ---- |
| MW-10 | 5/17/2022 | <0.0002 | <0.04 | 6.9 | 0.0004 | 1400 | <0.05 | <0.1 | ---- |
| MW-10 | 8/15/2022 | <0.0002 | <0.04 | 6.9 | <0.0002 | 1240 | <0.05 | <0.1 | ---- |
| MW-10 | 11/7/2022 | <0.0002 | <0.04 | 6.3 | <0.0005 | 1240 | <0.05 | <0.1 | ---- |
| MW-11 | 3/23/2022 | <0.0002 | <0.008 | 3.6 | <0.002 | 461 | <0.01 | <0.02 | ---- |
| MW-11 | 5/17/2022 | <0.0002 | <0.008 | 3.4 | **0.1320** | 513 | <0.01 | <0.02 | ---- |
| MW-11 | 8/15/2022 | <0.0002 | <0.008 | 3.5 | **0.1250** | 477 | <0.01 | <0.02 | ---- |
| MW-11 | 11/7/2022 | <0.0002 | 0.011 | 3.7 | **0.1620** | 412 | <0.01 | <0.02 | ---- |
| MW-12 | 3/28/2022 | <0.0002 | <0.008 | 2.2 | <0.0002 | 488 | <0.01 | <0.02 | ---- |
| MW-12 | 5/17/2022 | <0.0002 | <0.008 | 2.9 | 0.0007 | 707 | <0.01 | <0.02 | ---- |
| MW-12 | 8/15/2022 | <0.0002 | <0.016 | 3.7 | <0.0002 | 805 | <0.02 | <0.04 | ---- |
| MW-12 | 11/7/2022 | <0.0002 | 0.099 | 4.1 | 0.0008 | 861 | <0.02 | <0.04 | ---- |
| MW-13 | 3/23/2022 | <0.0002 | <0.016 | 2.9 | <0.0002 | 885 | <0.02 | <0.04 | ---- |
| MW-13 | 5/10/2022 | <0.0002 | <0.016 | 2.4 | 0.0184 | 782 | <0.02 | <0.04 | ---- |
| MW-13 | 8/15/2022 | <0.0002 | <0.016 | 3.1 | <0.0002 | 910 | <0.02 | <0.04 | ---- |
| MW-13 | 11/8/2022 | <0.0002 | <0.016 | 3.1 | <0.0002 | 977 | <0.02 | <0.04 | ---- |
| MW-14 | 3/28/2022 | <0.0002 | <0.016 | 7.1 | 0.0098 | 1260 | <0.02 | <0.1 | ---- |
| MW-14 | 5/17/2022 | <0.0002 | <0.016 | 4.6 | 0.0012 | 1390 | <0.02 | <0.04 | ---- |
| MW-14 | 8/15/2022 | <0.0002 | <0.04 | 5.3 | <0.0002 | 1450 | <0.05 | <0.1 | ---- |
| MW-14 | 11/8/2022 | <0.0002 | <0.04 | 5.7 | <0.001 | 1610 | <0.05 | <0.1 | ---- |
| Field QA/QC Samples | | | | | | | | | |
| MW-6 (duplicate) | 9/19/2019 | <0.0002 | 0.150 | ---- | **0.1410** | ---- | <0.03 | <0.05 | ---- |
| MW-7 (duplicate) | 6/12/2019 | <0.0002 | <0.04 | ---- | 0.0084 | ---- | <0.03 | <0.05 | ---- |
| MW-7 (duplicate) | 11/9/2019 | <0.0002 | <0.04 | ---- | **0.0903** | ---- | <0.03 | <0.05 | ---- |
| MW-7 (duplicate) | 3/9/2020 | <0.0002 | <0.04 | ---- | **0.0704** | ---- | <0.03 | <0.05 | ---- |
| MW-7 (duplicate) | 9/16/2020 | <0.0002 | 0.010 | ---- | **0.0654** | ---- | <0.01 | <0.02 | ---- |
| MW-7 (duplicate) | 2/22/2021 | <0.0002 | 0.0197 | ---- | **0.0329** | ---- | <0.01 | <0.02 | ---- |
| MW-7 (duplicate) | 5/19/2021 | <0.0002 | 0.012 | 13.9 | **0.0398** | 390 | <0.01 | <0.02 | ---- |
| MW-7 (duplicate) | 8/31/2021 | <0.0002 | 0.017 | 10.9 | 0.0109 | 661 | <0.01 | <0.02 | ---- |
| MW-7 (duplicate) | 3/22/2022 | <0.0002 | <0.04 | 10.5 | 0.0119 | 642 | <0.05 | <0.1 | ---- |
| MW-7 (duplicate) | 5/10/2022 | <0.0002 | <0.04 | 10.3 | 0.0061 | 675 | <0.05 | <0.1 | ---- |
| MW-8 (duplicate) | 11/23/2020 | <0.0002 | <0.04 | ---- | <0.0005 | ---- | <0.05 | <0.1 | ---- |
| MW-8 (duplicate) | 11/18/2021 | <0.0002 | <0.008 | 6.3 | <0.0002 | 1150 | <0.02 | <0.02 | ---- |
| MW-8 (duplicate) | 8/15/2022 | <0.0002 | <0.016 | 5.4 | <0.0002 | 1100 | <0.02 | <0.04 | ---- |
| MW-8 (duplicate) | 11/7/2022 | <0.0002 | <0.016 | 5.7 | <0.0005 | 1160 | <0.02 | <0.04 | ---- |
| CDPHE Regulation 41 Table 3 Groundwater Quality Reference Standards (Agricultural Use)[1] | | *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 as applicable to the facility.
-Underlined values exceeded the method hold time for analysis.
-The applicable facility standards established for boron (5.0 mg/L) and total dissolved solids (<10,000) are different than the CDPHE agricultural use standards; 0.75mg/L and 1.5 x background, respectively.
-MW-5 has been dry since installation and initial monitoring on 7/14/2008.
-2020Q2 monitoring not conducted due to COVID-19 restrictions.

# FIGURES

**Figure 1. GCC site map with 2022 compliance groundwater monitoring locations.**

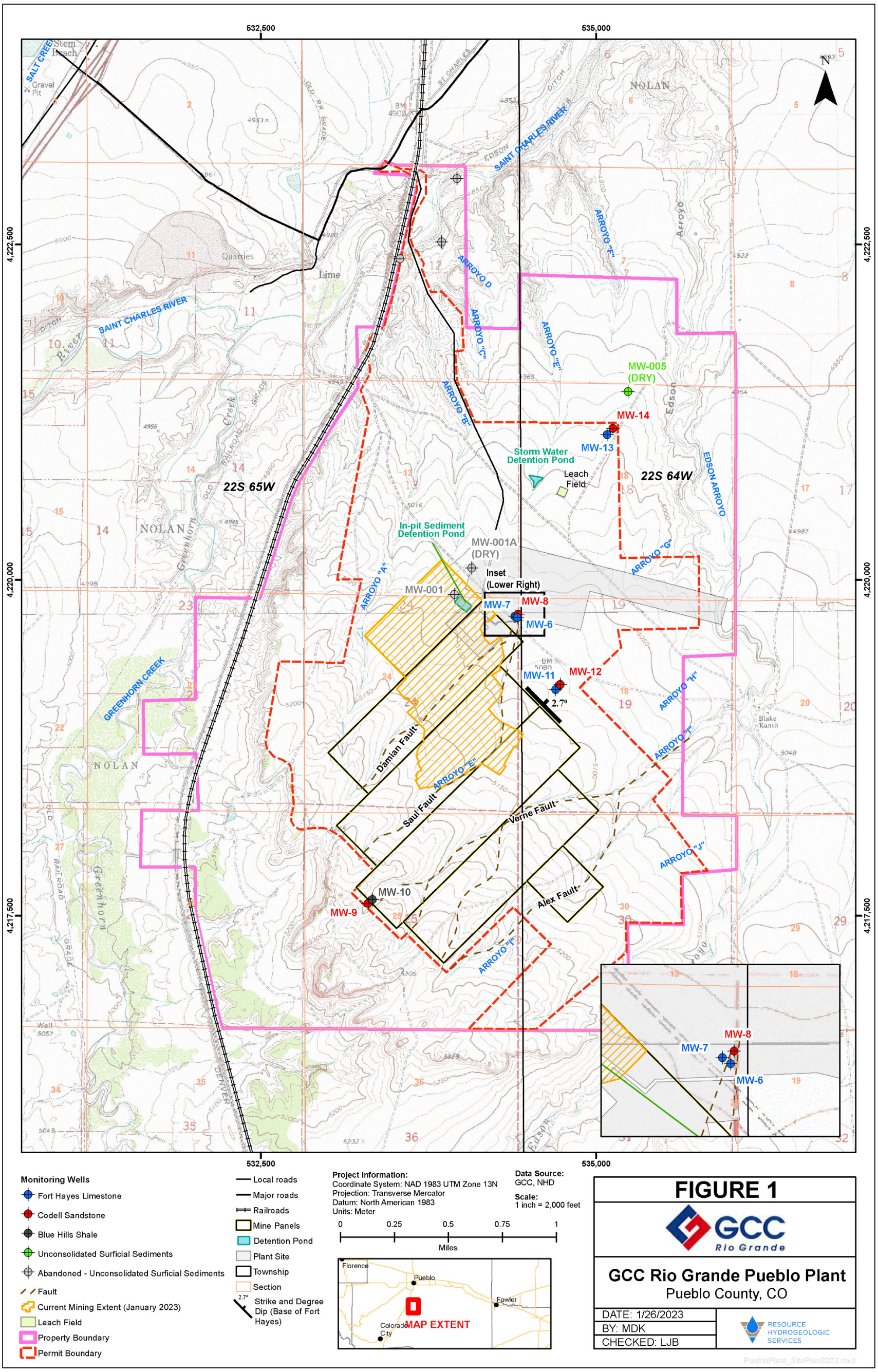


**Figure 2. GCC Rio Grande Pueblo Plant 2022 Fort Hayes Stiff Diagrams.**

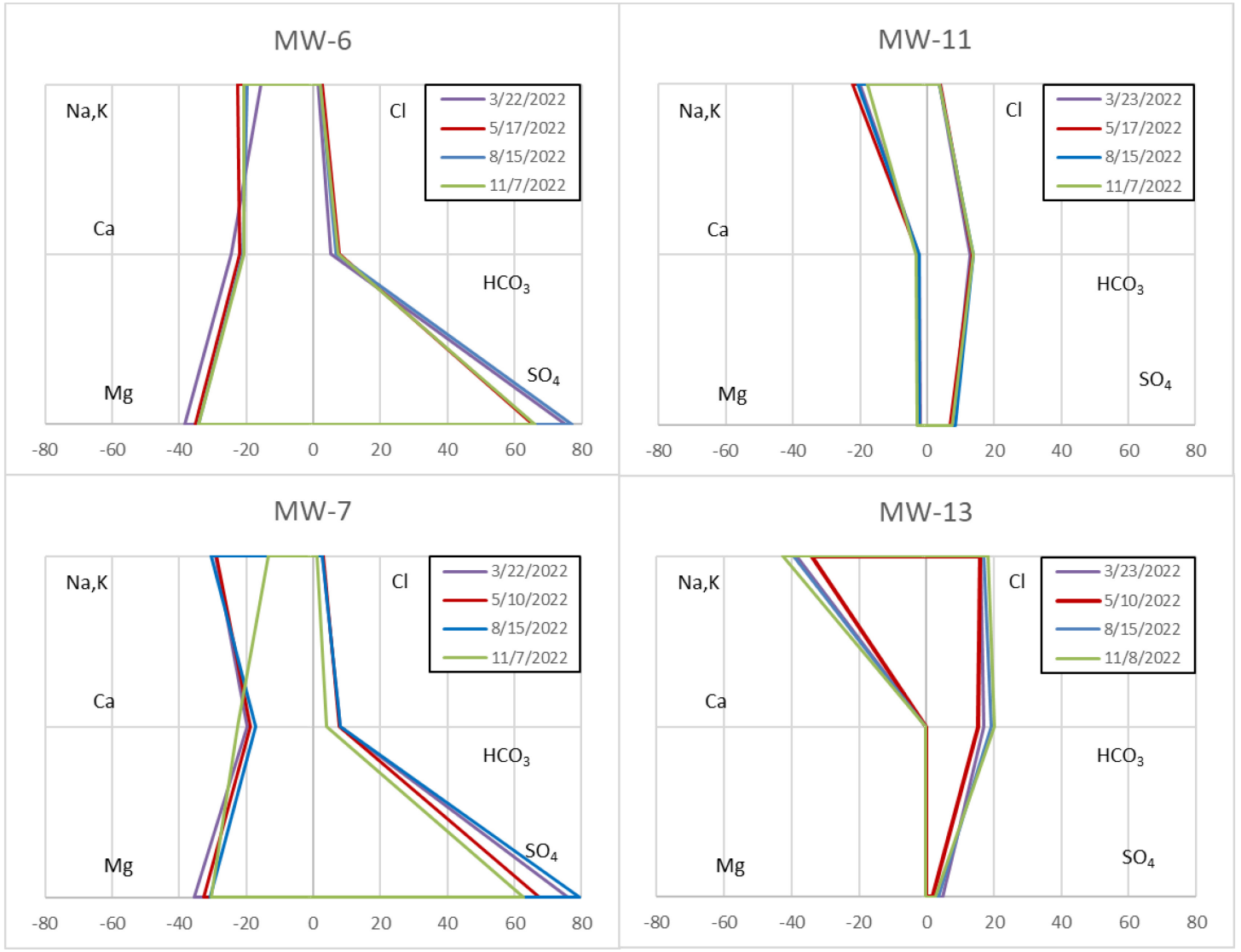


**Figure 3. GCC Rio Grande Pueblo Plant 2022 Codell Stiff Diagrams.**

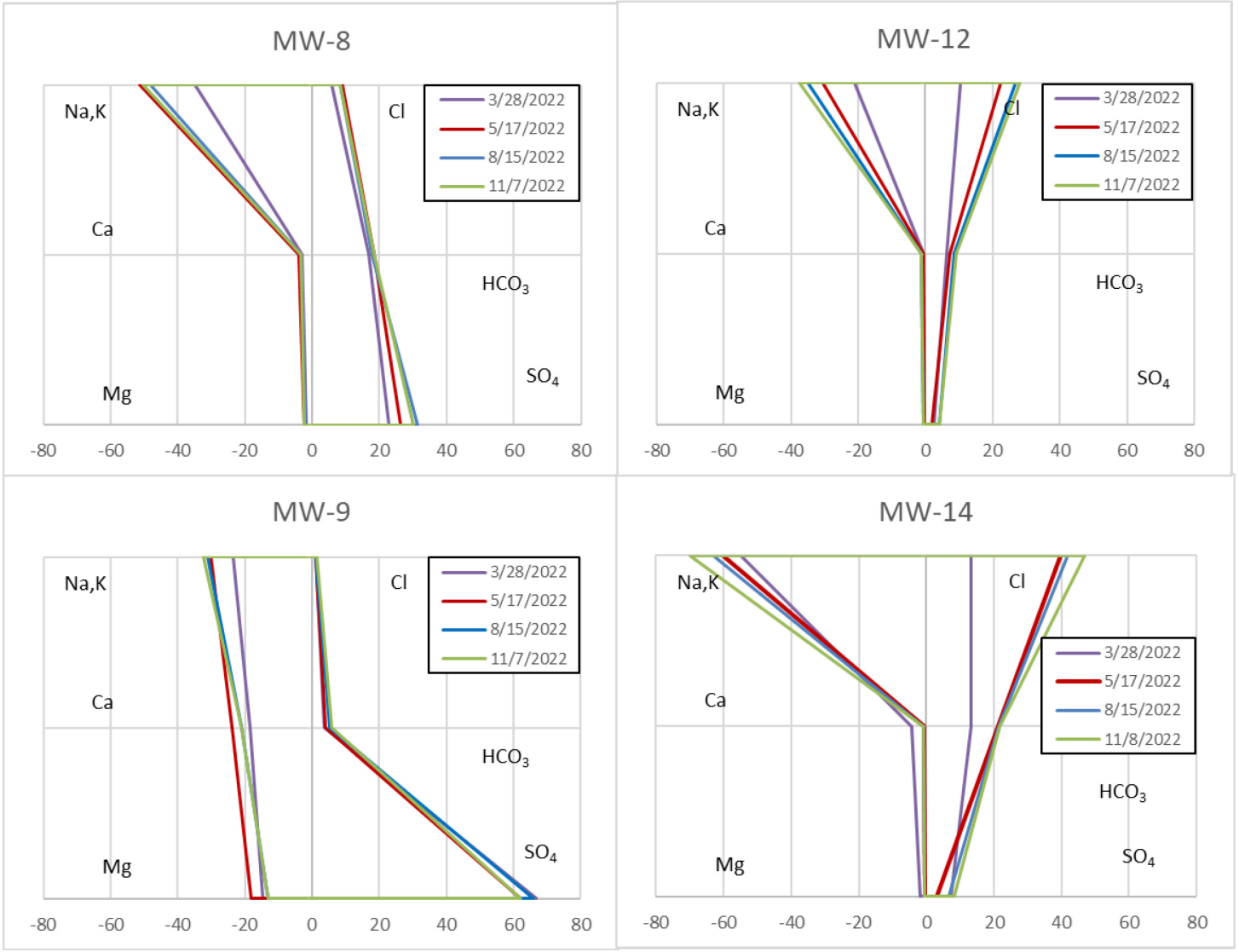


**Figure 4. GCC Rio Grande Pueblo Plant 2022 Blue Hills Stiff Diagram.**

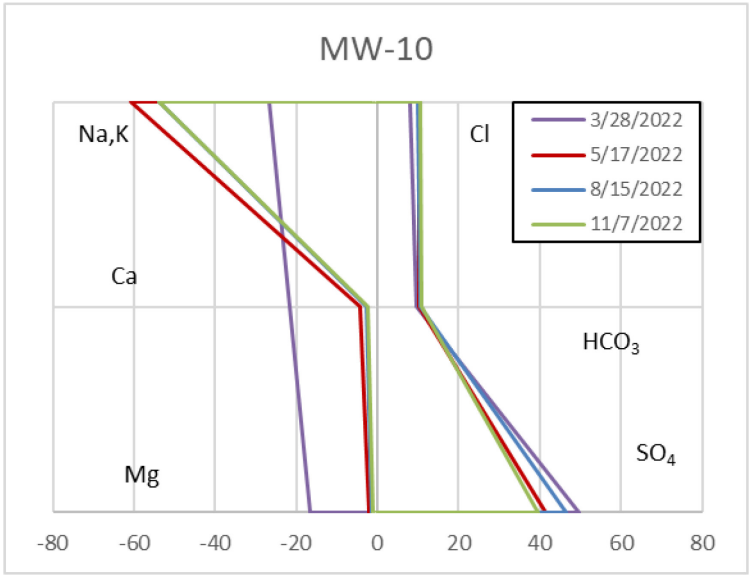
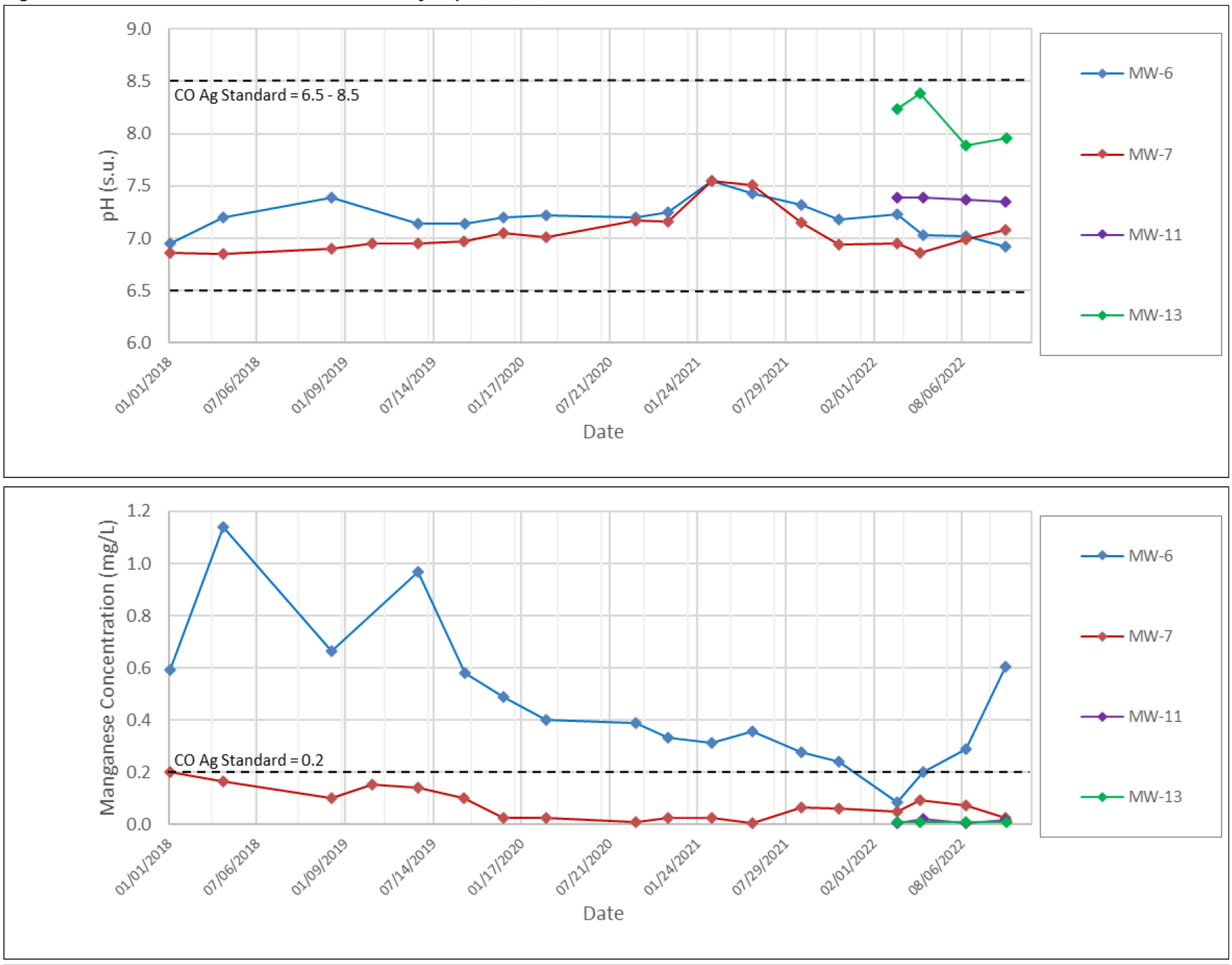
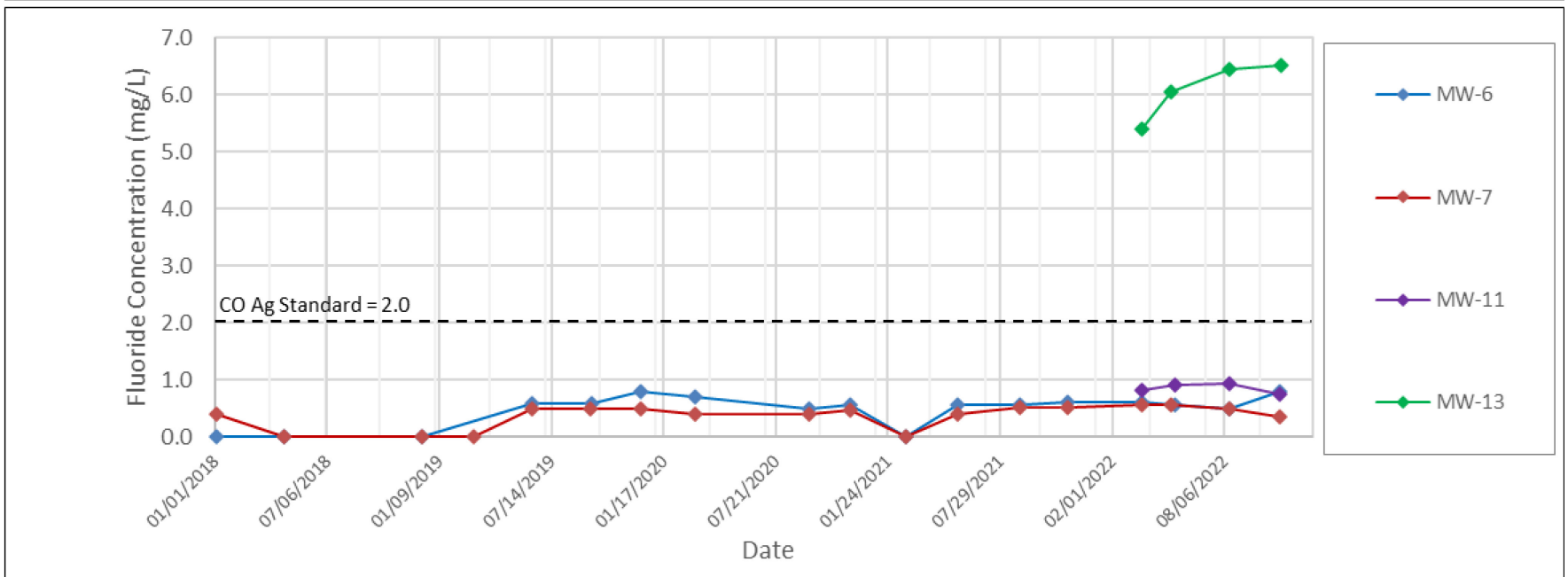


**Figure 5. GCC Rio Grande Pueblo Plant Fort Hayes pH, Mn, F, Se Time Series Plots – Full Period of Record.**









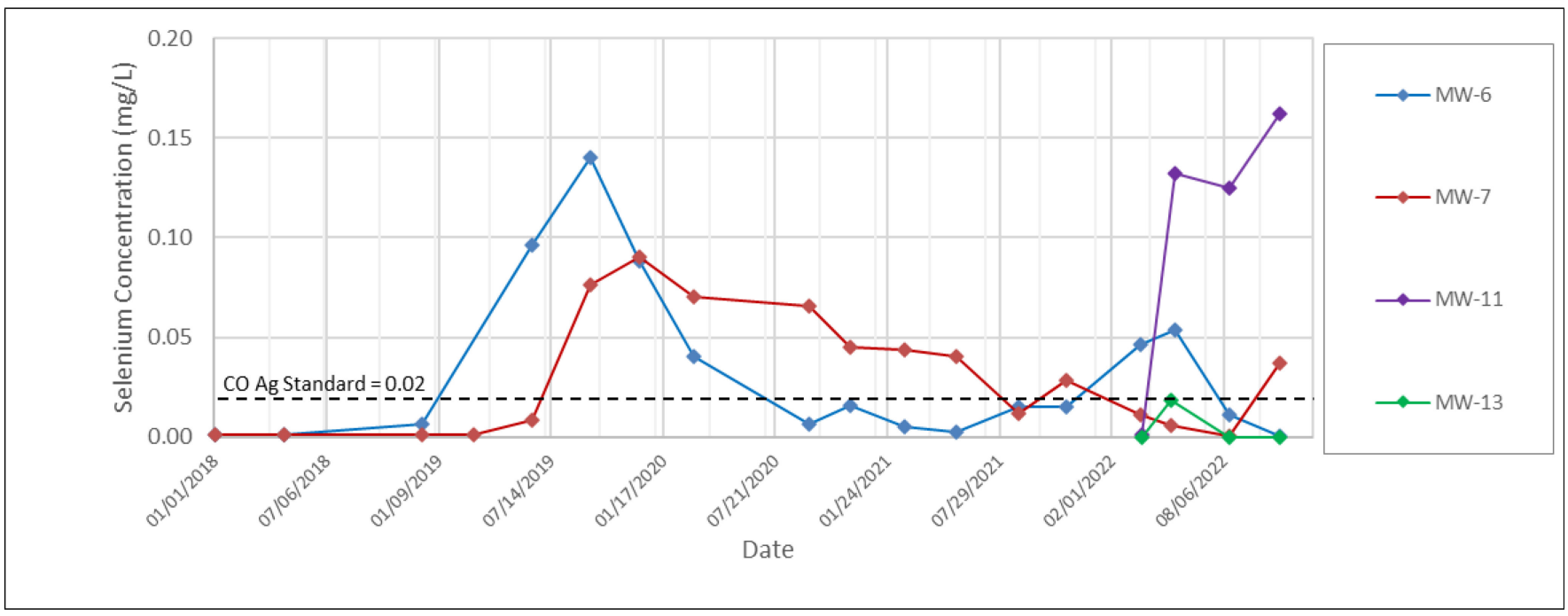
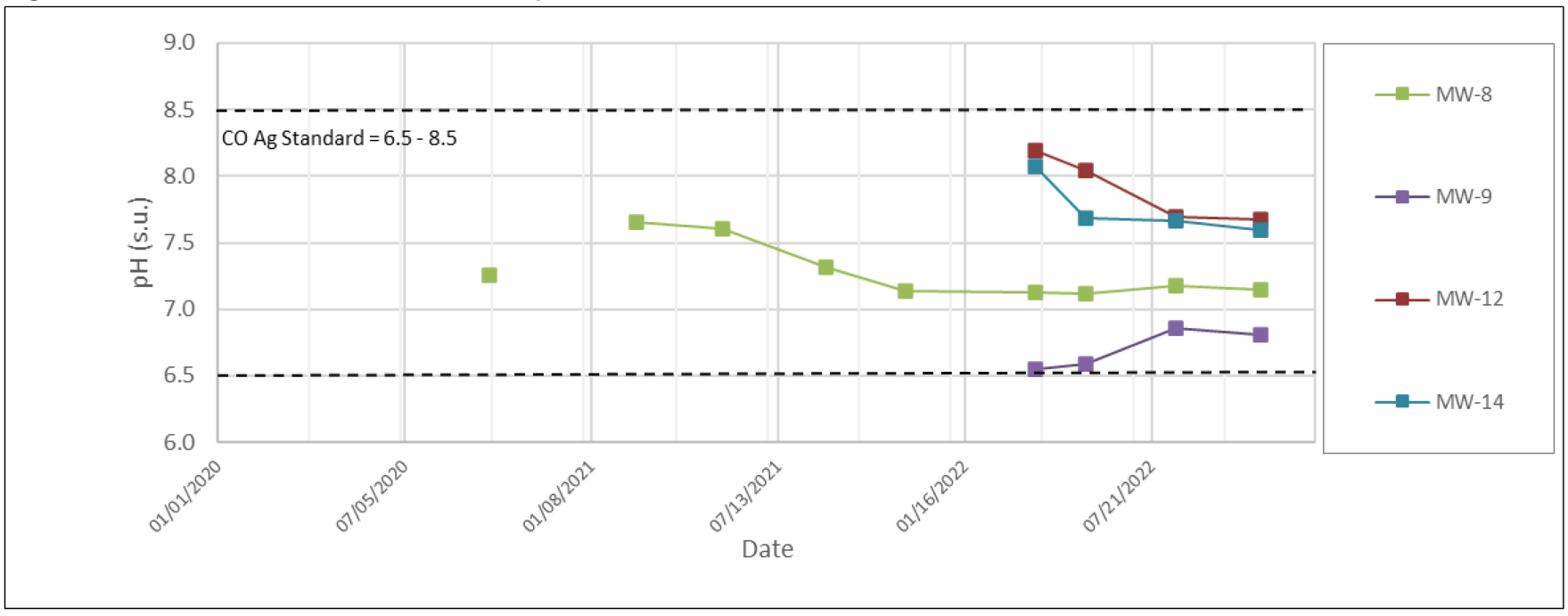
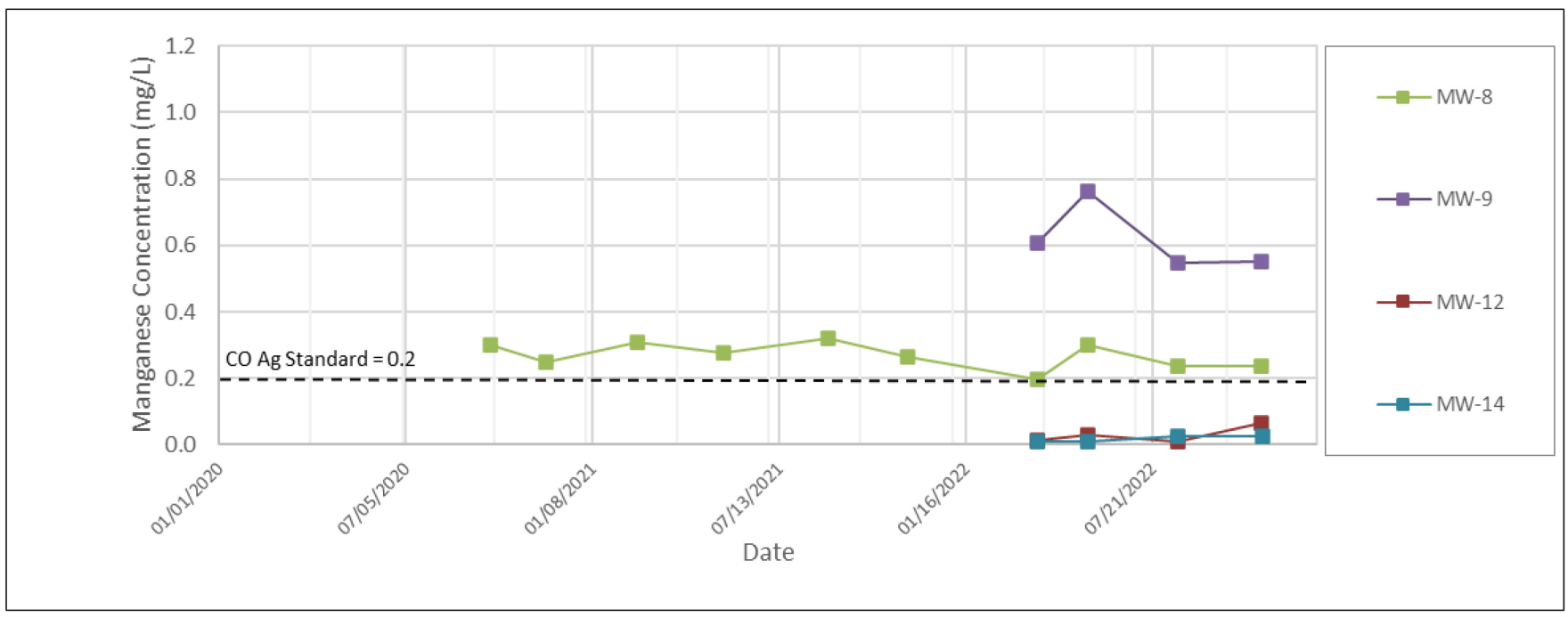
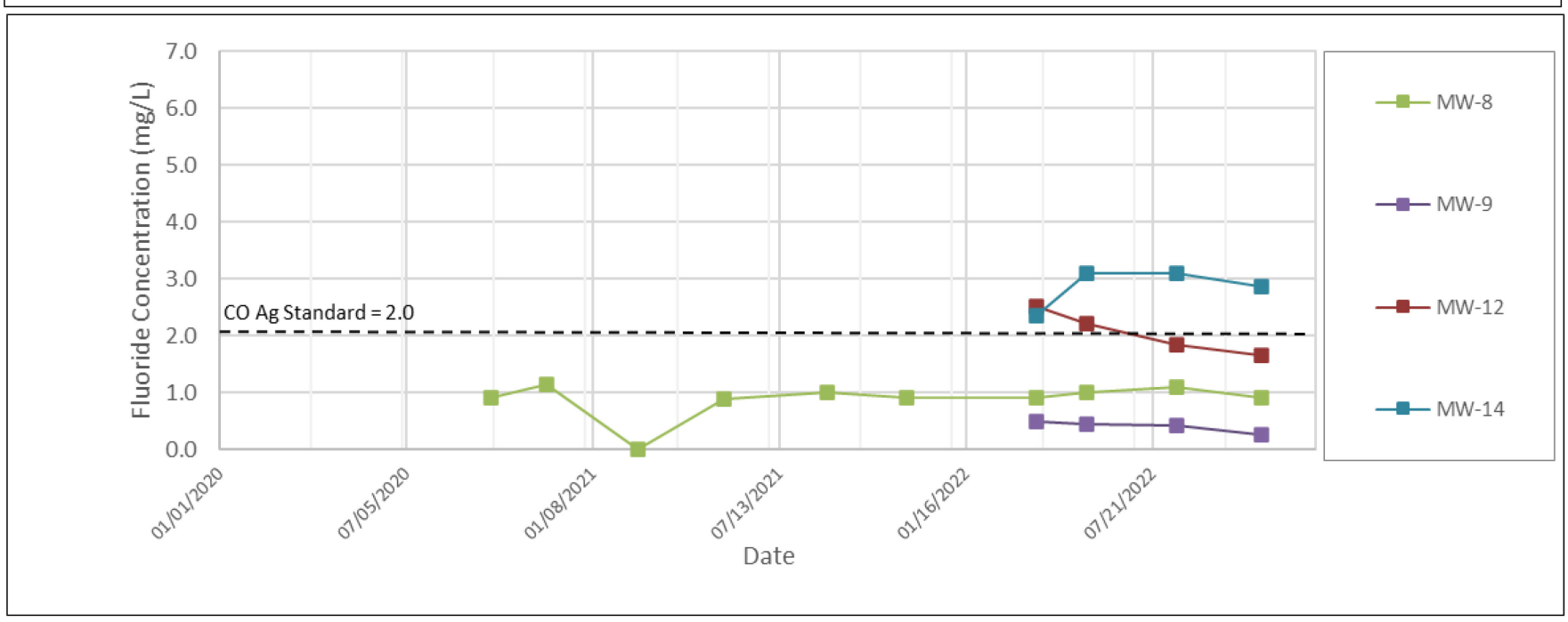



**Figure 6. GCC Rio Grande Pueblo Plant Codell pH, Mn, F, Se Time Series Plots – Full Period of Record.**



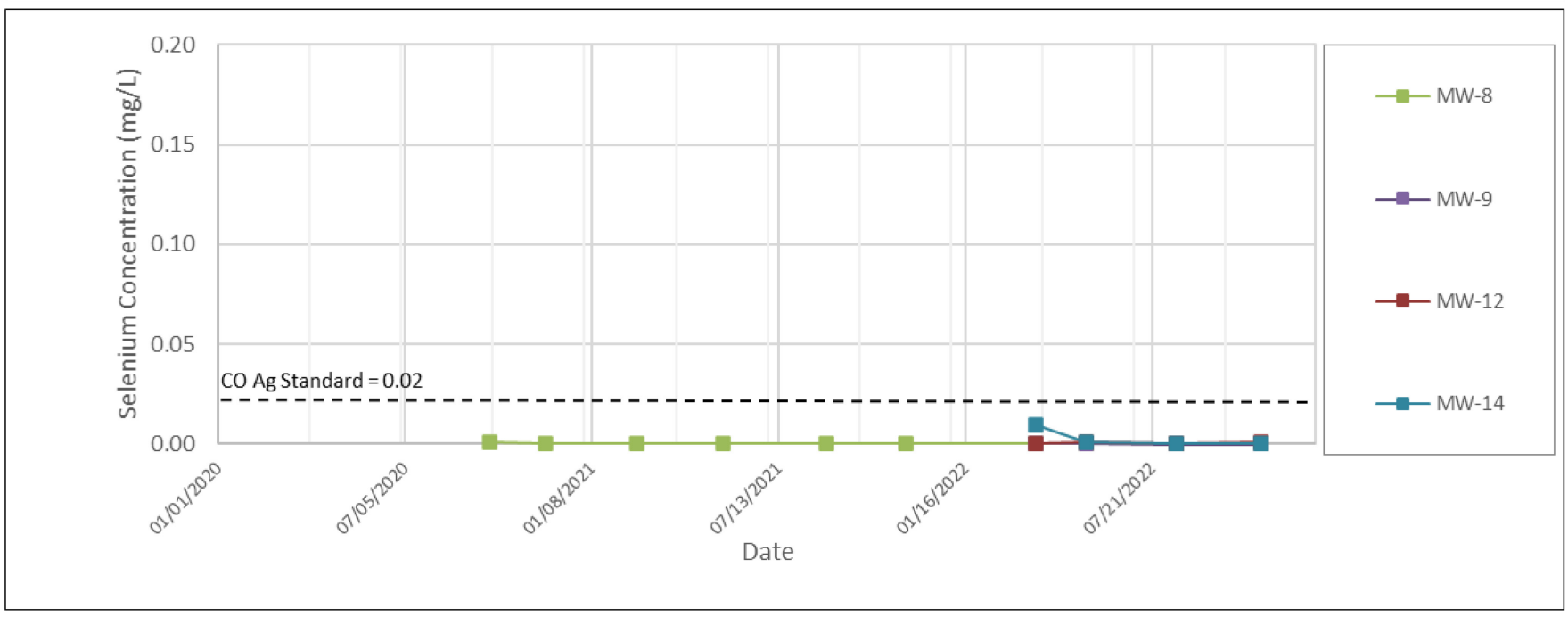
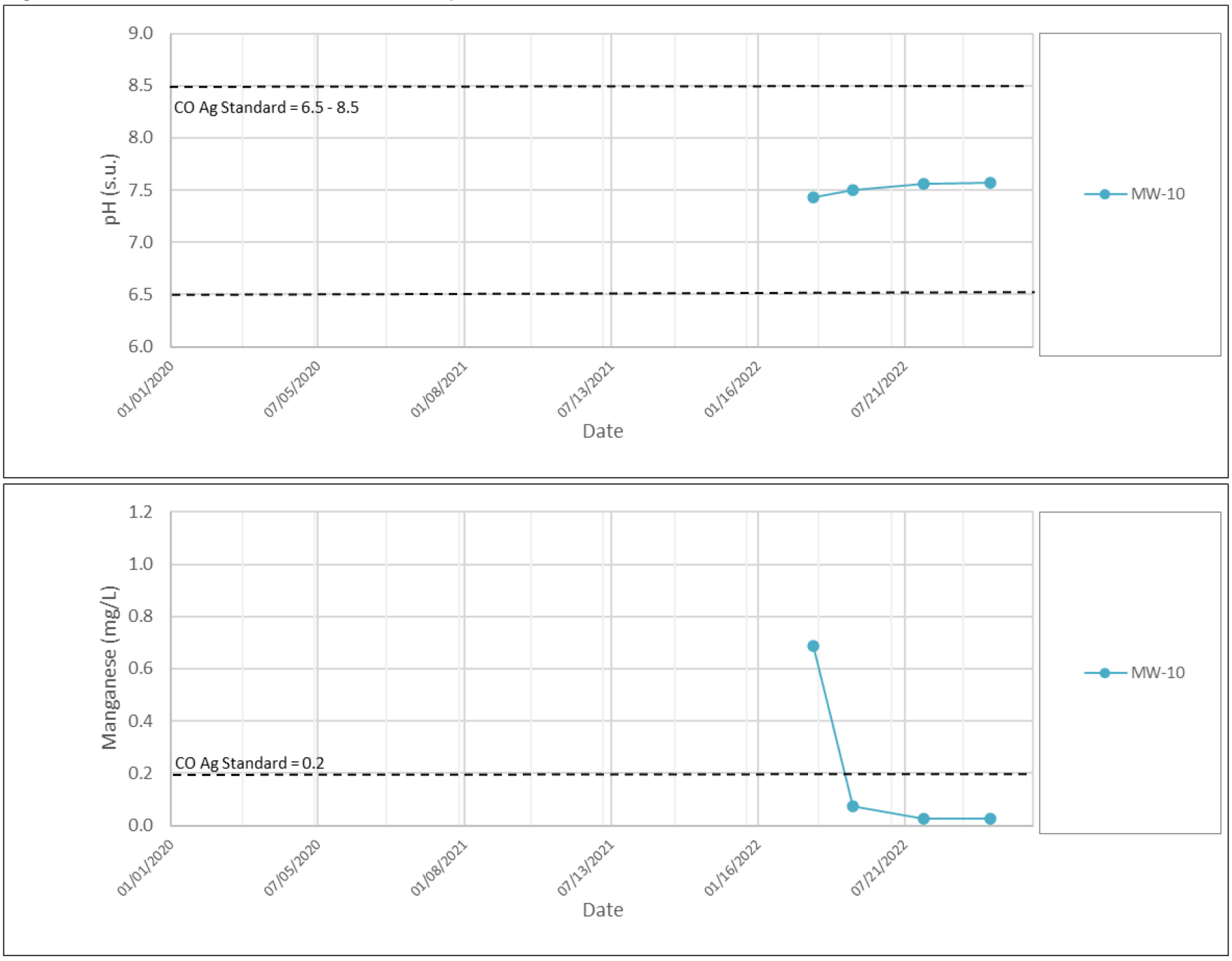
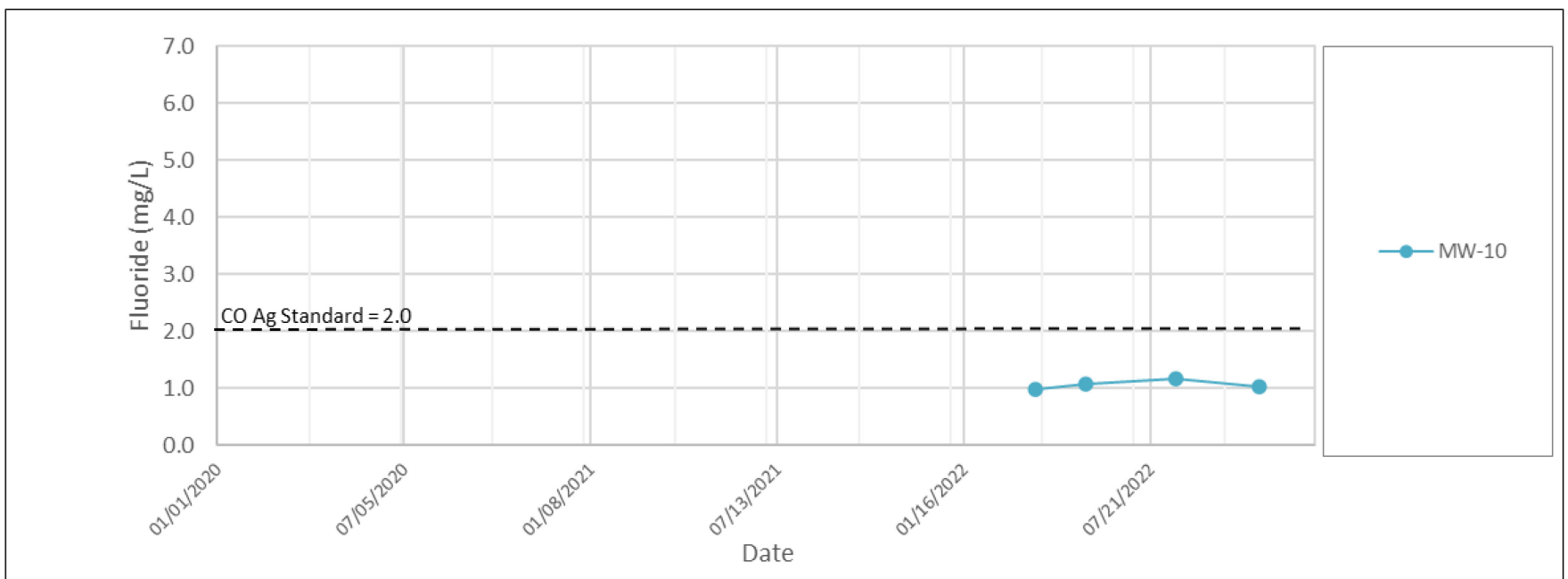



**Figure 7. GCC Rio Grande Pueblo Plant Blue Hills pH, Mn, F, Se Time Series Plots – Full Period of Record.**









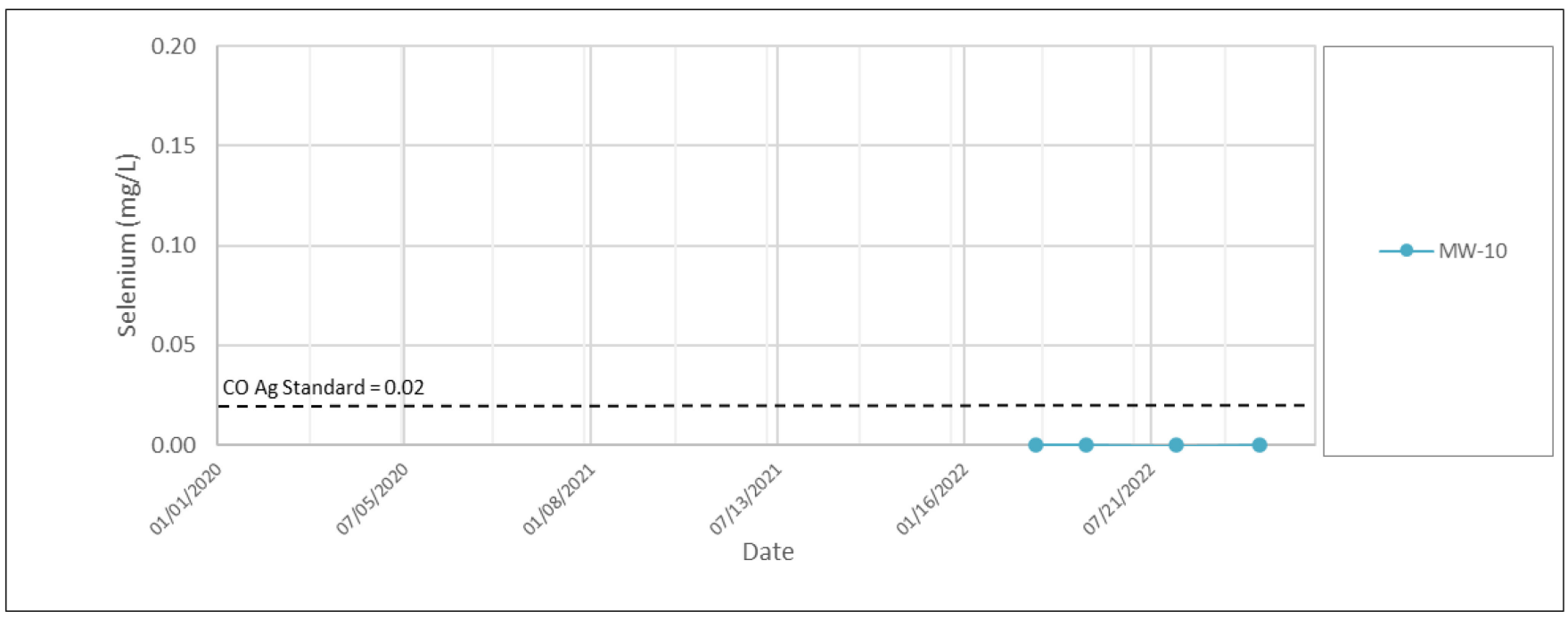



**Figure 8. GCC Rio Grande Pueblo Plant Bedrock Groundwater Hydrograph – Full Period of Record 2018-2022.**

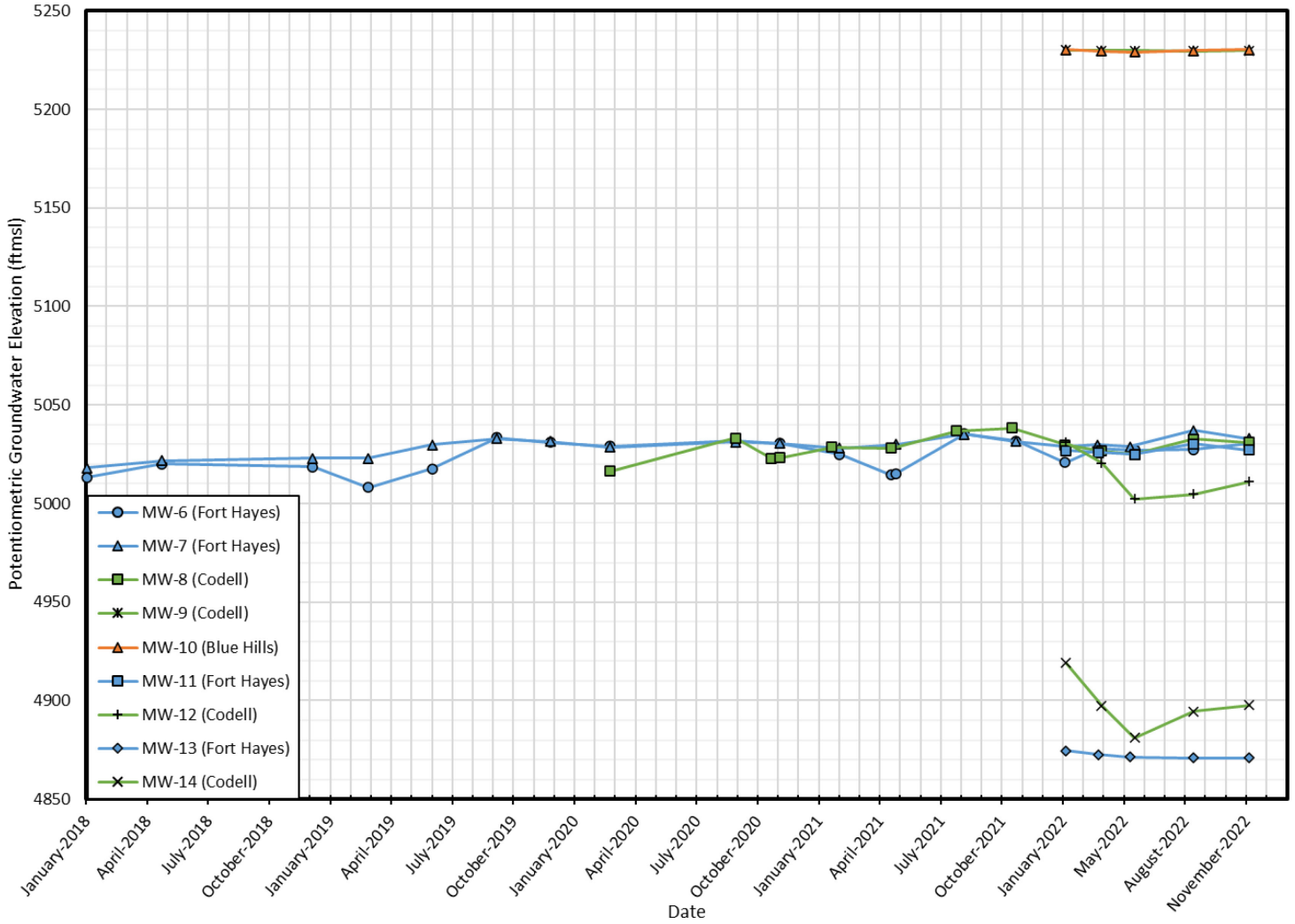


**Figure 9. GCC Rio Grande Pueblo Plant MW-6, MW-7 & MW-8 Groundwater Hydrograph – Full Period of Record 2018-2022.**

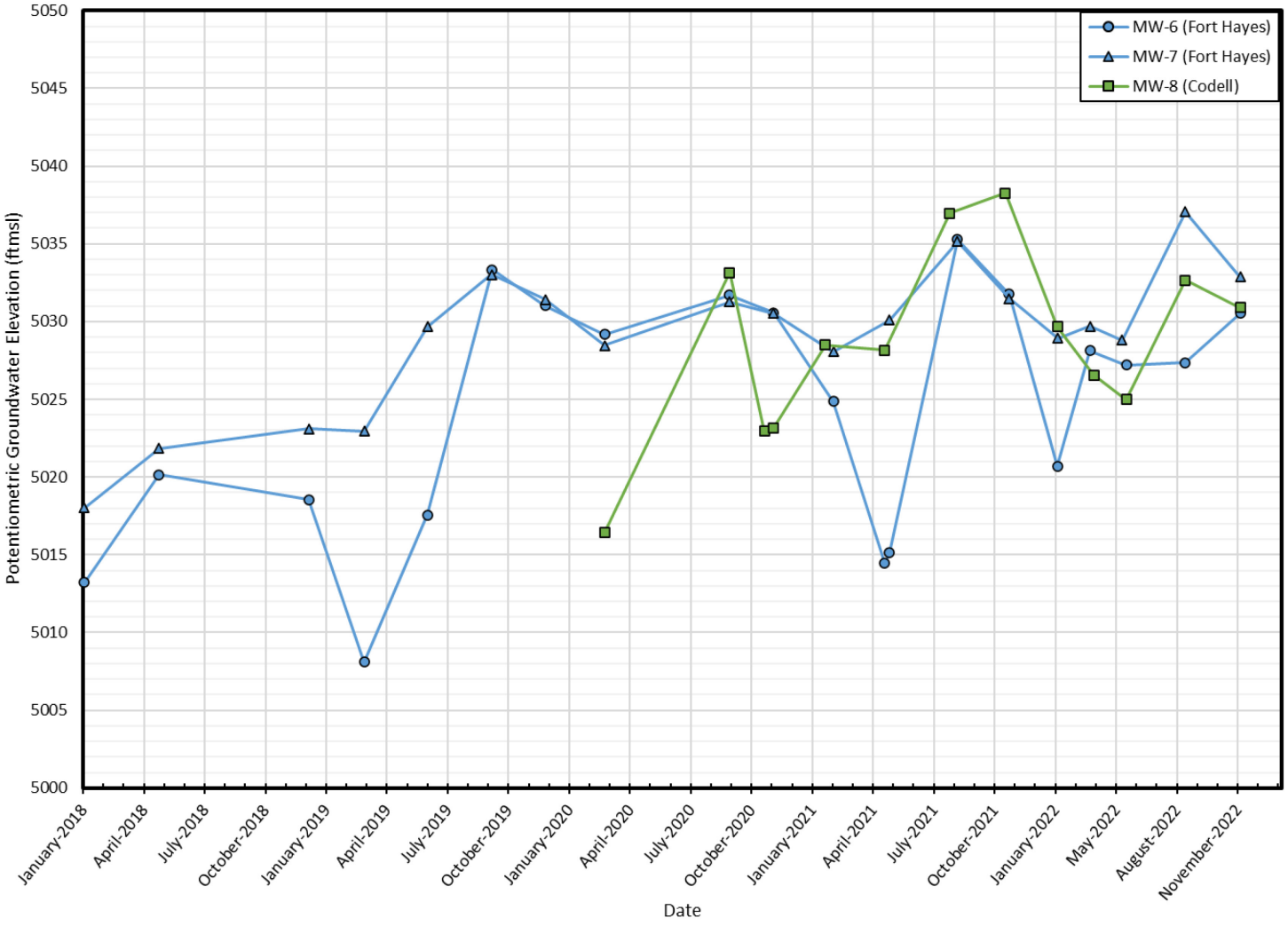


**Figure 10. GCC Rio Grande Pueblo Plant MW-9 & MW-10 Groundwater Hydrograph – Full Period of Record 2022.**

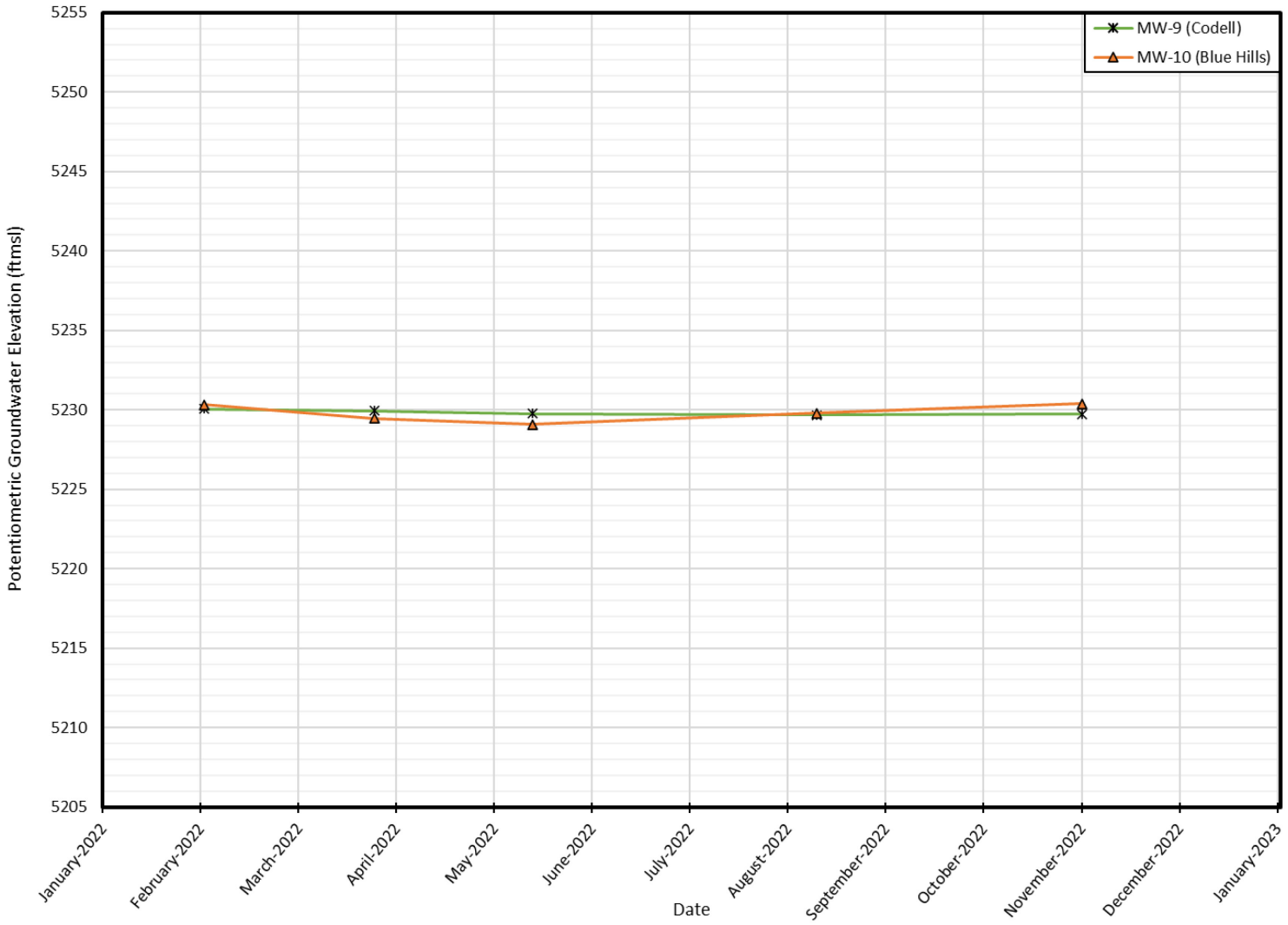


**Figure 11. GCC Rio Grande Pueblo Plant MW-11 & MW-12 Groundwater Hydrograph – Full Period of Record 2022.**

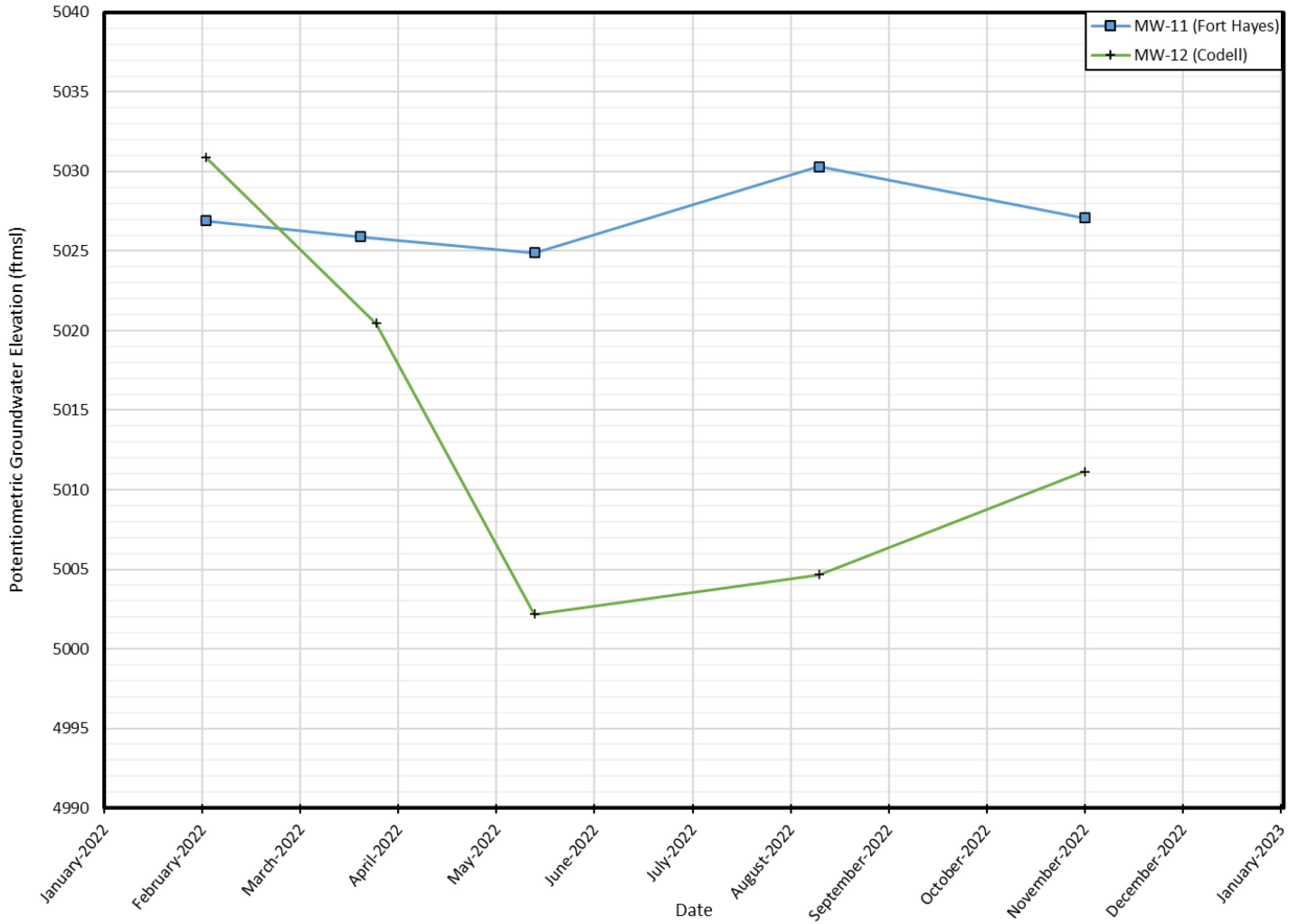


**Figure 12. GCC Rio Grande Pueblo Plant MW-13 & MW-14 Groundwater Hydrograph – Full Period of Record 2022.**

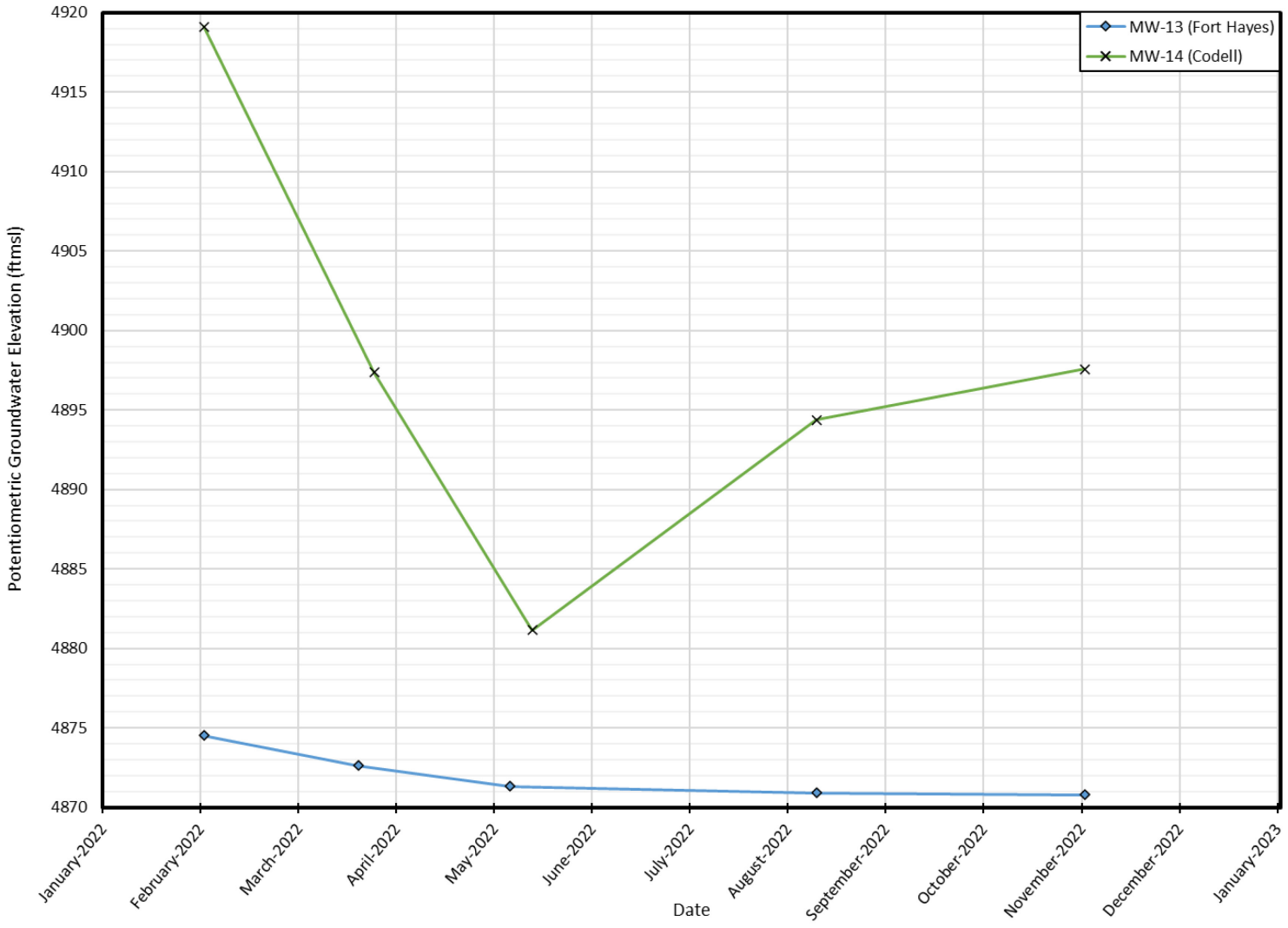


**Figure 13. GCC Rio Grande Pueblo Plant Fort Hays 2022 Groundwater Potentiometric Elevation Map.**

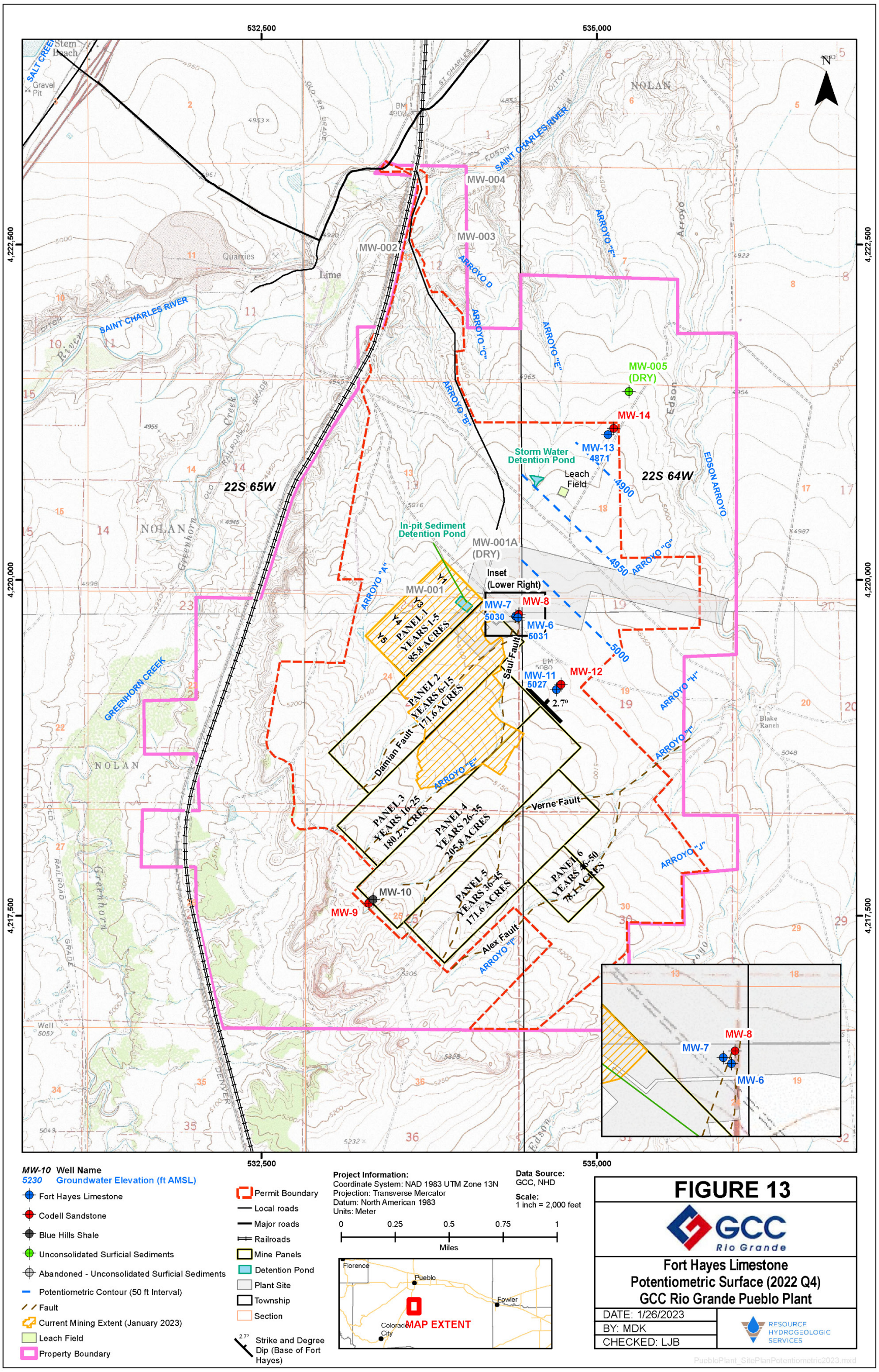


**Figure 14. GCC Rio Grande Pueblo Plant Codell 2022 Groundwater Potentiometric Elevation Map.**

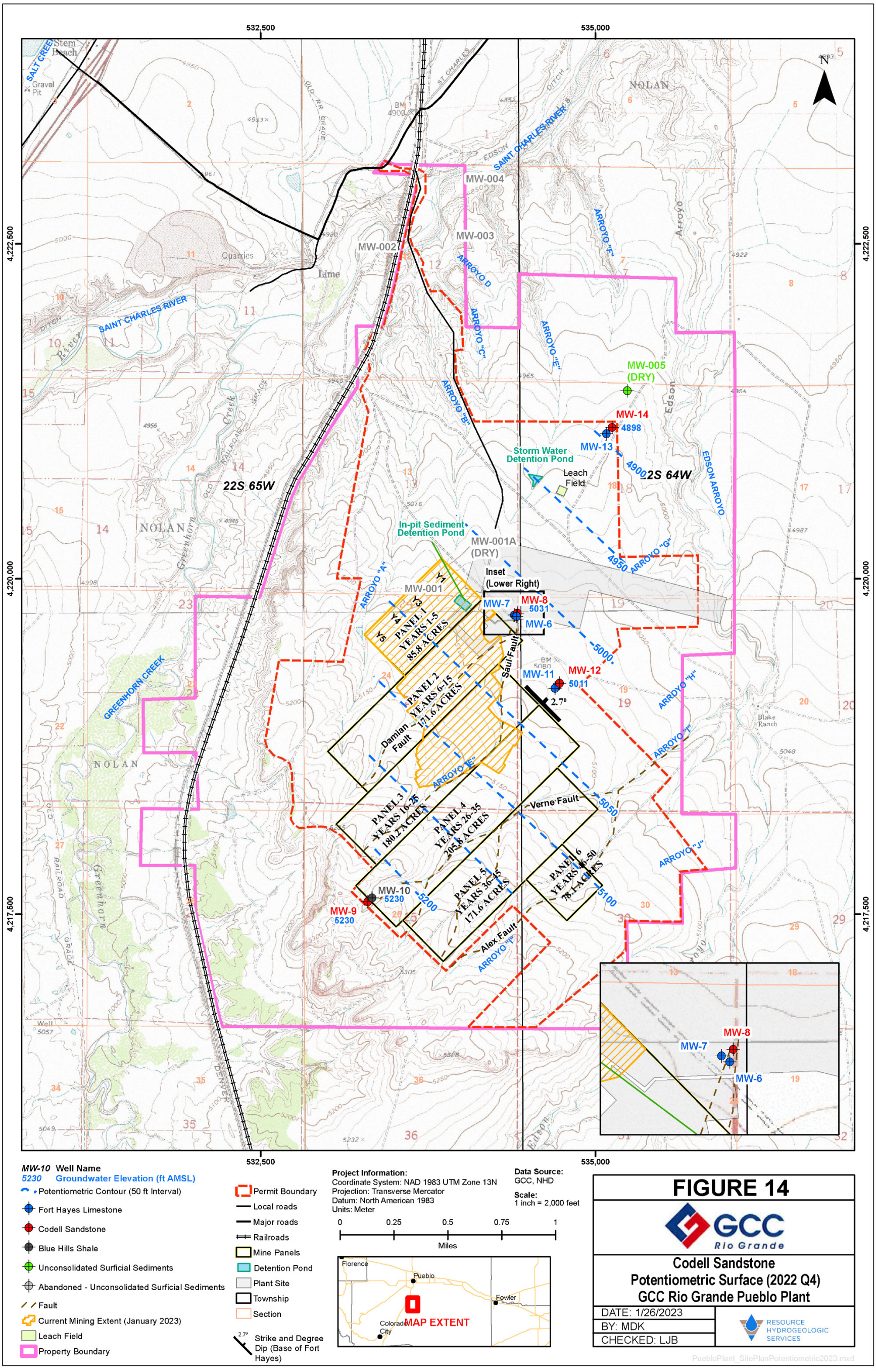


**Figure 15. GCC Pueblo stratigraphic section (from Contour Consulting Engineering LLC Geologic Report and Submittal, January 25, 2013) (2013-01-28_HYDROLOGY – M2002004).**

Ref: USGS Miscellaneous Geologic Investigations Map I-597

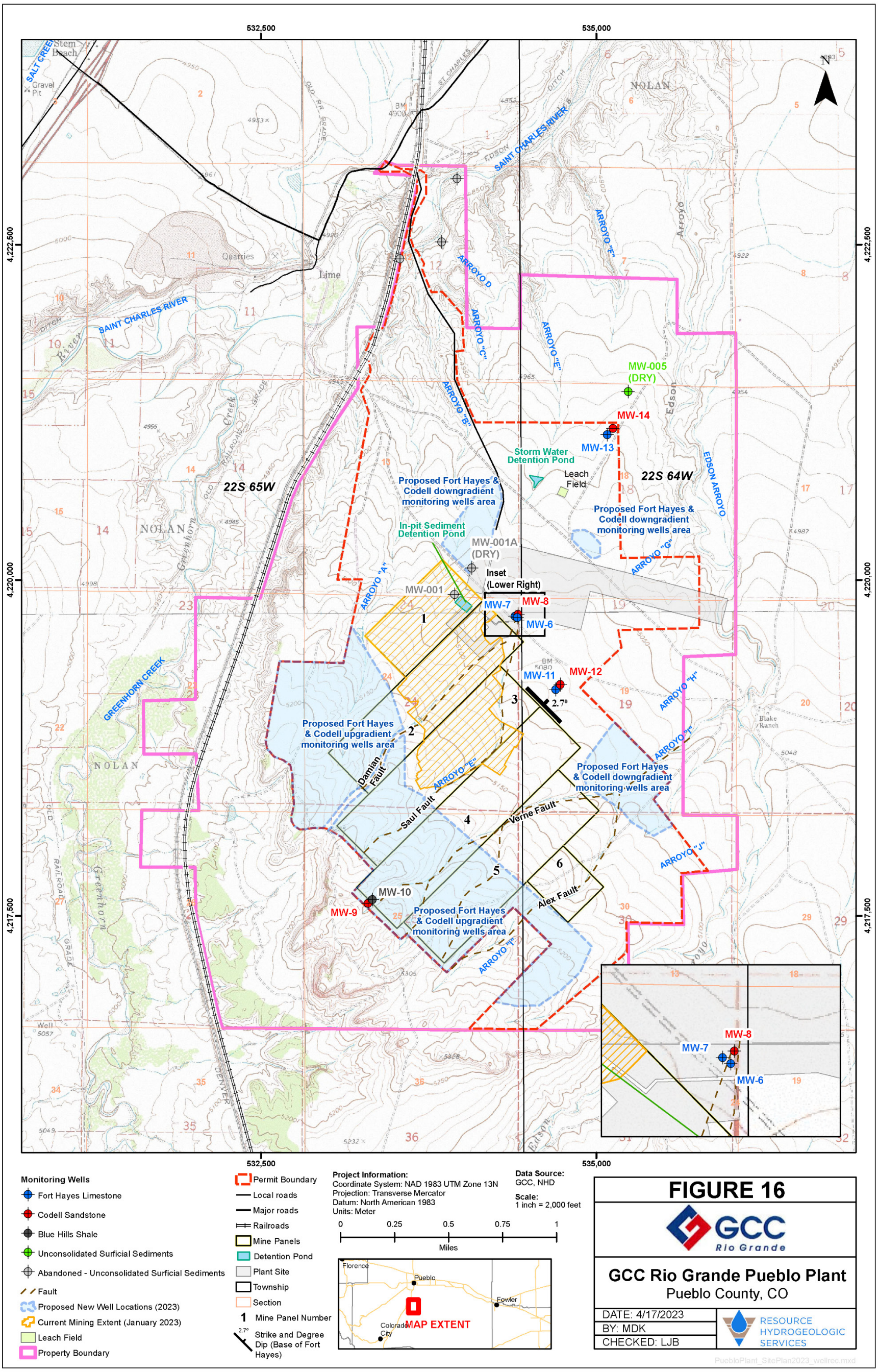
# GEOLOGIC STRATIGRAPHY PUEBLO CEMENT PLANT

| Formation | Member | USGS Map Symbol | Stratigraphic Description | Thickness (Feet) | Remarks |
|---|---|---|---|---|---|
| COLLUVIUM (Quaternary) | | Qc | Yellowish-gray silt and clay containing pebbles, angular blocks of limestone, and sandstone derived from underlying bedrock and surficial deposits. Areas of lower elevations above streams are same age as and grade into Piney Creek Alluvium. Large broad upland areas range in age from Illinoian to Holocene. Along drainageways includes some alluvium. | 10-20 | plant site and mine site overburden material |
| NIOBRARA FORMATION (Late Cretaceous) | SMOKEY HILL SHALE | Ksuc | upper chalk unit: olive-black blocky ledge-forming chalk that weathers dark yellowish orange. | 8 | missing at Red Rock Site (removed by erosion) |
| | | Ksus | upper chalky shale unit: olive-gray gypsiferous bentonitic calcareous shale and yellowish-gray platy chalk beds in upper part; pale-yellowish brown soft calcareous shale and platy chalky limestone beds in lower part. | 263 | |
| | | Ksmc | middle chalk unit: yellowish-gray platy ledge-forming chalk containing selenite nodules. | 28 | |
| | | Ksms | middle shale unit: light-olive-gray platy bentonitic gypsiferous calcareous shale containing limestone concretions 30 to 40 feet below the top; sandy shale 150 to 190 feet above base; shaly limestone at base. | 283 | |
| | | Ksll | lower limestone unit: dark-gray platy hard ledge-forming limestone in about 16 beds separated by light-olive-gray platy shale containing limonite-stained gypsum lenses. Contains alternating thick shale and thin limestone beds in lower 15 feet. | 38 | |
| | | Ksls | lower shale unit: yellowish-brown platy to earthy calcareous shale containing thin beds of platy limestone and limonite-stained gypsum lenses. | 56 | underlies Colluvium at plant site |
| | | Kssl | shale and limestone unit: about 18 beds of gray dense ledge-forming limestone separated by soft calcareous shale. | 21 | underlies Colluvium in portion of mine area |
| | FORT HAYES LIMESTONE | Kf | about 40 beds of gray desnse ledge-forming limestone separated by thin beds of calcareous shale. Contains pseudomorphs of limonite after pyrite. | 40 | source of limestone for mining operation |
| CARLILE SHALE (Late Cretaceous) | JUANA LOPEZ MEMBER | Kc | yellowish-gray calcareous shale containing lenses of dark-brownish-gray fetid fine-grained calcarenite that has spots of light-gray glauconitic calcarenite. | 2 | |
| | CODELL SANDSTONE | | yellowish-gray massive to platy cliff-forming sandstone; shaly and containing spherical concretions in lower part. | 30 | |
| | BLUE HILL SHALE | | dary-gray hard to soft blocky shale; upper half sandy, and containing two prominent layers of large septarian concretions. | 101 | |
| | FAIRPORT CHALKY SHALE | | gray to yellowish brown soft bentonitic platy calcareous shale | 99 | |
| GREENHORN LIMESTONE (Late Cretaceous) | BRIDGE CREEK LIMESTONE | Kgh | about 26 gray hard shaly-weathering limestone beds separated by soft calcareous shale and bentonite layers. | 52 | |
| | HARTLAND SHALE | | dark-gray calcareous platy shale and thin layers of calcarenite composed of tests of Foraminifera and prisms of Inoceramus shells. | 59 | |
| | LINCOLN LIMESTONE | | gray thin-bedded petroliferous limestone and calcareous shale | 25-50 | |
| GRANEROS SHALE (Late Cretaceous) | | Kg | Dark-gray to black fissile gypsiferous shale; contains zone of calcereous concentrations about 40 feet below top. Alternating beds of shale and sandstone at base. | 90-200 | |
| DAKOTA SANDSTONE (Early Cretaceous) | UPPER SANDSTONE | Kd | Tan to bright gray, fine-to medium-grained massive sandstone. May be conglomeratic and moderately cemented, but may be soft and contain thin shale beds. | 74-140 | proposed aquifer for production well |
| | DRY CREEK CANYON | | Dark-gray to black sandy shale, this unit may not be present. | | |
| | LOWER SANDSTONE | | Medium-grained sandstone. | | |

Sources:

1. Scott, Glenn R., 1969, Geologic Map of the Southwest and Southeast Pueblo Quadrangles, Colorado U.S. Geological Survey Miscellaneous Investigations Series Map I-597. Scale 1:24,000.
2. Weist, 1965, U.S. Geological Survey Water Supply Paper 1799.

**Figure 16. GCC Rio Grande Pueblo Plant proposed 2023 monitoring well installation location areas.**



# ATTACHMENT 1 - GCC Groundwater Sampling Field Records

# Wells - GCC Pueblo Compliance Water Sampling

GCC Pueblo Quarry and Cement Plant
(719) 647-6800
3372 Lime Road
Pueblo, CO 81004
www.gcc.com

| | |
|---|---|
| **Reference Number:** | GCC_RGPP-20220324-1314032001-18239855735 |
| **Form Name:** | Wells - GCC Pueblo Compliance Water Sampling |
| **Submitter Name:** | Amy Veek (amy.veek) \| amy.veek |
| **Submission Date:** | Mar 24, 2022 12:17:43 PM MDT |
| **Location:** | |

## SITE INFORMATION

### Location

| | |
|---|---|
| **Project Site** | GCC Rio Grande Pueblo Plant |
| **Sample ID** | MW-5 |
| **Water present to measure/sample?** | No |
| **Is the water present within 0.25 feet of the well TD?** | No |
| **Dry Well** | Yes |

### Misc

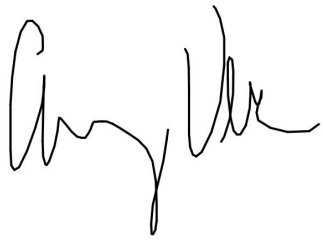
**Site Photo**

## SAMPLING DETAILS

| | |
|---|---|
| **Weather** | Sunny |
| **Air Temperature (°F)** | 63 |

| | |
|---|---|
| **Date** | Mar 24, 2022 |
| **Time** | 11:29:00 AM MDT |

## Sampler

| | |
|---|---|
| **Sampler Name** | Amy Veek – GCC Pueblo Environmental Engineer |
| **Sampler's Signature** |  |

# Wells - GCC Pueblo Compliance Water Sampling

GCC Pueblo Quarry and Cement Plant
(719) 647-6800
3372 Lime Road
Pueblo, CO 81004
www.gcc.com

| | |
|---|---|
| **Reference Number:** | GCC_RGPP-20220322-1314032001-18239476561 |
| **Form Name:** | Wells - GCC Pueblo Compliance Water Sampling |
| **Submitter Name:** | Amy Veek (amy.veek) \| amy.veek |
| **Submission Date:** | Mar 22, 2022 4:45:59 PM MDT |
| **Location:** | |

## SITE INFORMATION

### Location

| | |
|---|---|
| **Project Site** | GCC Rio Grande Pueblo Plant |
| **Sample ID** | MW-6 |
| **Water present to measure/sample?** | Yes |
| **Is the water present within 0.25 feet of the well TD?** | No |
| **Wellhead Stick-Up from Ground Level Reference Point to Depth to Water Level Reference Point (ft)** | 2.52 |
| **Static Depth to Water (ft)** | 36.00 |
| **Depth to Water below ground Surface (ft)** | 33.48 |
| **Well Diameter (In)** | 2 |

### Misc

**Site Photo**

### Water Quality Meter

| | |
|---|---|
| **Water Quality Meter Make/Model/SN** | In-Situ AquaTroll |
| **Calibration Date/Time:** | Mar 11, 2022 12:00:00 PM MST |
| **Calibration Parameters** | Specific Conductivity (SC) |

| | |
|---|---|
| | pH<br>Oxygen Reduction Potential (ORP)<br>Dissolved Oxygen (DO or RDO) |
| **AquaTroll calibration log generated?** | Yes |

## SAMPLING DETAILS

| | |
|---|---|
| **Weather** | Cloudy |
| **Air Temperature (°F)** | 40 |
| **Date** | Mar 22, 2022 |
| **Time** | 2:09:00 PM MDT |

### Sampling

| | |
|---|---|
| **Sample Temperature (°C)** | 14.00 |
| **Specific Conductivity (µS/cm)** | 5322.00 |
| **pH (S.U.)** | 7.23 |
| **Oxygen Reduction Potential (mV)** | 88.03 |
| **Dissolved Oxygen (mg/L)** | 4.07 |
| **Water level measured at sample time?** | No water level measured - water level probe obstructed |
| **Was flow rate measured?** | Flow Rate was measured. |
| **Flow Rate (gpm)** | 0.25 |
| **Total Purged (gal)** | 11.00 |
| **Sample(s) collected for laboratory analysis?** | Yes |

### Sampler

| | |
|---|---|
| **Sampler Name** | Amy Veek – GCC Pueblo Environmental Engineer |
| **Sampler's Signature** | |

## SAMPLE(S) COLLECTED FOR LABORATORY ANALYSIS

### Sample Submittal Information

LAB SAMPLE 1 OF 1

## Details

| | |
|---|---|
| **Method of Sample Collection** | MW-6 – Dedicated Proactive Environmental SS Sample Champ XL 12-volt low-flow submersible pump |
| **Lab Sample Name** | MW-6 |
| **Date** | Mar 22, 2022 |
| **Time** | 2:09:00 PM MDT |
| **Lab Suite** | GW-Compliance |
| **Number of Bottles/Containers** | 3 |
| **Lab Sample Type** | Normal |

## Sample Handling

SAMPLE HANDLING 1 OF 3

## Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | None |
| **Bottle Volume (mL)** | 500 |
| **Bottle Composition** | Poly |
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | No |
| **Preservative (Type)** | Raw/None |
| **Analysis** | Wet Chemistry - no preservative, no filtration |

SAMPLE HANDLING 2 OF 3

## Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | White |
| **Bottle Volume (mL)** | 250 |
| **Bottle Composition** | Poly |
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | Yes |
| **Preservative (Type)** | Raw/None |
| **Analysis** | Wet Chemistry - no preservative, field-filtered |

SAMPLE HANDLING 3 OF 3

## Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | Green PC |
| **Bottle Volume (mL)** | 125 |
| **Bottle Composition** | Poly |

| | |
|---|---|
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | Yes |
| **Preservative (Type)** | Nitric Acid |
| **Analysis** | Metals (dissolved including ICPMS) - nitric preserved, field-filtered |

# Wells - GCC Pueblo Compliance Water Sampling

GCC Pueblo Quarry and Cement Plant
(719) 647-6800
3372 Lime Road
Pueblo, CO 81004
www.gcc.com

| | |
|---|---|
| **Reference Number:** | GCC_RGPP-20220330-1314032001-18240722843 |
| **Form Name:** | Wells - GCC Pueblo Compliance Water Sampling |
| **Submitter Name:** | Amy Veek (amy.veek) \| amy.veek |
| **Submission Date:** | Mar 30, 2022 1:21:40 PM MDT |

## SITE INFORMATION

### Location

| | |
|---|---|
| **Project Site** | GCC Rio Grande Pueblo Plant |
| **Sample ID** | MW-7 |
| **Water present to measure/sample?** | Yes |
| **Is the water present within 0.25 feet of the well TD?** | No |
| **Wellhead Stick-Up from Ground Level Reference Point to Depth to Water Level Reference Point (ft)** | 2.66 |
| **Static Depth to Water (ft)** | 36.70 |
| **Well Total Depth (ft below top of casing)** | 56.1 |
| **Depth to Water below ground Surface (ft)** | 34.04 |
| **Well Diameter (In)** | 2 |

### Water Quality Meter

| | |
|---|---|
| **Water Quality Meter Make/Model/SN** | In-Situ AquaTroll |
| **Calibration Date/Time:** | Mar 11, 2022 12:00:00 PM MST |
| **Calibration Parameters** | Specific Conductivity (SC)<br>pH<br>Oxygen Reduction Potential (ORP)<br>Dissolved Oxygen (DO or RDO) |
| **AquaTroll calibration log generated?** | Yes |

## SAMPLING DETAILS

| | |
|---|---|
| **Weather** | Cloudy |
| **Air Temperature (°F)** | 40 |
| **Date** | Mar 30, 2022 |
| **Time** | 3:25:00 PM MDT |

## Sampling

| | |
|---|---|
| **Sample Temperature (°C)** | 15.07 |
| **Specific Conductivity (µS/cm)** | 5654.15 |
| **pH (S.U.)** | 6.95 |
| **Oxygen Reduction Potential (mV)** | 34.76 |
| **Dissolved Oxygen (mg/L)** | 0.00 |
| **Water level measured at sample time?** | Depth to Water (ft TOC) measured at Sample Time |
| **Depth to Water (ft TOC)** | 39.77 |
| **Was flow rate measured?** | Flow Rate was measured. |
| **Flow Rate (gpm)** | 0.43 |
| **Total Purged (gal)** | 8.00 |
| **Are you sure? This purge value seems out of the expected purge requirement.** | Yes |
| **Geographic Sample Location** | 3372 Lime Rd, Pueblo, CO 81022, USA<br>latitude: 38.12901660675719 altitude: 1533.4739<br>longitude: -104.60642785845498 [ viewMap ] |
| **Sample(s) collected for laboratory analysis?** | Yes |

## Sampler

| | |
|---|---|
| **Sampler Name** | Amy Veek – GCC Pueblo Environmental Engineer |
| **Sampler's Signature** | |

# SAMPLE(S) COLLECTED FOR LABORATORY ANALYSIS

## Sample Submittal Information

LAB SAMPLE 1 OF 2

## Details

| | |
|---|---|
| **Method of Sample Collection** | MW-7 – Dedicated Proactive Environmental SS Sample Champ XL 12-volt low-flow submersible pump |

| | |
|---|---|
| **Lab Sample Name** | MW-7 |
| **Date** | Mar 30, 2022 |
| **Time** | 3:25:00 PM MDT |
| **Lab Suite** | GW-Compliance |
| **Number of Bottles/Containers** | 3 |
| **Lab Sample Type** | Normal |

LAB SAMPLE 2 OF 2

## Details

| | |
|---|---|
| **Method of Sample Collection** | MW-7 – Dedicated Proactive Environmental SS Sample Champ XL 12-volt low-flow submersible pump |
| **Lab Sample Name** | MW-2B |
| **Date** | Mar 22, 2022 |
| **Time** | 3:35:00 PM MDT |
| **Lab Suite** | GW-Compliance |
| **Number of Bottles/Containers** | 3 |
| **Lab Sample Type** | Duplicate |

## Sample Handling

SAMPLE HANDLING 1 OF 3

## Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | None |
| **Bottle Volume (mL)** | 500 |
| **Bottle Composition** | Poly |
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | No |
| **Preservative (Type)** | Raw/None |
| **Analysis** | Wet Chemistry - no preservative, no filtration |

SAMPLE HANDLING 2 OF 3

## Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | White |
| **Bottle Volume (mL)** | 250 |
| **Bottle Composition** | Poly |
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | Yes |
| **Preservative (Type)** | Raw/None |

| | |
|---|---|
| **Analysis** | Wet Chemistry - no preservative, field-filtered |

SAMPLE HANDLING 3 OF 3

## Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | Green PC |
| **Bottle Volume (mL)** | 125 |
| **Bottle Composition** | Poly |
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | Yes |
| **Preservative (Type)** | Nitric Acid |
| **Analysis** | Metals (dissolved including ICPMS) - nitric preserved, field-filtered |

# Wells - GCC Pueblo Compliance Water Sampling

GCC Pueblo Quarry and Cement Plant
(719) 647-6800
3372 Lime Road
Pueblo, CO 81004
www.gcc.com

| | |
|---|---|
| **Reference Number:** | GCC_RGPP-20220329-1314032001-18240478635 |
| **Form Name:** | Wells - GCC Pueblo Compliance Water Sampling |
| **Submitter Name:** | Amy Veek (amy.veek) \| amy.veek |
| **Submission Date:** | Mar 28, 2022 3:20:05 PM MDT |

## SITE INFORMATION

### Location

| | |
|---|---|
| **Project Site** | GCC Rio Grande Pueblo Plant |
| **Sample ID** | MW-8 |
| **Water present to measure/sample?** | Yes |
| **Is the water present within 0.25 feet of the well TD?** | No |
| **Wellhead Stick-Up from Ground Level Reference Point to Depth to Water Level Reference Point (ft)** | 2.16 |
| **Static Depth to Water (ft)** | 36.35 |
| **Depth to Water below ground Surface (ft)** | 34.19 |
| **Well Diameter (In)** | 2 |

### Misc

**Site Photo**

## Water Quality Meter

| | |
|---|---|
| **Water Quality Meter Make/Model/SN** | In-Situ AquaTroll |
| **Calibration Date/Time:** | Mar 23, 2022 12:00:00 PM MDT |
| **Calibration Parameters** | Specific Conductivity (SC)<br>pH<br>Oxygen Reduction Potential (ORP)<br>Dissolved Oxygen (DO or RDO) |
| **AquaTroll calibration log generated?** | Yes |

# SAMPLING DETAILS

| | |
|---|---|
| **Weather** | Cloudy |
| **Air Temperature (°F)** | 46 |
| **Date** | Mar 28, 2022 |
| **Time** | 9:52:00 AM MDT |

## Sampling

| | |
|---|---|
| **Sample Temperature (°C)** | 15.12 |
| **Specific Conductivity (µS/cm)** | 4545.32 |
| **pH (S.U.)** | 7.13 |
| **Oxygen Reduction Potential (mV)** | 30.67 |
| **Dissolved Oxygen (mg/L)** | 0.28 |
| **Water level measured at sample time?** | Depth to Water (ft TOC) measured at Sample Time |
| **Depth to Water (ft TOC)** | 52.08 |
| **Was flow rate measured?** | Flow Rate was measured. |
| **Flow Rate (gpm)** | 0.10 |
| **Total Purged (gal)** | 7.00 |
| **Sample(s) collected for laboratory analysis?** | Yes |

## Sampler

| | |
|---|---|
| **Sampler Name** | Amy Veek – GCC Pueblo Environmental Engineer |
| **Sampler's Signature** | |

# SAMPLE(S) COLLECTED FOR LABORATORY ANALYSIS

## Sample Submittal Information

LAB SAMPLE 1 OF 1

### Details

| | |
|---|---|
| **Method of Sample Collection** | MW-8 – Dedicated Proactive Environmental SS Sample Champ XL 12-volt low-flow submersible pump |
| **Lab Sample Name** | MW-8 |
| **Date** | Mar 28, 2022 |
| **Time** | 9:52:00 AM MDT |
| **Lab Suite** | GW-Compliance |
| **Number of Bottles/Containers** | 3 |
| **Lab Sample Type** | Normal |

## Sample Handling

SAMPLE HANDLING 1 OF 3

### Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | None |
| **Bottle Volume (mL)** | 500 |
| **Bottle Composition** | Poly |
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | No |
| **Preservative (Type)** | Raw/None |
| **Analysis** | Wet Chemistry - no preservative, no filtration |

SAMPLE HANDLING 2 OF 3

### Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | White |
| **Bottle Volume (mL)** | 250 |
| **Bottle Composition** | Poly |
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | Yes |
| **Preservative (Type)** | Raw/None |

| | |
|---|---|
| **Analysis** | Wet Chemistry - no preservative, field-filtered |

SAMPLE HANDLING 3 OF 3

## Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | Green PC |
| **Bottle Volume (mL)** | 125 |
| **Bottle Composition** | Poly |
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | Yes |
| **Preservative (Type)** | Nitric Acid |
| **Analysis** | Metals (dissolved including ICPMS) - nitric preserved, field-filtered |

# Wells - GCC Pueblo Compliance Water Sampling

GCC Pueblo Quarry and Cement Plant
(719) 647-6800
3372 Lime Road
Pueblo, CO 81004
www.gcc.com

| | |
|---|---|
| **Reference Number:** | GCC_RGPP-20220329-1314032001-18240478634 |
| **Form Name:** | Wells - GCC Pueblo Compliance Water Sampling |
| **Submitter Name:** | Amy Veek (amy.veek) \| amy.veek |
| **Submission Date:** | Mar 28, 2022 3:20:31 PM MDT |

## SITE INFORMATION

### Location

| | |
|---|---|
| **Project Site** | GCC Rio Grande Pueblo Plant |
| **Sample ID** | MW-9 |
| **Water present to measure/sample?** | Yes |
| **Is the water present within 0.25 feet of the well TD?** | No |
| **Wellhead Stick-Up from Ground Level Reference Point to Depth to Water Level Reference Point (ft)** | 2.08 |
| **Static Depth to Water (ft)** | 26.16 |
| **Depth to Water below ground Surface (ft)** | 24.08 |
| **Well Diameter (In)** | 2 |

### Misc

**Site Photo**

## Water Quality Meter

| | |
|---|---|
| **Water Quality Meter Make/Model/SN** | In-Situ AquaTroll |
| **Calibration Date/Time:** | Mar 23, 2022 12:00:00 PM MDT |
| **Calibration Parameters** | Specific Conductivity (SC)<br>pH<br>Oxygen Reduction Potential (ORP)<br>Dissolved Oxygen (DO or RDO) |
| **AquaTroll calibration log generated?** | Yes |

# SAMPLING DETAILS

| | |
|---|---|
| **Weather** | Cloudy |
| **Air Temperature (°F)** | 56 |
| **Date** | Mar 28, 2022 |
| **Time** | 11:26:00 AM MDT |

## Sampling

| | |
|---|---|
| **Sample Temperature (°C)** | 15.01 |
| **Specific Conductivity (µS/cm)** | 4833.54 |
| **pH (S.U.)** | 6.55 |
| **Oxygen Reduction Potential (mV)** | -7.18 |
| **Dissolved Oxygen (mg/L)** | 3.01 |
| **Water level measured at sample time?** | Depth to Water (ft TOC) measured at Sample Time |
| **Depth to Water (ft TOC)** | 26.12 |
| **Was flow rate measured?** | Flow Rate was measured. |
| **Flow Rate (gpm)** | 0.25 |
| **Total Purged (gal)** | 3.00 |
| **Sample(s) collected for laboratory analysis?** | Yes |

## Sampler

| | |
|---|---|
| **Sampler Name** | Amy Veek – GCC Pueblo Environmental Engineer |
| **Sampler's Signature** | |

# SAMPLE(S) COLLECTED FOR LABORATORY ANALYSIS

## Sample Submittal Information

LAB SAMPLE 1 OF 1

### Details

| | |
|---|---|
| **Method of Sample Collection** | MW-9 – Dedicated Proactive Environmental SS Sample Champ XL 12-volt low-flow submersible pump |
| **Lab Sample Name** | MW-9 |
| **Date** | Mar 28, 2022 |
| **Time** | 11:26:00 AM MDT |
| **Lab Suite** | GW-Compliance |
| **Number of Bottles/Containers** | 3 |
| **Lab Sample Type** | Normal |

## Sample Handling

SAMPLE HANDLING 1 OF 3

### Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | None |
| **Bottle Volume (mL)** | 500 |
| **Bottle Composition** | Poly |
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | No |
| **Preservative (Type)** | Raw/None |
| **Analysis** | Wet Chemistry - no preservative, no filtration |

SAMPLE HANDLING 2 OF 3

### Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | White |
| **Bottle Volume (mL)** | 250 |
| **Bottle Composition** | Poly |
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | Yes |
| **Preservative (Type)** | Raw/None |

| | |
|---|---|
| **Analysis** | Wet Chemistry - no preservative, field-filtered |

SAMPLE HANDLING 3 OF 3

## Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | Green PC |
| **Bottle Volume (mL)** | 125 |
| **Bottle Composition** | Poly |
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | Yes |
| **Preservative (Type)** | Nitric Acid |
| **Analysis** | Metals (dissolved including ICPMS) - nitric preserved, field-filtered |

# Wells - GCC Pueblo Compliance Water Sampling

GCC Pueblo Quarry and Cement Plant
(719) 647-6800
3372 Lime Road
Pueblo, CO 81004
www.gcc.com

| | |
|---|---|
| **Reference Number:** | GCC_RGPP-20220329-1314032001-18240478633 |
| **Form Name:** | Wells - GCC Pueblo Compliance Water Sampling |
| **Submitter Name:** | Amy Veek (amy.veek) \| amy.veek |
| **Submission Date:** | Mar 28, 2022 3:20:27 PM MDT |

## SITE INFORMATION

### Location

| | |
|---|---|
| **Project Site** | GCC Rio Grande Pueblo Plant |
| **Sample ID** | MW-10 |
| **Water present to measure/sample?** | Yes |
| **Is the water present within 0.25 feet of the well TD?** | No |
| **Wellhead Stick-Up from Ground Level Reference Point to Depth to Water Level Reference Point (ft)** | 2.24 |
| **Static Depth to Water (ft)** | 26.35 |
| **Depth to Water below ground Surface (ft)** | 24.11 |
| **Well Diameter (In)** | 2 |

### Misc

**Site Photo**

## Water Quality Meter

| | |
|---|---|
| **Water Quality Meter Make/Model/SN** | In-Situ AquaTroll |
| **Calibration Date/Time:** | Mar 23, 2022 12:00:00 PM MDT |
| **Calibration Parameters** | Specific Conductivity (SC)<br>pH<br>Oxygen Reduction Potential (ORP)<br>Dissolved Oxygen (DO or RDO) |
| **AquaTroll calibration log generated?** | Yes |

# SAMPLING DETAILS

| | |
|---|---|
| **Weather** | Cloudy |
| **Air Temperature (°F)** | 56 |
| **Date** | Mar 28, 2022 |
| **Time** | 11:02:00 AM MDT |

## Sampling

| | |
|---|---|
| **Sample Temperature (°C)** | 15.06 |
| **Specific Conductivity (µS/cm)** | 5723.64 |
| **pH (S.U.)** | 7.43 |
| **Oxygen Reduction Potential (mV)** | -196.24 |
| **Dissolved Oxygen (mg/L)** | 0.05 |
| **Water level measured at sample time?** | Depth to Water (ft TOC) measured at Sample Time |
| **Depth to Water (ft TOC)** | 61.62 |
| **Was flow rate measured?** | Flow Rate was measured. |
| **Flow Rate (gpm)** | 0.25 |
| **Total Purged (gal)** | 13.00 |
| **Sample(s) collected for laboratory analysis?** | Yes |

## Sampler

| | |
|---|---|
| **Sampler Name** | Amy Veek – GCC Pueblo Environmental Engineer |
| **Sampler's Signature** | |

# SAMPLE(S) COLLECTED FOR LABORATORY ANALYSIS

## Sample Submittal Information

LAB SAMPLE 1 OF 1

### Details

| | |
|---|---|
| **Method of Sample Collection** | MW-10 – Dedicated Proactive Environmental SS Sample Champ XL 12-volt low-flow submersible pump |
| **Lab Sample Name** | MW-10 |
| **Date** | Mar 28, 2022 |
| **Time** | 11:02:00 AM MDT |
| **Lab Suite** | GW-Compliance |
| **Number of Bottles/Containers** | 3 |
| **Lab Sample Type** | Normal |

## Sample Handling

SAMPLE HANDLING 1 OF 3

### Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | None |
| **Bottle Volume (mL)** | 500 |
| **Bottle Composition** | Poly |
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | No |
| **Preservative (Type)** | Raw/None |
| **Analysis** | Wet Chemistry - no preservative, no filtration |

SAMPLE HANDLING 2 OF 3

### Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | White |
| **Bottle Volume (mL)** | 250 |
| **Bottle Composition** | Poly |
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | Yes |
| **Preservative (Type)** | Raw/None |

| | |
|---|---|
| **Analysis** | Wet Chemistry - no preservative, field-filtered |

SAMPLE HANDLING 3 OF 3

## Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | Green PC |
| **Bottle Volume (mL)** | 125 |
| **Bottle Composition** | Poly |
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | Yes |
| **Preservative (Type)** | Nitric Acid |
| **Analysis** | Metals (dissolved including ICPMS) - nitric preserved, field-filtered |

# Wells - GCC Pueblo Compliance Water Sampling

GCC Pueblo Quarry and Cement Plant
(719) 647-6800
3372 Lime Road
Pueblo, CO 81004
www.gcc.com

| | |
|---|---|
| **Reference Number:** | GCC_RGPP-20220323-1314032001-18239702315 |
| **Form Name:** | Wells - GCC Pueblo Compliance Water Sampling |
| **Submitter Name:** | Amy Veek (amy.veek) \| amy.veek |
| **Submission Date:** | Mar 23, 2022 5:01:51 PM MDT |
| **Location:** | |

## SITE INFORMATION

### Location

| | |
|---|---|
| **Project Site** | GCC Rio Grande Pueblo Plant |
| **Sample ID** | MW-11 |
| **Water present to measure/sample?** | Yes |
| **Is the water present within 0.25 feet of the well TD?** | No |
| **Wellhead Stick-Up from Ground Level Reference Point to Depth to Water Level Reference Point (ft)** | 2.18 |
| **Static Depth to Water (ft)** | 58.41 |
| **Depth to Water below ground Surface (ft)** | 56.23 |
| **Well Diameter (In)** | 2 |

### Misc

| | |
|---|---|
| **Site Photo** | |

## Water Quality Meter

| | |
|---|---|
| **Water Quality Meter Make/Model/SN** | In-Situ AquaTroll |
| **Calibration Date/Time:** | Mar 11, 2022 12:00:00 PM MST |
| **Calibration Parameters** | Specific Conductivity (SC)<br>pH<br>Oxygen Reduction Potential (ORP)<br>Dissolved Oxygen (DO or RDO) |
| **AquaTroll calibration log generated?** | Yes |

# SAMPLING DETAILS

| | |
|---|---|
| **Weather** | Sunny |
| **Air Temperature (°F)** | 46 |
| **Date** | Mar 23, 2022 |
| **Time** | 10:10:00 AM MDT |

## Sampling

| | |
|---|---|
| **Sample Temperature (°C)** | 15.47 |
| **Specific Conductivity (µS/cm)** | 2265.14 |
| **pH (S.U.)** | 7.39 |
| **Oxygen Reduction Potential (mV)** | -264.42 |
| **Are you sure? This value seems very unlikely based on past data?** | Yes |
| **ORP - Out of Range** | Suspect conditions not observed before but I think the parameter value is accurate |
| **Dissolved Oxygen (mg/L)** | 0.04 |
| **Water level measured at sample time?** | Depth to Water (ft TOC) measured at Sample Time |
| **Depth to Water (ft TOC)** | 68.80 |

| | |
|---|---|
| **Was flow rate measured?** | Flow Rate was measured. |
| **Flow Rate (gpm)** | 0.40 |
| **Total Purged (gal)** | 6.50 |
| **Sample(s) collected for laboratory analysis?** | Yes |

## Sampler

| | |
|---|---|
| **Sampler Name** | Amy Veek – GCC Pueblo Environmental Engineer |
| **Sampler's Signature** | |

# SAMPLE(S) COLLECTED FOR LABORATORY ANALYSIS

## Sample Submittal Information

LAB SAMPLE 1 OF 1

## Details

| | |
|---|---|
| **Method of Sample Collection** | MW-11 – Dedicated Proactive Environmental SS Sample Champ XL 12-volt low-flow submersible pump |
| **Lab Sample Name** | MW-11 |
| **Date** | Mar 23, 2022 |
| **Time** | 10:10:00 AM MDT |
| **Lab Suite** | GW-Compliance |
| **Number of Bottles/Containers** | 3 |
| **Lab Sample Type** | Normal |

## Sample Handling

SAMPLE HANDLING 1 OF 3

## Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | None |
| **Bottle Volume (mL)** | 500 |

| | |
|---|---|
| **Bottle Composition** | Poly |
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | No |
| **Preservative (Type)** | Raw/None |
| **Analysis** | Wet Chemistry - no preservative, no filtration |

SAMPLE HANDLING 2 OF 3

## Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | White |
| **Bottle Volume (mL)** | 250 |
| **Bottle Composition** | Poly |
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | Yes |
| **Preservative (Type)** | Raw/None |
| **Analysis** | Wet Chemistry - no preservative, field-filtered |

SAMPLE HANDLING 3 OF 3

## Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | Green PC |
| **Bottle Volume (mL)** | 125 |
| **Bottle Composition** | Poly |
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | Yes |
| **Preservative (Type)** | Nitric Acid |
| **Analysis** | Metals (dissolved including ICPMS) - nitric preserved, field-filtered |

# Wells - GCC Pueblo Compliance Water Sampling

GCC Pueblo Quarry and Cement Plant
(719) 647-6800
3372 Lime Road
Pueblo, CO 81004
www.gcc.com

| | |
|---|---|
| **Reference Number:** | GCC_RGPP-20220329-1314032001-18240478637 |
| **Form Name:** | Wells - GCC Pueblo Compliance Water Sampling |
| **Submitter Name:** | Amy Veek (amy.veek) \| amy.veek |
| **Submission Date:** | Mar 28, 2022 3:20:17 PM MDT |

## SITE INFORMATION

### Location

| | |
|---|---|
| **Project Site** | GCC Rio Grande Pueblo Plant |
| **Sample ID** | MW-12 |
| **Water present to measure/sample?** | Yes |
| **Is the water present within 0.25 feet of the well TD?** | No |
| **Wellhead Stick-Up from Ground Level Reference Point to Depth to Water Level Reference Point (ft)** | 2.29 |
| **Static Depth to Water (ft)** | 63.48 |
| **Depth to Water below ground Surface (ft)** | 61.19 |
| **Well Diameter (In)** | 2 |

### Misc

**Site Photo**

## Water Quality Meter

| | |
|---|---|
| **Water Quality Meter Make/Model/SN** | In-Situ AquaTroll |
| **Calibration Date/Time:** | Mar 23, 2022 12:00:00 PM MDT |
| **Calibration Parameters** | Specific Conductivity (SC)<br>pH<br>Oxygen Reduction Potential (ORP)<br>Dissolved Oxygen (DO or RDO) |
| **AquaTroll calibration log generated?** | Yes |

# SAMPLING DETAILS

| | |
|---|---|
| **Weather** | Sunny |
| **Air Temperature (°F)** | 46 |
| **Date** | Mar 28, 2022 |
| **Time** | 10:23:00 AM MDT |

## Sampling

| | |
|---|---|
| **Sample Temperature (°C)** | 15.36 |
| **Specific Conductivity (µS/cm)** | 2896.34 |
| **pH (S.U.)** | 8.19 |
| **Oxygen Reduction Potential (mV)** | 20.10 |
| **Dissolved Oxygen (mg/L)** | 1.58 |
| **Water level measured at sample time?** | Depth to Water (ft TOC) measured at Sample Time |
| **Depth to Water (ft TOC)** | 84.57 |
| **Was flow rate measured?** | Flow Rate was measured. |
| **Flow Rate (gpm)** | 0.10 |
| **Total Purged (gal)** | 7.50 |
| **Sample(s) collected for laboratory analysis?** | Yes |

## Sampler

| | |
|---|---|
| **Sampler Name** | Amy Veek – GCC Pueblo Environmental Engineer |
| **Sampler's Signature** | |

# SAMPLE(S) COLLECTED FOR LABORATORY ANALYSIS

## Sample Submittal Information

LAB SAMPLE 1 OF 1

### Details

| | |
|---|---|
| **Method of Sample Collection** | MW-12 – Dedicated Proactive Environmental SS Sample Champ XL 12-volt low-flow submersible pump |
| **Lab Sample Name** | MW-12 |
| **Date** | Mar 28, 2022 |
| **Time** | 10:23:00 AM MDT |
| **Lab Suite** | GW-Compliance |
| **Number of Bottles/Containers** | 3 |
| **Lab Sample Type** | Normal |

## Sample Handling

SAMPLE HANDLING 1 OF 3

### Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | None |
| **Bottle Volume (mL)** | 500 |
| **Bottle Composition** | Poly |
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | No |
| **Preservative (Type)** | Raw/None |
| **Analysis** | Wet Chemistry - no preservative, no filtration |

SAMPLE HANDLING 2 OF 3

### Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | White |
| **Bottle Volume (mL)** | 250 |
| **Bottle Composition** | Poly |
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | Yes |
| **Preservative (Type)** | Raw/None |

| | |
|---|---|
| **Analysis** | Wet Chemistry - no preservative, field-filtered |

SAMPLE HANDLING 3 OF 3

## Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | Green PC |
| **Bottle Volume (mL)** | 125 |
| **Bottle Composition** | Poly |
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | Yes |
| **Preservative (Type)** | Nitric Acid |
| **Analysis** | Metals (dissolved including ICPMS) - nitric preserved, field-filtered |

# Wells - GCC Pueblo Compliance Water Sampling

GCC Pueblo Quarry and Cement Plant
(719) 647-6800
3372 Lime Road
Pueblo, CO 81004
www.gcc.com

| | |
|---|---|
| **Reference Number:** | GCC_RGPP-20220323-1314032001-18239702311 |
| **Form Name:** | Wells - GCC Pueblo Compliance Water Sampling |
| **Submitter Name:** | Amy Veek (amy.veek) \| amy.veek |
| **Submission Date:** | Mar 23, 2022 5:01:39 PM MDT |
| **Location:** | |

## SITE INFORMATION

### Location

| | |
|---|---|
| **Project Site** | GCC Rio Grande Pueblo Plant |
| **Sample ID** | MW-13 |
| **Water present to measure/sample?** | Yes |
| **Is the water present within 0.25 feet of the well TD?** | No |
| **Wellhead Stick-Up from Ground Level Reference Point to Depth to Water Level Reference Point (ft)** | 2.19 |
| **Static Depth to Water (ft)** | 117.48 |
| **Depth to Water below ground Surface (ft)** | 115.29 |
| **Well Diameter (In)** | 2 |

### Misc

| | |
|---|---|
| **Site Photo** | |

## Water Quality Meter

| | |
|---|---|
| **Water Quality Meter Make/Model/SN** | In-Situ AquaTroll |
| **Calibration Date/Time:** | Mar 11, 2022 12:00:00 PM MST |
| **Calibration Parameters** | Specific Conductivity (SC)<br>pH<br>Oxygen Reduction Potential (ORP)<br>Dissolved Oxygen (DO or RDO) |
| **AquaTroll calibration log generated?** | Yes |

## SAMPLING DETAILS

| | |
|---|---|
| **Weather** | Sunny |
| **Air Temperature (°F)** | 57 |
| **Date** | Mar 23, 2022 |
| **Time** | 4:24:00 PM MDT |

## Sampling

| | |
|---|---|
| **Sample Temperature (°C)** | 16.85 |
| **Specific Conductivity (µS/cm)** | 3871.50 |
| **pH (S.U.)** | 8.23 |
| **Oxygen Reduction Potential (mV)** | -237.06 |
| **Are you sure? This value seems very unlikely based on past data?** | Yes |
| **ORP - Out of Range** | Suspect conditions not observed before but I think the parameter value is accurate |
| **Dissolved Oxygen (mg/L)** | 0.06 |
| **Water level measured at sample time?** | Depth to Water (ft TOC) measured at Sample Time |
| **Depth to Water (ft TOC)** | 143.00 |

| | |
|---|---|
| **Was flow rate measured?** | Flow Rate was measured. |
| **Flow Rate (gpm)** | 0.63 |
| **Total Purged (gal)** | 31.00 |
| **Sample(s) collected for laboratory analysis?** | Yes |

## Sampler

| | |
|---|---|
| **Sampler Name** | Amy Veek – GCC Pueblo Environmental Engineer |
| **Sampler's Signature** | |

# SAMPLE(S) COLLECTED FOR LABORATORY ANALYSIS

## Sample Submittal Information

LAB SAMPLE 1 OF 1

## Details

| | |
|---|---|
| **Method of Sample Collection** | MW-13 – Dedicated Proactive Environmental SS Sample Champ XL 12-volt low-flow submersible pump |
| **Lab Sample Name** | MW-13 |
| **Date** | Mar 23, 2022 |
| **Time** | 4:24:00 PM MDT |
| **Lab Suite** | GW-Compliance |
| **Number of Bottles/Containers** | 3 |
| **Lab Sample Type** | Normal |

## Sample Handling

SAMPLE HANDLING 1 OF 3

## Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | None |
| **Bottle Volume (mL)** | 500 |

| | |
|---|---|
| **Bottle Composition** | Poly |
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | No |
| **Preservative (Type)** | Raw/None |
| **Analysis** | Wet Chemistry - no preservative, no filtration |

SAMPLE HANDLING 2 OF 3

## Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | White |
| **Bottle Volume (mL)** | 250 |
| **Bottle Composition** | Poly |
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | Yes |
| **Preservative (Type)** | Raw/None |
| **Analysis** | Wet Chemistry - no preservative, field-filtered |

SAMPLE HANDLING 3 OF 3

## Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | Green PC |
| **Bottle Volume (mL)** | 125 |
| **Bottle Composition** | Poly |
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | Yes |
| **Preservative (Type)** | Nitric Acid |
| **Analysis** | Metals (dissolved including ICPMS) - nitric preserved, field-filtered |

# Wells - GCC Pueblo Compliance Water Sampling

GCC Pueblo Quarry and Cement Plant
(719) 647-6800
3372 Lime Road
Pueblo, CO 81004
www.gcc.com

| | |
|---|---|
| **Reference Number:** | GCC_RGPP-20220329-1314032001-18240478638 |
| **Form Name:** | Wells - GCC Pueblo Compliance Water Sampling |
| **Submitter Name:** | Amy Veek (amy.veek) \| amy.veek |
| **Submission Date:** | Mar 28, 2022 3:19:54 PM MDT |

## SITE INFORMATION

### Location

| | |
|---|---|
| **Project Site** | GCC Rio Grande Pueblo Plant |
| **Sample ID** | MW-14 |
| **Water present to measure/sample?** | Yes |
| **Is the water present within 0.25 feet of the well TD?** | No |
| **Wellhead Stick-Up from Ground Level Reference Point to Depth to Water Level Reference Point (ft)** | 2.11 |
| **Static Depth to Water (ft)** | 92.54 |
| **Depth to Water below ground Surface (ft)** | 90.43 |
| **Well Diameter (In)** | 2 |

### Misc

**Site Photo**

## Water Quality Meter

| | |
|---|---|
| **Water Quality Meter Make/Model/SN** | In-Situ AquaTroll |
| **Calibration Date/Time:** | Mar 23, 2022 12:00:00 PM MDT |
| **Calibration Parameters** | Specific Conductivity (SC)<br>pH<br>Oxygen Reduction Potential (ORP)<br>Dissolved Oxygen (DO or RDO) |
| **AquaTroll calibration log generated?** | Yes |

# SAMPLING DETAILS

| | |
|---|---|
| **Weather** | Cloudy |
| **Air Temperature (°F)** | 73 |
| **Date** | Mar 28, 2022 |
| **Time** | 1:15:00 PM MDT |

## Sampling

| | |
|---|---|
| **Sample Temperature (°C)** | 17.47 |
| **Specific Conductivity (µS/cm)** | 3668.86 |
| **pH (S.U.)** | 8.07 |
| **Oxygen Reduction Potential (mV)** | 0.36 |
| **Dissolved Oxygen (mg/L)** | 3.07 |
| **Water level measured at sample time?** | Depth to Water (ft TOC) measured at Sample Time |
| **Depth to Water (ft TOC)** | 199.32 |
| **Was flow rate measured?** | Bailed Well, flow rate not measured. |
| **Flow Rate (gpm)** | 0.00 |
| **Total Purged (gal)** | 35.00 |
| **Sample(s) collected for laboratory analysis?** | Yes |

## Sampler

| | |
|---|---|
| **Sampler Name** | Amy Veek – GCC Pueblo Environmental Engineer |
| **Sampler's Signature** | |

# SAMPLE(S) COLLECTED FOR LABORATORY ANALYSIS

## Sample Submittal Information

LAB SAMPLE 1 OF 1

### Details

| | |
|---|---|
| **Method of Sample Collection** | MW-14 – Dedicated QED SS Well Wizard 1300 low-flow bladder pump |
| **Lab Sample Name** | MW-14 |
| **Date** | Mar 28, 2022 |
| **Time** | 1:15:00 PM MDT |
| **Lab Suite** | GW-Compliance |
| **Number of Bottles/Containers** | 3 |
| **Lab Sample Type** | Normal |

## Sample Handling

SAMPLE HANDLING 1 OF 3

### Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | None |
| **Bottle Volume (mL)** | 500 |
| **Bottle Composition** | Poly |
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | No |
| **Preservative (Type)** | Raw/None |
| **Analysis** | Wet Chemistry - no preservative, no filtration |

SAMPLE HANDLING 2 OF 3

### Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | White |
| **Bottle Volume (mL)** | 250 |
| **Bottle Composition** | Poly |
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | Yes |
| **Preservative (Type)** | Raw/None |

| | |
|---|---|
| **Analysis** | Wet Chemistry - no preservative, field-filtered |

SAMPLE HANDLING 3 OF 3

## Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | Green PC |
| **Bottle Volume (mL)** | 125 |
| **Bottle Composition** | Poly |
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | Yes |
| **Preservative (Type)** | Nitric Acid |
| **Analysis** | Metals (dissolved including ICPMS) - nitric preserved, field-filtered |

# Wells - GCC Pueblo Compliance Water Sampling

GCC Pueblo Quarry and Cement Plant
(719) 647-6800
3372 Lime Road
Pueblo, CO 81004
www.gcc.com

| | |
|---|---|
| **Reference Number:** | GCC_RGPP-20220510-1314032001-18246919263 |
| **Form Name:** | Wells - GCC Pueblo Compliance Water Sampling |
| **Submitter Name:** | Amy Veek (amy.veek) \| amy.veek |
| **Submission Date:** | May 10, 2022 3:13:55 PM MDT |

## SITE INFORMATION

### Location

| | |
|---|---|
| **Project Site** | GCC Rio Grande Pueblo Plant |
| **Sample ID** | MW-5 |
| **Water present to measure/sample?** | No |
| **Is the water present within 0.25 feet of the well TD?** | No |
| **Dry Well** | Yes |

### Misc

**Site Photo**

## SAMPLING DETAILS

| | |
|---|---|
| **Weather** | Sunny |
| **Air Temperature (°F)** | 63 |

| | |
|---|---|
| **Date** | May 10, 2022 |
| **Time** | 11:08:00 AM MDT |

## Sampler

| | |
|---|---|
| **Sampler Name** | Amy Veek – GCC Pueblo Environmental Engineer |
| **Sampler's Signature** | |

# Wells - GCC Pueblo Compliance Water Sampling

GCC Pueblo Quarry and Cement Plant
(719) 647-6800
3372 Lime Road
Pueblo, CO 81004
www.gcc.com

| | |
|---|---|
| **Reference Number:** | GCC_RGPP-20220517-1314032001-18248095551 |
| **Form Name:** | Wells - GCC Pueblo Compliance Water Sampling |
| **Submitter Name:** | Amy Veek (amy.veek) \| amy.veek |
| **Submission Date:** | May 17, 2022 2:33:52 PM MDT |

## SITE INFORMATION

### Location

| | |
|---|---|
| **Project Site** | GCC Rio Grande Pueblo Plant |
| **Sample ID** | MW-6 |
| **Water present to measure/sample?** | Yes |
| **Is the water present within 0.25 feet of the well TD?** | No |
| **Wellhead Stick-Up from Ground Level Reference Point to Depth to Water Level Reference Point (ft)** | 2.52 |
| **Static Depth to Water (ft)** | 36.94 |
| **Well Total Depth (ft below top of casing)** | 56.4 |
| **Depth to Water below ground Surface (ft)** | 34.42 |
| **Well Diameter (In)** | 2 |

### Misc

| | |
|---|---|
| **Site Photo** | |

## Water Quality Meter

| | |
|---|---|
| **Water Quality Meter Make/Model/SN** | In-Situ AquaTroll 400 SN 896017 |
| **Calibration Date/Time:** | May 6, 2022 9:00:00 AM MDT |
| **Calibration Parameters** | Specific Conductivity (SC)<br>pH<br>Oxygen Reduction Potential (ORP)<br>Dissolved Oxygen (DO or RDO) |
| **AquaTroll calibration log generated?** | Yes |

# SAMPLING DETAILS

| | |
|---|---|
| **Weather** | Sunny |
| **Air Temperature (°F)** | 89 |
| **Date** | May 17, 2022 |
| **Time** | 11:33:00 AM MDT |

## Sampling

| | |
|---|---|
| **Sample Temperature (°C)** | 16.73 |
| **Specific Conductivity (µS/cm)** | 5726.45 |
| **pH (S.U.)** | 7.03 |
| **Oxygen Reduction Potential (mV)** | -63.42 |
| **Dissolved Oxygen (mg/L)** | 2.50 |
| **Water level measured at sample time?** | Depth to Water (ft TOC) measured at Sample Time |
| **Depth to Water (ft TOC)** | 55.13 |
| **Was flow rate measured?** | Flow Rate was measured. |
| **Flow Rate (gpm)** | 1.00 |
| **Total Purged (gal)** | 9.00 |
| **Geographic Sample Location** | |

| | |
|---|---|
| | latitude: altitude:<br>longitude: [ viewMap ] |
| **Sample(s) collected for laboratory analysis?** | Yes |

## Sampler

| | |
|---|---|
| **Sampler Name** | Amy Veek – GCC Pueblo Environmental Engineer |
| **Sampler's Signature** | |

# SAMPLE(S) COLLECTED FOR LABORATORY ANALYSIS

## Sample Submittal Information

LAB SAMPLE 1 OF 1

## Details

| | |
|---|---|
| **Method of Sample Collection** | MW-6 – Dedicated Proactive Environmental SS Sample Champ XL 12-volt low-flow submersible pump |
| **Lab Sample Name** | MW-6 |
| **Date** | May 17, 2022 |
| **Time** | 11:33:00 AM MDT |
| **Lab Suite** | GW-Compliance |
| **Number of Bottles/Containers** | 3 |
| **Lab Sample Type** | Normal |

## Sample Handling

SAMPLE HANDLING 1 OF 3

## Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | None |
| **Bottle Volume (mL)** | 500 |
| **Bottle Composition** | Poly |

| | |
|---|---|
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | No |
| **Preservative (Type)** | Raw/None |
| **Analysis** | Wet Chemistry - no preservative, no filtration |

SAMPLE HANDLING 2 OF 3

## Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | White |
| **Bottle Volume (mL)** | 250 |
| **Bottle Composition** | Poly |
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | Yes |
| **Preservative (Type)** | Raw/None |
| **Analysis** | Wet Chemistry - no preservative, field-filtered |

SAMPLE HANDLING 3 OF 3

## Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | Green PC |
| **Bottle Volume (mL)** | 125 |
| **Bottle Composition** | Poly |
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | Yes |
| **Preservative (Type)** | Nitric Acid |
| **Analysis** | Metals (dissolved including ICPMS) - nitric preserved, field-filtered |

# Wells - GCC Pueblo Compliance Water Sampling

GCC Pueblo Quarry and Cement Plant
(719) 647-6800
3372 Lime Road
Pueblo, CO 81004
www.gcc.com

| | |
|---|---|
| **Reference Number:** | GCC_RGPP-20220511-1314032001-18247094202 |
| **Form Name:** | Wells - GCC Pueblo Compliance Water Sampling |
| **Submitter Name:** | Amy Veek (amy.veek) \| amy.veek |
| **Submission Date:** | May 11, 2022 1:47:58 PM MDT |

## SITE INFORMATION

### Location

| | |
|---|---|
| **Project Site** | GCC Rio Grande Pueblo Plant |
| **Sample ID** | MW-7 |
| **Water present to measure/sample?** | Yes |
| **Is the water present within 0.25 feet of the well TD?** | No |
| **Wellhead Stick-Up from Ground Level Reference Point to Depth to Water Level Reference Point (ft)** | 2.66 |
| **Static Depth to Water (ft)** | 37.61 |
| **Well Total Depth (ft below top of casing)** | 56.1 |
| **Depth to Water below ground Surface (ft)** | 34.95 |
| **Well Diameter (In)** | 2 |

### Misc

**Site Photo**

## Water Quality Meter

| | |
|---|---|
| **Water Quality Meter Make/Model/SN** | In-Situ AquaTroll 400 SN 896017 |
| **Calibration Date/Time:** | May 6, 2022 9:00:00 AM MDT |
| **Calibration Parameters** | Specific Conductivity (SC)<br>pH<br>Oxygen Reduction Potential (ORP)<br>Dissolved Oxygen (DO or RDO) |
| **AquaTroll calibration log generated?** | Yes |

# SAMPLING DETAILS

| | |
|---|---|
| **Weather** | Sunny |
| **Air Temperature (°F)** | 70 |
| **Date** | May 10, 2022 |
| **Time** | 12:38:00 PM MDT |

## Sampling

| | |
|---|---|
| **Sample Temperature (°C)** | 15.21 |
| **Specific Conductivity (µS/cm)** | 5593.49 |
| **pH (S.U.)** | 6.86 |
| **Oxygen Reduction Potential (mV)** | 20.14 |
| **Dissolved Oxygen (mg/L)** | 0.07 |
| **Water level measured at sample time?** | Depth to Water (ft TOC) measured at Sample Time |
| **Depth to Water (ft TOC)** | 41.69 |
| **Was flow rate measured?** | Flow Rate was measured. |
| **Flow Rate (gpm)** | 1.00 |
| **Total Purged (gal)** | 10.50 |
| **Geographic Sample Location** | 3372 Lime Rd, Pueblo, CO 81022, USA |

latitude: 38.1290100497482 altitude: 1534.3595
longitude: -104.60643201937226 [ viewMap ]

**Sample(s) collected for laboratory analysis?** Yes

## Sampler

**Sampler Name** Amy Veek – GCC Pueblo Environmental Engineer

**Sampler's Signature**

# SAMPLE(S) COLLECTED FOR LABORATORY ANALYSIS

## Sample Submittal Information

LAB SAMPLE 1 OF 2

### Details

| | |
|---|---|
| **Method of Sample Collection** | MW-7 – Dedicated Proactive Environmental SS Sample Champ XL 12-volt low-flow submersible pump |
| **Lab Sample Name** | MW-7 |
| **Date** | May 10, 2022 |
| **Time** | 12:38:00 PM MDT |
| **Lab Suite** | GW-Compliance |
| **Number of Bottles/Containers** | 3 |
| **Lab Sample Type** | Normal |

LAB SAMPLE 2 OF 2

### Details

| | |
|---|---|
| **Method of Sample Collection** | MW-7 – Dedicated Proactive Environmental SS Sample Champ XL 12-volt low-flow submersible pump |
| **Lab Sample Name** | MW-2B |
| **Date** | May 10, 2022 |
| **Time** | 12:00:00 PM MDT |

| | |
|---|---|
| **Lab Suite** | GW-Compliance |
| **Number of Bottles/Containers** | 3 |
| **Lab Sample Type** | Duplicate |

## Sample Handling

SAMPLE HANDLING 1 OF 3

### Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | None |
| **Bottle Volume (mL)** | 500 |
| **Bottle Composition** | Poly |
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | No |
| **Preservative (Type)** | Raw/None |
| **Analysis** | Wet Chemistry - no preservative, no filtration |

SAMPLE HANDLING 2 OF 3

### Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | White |
| **Bottle Volume (mL)** | 250 |
| **Bottle Composition** | Poly |
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | Yes |
| **Preservative (Type)** | Raw/None |
| **Analysis** | Wet Chemistry - no preservative, field-filtered |

SAMPLE HANDLING 3 OF 3

### Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | Green PC |
| **Bottle Volume (mL)** | 125 |
| **Bottle Composition** | Poly |
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | Yes |
| **Preservative (Type)** | Nitric Acid |
| **Analysis** | Metals (dissolved including ICPMS) - nitric preserved, field-filtered |

# Wells - GCC Pueblo Compliance Water Sampling

GCC Pueblo Quarry and Cement Plant
(719) 647-6800
3372 Lime Road
Pueblo, CO 81004
www.gcc.com

| | |
|---|---|
| **Reference Number:** | GCC_RGPP-20220517-1314032001-18248095524 |
| **Form Name:** | Wells - GCC Pueblo Compliance Water Sampling |
| **Submitter Name:** | Amy Veek (amy.veek) \| amy.veek |
| **Submission Date:** | May 17, 2022 2:33:41 PM MDT |

## SITE INFORMATION

### Location

| | |
|---|---|
| **Project Site** | GCC Rio Grande Pueblo Plant |
| **Sample ID** | MW-8 |
| **Water present to measure/sample?** | Yes |
| **Is the water present within 0.25 feet of the well TD?** | No |
| **Wellhead Stick-Up from Ground Level Reference Point to Depth to Water Level Reference Point (ft)** | 2.16 |
| **Static Depth to Water (ft)** | 37.93 |
| **Well Total Depth (ft below top of casing)** | 65.65 |
| **Depth to Water below ground Surface (ft)** | 35.77 |
| **Well Diameter (In)** | 2 |

### Misc

| | |
|---|---|
| **Site Photo** | |

## Water Quality Meter

| | |
|---|---|
| **Water Quality Meter Make/Model/SN** | In-Situ AquaTroll 400 SN 896017 |
| **Calibration Date/Time:** | May 6, 2022 9:00:00 AM MDT |
| **Calibration Parameters** | Specific Conductivity (SC)<br>pH<br>Oxygen Reduction Potential (ORP)<br>Dissolved Oxygen (DO or RDO) |
| **AquaTroll calibration log generated?** | Yes |

## SAMPLING DETAILS

| | |
|---|---|
| **Weather** | Sunny |
| **Air Temperature (°F)** | 89 |
| **Date** | May 17, 2022 |
| **Time** | 11:50:00 AM MDT |

## Sampling

| | |
|---|---|
| **Sample Temperature (°C)** | 17.96 |
| **Specific Conductivity (µS/cm)** | 5556.02 |
| **pH (S.U.)** | 7.12 |
| **Oxygen Reduction Potential (mV)** | -32.69 |
| **Dissolved Oxygen (mg/L)** | 0.27 |
| **Water level measured at sample time?** | Depth to Water (ft TOC) measured at Sample Time |
| **Depth to Water (ft TOC)** | 48.98 |
| **Was flow rate measured?** | Flow Rate was measured. |
| **Flow Rate (gpm)** | 0.75 |
| **Total Purged (gal)** | 3.50 |
| **Geographic Sample Location** | 3372 Lime Rd, Pueblo, CO 81022, USA |

| | |
|---|---|
| | latitude: 38.12788543742728 altitude: 1536.94 longitude: -104.60578155451681 [ viewMap ] |
| **Sample(s) collected for laboratory analysis?** | Yes |

## Sampler

| | |
|---|---|
| **Sampler Name** | Amy Veek – GCC Pueblo Environmental Engineer |
| **Sampler's Signature** | |

# SAMPLE(S) COLLECTED FOR LABORATORY ANALYSIS

## Sample Submittal Information

LAB SAMPLE 1 OF 1

## Details

| | |
|---|---|
| **Method of Sample Collection** | MW-8 – Dedicated Proactive Environmental SS Sample Champ XL 12-volt low-flow submersible pump |
| **Lab Sample Name** | MW-8 |
| **Date** | May 17, 2022 |
| **Time** | 11:50:00 AM MDT |
| **Lab Suite** | GW-Compliance |
| **Number of Bottles/Containers** | 3 |
| **Lab Sample Type** | Normal |

## Sample Handling

SAMPLE HANDLING 1 OF 3

## Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | None |
| **Bottle Volume (mL)** | 500 |
| **Bottle Composition** | Poly |

| | |
|---|---|
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | No |
| **Preservative (Type)** | Raw/None |
| **Analysis** | Wet Chemistry - no preservative, no filtration |

SAMPLE HANDLING 2 OF 3

## Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | White |
| **Bottle Volume (mL)** | 250 |
| **Bottle Composition** | Poly |
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | Yes |
| **Preservative (Type)** | Raw/None |
| **Analysis** | Wet Chemistry - no preservative, field-filtered |

SAMPLE HANDLING 3 OF 3

## Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | Green PC |
| **Bottle Volume (mL)** | 125 |
| **Bottle Composition** | Poly |
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | Yes |
| **Preservative (Type)** | Nitric Acid |
| **Analysis** | Metals (dissolved including ICPMS) - nitric preserved, field-filtered |

# Wells - GCC Pueblo Compliance Water Sampling

GCC Pueblo Quarry and Cement Plant
(719) 647-6800
3372 Lime Road
Pueblo, CO 81004
www.gcc.com

| | |
|---|---|
| **Reference Number:** | GCC_RGPP-20220517-1314032001-18248095609 |
| **Form Name:** | Wells - GCC Pueblo Compliance Water Sampling |
| **Submitter Name:** | Amy Veek (amy.veek) \| amy.veek |
| **Submission Date:** | May 17, 2022 2:34:39 PM MDT |

## SITE INFORMATION

### Location

| | |
|---|---|
| **Project Site** | GCC Rio Grande Pueblo Plant |
| **Sample ID** | MW-9 |
| **Water present to measure/sample?** | Yes |
| **Is the water present within 0.25 feet of the well TD?** | No |
| **Wellhead Stick-Up from Ground Level Reference Point to Depth to Water Level Reference Point (ft)** | 2.08 |
| **Static Depth to Water (ft)** | 26.32 |
| **Well Total Depth (ft below top of casing)** | 42.23 |
| **Depth to Water below ground Surface (ft)** | 24.24 |
| **Well Diameter (In)** | 2 |

### Misc

| | |
|---|---|
| **Site Photo** | |

## Water Quality Meter

| | |
|---|---|
| **Water Quality Meter Make/Model/SN** | In-Situ AquaTroll 400 SN 896017 |
| **Calibration Date/Time:** | May 6, 2022 9:00:00 AM MDT |
| **Calibration Parameters** | Specific Conductivity (SC)<br>pH<br>Oxygen Reduction Potential (ORP)<br>Dissolved Oxygen (DO or RDO) |
| **AquaTroll calibration log generated?** | Yes |

## SAMPLING DETAILS

| | |
|---|---|
| **Weather** | Sunny |
| **Air Temperature (°F)** | 82 |
| **Date** | May 17, 2022 |
| **Time** | 10:32:00 AM MDT |

## Sampling

| | |
|---|---|
| **Sample Temperature (°C)** | 16.92 |
| **Specific Conductivity (µS/cm)** | 5486.09 |
| **pH (S.U.)** | 6.59 |
| **Oxygen Reduction Potential (mV)** | 66.98 |
| **Dissolved Oxygen (mg/L)** | 1.26 |
| **Water level measured at sample time?** | Depth to Water (ft TOC) measured at Sample Time |
| **Depth to Water (ft TOC)** | 29.11 |
| **Was flow rate measured?** | Flow Rate was measured. |
| **Flow Rate (gpm)** | 1.40 |
| **Total Purged (gal)** | 5.00 |
| **Geographic Sample Location** | |

| | |
|---|---|
| | latitude: altitude:<br>longitude: [ viewMap ] |
| **Sample(s) collected for laboratory analysis?** | Yes |

## Sampler

| | |
|---|---|
| **Sampler Name** | Amy Veek – GCC Pueblo Environmental Engineer |
| **Sampler's Signature** | |

# SAMPLE(S) COLLECTED FOR LABORATORY ANALYSIS

## Sample Submittal Information

LAB SAMPLE 1 OF 1

## Details

| | |
|---|---|
| **Method of Sample Collection** | MW-9 – Dedicated Proactive Environmental SS Sample Champ XL 12-volt low-flow submersible pump |
| **Lab Sample Name** | MW-9 |
| **Date** | May 17, 2022 |
| **Time** | 10:32:00 AM MDT |
| **Lab Suite** | GW-Compliance |
| **Number of Bottles/Containers** | 3 |
| **Lab Sample Type** | Normal |

## Sample Handling

SAMPLE HANDLING 1 OF 3

## Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | None |
| **Bottle Volume (mL)** | 500 |
| **Bottle Composition** | Poly |

| | |
|---|---|
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | No |
| **Preservative (Type)** | Raw/None |
| **Analysis** | Wet Chemistry - no preservative, no filtration |

SAMPLE HANDLING 2 OF 3

## Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | White |
| **Bottle Volume (mL)** | 250 |
| **Bottle Composition** | Poly |
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | Yes |
| **Preservative (Type)** | Raw/None |
| **Analysis** | Wet Chemistry - no preservative, field-filtered |

SAMPLE HANDLING 3 OF 3

## Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | Green PC |
| **Bottle Volume (mL)** | 125 |
| **Bottle Composition** | Poly |
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | Yes |
| **Preservative (Type)** | Nitric Acid |
| **Analysis** | Metals (dissolved including ICPMS) - nitric preserved, field-filtered |

# Wells - GCC Pueblo Compliance Water Sampling

GCC Pueblo Quarry and Cement Plant
(719) 647-6800
3372 Lime Road
Pueblo, CO 81004
www.gcc.com

| | |
|---|---|
| **Reference Number:** | GCC_RGPP-20220517-1314032001-18248095591 |
| **Form Name:** | Wells - GCC Pueblo Compliance Water Sampling |
| **Submitter Name:** | Amy Veek (amy.veek) \| amy.veek |
| **Submission Date:** | May 17, 2022 2:34:27 PM MDT |

## SITE INFORMATION

### Location

| | |
|---|---|
| **Project Site** | GCC Rio Grande Pueblo Plant |
| **Sample ID** | MW-10 |
| **Water present to measure/sample?** | Yes |
| **Is the water present within 0.25 feet of the well TD?** | No |
| **Wellhead Stick-Up from Ground Level Reference Point to Depth to Water Level Reference Point (ft)** | 2.24 |
| **Static Depth to Water (ft)** | 26.73 |
| **Well Total Depth (ft below top of casing)** | 82.55 |
| **Depth to Water below ground Surface (ft)** | 24.49 |
| **Well Diameter (In)** | 2 |

### Misc

| | |
|---|---|
| **Site Photo** | |

## Water Quality Meter

| | |
|---|---|
| **Water Quality Meter Make/Model/SN** | In-Situ AquaTroll 400 SN 896017 |
| **Calibration Date/Time:** | May 6, 2022 9:00:00 AM MDT |
| **Calibration Parameters** | Specific Conductivity (SC)<br>pH<br>Oxygen Reduction Potential (ORP)<br>Dissolved Oxygen (DO or RDO) |
| **AquaTroll calibration log generated?** | Yes |

## SAMPLING DETAILS

| | |
|---|---|
| **Weather** | Sunny |
| **Air Temperature (°F)** | 82 |
| **Date** | May 17, 2022 |
| **Time** | 10:18:00 AM MDT |

## Sampling

| | |
|---|---|
| **Sample Temperature (°C)** | 18.03 |
| **Specific Conductivity (µS/cm)** | 6204.61 |
| **pH (S.U.)** | 7.50 |
| **Oxygen Reduction Potential (mV)** | -137.17 |
| **Dissolved Oxygen (mg/L)** | 0.20 |
| **Water level measured at sample time?** | Depth to Water (ft TOC) measured at Sample Time |
| **Depth to Water (ft TOC)** | 61.95 |
| **Was flow rate measured?** | Flow Rate was measured. |
| **Flow Rate (gpm)** | 0.75 |
| **Total Purged (gal)** | 12.00 |
| **Geographic Sample Location** | |

| | |
|---|---|
| | latitude: altitude:<br>longitude: [ viewMap ] |
| **Sample(s) collected for laboratory analysis?** | Yes |

## Sampler

| | |
|---|---|
| **Sampler Name** | Amy Veek – GCC Pueblo Environmental Engineer |
| **Sampler's Signature** | |

# SAMPLE(S) COLLECTED FOR LABORATORY ANALYSIS

## Sample Submittal Information

LAB SAMPLE 1 OF 1

## Details

| | |
|---|---|
| **Method of Sample Collection** | MW-10 – Dedicated Proactive Environmental SS Sample Champ XL 12-volt low-flow submersible pump |
| **Lab Sample Name** | MW-10 |
| **Date** | May 17, 2022 |
| **Time** | 10:18:00 AM MDT |
| **Lab Suite** | GW-Compliance |
| **Number of Bottles/Containers** | 3 |
| **Lab Sample Type** | Normal |

## Sample Handling

SAMPLE HANDLING 1 OF 3

## Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | None |
| **Bottle Volume (mL)** | 500 |
| **Bottle Composition** | Poly |

| | |
|---|---|
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | No |
| **Preservative (Type)** | Raw/None |
| **Analysis** | Wet Chemistry - no preservative, no filtration |

SAMPLE HANDLING 2 OF 3

## Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | White |
| **Bottle Volume (mL)** | 250 |
| **Bottle Composition** | Poly |
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | Yes |
| **Preservative (Type)** | Raw/None |
| **Analysis** | Wet Chemistry - no preservative, field-filtered |

SAMPLE HANDLING 3 OF 3

## Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | Green PC |
| **Bottle Volume (mL)** | 125 |
| **Bottle Composition** | Poly |
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | Yes |
| **Preservative (Type)** | Nitric Acid |
| **Analysis** | Metals (dissolved including ICPMS) - nitric preserved, field-filtered |

# Wells - GCC Pueblo Compliance Water Sampling

GCC Pueblo Quarry and Cement Plant
(719) 647-6800
3372 Lime Road
Pueblo, CO 81004
www.gcc.com

| | |
|---|---|
| **Reference Number:** | GCC_RGPP-20220517-1314032001-18248095560 |
| **Form Name:** | Wells - GCC Pueblo Compliance Water Sampling |
| **Submitter Name:** | Amy Veek (amy.veek) \| amy.veek |
| **Submission Date:** | May 17, 2022 2:34:02 PM MDT |

## SITE INFORMATION

### Location

| | |
|---|---|
| **Project Site** | GCC Rio Grande Pueblo Plant |
| **Sample ID** | MW-11 |
| **Water present to measure/sample?** | Yes |
| **Is the water present within 0.25 feet of the well TD?** | No |
| **Wellhead Stick-Up from Ground Level Reference Point to Depth to Water Level Reference Point (ft)** | 2.18 |
| **Static Depth to Water (ft)** | 59.41 |
| **Well Total Depth (ft below top of casing)** | 72.68 |
| **Depth to Water below ground Surface (ft)** | 57.23 |
| **Well Diameter (In)** | 2 |

### Misc

| | |
|---|---|
| **Site Photo** | |

## Water Quality Meter

| | |
|---|---|
| **Water Quality Meter Make/Model/SN** | In-Situ AquaTroll 400 SN 896017 |
| **Calibration Date/Time:** | May 6, 2022 9:00:00 AM MDT |
| **Calibration Parameters** | Specific Conductivity (SC)<br>pH<br>Oxygen Reduction Potential (ORP)<br>Dissolved Oxygen (DO or RDO) |
| **AquaTroll calibration log generated?** | Yes |

# SAMPLING DETAILS

| | |
|---|---|
| **Weather** | Sunny |
| **Air Temperature (°F)** | 82 |
| **Date** | May 17, 2022 |
| **Time** | 11:12:00 AM MDT |

## Sampling

| | |
|---|---|
| **Sample Temperature (°C)** | 17.24 |
| **Specific Conductivity (µS/cm)** | 2681.16 |
| **pH (S.U.)** | 7.39 |
| **Oxygen Reduction Potential (mV)** | -285.59 |
| **Dissolved Oxygen (mg/L)** | 0.26 |
| **Water level measured at sample time?** | Depth to Water (ft TOC) measured at Sample Time |
| **Depth to Water (ft TOC)** | 61.29 |
| **Was flow rate measured?** | Flow Rate was measured. |
| **Flow Rate (gpm)** | 0.20 |
| **Total Purged (gal)** | 5.75 |
| **Geographic Sample Location** | |

| | |
|---|---|
| | latitude: altitude:<br>longitude: [ viewMap ] |
| **Sample(s) collected for laboratory analysis?** | Yes |

## Sampler

| | |
|---|---|
| **Sampler Name** | Amy Veek – GCC Pueblo Environmental Engineer |
| **Sampler's Signature** | |

# SAMPLE(S) COLLECTED FOR LABORATORY ANALYSIS

## Sample Submittal Information

LAB SAMPLE 1 OF 1

## Details

| | |
|---|---|
| **Method of Sample Collection** | MW-11 – Dedicated Proactive Environmental SS Sample Champ XL 12-volt low-flow submersible pump |
| **Lab Sample Name** | MW-11 |
| **Date** | May 17, 2022 |
| **Time** | 11:12:00 AM MDT |
| **Lab Suite** | GW-Compliance |
| **Number of Bottles/Containers** | 3 |
| **Lab Sample Type** | Normal |

## Sample Handling

SAMPLE HANDLING 1 OF 3

## Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | None |
| **Bottle Volume (mL)** | 500 |
| **Bottle Composition** | Poly |

| | |
|---|---|
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | No |
| **Preservative (Type)** | Raw/None |
| **Analysis** | Wet Chemistry - no preservative, no filtration |

SAMPLE HANDLING 2 OF 3

## Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | White |
| **Bottle Volume (mL)** | 250 |
| **Bottle Composition** | Poly |
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | Yes |
| **Preservative (Type)** | Raw/None |
| **Analysis** | Wet Chemistry - no preservative, field-filtered |

SAMPLE HANDLING 3 OF 3

## Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | Green PC |
| **Bottle Volume (mL)** | 125 |
| **Bottle Composition** | Poly |
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | Yes |
| **Preservative (Type)** | Nitric Acid |
| **Analysis** | Metals (dissolved including ICPMS) - nitric preserved, field-filtered |

# Wells - GCC Pueblo Compliance Water Sampling

GCC Pueblo Quarry and Cement Plant
(719) 647-6800
3372 Lime Road
Pueblo, CO 81004
www.gcc.com

| | |
|---|---|
| **Reference Number:** | GCC_RGPP-20220517-1314032001-18248095575 |
| **Form Name:** | Wells - GCC Pueblo Compliance Water Sampling |
| **Submitter Name:** | Amy Veek (amy.veek) \| amy.veek |
| **Submission Date:** | May 17, 2022 2:34:15 PM MDT |

## SITE INFORMATION

### Location

| | |
|---|---|
| **Project Site** | GCC Rio Grande Pueblo Plant |
| **Sample ID** | MW-12 |
| **Water present to measure/sample?** | Yes |
| **Is the water present within 0.25 feet of the well TD?** | No |
| **Wellhead Stick-Up from Ground Level Reference Point to Depth to Water Level Reference Point (ft)** | 2.29 |
| **Static Depth to Water (ft)** | 81.76 |
| **Well Total Depth (ft below top of casing)** | 88.8 |
| **Depth to Water below ground Surface (ft)** | 79.47 |
| **Well Diameter (In)** | 2 |

### Misc

| | |
|---|---|
| **Site Photo** | |

## Water Quality Meter

| | |
|---|---|
| **Water Quality Meter Make/Model/SN** | In-Situ AquaTroll 400 SN 896017 |
| **Calibration Date/Time:** | May 6, 2022 9:00:00 AM MDT |
| **Calibration Parameters** | Specific Conductivity (SC)<br>pH<br>Oxygen Reduction Potential (ORP)<br>Dissolved Oxygen (DO or RDO) |
| **AquaTroll calibration log generated?** | Yes |

## SAMPLING DETAILS

| | |
|---|---|
| **Weather** | Sunny |
| **Air Temperature (°F)** | 82 |
| **Date** | May 17, 2022 |
| **Time** | 11:01:00 AM MDT |

## Sampling

| | |
|---|---|
| **Sample Temperature (°C)** | 17.28 |
| **Specific Conductivity (µS/cm)** | 3719.98 |
| **pH (S.U.)** | 8.04 |
| **Oxygen Reduction Potential (mV)** | -0.98 |
| **Dissolved Oxygen (mg/L)** | 0.48 |
| **Water level measured at sample time?** | Depth to Water (ft TOC) measured at Sample Time |
| **Depth to Water (ft TOC)** | 85.90 |
| **Was flow rate measured?** | Flow Rate was measured. |
| **Flow Rate (gpm)** | 0.20 |
| **Total Purged (gal)** | 1.50 |
| **Geographic Sample Location** | |

| | |
|---|---|
| | latitude: altitude:<br>longitude: [ viewMap ] |
| **Sample(s) collected for laboratory analysis?** | Yes |

## Sampler

| | |
|---|---|
| **Sampler Name** | Amy Veek – GCC Pueblo Environmental Engineer |
| **Sampler's Signature** | |

# SAMPLE(S) COLLECTED FOR LABORATORY ANALYSIS

## Sample Submittal Information

LAB SAMPLE 1 OF 1

## Details

| | |
|---|---|
| **Method of Sample Collection** | MW-12 – Dedicated Proactive Environmental SS Sample Champ XL 12-volt low-flow submersible pump |
| **Lab Sample Name** | MW-12 |
| **Date** | May 17, 2022 |
| **Time** | 11:01:00 AM MDT |
| **Lab Suite** | GW-Compliance |
| **Number of Bottles/Containers** | 3 |
| **Lab Sample Type** | Normal |

## Sample Handling

SAMPLE HANDLING 1 OF 3

## Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | None |
| **Bottle Volume (mL)** | 500 |
| **Bottle Composition** | Poly |

| | |
|---|---|
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | No |
| **Preservative (Type)** | Raw/None |
| **Analysis** | Wet Chemistry - no preservative, no filtration |

SAMPLE HANDLING 2 OF 3

## Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | White |
| **Bottle Volume (mL)** | 250 |
| **Bottle Composition** | Poly |
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | Yes |
| **Preservative (Type)** | Raw/None |
| **Analysis** | Wet Chemistry - no preservative, field-filtered |

SAMPLE HANDLING 3 OF 3

## Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | Green PC |
| **Bottle Volume (mL)** | 125 |
| **Bottle Composition** | Poly |
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | Yes |
| **Preservative (Type)** | Nitric Acid |
| **Analysis** | Metals (dissolved including ICPMS) - nitric preserved, field-filtered |

# Wells - GCC Pueblo Compliance Water Sampling

GCC Pueblo Quarry and Cement Plant
(719) 647-6800
3372 Lime Road
Pueblo, CO 81004
www.gcc.com

| | |
|---|---|
| **Reference Number:** | GCC_RGPP-20220510-1314032001-18246919265 |
| **Form Name:** | Wells - GCC Pueblo Compliance Water Sampling |
| **Submitter Name:** | Amy Veek (amy.veek) \| amy.veek |
| **Submission Date:** | May 10, 2022 3:17:07 PM MDT |

## SITE INFORMATION

### Location

| | |
|---|---|
| **Project Site** | GCC Rio Grande Pueblo Plant |
| **Sample ID** | MW-13 |
| **Water present to measure/sample?** | Yes |
| **Is the water present within 0.25 feet of the well TD?** | No |
| **Wellhead Stick-Up from Ground Level Reference Point to Depth to Water Level Reference Point (ft)** | 2.19 |
| **Static Depth to Water (ft)** | 118.78 |
| **Well Total Depth (ft below top of casing)** | 177.88 |
| **Depth to Water below ground Surface (ft)** | 116.59 |
| **Well Diameter (In)** | 2 |

### Misc

| | |
|---|---|
| **Site Photo** | |

## Water Quality Meter

| | |
|---|---|
| **Water Quality Meter Make/Model/SN** | In-Situ AquaTroll 400 SN 896017 |
| **Calibration Date/Time:** | May 6, 2022 9:00:00 AM MDT |
| **Calibration Parameters** | Specific Conductivity (SC)<br>pH<br>Oxygen Reduction Potential (ORP)<br>Dissolved Oxygen (DO or RDO) |
| **AquaTroll calibration log generated?** | Yes |

# SAMPLING DETAILS

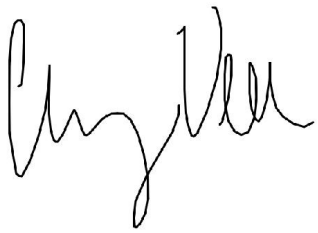
| | |
|---|---|
| **Weather** | Sunny |
| **Air Temperature (°F)** | 64 |
| **Date** | May 10, 2022 |
| **Time** | 11:37:00 AM MDT |

## Sampling

| | |
|---|---|
| **Sample Temperature (°C)** | 17.52 |
| **Specific Conductivity (µS/cm)** | 3190.25 |
| **pH (S.U.)** | 8.38 |
| **Oxygen Reduction Potential (mV)** | -258.33 |
| **Dissolved Oxygen (mg/L)** | 0.01 |
| **Water level measured at sample time?** | Depth to Water (ft TOC) measured at Sample Time |
| **Depth to Water (ft TOC)** | 139.14 |
| **Was flow rate measured?** | Flow Rate was measured. |
| **Flow Rate (gpm)** | 0.40 |
| **Total Purged (gal)** | 30.00 |
| **Geographic Sample Location** | |

| | |
|---|---|
| | latitude: altitude:<br>longitude: [ viewMap ] |
| **Sample(s) collected for laboratory analysis?** | Yes |

## Sampler

| | |
|---|---|
| **Sampler Name** | Amy Veek – GCC Pueblo Environmental Engineer |
| **Sampler's Signature** |  |

# SAMPLE(S) COLLECTED FOR LABORATORY ANALYSIS

## Sample Submittal Information

LAB SAMPLE 1 OF 1

## Details

| | |
|---|---|
| **Method of Sample Collection** | MW-13 – Dedicated Proactive Environmental SS Sample Champ XL 12-volt low-flow submersible pump |
| **Lab Sample Name** | MW-13 |
| **Date** | May 10, 2022 |
| **Time** | 11:37:00 AM MDT |
| **Lab Suite** | GW-Compliance |
| **Number of Bottles/Containers** | 3 |
| **Lab Sample Type** | Normal |

## Sample Handling

SAMPLE HANDLING 1 OF 3

## Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | None |
| **Bottle Volume (mL)** | 500 |
| **Bottle Composition** | Poly |

| | |
|---|---|
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | No |
| **Preservative (Type)** | Raw/None |
| **Analysis** | Wet Chemistry - no preservative, no filtration |

SAMPLE HANDLING 2 OF 3

## Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | White |
| **Bottle Volume (mL)** | 250 |
| **Bottle Composition** | Poly |
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | Yes |
| **Preservative (Type)** | Raw/None |
| **Analysis** | Wet Chemistry - no preservative, field-filtered |

SAMPLE HANDLING 3 OF 3

## Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | Green PC |
| **Bottle Volume (mL)** | 125 |
| **Bottle Composition** | Poly |
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | Yes |
| **Preservative (Type)** | Nitric Acid |
| **Analysis** | Metals (dissolved including ICPMS) - nitric preserved, field-filtered |

# Wells - GCC Pueblo Compliance Water Sampling

GCC Pueblo Quarry and Cement Plant
(719) 647-6800
3372 Lime Road
Pueblo, CO 81004
www.gcc.com

| | |
|---|---|
| **Reference Number:** | GCC_RGPP-20220517-1314032001-18248095617 |
| **Form Name:** | Wells - GCC Pueblo Compliance Water Sampling |
| **Submitter Name:** | Amy Veek (amy.veek) \| amy.veek |
| **Submission Date:** | May 17, 2022 2:34:46 PM MDT |

## SITE INFORMATION

### Location

| | |
|---|---|
| **Project Site** | GCC Rio Grande Pueblo Plant |
| **Sample ID** | MW-14 |
| **Water present to measure/sample?** | Yes |
| **Is the water present within 0.25 feet of the well TD?** | No |
| **Wellhead Stick-Up from Ground Level Reference Point to Depth to Water Level Reference Point (ft)** | 2.11 |
| **Static Depth to Water (ft)** | 108.77 |
| **Well Total Depth (ft below top of casing)** | 207.83 |
| **Depth to Water below ground Surface (ft)** | 106.66 |
| **Well Diameter (In)** | 2 |

### Misc

| | |
|---|---|
| **Site Photo** | |

## Water Quality Meter

| | |
|---|---|
| **Water Quality Meter Make/Model/SN** | In-Situ AquaTroll 400 SN 896017 |
| **Calibration Date/Time:** | May 6, 2022 9:00:00 AM MDT |
| **Calibration Parameters** | Specific Conductivity (SC)<br>pH<br>Oxygen Reduction Potential (ORP)<br>Dissolved Oxygen (DO or RDO) |
| **AquaTroll calibration log generated?** | Yes |

## SAMPLING DETAILS

| | |
|---|---|
| **Weather** | Sunny |
| **Air Temperature (°F)** | 75 |
| **Date** | May 17, 2022 |
| **Time** | 9:32:00 AM MDT |

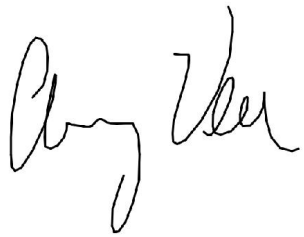
## Sampling

| | |
|---|---|
| **Sample Temperature (°C)** | 17.21 |
| **Specific Conductivity (µS/cm)** | 6740.91 |
| **pH (S.U.)** | 7.68 |
| **Oxygen Reduction Potential (mV)** | 159.98 |
| **Dissolved Oxygen (mg/L)** | 0.26 |
| **Water level measured at sample time?** | Depth to Water (ft TOC) measured at Sample Time |
| **Depth to Water (ft TOC)** | 197.53 |
| **Was flow rate measured?** | Flow Rate was measured. |
| **Flow Rate (gpm)** | 0.01 |
| **Total Purged (gal)** | 20.00 |
| **Geographic Sample Location** | 596G+FG Stem Beach, CO, USA |

| | |
|---|---|
| | latitude: 38.16118927018623 altitude: 1494.14 longitude: -104.62367706259597 [ viewMap ] |
| **Sample(s) collected for laboratory analysis?** | Yes |

## Sampler

| | |
|---|---|
| **Sampler Name** | Amy Veek – GCC Pueblo Environmental Engineer |
| **Sampler's Signature** | |



# SAMPLE(S) COLLECTED FOR LABORATORY ANALYSIS

## Sample Submittal Information

LAB SAMPLE 1 OF 1

### Details

| | |
|---|---|
| **Method of Sample Collection** | MW-14 – Dedicated QED SS Well Wizard T1300 low-flow bladder pump |
| **Lab Sample Name** | MW-14 |
| **Date** | May 17, 2022 |
| **Time** | 9:32:00 AM MDT |
| **Lab Suite** | GW-Compliance |
| **Number of Bottles/Containers** | 3 |
| **Lab Sample Type** | Normal |

## Sample Handling

SAMPLE HANDLING 1 OF 3

### Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | None |
| **Bottle Volume (mL)** | 500 |
| **Bottle Composition** | Poly |
| **Bottle Quantity** | 1 |

| | |
|---|---|
| **Field-Filtered to 0.45 µm (Yes/No)** | No |
| **Preservative (Type)** | Raw/None |
| **Analysis** | Wet Chemistry - no preservative, no filtration |

SAMPLE HANDLING 2 OF 3

## Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | White |
| **Bottle Volume (mL)** | 250 |
| **Bottle Composition** | Poly |
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | Yes |
| **Preservative (Type)** | Raw/None |
| **Analysis** | Wet Chemistry - no preservative, field-filtered |

SAMPLE HANDLING 3 OF 3

## Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | Green PC |
| **Bottle Volume (mL)** | 125 |
| **Bottle Composition** | Poly |
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | Yes |
| **Preservative (Type)** | Nitric Acid |
| **Analysis** | Metals (dissolved including ICPMS) - nitric preserved, field-filtered |

# Wells - GCC Pueblo Compliance Water Sampling

GCC Pueblo Quarry and Cement Plant
(719) 647-6800
3372 Lime Road
Pueblo, CO 81004
www.gcc.com

| | |
|---|---|
| **Reference Number:** | GCC_RGPP-20220823-1314032001-18263957487 |
| **Form Name:** | Wells - GCC Pueblo Compliance Water Sampling |
| **Submitter Name:** | Amy Veek (amy.veek) \| amy.veek |
| **Submission Date:** | Aug 23, 2022 11:43:27 AM MDT |

## SITE INFORMATION

### Location

| | |
|---|---|
| **Project Site** | GCC Rio Grande Pueblo Plant |
| **Sample ID** | MW-6 |
| **Water present to measure/sample?** | Yes |
| **Is the water present within 0.25 feet of the well TD?** | No |
| **Wellhead Stick-Up from Ground Level Reference Point to Depth to Water Level Reference Point (ft)** | 2.52 |
| **Static Depth to Water (ft)** | 16.78 |
| **Well Total Depth (ft below top of casing)** | 56.4 |
| **Depth to Water below ground Surface (ft)** | 14.26 |
| **Well Diameter (In)** | 2 |

### Water Quality Meter

| | |
|---|---|
| **Water Quality Meter Make/Model/SN** | In-Situ AquaTroll 400 SN 896017 |
| **Calibration Date/Time:** | Aug 2, 2022 8:30:00 AM MDT |
| **Calibration Parameters** | Specific Conductivity (SC)<br>pH<br>Oxygen Reduction Potential (ORP)<br>Dissolved Oxygen (DO or RDO) |
| **AquaTroll calibration log generated?** | Yes |

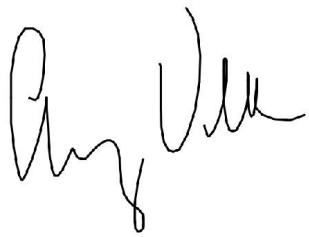
## SAMPLING DETAILS

| | |
|---|---|
| **Weather** | Sunny |
| **Air Temperature (°F)** | 88 |
| **Date** | Aug 15, 2022 |
| **Time** | 11:51:00 AM MDT |

## Sampling

| | |
|---|---|
| **Sample Temperature (°C)** | 20.47 |
| **Are you sure? This value seems very unlikely based on past data.** | Yes |
| **Sample Temperature - Out of Range** | Suspect conditions not observed before but I think the parameter value is accurate |
| **Specific Conductivity (µS/cm)** | 5404.19 |
| **pH (S.U.)** | 7.02 |
| **Oxygen Reduction Potential (mV)** | 40.82 |
| **Dissolved Oxygen (mg/L)** | 1.98 |
| **Water level measured at sample time?** | Depth to Water (ft TOC) measured at Sample Time |
| **Depth to Water (ft TOC)** | 17.36 |
| **Was flow rate measured?** | Flow Rate was measured. |
| **Flow Rate (gpm)** | 0.08 |
| **Total Purged (gal)** | 0.30 |
| **Geographic Sample Location** | latitude: altitude: longitude: [ viewMap ] |
| **Sample(s) collected for laboratory analysis?** | Yes |

## Sampler

| | |
|---|---|
| **Sampler Name** | Amy Veek – GCC Pueblo Environmental Engineer |
| **Sampler's Signature** |  |

# SAMPLE(S) COLLECTED FOR LABORATORY ANALYSIS

## Sample Submittal Information

LAB SAMPLE 1 OF 1

## Details

| | |
|---|---|
| **Method of Sample Collection** | MW-6 – Dedicated Proactive Environmental SS Sample Champ XL 12-volt low-flow submersible pump |
| **Lab Sample Name** | MW-6 |
| **Date** | Aug 15, 2022 |
| **Time** | 11:51:00 AM MDT |
| **Lab Suite** | GW-Compliance |
| **Number of Bottles/Containers** | 3 |
| **Lab Sample Type** | Normal |

## Sample Handling

SAMPLE HANDLING 1 OF 3

### Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | None |
| **Bottle Volume (mL)** | 500 |
| **Bottle Composition** | Poly |
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | No |
| **Preservative (Type)** | Raw/None |
| **Analysis** | Wet Chemistry - no preservative, no filtration |

SAMPLE HANDLING 2 OF 3

### Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | White |
| **Bottle Volume (mL)** | 250 |
| **Bottle Composition** | Poly |
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | Yes |
| **Preservative (Type)** | Raw/None |
| **Analysis** | Wet Chemistry - no preservative, field-filtered |

SAMPLE HANDLING 3 OF 3

### Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | Green PC |
| **Bottle Volume (mL)** | 125 |
| **Bottle Composition** | Poly |
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | Yes |

| | |
|---|---|
| **Preservative (Type)** | Nitric Acid |
| **Analysis** | Metals (dissolved including ICPMS) - nitric preserved, field-filtered |

# Wells - GCC Pueblo Compliance Water Sampling

GCC Pueblo Quarry and Cement Plant
(719) 647-6800
3372 Lime Road
Pueblo, CO 81004
www.gcc.com

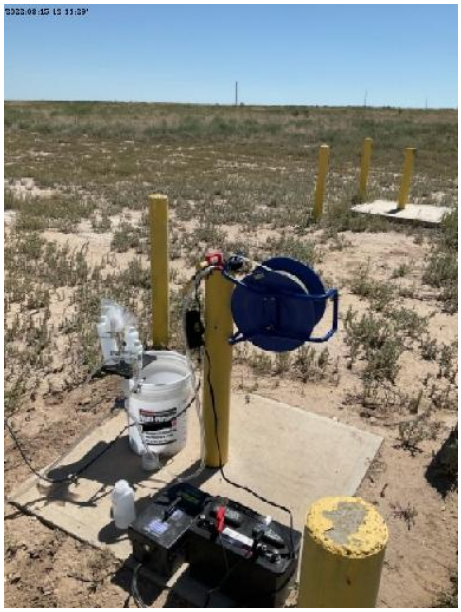
| | |
|---|---|
| **Reference Number:** | GCC_RGPP-20220816-1314032001-18262715601 |
| **Form Name:** | Wells - GCC Pueblo Compliance Water Sampling |
| **Submitter Name:** | Amy Veek (amy.veek) \| amy.veek |
| **Submission Date:** | Aug 16, 2022 8:33:43 AM MDT |

## SITE INFORMATION

### Location

| | |
|---|---|
| **Project Site** | GCC Rio Grande Pueblo Plant |
| **Sample ID** | MW-7 |
| **Water present to measure/sample?** | Yes |
| **Is the water present within 0.25 feet of the well TD?** | No |
| **Wellhead Stick-Up from Ground Level Reference Point to Depth to Water Level Reference Point (ft)** | 2.66 |
| **Static Depth to Water (ft)** | 29.34 |
| **Well Total Depth (ft below top of casing)** | 56.1 |
| **Depth to Water below ground Surface (ft)** | 26.68 |
| **Well Diameter (In)** | 2 |

### Misc

| | |
|---|---|
| **Site Photo** |  |

## Water Quality Meter

| | |
|---|---|
| **Water Quality Meter Make/Model/SN** | In-Situ AquaTroll 400 SN 896017 |
| **Calibration Date/Time:** | Aug 2, 2022 8:30:00 AM MDT |
| **Calibration Parameters** | Specific Conductivity (SC)<br>pH<br>Oxygen Reduction Potential (ORP)<br>Dissolved Oxygen (DO or RDO) |
| **AquaTroll calibration log generated?** | Yes |

# SAMPLING DETAILS

| | |
|---|---|
| **Weather** | Sunny |
| **Air Temperature (°F)** | 88 |
| **Date** | Aug 15, 2022 |
| **Time** | 12:21:00 PM MDT |

## Sampling

| | |
|---|---|
| **Sample Temperature (°C)** | 19.96 |
| **Specific Conductivity (µS/cm)** | 5904.99 |
| **pH (S.U.)** | 6.99 |
| **Oxygen Reduction Potential (mV)** | 35.88 |
| **Dissolved Oxygen (mg/L)** | 1.86 |
| **Water level measured at sample time?** | Depth to Water (ft TOC) measured at Sample Time |
| **Depth to Water (ft TOC)** | 29.69 |
| **Was flow rate measured?** | Flow Rate was measured. |
| **Flow Rate (gpm)** | 0.07 |
| **Total Purged (gal)** | 0.30 |
| **Geographic Sample Location** | |

| | |
|---|---|
| | latitude: altitude:<br>longitude: [ viewMap ] |
| **Sample(s) collected for laboratory analysis?** | Yes |

## Sampler

| | |
|---|---|
| **Sampler Name** | Amy Veek – GCC Pueblo Environmental Engineer |
| **Sampler's Signature** | |

# SAMPLE(S) COLLECTED FOR LABORATORY ANALYSIS

## Sample Submittal Information

LAB SAMPLE 1 OF 1

## Details

| | |
|---|---|
| **Method of Sample Collection** | MW-7 – Dedicated Proactive Environmental SS Sample Champ XL 12-volt low-flow submersible pump |
| **Lab Sample Name** | MW-7 |
| **Date** | Aug 15, 2022 |
| **Time** | 12:21:00 PM MDT |
| **Lab Suite** | GW-Compliance |
| **Number of Bottles/Containers** | 3 |
| **Lab Sample Type** | Normal |

## Sample Handling

SAMPLE HANDLING 1 OF 3

## Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | None |
| **Bottle Volume (mL)** | 500 |
| **Bottle Composition** | Poly |

| | |
|---|---|
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | No |
| **Preservative (Type)** | Raw/None |
| **Analysis** | Wet Chemistry - no preservative, no filtration |

SAMPLE HANDLING 2 OF 3

## Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | White |
| **Bottle Volume (mL)** | 250 |
| **Bottle Composition** | Poly |
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | Yes |
| **Preservative (Type)** | Raw/None |
| **Analysis** | Wet Chemistry - no preservative, field-filtered |

SAMPLE HANDLING 3 OF 3

## Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | Green PC |
| **Bottle Volume (mL)** | 125 |
| **Bottle Composition** | Poly |
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | Yes |
| **Preservative (Type)** | Nitric Acid |
| **Analysis** | Metals (dissolved including ICPMS) - nitric preserved, field-filtered |

# Wells - GCC Pueblo Compliance Water Sampling

GCC Pueblo Quarry and Cement Plant
(719) 647-6800
3372 Lime Road
Pueblo, CO 81004
www.gcc.com

| | |
|---|---|
| **Reference Number:** | GCC_RGPP-20220816-1314032001-18262715630 |
| **Form Name:** | Wells - GCC Pueblo Compliance Water Sampling |
| **Submitter Name:** | Amy Veek (amy.veek) \| amy.veek |
| **Submission Date:** | Aug 16, 2022 8:35:01 AM MDT |

## SITE INFORMATION

### Location

| | |
|---|---|
| **Project Site** | GCC Rio Grande Pueblo Plant |
| **Sample ID** | MW-8 |
| **Water present to measure/sample?** | Yes |
| **Is the water present within 0.25 feet of the well TD?** | No |
| **Wellhead Stick-Up from Ground Level Reference Point to Depth to Water Level Reference Point (ft)** | 2.16 |
| **Static Depth to Water (ft)** | 30.25 |
| **Well Total Depth (ft below top of casing)** | 65.65 |
| **Depth to Water below ground Surface (ft)** | 28.09 |
| **Well Diameter (In)** | 2 |

### Misc

| | |
|---|---|
| **Site Photo** | |

## Water Quality Meter

| | |
|---|---|
| **Water Quality Meter Make/Model/SN** | In-Situ AquaTroll 400 SN 896017 |
| **Calibration Date/Time:** | Aug 2, 2022 8:30:00 AM MDT |
| **Calibration Parameters** | Specific Conductivity (SC)<br>pH<br>Oxygen Reduction Potential (ORP)<br>Dissolved Oxygen (DO or RDO) |
| **AquaTroll calibration log generated?** | Yes |

# SAMPLING DETAILS

| | |
|---|---|
| **Weather** | Sunny |
| **Air Temperature (°F)** | 90 |
| **Date** | Aug 15, 2022 |
| **Time** | 12:41:00 PM MDT |

## Sampling

| | |
|---|---|
| **Sample Temperature (°C)** | 18.81 |
| **Specific Conductivity (µS/cm)** | 5325.16 |
| **pH (S.U.)** | 7.18 |
| **Oxygen Reduction Potential (mV)** | -67.40 |
| **Dissolved Oxygen (mg/L)** | 1.24 |
| **Water level measured at sample time?** | Depth to Water (ft TOC) measured at Sample Time |
| **Depth to Water (ft TOC)** | 36.05 |
| **Was flow rate measured?** | Flow Rate was measured. |
| **Flow Rate (gpm)** | 0.16 |
| **Total Purged (gal)** | 0.40 |
| **Geographic Sample Location** | |

| | |
|---|---|
| | latitude: altitude: longitude: [ viewMap ] |
| **Sample(s) collected for laboratory analysis?** | Yes |

## Sampler

| | |
|---|---|
| **Sampler Name** | Amy Veek – GCC Pueblo Environmental Engineer |
| **Sampler's Signature** | |

# SAMPLE(S) COLLECTED FOR LABORATORY ANALYSIS

## Sample Submittal Information

LAB SAMPLE 1 OF 2

### Details

| | |
|---|---|
| **Method of Sample Collection** | MW-8 – Dedicated Proactive Environmental SS Sample Champ XL 12-volt low-flow submersible pump |
| **Lab Sample Name** | MW-8 |
| **Date** | Aug 15, 2022 |
| **Time** | 12:41:00 PM MDT |
| **Lab Suite** | GW-Compliance |
| **Number of Bottles/Containers** | 3 |
| **Lab Sample Type** | Normal |

LAB SAMPLE 2 OF 2

### Details

| | |
|---|---|
| **Method of Sample Collection** | MW-8 – Dedicated Proactive Environmental SS Sample Champ XL 12-volt low-flow submersible pump |
| **Lab Sample Name** | MW-2B |
| **Date** | Aug 15, 2022 |
| **Time** | 12:00:00 PM MDT |

| | |
|---|---|
| **Lab Suite** | GW-Compliance |
| **Number of Bottles/Containers** | 3 |
| **Lab Sample Type** | Duplicate |

## Sample Handling

SAMPLE HANDLING 1 OF 3

### Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | None |
| **Bottle Volume (mL)** | 500 |
| **Bottle Composition** | Poly |
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | No |
| **Preservative (Type)** | Raw/None |
| **Analysis** | Wet Chemistry - no preservative, no filtration |

SAMPLE HANDLING 2 OF 3

### Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | White |
| **Bottle Volume (mL)** | 250 |
| **Bottle Composition** | Poly |
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | Yes |
| **Preservative (Type)** | Raw/None |
| **Analysis** | Wet Chemistry - no preservative, field-filtered |

SAMPLE HANDLING 3 OF 3

### Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | Green PC |
| **Bottle Volume (mL)** | 125 |
| **Bottle Composition** | Poly |
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | Yes |
| **Preservative (Type)** | Nitric Acid |
| **Analysis** | Metals (dissolved including ICPMS) - nitric preserved, field-filtered |

# Wells - GCC Pueblo Compliance Water Sampling

GCC Pueblo Quarry and Cement Plant
(719) 647-6800
3372 Lime Road
Pueblo, CO 81004
www.gcc.com

| | |
|---|---|
| **Reference Number:** | GCC_RGPP-20220816-1314032001-18262715930 |
| **Form Name:** | Wells - GCC Pueblo Compliance Water Sampling |
| **Submitter Name:** | Amy Veek (amy.veek) \| amy.veek |
| **Submission Date:** | Aug 16, 2022 8:43:26 AM MDT |

## SITE INFORMATION

### Location

| | |
|---|---|
| **Project Site** | GCC Rio Grande Pueblo Plant |
| **Sample ID** | MW-9 |
| **Water present to measure/sample?** | Yes |
| **Is the water present within 0.25 feet of the well TD?** | No |
| **Wellhead Stick-Up from Ground Level Reference Point to Depth to Water Level Reference Point (ft)** | 2.08 |
| **Static Depth to Water (ft)** | 26.42 |
| **Well Total Depth (ft below top of casing)** | 42.23 |
| **Depth to Water below ground Surface (ft)** | 24.34 |
| **Well Diameter (In)** | 2 |

### Misc

| | |
|---|---|
| **Site Photo** | |

## Water Quality Meter

| | |
|---|---|
| **Water Quality Meter Make/Model/SN** | In-Situ AquaTroll 400 SN 896017 |
| **Calibration Date/Time:** | Aug 2, 2022 8:30:00 AM MDT |
| **Calibration Parameters** | Specific Conductivity (SC)<br>pH<br>Oxygen Reduction Potential (ORP)<br>Dissolved Oxygen (DO or RDO) |
| **AquaTroll calibration log generated?** | Yes |

# SAMPLING DETAILS

| | |
|---|---|
| **Weather** | Sunny |
| **Air Temperature (°F)** | 92 |
| **Date** | Aug 15, 2022 |
| **Time** | 3:57:00 PM MDT |

## Sampling

| | |
|---|---|
| **Sample Temperature (°C)** | 18.94 |
| **Specific Conductivity (µS/cm)** | 4998.30 |
| **pH (S.U.)** | 6.86 |
| **Oxygen Reduction Potential (mV)** | -41.70 |
| **Dissolved Oxygen (mg/L)** | 0.68 |
| **Water level measured at sample time?** | Depth to Water (ft TOC) measured at Sample Time |
| **Depth to Water (ft TOC)** | 27.72 |
| **Was flow rate measured?** | Flow Rate was measured. |
| **Flow Rate (gpm)** | 0.09 |
| **Total Purged (gal)** | 0.20 |

| | |
|---|---|
| **Geographic Sample Location** | 3372 Lime Rd, North Avondale, CO 81022, USA<br>latitude: 38.129265612357706 altitude: 1534.572<br>longitude: -104.6064037193121 [ viewMap ] |
| **Sample(s) collected for laboratory analysis?** | Yes |

## Sampler

| | |
|---|---|
| **Sampler Name** | Amy Veek – GCC Pueblo Environmental Engineer |
| **Sampler's Signature** | |

# SAMPLE(S) COLLECTED FOR LABORATORY ANALYSIS

## Sample Submittal Information

LAB SAMPLE 1 OF 1

## Details

| | |
|---|---|
| **Method of Sample Collection** | MW-9 – Dedicated Proactive Environmental SS Sample Champ XL 12-volt low-flow submersible pump |
| **Lab Sample Name** | MW-9 |
| **Date** | Aug 15, 2022 |
| **Time** | 3:57:00 PM MDT |
| **Lab Suite** | GW-Compliance |
| **Number of Bottles/Containers** | 3 |
| **Lab Sample Type** | Normal |

## Sample Handling

SAMPLE HANDLING 1 OF 3

## Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | None |

| | |
|---|---|
| **Bottle Volume (mL)** | 500 |
| **Bottle Composition** | Poly |
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | No |
| **Preservative (Type)** | Raw/None |
| **Analysis** | Wet Chemistry - no preservative, no filtration |

SAMPLE HANDLING 2 OF 3

## Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | White |
| **Bottle Volume (mL)** | 250 |
| **Bottle Composition** | Poly |
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | Yes |
| **Preservative (Type)** | Raw/None |
| **Analysis** | Wet Chemistry - no preservative, field-filtered |

SAMPLE HANDLING 3 OF 3

## Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | Green PC |
| **Bottle Volume (mL)** | 125 |
| **Bottle Composition** | Poly |
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | Yes |
| **Preservative (Type)** | Nitric Acid |
| **Analysis** | Metals (dissolved including ICPMS) - nitric preserved, field-filtered |

# Wells - GCC Pueblo Compliance Water Sampling

GCC Pueblo Quarry and Cement Plant
(719) 647-6800
3372 Lime Road
Pueblo, CO 81004
www.gcc.com

| | |
|---|---|
| **Reference Number:** | GCC_RGPP-20220816-1314032001-18262715788 |
| **Form Name:** | Wells - GCC Pueblo Compliance Water Sampling |
| **Submitter Name:** | Amy Veek (amy.veek) \| amy.veek |
| **Submission Date:** | Aug 16, 2022 8:40:02 AM MDT |

## SITE INFORMATION

### Location

| | |
|---|---|
| **Project Site** | GCC Rio Grande Pueblo Plant |
| **Sample ID** | MW-10 |
| **Water present to measure/sample?** | Yes |
| **Is the water present within 0.25 feet of the well TD?** | No |
| **Wellhead Stick-Up from Ground Level Reference Point to Depth to Water Level Reference Point (ft)** | 2.24 |
| **Static Depth to Water (ft)** | 26.04 |
| **Well Total Depth (ft below top of casing)** | 82.55 |
| **Depth to Water below ground Surface (ft)** | 23.80 |
| **Well Diameter (In)** | 2 |

### Misc

| | |
|---|---|
| **Site Photo** | |

## Water Quality Meter

| | |
|---|---|
| **Water Quality Meter Make/Model/SN** | In-Situ AquaTroll 400 SN 896017 |
| **Calibration Date/Time:** | Aug 2, 2022 8:30:00 AM MDT |
| **Calibration Parameters** | Specific Conductivity (SC)<br>pH<br>Oxygen Reduction Potential (ORP)<br>Dissolved Oxygen (DO or RDO) |
| **AquaTroll calibration log generated?** | Yes |

# SAMPLING DETAILS

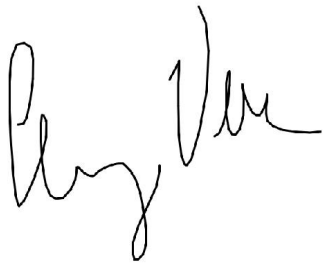
| | |
|---|---|
| **Weather** | Sunny |
| **Air Temperature (°F)** | 92 |
| **Date** | Aug 15, 2022 |
| **Time** | 3:23:00 PM MDT |

## Sampling

| | |
|---|---|
| **Sample Temperature (°C)** | 18.81 |
| **Specific Conductivity (µS/cm)** | 5812.67 |
| **pH (S.U.)** | 7.56 |
| **Oxygen Reduction Potential (mV)** | -143.91 |
| **Dissolved Oxygen (mg/L)** | 0.41 |
| **Water level measured at sample time?** | Depth to Water (ft TOC) measured at Sample Time |
| **Depth to Water (ft TOC)** | 30.90 |
| **Was flow rate measured?** | Flow Rate was measured. |
| **Flow Rate (gpm)** | 0.13 |
| **Total Purged (gal)** | 0.50 |
| **Geographic Sample Location** | |

| | |
|---|---|
| | latitude: altitude: longitude: [ viewMap ] |
| **Sample(s) collected for laboratory analysis?** | Yes |

## Sampler

| | |
|---|---|
| **Sampler Name** | Amy Veek – GCC Pueblo Environmental Engineer |
| **Sampler's Signature** |  |

# SAMPLE(S) COLLECTED FOR LABORATORY ANALYSIS

## Sample Submittal Information

LAB SAMPLE 1 OF 1

## Details

| | |
|---|---|
| **Method of Sample Collection** | MW-10 – Dedicated Proactive Environmental SS Sample Champ XL 12-volt low-flow submersible pump |
| **Lab Sample Name** | MW-10 |
| **Date** | Aug 15, 2022 |
| **Time** | 3:23:00 PM MDT |
| **Lab Suite** | GW-Compliance |
| **Number of Bottles/Containers** | 3 |
| **Lab Sample Type** | Normal |

## Sample Handling

SAMPLE HANDLING 1 OF 3

## Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | None |
| **Bottle Volume (mL)** | 500 |
| **Bottle Composition** | Poly |

| | |
|---|---|
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | No |
| **Preservative (Type)** | Raw/None |
| **Analysis** | Wet Chemistry - no preservative, no filtration |

SAMPLE HANDLING 2 OF 3

## Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | White |
| **Bottle Volume (mL)** | 250 |
| **Bottle Composition** | Poly |
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | Yes |
| **Preservative (Type)** | Raw/None |
| **Analysis** | Wet Chemistry - no preservative, field-filtered |

SAMPLE HANDLING 3 OF 3

## Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | Green PC |
| **Bottle Volume (mL)** | 125 |
| **Bottle Composition** | Poly |
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | Yes |
| **Preservative (Type)** | Nitric Acid |
| **Analysis** | Metals (dissolved including ICPMS) - nitric preserved, field-filtered |

# Wells - GCC Pueblo Compliance Water Sampling

GCC Pueblo Quarry and Cement Plant
(719) 647-6800
3372 Lime Road
Pueblo, CO 81004
www.gcc.com

| | |
|---|---|
| **Reference Number:** | GCC_RGPP-20220816-1314032001-18262715665 |
| **Form Name:** | Wells - GCC Pueblo Compliance Water Sampling |
| **Submitter Name:** | Amy Veek (amy.veek) \| amy.veek |
| **Submission Date:** | Aug 16, 2022 8:36:56 AM MDT |

## SITE INFORMATION

### Location

| | |
|---|---|
| **Project Site** | GCC Rio Grande Pueblo Plant |
| **Sample ID** | MW-11 |
| **Water present to measure/sample?** | Yes |
| **Is the water present within 0.25 feet of the well TD?** | No |
| **Wellhead Stick-Up from Ground Level Reference Point to Depth to Water Level Reference Point (ft)** | 2.18 |
| **Static Depth to Water (ft)** | 54.00 |
| **Well Total Depth (ft below top of casing)** | 72.68 |
| **Depth to Water below ground Surface (ft)** | 51.82 |
| **Well Diameter (In)** | 2 |

### Misc

| | |
|---|---|
| **Site Photo** | |

## Water Quality Meter

| | |
|---|---|
| **Water Quality Meter Make/Model/SN** | In-Situ AquaTroll 400 SN 896017 |
| **Calibration Date/Time:** | Aug 2, 2022 8:30:00 AM MDT |
| **Calibration Parameters** | Specific Conductivity (SC)<br>pH<br>Oxygen Reduction Potential (ORP)<br>Dissolved Oxygen (DO or RDO) |
| **AquaTroll calibration log generated?** | Yes |

# SAMPLING DETAILS

| | |
|---|---|
| **Weather** | Sunny |
| **Air Temperature (°F)** | 92 |
| **Date** | Aug 15, 2022 |
| **Time** | 2:33:00 PM MDT |

## Sampling

| | |
|---|---|
| **Sample Temperature (°C)** | 18.75 |
| **Specific Conductivity (µS/cm)** | 2619.29 |
| **pH (S.U.)** | 7.37 |
| **Oxygen Reduction Potential (mV)** | -298.75 |
| **Dissolved Oxygen (mg/L)** | 0.10 |
| **Water level measured at sample time?** | Depth to Water (ft TOC) measured at Sample Time |
| **Depth to Water (ft TOC)** | 55.86 |
| **Was flow rate measured?** | Flow Rate was measured. |
| **Flow Rate (gpm)** | 0.09 |
| **Total Purged (gal)** | 0.40 |
| **Geographic Sample Location** | |

| | |
|---|---|
| | latitude: altitude:<br>longitude: [ viewMap ] |
| **Sample(s) collected for laboratory analysis?** | Yes |

## Sampler

| | |
|---|---|
| **Sampler Name** | Amy Veek – GCC Pueblo Environmental Engineer |
| **Sampler's Signature** | |

# SAMPLE(S) COLLECTED FOR LABORATORY ANALYSIS

## Sample Submittal Information

LAB SAMPLE 1 OF 1

## Details

| | |
|---|---|
| **Method of Sample Collection** | MW-11 – Dedicated Proactive Environmental SS Sample Champ XL 12-volt low-flow submersible pump |
| **Lab Sample Name** | MW-11 |
| **Date** | Aug 15, 2022 |
| **Time** | 2:33:00 PM MDT |
| **Lab Suite** | GW-Compliance |
| **Number of Bottles/Containers** | 3 |
| **Lab Sample Type** | Normal |

## Sample Handling

SAMPLE HANDLING 1 OF 3

## Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | None |
| **Bottle Volume (mL)** | 500 |
| **Bottle Composition** | Poly |

| | |
|---|---|
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | No |
| **Preservative (Type)** | Raw/None |
| **Analysis** | Wet Chemistry - no preservative, no filtration |

SAMPLE HANDLING 2 OF 3

## Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | White |
| **Bottle Volume (mL)** | 250 |
| **Bottle Composition** | Poly |
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | Yes |
| **Preservative (Type)** | Raw/None |
| **Analysis** | Wet Chemistry - no preservative, field-filtered |

SAMPLE HANDLING 3 OF 3

## Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | Green PC |
| **Bottle Volume (mL)** | 125 |
| **Bottle Composition** | Poly |
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | Yes |
| **Preservative (Type)** | Nitric Acid |
| **Analysis** | Metals (dissolved including ICPMS) - nitric preserved, field-filtered |

# Wells - GCC Pueblo Compliance Water Sampling

GCC Pueblo Quarry and Cement Plant
(719) 647-6800
3372 Lime Road
Pueblo, CO 81004
www.gcc.com

| | |
|---|---|
| **Reference Number:** | GCC_RGPP-20220816-1314032001-18262719080 |
| **Form Name:** | Wells - GCC Pueblo Compliance Water Sampling |
| **Submitter Name:** | Amy Veek (amy.veek) \| amy.veek |
| **Submission Date:** | Aug 16, 2022 8:46:00 AM MDT |

## SITE INFORMATION

### Location

| | |
|---|---|
| **Project Site** | GCC Rio Grande Pueblo Plant |
| **Sample ID** | MW-12 |
| **Water present to measure/sample?** | Yes |
| **Is the water present within 0.25 feet of the well TD?** | No |
| **Wellhead Stick-Up from Ground Level Reference Point to Depth to Water Level Reference Point (ft)** | 2.29 |
| **Static Depth to Water (ft)** | 79.28 |
| **Well Total Depth (ft below top of casing)** | 88.8 |
| **Depth to Water below ground Surface (ft)** | 76.99 |
| **Well Diameter (In)** | 2 |

### Misc

| | |
|---|---|
| **Site Photo** | |

## Water Quality Meter

| | |
|---|---|
| **Water Quality Meter Make/Model/SN** | In-Situ AquaTroll 400 SN 896017 |
| **Calibration Date/Time:** | Aug 2, 2022 8:30:00 AM MDT |
| **Calibration Parameters** | Specific Conductivity (SC)<br>pH<br>Oxygen Reduction Potential (ORP)<br>Dissolved Oxygen (DO or RDO) |
| **AquaTroll calibration log generated?** | Yes |

# SAMPLING DETAILS

| | |
|---|---|
| **Weather** | Sunny |
| **Air Temperature (°F)** | 92 |
| **Date** | Aug 15, 2022 |
| **Time** | 2:15:00 PM MDT |

## Sampling

| | |
|---|---|
| **Sample Temperature (°C)** | 18.00 |
| **Specific Conductivity (µS/cm)** | 4218.59 |
| **pH (S.U.)** | 7.69 |
| **Oxygen Reduction Potential (mV)** | 3.92 |
| **Dissolved Oxygen (mg/L)** | 0.07 |
| **Water level measured at sample time?** | Depth to Water (ft TOC) measured at Sample Time |
| **Depth to Water (ft TOC)** | 81.63 |
| **Was flow rate measured?** | Flow Rate was measured. |
| **Flow Rate (gpm)** | 0.20 |
| **Total Purged (gal)** | 0.50 |

| | |
|---|---|
| **Geographic Sample Location** | 3372 Lime Rd, North Avondale, CO 81022, USA<br>latitude: 38.12928771446313 altitude: 1534.5697<br>longitude: -104.60633085537432 [ viewMap ] |
| **Sample(s) collected for laboratory analysis?** | Yes |

## Sampler

| | |
|---|---|
| **Sampler Name** | Amy Veek – GCC Pueblo Environmental Engineer |
| **Sampler's Signature** | |

# SAMPLE(S) COLLECTED FOR LABORATORY ANALYSIS

## Sample Submittal Information

LAB SAMPLE 1 OF 1

## Details

| | |
|---|---|
| **Method of Sample Collection** | MW-12 – Dedicated Proactive Environmental SS Sample Champ XL 12-volt low-flow submersible pump |
| **Lab Sample Name** | MW-12 |
| **Date** | Aug 15, 2022 |
| **Time** | 2:15:00 PM MDT |
| **Lab Suite** | GW-Compliance |
| **Number of Bottles/Containers** | 3 |
| **Lab Sample Type** | Normal |

## Sample Handling

SAMPLE HANDLING 1 OF 3

## Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | None |

| | |
|---|---|
| **Bottle Volume (mL)** | 500 |
| **Bottle Composition** | Poly |
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | No |
| **Preservative (Type)** | Raw/None |
| **Analysis** | Wet Chemistry - no preservative, no filtration |

SAMPLE HANDLING 2 OF 3

## Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | White |
| **Bottle Volume (mL)** | 250 |
| **Bottle Composition** | Poly |
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | Yes |
| **Preservative (Type)** | Raw/None |
| **Analysis** | Wet Chemistry - no preservative, field-filtered |

SAMPLE HANDLING 3 OF 3

## Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | Green PC |
| **Bottle Volume (mL)** | 125 |
| **Bottle Composition** | Poly |
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | Yes |
| **Preservative (Type)** | Nitric Acid |
| **Analysis** | Metals (dissolved including ICPMS) - nitric preserved, field-filtered |

# Wells - GCC Pueblo Compliance Water Sampling

GCC Pueblo Quarry and Cement Plant
(719) 647-6800
3372 Lime Road
Pueblo, CO 81004
www.gcc.com

| | |
|---|---|
| **Reference Number:** | GCC_RGPP-20220816-1314032001-18262715534 |
| **Form Name:** | Wells - GCC Pueblo Compliance Water Sampling |
| **Submitter Name:** | Amy Veek (amy.veek) \| amy.veek |
| **Submission Date:** | Aug 16, 2022 8:31:05 AM MDT |

## SITE INFORMATION

### Location

| | |
|---|---|
| **Project Site** | GCC Rio Grande Pueblo Plant |
| **Sample ID** | MW-13 |
| **Water present to measure/sample?** | Yes |
| **Is the water present within 0.25 feet of the well TD?** | Yes |
| **Wellhead Stick-Up from Ground Level Reference Point to Depth to Water Level Reference Point (ft)** | 2.19 |
| **Static Depth to Water (ft)** | 119.21 |
| **Well Total Depth (ft below top of casing)** | 177.88 |
| **Depth to Water below ground Surface (ft)** | 117.02 |
| **Well Diameter (In)** | 2 |

### Misc

| | |
|---|---|
| **Site Photo** | |

## Water Quality Meter

| | |
|---|---|
| **Water Quality Meter Make/Model/SN** | In-Situ AquaTroll 400 SN 896017 |
| **Calibration Date/Time:** | Aug 2, 2022 8:30:00 AM MDT |
| **Calibration Parameters** | Specific Conductivity (SC)<br>pH<br>Oxygen Reduction Potential (ORP)<br>Dissolved Oxygen (DO or RDO) |
| **AquaTroll calibration log generated?** | Yes |

## SAMPLING DETAILS

| | |
|---|---|
| **Weather** | Sunny |
| **Air Temperature (°F)** | 79 |
| **Date** | Aug 15, 2022 |
| **Time** | 10:57:00 AM MDT |

## Sampling

| | |
|---|---|
| **Sample Temperature (°C)** | 19.05 |
| **Specific Conductivity (µS/cm)** | 4115.49 |
| **pH (S.U.)** | 7.89 |
| **Oxygen Reduction Potential (mV)** | -134.56 |
| **Dissolved Oxygen (mg/L)** | 0.72 |
| **Water level measured at sample time?** | Depth to Water (ft TOC) measured at Sample Time |
| **Depth to Water (ft TOC)** | 119.16 |
| **Was flow rate measured?** | Flow Rate was measured. |
| **Flow Rate (gpm)** | 0.08 |
| **Total Purged (gal)** | 1.00 |

| | |
|---|---|
| **Geographic Sample Location** | 3372 Lime Rd, North Avondale, CO 81022, USA<br>latitude: 38.129596597869266 altitude: 1537.2799<br>longitude: -104.60718527626986 [ viewMap ] |
| **Sample(s) collected for laboratory analysis?** | Yes |

## Sampler

| | |
|---|---|
| **Sampler Name** | Amy Veek – GCC Pueblo Environmental Engineer |
| **Sampler's Signature** | |

# SAMPLE(S) COLLECTED FOR LABORATORY ANALYSIS

## Sample Submittal Information

LAB SAMPLE 1 OF 1

## Details

| | |
|---|---|
| **Method of Sample Collection** | MW-13 – Dedicated Proactive Environmental SS Sample Champ XL 12-volt low-flow submersible pump |
| **Lab Sample Name** | MW-13 |
| **Date** | Aug 15, 2022 |
| **Time** | 10:57:00 AM MDT |
| **Lab Suite** | GW-Compliance |
| **Number of Bottles/Containers** | 3 |
| **Lab Sample Type** | Normal |

## Sample Handling

SAMPLE HANDLING 1 OF 3

## Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | None |

| | |
|---|---|
| **Bottle Volume (mL)** | 500 |
| **Bottle Composition** | Poly |
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | No |
| **Preservative (Type)** | Raw/None |
| **Analysis** | Wet Chemistry - no preservative, no filtration |

SAMPLE HANDLING 2 OF 3

## Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | White |
| **Bottle Volume (mL)** | 250 |
| **Bottle Composition** | Poly |
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | Yes |
| **Preservative (Type)** | Raw/None |
| **Analysis** | Wet Chemistry - no preservative, field-filtered |

SAMPLE HANDLING 3 OF 3

## Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | Green PC |
| **Bottle Volume (mL)** | 125 |
| **Bottle Composition** | Poly |
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | Yes |
| **Preservative (Type)** | Nitric Acid |
| **Analysis** | Metals (dissolved including ICPMS) - nitric preserved, field-filtered |

# Wells - GCC Pueblo Compliance Water Sampling

GCC Pueblo Quarry and Cement Plant
(719) 647-6800
3372 Lime Road
Pueblo, CO 81004
www.gcc.com

| | |
|---|---|
| **Reference Number:** | GCC_RGPP-20220816-1314032001-18262715569 |
| **Form Name:** | Wells - GCC Pueblo Compliance Water Sampling |
| **Submitter Name:** | Amy Veek (amy.veek) \| amy.veek |
| **Submission Date:** | Aug 16, 2022 8:32:25 AM MDT |

## SITE INFORMATION

### Location

| | |
|---|---|
| **Project Site** | GCC Rio Grande Pueblo Plant |
| **Sample ID** | MW-14 |
| **Water present to measure/sample?** | Yes |
| **Is the water present within 0.25 feet of the well TD?** | Yes |
| **Wellhead Stick-Up from Ground Level Reference Point to Depth to Water Level Reference Point (ft)** | 2.11 |
| **Static Depth to Water (ft)** | 95.53 |
| **Well Total Depth (ft below top of casing)** | 207.83 |
| **Depth to Water below ground Surface (ft)** | 93.42 |
| **Well Diameter (In)** | 2 |

### Misc

| | |
|---|---|
| **Site Photo** | |

## Water Quality Meter

| | |
|---|---|
| **Water Quality Meter Make/Model/SN** | In-Situ AquaTroll 400 SN 896017 |
| **Calibration Date/Time:** | Aug 2, 2022 8:30:00 AM MDT |
| **Calibration Parameters** | Specific Conductivity (SC)<br>pH<br>Oxygen Reduction Potential (ORP)<br>Dissolved Oxygen (DO or RDO) |
| **AquaTroll calibration log generated?** | Yes |

## SAMPLING DETAILS

| | |
|---|---|
| **Weather** | Sunny |
| **Air Temperature (°F)** | 75 |
| **Date** | Aug 15, 2022 |
| **Time** | 10:03:00 AM MDT |

## Sampling

| | |
|---|---|
| **Sample Temperature (°C)** | 18.19 |
| **Specific Conductivity (µS/cm)** | 5626.25 |
| **pH (S.U.)** | 7.66 |
| **Oxygen Reduction Potential (mV)** | -26.67 |
| **Dissolved Oxygen (mg/L)** | 0.00 |
| **Water level measured at sample time?** | Depth to Water (ft TOC) measured at Sample Time |
| **Depth to Water (ft TOC)** | 103.11 |
| **Was flow rate measured?** | Flow Rate was measured. |
| **Flow Rate (gpm)** | 0.07 |
| **Total Purged (gal)** | 1.20 |
| **Geographic Sample Location** | 19 Pasadena Dr, Pueblo, CO 81005, USA |

| | |
|---|---|
| | latitude: 38.211265178037316 altitude: 1533.0509<br>longitude: -104.66807324235701 [ viewMap ] |
| **Sample(s) collected for laboratory analysis?** | Yes |

## Sampler

| | |
|---|---|
| **Sampler Name** | Amy Veek – GCC Pueblo Environmental Engineer |
| **Sampler's Signature** | |

# SAMPLE(S) COLLECTED FOR LABORATORY ANALYSIS

## Sample Submittal Information

LAB SAMPLE 1 OF 1

## Details

| | |
|---|---|
| **Method of Sample Collection** | MW-14 – Dedicated QED SS Well Wizard T1300 low-flow bladder pump |
| **Lab Sample Name** | MW-14 |
| **Date** | Aug 15, 2022 |
| **Time** | 10:03:00 AM MDT |
| **Lab Suite** | GW-Compliance |
| **Number of Bottles/Containers** | 3 |
| **Lab Sample Type** | Normal |

## Sample Handling

SAMPLE HANDLING 1 OF 3

## Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | None |
| **Bottle Volume (mL)** | 500 |
| **Bottle Composition** | Poly |

| | |
|---|---|
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | No |
| **Preservative (Type)** | Raw/None |
| **Analysis** | Wet Chemistry - no preservative, no filtration |

SAMPLE HANDLING 2 OF 3

## Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | White |
| **Bottle Volume (mL)** | 250 |
| **Bottle Composition** | Poly |
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | Yes |
| **Preservative (Type)** | Raw/None |
| **Analysis** | Wet Chemistry - no preservative, field-filtered |

SAMPLE HANDLING 3 OF 3

## Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | Green PC |
| **Bottle Volume (mL)** | 125 |
| **Bottle Composition** | Poly |
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | Yes |
| **Preservative (Type)** | Nitric Acid |
| **Analysis** | Metals (dissolved including ICPMS) - nitric preserved, field-filtered |

# Wells - GCC Pueblo Compliance Water Sampling

GCC Pueblo Quarry and Cement Plant
(719) 647-6800
3372 Lime Road
Pueblo, CO 81004
www.gcc.com

| | |
|---|---|
| **Reference Number:** | GCC_RGPP-20221108-1314032001-18276503084 |
| **Form Name:** | Wells - GCC Pueblo Compliance Water Sampling |
| **Submitter Name:** | Amy Veek (amy.veek) \| amy.veek |
| **Submission Date:** | Nov 8, 2022 1:46:34 PM MST |

## SITE INFORMATION

### Location

| | |
|---|---|
| **Project Site** | GCC Rio Grande Pueblo Plant |
| **Sample ID** | MW-5 |
| **Water present to measure/sample?** | No |
| **Is the water present within 0.25 feet of the well TD?** | No |
| **Dry Well** | Yes |

### Misc

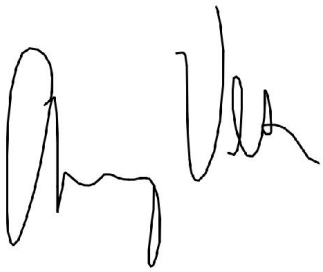
**Site Photo**

## SAMPLING DETAILS

| | |
|---|---|
| **Weather** | Partly Sunny |
| **Air Temperature (°F)** | 45 |

| | |
|---|---|
| **Date** | Nov 8, 2022 |
| **Time** | 9:18:00 AM MST |

## Sampler

| | |
|---|---|
| **Sampler Name** | Amy Veek – GCC Pueblo Environmental Engineer |
| **Sampler's Signature** |  |

# Wells - GCC Pueblo Compliance Water Sampling

GCC Pueblo Quarry and Cement Plant
(719) 647-6800
3372 Lime Road
Pueblo, CO 81004
www.gcc.com

| | |
|---|---|
| **Reference Number:** | GCC_RGPP-20221108-1314032001-18276503041 |
| **Form Name:** | Wells - GCC Pueblo Compliance Water Sampling |
| **Submitter Name:** | Amy Veek (amy.veek) \| amy.veek |
| **Submission Date:** | Nov 8, 2022 1:43:28 PM MST |

## SITE INFORMATION

### Location

| | |
|---|---|
| **Project Site** | GCC Rio Grande Pueblo Plant |
| **Sample ID** | MW-6 |
| **Water present to measure/sample?** | Yes |
| **Is the water present within 0.25 feet of the well TD?** | No |
| **Wellhead Stick-Up from Ground Level Reference Point to Depth to Water Level Reference Point (ft)** | 2.52 |
| **Static Depth to Water (ft)** | 33.62 |
| **Well Total Depth (ft below top of casing)** | 56.4 |
| **Depth to Water below ground Surface (ft)** | 31.10 |
| **Well Diameter (In)** | 2 |

### Misc

| | |
|---|---|
| **Site Photo** | |

## Water Quality Meter

| | |
|---|---|
| **Water Quality Meter Make/Model/SN** | In-Situ AquaTroll 400 SN 896017 |
| **Calibration Date/Time:** | Nov 7, 2022 9:15:00 AM MST |
| **Calibration Parameters** | Specific Conductivity (SC)<br>pH<br>Oxygen Reduction Potential (ORP)<br>Dissolved Oxygen (DO or RDO) |
| **AquaTroll calibration log generated?** | Yes |

# SAMPLING DETAILS

| | |
|---|---|
| **Weather** | Partly Sunny |
| **Air Temperature (°F)** | 42 |
| **Date** | Nov 7, 2022 |
| **Time** | 10:42:00 AM MST |

## Sampling

| | |
|---|---|
| **Sample Temperature (°C)** | 15.67 |
| **Specific Conductivity (µS/cm)** | 5310.75 |
| **pH (S.U.)** | 6.92 |
| **Oxygen Reduction Potential (mV)** | 46.63 |
| **Dissolved Oxygen (mg/L)** | 0.00 |
| **Water level measured at sample time?** | Depth to Water (ft TOC) measured at Sample Time |
| **Depth to Water (ft TOC)** | 34.88 |
| **Was flow rate measured?** | Flow Rate was measured. |
| **Flow Rate (gpm)** | 0.09 |
| **Total Purged (gal)** | 0.60 |
| **Geographic Sample Location** | |

| | |
|---|---|
| | latitude: altitude:<br>longitude: [ viewMap ] |
| **Sample(s) collected for laboratory analysis?** | Yes |

## Sampler

| | |
|---|---|
| **Sampler Name** | Amy Veek – GCC Pueblo Environmental Engineer |
| **Sampler's Signature** | |

# SAMPLE(S) COLLECTED FOR LABORATORY ANALYSIS

## Sample Submittal Information

LAB SAMPLE 1 OF 1

## Details

| | |
|---|---|
| **Method of Sample Collection** | MW-6 – Dedicated Proactive Environmental SS Sample Champ XL 12-volt low-flow submersible pump |
| **Lab Sample Name** | MW-6 |
| **Date** | Nov 7, 2022 |
| **Time** | 10:42:00 AM MST |
| **Lab Suite** | GW-Compliance |
| **Number of Bottles/Containers** | 3 |
| **Lab Sample Type** | Normal |

## Sample Handling

SAMPLE HANDLING 1 OF 3

## Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | None |
| **Bottle Volume (mL)** | 500 |
| **Bottle Composition** | Poly |

| | |
|---|---|
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | No |
| **Preservative (Type)** | Raw/None |
| **Analysis** | Wet Chemistry - no preservative, no filtration |

SAMPLE HANDLING 2 OF 3

## Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | White |
| **Bottle Volume (mL)** | 250 |
| **Bottle Composition** | Poly |
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | Yes |
| **Preservative (Type)** | Raw/None |
| **Analysis** | Wet Chemistry - no preservative, field-filtered |

SAMPLE HANDLING 3 OF 3

## Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | Green PC |
| **Bottle Volume (mL)** | 125 |
| **Bottle Composition** | Poly |
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | Yes |
| **Preservative (Type)** | Nitric Acid |
| **Analysis** | Metals (dissolved including ICPMS) - nitric preserved, field-filtered |

# Wells - GCC Pueblo Compliance Water Sampling

GCC Pueblo Quarry and Cement Plant
(719) 647-6800
3372 Lime Road
Pueblo, CO 81004
www.gcc.com

| | |
|---|---|
| **Reference Number:** | GCC_RGPP-20221108-1314032001-18276503060 |
| **Form Name:** | Wells - GCC Pueblo Compliance Water Sampling |
| **Submitter Name:** | Amy Veek (amy.veek) \| amy.veek |
| **Submission Date:** | Nov 8, 2022 1:45:05 PM MST |

## SITE INFORMATION

### Location

| | |
|---|---|
| **Project Site** | GCC Rio Grande Pueblo Plant |
| **Sample ID** | MW-7 |
| **Water present to measure/sample?** | Yes |
| **Is the water present within 0.25 feet of the well TD?** | No |
| **Wellhead Stick-Up from Ground Level Reference Point to Depth to Water Level Reference Point (ft)** | 2.66 |
| **Static Depth to Water (ft)** | 33.53 |
| **Well Total Depth (ft below top of casing)** | 56.1 |
| **Depth to Water below ground Surface (ft)** | 30.87 |
| **Well Diameter (In)** | 2 |

### Misc

| | |
|---|---|
| **Site Photo** | |

## Water Quality Meter

| | |
|---|---|
| **Water Quality Meter Make/Model/SN** | In-Situ AquaTroll 400 SN 896017 |
| **Calibration Date/Time:** | Nov 7, 2022 9:15:00 AM MST |
| **Calibration Parameters** | Specific Conductivity (SC)<br>pH<br>Oxygen Reduction Potential (ORP)<br>Dissolved Oxygen (DO or RDO) |
| **AquaTroll calibration log generated?** | Yes |

# SAMPLING DETAILS

| | |
|---|---|
| **Weather** | Partly Sunny |
| **Air Temperature (°F)** | 51 |
| **Date** | Nov 7, 2022 |
| **Time** | 1:44:00 PM MST |

## Sampling

| | |
|---|---|
| **Sample Temperature (°C)** | 15.17 |
| **Specific Conductivity (µS/cm)** | 4727.11 |
| **pH (S.U.)** | 7.08 |
| **Oxygen Reduction Potential (mV)** | 20.89 |
| **Dissolved Oxygen (mg/L)** | 0.00 |
| **Water level measured at sample time?** | Depth to Water (ft TOC) measured at Sample Time |
| **Depth to Water (ft TOC)** | 33.56 |
| **Was flow rate measured?** | Flow Rate was measured. |
| **Flow Rate (gpm)** | 0.02 |
| **Total Purged (gal)** | 0.30 |
| **Geographic Sample Location** | |

| | |
|---|---|
| | latitude: altitude:<br>longitude: [ viewMap ] |
| **Sample(s) collected for laboratory analysis?** | Yes |

## Sampler

| | |
|---|---|
| **Sampler Name** | Amy Veek – GCC Pueblo Environmental Engineer |
| **Sampler's Signature** | |

# SAMPLE(S) COLLECTED FOR LABORATORY ANALYSIS

## Sample Submittal Information

LAB SAMPLE 1 OF 1

### Details

| | |
|---|---|
| **Method of Sample Collection** | MW-7 – Dedicated Proactive Environmental SS Sample Champ XL 12-volt low-flow submersible pump |
| **Lab Sample Name** | MW-7 |
| **Date** | Nov 7, 2022 |
| **Time** | 1:44:00 PM MST |
| **Lab Suite** | GW-Compliance |
| **Number of Bottles/Containers** | 3 |
| **Lab Sample Type** | Normal |

## Sample Handling

SAMPLE HANDLING 1 OF 3

### Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | None |
| **Bottle Volume (mL)** | 500 |
| **Bottle Composition** | Poly |

| | |
|---|---|
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | No |
| **Preservative (Type)** | Raw/None |
| **Analysis** | Wet Chemistry - no preservative, no filtration |

SAMPLE HANDLING 2 OF 3

## Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | White |
| **Bottle Volume (mL)** | 250 |
| **Bottle Composition** | Poly |
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | Yes |
| **Preservative (Type)** | Raw/None |
| **Analysis** | Wet Chemistry - no preservative, field-filtered |

SAMPLE HANDLING 3 OF 3

## Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | Green PC |
| **Bottle Volume (mL)** | 125 |
| **Bottle Composition** | Poly |
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | Yes |
| **Preservative (Type)** | Nitric Acid |
| **Analysis** | Metals (dissolved including ICPMS) - nitric preserved, field-filtered |

# Wells - GCC Pueblo Compliance Water Sampling

GCC Pueblo Quarry and Cement Plant
(719) 647-6800
3372 Lime Road
Pueblo, CO 81004
www.gcc.com

| | |
|---|---|
| **Reference Number:** | GCC_RGPP-20221108-1314032001-18276503050 |
| **Form Name:** | Wells - GCC Pueblo Compliance Water Sampling |
| **Submitter Name:** | Amy Veek (amy.veek) \| amy.veek |
| **Submission Date:** | Nov 8, 2022 1:44:10 PM MST |

## SITE INFORMATION

### Location

| | |
|---|---|
| **Project Site** | GCC Rio Grande Pueblo Plant |
| **Sample ID** | MW-8 |
| **Water present to measure/sample?** | Yes |
| **Is the water present within 0.25 feet of the well TD?** | No |
| **Wellhead Stick-Up from Ground Level Reference Point to Depth to Water Level Reference Point (ft)** | 2.16 |
| **Static Depth to Water (ft)** | 32.00 |
| **Well Total Depth (ft below top of casing)** | 65.65 |
| **Depth to Water below ground Surface (ft)** | 29.84 |
| **Well Diameter (In)** | 2 |

### Misc

| | |
|---|---|
| **Site Photo** | |

## Water Quality Meter

| | |
|---|---|
| **Water Quality Meter Make/Model/SN** | In-Situ AquaTroll 400 SN 896017 |
| **Calibration Date/Time:** | Nov 7, 2022 9:15:00 AM MST |
| **Calibration Parameters** | Specific Conductivity (SC)<br>pH<br>Oxygen Reduction Potential (ORP)<br>Dissolved Oxygen (DO or RDO) |
| **AquaTroll calibration log generated?** | Yes |

# SAMPLING DETAILS

| | |
|---|---|
| **Weather** | Partly Sunny |
| **Air Temperature (°F)** | 50 |
| **Date** | Nov 7, 2022 |
| **Time** | 1:19:00 PM MST |

## Sampling

| | |
|---|---|
| **Sample Temperature (°C)** | 16.11 |
| **Specific Conductivity (µS/cm)** | 5235.79 |
| **pH (S.U.)** | 7.15 |
| **Oxygen Reduction Potential (mV)** | 64.38 |
| **Dissolved Oxygen (mg/L)** | 0.00 |
| **Water level measured at sample time?** | Depth to Water (ft TOC) measured at Sample Time |
| **Depth to Water (ft TOC)** | 40.18 |
| **Was flow rate measured?** | Flow Rate was measured. |
| **Flow Rate (gpm)** | 0.02 |
| **Total Purged (gal)** | 0.40 |
| **Geographic Sample Location** | |

| | |
|---|---|
| | latitude: altitude: longitude: [ viewMap ] |
| **Sample(s) collected for laboratory analysis?** | Yes |

## Sampler

| | |
|---|---|
| **Sampler Name** | Amy Veek – GCC Pueblo Environmental Engineer |
| **Sampler's Signature** | |

# SAMPLE(S) COLLECTED FOR LABORATORY ANALYSIS

## Sample Submittal Information

LAB SAMPLE 1 OF 2

### Details

| | |
|---|---|
| **Method of Sample Collection** | MW-8 – Dedicated Proactive Environmental SS Sample Champ XL 12-volt low-flow submersible pump |
| **Lab Sample Name** | MW-8 |
| **Date** | Nov 7, 2022 |
| **Time** | 1:19:00 PM MST |
| **Lab Suite** | GW-Compliance |
| **Number of Bottles/Containers** | 3 |
| **Lab Sample Type** | Normal |

LAB SAMPLE 2 OF 2

### Details

| | |
|---|---|
| **Method of Sample Collection** | MW-8 – Dedicated Proactive Environmental SS Sample Champ XL 12-volt low-flow submersible pump |
| **Lab Sample Name** | MW-8 |
| **Date** | Nov 7, 2022 |
| **Time** | 12:00:00 PM MST |

| | |
|---|---|
| **Lab Suite** | GW-Compliance |
| **Number of Bottles/Containers** | 3 |
| **Lab Sample Type** | Duplicate |

## Sample Handling

SAMPLE HANDLING 1 OF 3

### Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | None |
| **Bottle Volume (mL)** | 500 |
| **Bottle Composition** | Poly |
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | No |
| **Preservative (Type)** | Raw/None |
| **Analysis** | Wet Chemistry - no preservative, no filtration |

SAMPLE HANDLING 2 OF 3

### Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | White |
| **Bottle Volume (mL)** | 250 |
| **Bottle Composition** | Poly |
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | Yes |
| **Preservative (Type)** | Raw/None |
| **Analysis** | Wet Chemistry - no preservative, field-filtered |

SAMPLE HANDLING 3 OF 3

### Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | Green PC |
| **Bottle Volume (mL)** | 125 |
| **Bottle Composition** | Poly |
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | Yes |
| **Preservative (Type)** | Nitric Acid |
| **Analysis** | Metals (dissolved including ICPMS) - nitric preserved, field-filtered |

# Wells - GCC Pueblo Compliance Water Sampling

GCC Pueblo Quarry and Cement Plant
(719) 647-6800
3372 Lime Road
Pueblo, CO 81004
www.gcc.com

| | |
|---|---|
| **Reference Number:** | GCC_RGPP-20221108-1314032001-18276503183 |
| **Form Name:** | Wells - GCC Pueblo Compliance Water Sampling |
| **Submitter Name:** | Amy Veek (amy.veek) \| amy.veek |
| **Submission Date:** | Nov 8, 2022 1:54:54 PM MST |

## SITE INFORMATION

### Location

| | |
|---|---|
| **Project Site** | GCC Rio Grande Pueblo Plant |
| **Sample ID** | MW-9 |
| **Water present to measure/sample?** | Yes |
| **Is the water present within 0.25 feet of the well TD?** | No |
| **Wellhead Stick-Up from Ground Level Reference Point to Depth to Water Level Reference Point (ft)** | 2.08 |
| **Static Depth to Water (ft)** | 26.37 |
| **Well Total Depth (ft below top of casing)** | 42.23 |
| **Depth to Water below ground Surface (ft)** | 24.29 |
| **Well Diameter (In)** | 2 |

### Misc

| | |
|---|---|
| **Site Photo** | |

## Water Quality Meter

| | |
|---|---|
| **Water Quality Meter Make/Model/SN** | In-Situ AquaTroll 400 SN 896017 |
| **Calibration Date/Time:** | Nov 7, 2022 9:16:00 AM MST |
| **Calibration Parameters** | Specific Conductivity (SC)<br>pH<br>Oxygen Reduction Potential (ORP)<br>Dissolved Oxygen (DO or RDO) |
| **AquaTroll calibration log generated?** | Yes |

# SAMPLING DETAILS

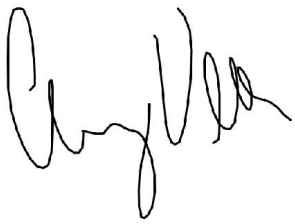
| | |
|---|---|
| **Weather** | Partly Sunny |
| **Air Temperature (°F)** | 53 |
| **Date** | Nov 7, 2022 |
| **Time** | 3:25:00 PM MST |

## Sampling

| | |
|---|---|
| **Sample Temperature (°C)** | 16.24 |
| **Specific Conductivity (µS/cm)** | 4959.36 |
| **pH (S.U.)** | 6.81 |
| **Oxygen Reduction Potential (mV)** | -206.32 |
| **Dissolved Oxygen (mg/L)** | 0.00 |
| **Water level measured at sample time?** | Depth to Water (ft TOC) measured at Sample Time |
| **Depth to Water (ft TOC)** | 27.87 |
| **Was flow rate measured?** | Flow Rate was measured. |
| **Flow Rate (gpm)** | 0.03 |
| **Total Purged (gal)** | 0.20 |
| **Geographic Sample Location** | |

| | |
|---|---|
| | latitude: altitude:<br>longitude: [ viewMap ] |
| **Sample(s) collected for laboratory analysis?** | Yes |

## Sampler

| | |
|---|---|
| **Sampler Name** | Amy Veek – GCC Pueblo Environmental Engineer |
| **Sampler's Signature** |  |

# SAMPLE(S) COLLECTED FOR LABORATORY ANALYSIS

## Sample Submittal Information

LAB SAMPLE 1 OF 1

## Details

| | |
|---|---|
| **Method of Sample Collection** | MW-9 – Dedicated Proactive Environmental SS Sample Champ XL 12-volt low-flow submersible pump |
| **Lab Sample Name** | MW-9 |
| **Date** | Nov 7, 2022 |
| **Time** | 3:25:00 PM MST |
| **Lab Suite** | GW-Compliance |
| **Number of Bottles/Containers** | 3 |
| **Lab Sample Type** | Normal |

## Sample Handling

SAMPLE HANDLING 1 OF 3

## Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | None |
| **Bottle Volume (mL)** | 500 |
| **Bottle Composition** | Poly |

| | |
|---|---|
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | No |
| **Preservative (Type)** | Raw/None |
| **Analysis** | Wet Chemistry - no preservative, no filtration |

SAMPLE HANDLING 2 OF 3

## Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | White |
| **Bottle Volume (mL)** | 250 |
| **Bottle Composition** | Poly |
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | Yes |
| **Preservative (Type)** | Raw/None |
| **Analysis** | Wet Chemistry - no preservative, field-filtered |

SAMPLE HANDLING 3 OF 3

## Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | Green PC |
| **Bottle Volume (mL)** | 125 |
| **Bottle Composition** | Poly |
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | Yes |
| **Preservative (Type)** | Nitric Acid |
| **Analysis** | Metals (dissolved including ICPMS) - nitric preserved, field-filtered |

# Wells - GCC Pueblo Compliance Water Sampling

GCC Pueblo Quarry and Cement Plant
(719) 647-6800
3372 Lime Road
Pueblo, CO 81004
www.gcc.com

| | |
|---|---|
| **Reference Number:** | GCC_RGPP-20221108-1314032001-18276503188 |
| **Form Name:** | Wells - GCC Pueblo Compliance Water Sampling |
| **Submitter Name:** | Amy Veek (amy.veek) \| amy.veek |
| **Submission Date:** | Nov 8, 2022 1:55:15 PM MST |

## SITE INFORMATION

### Location

| | |
|---|---|
| **Project Site** | GCC Rio Grande Pueblo Plant |
| **Sample ID** | MW-10 |
| **Water present to measure/sample?** | Yes |
| **Is the water present within 0.25 feet of the well TD?** | No |
| **Wellhead Stick-Up from Ground Level Reference Point to Depth to Water Level Reference Point (ft)** | 2.24 |
| **Static Depth to Water (ft)** | 25.45 |
| **Well Total Depth (ft below top of casing)** | 82.55 |
| **Depth to Water below ground Surface (ft)** | 23.21 |
| **Well Diameter (In)** | 2 |

### Misc

| | |
|---|---|
| **Site Photo** | |

## Water Quality Meter

| | |
|---|---|
| **Water Quality Meter Make/Model/SN** | In-Situ AquaTroll 400 SN 896017 |
| **Calibration Date/Time:** | Nov 7, 2022 9:15:00 AM MST |
| **Calibration Parameters** | Specific Conductivity (SC)<br>pH<br>Oxygen Reduction Potential (ORP)<br>Dissolved Oxygen (DO or RDO) |
| **AquaTroll calibration log generated?** | Yes |

# SAMPLING DETAILS

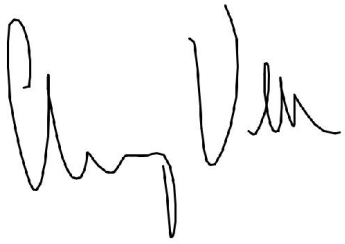
| | |
|---|---|
| **Weather** | Partly Sunny |
| **Air Temperature (°F)** | 53 |
| **Date** | Nov 7, 2022 |
| **Time** | 3:08:00 PM MST |

## Sampling

| | |
|---|---|
| **Sample Temperature (°C)** | 15.26 |
| **Specific Conductivity (µS/cm)** | 5697.99 |
| **pH (S.U.)** | 7.57 |
| **Oxygen Reduction Potential (mV)** | -242.44 |
| **Dissolved Oxygen (mg/L)** | 0.00 |
| **Water level measured at sample time?** | Depth to Water (ft TOC) measured at Sample Time |
| **Depth to Water (ft TOC)** | 30.96 |
| **Was flow rate measured?** | Flow Rate was measured. |
| **Flow Rate (gpm)** | 0.04 |
| **Total Purged (gal)** | 0.50 |
| **Geographic Sample Location** | |

| | |
|---|---|
| | latitude: altitude: longitude: [ viewMap ] |
| **Sample(s) collected for laboratory analysis?** | Yes |

## Sampler

| | |
|---|---|
| **Sampler Name** | Amy Veek – GCC Pueblo Environmental Engineer |
| **Sampler's Signature** |  |

# SAMPLE(S) COLLECTED FOR LABORATORY ANALYSIS

## Sample Submittal Information

LAB SAMPLE 1 OF 1

## Details

| | |
|---|---|
| **Method of Sample Collection** | MW-10 – Dedicated Proactive Environmental SS Sample Champ XL 12-volt low-flow submersible pump |
| **Lab Sample Name** | MW-10 |
| **Date** | Nov 7, 2022 |
| **Time** | 3:08:00 PM MST |
| **Lab Suite** | GW-Compliance |
| **Number of Bottles/Containers** | 3 |
| **Lab Sample Type** | Normal |

## Sample Handling

SAMPLE HANDLING 1 OF 3

## Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | None |
| **Bottle Volume (mL)** | 500 |
| **Bottle Composition** | Poly |

| | |
|---|---|
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | No |
| **Preservative (Type)** | Raw/None |
| **Analysis** | Wet Chemistry - no preservative, no filtration |

SAMPLE HANDLING 2 OF 3

## Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | White |
| **Bottle Volume (mL)** | 250 |
| **Bottle Composition** | Poly |
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | Yes |
| **Preservative (Type)** | Raw/None |
| **Analysis** | Wet Chemistry - no preservative, field-filtered |

SAMPLE HANDLING 3 OF 3

## Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | Green PC |
| **Bottle Volume (mL)** | 125 |
| **Bottle Composition** | Poly |
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | Yes |
| **Preservative (Type)** | Nitric Acid |
| **Analysis** | Metals (dissolved including ICPMS) - nitric preserved, field-filtered |

# Wells - GCC Pueblo Compliance Water Sampling

GCC Pueblo Quarry and Cement Plant
(719) 647-6800
3372 Lime Road
Pueblo, CO 81004
www.gcc.com

| | |
|---|---|
| **Reference Number:** | GCC_RGPP-20221108-1314032001-18276503079 |
| **Form Name:** | Wells - GCC Pueblo Compliance Water Sampling |
| **Submitter Name:** | Amy Veek (amy.veek) \| amy.veek |
| **Submission Date:** | Nov 8, 2022 1:46:10 PM MST |

## SITE INFORMATION

### Location

| | |
|---|---|
| **Project Site** | GCC Rio Grande Pueblo Plant |
| **Sample ID** | MW-11 |
| **Water present to measure/sample?** | Yes |
| **Is the water present within 0.25 feet of the well TD?** | No |
| **Wellhead Stick-Up from Ground Level Reference Point to Depth to Water Level Reference Point (ft)** | 2.18 |
| **Static Depth to Water (ft)** | 57.23 |
| **Well Total Depth (ft below top of casing)** | 72.68 |
| **Depth to Water below ground Surface (ft)** | 55.05 |
| **Well Diameter (In)** | 2 |

### Misc

| | |
|---|---|
| **Site Photo** | |

## Water Quality Meter

| | |
|---|---|
| **Water Quality Meter Make/Model/SN** | In-Situ AquaTroll 400 SN 896017 |
| **Calibration Date/Time:** | Nov 7, 2022 9:15:00 AM MST |
| **Calibration Parameters** | Specific Conductivity (SC)<br>pH<br>Oxygen Reduction Potential (ORP)<br>Dissolved Oxygen (DO or RDO) |
| **AquaTroll calibration log generated?** | Yes |

# SAMPLING DETAILS

| | |
|---|---|
| **Weather** | Partly Sunny |
| **Air Temperature (°F)** | 53 |
| **Date** | Nov 7, 2022 |
| **Time** | 2:27:00 PM MST |

## Sampling

| | |
|---|---|
| **Sample Temperature (°C)** | 15.20 |
| **Specific Conductivity (µS/cm)** | 2573.18 |
| **pH (S.U.)** | 7.35 |
| **Oxygen Reduction Potential (mV)** | -254.48 |
| **Dissolved Oxygen (mg/L)** | 0.00 |
| **Water level measured at sample time?** | Depth to Water (ft TOC) measured at Sample Time |
| **Depth to Water (ft TOC)** | 59.02 |
| **Was flow rate measured?** | Flow Rate was measured. |
| **Flow Rate (gpm)** | 0.02 |
| **Total Purged (gal)** | 0.40 |
| **Geographic Sample Location** | |

| | |
|---|---|
| | latitude: altitude:<br>longitude: [ viewMap ] |
| **Sample(s) collected for laboratory analysis?** | Yes |

## Sampler

| | |
|---|---|
| **Sampler Name** | Amy Veek – GCC Pueblo Environmental Engineer |
| **Sampler's Signature** | |

# SAMPLE(S) COLLECTED FOR LABORATORY ANALYSIS

## Sample Submittal Information

LAB SAMPLE 1 OF 1

## Details

| | |
|---|---|
| **Method of Sample Collection** | MW-11 – Dedicated Proactive Environmental SS Sample Champ XL 12-volt low-flow submersible pump |
| **Lab Sample Name** | MW-11 |
| **Date** | Nov 7, 2022 |
| **Time** | 2:27:00 PM MST |
| **Lab Suite** | GW-Compliance |
| **Number of Bottles/Containers** | 3 |
| **Lab Sample Type** | Normal |

## Sample Handling

SAMPLE HANDLING 1 OF 3

## Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | None |
| **Bottle Volume (mL)** | 500 |
| **Bottle Composition** | Poly |

| | |
|---|---|
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | No |
| **Preservative (Type)** | Raw/None |
| **Analysis** | Wet Chemistry - no preservative, no filtration |

SAMPLE HANDLING 2 OF 3

## Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | White |
| **Bottle Volume (mL)** | 250 |
| **Bottle Composition** | Poly |
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | Yes |
| **Preservative (Type)** | Raw/None |
| **Analysis** | Wet Chemistry - no preservative, field-filtered |

SAMPLE HANDLING 3 OF 3

## Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | Green PC |
| **Bottle Volume (mL)** | 125 |
| **Bottle Composition** | Poly |
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | Yes |
| **Preservative (Type)** | Nitric Acid |
| **Analysis** | Metals (dissolved including ICPMS) - nitric preserved, field-filtered |

# Wells - GCC Pueblo Compliance Water Sampling

GCC Pueblo Quarry and Cement Plant
(719) 647-6800
3372 Lime Road
Pueblo, CO 81004
www.gcc.com

| | |
|---|---|
| **Reference Number:** | GCC_RGPP-20221108-1314032001-18276503074 |
| **Form Name:** | Wells - GCC Pueblo Compliance Water Sampling |
| **Submitter Name:** | Amy Veek (amy.veek) \| amy.veek |
| **Submission Date:** | Nov 8, 2022 1:45:45 PM MST |

## SITE INFORMATION

### Location

| | |
|---|---|
| **Project Site** | GCC Rio Grande Pueblo Plant |
| **Sample ID** | MW-12 |
| **Water present to measure/sample?** | Yes |
| **Is the water present within 0.25 feet of the well TD?** | No |
| **Wellhead Stick-Up from Ground Level Reference Point to Depth to Water Level Reference Point (ft)** | 2.29 |
| **Static Depth to Water (ft)** | 72.80 |
| **Well Total Depth (ft below top of casing)** | 88.8 |
| **Depth to Water below ground Surface (ft)** | 70.51 |
| **Well Diameter (In)** | 2 |

### Misc

| | |
|---|---|
| **Site Photo** | |

## Water Quality Meter

| | |
|---|---|
| **Water Quality Meter Make/Model/SN** | In-Situ AquaTroll 400 SN 896017 |
| **Calibration Date/Time:** | Nov 7, 2022 9:15:00 AM MST |
| **Calibration Parameters** | Specific Conductivity (SC)<br>pH<br>Oxygen Reduction Potential (ORP)<br>Dissolved Oxygen (DO or RDO) |
| **AquaTroll calibration log generated?** | Yes |

# SAMPLING DETAILS

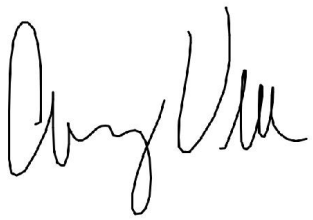
| | |
|---|---|
| **Weather** | Partly Sunny |
| **Air Temperature (°F)** | 53 |
| **Date** | Nov 7, 2022 |
| **Time** | 2:09:00 PM MST |

## Sampling

| | |
|---|---|
| **Sample Temperature (°C)** | 15.21 |
| **Specific Conductivity (µS/cm)** | 4398.51 |
| **pH (S.U.)** | 7.67 |
| **Oxygen Reduction Potential (mV)** | 51.22 |
| **Dissolved Oxygen (mg/L)** | 0.00 |
| **Water level measured at sample time?** | Depth to Water (ft TOC) measured at Sample Time |
| **Depth to Water (ft TOC)** | 77.15 |
| **Was flow rate measured?** | Flow Rate was measured. |
| **Flow Rate (gpm)** | 0.02 |
| **Total Purged (gal)** | 0.50 |
| **Geographic Sample Location** | |

| | |
|---|---|
| | latitude: altitude: longitude: [ viewMap ] |
| **Sample(s) collected for laboratory analysis?** | Yes |

## Sampler

| | |
|---|---|
| **Sampler Name** | Amy Veek – GCC Pueblo Environmental Engineer |
| **Sampler's Signature** |  |

# SAMPLE(S) COLLECTED FOR LABORATORY ANALYSIS

## Sample Submittal Information

LAB SAMPLE 1 OF 1

### Details

| | |
|---|---|
| **Method of Sample Collection** | MW-12 – Dedicated Proactive Environmental SS Sample Champ XL 12-volt low-flow submersible pump |
| **Lab Sample Name** | MW-12 |
| **Date** | Nov 7, 2022 |
| **Time** | 2:09:00 PM MST |
| **Lab Suite** | GW-Compliance |
| **Number of Bottles/Containers** | 3 |
| **Lab Sample Type** | Normal |

## Sample Handling

SAMPLE HANDLING 1 OF 3

### Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | None |
| **Bottle Volume (mL)** | 500 |
| **Bottle Composition** | Poly |

| | |
|---|---|
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | No |
| **Preservative (Type)** | Raw/None |
| **Analysis** | Wet Chemistry - no preservative, no filtration |

SAMPLE HANDLING 2 OF 3

## Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | White |
| **Bottle Volume (mL)** | 250 |
| **Bottle Composition** | Poly |
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | Yes |
| **Preservative (Type)** | Raw/None |
| **Analysis** | Wet Chemistry - no preservative, field-filtered |

SAMPLE HANDLING 3 OF 3

## Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | Green PC |
| **Bottle Volume (mL)** | 125 |
| **Bottle Composition** | Poly |
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | Yes |
| **Preservative (Type)** | Nitric Acid |
| **Analysis** | Metals (dissolved including ICPMS) - nitric preserved, field-filtered |

# Wells - GCC Pueblo Compliance Water Sampling

GCC Pueblo Quarry and Cement Plant
(719) 647-6800
3372 Lime Road
Pueblo, CO 81004
www.gcc.com

| | |
|---|---|
| **Reference Number:** | GCC_RGPP-20221108-1314032001-18276503177 |
| **Form Name:** | Wells - GCC Pueblo Compliance Water Sampling |
| **Submitter Name:** | Amy Veek (amy.veek) \| amy.veek |
| **Submission Date:** | Nov 8, 2022 1:54:31 PM MST |

## SITE INFORMATION

### Location

| | |
|---|---|
| **Project Site** | GCC Rio Grande Pueblo Plant |
| **Sample ID** | MW-13 |
| **Water present to measure/sample?** | Yes |
| **Is the water present within 0.25 feet of the well TD?** | No |
| **Wellhead Stick-Up from Ground Level Reference Point to Depth to Water Level Reference Point (ft)** | 2.19 |
| **Static Depth to Water (ft)** | 119.31 |
| **Well Total Depth (ft below top of casing)** | 177.88 |
| **Depth to Water below ground Surface (ft)** | 117.12 |
| **Well Diameter (In)** | 2 |

### Misc

| | |
|---|---|
| **Site Photo** | |

## Water Quality Meter

| | |
|---|---|
| **Water Quality Meter Make/Model/SN** | In-Situ AquaTroll 400 SN 896017 |
| **Calibration Date/Time:** | Nov 7, 2022 9:15:00 AM MST |
| **Calibration Parameters** | Specific Conductivity (SC)<br>pH<br>Oxygen Reduction Potential (ORP)<br>Dissolved Oxygen (DO or RDO) |
| **AquaTroll calibration log generated?** | Yes |

# SAMPLING DETAILS

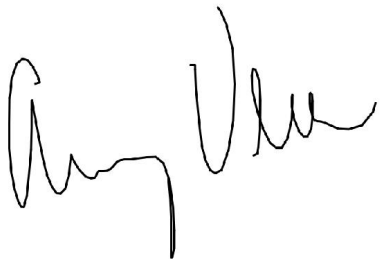
| | |
|---|---|
| **Weather** | Partly Sunny |
| **Air Temperature (°F)** | 56 |
| **Date** | Nov 8, 2022 |
| **Time** | 10:57:00 AM MST |

## Sampling

| | |
|---|---|
| **Sample Temperature (°C)** | 16.02 |
| **Specific Conductivity (µS/cm)** | 4251.08 |
| **pH (S.U.)** | 7.96 |
| **Oxygen Reduction Potential (mV)** | -104.64 |
| **Dissolved Oxygen (mg/L)** | 0.00 |
| **Water level measured at sample time?** | Depth to Water (ft TOC) measured at Sample Time |
| **Depth to Water (ft TOC)** | 121.54 |
| **Was flow rate measured?** | Flow Rate was measured. |
| **Flow Rate (gpm)** | 0.02 |
| **Total Purged (gal)** | 1.00 |
| **Geographic Sample Location** | 15 Pasadena Dr, Pueblo, CO 81005, USA |

| | |
|---|---|
| | latitude: 38.21134999632629 altitude: 1531.4004<br>longitude: -104.66881616436022 [ viewMap ] |
| **Sample(s) collected for laboratory analysis?** | Yes |

## Sampler

| | |
|---|---|
| **Sampler Name** | Amy Veek – GCC Pueblo Environmental Engineer |
| **Sampler's Signature** |  |

# SAMPLE(S) COLLECTED FOR LABORATORY ANALYSIS

## Sample Submittal Information

LAB SAMPLE 1 OF 1

## Details

| | |
|---|---|
| **Method of Sample Collection** | MW-13 – Dedicated Proactive Environmental SS Sample Champ XL 12-volt low-flow submersible pump |
| **Lab Sample Name** | MW-13 |
| **Date** | Nov 8, 2022 |
| **Time** | 10:57:00 AM MST |
| **Lab Suite** | GW-Compliance |
| **Number of Bottles/Containers** | 3 |
| **Lab Sample Type** | Normal |

## Sample Handling

SAMPLE HANDLING 1 OF 3

## Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | None |
| **Bottle Volume (mL)** | 500 |
| **Bottle Composition** | Poly |

| | |
|---|---|
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | No |
| **Preservative (Type)** | Raw/None |
| **Analysis** | Wet Chemistry - no preservative, no filtration |

SAMPLE HANDLING 2 OF 3

## Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | White |
| **Bottle Volume (mL)** | 250 |
| **Bottle Composition** | Poly |
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | Yes |
| **Preservative (Type)** | Raw/None |
| **Analysis** | Wet Chemistry - no preservative, field-filtered |

SAMPLE HANDLING 3 OF 3

## Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | Green PC |
| **Bottle Volume (mL)** | 125 |
| **Bottle Composition** | Poly |
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | Yes |
| **Preservative (Type)** | Nitric Acid |
| **Analysis** | Metals (dissolved including ICPMS) - nitric preserved, field-filtered |

# Wells - GCC Pueblo Compliance Water Sampling

GCC Pueblo Quarry and Cement Plant
(719) 647-6800
3372 Lime Road
Pueblo, CO 81004
www.gcc.com

| | |
|---|---|
| **Reference Number:** | GCC_RGPP-20221108-1314032001-18276503134 |
| **Form Name:** | Wells - GCC Pueblo Compliance Water Sampling |
| **Submitter Name:** | Amy Veek (amy.veek) \| amy.veek |
| **Submission Date:** | Nov 8, 2022 1:50:49 PM MST |

## SITE INFORMATION

### Location

| | |
|---|---|
| **Project Site** | GCC Rio Grande Pueblo Plant |
| **Sample ID** | MW-14 |
| **Water present to measure/sample?** | Yes |
| **Is the water present within 0.25 feet of the well TD?** | No |
| **Wellhead Stick-Up from Ground Level Reference Point to Depth to Water Level Reference Point (ft)** | 2.11 |
| **Static Depth to Water (ft)** | 92.34 |
| **Well Total Depth (ft below top of casing)** | 207.83 |
| **Depth to Water below ground Surface (ft)** | 90.23 |
| **Well Diameter (In)** | 2 |

### Misc

| | |
|---|---|
| **Site Photo** | |

## Water Quality Meter

| | |
|---|---|
| **Water Quality Meter Make/Model/SN** | In-Situ AquaTroll 400 SN 896017 |
| **Calibration Date/Time:** | Nov 7, 2022 9:15:00 AM MST |
| **Calibration Parameters** | Specific Conductivity (SC)<br>pH<br>Oxygen Reduction Potential (ORP)<br>Dissolved Oxygen (DO or RDO) |
| **AquaTroll calibration log generated?** | Yes |

# SAMPLING DETAILS

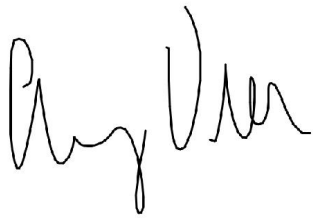
| | |
|---|---|
| **Weather** | Partly Sunny |
| **Air Temperature (°F)** | 45 |
| **Date** | Nov 8, 2022 |
| **Time** | 10:09:00 AM MST |

## Sampling

| | |
|---|---|
| **Sample Temperature (°C)** | 15.48 |
| **Specific Conductivity (µS/cm)** | 6395.49 |
| **pH (S.U.)** | 7.59 |
| **Oxygen Reduction Potential (mV)** | -31.29 |
| **Dissolved Oxygen (mg/L)** | 0.00 |
| **Water level measured at sample time?** | Depth to Water (ft TOC) measured at Sample Time |
| **Depth to Water (ft TOC)** | 102.79 |
| **Was flow rate measured?** | Flow Rate was measured. |
| **Flow Rate (gpm)** | 0.06 |
| **Total Purged (gal)** | 1.20 |
| **Geographic Sample Location** | 19 Pasadena Dr, Pueblo, CO 81005, USA |

| | |
|---|---|
| | latitude: 38.211419294192616 altitude: 1537.5 longitude: -104.6681784584847 [ viewMap ] |
| **Sample(s) collected for laboratory analysis?** | Yes |

## Sampler

| | |
|---|---|
| **Sampler Name** | Amy Veek – GCC Pueblo Environmental Engineer |
| **Sampler's Signature** |  |

# SAMPLE(S) COLLECTED FOR LABORATORY ANALYSIS

## Sample Submittal Information

LAB SAMPLE 1 OF 1

## Details

| | |
|---|---|
| **Method of Sample Collection** | MW-14 – Dedicated QED SS Well Wizard T1300 low-flow bladder pump |
| **Lab Sample Name** | MW-14 |
| **Date** | Nov 8, 2022 |
| **Time** | 10:09:00 AM MST |
| **Lab Suite** | GW-Compliance |
| **Number of Bottles/Containers** | 3 |
| **Lab Sample Type** | Normal |

## Sample Handling

SAMPLE HANDLING 1 OF 3

## Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | None |
| **Bottle Volume (mL)** | 500 |
| **Bottle Composition** | Poly |
| **Bottle Quantity** | 1 |

| | |
|---|---|
| **Field-Filtered to 0.45 µm (Yes/No)** | No |
| **Preservative (Type)** | Raw/None |
| **Analysis** | Wet Chemistry - no preservative, no filtration |

SAMPLE HANDLING 2 OF 3

## Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | White |
| **Bottle Volume (mL)** | 250 |
| **Bottle Composition** | Poly |
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | Yes |
| **Preservative (Type)** | Raw/None |
| **Analysis** | Wet Chemistry - no preservative, field-filtered |

SAMPLE HANDLING 3 OF 3

## Bottle Details

| | |
|---|---|
| **ACZ Labs Bottle Sticker** | Green PC |
| **Bottle Volume (mL)** | 125 |
| **Bottle Composition** | Poly |
| **Bottle Quantity** | 1 |
| **Field-Filtered to 0.45 µm (Yes/No)** | Yes |
| **Preservative (Type)** | Nitric Acid |
| **Analysis** | Metals (dissolved including ICPMS) - nitric preserved, field-filtered |

# ATTACHMENT 2 - GCC Groundwater Sampling Analytical Lab Reports

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

# Analytical Report

April 12, 2022

Report to:
Amy Veek
GCC Rio Grande
3372 Lime Road
Pueblo, CO 81004

cc: Landon Beck

Bill to:
Amy Veek
GCC Rio Grande
3372 Lime Road
Pueblo, CO 81004

Project ID: 105495
ACZ Project ID: L72128

Amy Veek:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on March 23, 2022. This project has been assigned to ACZ's project number, L72128. 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 L72128. 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 12, 2023. 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

April 12, 2022

Project ID: 105495
ACZ Project ID: L72128

## Sample Receipt

ACZ Laboratories, Inc. (ACZ) received 3 groundwater samples from GCC Rio Grande on March 23, 2022. The samples were received in good condition. Upon receipt, the sample custodian removed the samples from the cooler, inspected the contents, and logged the samples into ACZ's computerized Laboratory Information Management System (LIMS). The samples were assigned ACZ LIMS project number L72128. The custodian verified the sample information entered into the computer against the chain of custody (COC) forms and sample bottle labels.

## Holding Times

All analyses were performed within EPA recommended holding times.

## Sample Analysis

These samples were analyzed for inorganic parameters. The individual methods are referenced on both, the ACZ invoice and the analytical reports.
Qualifier: N1
Applies to: L72128-01/TOTAL DISSOLVED SOLIDS
L72128-02/TOTAL DISSOLVED SOLIDS
L72128-03/TOTAL DISSOLVED SOLIDS
See Case Narrative.
The time and temperature was not recorded when the workgroup came out of the 180'C oven on 3/28/22. It is believed to have been for at least one hour and the oven within range. All sample/QC obtained a passing constant weight. REDO of the sample at client's request to confirm.

**GCC Rio Grande**
Project ID: 105495
Sample ID: MW-6

ACZ Sample ID: ***L72128-01***
Date Sampled: *03/22/22 14:09*
Date Received: *03/23/22*
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 | 03/31/22 18:31 | jlw |
| Arsenic, dissolved | M200.8 ICP-MS | 5 | <0.001 | U | | mg/L | 0.001 | 0.005 | 04/01/22 13:46 | kja |
| Beryllium, dissolved | M200.7 ICP | 5 | <0.05 | U | | mg/L | 0.05 | 0.25 | 03/31/22 18:31 | jlw |
| Boron, dissolved | M200.7 ICP | 5 | 0.213 | B | | mg/L | 0.15 | 0.5 | 03/31/22 18:31 | jlw |
| Cadmium, dissolved | M200.8 ICP-MS | 5 | <0.00025 | U | | mg/L | 0.00025 | 0.00125 | 04/01/22 13:46 | kja |
| Calcium, dissolved | M200.7 ICP | 5 | 488 | | | mg/L | 0.5 | 2.5 | 03/31/22 18:31 | jlw |
| Chromium, dissolved | M200.7 ICP | 5 | <0.1 | U | | mg/L | 0.1 | 0.25 | 03/31/22 18:31 | jlw |
| Cobalt, dissolved | M200.7 ICP | 5 | <0.1 | U | | mg/L | 0.1 | 0.25 | 03/31/22 18:31 | jlw |
| Copper, dissolved | M200.7 ICP | 5 | <0.05 | U | | mg/L | 0.05 | 0.25 | 03/31/22 18:31 | jlw |
| Iron, dissolved | M200.7 ICP | 5 | <0.3 | U | | mg/L | 0.3 | 0.75 | 03/31/22 18:31 | jlw |
| Lead, dissolved | M200.8 ICP-MS | 5 | <0.0005 | U | | mg/L | 0.0005 | 0.0025 | 04/01/22 13:46 | kja |
| Lithium, dissolved | M200.7 ICP | 5 | 0.434 | | | mg/L | 0.04 | 0.2 | 03/31/22 18:31 | jlw |
| Magnesium, dissolved | M200.7 ICP | 5 | 460 | | | mg/L | 1 | 5 | 03/31/22 18:31 | jlw |
| Manganese, dissolved | M200.7 ICP | 5 | 0.084 | B | | mg/L | 0.05 | 0.25 | 03/31/22 18:31 | jlw |
| Mercury, dissolved | M245.1 CVAA | 1 | <0.0002 | U | | mg/L | 0.0002 | 0.001 | 03/28/22 12:23 | mlh |
| Nickel, dissolved | M200.7 ICP | 5 | <0.04 | U | | mg/L | 0.04 | 0.2 | 03/31/22 18:31 | jlw |
| Potassium, dissolved | M200.7 ICP | 5 | 11.5 | | | mg/L | 1 | 5 | 03/31/22 18:31 | jlw |
| Selenium, dissolved | M200.8 ICP-MS | 5 | 0.0465 | | | mg/L | 0.0005 | 0.00125 | 04/01/22 13:46 | kja |
| Sodium, dissolved | M200.7 ICP | 5 | 362 | | | mg/L | 1 | 5 | 03/31/22 18:31 | jlw |
| Vanadium, dissolved | M200.7 ICP | 5 | <0.05 | U | | mg/L | 0.05 | 0.125 | 03/31/22 18:31 | jlw |
| Zinc, dissolved | M200.7 ICP | 5 | <0.1 | U | | mg/L | 0.1 | 0.25 | 03/31/22 18:31 | jlw |

Wet Chemistry

| Parameter | EPA Method | Dilution | Result | Qual | XQ | Units | MDL | PQL | Date | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Alkalinity as CaCO3 | SM2320B - Titration | | | | | | | | | |
| Bicarbonate as CaCO3 | | 1 | 321 | | | mg/L | 2 | 20 | 03/28/22 0:00 | jck |
| Carbonate as CaCO3 | | 1 | <2 | U | | mg/L | 2 | 20 | 03/28/22 0:00 | jck |
| Hydroxide as CaCO3 | | 1 | <2 | U | | mg/L | 2 | 20 | 03/28/22 0:00 | jck |
| Total Alkalinity | | 1 | 321 | | | mg/L | 2 | 20 | 03/28/22 0:00 | jck |
| Chloride | SM4500Cl-E | 1 | 48.5 | | * | mg/L | 0.5 | 2 | 04/04/22 11:39 | syw |
| Fluoride | SM4500F-C | 1 | 0.62 | | | mg/L | 0.15 | 0.35 | 04/01/22 19:58 | eep |
| Nitrate as N, dissolved | Calculation: NO3NO2 minus NO2 | | 8.01 | | | mg/L | 0.08 | 0.4 | 04/12/22 0:00 | calc |
| Nitrate/Nitrite as N, dissolved | M353.2 - Automated Cadmium Reduction | 4 | 8.02 | | | mg/L | 0.08 | 0.4 | 03/23/22 22:56 | pjb |
| Nitrite as N, dissolved | M353.2 - Automated Cadmium Reduction | 1 | 0.011 | B | * | mg/L | 0.01 | 0.05 | 03/23/22 22:30 | pjb |
| Residue, Filterable (TDS) @180C | SM2540C | 2 | 5200 | | * | mg/L | 40 | 80 | 03/24/22 13:41 | anc |
| Sulfate | D516-02/-07/-11 - TURBIDIMETRIC | 125 | 3610 | | * | mg/L | 125 | 625 | 04/04/22 22:32 | mjj1 |

**GCC Rio Grande**
Project ID: 105495
Sample ID: MW-7

ACZ Sample ID: ***L72128-02***
Date Sampled: *03/22/22 15:25*
Date Received: *03/23/22*
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 | 03/31/22 18:34 | jlw |
| Arsenic, dissolved | M200.8 ICP-MS | 5 | <0.001 | U | | mg/L | 0.001 | 0.005 | 04/01/22 13:48 | kja |
| Beryllium, dissolved | M200.7 ICP | 5 | <0.05 | U | | mg/L | 0.05 | 0.25 | 03/31/22 18:34 | jlw |
| Boron, dissolved | M200.7 ICP | 5 | 0.389 | B | | mg/L | 0.15 | 0.5 | 03/31/22 18:34 | jlw |
| Cadmium, dissolved | M200.8 ICP-MS | 5 | <0.00025 | U | | mg/L | 0.00025 | 0.00125 | 04/01/22 13:48 | kja |
| Calcium, dissolved | M200.7 ICP | 5 | 396 | | | mg/L | 0.5 | 2.5 | 03/31/22 18:34 | jlw |
| Chromium, dissolved | M200.7 ICP | 5 | <0.1 | U | | mg/L | 0.1 | 0.25 | 03/31/22 18:34 | jlw |
| Cobalt, dissolved | M200.7 ICP | 5 | <0.1 | U | | mg/L | 0.1 | 0.25 | 03/31/22 18:34 | jlw |
| Copper, dissolved | M200.7 ICP | 5 | <0.05 | U | | mg/L | 0.05 | 0.25 | 03/31/22 18:34 | jlw |
| Iron, dissolved | M200.7 ICP | 5 | <0.3 | U | | mg/L | 0.3 | 0.75 | 03/31/22 18:34 | jlw |
| Lead, dissolved | M200.8 ICP-MS | 5 | <0.0005 | U | | mg/L | 0.0005 | 0.0025 | 04/01/22 13:48 | kja |
| Lithium, dissolved | M200.7 ICP | 5 | 0.549 | | | mg/L | 0.04 | 0.2 | 03/31/22 18:34 | jlw |
| Magnesium, dissolved | M200.7 ICP | 5 | 428 | | | mg/L | 1 | 5 | 03/31/22 18:34 | jlw |
| Manganese, dissolved | M200.7 ICP | 5 | 0.055 | B | | mg/L | 0.05 | 0.25 | 03/31/22 18:34 | jlw |
| Mercury, dissolved | M245.1 CVAA | 1 | <0.0002 | U | | mg/L | 0.0002 | 0.001 | 03/28/22 12:24 | mlh |
| Nickel, dissolved | M200.7 ICP | 5 | <0.04 | U | | mg/L | 0.04 | 0.2 | 03/31/22 18:34 | jlw |
| Potassium, dissolved | M200.7 ICP | 5 | 10.8 | | | mg/L | 1 | 5 | 03/31/22 18:34 | jlw |
| Selenium, dissolved | M200.8 ICP-MS | 5 | 0.0114 | | | mg/L | 0.0005 | 0.00125 | 04/01/22 13:48 | kja |
| Sodium, dissolved | M200.7 ICP | 5 | 671 | | | mg/L | 1 | 5 | 03/31/22 18:34 | jlw |
| Vanadium, dissolved | M200.7 ICP | 5 | <0.05 | U | | mg/L | 0.05 | 0.125 | 03/31/22 18:34 | jlw |
| Zinc, dissolved | M200.7 ICP | 5 | <0.1 | U | | mg/L | 0.1 | 0.25 | 03/31/22 18:34 | jlw |

Wet Chemistry

| Parameter | EPA Method | Dilution | Result | Qual | XQ | Units | MDL | PQL | Date | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Alkalinity as CaCO3 | SM2320B - Titration | | | | | | | | | |
| Bicarbonate as CaCO3 | | 1 | 491 | | | mg/L | 2 | 20 | 03/28/22 0:00 | jck |
| Carbonate as CaCO3 | | 1 | <2 | U | | mg/L | 2 | 20 | 03/28/22 0:00 | jck |
| Hydroxide as CaCO3 | | 1 | <2 | U | | mg/L | 2 | 20 | 03/28/22 0:00 | jck |
| Total Alkalinity | | 1 | 491 | | | mg/L | 2 | 20 | 03/28/22 0:00 | jck |
| Chloride | SM4500Cl-E | 1 | 93.7 | | * | mg/L | 0.5 | 2 | 04/04/22 11:39 | syw |
| Fluoride | SM4500F-C | 1 | 0.57 | | | mg/L | 0.15 | 0.35 | 04/01/22 20:06 | eep |
| Nitrate as N, dissolved | Calculation: NO3NO2 minus NO2 | | 1.22 | | | mg/L | 0.02 | 0.1 | 04/12/22 0:00 | calc |
| Nitrate/Nitrite as N, dissolved | M353.2 - Automated Cadmium Reduction | 1 | 1.24 | | | mg/L | 0.02 | 0.1 | 03/23/22 22:32 | pjb |
| Nitrite as N, dissolved | M353.2 - Automated Cadmium Reduction | 1 | 0.020 | B | * | mg/L | 0.01 | 0.05 | 03/23/22 22:32 | pjb |
| Residue, Filterable (TDS) @180C | SM2540C | 2 | 5760 | | * | mg/L | 40 | 80 | 03/24/22 13:44 | anc |
| Sulfate | D516-02/-07/-11 - TURBIDIMETRIC | 125 | 3650 | | * | mg/L | 125 | 625 | 04/04/22 22:32 | mjj1 |

**GCC Rio Grande**
Project ID: 105495
Sample ID: MW-2B

ACZ Sample ID: ***L72128-03***
Date Sampled: *03/22/22 15:35*
Date Received: *03/23/22*
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 | 04/01/22 16:10 | jlw |
| Arsenic, dissolved | M200.8 ICP-MS | 5 | <0.001 | U | | mg/L | 0.001 | 0.005 | 04/01/22 13:50 | kja |
| Beryllium, dissolved | M200.7 ICP | 5 | <0.05 | U | | mg/L | 0.05 | 0.25 | 04/01/22 16:10 | jlw |
| Boron, dissolved | M200.7 ICP | 5 | 0.346 | B | | mg/L | 0.15 | 0.5 | 04/01/22 16:10 | jlw |
| Cadmium, dissolved | M200.8 ICP-MS | 5 | <0.00025 | U | | mg/L | 0.00025 | 0.00125 | 04/01/22 13:50 | kja |
| Calcium, dissolved | M200.7 ICP | 5 | 383 | | | mg/L | 0.5 | 2.5 | 04/01/22 16:10 | jlw |
| Chromium, dissolved | M200.7 ICP | 5 | <0.1 | U | | mg/L | 0.1 | 0.25 | 04/01/22 16:10 | jlw |
| Cobalt, dissolved | M200.7 ICP | 5 | <0.1 | U | | mg/L | 0.1 | 0.25 | 04/04/22 13:40 | jlw |
| Copper, dissolved | M200.7 ICP | 5 | <0.05 | U | | mg/L | 0.05 | 0.25 | 04/01/22 16:10 | jlw |
| Iron, dissolved | M200.7 ICP | 5 | <0.3 | U | | mg/L | 0.3 | 0.75 | 04/04/22 13:40 | jlw |
| Lead, dissolved | M200.8 ICP-MS | 5 | <0.0005 | U | | mg/L | 0.0005 | 0.0025 | 04/01/22 13:50 | kja |
| Lithium, dissolved | M200.7 ICP | 5 | 0.520 | | | mg/L | 0.04 | 0.2 | 04/01/22 16:10 | jlw |
| Magnesium, dissolved | M200.7 ICP | 5 | 431 | | | mg/L | 1 | 5 | 04/04/22 13:40 | jlw |
| Manganese, dissolved | M200.7 ICP | 5 | <0.05 | U | * | mg/L | 0.05 | 0.25 | 04/01/22 16:10 | jlw |
| Mercury, dissolved | M245.1 CVAA | 1 | <0.0002 | U | | mg/L | 0.0002 | 0.001 | 03/28/22 12:25 | mlh |
| Nickel, dissolved | M200.7 ICP | 5 | <0.04 | U | | mg/L | 0.04 | 0.2 | 04/04/22 13:40 | jlw |
| Potassium, dissolved | M200.7 ICP | 5 | 10.5 | | | mg/L | 1 | 5 | 04/01/22 16:10 | jlw |
| Selenium, dissolved | M200.8 ICP-MS | 5 | 0.0119 | | | mg/L | 0.0005 | 0.00125 | 04/01/22 13:50 | kja |
| Sodium, dissolved | M200.7 ICP | 5 | 642 | | | mg/L | 1 | 5 | 04/01/22 16:10 | jlw |
| Vanadium, dissolved | M200.7 ICP | 5 | <0.05 | U | | mg/L | 0.05 | 0.125 | 04/01/22 16:10 | jlw |
| Zinc, dissolved | M200.7 ICP | 5 | <0.1 | U | | mg/L | 0.1 | 0.25 | 04/04/22 13:40 | jlw |

Wet Chemistry

| Parameter | EPA Method | Dilution | Result | Qual | XQ | Units | MDL | PQL | Date | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Alkalinity as CaCO3 | SM2320B - Titration | | | | | | | | | |
| Bicarbonate as CaCO3 | | 1 | 492 | | | mg/L | 2 | 20 | 03/28/22 0:00 | jck |
| Carbonate as CaCO3 | | 1 | <2 | U | | mg/L | 2 | 20 | 03/28/22 0:00 | jck |
| Hydroxide as CaCO3 | | 1 | <2 | U | | mg/L | 2 | 20 | 03/28/22 0:00 | jck |
| Total Alkalinity | | 1 | 492 | | | mg/L | 2 | 20 | 03/28/22 0:00 | jck |
| Chloride | SM4500Cl-E | 1 | 93.9 | | * | mg/L | 0.5 | 2 | 04/04/22 11:45 | syw |
| Fluoride | SM4500F-C | 1 | 0.56 | | | mg/L | 0.15 | 0.35 | 04/01/22 20:14 | eep |
| Nitrate as N, dissolved | Calculation: NO3NO2 minus NO2 | | 1.18 | | | mg/L | 0.02 | 0.1 | 04/12/22 0:00 | calc |
| Nitrate/Nitrite as N, dissolved | M353.2 - Automated Cadmium Reduction | 1 | 1.20 | | | mg/L | 0.02 | 0.1 | 03/23/22 22:33 | pjb |
| Nitrite as N, dissolved | M353.2 - Automated Cadmium Reduction | 1 | 0.018 | B | * | mg/L | 0.01 | 0.05 | 03/23/22 22:33 | pjb |
| Residue, Filterable (TDS) @180C | SM2540C | 2 | 5730 | | * | mg/L | 40 | 80 | 03/24/22 13:46 | anc |
| Sulfate | D516-02/-07/-11 - TURBIDIMETRIC | 125 | 3720 | | * | mg/L | 125 | 625 | 04/04/22 22:32 | mjj1 |

## 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

**GCC**

ACZ Project ID: ***L72128***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG539151** | | | | | | | | | | | | | |
| WG539151PBW1 | PBW | 03/28/22 20:00 | | | | 14.4 | mg/L | | -20 | 20 | | | |
| WG539151LCSW3 | LCSW | 03/28/22 20:19 | WC220328-1 | 820.0001 | | 817.9 | mg/L | 100 | 90 | 110 | | | |
| L72128-03DUP | DUP | 03/28/22 22:02 | | | 492 | 507 | mg/L | | | | 3 | 20 | |
| WG539151LCSW6 | LCSW | 03/29/22 0:00 | WC220328-1 | 820.0001 | | 840.2 | mg/L | 102 | 90 | 110 | | | |
| WG539151PBW2 | PBW | 03/29/22 0:06 | | | | 5 | mg/L | | -20 | 20 | | | |
| WG539151LCSW9 | LCSW | 03/29/22 3:47 | WC220328-1 | 820.0001 | | 841.4 | mg/L | 103 | 90 | 110 | | | |
| WG539151PBW3 | PBW | 03/29/22 3:53 | | | | 4.4 | mg/L | | -20 | 20 | | | |
| WG539151LCSW12 | LCSW | 03/29/22 6:49 | WC220328-1 | 820.0001 | | 841.9 | mg/L | 103 | 90 | 110 | | | |
| WG539151PBW4 | PBW | 03/29/22 6:55 | | | | 5.7 | mg/L | | -20 | 20 | | | |
| WG539151LCSW15 | LCSW | 03/29/22 9:54 | WC220328-1 | 820.0001 | | 842.2 | mg/L | 103 | 90 | 110 | | | |

**Aluminum, dissolved** M200.7 ICP

| ACZ ID | Type | Analyzed | PCN/SCN | QC | Sample | Found | Units | Rec% | Lower | Upper | RPD | Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG539409** | | | | | | | | | | | | | |
| WG539409ICV | ICV | 03/31/22 17:07 | II220311-1 | 2 | | 1.979 | mg/L | 99 | 95 | 105 | | | |
| WG539409ICB | ICB | 03/31/22 17:14 | | | | U | mg/L | | -0.15 | 0.15 | | | |
| WG539409PQV | PQV | 03/31/22 17:17 | II220329-2 | .2502 | | .249 | mg/L | 100 | 70 | 130 | | | |
| WG539409SIC | SIC | 03/31/22 17:20 | II220228-3 | 200.4102 | | 199.1 | mg/L | 99 | 1 | 200 | | | |
| WG539409LFB | LFB | 03/31/22 17:27 | II220330-3 | 1.0008 | | 1.017 | mg/L | 102 | 85 | 115 | | | |
| WG539409CCV1 | CCV | 03/31/22 17:59 | II220324-1 | 1 | | .979 | mg/L | 98 | 90 | 110 | | | |
| WG539409CCB1 | CCB | 03/31/22 18:02 | | | | U | mg/L | | -0.15 | 0.15 | | | |
| WG539409CCV2 | CCV | 03/31/22 18:38 | II220324-1 | 1 | | .983 | mg/L | 98 | 90 | 110 | | | |
| WG539409CCB2 | CCB | 03/31/22 18:41 | | | | U | mg/L | | -0.15 | 0.15 | | | |
| L72128-02AS | AS | 03/31/22 18:44 | II220330-3 | 5.004 | U | 5.13 | mg/L | 103 | 85 | 115 | | | |
| L72128-02ASD | ASD | 03/31/22 18:48 | II220330-3 | 5.004 | U | 5.1 | mg/L | 102 | 85 | 115 | 1 | 20 | |
| WG539409CCB3 | CCB | 03/31/22 19:04 | | | | U | mg/L | | -0.15 | 0.15 | | | |
| **WG539461** | | | | | | | | | | | | | |
| WG539461ICV | ICV | 04/01/22 14:26 | II220311-1 | 2 | | 1.911 | mg/L | 96 | 95 | 105 | | | |
| WG539461ICB | ICB | 04/01/22 14:32 | | | | U | mg/L | | -0.15 | 0.15 | | | |
| WG539461PQV | PQV | 04/01/22 14:36 | II220329-2 | .2502 | | .218 | mg/L | 87 | 70 | 130 | | | |
| WG539461SIC | SIC | 04/01/22 14:39 | II220228-3 | 200.4102 | | 193.5 | mg/L | 97 | 1 | 200 | | | |
| WG539461LFB | LFB | 04/01/22 14:45 | II220330-3 | 1.0008 | | .992 | mg/L | 99 | 85 | 115 | | | |
| WG539461CCV1 | CCV | 04/01/22 15:18 | II220324-1 | 1 | | .946 | mg/L | 95 | 90 | 110 | | | |
| WG539461CCB1 | CCB | 04/01/22 15:21 | | | | U | mg/L | | -0.15 | 0.15 | | | |
| L66185-44AS | AS | 04/01/22 15:54 | II220330-3 | 1.0008 | .38 | 1.358 | mg/L | 98 | 85 | 115 | | | |
| WG539461CCV2 | CCV | 04/01/22 15:57 | II220324-1 | 1 | | .938 | mg/L | 94 | 90 | 110 | | | |
| WG539461CCB2 | CCB | 04/01/22 16:00 | | | | U | mg/L | | -0.15 | 0.15 | | | |
| L66185-44ASD | ASD | 04/01/22 16:03 | II220330-3 | 1.0008 | .38 | 1.353 | mg/L | 97 | 85 | 115 | 0 | 20 | |
| WG539461CCV3 | CCV | 04/01/22 16:20 | II220324-1 | 1 | | .967 | mg/L | 97 | 90 | 110 | | | |
| WG539461CCB3 | CCB | 04/01/22 16:23 | | | | U | mg/L | | -0.15 | 0.15 | | | |

**GCC**

ACZ Project ID: ***L72128***

*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.*

**Arsenic, dissolved** M200.8 ICP-MS

| ACZ ID | Type | Analyzed | PCN/SCN | QC | Sample | Found | Units | Rec% | Lower | Upper | RPD | Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG539465** | | | | | | | | | | | | | |
| WG539465ICV | ICV | 04/01/22 13:14 | MS220125-1 | .05 | | .05179 | mg/L | 104 | 90 | 110 | | | |
| WG539465ICB | ICB | 04/01/22 13:15 | | | | U | mg/L | | -0.00044 | 0.00044 | | | |
| WG539465LFB | LFB | 04/01/22 13:17 | MS220228-9 | .05005 | | .05027 | mg/L | 100 | 85 | 115 | | | |
| WG539465CCV1 | CCV | 04/01/22 13:32 | MS220330-4 | .1001 | | .10007 | mg/L | 100 | 90 | 110 | | | |
| WG539465CCB1 | CCB | 04/01/22 13:33 | | | | U | mg/L | | -0.0006 | 0.0006 | | | |
| WG539465CCV2 | CCV | 04/01/22 13:53 | MS220330-4 | .1001 | | .10114 | mg/L | 101 | 90 | 110 | | | |
| WG539465CCB2 | CCB | 04/01/22 13:55 | | | | U | mg/L | | -0.0006 | 0.0006 | | | |
| L72130-05AS | AS | 04/01/22 14:04 | MS220228-9 | .05005 | .00564 | .05916 | mg/L | 107 | 70 | 130 | | | |
| L72130-05ASD | ASD | 04/01/22 14:06 | MS220228-9 | .05005 | .00564 | .05941 | mg/L | 107 | 70 | 130 | 0 | 20 | |
| WG539465CCV3 | CCV | 04/01/22 14:10 | MS220330-4 | .1001 | | .10193 | mg/L | 102 | 90 | 110 | | | |
| WG539465CCB3 | CCB | 04/01/22 14:12 | | | | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG539409** | | | | | | | | | | | | | |
| WG539409ICV | ICV | 03/31/22 17:07 | II220311-1 | 2 | | 1.963 | mg/L | 98 | 95 | 105 | | | |
| WG539409ICB | ICB | 03/31/22 17:14 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| WG539409PQV | PQV | 03/31/22 17:17 | II220329-2 | .05005 | | .052 | mg/L | 104 | 70 | 130 | | | |
| WG539409SIC | SIC | 03/31/22 17:20 | II220228-3 | .1001 | | .1 | mg/L | 100 | 80 | 120 | | | |
| WG539409LFB | LFB | 03/31/22 17:27 | II220330-3 | .5005 | | .506 | mg/L | 101 | 85 | 115 | | | |
| WG539409CCV1 | CCV | 03/31/22 17:59 | II220324-1 | 1 | | .98 | mg/L | 98 | 90 | 110 | | | |
| WG539409CCB1 | CCB | 03/31/22 18:02 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| WG539409CCV2 | CCV | 03/31/22 18:38 | II220324-1 | 1 | | .988 | mg/L | 99 | 90 | 110 | | | |
| WG539409CCB2 | CCB | 03/31/22 18:41 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| L72128-02AS | AS | 03/31/22 18:44 | II220330-3 | 2.5025 | U | 2.512 | mg/L | 100 | 85 | 115 | | | |
| L72128-02ASD | ASD | 03/31/22 18:48 | II220330-3 | 2.5025 | U | 2.482 | mg/L | 99 | 85 | 115 | 1 | 20 | |
| WG539409CCB3 | CCB | 03/31/22 19:04 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| **WG539461** | | | | | | | | | | | | | |
| WG539461ICV | ICV | 04/01/22 14:26 | II220311-1 | 2 | | 1.911 | mg/L | 96 | 95 | 105 | | | |
| WG539461ICB | ICB | 04/01/22 14:32 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| WG539461PQV | PQV | 04/01/22 14:36 | II220329-2 | .05005 | | .048 | mg/L | 96 | 70 | 130 | | | |
| WG539461SIC | SIC | 04/01/22 14:39 | II220228-3 | .1001 | | .094 | mg/L | 94 | 80 | 120 | | | |
| WG539461LFB | LFB | 04/01/22 14:45 | II220330-3 | .5005 | | .492 | mg/L | 98 | 85 | 115 | | | |
| WG539461CCV1 | CCV | 04/01/22 15:18 | II220324-1 | 1 | | .965 | mg/L | 97 | 90 | 110 | | | |
| WG539461CCB1 | CCB | 04/01/22 15:21 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| L66185-44AS | AS | 04/01/22 15:54 | II220330-3 | .5005 | U | .489 | mg/L | 98 | 85 | 115 | | | |
| WG539461CCV2 | CCV | 04/01/22 15:57 | II220324-1 | 1 | | .954 | mg/L | 95 | 90 | 110 | | | |
| WG539461CCB2 | CCB | 04/01/22 16:00 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| L66185-44ASD | ASD | 04/01/22 16:03 | II220330-3 | .5005 | U | .491 | mg/L | 98 | 85 | 115 | 0 | 20 | |
| WG539461CCV3 | CCV | 04/01/22 16:20 | II220324-1 | 1 | | .969 | mg/L | 97 | 90 | 110 | | | |
| WG539461CCB3 | CCB | 04/01/22 16:23 | | | | U | mg/L | | -0.03 | 0.03 | | | |

**GCC**

ACZ Project ID: ***L72128***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG539409** | | | | | | | | | | | | | |
| WG539409ICV | ICV | 03/31/22 17:07 | II220311-1 | 2 | | 2.054 | mg/L | 103 | 95 | 105 | | | |
| WG539409ICB | ICB | 03/31/22 17:14 | | | | U | mg/L | | -0.09 | 0.09 | | | |
| WG539409PQV | PQV | 03/31/22 17:17 | II220329-2 | .1001 | | .115 | mg/L | 115 | 70 | 130 | | | |
| WG539409SIC | SIC | 03/31/22 17:20 | II220228-3 | .1001 | | .108 | mg/L | 108 | 80 | 120 | | | |
| WG539409LFB | LFB | 03/31/22 17:27 | II220330-3 | .5005 | | .534 | mg/L | 107 | 85 | 115 | | | |
| WG539409CCV1 | CCV | 03/31/22 17:59 | II220324-1 | 1 | | 1.027 | mg/L | 103 | 90 | 110 | | | |
| WG539409CCB1 | CCB | 03/31/22 18:02 | | | | U | mg/L | | -0.09 | 0.09 | | | |
| WG539409CCV2 | CCV | 03/31/22 18:38 | II220324-1 | 1 | | .997 | mg/L | 100 | 90 | 110 | | | |
| WG539409CCB2 | CCB | 03/31/22 18:41 | | | | U | mg/L | | -0.09 | 0.09 | | | |
| L72128-02AS | AS | 03/31/22 18:44 | II220330-3 | 2.5025 | .389 | 3.045 | mg/L | 106 | 85 | 115 | | | |
| L72128-02ASD | ASD | 03/31/22 18:48 | II220330-3 | 2.5025 | .389 | 2.997 | mg/L | 104 | 85 | 115 | 2 | 20 | |
| WG539409CCB3 | CCB | 03/31/22 19:04 | | | | U | mg/L | | -0.09 | 0.09 | | | |
| **WG539461** | | | | | | | | | | | | | |
| WG539461ICV | ICV | 04/01/22 14:26 | II220311-1 | 2 | | 1.966 | mg/L | 98 | 95 | 105 | | | |
| WG539461ICB | ICB | 04/01/22 14:32 | | | | U | mg/L | | -0.09 | 0.09 | | | |
| WG539461PQV | PQV | 04/01/22 14:36 | II220329-2 | .1001 | | .111 | mg/L | 111 | 70 | 130 | | | |
| WG539461SIC | SIC | 04/01/22 14:39 | II220228-3 | .1001 | | .114 | mg/L | 114 | 80 | 120 | | | |
| WG539461LFB | LFB | 04/01/22 14:45 | II220330-3 | .5005 | | .524 | mg/L | 105 | 85 | 115 | | | |
| WG539461CCV1 | CCV | 04/01/22 15:18 | II220324-1 | 1 | | 1.011 | mg/L | 101 | 90 | 110 | | | |
| WG539461CCB1 | CCB | 04/01/22 15:21 | | | | U | mg/L | | -0.09 | 0.09 | | | |
| L66185-44AS | AS | 04/01/22 15:54 | II220330-3 | .5005 | U | .508 | mg/L | 101 | 85 | 115 | | | |
| WG539461CCV2 | CCV | 04/01/22 15:57 | II220324-1 | 1 | | 1.003 | mg/L | 100 | 90 | 110 | | | |
| WG539461CCB2 | CCB | 04/01/22 16:00 | | | | U | mg/L | | -0.09 | 0.09 | | | |
| L66185-44ASD | ASD | 04/01/22 16:03 | II220330-3 | .5005 | U | .513 | mg/L | 102 | 85 | 115 | 1 | 20 | |
| WG539461CCV3 | CCV | 04/01/22 16:20 | II220324-1 | 1 | | .998 | mg/L | 100 | 90 | 110 | | | |
| WG539461CCB3 | CCB | 04/01/22 16:23 | | | | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG539465** | | | | | | | | | | | | | |
| WG539465ICV | ICV | 04/01/22 13:14 | MS220125-1 | .05 | | .052388 | mg/L | 105 | 90 | 110 | | | |
| WG539465ICB | ICB | 04/01/22 13:15 | | | | U | mg/L | | -0.00011 | 0.00011 | | | |
| WG539465LFB | LFB | 04/01/22 13:17 | MS220228-9 | .05005 | | .049871 | mg/L | 100 | 85 | 115 | | | |
| WG539465CCV1 | CCV | 04/01/22 13:32 | MS220330-4 | .1001 | | .099881 | mg/L | 100 | 90 | 110 | | | |
| WG539465CCB1 | CCB | 04/01/22 13:33 | | | | U | mg/L | | -0.00015 | 0.00015 | | | |
| WG539465CCV2 | CCV | 04/01/22 13:53 | MS220330-4 | .1001 | | .098642 | mg/L | 99 | 90 | 110 | | | |
| WG539465CCB2 | CCB | 04/01/22 13:55 | | | | U | mg/L | | -0.00015 | 0.00015 | | | |
| L72130-05AS | AS | 04/01/22 14:04 | MS220228-9 | .05005 | .000196 | .050984 | mg/L | 101 | 70 | 130 | | | |
| L72130-05ASD | ASD | 04/01/22 14:06 | MS220228-9 | .05005 | .000196 | .051108 | mg/L | 102 | 70 | 130 | 0 | 20 | |
| WG539465CCV3 | CCV | 04/01/22 14:10 | MS220330-4 | .1001 | | .098915 | mg/L | 99 | 90 | 110 | | | |
| WG539465CCB3 | CCB | 04/01/22 14:12 | | | | U | mg/L | | -0.00015 | 0.00015 | | | |

**GCC**

ACZ Project ID: ***L72128***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG539409** | | | | | | | | | | | | | |
| WG539409ICV | ICV | 03/31/22 17:07 | II220311-1 | 100 | | 100.73 | mg/L | 101 | 95 | 105 | | | |
| WG539409ICB | ICB | 03/31/22 17:14 | | | | U | mg/L | | -0.3 | 0.3 | | | |
| WG539409PQV | PQV | 03/31/22 17:17 | II220329-2 | .5003 | | .53 | mg/L | 106 | 70 | 130 | | | |
| WG539409SIC | SIC | 03/31/22 17:20 | II220228-3 | 200.6203 | | 196.9 | mg/L | 98 | 1 | 200 | | | |
| WG539409LFB | LFB | 03/31/22 17:27 | II220330-3 | 67.99026 | | 64.5 | mg/L | 95 | 85 | 115 | | | |
| WG539409CCV1 | CCV | 03/31/22 17:59 | II220324-1 | 50 | | 50.77 | mg/L | 102 | 90 | 110 | | | |
| WG539409CCB1 | CCB | 03/31/22 18:02 | | | | U | mg/L | | -0.3 | 0.3 | | | |
| WG539409CCV2 | CCV | 03/31/22 18:38 | II220324-1 | 50 | | 50.64 | mg/L | 101 | 90 | 110 | | | |
| WG539409CCB2 | CCB | 03/31/22 18:41 | | | | U | mg/L | | -0.3 | 0.3 | | | |
| L72128-02AS | AS | 03/31/22 18:44 | II220330-3 | 339.9513 | 396 | 722.5 | mg/L | 96 | 85 | 115 | | | |
| L72128-02ASD | ASD | 03/31/22 18:48 | II220330-3 | 339.9513 | 396 | 712.5 | mg/L | 93 | 85 | 115 | 1 | 20 | |
| WG539409CCB3 | CCB | 03/31/22 19:04 | | | | U | mg/L | | -0.3 | 0.3 | | | |
| **WG539461** | | | | | | | | | | | | | |
| WG539461ICV | ICV | 04/01/22 14:26 | II220311-1 | 100 | | 97.58 | mg/L | 98 | 95 | 105 | | | |
| WG539461ICB | ICB | 04/01/22 14:32 | | | | U | mg/L | | -0.3 | 0.3 | | | |
| WG539461PQV | PQV | 04/01/22 14:36 | II220329-2 | .5003 | | .48 | mg/L | 96 | 70 | 130 | | | |
| WG539461SIC | SIC | 04/01/22 14:39 | II220228-3 | 200.6203 | | 190.9 | mg/L | 95 | 1 | 200 | | | |
| WG539461LFB | LFB | 04/01/22 14:45 | II220330-3 | 67.99026 | | 63.86 | mg/L | 94 | 85 | 115 | | | |
| WG539461CCV1 | CCV | 04/01/22 15:18 | II220324-1 | 50 | | 49.3 | mg/L | 99 | 90 | 110 | | | |
| WG539461CCB1 | CCB | 04/01/22 15:21 | | | | U | mg/L | | -0.3 | 0.3 | | | |
| L66185-44AS | AS | 04/01/22 15:54 | II220330-3 | 67.99026 | 4.92 | 67.11 | mg/L | 91 | 85 | 115 | | | |
| WG539461CCV2 | CCV | 04/01/22 15:57 | II220324-1 | 50 | | 48.97 | mg/L | 98 | 90 | 110 | | | |
| WG539461CCB2 | CCB | 04/01/22 16:00 | | | | U | mg/L | | -0.3 | 0.3 | | | |
| L66185-44ASD | ASD | 04/01/22 16:03 | II220330-3 | 67.99026 | 4.92 | 67.72 | mg/L | 92 | 85 | 115 | 1 | 20 | |
| WG539461CCV3 | CCV | 04/01/22 16:20 | II220324-1 | 50 | | 49.73 | mg/L | 99 | 90 | 110 | | | |
| WG539461CCB3 | CCB | 04/01/22 16:23 | | | | U | mg/L | | -0.3 | 0.3 | | | |

**GCC**

ACZ Project ID: ***L72128***

*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.*

**Chloride** SM4500Cl-E

| ACZ ID | Type | Analyzed | PCN/SCN | QC | Sample | Found | Units | Rec% | Lower | Upper | RPD | Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG539575** | | | | | | | | | | | | | |
| WG539575ICB | ICB | 04/04/22 9:03 | | | | U | mg/L | | -1.5 | 1.5 | | | |
| WG539575ICV | ICV | 04/04/22 9:03 | WI210503-1 | 54.89 | | 57.85 | mg/L | 105 | 90 | 110 | | | |
| WG539575CCV1 | CCV | 04/04/22 11:36 | WI220323-1 | 49.95 | | 53.46 | mg/L | 107 | 90 | 110 | | | |
| WG539575CCB1 | CCB | 04/04/22 11:36 | | | | U | mg/L | | -1.5 | 1.5 | | | |
| WG539575CCV2 | CCV | 04/04/22 11:38 | WI220323-1 | 49.95 | | 53.42 | mg/L | 107 | 90 | 110 | | | |
| WG539575CCB2 | CCB | 04/04/22 11:38 | | | | U | mg/L | | -1.5 | 1.5 | | | |
| WG539575CCV3 | CCV | 04/04/22 11:39 | WI220323-1 | 49.95 | | 53.4 | mg/L | 107 | 90 | 110 | | | |
| WG539575CCB3 | CCB | 04/04/22 11:39 | | | | U | mg/L | | -1.5 | 1.5 | | | |
| WG539575CCV4 | CCV | 04/04/22 11:45 | WI220323-1 | 49.95 | | 53.54 | mg/L | 107 | 90 | 110 | | | |
| WG539575CCB4 | CCB | 04/04/22 11:45 | | | | U | mg/L | | -1.5 | 1.5 | | | |
| L72130-02AS | AS | 04/04/22 11:45 | WI220328-1 | 29.97 | 70.2 | 96.19 | mg/L | 87 | 90 | 110 | | | M2 |
| L72130-03DUP | DUP | 04/04/22 11:45 | | | 70.9 | 70.61 | mg/L | | | | 0 | 20 | |
| WG539575CCV5 | CCV | 04/04/22 11:46 | WI220323-1 | 49.95 | | 53.29 | mg/L | 107 | 90 | 110 | | | |
| WG539575CCB5 | CCB | 04/04/22 11:46 | | | | U | mg/L | | -1.5 | 1.5 | | | |
| WG539575CCV6 | CCV | 04/04/22 11:52 | WI220323-1 | 49.95 | | 53.34 | mg/L | 107 | 90 | 110 | | | |
| WG539575CCB6 | CCB | 04/04/22 11:52 | | | | U | mg/L | | -1.5 | 1.5 | | | |
| WG539575CCV7 | CCV | 04/04/22 12:13 | WI220323-1 | 49.95 | | 53.49 | mg/L | 107 | 90 | 110 | | | |
| WG539575CCB7 | CCB | 04/04/22 12:13 | | | | U | mg/L | | -1.5 | 1.5 | | | |
| WG539575LFB1 | LFB | 04/04/22 12:13 | WI220328-1 | 29.97 | | 31.98 | mg/L | 107 | 90 | 110 | | | |
| WG539575LFB2 | LFB | 04/04/22 12:13 | WI220328-1 | 29.97 | | 31.82 | mg/L | 106 | 90 | 110 | | | |
| WG539575CCV8 | CCV | 04/04/22 12:13 | WI220323-1 | 49.95 | | 53.28 | mg/L | 107 | 90 | 110 | | | |
| WG539575CCB8 | CCB | 04/04/22 12:13 | | | | U | mg/L | | -1.5 | 1.5 | | | |

**GCC**

ACZ Project ID: ***L72128***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG539409** | | | | | | | | | | | | | |
| WG539409ICV | ICV | 03/31/22 17:07 | II220311-1 | 2 | | 1.983 | mg/L | 99 | 95 | 105 | | | |
| WG539409ICB | ICB | 03/31/22 17:14 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| WG539409PQV | PQV | 03/31/22 17:17 | II220329-2 | .05005 | | .044 | mg/L | 88 | 70 | 130 | | | |
| WG539409SIC | SIC | 03/31/22 17:20 | II220228-3 | .1001 | | .102 | mg/L | 102 | 80 | 120 | | | |
| WG539409LFB | LFB | 03/31/22 17:27 | II220330-3 | .5005 | | .505 | mg/L | 101 | 85 | 115 | | | |
| WG539409CCV1 | CCV | 03/31/22 17:59 | II220324-1 | 1 | | .989 | mg/L | 99 | 90 | 110 | | | |
| WG539409CCB1 | CCB | 03/31/22 18:02 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| WG539409CCV2 | CCV | 03/31/22 18:38 | II220324-1 | 1 | | 1 | mg/L | 100 | 90 | 110 | | | |
| WG539409CCB2 | CCB | 03/31/22 18:41 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| L72128-02AS | AS | 03/31/22 18:44 | II220330-3 | 2.5025 | U | 2.489 | mg/L | 99 | 85 | 115 | | | |
| L72128-02ASD | ASD | 03/31/22 18:48 | II220330-3 | 2.5025 | U | 2.491 | mg/L | 100 | 85 | 115 | 0 | 20 | |
| WG539409CCB3 | CCB | 03/31/22 19:04 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| **WG539461** | | | | | | | | | | | | | |
| WG539461ICV | ICV | 04/01/22 14:26 | II220311-1 | 2 | | 1.904 | mg/L | 95 | 95 | 105 | | | |
| WG539461ICB | ICB | 04/01/22 14:32 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| WG539461PQV | PQV | 04/01/22 14:36 | II220329-2 | .05005 | | .057 | mg/L | 114 | 70 | 130 | | | |
| WG539461SIC | SIC | 04/01/22 14:39 | II220228-3 | .1001 | | .097 | mg/L | 97 | 80 | 120 | | | |
| WG539461LFB | LFB | 04/01/22 14:45 | II220330-3 | .5005 | | .5 | mg/L | 100 | 85 | 115 | | | |
| WG539461CCV1 | CCV | 04/01/22 15:18 | II220324-1 | 1 | | .98 | mg/L | 98 | 90 | 110 | | | |
| WG539461CCB1 | CCB | 04/01/22 15:21 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| L66185-44AS | AS | 04/01/22 15:54 | II220330-3 | .5005 | U | .484 | mg/L | 97 | 85 | 115 | | | |
| WG539461CCV2 | CCV | 04/01/22 15:57 | II220324-1 | 1 | | .976 | mg/L | 98 | 90 | 110 | | | |
| WG539461CCB2 | CCB | 04/01/22 16:00 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| L66185-44ASD | ASD | 04/01/22 16:03 | II220330-3 | .5005 | U | .493 | mg/L | 99 | 85 | 115 | 2 | 20 | |
| WG539461CCV3 | CCV | 04/01/22 16:20 | II220324-1 | 1 | | .983 | mg/L | 98 | 90 | 110 | | | |
| WG539461CCB3 | CCB | 04/01/22 16:23 | | | | U | mg/L | | -0.06 | 0.06 | | | |

**GCC**

ACZ Project ID: ***L72128***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG539409** | | | | | | | | | | | | | |
| WG539409ICV | ICV | 03/31/22 17:07 | II220311-1 | 2.01 | | 1.987 | mg/L | 99 | 95 | 105 | | | |
| WG539409ICB | ICB | 03/31/22 17:14 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| WG539409PQV | PQV | 03/31/22 17:17 | II220329-2 | .05005 | | .052 | mg/L | 104 | 70 | 130 | | | |
| WG539409SIC | SIC | 03/31/22 17:20 | II220228-3 | .1001 | | .094 | mg/L | 94 | 80 | 120 | | | |
| WG539409LFB | LFB | 03/31/22 17:27 | II220330-3 | .5005 | | .495 | mg/L | 99 | 85 | 115 | | | |
| WG539409CCV1 | CCV | 03/31/22 17:59 | II220324-1 | 1.005 | | 1.008 | mg/L | 100 | 90 | 110 | | | |
| WG539409CCB1 | CCB | 03/31/22 18:02 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| WG539409CCV2 | CCV | 03/31/22 18:38 | II220324-1 | 1.005 | | .976 | mg/L | 97 | 90 | 110 | | | |
| WG539409CCB2 | CCB | 03/31/22 18:41 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| L72128-02AS | AS | 03/31/22 18:44 | II220330-3 | 2.5025 | U | 2.479 | mg/L | 99 | 85 | 115 | | | |
| L72128-02ASD | ASD | 03/31/22 18:48 | II220330-3 | 2.5025 | U | 2.441 | mg/L | 98 | 85 | 115 | 2 | 20 | |
| WG539409CCB3 | CCB | 03/31/22 19:04 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| **WG539550** | | | | | | | | | | | | | |
| WG539550ICV | ICV | 04/04/22 11:58 | II220401-2 | 2.01 | | 1.947 | mg/L | 97 | 95 | 105 | | | |
| WG539550ICB | ICB | 04/04/22 12:04 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| WG539550PQV | PQV | 04/04/22 12:07 | II220329-2 | .05005 | | .056 | mg/L | 112 | 70 | 130 | | | |
| WG539550SIC | SIC | 04/04/22 12:10 | II220228-3 | .1001 | | .097 | mg/L | 97 | 80 | 120 | | | |
| WG539550LFB | LFB | 04/04/22 12:17 | II220330-3 | .5005 | | .507 | mg/L | 101 | 85 | 115 | | | |
| WG539550CCV1 | CCV | 04/04/22 12:49 | II220324-1 | 1.005 | | 1.005 | mg/L | 100 | 90 | 110 | | | |
| WG539550CCB1 | CCB | 04/04/22 12:52 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| L66185-44AS | AS | 04/04/22 13:24 | II220330-3 | .5005 | U | .534 | mg/L | 107 | 85 | 115 | | | |
| WG539550CCV2 | CCV | 04/04/22 13:27 | II220324-1 | 1.005 | | 1.004 | mg/L | 100 | 90 | 110 | | | |
| WG539550CCB2 | CCB | 04/04/22 13:30 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| L66185-44ASD | ASD | 04/04/22 13:34 | II220330-3 | .5005 | U | .532 | mg/L | 106 | 85 | 115 | 0 | 20 | |
| WG539550CCV3 | CCV | 04/04/22 13:50 | II220324-1 | 1.005 | | 1.005 | mg/L | 100 | 90 | 110 | | | |
| WG539550CCB3 | CCB | 04/04/22 13:53 | | | | U | mg/L | | -0.06 | 0.06 | | | |

## GCC

ACZ Project ID: ***L72128***

*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.*

**Copper, dissolved** M200.7 ICP

| ACZ ID | Type | Analyzed | PCN/SCN | QC | Sample | Found | Units | Rec% | Lower | Upper | RPD | Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG539409** | | | | | | | | | | | | | |
| WG539409ICV | ICV | 03/31/22 17:07 | II220311-1 | 2 | | 1.977 | mg/L | 99 | 95 | 105 | | | |
| WG539409ICB | ICB | 03/31/22 17:14 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| WG539409PQV | PQV | 03/31/22 17:17 | II220329-2 | .05 | | .048 | mg/L | 96 | 70 | 130 | | | |
| WG539409SIC | SIC | 03/31/22 17:20 | II220228-3 | .1 | | .1 | mg/L | 100 | 80 | 120 | | | |
| WG539409LFB | LFB | 03/31/22 17:27 | II220330-3 | .5 | | .502 | mg/L | 100 | 85 | 115 | | | |
| WG539409CCV1 | CCV | 03/31/22 17:59 | II220324-1 | 1 | | .989 | mg/L | 99 | 90 | 110 | | | |
| WG539409CCB1 | CCB | 03/31/22 18:02 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| WG539409CCV2 | CCV | 03/31/22 18:38 | II220324-1 | 1 | | .988 | mg/L | 99 | 90 | 110 | | | |
| WG539409CCB2 | CCB | 03/31/22 18:41 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| L72128-02AS | AS | 03/31/22 18:44 | II220330-3 | 2.5 | U | 2.48 | mg/L | 99 | 85 | 115 | | | |
| L72128-02ASD | ASD | 03/31/22 18:48 | II220330-3 | 2.5 | U | 2.479 | mg/L | 99 | 85 | 115 | 0 | 20 | |
| WG539409CCB3 | CCB | 03/31/22 19:04 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| **WG539461** | | | | | | | | | | | | | |
| WG539461ICV | ICV | 04/01/22 14:26 | II220311-1 | 2 | | 1.944 | mg/L | 97 | 95 | 105 | | | |
| WG539461ICB | ICB | 04/01/22 14:32 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| WG539461PQV | PQV | 04/01/22 14:36 | II220329-2 | .05 | | .046 | mg/L | 92 | 70 | 130 | | | |
| WG539461SIC | SIC | 04/01/22 14:39 | II220228-3 | .1 | | .096 | mg/L | 96 | 80 | 120 | | | |
| WG539461LFB | LFB | 04/01/22 14:45 | II220330-3 | .5 | | .489 | mg/L | 98 | 85 | 115 | | | |
| WG539461CCV1 | CCV | 04/01/22 15:18 | II220324-1 | 1 | | .968 | mg/L | 97 | 90 | 110 | | | |
| WG539461CCB1 | CCB | 04/01/22 15:21 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| L66185-44AS | AS | 04/01/22 15:54 | II220330-3 | .5 | .047 | .532 | mg/L | 97 | 85 | 115 | | | |
| WG539461CCV2 | CCV | 04/01/22 15:57 | II220324-1 | 1 | | .971 | mg/L | 97 | 90 | 110 | | | |
| WG539461CCB2 | CCB | 04/01/22 16:00 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| L66185-44ASD | ASD | 04/01/22 16:03 | II220330-3 | .5 | .047 | .531 | mg/L | 97 | 85 | 115 | 0 | 20 | |
| WG539461CCV3 | CCV | 04/01/22 16:20 | II220324-1 | 1 | | .979 | mg/L | 98 | 90 | 110 | | | |
| WG539461CCB3 | CCB | 04/01/22 16:23 | | | | U | mg/L | | -0.03 | 0.03 | | | |

**Fluoride** SM4500F-C

| ACZ ID | Type | Analyzed | PCN/SCN | QC | Sample | Found | Units | Rec% | Lower | Upper | RPD | Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG539478** | | | | | | | | | | | | | |
| WG539478ICV | ICV | 04/01/22 14:31 | WC220331-1 | 2.008 | | 2.13 | mg/L | 106 | 90 | 110 | | | |
| WG539478ICB | ICB | 04/01/22 14:36 | | | | U | mg/L | | -0.3 | 0.3 | | | |
| WG539478PQV | PQV | 04/01/22 14:41 | WC220304-2 | .3514 | | .39 | mg/L | 111 | 70 | 130 | | | |
| WG539478LFB1 | LFB | 04/01/22 14:46 | WC220104-2 | 5.02 | | 5.14 | mg/L | 102 | 90 | 110 | | | |
| WG539478CCV2 | CCV | 04/01/22 16:15 | WC220331-1 | 2.008 | | 2.19 | mg/L | 109 | 90 | 110 | | | |
| WG539478CCB2 | CCB | 04/01/22 16:23 | | | | U | mg/L | | -0.3 | 0.3 | | | |
| WG539478CCV3 | CCV | 04/01/22 17:58 | WC220331-1 | 2.008 | | 2.18 | mg/L | 109 | 90 | 110 | | | |
| WG539478CCB3 | CCB | 04/01/22 18:06 | | | | U | mg/L | | -0.3 | 0.3 | | | |
| WG539478LFB2 | LFB | 04/01/22 18:51 | WC220104-2 | 5.02 | | 5.42 | mg/L | 108 | 90 | 110 | | | |
| WG539478CCV4 | CCV | 04/01/22 19:27 | WC220331-1 | 2.008 | | 2.12 | mg/L | 106 | 90 | 110 | | | |
| WG539478CCB4 | CCB | 04/01/22 19:35 | | | | U | mg/L | | -0.3 | 0.3 | | | |
| L72128-03AS | AS | 04/01/22 20:22 | WC220104-2 | 5.02 | .56 | 5.39 | mg/L | 96 | 90 | 110 | | | |
| L72128-03ASD | ASD | 04/01/22 20:30 | WC220104-2 | 5.02 | .56 | 5.39 | mg/L | 96 | 90 | 110 | 0 | 20 | |
| WG539478CCV5 | CCV | 04/01/22 20:42 | WC220331-1 | 2.008 | | 2.14 | mg/L | 107 | 90 | 110 | | | |
| WG539478CCB5 | CCB | 04/01/22 20:50 | | | | U | mg/L | | -0.3 | 0.3 | | | |

**GCC**

ACZ Project ID: ***L72128***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG539409** | | | | | | | | | | | | | |
| WG539409ICV | ICV | 03/31/22 17:07 | II220311-1 | 2 | | 1.956 | mg/L | 98 | 95 | 105 | | | |
| WG539409ICB | ICB | 03/31/22 17:14 | | | | U | mg/L | | -0.18 | 0.18 | | | |
| WG539409PQV | PQV | 03/31/22 17:17 | II220329-2 | .150015 | | .149 | mg/L | 99 | 70 | 130 | | | |
| WG539409SIC | SIC | 03/31/22 17:20 | II220228-3 | 200.170015 | | 192.1 | mg/L | 96 | 1 | 200 | | | |
| WG539409LFB | LFB | 03/31/22 17:27 | II220330-3 | 1.0001 | | 1.031 | mg/L | 103 | 85 | 115 | | | |
| WG539409CCV1 | CCV | 03/31/22 17:59 | II220324-1 | 1 | | .995 | mg/L | 100 | 90 | 110 | | | |
| WG539409CCB1 | CCB | 03/31/22 18:02 | | | | U | mg/L | | -0.18 | 0.18 | | | |
| WG539409CCV2 | CCV | 03/31/22 18:38 | II220324-1 | 1 | | .989 | mg/L | 99 | 90 | 110 | | | |
| WG539409CCB2 | CCB | 03/31/22 18:41 | | | | U | mg/L | | -0.18 | 0.18 | | | |
| L72128-02AS | AS | 03/31/22 18:44 | II220330-3 | 5.0005 | U | 5.17 | mg/L | 103 | 85 | 115 | | | |
| L72128-02ASD | ASD | 03/31/22 18:48 | II220330-3 | 5.0005 | U | 5.08 | mg/L | 102 | 85 | 115 | 2 | 20 | |
| WG539409CCB3 | CCB | 03/31/22 19:04 | | | | U | mg/L | | -0.18 | 0.18 | | | |
| **WG539550** | | | | | | | | | | | | | |
| WG539550ICV | ICV | 04/04/22 11:58 | II220401-2 | 2 | | 1.941 | mg/L | 97 | 95 | 105 | | | |
| WG539550ICB | ICB | 04/04/22 12:04 | | | | U | mg/L | | -0.18 | 0.18 | | | |
| WG539550PQV | PQV | 04/04/22 12:07 | II220329-2 | .150015 | | .156 | mg/L | 104 | 70 | 130 | | | |
| WG539550SIC | SIC | 04/04/22 12:10 | II220228-3 | 200.170015 | | 193.3 | mg/L | 97 | 1 | 200 | | | |
| WG539550LFB | LFB | 04/04/22 12:17 | II220330-3 | 1.0001 | | 1.036 | mg/L | 104 | 85 | 115 | | | |
| WG539550CCV1 | CCV | 04/04/22 12:49 | II220324-1 | 1 | | 1.004 | mg/L | 100 | 90 | 110 | | | |
| WG539550CCB1 | CCB | 04/04/22 12:52 | | | | U | mg/L | | -0.18 | 0.18 | | | |
| L66185-44AS | AS | 04/04/22 13:24 | II220330-3 | 1.0001 | U | 1.063 | mg/L | 106 | 85 | 115 | | | |
| WG539550CCV2 | CCV | 04/04/22 13:27 | II220324-1 | 1 | | .998 | mg/L | 100 | 90 | 110 | | | |
| WG539550CCB2 | CCB | 04/04/22 13:30 | | | | U | mg/L | | -0.18 | 0.18 | | | |
| L66185-44ASD | ASD | 04/04/22 13:34 | II220330-3 | 1.0001 | U | 1.063 | mg/L | 106 | 85 | 115 | 0 | 20 | |
| WG539550CCV3 | CCV | 04/04/22 13:50 | II220324-1 | 1 | | 1.001 | mg/L | 100 | 90 | 110 | | | |
| WG539550CCB3 | CCB | 04/04/22 13:53 | | | | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG539465** | | | | | | | | | | | | | |
| WG539465ICV | ICV | 04/01/22 13:14 | MS220125-1 | .05 | | .05211 | mg/L | 104 | 90 | 110 | | | |
| WG539465ICB | ICB | 04/01/22 13:15 | | | | U | mg/L | | -0.00022 | 0.00022 | | | |
| WG539465LFB | LFB | 04/01/22 13:17 | MS220228-9 | .0501 | | .04972 | mg/L | 99 | 85 | 115 | | | |
| WG539465CCV1 | CCV | 04/01/22 13:32 | MS220330-4 | .2505 | | .25014 | mg/L | 100 | 90 | 110 | | | |
| WG539465CCB1 | CCB | 04/01/22 13:33 | | | | U | mg/L | | -0.0003 | 0.0003 | | | |
| WG539465CCV2 | CCV | 04/01/22 13:53 | MS220330-4 | .2505 | | .24985 | mg/L | 100 | 90 | 110 | | | |
| WG539465CCB2 | CCB | 04/01/22 13:55 | | | | U | mg/L | | -0.0003 | 0.0003 | | | |
| L72130-05AS | AS | 04/01/22 14:04 | MS220228-9 | .0501 | U | .05087 | mg/L | 102 | 70 | 130 | | | |
| L72130-05ASD | ASD | 04/01/22 14:06 | MS220228-9 | .0501 | U | .0513 | mg/L | 102 | 70 | 130 | 1 | 20 | |
| WG539465CCV3 | CCV | 04/01/22 14:10 | MS220330-4 | .2505 | | .24975 | mg/L | 100 | 90 | 110 | | | |
| WG539465CCB3 | CCB | 04/01/22 14:12 | | | | U | mg/L | | -0.0003 | 0.0003 | | | |

**GCC**

ACZ Project ID: ***L72128***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG539409** | | | | | | | | | | | | | |
| WG539409ICV | ICV | 03/31/22 17:07 | II220311-1 | 2 | | 1.9708 | mg/L | 99 | 95 | 105 | | | |
| WG539409ICB | ICB | 03/31/22 17:14 | | | | U | mg/L | | -0.024 | 0.024 | | | |
| WG539409PQV | PQV | 03/31/22 17:17 | II220329-2 | .03992 | | .0423 | mg/L | 106 | 70 | 130 | | | |
| WG539409SIC | SIC | 03/31/22 17:20 | II220228-3 | .0998 | | .1039 | mg/L | 104 | 80 | 120 | | | |
| WG539409LFB | LFB | 03/31/22 17:27 | II220330-3 | .998 | | .9675 | mg/L | 97 | 85 | 115 | | | |
| WG539409CCV1 | CCV | 03/31/22 17:59 | II220324-1 | 1 | | .9852 | mg/L | 99 | 90 | 110 | | | |
| WG539409CCB1 | CCB | 03/31/22 18:02 | | | | U | mg/L | | -0.024 | 0.024 | | | |
| WG539409CCV2 | CCV | 03/31/22 18:38 | II220324-1 | 1 | | .9899 | mg/L | 99 | 90 | 110 | | | |
| WG539409CCB2 | CCB | 03/31/22 18:41 | | | | U | mg/L | | -0.024 | 0.024 | | | |
| L72128-02AS | AS | 03/31/22 18:44 | II220330-3 | 4.99 | .549 | 5.43 | mg/L | 98 | 85 | 115 | | | |
| L72128-02ASD | ASD | 03/31/22 18:48 | II220330-3 | 4.99 | .549 | 5.39 | mg/L | 97 | 85 | 115 | 1 | 20 | |
| WG539409CCB3 | CCB | 03/31/22 19:04 | | | | U | mg/L | | -0.024 | 0.024 | | | |
| **WG539461** | | | | | | | | | | | | | |
| WG539461ICV | ICV | 04/01/22 14:26 | II220311-1 | 2 | | 1.9322 | mg/L | 97 | 95 | 105 | | | |
| WG539461ICB | ICB | 04/01/22 14:32 | | | | U | mg/L | | -0.024 | 0.024 | | | |
| WG539461PQV | PQV | 04/01/22 14:36 | II220329-2 | .03992 | | .0342 | mg/L | 86 | 70 | 130 | | | |
| WG539461SIC | SIC | 04/01/22 14:39 | II220228-3 | .0998 | | .0943 | mg/L | 94 | 80 | 120 | | | |
| WG539461LFB | LFB | 04/01/22 14:45 | II220330-3 | .998 | | .9463 | mg/L | 95 | 85 | 115 | | | |
| WG539461CCV1 | CCV | 04/01/22 15:18 | II220324-1 | 1 | | .9636 | mg/L | 96 | 90 | 110 | | | |
| WG539461CCB1 | CCB | 04/01/22 15:21 | | | | U | mg/L | | -0.024 | 0.024 | | | |
| L66185-44AS | AS | 04/01/22 15:54 | II220330-3 | .998 | U | .9363 | mg/L | 94 | 85 | 115 | | | |
| WG539461CCV2 | CCV | 04/01/22 15:57 | II220324-1 | 1 | | .962 | mg/L | 96 | 90 | 110 | | | |
| WG539461CCB2 | CCB | 04/01/22 16:00 | | | | U | mg/L | | -0.024 | 0.024 | | | |
| L66185-44ASD | ASD | 04/01/22 16:03 | II220330-3 | .998 | U | .9396 | mg/L | 94 | 85 | 115 | 0 | 20 | |
| WG539461CCV3 | CCV | 04/01/22 16:20 | II220324-1 | 1 | | .9692 | mg/L | 97 | 90 | 110 | | | |
| WG539461CCB3 | CCB | 04/01/22 16:23 | | | | U | mg/L | | -0.024 | 0.024 | | | |

**GCC**

ACZ Project ID: ***L72128***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG539409** | | | | | | | | | | | | | |
| WG539409ICV | ICV | 03/31/22 17:07 | II220311-1 | 100 | | 97.05 | mg/L | 97 | 95 | 105 | | | |
| WG539409ICB | ICB | 03/31/22 17:14 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| WG539409PQV | PQV | 03/31/22 17:17 | II220329-2 | 1.0001 | | .92 | mg/L | 92 | 70 | 130 | | | |
| WG539409SIC | SIC | 03/31/22 17:20 | II220228-3 | 201.0201 | | 202.3 | mg/L | 101 | 1 | 200 | | | |
| WG539409LFB | LFB | 03/31/22 17:27 | II220330-3 | 49.99828 | | 49.07 | mg/L | 98 | 85 | 115 | | | |
| WG539409CCV1 | CCV | 03/31/22 17:59 | II220324-1 | 50 | | 48.96 | mg/L | 98 | 90 | 110 | | | |
| WG539409CCB1 | CCB | 03/31/22 18:02 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| WG539409CCV2 | CCV | 03/31/22 18:38 | II220324-1 | 50 | | 48.59 | mg/L | 97 | 90 | 110 | | | |
| WG539409CCB2 | CCB | 03/31/22 18:41 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| L72128-02AS | AS | 03/31/22 18:44 | II220330-3 | 249.9914 | 428 | 681 | mg/L | 101 | 85 | 115 | | | |
| L72128-02ASD | ASD | 03/31/22 18:48 | II220330-3 | 249.9914 | 428 | 669.5 | mg/L | 97 | 85 | 115 | 2 | 20 | |
| WG539409CCB3 | CCB | 03/31/22 19:04 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| **WG539550** | | | | | | | | | | | | | |
| WG539550ICV | ICV | 04/04/22 11:58 | II220401-2 | 100 | | 95.11 | mg/L | 95 | 95 | 105 | | | |
| WG539550ICB | ICB | 04/04/22 12:04 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| WG539550PQV | PQV | 04/04/22 12:07 | II220329-2 | 1.0001 | | 1.02 | mg/L | 102 | 70 | 130 | | | |
| WG539550SIC | SIC | 04/04/22 12:10 | II220228-3 | 201.0201 | | 204.5 | mg/L | 102 | 1 | 200 | | | |
| WG539550LFB | LFB | 04/04/22 12:17 | II220330-3 | 49.99828 | | 49.9 | mg/L | 100 | 85 | 115 | | | |
| WG539550CCV1 | CCV | 04/04/22 12:49 | II220324-1 | 50 | | 48.54 | mg/L | 97 | 90 | 110 | | | |
| WG539550CCB1 | CCB | 04/04/22 12:52 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| L66185-44AS | AS | 04/04/22 13:24 | II220330-3 | 49.99828 | .36 | 51.11 | mg/L | 102 | 85 | 115 | | | |
| WG539550CCV2 | CCV | 04/04/22 13:27 | II220324-1 | 50 | | 48.58 | mg/L | 97 | 90 | 110 | | | |
| WG539550CCB2 | CCB | 04/04/22 13:30 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| L66185-44ASD | ASD | 04/04/22 13:34 | II220330-3 | 49.99828 | .36 | 51.04 | mg/L | 101 | 85 | 115 | 0 | 20 | |
| WG539550CCV3 | CCV | 04/04/22 13:50 | II220324-1 | 50 | | 48.48 | mg/L | 97 | 90 | 110 | | | |
| WG539550CCB3 | CCB | 04/04/22 13:53 | | | | U | mg/L | | -0.6 | 0.6 | | | |

**GCC**

ACZ Project ID: ***L72128***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG539409** | | | | | | | | | | | | | |
| WG539409ICV | ICV | 03/31/22 17:07 | II220311-1 | 2 | | 1.943 | mg/L | 97 | 95 | 105 | | | |
| WG539409ICB | ICB | 03/31/22 17:14 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| WG539409PQV | PQV | 03/31/22 17:17 | II220329-2 | .05005 | | .049 | mg/L | 98 | 70 | 130 | | | |
| WG539409SIC | SIC | 03/31/22 17:20 | II220228-3 | 49.95005 | | 46.13 | mg/L | 92 | 1 | 200 | | | |
| WG539409LFB | LFB | 03/31/22 17:27 | II220330-3 | .499 | | .503 | mg/L | 101 | 85 | 115 | | | |
| WG539409CCV1 | CCV | 03/31/22 17:59 | II220324-1 | 1 | | .982 | mg/L | 98 | 90 | 110 | | | |
| WG539409CCB1 | CCB | 03/31/22 18:02 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| WG539409CCV2 | CCV | 03/31/22 18:38 | II220324-1 | 1 | | .98 | mg/L | 98 | 90 | 110 | | | |
| WG539409CCB2 | CCB | 03/31/22 18:41 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| L72128-02AS | AS | 03/31/22 18:44 | II220330-3 | 2.495 | .055 | 2.573 | mg/L | 101 | 85 | 115 | | | |
| L72128-02ASD | ASD | 03/31/22 18:48 | II220330-3 | 2.495 | .055 | 2.541 | mg/L | 100 | 85 | 115 | 1 | 20 | |
| WG539409CCB3 | CCB | 03/31/22 19:04 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| **WG539461** | | | | | | | | | | | | | |
| WG539461ICV | ICV | 04/01/22 14:26 | II220311-1 | 2 | | 1.89 | mg/L | 95 | 95 | 105 | | | |
| WG539461ICB | ICB | 04/01/22 14:32 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| WG539461PQV | PQV | 04/01/22 14:36 | II220329-2 | .05005 | | .041 | mg/L | 82 | 70 | 130 | | | |
| WG539461SIC | SIC | 04/01/22 14:39 | II220228-3 | 49.95005 | | 45.62 | mg/L | 91 | 1 | 200 | | | |
| WG539461LFB | LFB | 04/01/22 14:45 | II220330-3 | .499 | | .486 | mg/L | 97 | 85 | 115 | | | |
| WG539461CCV1 | CCV | 04/01/22 15:18 | II220324-1 | 1 | | .955 | mg/L | 96 | 90 | 110 | | | |
| WG539461CCB1 | CCB | 04/01/22 15:21 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| L66185-44AS | AS | 04/01/22 15:54 | II220330-3 | .499 | 1.18 | 1.59 | mg/L | 82 | 85 | 115 | | | M2 |
| WG539461CCV2 | CCV | 04/01/22 15:57 | II220324-1 | 1 | | .949 | mg/L | 95 | 90 | 110 | | | |
| WG539461CCB2 | CCB | 04/01/22 16:00 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| L66185-44ASD | ASD | 04/01/22 16:03 | II220330-3 | .499 | 1.18 | 1.584 | mg/L | 81 | 85 | 115 | 0 | 20 | M2 |
| WG539461CCV3 | CCV | 04/01/22 16:20 | II220324-1 | 1 | | .962 | mg/L | 96 | 90 | 110 | | | |
| WG539461CCB3 | CCB | 04/01/22 16:23 | | | | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG539071** | | | | | | | | | | | | | |
| WG539071ICV | ICV | 03/28/22 12:18 | HG220328-3 | .005005 | | .00496 | mg/L | 99 | 95 | 105 | | | |
| WG539071ICB | ICB | 03/28/22 12:19 | | | | U | mg/L | | -0.0002 | 0.0002 | | | |
| WG539071PQV | PQV | 03/28/22 12:20 | HG220328-5 | .001001 | | .00097 | mg/L | 97 | 70 | 130 | | | |
| WG539071LRB | LRB | 03/28/22 12:21 | | | | U | mg/L | | -0.00044 | 0.00044 | | | |
| WG539071LFB | LFB | 03/28/22 12:22 | HG220328-6 | .002002 | | .00204 | mg/L | 102 | 85 | 115 | | | |
| L72128-03LFM | LFM | 03/28/22 12:26 | HG220328-6 | .002002 | U | .002 | mg/L | 100 | 85 | 115 | | | |
| L72128-03LFMD | LFMD | 03/28/22 12:27 | HG220328-6 | .002002 | U | .00191 | mg/L | 95 | 85 | 115 | 5 | 20 | |
| WG539071CCV1 | CCV | 03/28/22 12:30 | HG220328-3 | .005005 | | .00525 | mg/L | 105 | 90 | 110 | | | |
| WG539071CCB1 | CCB | 03/28/22 12:31 | | | | U | mg/L | | -0.0002 | 0.0002 | | | |
| WG539071CCV2 | CCV | 03/28/22 12:42 | HG220328-3 | .005005 | | .00517 | mg/L | 103 | 90 | 110 | | | |
| WG539071CCB2 | CCB | 03/28/22 12:43 | | | | U | mg/L | | -0.0002 | 0.0002 | | | |
| WG539071CCV3 | CCV | 03/28/22 12:51 | HG220328-3 | .005005 | | .00518 | mg/L | 103 | 90 | 110 | | | |
| WG539071CCB3 | CCB | 03/28/22 12:53 | | | | U | mg/L | | -0.0002 | 0.0002 | | | |

**GCC**

ACZ Project ID: ***L72128***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG539409** | | | | | | | | | | | | | |
| WG539409ICV | ICV | 03/31/22 17:07 | II220311-1 | 2 | | 1.989 | mg/L | 99 | 95 | 105 | | | |
| WG539409ICB | ICB | 03/31/22 17:14 | | | | U | mg/L | | -0.024 | 0.024 | | | |
| WG539409PQV | PQV | 03/31/22 17:17 | II220329-2 | .04004 | | .039 | mg/L | 97 | 70 | 130 | | | |
| WG539409SIC | SIC | 03/31/22 17:20 | II220228-3 | .1001 | | .0909 | mg/L | 91 | 80 | 120 | | | |
| WG539409LFB | LFB | 03/31/22 17:27 | II220330-3 | .5005 | | .5031 | mg/L | 101 | 85 | 115 | | | |
| WG539409CCV1 | CCV | 03/31/22 17:59 | II220324-1 | 1 | | .9933 | mg/L | 99 | 90 | 110 | | | |
| WG539409CCB1 | CCB | 03/31/22 18:02 | | | | U | mg/L | | -0.024 | 0.024 | | | |
| WG539409CCV2 | CCV | 03/31/22 18:38 | II220324-1 | 1 | | .968 | mg/L | 97 | 90 | 110 | | | |
| WG539409CCB2 | CCB | 03/31/22 18:41 | | | | U | mg/L | | -0.024 | 0.024 | | | |
| L72128-02AS | AS | 03/31/22 18:44 | II220330-3 | 2.5025 | U | 2.5295 | mg/L | 101 | 85 | 115 | | | |
| L72128-02ASD | ASD | 03/31/22 18:48 | II220330-3 | 2.5025 | U | 2.4855 | mg/L | 99 | 85 | 115 | 2 | 20 | |
| WG539409CCB3 | CCB | 03/31/22 19:04 | | | | U | mg/L | | -0.024 | 0.024 | | | |
| **WG539550** | | | | | | | | | | | | | |
| WG539550ICV | ICV | 04/04/22 11:58 | II220401-2 | 2 | | 1.953 | mg/L | 98 | 95 | 105 | | | |
| WG539550ICB | ICB | 04/04/22 12:04 | | | | U | mg/L | | -0.024 | 0.024 | | | |
| WG539550PQV | PQV | 04/04/22 12:07 | II220329-2 | .04004 | | .0398 | mg/L | 99 | 70 | 130 | | | |
| WG539550SIC | SIC | 04/04/22 12:10 | II220228-3 | .1001 | | .099 | mg/L | 99 | 80 | 120 | | | |
| WG539550LFB | LFB | 04/04/22 12:17 | II220330-3 | .5005 | | .5107 | mg/L | 102 | 85 | 115 | | | |
| WG539550CCV1 | CCV | 04/04/22 12:49 | II220324-1 | 1 | | 1.007 | mg/L | 101 | 90 | 110 | | | |
| WG539550CCB1 | CCB | 04/04/22 12:52 | | | | U | mg/L | | -0.024 | 0.024 | | | |
| L66185-44AS | AS | 04/04/22 13:24 | II220330-3 | .5005 | .0124 | .5444 | mg/L | 106 | 85 | 115 | | | |
| WG539550CCV2 | CCV | 04/04/22 13:27 | II220324-1 | 1 | | .998 | mg/L | 100 | 90 | 110 | | | |
| WG539550CCB2 | CCB | 04/04/22 13:30 | | | | U | mg/L | | -0.024 | 0.024 | | | |
| L66185-44ASD | ASD | 04/04/22 13:34 | II220330-3 | .5005 | .0124 | .5419 | mg/L | 106 | 85 | 115 | 0 | 20 | |
| WG539550CCV3 | CCV | 04/04/22 13:50 | II220324-1 | 1 | | 1.006 | mg/L | 101 | 90 | 110 | | | |
| WG539550CCB3 | CCB | 04/04/22 13:53 | | | | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG538859** | | | | | | | | | | | | | |
| WG538859ICV | ICV | 03/23/22 22:08 | WI220301-7 | 2.4161 | | 2.371 | mg/L | 98 | 90 | 110 | | | |
| WG538859ICB | ICB | 03/23/22 22:10 | | | | U | mg/L | | -0.02 | 0.02 | | | |
| WG538859PQV | PQV | 03/23/22 22:13 | WI211001-6 | .1 | | .081 | mg/L | 81 | 70 | 130 | | | |
| WG538859LFB | LFB | 03/23/22 22:15 | WI211001-5 | 2 | | 2.161 | mg/L | 108 | 90 | 110 | | | |
| L71970-01AS | AS | 03/23/22 22:17 | WI211001-5 | 2 | 1.29 | 3.39 | mg/L | 105 | 90 | 110 | | | |
| L72116-01DUP | DUP | 03/23/22 22:20 | | | .261 | .258 | mg/L | | | | 1 | 20 | |
| WG538859CCV1 | CCV | 03/23/22 22:23 | WI220321-3 | 2 | | 2.039 | mg/L | 102 | 90 | 110 | | | |
| WG538859CCB1 | CCB | 03/23/22 22:27 | | | | U | mg/L | | -0.02 | 0.02 | | | |
| WG538859CCV2 | CCV | 03/23/22 22:41 | WI220321-3 | 2 | | 2.034 | mg/L | 102 | 90 | 110 | | | |
| WG538859CCB2 | CCB | 03/23/22 22:44 | | | | U | mg/L | | -0.02 | 0.02 | | | |
| WG538859CCV3 | CCV | 03/23/22 22:58 | WI220321-3 | 2 | | 2.023 | mg/L | 101 | 90 | 110 | | | |
| WG538859CCB3 | CCB | 03/23/22 23:02 | | | | U | mg/L | | -0.02 | 0.02 | | | |
| WG538859CCV4 | CCV | 03/23/22 23:06 | WI220321-3 | 2 | | 2.021 | mg/L | 101 | 90 | 110 | | | |
| WG538859CCB4 | CCB | 03/23/22 23:09 | | | | U | mg/L | | -0.02 | 0.02 | | | |

**GCC**

ACZ Project ID: ***L72128***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG538859** | | | | | | | | | | | | | |
| WG538859ICV | ICV | 03/23/22 22:08 | WI220301-7 | .6089 | | .619 | mg/L | 102 | 90 | 110 | | | |
| WG538859ICB | ICB | 03/23/22 22:10 | | | | U | mg/L | | -0.01 | 0.01 | | | |
| WG538859PQV | PQV | 03/23/22 22:13 | WI211001-6 | .05 | | .044 | mg/L | 88 | 70 | 130 | | | |
| WG538859LFB | LFB | 03/23/22 22:15 | WI211001-5 | 1 | | 1.063 | mg/L | 106 | 90 | 110 | | | |
| L71970-01AS | AS | 03/23/22 22:17 | WI211001-5 | 1 | U | 1.05 | mg/L | 105 | 90 | 110 | | | |
| L72116-01DUP | DUP | 03/23/22 22:20 | | | U | U | mg/L | | | | 0 | 20 | RA |
| WG538859CCV1 | CCV | 03/23/22 22:23 | WI220321-3 | 1 | | 1.013 | mg/L | 101 | 90 | 110 | | | |
| WG538859CCB1 | CCB | 03/23/22 22:27 | | | | U | mg/L | | -0.01 | 0.01 | | | |
| WG538859CCV2 | CCV | 03/23/22 22:41 | WI220321-3 | 1 | | 1.01 | mg/L | 101 | 90 | 110 | | | |
| WG538859CCB2 | CCB | 03/23/22 22:44 | | | | U | mg/L | | -0.01 | 0.01 | | | |
| WG538859CCV3 | CCV | 03/23/22 22:58 | WI220321-3 | 1 | | 1.015 | mg/L | 102 | 90 | 110 | | | |
| WG538859CCB3 | CCB | 03/23/22 23:02 | | | | U | mg/L | | -0.01 | 0.01 | | | |
| WG538859CCV4 | CCV | 03/23/22 23:06 | WI220321-3 | 1 | | 1.009 | mg/L | 101 | 90 | 110 | | | |
| WG538859CCB4 | CCB | 03/23/22 23:09 | | | | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG539409** | | | | | | | | | | | | | |
| WG539409ICV | ICV | 03/31/22 17:07 | II220311-1 | 20 | | 19.8 | mg/L | 99 | 95 | 105 | | | |
| WG539409ICB | ICB | 03/31/22 17:14 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| WG539409PQV | PQV | 03/31/22 17:17 | II220329-2 | .9958 | | 1.01 | mg/L | 101 | 70 | 130 | | | |
| WG539409SIC | SIC | 03/31/22 17:20 | II220228-3 | .9958 | | .97 | mg/L | 97 | 80 | 120 | | | |
| WG539409LFB | LFB | 03/31/22 17:27 | II220330-3 | 99.95169 | | 100.7 | mg/L | 101 | 85 | 115 | | | |
| WG539409CCV1 | CCV | 03/31/22 17:59 | II220324-1 | 10 | | 9.95 | mg/L | 100 | 90 | 110 | | | |
| WG539409CCB1 | CCB | 03/31/22 18:02 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| WG539409CCV2 | CCV | 03/31/22 18:38 | II220324-1 | 10 | | 9.97 | mg/L | 100 | 90 | 110 | | | |
| WG539409CCB2 | CCB | 03/31/22 18:41 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| L72128-02AS | AS | 03/31/22 18:44 | II220330-3 | 499.75845 | 10.8 | 521 | mg/L | 102 | 85 | 115 | | | |
| L72128-02ASD | ASD | 03/31/22 18:48 | II220330-3 | 499.75845 | 10.8 | 517 | mg/L | 101 | 85 | 115 | 1 | 20 | |
| WG539409CCB3 | CCB | 03/31/22 19:04 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| **WG539461** | | | | | | | | | | | | | |
| WG539461ICV | ICV | 04/01/22 14:26 | II220311-1 | 20 | | 19.26 | mg/L | 96 | 95 | 105 | | | |
| WG539461ICB | ICB | 04/01/22 14:32 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| WG539461PQV | PQV | 04/01/22 14:36 | II220329-2 | .9958 | | 1 | mg/L | 100 | 70 | 130 | | | |
| WG539461SIC | SIC | 04/01/22 14:39 | II220228-3 | .9958 | | .96 | mg/L | 96 | 80 | 120 | | | |
| WG539461LFB | LFB | 04/01/22 14:45 | II220330-3 | 99.95169 | | 99.64 | mg/L | 100 | 85 | 115 | | | |
| WG539461CCV1 | CCV | 04/01/22 15:18 | II220324-1 | 10 | | 9.75 | mg/L | 98 | 90 | 110 | | | |
| WG539461CCB1 | CCB | 04/01/22 15:21 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| L66185-44AS | AS | 04/01/22 15:54 | II220330-3 | 99.95169 | .29 | 98.02 | mg/L | 98 | 85 | 115 | | | |
| WG539461CCV2 | CCV | 04/01/22 15:57 | II220324-1 | 10 | | 9.65 | mg/L | 97 | 90 | 110 | | | |
| WG539461CCB2 | CCB | 04/01/22 16:00 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| L66185-44ASD | ASD | 04/01/22 16:03 | II220330-3 | 99.95169 | .29 | 98.44 | mg/L | 98 | 85 | 115 | 0 | 20 | |
| WG539461CCV3 | CCV | 04/01/22 16:20 | II220324-1 | 10 | | 9.73 | mg/L | 97 | 90 | 110 | | | |
| WG539461CCB3 | CCB | 04/01/22 16:23 | | | | U | mg/L | | -0.6 | 0.6 | | | |

## GCC

ACZ Project ID: ***L72128***

*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.*

**Residue, Filterable (TDS) @180C** SM2540C

| ACZ ID | Type | Analyzed | PCN/SCN | QC | Sample | Found | Units | Rec% | Lower | Upper | RPD | Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG538916** | | | | | | | | | | | | | |
| WG538916PBW | PBW | 03/24/22 12:52 | | | | U | mg/L | | -20 | 20 | | | |
| WG538916LCSW | LCSW | 03/24/22 12:54 | PCN65060 | 1000 | | 980 | mg/L | 98 | 80 | 120 | | | |
| L72129-01DUP | DUP | 03/24/22 13:52 | | | 400 | 402 | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG539465** | | | | | | | | | | | | | |
| WG539465ICV | ICV | 04/01/22 13:14 | MS220125-1 | .05 | | .05107 | mg/L | 102 | 90 | 110 | | | |
| WG539465ICB | ICB | 04/01/22 13:15 | | | | .00018 | mg/L | | -0.00022 | 0.00022 | | | |
| WG539465LFB | LFB | 04/01/22 13:17 | MS220228-9 | .05 | | .04926 | mg/L | 99 | 85 | 115 | | | |
| WG539465CCV1 | CCV | 04/01/22 13:32 | MS220330-4 | .25 | | .24967 | mg/L | 100 | 90 | 110 | | | |
| WG539465CCB1 | CCB | 04/01/22 13:33 | | | | U | mg/L | | -0.0003 | 0.0003 | | | |
| WG539465CCV2 | CCV | 04/01/22 13:53 | MS220330-4 | .25 | | .25361 | mg/L | 101 | 90 | 110 | | | |
| WG539465CCB2 | CCB | 04/01/22 13:55 | | | | U | mg/L | | -0.0003 | 0.0003 | | | |
| L72130-05AS | AS | 04/01/22 14:04 | MS220228-9 | .05 | .00041 | .05326 | mg/L | 106 | 70 | 130 | | | |
| L72130-05ASD | ASD | 04/01/22 14:06 | MS220228-9 | .05 | .00041 | .05346 | mg/L | 106 | 70 | 130 | 0 | 20 | |
| WG539465CCV3 | CCV | 04/01/22 14:10 | MS220330-4 | .25 | | .25287 | mg/L | 101 | 90 | 110 | | | |
| WG539465CCB3 | CCB | 04/01/22 14:12 | | | | U | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG539409** | | | | | | | | | | | | | |
| WG539409ICV | ICV | 03/31/22 17:07 | II220311-1 | 100 | | 100.68 | mg/L | 101 | 95 | 105 | | | |
| WG539409ICB | ICB | 03/31/22 17:14 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| WG539409PQV | PQV | 03/31/22 17:17 | II220329-2 | 1.0053 | | 1.02 | mg/L | 101 | 70 | 130 | | | |
| WG539409SIC | SIC | 03/31/22 17:20 | II220228-3 | 1.0053 | | 1.06 | mg/L | 105 | 80 | 120 | | | |
| WG539409LFB | LFB | 03/31/22 17:27 | II220330-3 | 100.0039 | | 101.8 | mg/L | 102 | 85 | 115 | | | |
| WG539409CCV1 | CCV | 03/31/22 17:59 | II220324-1 | 50 | | 51.04 | mg/L | 102 | 90 | 110 | | | |
| WG539409CCB1 | CCB | 03/31/22 18:02 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| WG539409CCV2 | CCV | 03/31/22 18:38 | II220324-1 | 50 | | 51.02 | mg/L | 102 | 90 | 110 | | | |
| WG539409CCB2 | CCB | 03/31/22 18:41 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| L72128-02AS | AS | 03/31/22 18:44 | II220330-3 | 500.0195 | 671 | 1188.5 | mg/L | 103 | 85 | 115 | | | |
| L72128-02ASD | ASD | 03/31/22 18:48 | II220330-3 | 500.0195 | 671 | 1177.5 | mg/L | 101 | 85 | 115 | 1 | 20 | |
| WG539409CCB3 | CCB | 03/31/22 19:04 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| **WG539461** | | | | | | | | | | | | | |
| WG539461ICV | ICV | 04/01/22 14:26 | II220311-1 | 100 | | 97.68 | mg/L | 98 | 95 | 105 | | | |
| WG539461ICB | ICB | 04/01/22 14:32 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| WG539461PQV | PQV | 04/01/22 14:36 | II220329-2 | 1.0053 | | 1 | mg/L | 99 | 70 | 130 | | | |
| WG539461SIC | SIC | 04/01/22 14:39 | II220228-3 | 1.0053 | | 1.11 | mg/L | 110 | 80 | 120 | | | |
| WG539461LFB | LFB | 04/01/22 14:45 | II220330-3 | 100.0039 | | 100.3 | mg/L | 100 | 85 | 115 | | | |
| WG539461CCV1 | CCV | 04/01/22 15:18 | II220324-1 | 50 | | 48.98 | mg/L | 98 | 90 | 110 | | | |
| WG539461CCB1 | CCB | 04/01/22 15:21 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| L66185-44AS | AS | 04/01/22 15:54 | II220330-3 | 100.0039 | U | 98.59 | mg/L | 99 | 85 | 115 | | | |
| WG539461CCV2 | CCV | 04/01/22 15:57 | II220324-1 | 50 | | 48.77 | mg/L | 98 | 90 | 110 | | | |
| WG539461CCB2 | CCB | 04/01/22 16:00 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| L66185-44ASD | ASD | 04/01/22 16:03 | II220330-3 | 100.0039 | U | 98.28 | mg/L | 98 | 85 | 115 | 0 | 20 | |
| WG539461CCV3 | CCV | 04/01/22 16:20 | II220324-1 | 50 | | 49.04 | mg/L | 98 | 90 | 110 | | | |
| WG539461CCB3 | CCB | 04/01/22 16:23 | | | | U | mg/L | | -0.6 | 0.6 | | | |

**GCC**

ACZ Project ID: ***L72128***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG539625** | | | | | | | | | | | | | |
| WG539625ICB | ICB | 04/04/22 18:35 | | | | U | mg/L | | -3 | 3 | | | |
| WG539625ICV | ICV | 04/04/22 18:35 | WI220331-10 | 20.46 | | 18.4 | mg/L | 90 | 90 | 110 | | | |
| WG539625CCV1 | CCV | 04/04/22 21:55 | WI220331-11 | 24.875 | | 25.2 | mg/L | 101 | 90 | 110 | | | |
| WG539625CCB1 | CCB | 04/04/22 21:55 | | | | U | mg/L | | -3 | 3 | | | |
| WG539625LFB | LFB | 04/04/22 21:55 | WI211230-5 | 9.95 | | 10.1 | mg/L | 102 | 90 | 110 | | | |
| WG539625CCV2 | CCV | 04/04/22 21:57 | WI220331-11 | 24.875 | | 24.8 | mg/L | 100 | 90 | 110 | | | |
| WG539625CCB2 | CCB | 04/04/22 21:57 | | | | U | mg/L | | -3 | 3 | | | |
| L72116-01AS | AS | 04/04/22 21:57 | WI211230-5 | 9.95 | 20.5 | 25.2 | mg/L | 47 | 90 | 110 | | | M2 |
| WG539625CCV3 | CCV | 04/04/22 21:58 | WI220331-11 | 24.875 | | 25 | mg/L | 101 | 90 | 110 | | | |
| WG539625CCB3 | CCB | 04/04/22 21:58 | | | | U | mg/L | | -3 | 3 | | | |
| WG539625CCV4 | CCV | 04/04/22 22:00 | WI220331-11 | 24.875 | | 24.8 | mg/L | 100 | 90 | 110 | | | |
| WG539625CCB4 | CCB | 04/04/22 22:00 | | | | U | mg/L | | -3 | 3 | | | |
| WG539625CCV5 | CCV | 04/04/22 22:13 | WI220331-11 | 24.875 | | 25 | mg/L | 101 | 90 | 110 | | | |
| WG539625CCB5 | CCB | 04/04/22 22:13 | | | | U | mg/L | | -3 | 3 | | | |
| WG539625CCV6 | CCV | 04/04/22 22:15 | WI220331-11 | 24.875 | | 25.1 | mg/L | 101 | 90 | 110 | | | |
| WG539625CCB6 | CCB | 04/04/22 22:15 | | | | U | mg/L | | -3 | 3 | | | |
| WG539625CCV7 | CCV | 04/04/22 22:27 | WI220331-11 | 24.875 | | 25 | mg/L | 101 | 90 | 110 | | | |
| WG539625CCB7 | CCB | 04/04/22 22:27 | | | | U | mg/L | | -3 | 3 | | | |
| WG539625CCV8 | CCV | 04/04/22 22:29 | WI220331-11 | 24.875 | | 24.8 | mg/L | 100 | 90 | 110 | | | |
| WG539625CCB8 | CCB | 04/04/22 22:29 | | | | U | mg/L | | -3 | 3 | | | |
| WG539625CCV9 | CCV | 04/04/22 22:32 | WI220331-11 | 24.875 | | 25.3 | mg/L | 102 | 90 | 110 | | | |
| WG539625CCB9 | CCB | 04/04/22 22:32 | | | | U | mg/L | | -3 | 3 | | | |
| L72115-04DUP | DUP | 04/04/22 22:38 | | | 2970 | 2987.9 | mg/L | | | | 1 | 20 | |
| WG539625CCV10 | CCV | 04/04/22 22:39 | WI220331-11 | 24.875 | | 24.8 | mg/L | 100 | 90 | 110 | | | |
| WG539625CCB10 | CCB | 04/04/22 22:39 | | | | U | mg/L | | -3 | 3 | | | |

**GCC**

ACZ Project ID: ***L72128***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG539409** | | | | | | | | | | | | | |
| WG539409ICV | ICV | 03/31/22 17:07 | II220311-1 | 2 | | 2.011 | mg/L | 101 | 95 | 105 | | | |
| WG539409ICB | ICB | 03/31/22 17:14 | | | | U | mg/L | | -0.015 | 0.015 | | | |
| WG539409PQV | PQV | 03/31/22 17:17 | II220329-2 | .025025 | | .028 | mg/L | 112 | 70 | 130 | | | |
| WG539409SIC | SIC | 03/31/22 17:20 | II220228-3 | .1001 | | .103 | mg/L | 103 | 80 | 120 | | | |
| WG539409LFB | LFB | 03/31/22 17:27 | II220330-3 | .5005 | | .519 | mg/L | 104 | 85 | 115 | | | |
| WG539409CCV1 | CCV | 03/31/22 17:59 | II220324-1 | 1 | | 1.01 | mg/L | 101 | 90 | 110 | | | |
| WG539409CCB1 | CCB | 03/31/22 18:02 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| WG539409CCV2 | CCV | 03/31/22 18:38 | II220324-1 | 1 | | 1.015 | mg/L | 102 | 90 | 110 | | | |
| WG539409CCB2 | CCB | 03/31/22 18:41 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| L72128-02AS | AS | 03/31/22 18:44 | II220330-3 | 2.5025 | U | 2.596 | mg/L | 104 | 85 | 115 | | | |
| L72128-02ASD | ASD | 03/31/22 18:48 | II220330-3 | 2.5025 | U | 2.569 | mg/L | 103 | 85 | 115 | 1 | 20 | |
| WG539409CCB3 | CCB | 03/31/22 19:04 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| **WG539461** | | | | | | | | | | | | | |
| WG539461ICV | ICV | 04/01/22 14:26 | II220311-1 | 2 | | 1.966 | mg/L | 98 | 95 | 105 | | | |
| WG539461ICB | ICB | 04/01/22 14:32 | | | | U | mg/L | | -0.015 | 0.015 | | | |
| WG539461PQV | PQV | 04/01/22 14:36 | II220329-2 | .025025 | | .022 | mg/L | 88 | 70 | 130 | | | |
| WG539461SIC | SIC | 04/01/22 14:39 | II220228-3 | .1001 | | .097 | mg/L | 97 | 80 | 120 | | | |
| WG539461LFB | LFB | 04/01/22 14:45 | II220330-3 | .5005 | | .5128 | mg/L | 102 | 85 | 115 | | | |
| WG539461CCV1 | CCV | 04/01/22 15:18 | II220324-1 | 1 | | .991 | mg/L | 99 | 90 | 110 | | | |
| WG539461CCB1 | CCB | 04/01/22 15:21 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| L66185-44AS | AS | 04/01/22 15:54 | II220330-3 | .5005 | U | .5025 | mg/L | 100 | 85 | 115 | | | |
| WG539461CCV2 | CCV | 04/01/22 15:57 | II220324-1 | 1 | | .989 | mg/L | 99 | 90 | 110 | | | |
| WG539461CCB2 | CCB | 04/01/22 16:00 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| L66185-44ASD | ASD | 04/01/22 16:03 | II220330-3 | .5005 | U | .503 | mg/L | 100 | 85 | 115 | 0 | 20 | |
| WG539461CCV3 | CCV | 04/01/22 16:20 | II220324-1 | 1 | | .996 | mg/L | 100 | 90 | 110 | | | |
| WG539461CCB3 | CCB | 04/01/22 16:23 | | | | U | mg/L | | -0.03 | 0.03 | | | |

**GCC**

ACZ Project ID: ***L72128***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG539409** | | | | | | | | | | | | | |
| WG539409ICV | ICV | 03/31/22 17:07 | II220311-1 | 2 | | 1.985 | mg/L | 99 | 95 | 105 | | | |
| WG539409ICB | ICB | 03/31/22 17:14 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| WG539409PQV | PQV | 03/31/22 17:17 | II220329-2 | .05015 | | .053 | mg/L | 106 | 70 | 130 | | | |
| WG539409SIC | SIC | 03/31/22 17:20 | II220228-3 | .1003 | | .102 | mg/L | 102 | 80 | 120 | | | |
| WG539409LFB | LFB | 03/31/22 17:27 | II220330-3 | .50045 | | .516 | mg/L | 103 | 85 | 115 | | | |
| WG539409CCV1 | CCV | 03/31/22 17:59 | II220324-1 | 1 | | .998 | mg/L | 100 | 90 | 110 | | | |
| WG539409CCB1 | CCB | 03/31/22 18:02 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| WG539409CCV2 | CCV | 03/31/22 18:38 | II220324-1 | 1 | | .973 | mg/L | 97 | 90 | 110 | | | |
| WG539409CCB2 | CCB | 03/31/22 18:41 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| L72128-02AS | AS | 03/31/22 18:44 | II220330-3 | 2.50225 | U | 2.653 | mg/L | 106 | 85 | 115 | | | |
| L72128-02ASD | ASD | 03/31/22 18:48 | II220330-3 | 2.50225 | U | 2.573 | mg/L | 103 | 85 | 115 | 3 | 20 | |
| WG539409CCB3 | CCB | 03/31/22 19:04 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| **WG539550** | | | | | | | | | | | | | |
| WG539550ICV | ICV | 04/04/22 11:58 | II220401-2 | 2 | | 1.895 | mg/L | 95 | 95 | 105 | | | |
| WG539550ICB | ICB | 04/04/22 12:04 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| WG539550PQV | PQV | 04/04/22 12:07 | II220329-2 | .05015 | | .047 | mg/L | 94 | 70 | 130 | | | |
| WG539550SIC | SIC | 04/04/22 12:10 | II220228-3 | .1003 | | .093 | mg/L | 93 | 80 | 120 | | | |
| WG539550LFB | LFB | 04/04/22 12:17 | II220330-3 | .50045 | | .517 | mg/L | 103 | 85 | 115 | | | |
| WG539550CCV1 | CCV | 04/04/22 12:49 | II220324-1 | 1 | | .983 | mg/L | 98 | 90 | 110 | | | |
| WG539550CCB1 | CCB | 04/04/22 12:52 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| L66185-44AS | AS | 04/04/22 13:24 | II220330-3 | .50045 | .049 | .59 | mg/L | 108 | 85 | 115 | | | |
| WG539550CCV2 | CCV | 04/04/22 13:27 | II220324-1 | 1 | | .977 | mg/L | 98 | 90 | 110 | | | |
| WG539550CCB2 | CCB | 04/04/22 13:30 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| L66185-44ASD | ASD | 04/04/22 13:34 | II220330-3 | .50045 | .049 | .575 | mg/L | 105 | 85 | 115 | 3 | 20 | |
| WG539550CCV3 | CCV | 04/04/22 13:50 | II220324-1 | 1 | | .978 | mg/L | 98 | 90 | 110 | | | |
| WG539550CCB3 | CCB | 04/04/22 13:53 | | | | U | mg/L | | -0.06 | 0.06 | | | |

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

# Inorganic Extended Qualifier Report

**GCC Rio Grande**

ACZ Project ID: ***L72128***

| ACZ ID | WORKNUM | PARAMETER | METHOD | QUAL | DESCRIPTION |
|---|---|---|---|---|---|
| **L72128-01** | WG539575 | Chloride | SM4500Cl-E | M2 | Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable. |
| | WG538859 | 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). |
| | WG538916 | Residue, Filterable (TDS) @180C | SM2540C | N1 | See Case Narrative. |
| | WG539625 | Sulfate | D516-02/-07/-11 - TURBIDIMETRIC | M2 | Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable. |
| **L72128-02** | WG539575 | Chloride | SM4500Cl-E | M2 | Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable. |
| | WG538859 | 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). |
| | WG538916 | Residue, Filterable (TDS) @180C | SM2540C | N1 | See Case Narrative. |
| | WG539625 | Sulfate | D516-02/-07/-11 - TURBIDIMETRIC | M2 | Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable. |
| **L72128-03** | WG539575 | Chloride | SM4500Cl-E | M2 | Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable. |
| | WG539461 | Manganese, dissolved | M200.7 ICP | M2 | Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable. |
| | WG538859 | 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). |
| | WG538916 | Residue, Filterable (TDS) @180C | SM2540C | N1 | See Case Narrative. |
| | WG539625 | Sulfate | D516-02/-07/-11 - TURBIDIMETRIC | M2 | Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable. |

# Certification Qualifiers

**GCC Rio Grande** ACZ Project ID: ***L72128***

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
105495

ACZ Project ID: L72128
Date Received: 03/23/2022 11:45
Received By:
Date Printed: 3/24/2022

## 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? |
|---|---|---|---|---|
| 4395 | 3.4 | <=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
105495

ACZ Project ID: L72128
Date Received: 03/23/2022 11:45
Received By:
Date Printed: 3/24/2022

[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 | Accredited Environmental Testing | 2773 Downhill Drive Steamboat Springs, CO 80487 (970) 879-6590 | L72128

# CHAIN of CUSTODY

**Report to:**

Name: Amy Veek
Company: GCC Rio Grande
E-mail: aveek@gcc.com
Address: 3372 Lime Road Pueblo CO 81004
Telephone: 719-647-6861

**Copy of Report to:**

Name: Landon Beck
Company: RHS
E-mail: Lbeck@resourcehydrogeologic.com
Telephone:

**Invoice to:**

Name: Amy Veek
Company: GCC Rio Grande
E-mail: aveek@gcc.com
Address: 3372 Lime Road Pueblo CO 81004
Telephone: 719-647-6861

**Copy of Invoice to:**

Name:
Company:
E-mail:
Address:
Telephone:

**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:** Amy Veek **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 #: BW-COMPLIANCE
PO#: 105495
Reporting state for compliance testing:
Check box if samples include NRC licensed material? [ ]

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

| SAMPLE IDENTIFICATION | DATE:TIME | Matrix | # of Containers | GW-Compliance | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| MW-6 | 3/22/2022 14:09 | GW | 3 | X | | | | | | | |
| MW-7 | 3/22/2022 15:25 | GW | 3 | X | | | | | | | |
| MW-2B | 3/22/2022 15:35 | 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] | 3/22/2022 16:52 | [signature] | 3/23/22 11:45 |
| | | | |
| | | | |

L72128 Chain of Custod

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

# Analytical Report

April 13, 2022

Report to:
Amy Veek
GCC Rio Grande
3372 Lime Road
Pueblo, CO 81004

cc: Landon Beck

Bill to:
Amy Veek
GCC Rio Grande
3372 Lime Road
Pueblo, CO 81004

Project ID: 105495
ACZ Project ID: L72166

Amy Veek:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on March 24, 2022. This project has been assigned to ACZ's project number, L72166. 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 L72166. 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 13, 2023. 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.

Sue Webber has reviewed and approved this report.

GCC Rio Grande

April 13, 2022

Project ID: 105495
ACZ Project ID: L72166

## Sample Receipt

ACZ Laboratories, Inc. (ACZ) received 2 groundwater samples from GCC Rio Grande on March 24, 2022. The samples were received in good condition. Upon receipt, the sample custodian removed the samples from the cooler, inspected the contents, and logged the samples into ACZ's computerized Laboratory Information Management System (LIMS). The samples were assigned ACZ LIMS project number L72166. The custodian verified the sample information entered into the computer against the chain of custody (COC) forms and sample bottle labels.

## Holding Times

All analyses were performed within EPA recommended holding times.

## Sample Analysis

These samples were analyzed for inorganic parameters. The individual methods are referenced on both, the ACZ invoice and the analytical reports.
Qualifier: N1
Applies to: L72166-01/TOTAL DISSOLVED SOLIDS

See Case Narrative.
Oven range is 80 C to 91 C.
Over the weekend, the oven had a minor high/low temperature out of range. When the oven temperature was checked on Monday 3/28/22, the max temp read at 92.8 C and low at 73.1?C. The WG was removed from the oven on 3/28/22 when the oven was back in range.
The WG was examined and there was no splattering of samples.

**GCC Rio Grande**
Project ID: 105495
Sample ID: MW-11

ACZ Sample ID: ***L72166-01***
Date Sampled: *03/23/22 10:10*
Date Received: *03/24/22*
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 | 04/01/22 18:00 | wtc |
| Arsenic, dissolved | M200.8 ICP-MS | 10 | <0.002 | U | * | mg/L | 0.002 | 0.01 | 04/01/22 16:41 | mfm |
| Beryllium, dissolved | M200.7 ICP | 1 | <0.01 | U | | mg/L | 0.01 | 0.05 | 04/01/22 18:00 | wtc |
| Boron, dissolved | M200.7 ICP | 1 | 0.410 | | | mg/L | 0.03 | 0.1 | 04/01/22 18:00 | wtc |
| Cadmium, dissolved | M200.8 ICP-MS | 10 | <0.0005 | U | * | mg/L | 0.0005 | 0.0025 | 04/01/22 16:41 | mfm |
| Calcium, dissolved | M200.7 ICP | 1 | 45.4 | | | mg/L | 0.1 | 0.5 | 04/01/22 18:00 | wtc |
| Chromium, dissolved | M200.7 ICP | 1 | <0.02 | U | | mg/L | 0.02 | 0.05 | 04/04/22 20:17 | jlw |
| Cobalt, dissolved | M200.7 ICP | 1 | <0.02 | U | | mg/L | 0.02 | 0.05 | 04/01/22 18:00 | wtc |
| Copper, dissolved | M200.7 ICP | 1 | <0.01 | U | * | mg/L | 0.01 | 0.05 | 04/01/22 18:00 | wtc |
| Iron, dissolved | M200.7 ICP | 1 | <0.06 | U | | mg/L | 0.06 | 0.15 | 04/01/22 18:00 | wtc |
| Lead, dissolved | M200.8 ICP-MS | 10 | <0.001 | U | * | mg/L | 0.001 | 0.005 | 04/01/22 16:41 | mfm |
| Lithium, dissolved | M200.7 ICP | 1 | 0.150 | | | mg/L | 0.008 | 0.04 | 04/01/22 18:00 | wtc |
| Magnesium, dissolved | M200.7 ICP | 1 | 24.4 | | | mg/L | 0.2 | 1 | 04/01/22 18:00 | wtc |
| Manganese, dissolved | M200.7 ICP | 1 | <0.01 | U | | mg/L | 0.01 | 0.05 | 04/01/22 18:00 | wtc |
| Mercury, dissolved | M245.1 CVAA | 1 | <0.0002 | U | | mg/L | 0.0002 | 0.001 | 03/28/22 12:33 | mlh |
| Nickel, dissolved | M200.7 ICP | 1 | <0.008 | U | | mg/L | 0.008 | 0.04 | 04/01/22 18:00 | wtc |
| Potassium, dissolved | M200.7 ICP | 1 | 3.56 | | | mg/L | 0.2 | 1 | 04/01/22 18:00 | wtc |
| Selenium, dissolved | M200.8 ICP-MS | 20 | <0.002 | U | * | mg/L | 0.002 | 0.005 | 04/06/22 20:33 | kja |
| Sodium, dissolved | M200.7 ICP | 1 | 461 | | * | mg/L | 0.2 | 1 | 04/01/22 18:00 | wtc |
| Vanadium, dissolved | M200.7 ICP | 1 | <0.01 | U | | mg/L | 0.01 | 0.025 | 04/01/22 18:00 | wtc |
| Zinc, dissolved | M200.7 ICP | 1 | <0.02 | U | | mg/L | 0.02 | 0.05 | 04/01/22 18:00 | wtc |

Wet Chemistry

| Parameter | EPA Method | Dilution | Result | Qual | XQ | Units | MDL | PQL | Date | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Alkalinity as CaCO3 | SM2320B - Titration | | | | | | | | | |
| Bicarbonate as CaCO3 | | 1 | 782 | | | mg/L | 2 | 20 | 03/29/22 0:00 | jck |
| Carbonate as CaCO3 | | 1 | <2 | U | | mg/L | 2 | 20 | 03/29/22 0:00 | jck |
| Hydroxide as CaCO3 | | 1 | <2 | U | | mg/L | 2 | 20 | 03/29/22 0:00 | jck |
| Total Alkalinity | | 1 | 782 | | * | mg/L | 2 | 20 | 03/29/22 0:00 | jck |
| Chloride | SM4500Cl-E | 5 | 133 | | | mg/L | 2.5 | 10 | 04/07/22 16:13 | bls |
| Fluoride | SM4500F-C | 1 | 0.82 | | | mg/L | 0.15 | 0.35 | 04/09/22 15:01 | eep |
| Nitrate as N | Calculation: NO3NO2 minus NO2 | | <0.02 | U | | mg/L | 0.02 | 0.1 | 01/23/23 0:00 | calc |
| Nitrate/Nitrite as N | M353.2 - Automated Cadmium Reduction | 1 | <0.02 | U | | mg/L | 0.02 | 0.1 | 03/24/22 23:45 | pjb |
| Nitrite as N | M353.2 - Automated Cadmium Reduction | 1 | 0.017 | B | * | mg/L | 0.01 | 0.05 | 03/24/22 23:21 | pjb |
| Residue, Filterable (TDS) @180C | SM2540C | 1 | 1500 | | * | mg/L | 20 | 40 | 03/25/22 19:25 | jck |
| Sulfate | D516-02/-07/-11 - TURBIDIMETRIC | 10 | 353 | | * | mg/L | 10 | 50 | 04/05/22 13:38 | syw |

**GCC Rio Grande**
Project ID: 105495
Sample ID: MW-13

ACZ Sample ID: ***L72166-02***
Date Sampled: *03/23/22 16:24*
Date Received: *03/24/22*
Sample Matrix: *Groundwater*

Metals Analysis

| Parameter | EPA Method | Dilution | Result | Qual | XQ | Units | MDL | PQL | Date | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum, dissolved | M200.7 ICP | 2 | <0.1 | U | | mg/L | 0.1 | 0.5 | 04/01/22 18:09 | wtc |
| Arsenic, dissolved | M200.8 ICP-MS | 2 | 0.00178 | B | | mg/L | 0.0004 | 0.002 | 04/01/22 16:51 | mfm |
| Beryllium, dissolved | M200.7 ICP | 2 | <0.02 | U | | mg/L | 0.02 | 0.1 | 04/01/22 18:09 | wtc |
| Boron, dissolved | M200.7 ICP | 2 | 0.938 | | | mg/L | 0.06 | 0.2 | 04/01/22 18:09 | wtc |
| Cadmium, dissolved | M200.8 ICP-MS | 2 | <0.0001 | U | | mg/L | 0.0001 | 0.0005 | 04/01/22 16:51 | mfm |
| Calcium, dissolved | M200.7 ICP | 2 | 5.46 | | | mg/L | 0.2 | 1 | 04/01/22 18:09 | wtc |
| Chromium, dissolved | M200.7 ICP | 2 | <0.04 | U | | mg/L | 0.04 | 0.1 | 04/04/22 20:20 | jlw |
| Cobalt, dissolved | M200.7 ICP | 2 | <0.04 | U | | mg/L | 0.04 | 0.1 | 04/01/22 18:09 | wtc |
| Copper, dissolved | M200.7 ICP | 2 | <0.02 | U | * | mg/L | 0.02 | 0.1 | 04/01/22 18:09 | wtc |
| Iron, dissolved | M200.7 ICP | 2 | <0.12 | U | | mg/L | 0.12 | 0.3 | 04/01/22 18:09 | wtc |
| Lead, dissolved | M200.8 ICP-MS | 2 | <0.0002 | U | | mg/L | 0.0002 | 0.001 | 04/01/22 16:51 | mfm |
| Lithium, dissolved | M200.7 ICP | 2 | 0.182 | | | mg/L | 0.016 | 0.08 | 04/01/22 18:09 | wtc |
| Magnesium, dissolved | M200.7 ICP | 2 | 1.45 | B | | mg/L | 0.4 | 2 | 04/01/22 18:09 | wtc |
| Manganese, dissolved | M200.7 ICP | 2 | <0.02 | U | | mg/L | 0.02 | 0.1 | 04/01/22 18:09 | wtc |
| Mercury, dissolved | M245.1 CVAA | 1 | <0.0002 | U | | mg/L | 0.0002 | 0.001 | 03/28/22 12:34 | mlh |
| Nickel, dissolved | M200.7 ICP | 2 | <0.016 | U | | mg/L | 0.016 | 0.08 | 04/01/22 18:09 | wtc |
| Potassium, dissolved | M200.7 ICP | 2 | 2.86 | | | mg/L | 0.4 | 2 | 04/01/22 18:09 | wtc |
| Selenium, dissolved | M200.8 ICP-MS | 2 | <0.0002 | U | | mg/L | 0.0002 | 0.0005 | 04/06/22 20:35 | kja |
| Sodium, dissolved | M200.7 ICP | 2 | 885 | | * | mg/L | 0.4 | 2 | 04/01/22 18:09 | wtc |
| Vanadium, dissolved | M200.7 ICP | 2 | <0.02 | U | | mg/L | 0.02 | 0.05 | 04/01/22 18:09 | wtc |
| Zinc, dissolved | M200.7 ICP | 2 | <0.04 | U | | mg/L | 0.04 | 0.1 | 04/01/22 18:09 | wtc |

Wet Chemistry

| Parameter | EPA Method | Dilution | Result | Qual | XQ | Units | MDL | PQL | Date | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Alkalinity as CaCO3 | SM2320B - Titration | | | | | | | | | |
| Bicarbonate as CaCO3 | | 1 | 1030 | | | mg/L | 2 | 20 | 03/29/22 0:00 | jck |
| Carbonate as CaCO3 | | 1 | 28.8 | | | mg/L | 2 | 20 | 03/29/22 0:00 | jck |
| Hydroxide as CaCO3 | | 1 | <2 | U | | mg/L | 2 | 20 | 03/29/22 0:00 | jck |
| Total Alkalinity | | 1 | 1060 | | | mg/L | 2 | 20 | 03/29/22 0:00 | jck |
| Chloride | SM4500Cl-E | 25 | 573 | | | mg/L | 12.5 | 50 | 04/07/22 16:13 | bls |
| Fluoride | SM4500F-C | 1 | 5.41 | | | mg/L | 0.15 | 0.35 | 04/09/22 15:13 | eep |
| Nitrate as N | Calculation: NO3NO2 minus NO2 | | <0.02 | U | | mg/L | 0.02 | 0.1 | 01/23/23 0:00 | calc |
| Nitrate/Nitrite as N | M353.2 - Automated Cadmium Reduction | 1 | <0.02 | U | | mg/L | 0.02 | 0.1 | 03/24/22 23:22 | pjb |
| Nitrite as N | M353.2 - Automated Cadmium Reduction | 1 | <0.01 | U | * | mg/L | 0.01 | 0.05 | 03/24/22 23:22 | pjb |
| Residue, Filterable (TDS) @180C | SM2540C | 5 | 2430 | | | mg/L | 100 | 200 | 03/28/22 12:27 | anc |
| Sulfate | D516-02/-07/-11 - TURBIDIMETRIC | 10 | 234 | | * | mg/L | 10 | 50 | 04/05/22 13:38 | 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**

ACZ Project ID: ***L72166***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG539236** | | | | | | | | | | | | | |
| WG539236PBW1 | PBW | 03/29/22 18:31 | | | | 3 | mg/L | | -20 | 20 | | | |
| WG539236LCSW3 | LCSW | 03/29/22 18:49 | WC220328-1 | 820.0001 | | 789.9 | mg/L | 96 | 90 | 110 | | | |
| WG539236PQV2 | PQV | 03/29/22 18:58 | WC210630-2 | 20 | | 24.1 | mg/L | 121 | 50 | 150 | | | |
| L72170-02DUP | DUP | 03/29/22 20:39 | | | 132 | 131.6 | mg/L | | | | 0 | 20 | |
| WG539236LCSW6 | LCSW | 03/29/22 22:29 | WC220328-1 | 820.0001 | | 838 | mg/L | 102 | 90 | 110 | | | |
| WG539236PBW2 | PBW | 03/29/22 22:35 | | | | 5.1 | mg/L | | -20 | 20 | | | |
| WG539236LCSW9 | LCSW | 03/30/22 2:32 | WC220328-1 | 820.0001 | | 807.5 | mg/L | 98 | 90 | 110 | | | |

**Aluminum, dissolved** M200.7 ICP

| ACZ ID | Type | Analyzed | PCN/SCN | QC | Sample | Found | Units | Rec% | Lower | Upper | RPD | Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG539469** | | | | | | | | | | | | | |
| WG539469ICV | ICV | 04/01/22 16:46 | II220311-1 | 2 | | 1.965 | mg/L | 98 | 95 | 105 | | | |
| WG539469ICB | ICB | 04/01/22 16:52 | | | | U | mg/L | | -0.15 | 0.15 | | | |
| WG539469PQV | PQV | 04/01/22 16:55 | II220329-2 | .2502 | | .236 | mg/L | 94 | 70 | 130 | | | |
| WG539469SIC | SIC | 04/01/22 16:58 | II220228-3 | 200.4102 | | 205.8 | mg/L | 103 | 1 | 200 | | | |
| WG539469LFB | LFB | 04/01/22 17:05 | II220330-3 | 1.0008 | | 1.042 | mg/L | 104 | 85 | 115 | | | |
| WG539469CCV1 | CCV | 04/01/22 17:35 | II220228-4 | 1 | | .976 | mg/L | 98 | 90 | 110 | | | |
| WG539469CCB1 | CCB | 04/01/22 17:38 | | | | U | mg/L | | -0.15 | 0.15 | | | |
| L72166-01AS | AS | 04/01/22 18:03 | II220330-3 | 1.0008 | U | 1.027 | mg/L | 103 | 85 | 115 | | | |
| L72166-01ASD | ASD | 04/01/22 18:06 | II220330-3 | 1.0008 | U | 1.022 | mg/L | 102 | 85 | 115 | 0 | 20 | |
| WG539469CCV2 | CCV | 04/01/22 18:12 | II220228-4 | 1 | | .976 | mg/L | 98 | 90 | 110 | | | |
| WG539469CCB2 | CCB | 04/01/22 18:15 | | | | U | mg/L | | -0.15 | 0.15 | | | |
| WG539469CCV3 | CCV | 04/01/22 18:34 | II220228-4 | 1 | | .981 | mg/L | 98 | 90 | 110 | | | |
| WG539469CCB3 | CCB | 04/01/22 18:37 | | | | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG539502** | | | | | | | | | | | | | |
| WG539502ICV | ICV | 04/01/22 16:22 | MS220125-1 | .05 | | .05103 | mg/L | 102 | 90 | 110 | | | |
| WG539502ICB | ICB | 04/01/22 16:24 | | | | U | mg/L | | -0.00044 | 0.00044 | | | |
| WG539502LFB | LFB | 04/01/22 16:26 | MS220228-9 | .05005 | | .04722 | mg/L | 94 | 85 | 115 | | | |
| L72166-01AS | AS | 04/01/22 16:43 | MS220228-9 | .5005 | U | .45021 | mg/L | 90 | 70 | 130 | | | |
| WG539502CCV1 | CCV | 04/01/22 16:45 | MS220330-4 | .1001 | | .0972 | mg/L | 97 | 90 | 110 | | | |
| WG539502CCB1 | CCB | 04/01/22 16:47 | | | | U | mg/L | | -0.0006 | 0.0006 | | | |
| L72166-01ASD | ASD | 04/01/22 16:49 | MS220228-9 | .5005 | U | .45558 | mg/L | 91 | 70 | 130 | 1 | 20 | |
| WG539502CCV2 | CCV | 04/01/22 17:08 | MS220330-4 | .1001 | | .0949 | mg/L | 95 | 90 | 110 | | | |
| WG539502CCB2 | CCB | 04/01/22 17:09 | | | | U | mg/L | | -0.0006 | 0.0006 | | | |
| WG539502CCV3 | CCV | 04/01/22 17:21 | MS220330-4 | .1001 | | .09593 | mg/L | 96 | 90 | 110 | | | |
| WG539502CCB3 | CCB | 04/01/22 17:23 | | | | U | mg/L | | -0.0006 | 0.0006 | | | |

**GCC**

ACZ Project ID: ***L72166***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG539469** | | | | | | | | | | | | | |
| WG539469ICV | ICV | 04/01/22 16:46 | II220311-1 | 2 | | 1.962 | mg/L | 98 | 95 | 105 | | | |
| WG539469ICB | ICB | 04/01/22 16:52 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| WG539469PQV | PQV | 04/01/22 16:55 | II220329-2 | .05005 | | .048 | mg/L | 96 | 70 | 130 | | | |
| WG539469SIC | SIC | 04/01/22 16:58 | II220228-3 | .1001 | | .095 | mg/L | 95 | 80 | 120 | | | |
| WG539469LFB | LFB | 04/01/22 17:05 | II220330-3 | .5005 | | .516 | mg/L | 103 | 85 | 115 | | | |
| WG539469CCV1 | CCV | 04/01/22 17:35 | II220228-4 | 1 | | .989 | mg/L | 99 | 90 | 110 | | | |
| WG539469CCB1 | CCB | 04/01/22 17:38 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| L72166-01AS | AS | 04/01/22 18:03 | II220330-3 | .5005 | U | .509 | mg/L | 102 | 85 | 115 | | | |
| L72166-01ASD | ASD | 04/01/22 18:06 | II220330-3 | .5005 | U | .506 | mg/L | 101 | 85 | 115 | 1 | 20 | |
| WG539469CCV2 | CCV | 04/01/22 18:12 | II220228-4 | 1 | | .988 | mg/L | 99 | 90 | 110 | | | |
| WG539469CCB2 | CCB | 04/01/22 18:15 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| WG539469CCV3 | CCV | 04/01/22 18:34 | II220228-4 | 1 | | .998 | mg/L | 100 | 90 | 110 | | | |
| WG539469CCB3 | CCB | 04/01/22 18:37 | | | | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG539469** | | | | | | | | | | | | | |
| WG539469ICV | ICV | 04/01/22 16:46 | II220311-1 | 2 | | 2.017 | mg/L | 101 | 95 | 105 | | | |
| WG539469ICB | ICB | 04/01/22 16:52 | | | | U | mg/L | | -0.09 | 0.09 | | | |
| WG539469PQV | PQV | 04/01/22 16:55 | II220329-2 | .1001 | | .087 | mg/L | 87 | 70 | 130 | | | |
| WG539469SIC | SIC | 04/01/22 16:58 | II220228-3 | .1001 | | .087 | mg/L | 87 | 80 | 120 | | | |
| WG539469LFB | LFB | 04/01/22 17:05 | II220330-3 | .5005 | | .52 | mg/L | 104 | 85 | 115 | | | |
| WG539469CCV1 | CCV | 04/01/22 17:35 | II220228-4 | 1 | | .989 | mg/L | 99 | 90 | 110 | | | |
| WG539469CCB1 | CCB | 04/01/22 17:38 | | | | U | mg/L | | -0.09 | 0.09 | | | |
| L72166-01AS | AS | 04/01/22 18:03 | II220330-3 | .5005 | .41 | .941 | mg/L | 106 | 85 | 115 | | | |
| L72166-01ASD | ASD | 04/01/22 18:06 | II220330-3 | .5005 | .41 | .927 | mg/L | 103 | 85 | 115 | 1 | 20 | |
| WG539469CCV2 | CCV | 04/01/22 18:12 | II220228-4 | 1 | | 1.002 | mg/L | 100 | 90 | 110 | | | |
| WG539469CCB2 | CCB | 04/01/22 18:15 | | | | U | mg/L | | -0.09 | 0.09 | | | |
| WG539469CCV3 | CCV | 04/01/22 18:34 | II220228-4 | 1 | | .998 | mg/L | 100 | 90 | 110 | | | |
| WG539469CCB3 | CCB | 04/01/22 18:37 | | | | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG539502** | | | | | | | | | | | | | |
| WG539502ICV | ICV | 04/01/22 16:22 | MS220125-1 | .05 | | .053163 | mg/L | 106 | 90 | 110 | | | |
| WG539502ICB | ICB | 04/01/22 16:24 | | | | U | mg/L | | -0.00011 | 0.00011 | | | |
| WG539502LFB | LFB | 04/01/22 16:26 | MS220228-9 | .05005 | | .047942 | mg/L | 96 | 85 | 115 | | | |
| L72166-01AS | AS | 04/01/22 16:43 | MS220228-9 | .5005 | U | .45177 | mg/L | 90 | 70 | 130 | | | |
| WG539502CCV1 | CCV | 04/01/22 16:45 | MS220330-4 | .1001 | | .096506 | mg/L | 96 | 90 | 110 | | | |
| WG539502CCB1 | CCB | 04/01/22 16:47 | | | | U | mg/L | | -0.00015 | 0.00015 | | | |
| L72166-01ASD | ASD | 04/01/22 16:49 | MS220228-9 | .5005 | U | .45492 | mg/L | 91 | 70 | 130 | 1 | 20 | |
| WG539502CCV2 | CCV | 04/01/22 17:08 | MS220330-4 | .1001 | | .096771 | mg/L | 97 | 90 | 110 | | | |
| WG539502CCB2 | CCB | 04/01/22 17:09 | | | | U | mg/L | | -0.00015 | 0.00015 | | | |
| WG539502CCV3 | CCV | 04/01/22 17:21 | MS220330-4 | .1001 | | .099386 | mg/L | 99 | 90 | 110 | | | |
| WG539502CCB3 | CCB | 04/01/22 17:23 | | | | U | mg/L | | -0.00015 | 0.00015 | | | |

**GCC**

ACZ Project ID: ***L72166***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG539469** | | | | | | | | | | | | | |
| WG539469ICV | ICV | 04/01/22 16:46 | II220311-1 | 100 | | 99.32 | mg/L | 99 | 95 | 105 | | | |
| WG539469ICB | ICB | 04/01/22 16:52 | | | | U | mg/L | | -0.3 | 0.3 | | | |
| WG539469PQV | PQV | 04/01/22 16:55 | II220329-2 | .5003 | | .52 | mg/L | 104 | 70 | 130 | | | |
| WG539469SIC | SIC | 04/01/22 16:58 | II220228-3 | 200.6203 | | 197.9 | mg/L | 99 | 1 | 200 | | | |
| WG539469LFB | LFB | 04/01/22 17:05 | II220330-3 | 67.99026 | | 65.6 | mg/L | 96 | 85 | 115 | | | |
| WG539469CCV1 | CCV | 04/01/22 17:35 | II220228-4 | 50 | | 49.93 | mg/L | 100 | 90 | 110 | | | |
| WG539469CCB1 | CCB | 04/01/22 17:38 | | | | U | mg/L | | -0.3 | 0.3 | | | |
| L72166-01AS | AS | 04/01/22 18:03 | II220330-3 | 67.99026 | 45.4 | 108.8 | mg/L | 93 | 85 | 115 | | | |
| L72166-01ASD | ASD | 04/01/22 18:06 | II220330-3 | 67.99026 | 45.4 | 107.8 | mg/L | 92 | 85 | 115 | 1 | 20 | |
| WG539469CCV2 | CCV | 04/01/22 18:12 | II220228-4 | 50 | | 50.1 | mg/L | 100 | 90 | 110 | | | |
| WG539469CCB2 | CCB | 04/01/22 18:15 | | | | U | mg/L | | -0.3 | 0.3 | | | |
| WG539469CCV3 | CCV | 04/01/22 18:34 | II220228-4 | 50 | | 50.19 | mg/L | 100 | 90 | 110 | | | |
| WG539469CCB3 | CCB | 04/01/22 18:37 | | | | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG539841** | | | | | | | | | | | | | |
| WG539841ICV | ICV | 04/07/22 16:03 | WI210503-1 | 54.89 | | 57.61 | mg/L | 105 | 90 | 110 | | | |
| WG539841ICB | ICB | 04/07/22 16:03 | | | | U | mg/L | | -1.5 | 1.5 | | | |
| WG539841LFB1 | LFB | 04/07/22 16:04 | WI220328-1 | 29.97 | | 30.81 | mg/L | 103 | 90 | 110 | | | |
| WG539841CCV1 | CCV | 04/07/22 16:09 | WI220323-1 | 49.95 | | 51.35 | mg/L | 103 | 90 | 110 | | | |
| WG539841CCB1 | CCB | 04/07/22 16:10 | | | | .5 | mg/L | | -1.5 | 1.5 | | | |
| WG539841CCV2 | CCV | 04/07/22 16:15 | WI220323-1 | 49.95 | | 51.24 | mg/L | 103 | 90 | 110 | | | |
| WG539841CCB2 | CCB | 04/07/22 16:16 | | | | .64 | mg/L | | -1.5 | 1.5 | | | |
| L72167-04DUP | DUP | 04/07/22 16:19 | | | 44.7 | 44.49 | mg/L | | | | 0 | 20 | |
| WG539841CCV3 | CCV | 04/07/22 16:21 | WI220323-1 | 49.95 | | 51.86 | mg/L | 104 | 90 | 110 | | | |
| WG539841CCB3 | CCB | 04/07/22 16:22 | | | | U | mg/L | | -1.5 | 1.5 | | | |

**Chromium, dissolved** M200.7 ICP

| ACZ ID | Type | Analyzed | PCN/SCN | QC | Sample | Found | Units | Rec% | Lower | Upper | RPD | Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG539556** | | | | | | | | | | | | | |
| WG539556ICV | ICV | 04/04/22 19:39 | II220401-2 | 2 | | 1.971 | mg/L | 99 | 95 | 105 | | | |
| WG539556ICB | ICB | 04/04/22 19:45 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| WG539556PQV | PQV | 04/04/22 19:48 | II220329-2 | .05005 | | .048 | mg/L | 96 | 70 | 130 | | | |
| WG539556SIC | SIC | 04/04/22 19:51 | II220228-3 | .1001 | | .103 | mg/L | 103 | 80 | 120 | | | |
| WG539556LFB | LFB | 04/04/22 19:58 | II220330-3 | .5005 | | .512 | mg/L | 102 | 85 | 115 | | | |
| L72069-01AS | AS | 04/04/22 20:04 | II220330-3 | .5005 | U | .512 | mg/L | 102 | 85 | 115 | | | |
| L72069-01ASD | ASD | 04/04/22 20:07 | II220330-3 | .5005 | U | .51 | mg/L | 102 | 85 | 115 | 0 | 20 | |
| WG539556CCV1 | CCV | 04/04/22 20:30 | II220324-1 | 1 | | 1.002 | mg/L | 100 | 90 | 110 | | | |
| WG539556CCB1 | CCB | 04/04/22 20:33 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| WG539556CCV2 | CCV | 04/04/22 21:08 | II220324-1 | 1 | | 1.002 | mg/L | 100 | 90 | 110 | | | |
| WG539556CCB2 | CCB | 04/04/22 21:11 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| WG539556CCV3 | CCV | 04/04/22 21:30 | II220324-1 | 1 | | 1.009 | mg/L | 101 | 90 | 110 | | | |
| WG539556CCB3 | CCB | 04/04/22 21:34 | | | | U | mg/L | | -0.06 | 0.06 | | | |

**GCC**

ACZ Project ID: ***L72166***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG539469** | | | | | | | | | | | | | |
| WG539469ICV | ICV | 04/01/22 16:46 | II220311-1 | 2.01 | | 1.986 | mg/L | 99 | 95 | 105 | | | |
| WG539469ICB | ICB | 04/01/22 16:52 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| WG539469PQV | PQV | 04/01/22 16:55 | II220329-2 | .05005 | | .045 | mg/L | 90 | 70 | 130 | | | |
| WG539469SIC | SIC | 04/01/22 16:58 | II220228-3 | .1001 | | .086 | mg/L | 86 | 80 | 120 | | | |
| WG539469LFB | LFB | 04/01/22 17:05 | II220330-3 | .5005 | | .505 | mg/L | 101 | 85 | 115 | | | |
| WG539469CCV1 | CCV | 04/01/22 17:35 | II220228-4 | 1.005 | | .986 | mg/L | 98 | 90 | 110 | | | |
| WG539469CCB1 | CCB | 04/01/22 17:38 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| L72166-01AS | AS | 04/01/22 18:03 | II220330-3 | .5005 | U | .498 | mg/L | 100 | 85 | 115 | | | |
| L72166-01ASD | ASD | 04/01/22 18:06 | II220330-3 | .5005 | U | .485 | mg/L | 97 | 85 | 115 | 3 | 20 | |
| WG539469CCV2 | CCV | 04/01/22 18:12 | II220228-4 | 1.005 | | .992 | mg/L | 99 | 90 | 110 | | | |
| WG539469CCB2 | CCB | 04/01/22 18:15 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| WG539469CCV3 | CCV | 04/01/22 18:34 | II220228-4 | 1.005 | | .991 | mg/L | 99 | 90 | 110 | | | |
| WG539469CCB3 | CCB | 04/01/22 18:37 | | | | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG539469** | | | | | | | | | | | | | |
| WG539469ICV | ICV | 04/01/22 16:46 | II220311-1 | 2 | | 1.99 | mg/L | 100 | 95 | 105 | | | |
| WG539469ICB | ICB | 04/01/22 16:52 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| WG539469PQV | PQV | 04/01/22 16:55 | II220329-2 | .05 | | .046 | mg/L | 92 | 70 | 130 | | | |
| WG539469SIC | SIC | 04/01/22 16:58 | II220228-3 | .1 | | .088 | mg/L | 88 | 80 | 120 | | | |
| WG539469LFB | LFB | 04/01/22 17:05 | II220330-3 | .5 | | .511 | mg/L | 102 | 85 | 115 | | | |
| WG539469CCV1 | CCV | 04/01/22 17:35 | II220228-4 | 1 | | 1.002 | mg/L | 100 | 90 | 110 | | | |
| WG539469CCB1 | CCB | 04/01/22 17:38 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| L72166-01AS | AS | 04/01/22 18:03 | II220330-3 | .5 | U | .323 | mg/L | 65 | 85 | 115 | | | M2 |
| L72166-01ASD | ASD | 04/01/22 18:06 | II220330-3 | .5 | U | .322 | mg/L | 64 | 85 | 115 | 0 | 20 | M2 |
| WG539469CCV2 | CCV | 04/01/22 18:12 | II220228-4 | 1 | | 1.005 | mg/L | 101 | 90 | 110 | | | |
| WG539469CCB2 | CCB | 04/01/22 18:15 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| WG539469CCV3 | CCV | 04/01/22 18:34 | II220228-4 | 1 | | 1.019 | mg/L | 102 | 90 | 110 | | | |
| WG539469CCB3 | CCB | 04/01/22 18:37 | | | | U | mg/L | | -0.03 | 0.03 | | | |

**Fluoride** SM4500F-C

| ACZ ID | Type | Analyzed | PCN/SCN | QC | Sample | Found | Units | Rec% | Lower | Upper | RPD | Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG540000** | | | | | | | | | | | | | |
| WG540000ICV | ICV | 04/09/22 14:14 | WC220408-1 | 2.008 | | 1.88 | mg/L | 94 | 90 | 110 | | | |
| WG540000ICB | ICB | 04/09/22 14:22 | | | | U | mg/L | | -0.3 | 0.3 | | | |
| WG540000PQV | PQV | 04/09/22 14:27 | WC220304-2 | .3514 | | .37 | mg/L | 105 | 70 | 130 | | | |
| WG540000LFB | LFB | 04/09/22 14:32 | WC220104-2 | 5.02 | | 4.68 | mg/L | 93 | 90 | 110 | | | |
| L72130-04AS | AS | 04/09/22 14:42 | WC220104-2 | 5.02 | 1.54 | 6.17 | mg/L | 92 | 90 | 110 | | | |
| L72130-04ASD | ASD | 04/09/22 14:45 | WC220104-2 | 5.02 | 1.54 | 6.14 | mg/L | 92 | 90 | 110 | 0 | 20 | |
| L72166-01AS | AS | 04/09/22 15:05 | WC220104-2 | 5.02 | .82 | 5.68 | mg/L | 97 | 90 | 110 | | | |
| L72166-01ASD | ASD | 04/09/22 15:09 | WC220104-2 | 5.02 | .82 | 5.62 | mg/L | 96 | 90 | 110 | 1 | 20 | |
| WG540000CCV1 | CCV | 04/09/22 15:16 | WC220408-1 | 2.008 | | 1.87 | mg/L | 93 | 90 | 110 | | | |
| WG540000CCB1 | CCB | 04/09/22 15:24 | | | | U | mg/L | | -0.3 | 0.3 | | | |
| WG540000CCV2 | CCV | 04/09/22 16:04 | WC220408-1 | 2.008 | | 1.85 | mg/L | 92 | 90 | 110 | | | |
| WG540000CCB2 | CCB | 04/09/22 16:12 | | | | U | mg/L | | -0.3 | 0.3 | | | |

**GCC**

ACZ Project ID: ***L72166***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG539469** | | | | | | | | | | | | | |
| WG539469ICV | ICV | 04/01/22 16:46 | II220311-1 | 2 | | 1.931 | mg/L | 97 | 95 | 105 | | | |
| WG539469ICB | ICB | 04/01/22 16:52 | | | | U | mg/L | | -0.18 | 0.18 | | | |
| WG539469PQV | PQV | 04/01/22 16:55 | II220329-2 | .150015 | | .14 | mg/L | 93 | 70 | 130 | | | |
| WG539469SIC | SIC | 04/01/22 16:58 | II220228-3 | 200.170015 | | 189.6 | mg/L | 95 | 1 | 200 | | | |
| WG539469LFB | LFB | 04/01/22 17:05 | II220330-3 | 1.0001 | | 1.029 | mg/L | 103 | 85 | 115 | | | |
| WG539469CCV1 | CCV | 04/01/22 17:35 | II220228-4 | 1 | | .971 | mg/L | 97 | 90 | 110 | | | |
| WG539469CCB1 | CCB | 04/01/22 17:38 | | | | U | mg/L | | -0.18 | 0.18 | | | |
| L72166-01AS | AS | 04/01/22 18:03 | II220330-3 | 1.0001 | U | 1.031 | mg/L | 103 | 85 | 115 | | | |
| L72166-01ASD | ASD | 04/01/22 18:06 | II220330-3 | 1.0001 | U | 1.023 | mg/L | 102 | 85 | 115 | 1 | 20 | |
| WG539469CCV2 | CCV | 04/01/22 18:12 | II220228-4 | 1 | | .975 | mg/L | 98 | 90 | 110 | | | |
| WG539469CCB2 | CCB | 04/01/22 18:15 | | | | U | mg/L | | -0.18 | 0.18 | | | |
| WG539469CCV3 | CCV | 04/01/22 18:34 | II220228-4 | 1 | | .984 | mg/L | 98 | 90 | 110 | | | |
| WG539469CCB3 | CCB | 04/01/22 18:37 | | | | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG539502** | | | | | | | | | | | | | |
| WG539502ICV | ICV | 04/01/22 16:22 | MS220125-1 | .05 | | .05344 | mg/L | 107 | 90 | 110 | | | |
| WG539502ICB | ICB | 04/01/22 16:24 | | | | U | mg/L | | -0.00022 | 0.00022 | | | |
| WG539502LFB | LFB | 04/01/22 16:26 | MS220228-9 | .0501 | | .04976 | mg/L | 99 | 85 | 115 | | | |
| L72166-01AS | AS | 04/01/22 16:43 | MS220228-9 | .501 | U | .46378 | mg/L | 93 | 70 | 130 | | | |
| WG539502CCV1 | CCV | 04/01/22 16:45 | MS220330-4 | .2505 | | .24513 | mg/L | 98 | 90 | 110 | | | |
| WG539502CCB1 | CCB | 04/01/22 16:47 | | | | U | mg/L | | -0.0003 | 0.0003 | | | |
| L72166-01ASD | ASD | 04/01/22 16:49 | MS220228-9 | .501 | U | .46528 | mg/L | 93 | 70 | 130 | 0 | 20 | |
| WG539502CCV2 | CCV | 04/01/22 17:08 | MS220330-4 | .2505 | | .24446 | mg/L | 98 | 90 | 110 | | | |
| WG539502CCB2 | CCB | 04/01/22 17:09 | | | | U | mg/L | | -0.0003 | 0.0003 | | | |
| WG539502CCV3 | CCV | 04/01/22 17:21 | MS220330-4 | .2505 | | .24145 | mg/L | 96 | 90 | 110 | | | |
| WG539502CCB3 | CCB | 04/01/22 17:23 | | | | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG539469** | | | | | | | | | | | | | |
| WG539469ICV | ICV | 04/01/22 16:46 | II220311-1 | 2 | | 1.9908 | mg/L | 100 | 95 | 105 | | | |
| WG539469ICB | ICB | 04/01/22 16:52 | | | | U | mg/L | | -0.024 | 0.024 | | | |
| WG539469PQV | PQV | 04/01/22 16:55 | II220329-2 | .03992 | | .0379 | mg/L | 95 | 70 | 130 | | | |
| WG539469SIC | SIC | 04/01/22 16:58 | II220228-3 | .0998 | | .1037 | mg/L | 104 | 80 | 120 | | | |
| WG539469LFB | LFB | 04/01/22 17:05 | II220330-3 | .998 | | .991 | mg/L | 99 | 85 | 115 | | | |
| WG539469CCV1 | CCV | 04/01/22 17:35 | II220228-4 | 1 | | .9921 | mg/L | 99 | 90 | 110 | | | |
| WG539469CCB1 | CCB | 04/01/22 17:38 | | | | U | mg/L | | -0.024 | 0.024 | | | |
| L72166-01AS | AS | 04/01/22 18:03 | II220330-3 | .998 | .15 | 1.135 | mg/L | 99 | 85 | 115 | | | |
| L72166-01ASD | ASD | 04/01/22 18:06 | II220330-3 | .998 | .15 | 1.131 | mg/L | 98 | 85 | 115 | 0 | 20 | |
| WG539469CCV2 | CCV | 04/01/22 18:12 | II220228-4 | 1 | | .9907 | mg/L | 99 | 90 | 110 | | | |
| WG539469CCB2 | CCB | 04/01/22 18:15 | | | | U | mg/L | | -0.024 | 0.024 | | | |
| WG539469CCV3 | CCV | 04/01/22 18:34 | II220228-4 | 1 | | 1.005 | mg/L | 101 | 90 | 110 | | | |
| WG539469CCB3 | CCB | 04/01/22 18:37 | | | | U | mg/L | | -0.024 | 0.024 | | | |

**GCC**

ACZ Project ID: ***L72166***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG539469** | | | | | | | | | | | | | |
| WG539469ICV | ICV | 04/01/22 16:46 | II220311-1 | 100 | | 95.56 | mg/L | 96 | 95 | 105 | | | |
| WG539469ICB | ICB | 04/01/22 16:52 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| WG539469PQV | PQV | 04/01/22 16:55 | II220329-2 | 1.0001 | | 1 | mg/L | 100 | 70 | 130 | | | |
| WG539469SIC | SIC | 04/01/22 16:58 | II220228-3 | 201.0201 | | 205.4 | mg/L | 102 | 1 | 200 | | | |
| WG539469LFB | LFB | 04/01/22 17:05 | II220330-3 | 49.99828 | | 49.92 | mg/L | 100 | 85 | 115 | | | |
| WG539469CCV1 | CCV | 04/01/22 17:35 | II220228-4 | 50 | | 47.8 | mg/L | 96 | 90 | 110 | | | |
| WG539469CCB1 | CCB | 04/01/22 17:38 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| L72166-01AS | AS | 04/01/22 18:03 | II220330-3 | 49.99828 | 24.4 | 72.94 | mg/L | 97 | 85 | 115 | | | |
| L72166-01ASD | ASD | 04/01/22 18:06 | II220330-3 | 49.99828 | 24.4 | 72.13 | mg/L | 95 | 85 | 115 | 1 | 20 | |
| WG539469CCV2 | CCV | 04/01/22 18:12 | II220228-4 | 50 | | 47.94 | mg/L | 96 | 90 | 110 | | | |
| WG539469CCB2 | CCB | 04/01/22 18:15 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| WG539469CCV3 | CCV | 04/01/22 18:34 | II220228-4 | 50 | | 47.47 | mg/L | 95 | 90 | 110 | | | |
| WG539469CCB3 | CCB | 04/01/22 18:37 | | | | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG539469** | | | | | | | | | | | | | |
| WG539469ICV | ICV | 04/01/22 16:46 | II220311-1 | 2 | | 1.94 | mg/L | 97 | 95 | 105 | | | |
| WG539469ICB | ICB | 04/01/22 16:52 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| WG539469PQV | PQV | 04/01/22 16:55 | II220329-2 | .05005 | | .047 | mg/L | 94 | 70 | 130 | | | |
| WG539469SIC | SIC | 04/01/22 16:58 | II220228-3 | 49.95005 | | 47.35 | mg/L | 95 | 1 | 200 | | | |
| WG539469LFB | LFB | 04/01/22 17:05 | II220330-3 | .499 | | .516 | mg/L | 103 | 85 | 115 | | | |
| WG539469CCV1 | CCV | 04/01/22 17:35 | II220228-4 | 1 | | .983 | mg/L | 98 | 90 | 110 | | | |
| WG539469CCB1 | CCB | 04/01/22 17:38 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| L72166-01AS | AS | 04/01/22 18:03 | II220330-3 | .499 | U | .523 | mg/L | 105 | 85 | 115 | | | |
| L72166-01ASD | ASD | 04/01/22 18:06 | II220330-3 | .499 | U | .52 | mg/L | 104 | 85 | 115 | 1 | 20 | |
| WG539469CCV2 | CCV | 04/01/22 18:12 | II220228-4 | 1 | | .983 | mg/L | 98 | 90 | 110 | | | |
| WG539469CCB2 | CCB | 04/01/22 18:15 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| WG539469CCV3 | CCV | 04/01/22 18:34 | II220228-4 | 1 | | .987 | mg/L | 99 | 90 | 110 | | | |
| WG539469CCB3 | CCB | 04/01/22 18:37 | | | | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG539071** | | | | | | | | | | | | | |
| WG539071ICV | ICV | 03/28/22 12:18 | HG220328-3 | .005005 | | .00496 | mg/L | 99 | 95 | 105 | | | |
| WG539071ICB | ICB | 03/28/22 12:19 | | | | U | mg/L | | -0.0002 | 0.0002 | | | |
| WG539071PQV | PQV | 03/28/22 12:20 | HG220328-5 | .001001 | | .00097 | mg/L | 97 | 70 | 130 | | | |
| WG539071LRB | LRB | 03/28/22 12:21 | | | | U | mg/L | | -0.00044 | 0.00044 | | | |
| WG539071LFB | LFB | 03/28/22 12:22 | HG220328-6 | .002002 | | .00204 | mg/L | 102 | 85 | 115 | | | |
| L72128-03LFM | LFM | 03/28/22 12:26 | HG220328-6 | .002002 | U | .002 | mg/L | 100 | 85 | 115 | | | |
| L72128-03LFMD | LFMD | 03/28/22 12:27 | HG220328-6 | .002002 | U | .00191 | mg/L | 95 | 85 | 115 | 5 | 20 | |
| WG539071CCV1 | CCV | 03/28/22 12:30 | HG220328-3 | .005005 | | .00525 | mg/L | 105 | 90 | 110 | | | |
| WG539071CCB1 | CCB | 03/28/22 12:31 | | | | U | mg/L | | -0.0002 | 0.0002 | | | |
| WG539071CCV2 | CCV | 03/28/22 12:42 | HG220328-3 | .005005 | | .00517 | mg/L | 103 | 90 | 110 | | | |
| WG539071CCB2 | CCB | 03/28/22 12:43 | | | | U | mg/L | | -0.0002 | 0.0002 | | | |
| WG539071CCV3 | CCV | 03/28/22 12:51 | HG220328-3 | .005005 | | .00518 | mg/L | 103 | 90 | 110 | | | |
| WG539071CCB3 | CCB | 03/28/22 12:53 | | | | U | mg/L | | -0.0002 | 0.0002 | | | |

**GCC**

ACZ Project ID: ***L72166***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG539469** | | | | | | | | | | | | | |
| WG539469ICV | ICV | 04/01/22 16:46 | II220311-1 | 2 | | 1.974 | mg/L | 99 | 95 | 105 | | | |
| WG539469ICB | ICB | 04/01/22 16:52 | | | | U | mg/L | | -0.024 | 0.024 | | | |
| WG539469PQV | PQV | 04/01/22 16:55 | II220329-2 | .04004 | | .0412 | mg/L | 103 | 70 | 130 | | | |
| WG539469SIC | SIC | 04/01/22 16:58 | II220228-3 | .1001 | | .0998 | mg/L | 100 | 80 | 120 | | | |
| WG539469LFB | LFB | 04/01/22 17:05 | II220330-3 | .5005 | | .5195 | mg/L | 104 | 85 | 115 | | | |
| WG539469CCV1 | CCV | 04/01/22 17:35 | II220228-4 | 1 | | .9923 | mg/L | 99 | 90 | 110 | | | |
| WG539469CCB1 | CCB | 04/01/22 17:38 | | | | U | mg/L | | -0.024 | 0.024 | | | |
| L72166-01AS | AS | 04/01/22 18:03 | II220330-3 | .5005 | U | .5178 | mg/L | 103 | 85 | 115 | | | |
| L72166-01ASD | ASD | 04/01/22 18:06 | II220330-3 | .5005 | U | .5088 | mg/L | 102 | 85 | 115 | 2 | 20 | |
| WG539469CCV2 | CCV | 04/01/22 18:12 | II220228-4 | 1 | | .9991 | mg/L | 100 | 90 | 110 | | | |
| WG539469CCB2 | CCB | 04/01/22 18:15 | | | | U | mg/L | | -0.024 | 0.024 | | | |
| WG539469CCV3 | CCV | 04/01/22 18:34 | II220228-4 | 1 | | .9994 | mg/L | 100 | 90 | 110 | | | |
| WG539469CCB3 | CCB | 04/01/22 18:37 | | | | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG538955** | | | | | | | | | | | | | |
| WG538955ICV | ICV | 03/24/22 22:42 | WI220301-7 | 2.4161 | | 2.343 | mg/L | 97 | 90 | 110 | | | |
| WG538955ICB | ICB | 03/24/22 22:43 | | | | U | mg/L | | -0.02 | 0.02 | | | |
| WG538955PQV | PQV | 03/24/22 22:47 | WI211001-6 | .1 | | .091 | mg/L | 91 | 70 | 130 | | | |
| WG538955LFB | LFB | 03/24/22 22:49 | WI211001-5 | 2 | | 2.059 | mg/L | 103 | 90 | 110 | | | |
| WG538955CCV1 | CCV | 03/24/22 22:58 | WI220321-3 | 2 | | 2.017 | mg/L | 101 | 90 | 110 | | | |
| WG538955CCB1 | CCB | 03/24/22 23:01 | | | | U | mg/L | | -0.02 | 0.02 | | | |
| WG538955CCV2 | CCV | 03/24/22 23:15 | WI220321-3 | 2 | | 2.009 | mg/L | 100 | 90 | 110 | | | |
| WG538955CCB2 | CCB | 03/24/22 23:18 | | | | U | mg/L | | -0.02 | 0.02 | | | |
| WG538955CCV3 | CCV | 03/24/22 23:32 | WI220321-3 | 2 | | 2.001 | mg/L | 100 | 90 | 110 | | | |
| WG538955CCB3 | CCB | 03/24/22 23:35 | | | | U | mg/L | | -0.02 | 0.02 | | | |
| L72159-03AS | AS | 03/24/22 23:40 | WI211001-5 | 6 | 2.26 | 8.297 | mg/L | 101 | 90 | 110 | | | |
| L72164-01DUP | DUP | 03/24/22 23:43 | | | .682 | .679 | mg/L | | | | 0 | 20 | |
| WG538955CCV4 | CCV | 03/24/22 23:50 | WI220321-3 | 2 | | 1.987 | mg/L | 99 | 90 | 110 | | | |
| WG538955CCB4 | CCB | 03/24/22 23:53 | | | | U | mg/L | | -0.02 | 0.02 | | | |

**GCC**

ACZ Project ID: ***L72166***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG538955** | | | | | | | | | | | | | |
| WG538955ICV | ICV | 03/24/22 22:42 | WI220301-7 | .6089 | | .628 | mg/L | 103 | 90 | 110 | | | |
| WG538955ICB | ICB | 03/24/22 22:43 | | | | U | mg/L | | -0.01 | 0.01 | | | |
| WG538955PQV | PQV | 03/24/22 22:47 | WI211001-6 | .05 | | .047 | mg/L | 94 | 70 | 130 | | | |
| WG538955LFB | LFB | 03/24/22 22:49 | WI211001-5 | 1 | | 1.04 | mg/L | 104 | 90 | 110 | | | |
| WG538955CCV1 | CCV | 03/24/22 22:58 | WI220321-3 | 1 | | 1.019 | mg/L | 102 | 90 | 110 | | | |
| WG538955CCB1 | CCB | 03/24/22 23:01 | | | | U | mg/L | | -0.01 | 0.01 | | | |
| L72159-03AS | AS | 03/24/22 23:11 | WI211001-5 | 1 | U | 1.016 | mg/L | 102 | 90 | 110 | | | |
| WG538955CCV2 | CCV | 03/24/22 23:15 | WI220321-3 | 1 | | 1.024 | mg/L | 102 | 90 | 110 | | | |
| WG538955CCB2 | CCB | 03/24/22 23:18 | | | | U | mg/L | | -0.01 | 0.01 | | | |
| WG538955CCV3 | CCV | 03/24/22 23:32 | WI220321-3 | 1 | | 1.025 | mg/L | 103 | 90 | 110 | | | |
| WG538955CCB3 | CCB | 03/24/22 23:35 | | | | U | mg/L | | -0.01 | 0.01 | | | |
| L72164-01DUP | DUP | 03/24/22 23:43 | | | U | U | mg/L | | | | 0 | 20 | RA |
| WG538955CCV4 | CCV | 03/24/22 23:50 | WI220321-3 | 1 | | 1.026 | mg/L | 103 | 90 | 110 | | | |
| WG538955CCB4 | CCB | 03/24/22 23:53 | | | | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG539469** | | | | | | | | | | | | | |
| WG539469ICV | ICV | 04/01/22 16:46 | II220311-1 | 20 | | 19.63 | mg/L | 98 | 95 | 105 | | | |
| WG539469ICB | ICB | 04/01/22 16:52 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| WG539469PQV | PQV | 04/01/22 16:55 | II220329-2 | .9958 | | 1.01 | mg/L | 101 | 70 | 130 | | | |
| WG539469SIC | SIC | 04/01/22 16:58 | II220228-3 | .9958 | | 1.02 | mg/L | 102 | 80 | 120 | | | |
| WG539469LFB | LFB | 04/01/22 17:05 | II220330-3 | 99.95169 | | 102.2 | mg/L | 102 | 85 | 115 | | | |
| WG539469CCV1 | CCV | 04/01/22 17:35 | II220228-4 | 10 | | 9.81 | mg/L | 98 | 90 | 110 | | | |
| WG539469CCB1 | CCB | 04/01/22 17:38 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| L72166-01AS | AS | 04/01/22 18:03 | II220330-3 | 99.95169 | 3.56 | 105.6 | mg/L | 102 | 85 | 115 | | | |
| L72166-01ASD | ASD | 04/01/22 18:06 | II220330-3 | 99.95169 | 3.56 | 105.3 | mg/L | 102 | 85 | 115 | 0 | 20 | |
| WG539469CCV2 | CCV | 04/01/22 18:12 | II220228-4 | 10 | | 9.86 | mg/L | 99 | 90 | 110 | | | |
| WG539469CCB2 | CCB | 04/01/22 18:15 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| WG539469CCV3 | CCV | 04/01/22 18:34 | II220228-4 | 10 | | 9.93 | mg/L | 99 | 90 | 110 | | | |
| WG539469CCB3 | CCB | 04/01/22 18:37 | | | | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG539047** | | | | | | | | | | | | | |
| WG539047PBW | PBW | 03/25/22 19:20 | | | | U | mg/L | | -20 | 20 | | | |
| WG539047LCSW | LCSW | 03/25/22 19:22 | PCN65061 | 1000 | | 1000 | mg/L | 100 | 80 | 120 | | | |
| L72166-01DUP | DUP | 03/25/22 19:27 | | | 1500 | 1506 | mg/L | | | | 0 | 10 | |
| **WG539105** | | | | | | | | | | | | | |
| WG539105PBW | PBW | 03/28/22 12:22 | | | | U | mg/L | | -20 | 20 | | | |
| WG539105LCSW | LCSW | 03/28/22 12:24 | PCN65061 | 1000 | | 982 | mg/L | 98 | 80 | 120 | | | |
| L72179-01DUP | DUP | 03/28/22 12:53 | | | 230 | 232 | mg/L | | | | 1 | 10 | |

**GCC**

ACZ Project ID: ***L72166***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG539779** | | | | | | | | | | | | | |
| WG539779ICV | ICV | 04/06/22 20:17 | MS220401-7 | .05 | | .05104 | mg/L | 102 | 90 | 110 | | | |
| WG539779ICB | ICB | 04/06/22 20:19 | | | | U | mg/L | | -0.00022 | 0.00022 | | | |
| WG539779LFB | LFB | 04/06/22 20:21 | MS220401-2 | .05 | | .05149 | mg/L | 103 | 85 | 115 | | | |
| WG539779CCV1 | CCV | 04/06/22 20:30 | MS220330-4 | .25 | | .24991 | mg/L | 100 | 90 | 110 | | | |
| WG539779CCB1 | CCB | 04/06/22 20:32 | | | | U | mg/L | | -0.0003 | 0.0003 | | | |
| L72170-01AS | AS | 04/06/22 20:39 | MS220401-2 | .05 | U | .04582 | mg/L | 92 | 70 | 130 | | | |
| L72170-01ASD | ASD | 04/06/22 20:41 | MS220401-2 | .05 | U | .05023 | mg/L | 100 | 70 | 130 | 9 | 20 | |
| WG539779CCV2 | CCV | 04/06/22 20:52 | MS220330-4 | .25 | | .24716 | mg/L | 99 | 90 | 110 | | | |
| WG539779CCB2 | CCB | 04/06/22 20:55 | | | | U | mg/L | | -0.0003 | 0.0003 | | | |
| WG539779CCV3 | CCV | 04/06/22 21:17 | MS220330-4 | .25 | | .24804 | mg/L | 99 | 90 | 110 | | | |
| WG539779CCB3 | CCB | 04/06/22 21:19 | | | | U | mg/L | | -0.0003 | 0.0003 | | | |
| WG539779CCV4 | CCV | 04/06/22 21:21 | MS220330-4 | .25 | | .2478 | mg/L | 99 | 90 | 110 | | | |
| WG539779CCB4 | CCB | 04/06/22 21:22 | | | | U | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG539469** | | | | | | | | | | | | | |
| WG539469ICV | ICV | 04/01/22 16:46 | II220311-1 | 100 | | 99.12 | mg/L | 99 | 95 | 105 | | | |
| WG539469ICB | ICB | 04/01/22 16:52 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| WG539469PQV | PQV | 04/01/22 16:55 | II220329-2 | 1.0053 | | 1.04 | mg/L | 103 | 70 | 130 | | | |
| WG539469SIC | SIC | 04/01/22 16:58 | II220228-3 | 1.0053 | | 1.07 | mg/L | 106 | 80 | 120 | | | |
| WG539469LFB | LFB | 04/01/22 17:05 | II220330-3 | 100.0039 | | 102.6 | mg/L | 103 | 85 | 115 | | | |
| WG539469CCV1 | CCV | 04/01/22 17:35 | II220228-4 | 50 | | 49.73 | mg/L | 99 | 90 | 110 | | | |
| WG539469CCB1 | CCB | 04/01/22 17:38 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| L72166-01AS | AS | 04/01/22 18:03 | II220330-3 | 100.0039 | 461 | 546.9 | mg/L | 86 | 85 | 115 | | | |
| L72166-01ASD | ASD | 04/01/22 18:06 | II220330-3 | 100.0039 | 461 | 539.3 | mg/L | 78 | 85 | 115 | 1 | 20 | M3 |
| WG539469CCV2 | CCV | 04/01/22 18:12 | II220228-4 | 50 | | 49.98 | mg/L | 100 | 90 | 110 | | | |
| WG539469CCB2 | CCB | 04/01/22 18:15 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| WG539469CCV3 | CCV | 04/01/22 18:34 | II220228-4 | 50 | | 50.6 | mg/L | 101 | 90 | 110 | | | |
| WG539469CCB3 | CCB | 04/01/22 18:37 | | | | U | mg/L | | -0.6 | 0.6 | | | |

**GCC**

ACZ Project ID: ***L72166***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG539671** | | | | | | | | | | | | | |
| WG539671ICB | ICB | 04/05/22 8:37 | | | | U | mg/L | | -3 | 3 | | | |
| WG539671ICV | ICV | 04/05/22 8:37 | WI220331-10 | 20.46 | | 18.5 | mg/L | 90 | 90 | 110 | | | |
| WG539671CCV1 | CCV | 04/05/22 12:59 | WI220331-11 | 24.875 | | 25.8 | mg/L | 104 | 90 | 110 | | | |
| WG539671CCB1 | CCB | 04/05/22 12:59 | | | | U | mg/L | | -3 | 3 | | | |
| WG539671LFB | LFB | 04/05/22 12:59 | WI211230-5 | 9.95 | | 10.2 | mg/L | 103 | 90 | 110 | | | |
| WG539671CCV2 | CCV | 04/05/22 13:01 | WI220331-11 | 24.875 | | 25.5 | mg/L | 103 | 90 | 110 | | | |
| WG539671CCB2 | CCB | 04/05/22 13:01 | | | | U | mg/L | | -3 | 3 | | | |
| WG539671CCV3 | CCV | 04/05/22 13:03 | WI220331-11 | 24.875 | | 25.5 | mg/L | 103 | 90 | 110 | | | |
| WG539671CCB3 | CCB | 04/05/22 13:03 | | | | U | mg/L | | -3 | 3 | | | |
| WG539671CCV4 | CCV | 04/05/22 13:05 | WI220331-11 | 24.875 | | 26.1 | mg/L | 105 | 90 | 110 | | | |
| WG539671CCB4 | CCB | 04/05/22 13:05 | | | | U | mg/L | | -3 | 3 | | | |
| WG539671CCV5 | CCV | 04/05/22 13:07 | WI220331-11 | 24.875 | | 25.7 | mg/L | 103 | 90 | 110 | | | |
| WG539671CCB5 | CCB | 04/05/22 13:07 | | | | U | mg/L | | -3 | 3 | | | |
| WG539671CCV6 | CCV | 04/05/22 13:08 | WI220331-11 | 24.875 | | 25.5 | mg/L | 103 | 90 | 110 | | | |
| WG539671CCB6 | CCB | 04/05/22 13:08 | | | | U | mg/L | | -3 | 3 | | | |
| WG539671CCV7 | CCV | 04/05/22 13:11 | WI220331-11 | 24.875 | | 25.3 | mg/L | 102 | 90 | 110 | | | |
| WG539671CCB7 | CCB | 04/05/22 13:11 | | | | U | mg/L | | -3 | 3 | | | |
| WG539671CCV8 | CCV | 04/05/22 13:38 | WI220331-11 | 24.875 | | 25.5 | mg/L | 103 | 90 | 110 | | | |
| WG539671CCB8 | CCB | 04/05/22 13:38 | | | | U | mg/L | | -3 | 3 | | | |
| L72166-01DUP | DUP | 04/05/22 13:38 | | | 353 | 333.9 | mg/L | | | | 6 | 20 | |
| L72166-02AS | AS | 04/05/22 13:39 | SO4TURB10X | 10 | 234 | 245.2 | mg/L | 112 | 90 | 110 | | | M3 |
| WG539671CCV9 | CCV | 04/05/22 13:39 | WI220331-11 | 24.875 | | 25.2 | mg/L | 101 | 90 | 110 | | | |
| WG539671CCB9 | CCB | 04/05/22 13:39 | | | | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG539469** | | | | | | | | | | | | | |
| WG539469ICV | ICV | 04/01/22 16:46 | II220311-1 | 2 | | 1.994 | mg/L | 100 | 95 | 105 | | | |
| WG539469ICB | ICB | 04/01/22 16:52 | | | | U | mg/L | | -0.015 | 0.015 | | | |
| WG539469PQV | PQV | 04/01/22 16:55 | II220329-2 | .025025 | | .024 | mg/L | 96 | 70 | 130 | | | |
| WG539469SIC | SIC | 04/01/22 16:58 | II220228-3 | .1001 | | .092 | mg/L | 92 | 80 | 120 | | | |
| WG539469LFB | LFB | 04/01/22 17:05 | II220330-3 | .5005 | | .5228 | mg/L | 104 | 85 | 115 | | | |
| WG539469CCV1 | CCV | 04/01/22 17:35 | II220228-4 | 1 | | .994 | mg/L | 99 | 90 | 110 | | | |
| WG539469CCB1 | CCB | 04/01/22 17:38 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| L72166-01AS | AS | 04/01/22 18:03 | II220330-3 | .5005 | U | .513 | mg/L | 102 | 85 | 115 | | | |
| L72166-01ASD | ASD | 04/01/22 18:06 | II220330-3 | .5005 | U | .515 | mg/L | 103 | 85 | 115 | 0 | 20 | |
| WG539469CCV2 | CCV | 04/01/22 18:12 | II220228-4 | 1 | | 1.002 | mg/L | 100 | 90 | 110 | | | |
| WG539469CCB2 | CCB | 04/01/22 18:15 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| WG539469CCV3 | CCV | 04/01/22 18:34 | II220228-4 | 1 | | 1 | mg/L | 100 | 90 | 110 | | | |
| WG539469CCB3 | CCB | 04/01/22 18:37 | | | | U | mg/L | | -0.03 | 0.03 | | | |

**GCC**

ACZ Project ID: ***L72166***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG539469** | | | | | | | | | | | | | |
| WG539469ICV | ICV | 04/01/22 16:46 | II220311-1 | 2 | | 1.898 | mg/L | 95 | 95 | 105 | | | |
| WG539469ICB | ICB | 04/01/22 16:52 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| WG539469PQV | PQV | 04/01/22 16:55 | II220329-2 | .05015 | | .043 | mg/L | 86 | 70 | 130 | | | |
| WG539469SIC | SIC | 04/01/22 16:58 | II220228-3 | .1003 | | .087 | mg/L | 87 | 80 | 120 | | | |
| WG539469LFB | LFB | 04/01/22 17:05 | II220330-3 | .50045 | | .511 | mg/L | 102 | 85 | 115 | | | |
| WG539469CCV1 | CCV | 04/01/22 17:35 | II220228-4 | 1 | | .958 | mg/L | 96 | 90 | 110 | | | |
| WG539469CCB1 | CCB | 04/01/22 17:38 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| L72166-01AS | AS | 04/01/22 18:03 | II220330-3 | .50045 | U | .499 | mg/L | 100 | 85 | 115 | | | |
| L72166-01ASD | ASD | 04/01/22 18:06 | II220330-3 | .50045 | U | .495 | mg/L | 99 | 85 | 115 | 1 | 20 | |
| WG539469CCV2 | CCV | 04/01/22 18:12 | II220228-4 | 1 | | .961 | mg/L | 96 | 90 | 110 | | | |
| WG539469CCB2 | CCB | 04/01/22 18:15 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| WG539469CCV3 | CCV | 04/01/22 18:34 | II220228-4 | 1 | | .955 | mg/L | 96 | 90 | 110 | | | |
| WG539469CCB3 | CCB | 04/01/22 18:37 | | | | U | mg/L | | -0.06 | 0.06 | | | |

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

# Inorganic Extended Qualifier Report

**GCC Rio Grande**

ACZ Project ID: ***L72166***

| ACZ ID | WORKNUM | PARAMETER | METHOD | QUAL | DESCRIPTION |
|---|---|---|---|---|---|
| **L72166-01** | WG539502 | Arsenic, dissolved | M200.8 ICP-MS | DD | Sample required dilution due to matrix color or odor. |
| | | Cadmium, dissolved | M200.8 ICP-MS | DD | Sample required dilution due to matrix color or odor. |
| | WG539469 | Copper, dissolved | M200.7 ICP | M2 | Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable. |
| | WG539502 | Lead, dissolved | M200.8 ICP-MS | DD | Sample required dilution due to matrix color or odor. |
| | WG538955 | Nitrite as N | 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). |
| | WG539047 | Residue, Filterable (TDS) @180C | SM2540C | N1 | See Case Narrative. |
| | WG539779 | Selenium, dissolved | M200.8 ICP-MS | DD | Sample required dilution due to matrix color or odor. |
| | WG539469 | 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. |
| | WG539671 | 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. |
| | WG539236 | Total Alkalinity | SM2320B - Titration | ZW | Method deviation. The sample was centrifuged prior to analysis due to high solid content. |
| **L72166-02** | WG539469 | Copper, dissolved | M200.7 ICP | M2 | Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable. |
| | WG538955 | Nitrite as N | 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). |
| | WG539469 | 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. |
| | WG539671 | 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: ***L72166***

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
105495

ACZ Project ID: L72166
Date Received: 03/24/2022 10:54
Received By:
Date Printed: 3/25/2022

## 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? |
|---|---|---|---|---|
| 6975 | 4.4 | <=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
105495

ACZ Project ID: L72166
Date Received: 03/24/2022 10:54
Received By:
Date Printed: 3/25/2022

[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. L72166

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

## CHAIN of CUSTODY

**Report to:**

Name: Amy Veek
Company: GCC Rio Grande
E-mail: aveek@gcc.com
Address: 3372 Lime Road
Pueblo CO 81004
Telephone: 719-647-6861

**Copy of Report to:**

Name: Landon Beck
Company: RHS
E-mail: lbeck@resourcehydrogeologic.com
Telephone:

**Invoice to:**

Name: Amy Veek
Company: GCC Rio Grande
E-mail: aveek@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:** Amy Veek **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
PO#: 105495
Reporting state for compliance testing:
Check box if samples include NRC licensed material? [ ]

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

| SAMPLE IDENTIFICATION | DATE:TIME | Matrix | # of Containers | GW-Compliance |
|---|---|---|---|---|
| MW-11 | 3/23/2022 10:10 | GW | 3 | X |
| MW-13 | 3/23/2022 16:24 | 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] | 3/23/2022 17:00 | [signature] | 3/24/22 16:54 |

L72166 Chain of Custod

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

**Analytical Report**

April 14, 2022

Report to:
Amy Veek
GCC Rio Grande
3372 Lime Road
Pueblo, CO 81004

cc: Landon Beck

Bill to:
Amy Veek
GCC Rio Grande
3372 Lime Road
Pueblo, CO 81004

Project ID: 105495
ACZ Project ID: L72232

Amy Veek:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on March 29, 2022. This project has been assigned to ACZ's project number, L72232. 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 L72232. 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 14, 2023. 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: 105495
Sample ID: MW-8

ACZ Sample ID: ***L72232-01***
Date Sampled: *03/28/22 09:52*
Date Received: *03/29/22*
Sample Matrix: *Groundwater*

Metals Analysis

| Parameter | EPA Method | Dilution | Result | Qual | XQ | Units | MDL | PQL | Date | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum, dissolved | M200.7 ICP | 2 | <0.1 | U | | mg/L | 0.1 | 0.5 | 04/05/22 15:10 | wtc |
| Arsenic, dissolved | M200.8 ICP-MS | 2 | 0.00279 | | | mg/L | 0.0004 | 0.002 | 04/06/22 17:33 | mfm |
| Beryllium, dissolved | M200.7 ICP | 2 | <0.02 | U | | mg/L | 0.02 | 0.1 | 04/05/22 15:10 | wtc |
| Boron, dissolved | M200.7 ICP | 2 | 0.603 | | | mg/L | 0.06 | 0.2 | 04/05/22 15:10 | wtc |
| Cadmium, dissolved | M200.8 ICP-MS | 2 | <0.0001 | U | | mg/L | 0.0001 | 0.0005 | 04/06/22 17:33 | mfm |
| Calcium, dissolved | M200.7 ICP | 2 | 59.8 | | | mg/L | 0.2 | 1 | 04/05/22 15:10 | wtc |
| Chromium, dissolved | M200.7 ICP | 2 | <0.04 | U | | mg/L | 0.04 | 0.1 | 04/05/22 15:10 | wtc |
| Cobalt, dissolved | M200.7 ICP | 2 | <0.04 | U | | mg/L | 0.04 | 0.1 | 04/05/22 15:10 | wtc |
| Copper, dissolved | M200.7 ICP | 2 | <0.02 | U | | mg/L | 0.02 | 0.1 | 04/05/22 15:10 | wtc |
| Iron, dissolved | M200.7 ICP | 2 | <0.12 | U | | mg/L | 0.12 | 0.3 | 04/05/22 15:10 | wtc |
| Lead, dissolved | M200.8 ICP-MS | 2 | 0.00036 | B | | mg/L | 0.0002 | 0.001 | 04/06/22 17:33 | mfm |
| Lithium, dissolved | M200.7 ICP | 2 | 0.258 | | | mg/L | 0.016 | 0.08 | 04/05/22 15:10 | wtc |
| Magnesium, dissolved | M200.7 ICP | 2 | 19.7 | | | mg/L | 0.4 | 2 | 04/05/22 15:10 | wtc |
| Manganese, dissolved | M200.7 ICP | 2 | 0.195 | | | mg/L | 0.02 | 0.1 | 04/05/22 15:10 | wtc |
| Mercury, dissolved | M245.1 CVAA | 1 | <0.0002 | U | | mg/L | 0.0002 | 0.001 | 03/30/22 14:49 | mlh |
| Nickel, dissolved | M200.7 ICP | 2 | <0.016 | U | | mg/L | 0.016 | 0.08 | 04/05/22 15:10 | wtc |
| Potassium, dissolved | M200.7 ICP | 2 | 4.32 | | | mg/L | 0.4 | 2 | 04/05/22 15:10 | wtc |
| Selenium, dissolved | M200.8 ICP-MS | 2 | <0.0002 | U | | mg/L | 0.0002 | 0.0005 | 04/06/22 17:33 | mfm |
| Sodium, dissolved | M200.7 ICP | 2 | 805 | | | mg/L | 0.4 | 2 | 04/05/22 15:10 | wtc |
| Vanadium, dissolved | M200.7 ICP | 2 | <0.02 | U | | mg/L | 0.02 | 0.05 | 04/05/22 15:10 | wtc |
| Zinc, dissolved | M200.7 ICP | 2 | <0.04 | U | * | mg/L | 0.04 | 0.1 | 04/05/22 15:10 | wtc |

Wet Chemistry

| Parameter | EPA Method | Dilution | Result | Qual | XQ | Units | MDL | PQL | Date | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Alkalinity as CaCO3 | SM2320B - Titration | | | | | | | | | |
| Bicarbonate as CaCO3 | | 1 | 1020 | | * | mg/L | 2 | 20 | 03/30/22 0:00 | jck |
| Carbonate as CaCO3 | | 1 | <2 | U | * | mg/L | 2 | 20 | 03/30/22 0:00 | jck |
| Hydroxide as CaCO3 | | 1 | <2 | U | * | mg/L | 2 | 20 | 03/30/22 0:00 | jck |
| Total Alkalinity | | 1 | 1020 | | * | mg/L | 2 | 20 | 03/30/22 0:00 | jck |
| Chloride | SM4500Cl-E | 5 | 204 | | * | mg/L | 2.5 | 10 | 04/12/22 8:34 | bls |
| Fluoride | SM4500F-C | 1 | 0.92 | | * | mg/L | 0.15 | 0.35 | 04/13/22 12:33 | emk |
| Nitrate as N, dissolved | Calculation: NO3NO2 minus NO2 | | 0.029 | B | | mg/L | 0.02 | 0.1 | 04/14/22 0:00 | calc |
| Nitrate/Nitrite as N, dissolved | M353.2 - Automated Cadmium Reduction | 1 | 0.041 | B | * | mg/L | 0.02 | 0.1 | 03/29/22 23:49 | pjb |
| Nitrite as N, dissolved | M353.2 - Automated Cadmium Reduction | 1 | 0.012 | B | * | mg/L | 0.01 | 0.05 | 03/29/22 23:49 | pjb |
| Residue, Filterable (TDS) @180C | SM2540C | 2 | 3040 | | * | mg/L | 40 | 80 | 03/29/22 15:24 | scd |
| Sulfate | D516-02/-07/-11 - TURBIDIMETRIC | 120 | 1090 | | * | mg/L | 120 | 600 | 03/29/22 21:53 | mjj1 |

**GCC Rio Grande**
Project ID: 105495
Sample ID: MW-9

ACZ Sample ID: ***L72232-02***
Date Sampled: *03/28/22 11:26*
Date Received: *03/29/22*
Sample Matrix: *Groundwater*

Metals Analysis

| Parameter | EPA Method | Dilution | Result | Qual | XQ | Units | MDL | PQL | Date | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum, dissolved | M200.7 ICP | 1 | 0.138 | B | | mg/L | 0.05 | 0.25 | 04/05/22 15:13 | wtc |
| Arsenic, dissolved | M200.8 ICP-MS | 5 | <0.001 | U | | mg/L | 0.001 | 0.005 | 04/06/22 17:38 | mfm |
| Beryllium, dissolved | M200.7 ICP | 1 | <0.01 | U | | mg/L | 0.01 | 0.05 | 04/05/22 15:13 | wtc |
| Boron, dissolved | M200.7 ICP | 1 | 0.900 | | | mg/L | 0.03 | 0.1 | 04/05/22 15:13 | wtc |
| Cadmium, dissolved | M200.8 ICP-MS | 5 | <0.00025 | U | | mg/L | 0.00025 | 0.00125 | 04/06/22 17:38 | mfm |
| Calcium, dissolved | M200.7 ICP | 1 | 367 | | | mg/L | 0.1 | 0.5 | 04/05/22 15:13 | wtc |
| Chromium, dissolved | M200.7 ICP | 1 | <0.02 | U | | mg/L | 0.02 | 0.05 | 04/05/22 15:13 | wtc |
| Cobalt, dissolved | M200.7 ICP | 1 | <0.02 | U | | mg/L | 0.02 | 0.05 | 04/05/22 15:13 | wtc |
| Copper, dissolved | M200.7 ICP | 1 | <0.01 | U | | mg/L | 0.01 | 0.05 | 04/05/22 15:13 | wtc |
| Iron, dissolved | M200.7 ICP | 1 | <0.06 | U | | mg/L | 0.06 | 0.15 | 04/05/22 15:13 | wtc |
| Lead, dissolved | M200.8 ICP-MS | 5 | <0.0005 | U | | mg/L | 0.0005 | 0.0025 | 04/06/22 17:38 | mfm |
| Lithium, dissolved | M200.7 ICP | 1 | 0.293 | | | mg/L | 0.008 | 0.04 | 04/05/22 15:13 | wtc |
| Magnesium, dissolved | M200.7 ICP | 1 | 178 | | | mg/L | 0.2 | 1 | 04/05/22 15:13 | wtc |
| Manganese, dissolved | M200.7 ICP | 1 | 0.609 | | | mg/L | 0.01 | 0.05 | 04/05/22 15:13 | wtc |
| Mercury, dissolved | M245.1 CVAA | 1 | <0.0002 | U | | mg/L | 0.0002 | 0.001 | 03/30/22 14:52 | mlh |
| Nickel, dissolved | M200.7 ICP | 1 | 0.0219 | B | | mg/L | 0.008 | 0.04 | 04/05/22 15:13 | wtc |
| Potassium, dissolved | M200.7 ICP | 1 | 8.08 | | | mg/L | 0.2 | 1 | 04/05/22 15:13 | wtc |
| Selenium, dissolved | M200.8 ICP-MS | 5 | <0.0005 | U | | mg/L | 0.0005 | 0.00125 | 04/06/22 17:38 | mfm |
| Sodium, dissolved | M200.7 ICP | 1 | 540 | | | mg/L | 0.2 | 1 | 04/05/22 15:13 | wtc |
| Vanadium, dissolved | M200.7 ICP | 1 | <0.01 | U | | mg/L | 0.01 | 0.025 | 04/05/22 15:13 | wtc |
| Zinc, dissolved | M200.7 ICP | 1 | <0.02 | U | * | mg/L | 0.02 | 0.05 | 04/05/22 15:13 | wtc |

Wet Chemistry

| Parameter | EPA Method | Dilution | Result | Qual | XQ | Units | MDL | PQL | Date | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Alkalinity as CaCO3 | SM2320B - Titration | | | | | | | | | |
| Bicarbonate as CaCO3 | | 1 | 223 | | * | mg/L | 2 | 20 | 03/30/22 0:00 | jck |
| Carbonate as CaCO3 | | 1 | <2 | U | * | mg/L | 2 | 20 | 03/30/22 0:00 | jck |
| Hydroxide as CaCO3 | | 1 | <2 | U | * | mg/L | 2 | 20 | 03/30/22 0:00 | jck |
| Total Alkalinity | | 1 | 223 | | * | mg/L | 2 | 20 | 03/30/22 0:00 | jck |
| Chloride | SM4500Cl-E | 1 | 43.6 | | * | mg/L | 0.5 | 2 | 04/12/22 8:34 | bls |
| Fluoride | SM4500F-C | 1 | 0.49 | | * | mg/L | 0.15 | 0.35 | 04/13/22 12:43 | emk |
| Nitrate as N, dissolved | Calculation: NO3NO2 minus NO2 | | 0.513 | | | mg/L | 0.02 | 0.1 | 04/14/22 0:00 | calc |
| Nitrate/Nitrite as N, dissolved | M353.2 - Automated Cadmium Reduction | 1 | 1.38 | | * | mg/L | 0.02 | 0.1 | 03/29/22 23:50 | pjb |
| Nitrite as N, dissolved | M353.2 - Automated Cadmium Reduction | 1 | 0.867 | | * | mg/L | 0.01 | 0.05 | 03/29/22 23:50 | pjb |
| Residue, Filterable (TDS) @180C | SM2540C | 2 | 4420 | | * | mg/L | 40 | 80 | 03/31/22 15:54 | anc |
| Sulfate | D516-02/-07/-11 - TURBIDIMETRIC | 120 | 3200 | | * | mg/L | 120 | 600 | 03/29/22 21:53 | mjj1 |

**GCC Rio Grande**
Project ID: 105495
Sample ID: MW-10

ACZ Sample ID: ***L72232-03***
Date Sampled: *03/28/22 11:02*
Date Received: *03/29/22*
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 | 04/05/22 19:11 | wtc |
| Arsenic, dissolved | M200.8 ICP-MS | 5 | 0.00289 | B | | mg/L | 0.001 | 0.005 | 04/06/22 17:40 | mfm |
| Beryllium, dissolved | M200.7 ICP | 5 | <0.05 | U | | mg/L | 0.05 | 0.25 | 04/05/22 19:11 | wtc |
| Boron, dissolved | M200.7 ICP | 5 | 0.988 | | | mg/L | 0.15 | 0.5 | 04/05/22 19:11 | wtc |
| Cadmium, dissolved | M200.8 ICP-MS | 5 | <0.00025 | U | | mg/L | 0.00025 | 0.00125 | 04/06/22 17:40 | mfm |
| Calcium, dissolved | M200.7 ICP | 5 | 430 | | | mg/L | 0.5 | 2.5 | 04/05/22 19:11 | wtc |
| Chromium, dissolved | M200.7 ICP | 5 | <0.1 | U | | mg/L | 0.1 | 0.25 | 04/05/22 19:11 | wtc |
| Cobalt, dissolved | M200.7 ICP | 5 | <0.1 | U | | mg/L | 0.1 | 0.25 | 04/05/22 19:11 | wtc |
| Copper, dissolved | M200.7 ICP | 5 | <0.05 | U | | mg/L | 0.05 | 0.25 | 04/05/22 19:11 | wtc |
| Iron, dissolved | M200.7 ICP | 5 | <0.3 | U | | mg/L | 0.3 | 0.75 | 04/05/22 19:11 | wtc |
| Lead, dissolved | M200.8 ICP-MS | 5 | 0.00055 | B | | mg/L | 0.0005 | 0.0025 | 04/06/22 17:40 | mfm |
| Lithium, dissolved | M200.7 ICP | 5 | 0.310 | | | mg/L | 0.04 | 0.2 | 04/05/22 19:11 | wtc |
| Magnesium, dissolved | M200.7 ICP | 5 | 198 | | | mg/L | 1 | 5 | 04/05/22 19:11 | wtc |
| Manganese, dissolved | M200.7 ICP | 5 | 0.686 | | | mg/L | 0.05 | 0.25 | 04/05/22 19:11 | wtc |
| Mercury, dissolved | M245.1 CVAA | 1 | <0.0002 | U | | mg/L | 0.0002 | 0.001 | 03/30/22 14:53 | mlh |
| Nickel, dissolved | M200.7 ICP | 5 | <0.04 | U | | mg/L | 0.04 | 0.2 | 04/05/22 19:11 | wtc |
| Potassium, dissolved | M200.7 ICP | 5 | 8.85 | | | mg/L | 1 | 5 | 04/05/22 19:11 | wtc |
| Selenium, dissolved | M200.8 ICP-MS | 5 | <0.0005 | U | | mg/L | 0.0005 | 0.00125 | 04/06/22 17:40 | mfm |
| Sodium, dissolved | M200.7 ICP | 5 | 615 | | * | mg/L | 1 | 5 | 04/05/22 19:11 | wtc |
| Vanadium, dissolved | M200.7 ICP | 5 | <0.05 | U | | mg/L | 0.05 | 0.125 | 04/05/22 19:11 | wtc |
| Zinc, dissolved | M200.7 ICP | 5 | <0.1 | U | * | mg/L | 0.1 | 0.25 | 04/06/22 13:46 | wtc |

Wet Chemistry

| Parameter | EPA Method | Dilution | Result | Qual | XQ | Units | MDL | PQL | Date | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Alkalinity as CaCO3 | SM2320B - Titration | | | | | | | | | |
| Bicarbonate as CaCO3 | | 1 | 587 | | * | mg/L | 2 | 20 | 03/30/22 0:00 | jck |
| Carbonate as CaCO3 | | 1 | <2 | U | * | mg/L | 2 | 20 | 03/30/22 0:00 | jck |
| Hydroxide as CaCO3 | | 1 | <2 | U | * | mg/L | 2 | 20 | 03/30/22 0:00 | jck |
| Total Alkalinity | | 1 | 587 | | * | mg/L | 2 | 20 | 03/30/22 0:00 | jck |
| Chloride | SM4500Cl-E | 5 | 289 | | * | mg/L | 2.5 | 10 | 04/12/22 8:35 | bls |
| Fluoride | SM4500F-C | 1 | 0.99 | | * | mg/L | 0.15 | 0.35 | 04/13/22 12:46 | emk |
| Nitrate as N, dissolved | Calculation: NO3NO2 minus NO2 | | <0.02 | U | | mg/L | 0.02 | 0.1 | 04/14/22 0:00 | calc |
| Nitrate/Nitrite as N, dissolved | M353.2 - Automated Cadmium Reduction | 1 | <0.02 | U | * | mg/L | 0.02 | 0.1 | 03/29/22 23:51 | pjb |
| Nitrite as N, dissolved | M353.2 - Automated Cadmium Reduction | 1 | <0.01 | U | * | mg/L | 0.01 | 0.05 | 03/29/22 23:51 | pjb |
| Residue, Filterable (TDS) @180C | SM2540C | 2 | 4220 | | * | mg/L | 40 | 80 | 03/29/22 15:31 | scd |
| Sulfate | D516-02/-07/-11 - TURBIDIMETRIC | 120 | 2380 | | * | mg/L | 120 | 600 | 03/29/22 21:53 | mjj1 |

**GCC Rio Grande**
Project ID: 105495
Sample ID: MW-12

ACZ Sample ID: ***L72232-04***
Date Sampled: *03/28/22 10:23*
Date Received: *03/29/22*
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 | 04/05/22 19:14 | wtc |
| Arsenic, dissolved | M200.8 ICP-MS | 1 | 0.00464 | | | mg/L | 0.0002 | 0.001 | 04/06/22 17:42 | mfm |
| Beryllium, dissolved | M200.7 ICP | 1 | <0.01 | U | | mg/L | 0.01 | 0.05 | 04/05/22 19:14 | wtc |
| Boron, dissolved | M200.7 ICP | 1 | 0.604 | | | mg/L | 0.03 | 0.1 | 04/05/22 19:14 | wtc |
| Cadmium, dissolved | M200.8 ICP-MS | 1 | <0.00005 | U | | mg/L | 0.00005 | 0.00025 | 04/06/22 17:42 | mfm |
| Calcium, dissolved | M200.7 ICP | 1 | 10.8 | | | mg/L | 0.1 | 0.5 | 04/05/22 19:14 | wtc |
| Chromium, dissolved | M200.7 ICP | 1 | <0.02 | U | | mg/L | 0.02 | 0.05 | 04/05/22 19:14 | wtc |
| Cobalt, dissolved | M200.7 ICP | 1 | <0.02 | U | | mg/L | 0.02 | 0.05 | 04/05/22 19:14 | wtc |
| Copper, dissolved | M200.7 ICP | 1 | <0.01 | U | | mg/L | 0.01 | 0.05 | 04/05/22 19:14 | wtc |
| Iron, dissolved | M200.7 ICP | 1 | <0.06 | U | | mg/L | 0.06 | 0.15 | 04/05/22 19:14 | wtc |
| Lead, dissolved | M200.8 ICP-MS | 1 | <0.0001 | U | | mg/L | 0.0001 | 0.0005 | 04/06/22 17:42 | mfm |
| Lithium, dissolved | M200.7 ICP | 1 | 0.108 | | | mg/L | 0.008 | 0.04 | 04/05/22 19:14 | wtc |
| Magnesium, dissolved | M200.7 ICP | 1 | 3.12 | | | mg/L | 0.2 | 1 | 04/05/22 19:14 | wtc |
| Manganese, dissolved | M200.7 ICP | 1 | 0.014 | B | | mg/L | 0.01 | 0.05 | 04/05/22 19:14 | wtc |
| Mercury, dissolved | M245.1 CVAA | 1 | <0.0002 | U | | mg/L | 0.0002 | 0.001 | 03/30/22 14:54 | mlh |
| Nickel, dissolved | M200.7 ICP | 1 | <0.008 | U | | mg/L | 0.008 | 0.04 | 04/05/22 19:14 | wtc |
| Potassium, dissolved | M200.7 ICP | 1 | 2.22 | | | mg/L | 0.2 | 1 | 04/05/22 19:14 | wtc |
| Selenium, dissolved | M200.8 ICP-MS | 2 | <0.0002 | U | * | mg/L | 0.0002 | 0.0005 | 04/07/22 16:37 | mfm |
| Sodium, dissolved | M200.7 ICP | 1 | 488 | | * | mg/L | 0.2 | 1 | 04/05/22 19:14 | wtc |
| Vanadium, dissolved | M200.7 ICP | 1 | <0.01 | U | | mg/L | 0.01 | 0.025 | 04/05/22 19:14 | wtc |
| Zinc, dissolved | M200.7 ICP | 1 | <0.02 | U | | mg/L | 0.02 | 0.05 | 04/06/22 13:49 | wtc |

Wet Chemistry

| Parameter | EPA Method | Dilution | Result | Qual | XQ | Units | MDL | PQL | Date | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Alkalinity as CaCO3 | SM2320B - Titration | | | | | | | | | |
| Bicarbonate as CaCO3 | | 1 | 380 | | * | mg/L | 2 | 20 | 03/30/22 0:00 | jck |
| Carbonate as CaCO3 | | 1 | 28.9 | | * | mg/L | 2 | 20 | 03/30/22 0:00 | jck |
| Hydroxide as CaCO3 | | 1 | <2 | U | * | mg/L | 2 | 20 | 03/30/22 0:00 | jck |
| Total Alkalinity | | 1 | 409 | | * | mg/L | 2 | 20 | 03/30/22 0:00 | jck |
| Chloride | SM4500Cl-E | 25 | 374 | | * | mg/L | 12.5 | 50 | 04/12/22 8:35 | bls |
| Fluoride | SM4500F-C | 1 | 2.52 | | * | mg/L | 0.15 | 0.35 | 04/13/22 12:50 | emk |
| Nitrate as N, dissolved | Calculation: NO3NO2 minus NO2 | | <0.02 | U | | mg/L | 0.02 | 0.1 | 04/14/22 0:00 | calc |
| Nitrate/Nitrite as N, dissolved | M353.2 - Automated Cadmium Reduction | 1 | <0.02 | U | * | mg/L | 0.02 | 0.1 | 03/29/22 23:52 | pjb |
| Nitrite as N, dissolved | M353.2 - Automated Cadmium Reduction | 1 | 0.012 | B | * | mg/L | 0.01 | 0.05 | 03/29/22 23:52 | pjb |
| Residue, Filterable (TDS) @180C | SM2540C | 1 | 1360 | | * | mg/L | 20 | 40 | 03/29/22 15:33 | scd |
| Sulfate | D516-02/-07/-11 - TURBIDIMETRIC | 5 | 129 | | * | mg/L | 5 | 25 | 03/29/22 21:40 | mjj1 |

**GCC Rio Grande**
Project ID: 105495
Sample ID: MW-14

ACZ Sample ID: ***L72232-05***
Date Sampled: *03/28/22 13:15*
Date Received: *03/29/22*
Sample Matrix: *Groundwater*

Metals Analysis

| Parameter | EPA Method | Dilution | Result | Qual | XQ | Units | MDL | PQL | Date | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum, dissolved | M200.7 ICP | 2 | <0.1 | U | * | mg/L | 0.1 | 0.5 | 04/05/22 19:24 | wtc |
| Arsenic, dissolved | M200.8 ICP-MS | 2 | 0.00533 | | | mg/L | 0.0004 | 0.002 | 04/06/22 17:44 | mfm |
| Beryllium, dissolved | M200.7 ICP | 2 | <0.02 | U | * | mg/L | 0.02 | 0.1 | 04/05/22 19:24 | wtc |
| Boron, dissolved | M200.7 ICP | 5 | 1.46 | | | mg/L | 0.15 | 0.5 | 04/06/22 13:58 | wtc |
| Cadmium, dissolved | M200.8 ICP-MS | 2 | <0.0001 | U | | mg/L | 0.0001 | 0.0005 | 04/06/22 17:44 | mfm |
| Calcium, dissolved | M200.7 ICP | 5 | 84.8 | | | mg/L | 0.5 | 2.5 | 04/06/22 13:58 | wtc |
| Chromium, dissolved | M200.7 ICP | 2 | <0.04 | U | * | mg/L | 0.04 | 0.1 | 04/05/22 19:24 | wtc |
| Cobalt, dissolved | M200.7 ICP | 2 | <0.04 | U | * | mg/L | 0.04 | 0.1 | 04/05/22 19:24 | wtc |
| Copper, dissolved | M200.7 ICP | 2 | <0.02 | U | * | mg/L | 0.02 | 0.1 | 04/05/22 19:24 | wtc |
| Iron, dissolved | M200.7 ICP | 2 | <0.12 | U | * | mg/L | 0.12 | 0.3 | 04/05/22 19:24 | wtc |
| Lead, dissolved | M200.8 ICP-MS | 2 | <0.0002 | U | | mg/L | 0.0002 | 0.001 | 04/06/22 17:44 | mfm |
| Lithium, dissolved | M200.7 ICP | 5 | 0.319 | | | mg/L | 0.04 | 0.2 | 04/06/22 13:58 | wtc |
| Magnesium, dissolved | M200.7 ICP | 5 | 23.3 | | | mg/L | 1 | 5 | 04/06/22 13:58 | wtc |
| Manganese, dissolved | M200.7 ICP | 2 | <0.02 | U | * | mg/L | 0.02 | 0.1 | 04/05/22 19:24 | wtc |
| Mercury, dissolved | M245.1 CVAA | 1 | <0.0002 | U | | mg/L | 0.0002 | 0.001 | 03/30/22 14:55 | mlh |
| Nickel, dissolved | M200.7 ICP | 2 | <0.016 | U | * | mg/L | 0.016 | 0.08 | 04/05/22 19:24 | wtc |
| Potassium, dissolved | M200.7 ICP | 5 | 7.14 | | | mg/L | 1 | 5 | 04/06/22 13:58 | wtc |
| Selenium, dissolved | M200.8 ICP-MS | 2 | 0.00980 | | | mg/L | 0.0002 | 0.0005 | 04/06/22 17:44 | mfm |
| Sodium, dissolved | M200.7 ICP | 5 | 1260 | | * | mg/L | 1 | 5 | 04/06/22 13:58 | wtc |
| Vanadium, dissolved | M200.7 ICP | 2 | <0.02 | U | * | mg/L | 0.02 | 0.05 | 04/05/22 19:24 | wtc |
| Zinc, dissolved | M200.7 ICP | 5 | <0.1 | U | * | mg/L | 0.1 | 0.25 | 04/06/22 13:58 | wtc |

Wet Chemistry

| Parameter | EPA Method | Dilution | Result | Qual | XQ | Units | MDL | PQL | Date | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Alkalinity as CaCO3 | SM2320B - Titration | | | | | | | | | |
| Bicarbonate as CaCO3 | | 1 | 800 | | * | mg/L | 2 | 20 | 03/30/22 0:00 | jck |
| Carbonate as CaCO3 | | 1 | 65.9 | | * | mg/L | 2 | 20 | 03/30/22 0:00 | jck |
| Hydroxide as CaCO3 | | 1 | <2 | U | * | mg/L | 2 | 20 | 03/30/22 0:00 | jck |
| Total Alkalinity | | 1 | 866 | | * | mg/L | 2 | 20 | 03/30/22 0:00 | jck |
| Chloride | SM4500Cl-E | 25 | 473 | | * | mg/L | 12.5 | 50 | 04/12/22 8:36 | bls |
| Fluoride | SM4500F-C | 1 | 2.35 | | * | mg/L | 0.15 | 0.35 | 04/13/22 12:53 | emk |
| Nitrate as N, dissolved | Calculation: NO3NO2 minus NO2 | | <0.02 | U | | mg/L | 0.02 | 0.1 | 04/14/22 0:00 | calc |
| Nitrate/Nitrite as N, dissolved | M353.2 - Automated Cadmium Reduction | 1 | <0.02 | U | * | mg/L | 0.02 | 0.1 | 03/29/22 23:54 | pjb |
| Nitrite as N, dissolved | M353.2 - Automated Cadmium Reduction | 1 | <0.01 | U | * | mg/L | 0.01 | 0.05 | 03/29/22 23:54 | pjb |
| Residue, Filterable (TDS) @180C | SM2540C | 1 | 2300 | | * | mg/L | 20 | 40 | 03/29/22 15:35 | scd |
| Sulfate | D516-02/-07/-11 - TURBIDIMETRIC | 25 | 353 | | * | mg/L | 25 | 125 | 03/29/22 21:50 | mjj1 |

## 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

## GCC

ACZ Project ID: ***L72232***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG539236** | | | | | | | | | | | | | |
| WG539236PBW1 | PBW | 03/29/22 18:31 | | | | 3 | mg/L | | -20 | 20 | | | |
| WG539236LCSW3 | LCSW | 03/29/22 18:49 | WC220328-1 | 820.0001 | | 789.9 | mg/L | 96 | 90 | 110 | | | |
| WG539236PQV2 | PQV | 03/29/22 18:58 | WC210630-2 | 20 | | 24.1 | mg/L | 121 | 50 | 150 | | | |
| WG539236LCSW6 | LCSW | 03/29/22 22:29 | WC220328-1 | 820.0001 | | 838 | mg/L | 102 | 90 | 110 | | | |
| WG539236PBW2 | PBW | 03/29/22 22:35 | | | | 5.1 | mg/L | | -20 | 20 | | | |
| L72248-01DUP | DUP | 03/30/22 2:14 | | | 262 | 280.4 | mg/L | | | | 7 | 20 | |
| WG539236LCSW9 | LCSW | 03/30/22 2:32 | WC220328-1 | 820.0001 | | 807.5 | mg/L | 98 | 90 | 110 | | | |

**Aluminum, dissolved** M200.7 ICP

| ACZ ID | Type | Analyzed | PCN/SCN | QC | Sample | Found | Units | Rec% | Lower | Upper | RPD | Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG539680** | | | | | | | | | | | | | |
| WG539680ICV | ICV | 04/05/22 13:28 | II220401-2 | 2 | | 1.959 | mg/L | 98 | 95 | 105 | | | |
| WG539680ICB | ICB | 04/05/22 13:34 | | | | U | mg/L | | -0.15 | 0.15 | | | |
| WG539680PQV | PQV | 04/05/22 13:37 | II220329-2 | .2502 | | .244 | mg/L | 98 | 70 | 130 | | | |
| WG539680SIC | SIC | 04/05/22 13:40 | II220405-1 | 200.4102 | | 185.4 | mg/L | 93 | 1 | 200 | | | |
| WG539680LFB | LFB | 04/05/22 13:46 | II220330-3 | 1.0008 | | .942 | mg/L | 94 | 85 | 115 | | | |
| WG539680CCV1 | CCV | 04/05/22 14:17 | II220228-4 | 1 | | .962 | mg/L | 96 | 90 | 110 | | | |
| WG539680CCB1 | CCB | 04/05/22 14:20 | | | | U | mg/L | | -0.15 | 0.15 | | | |
| WG539680CCV2 | CCV | 04/05/22 14:55 | II220228-4 | 1 | | .985 | mg/L | 99 | 90 | 110 | | | |
| WG539680CCB2 | CCB | 04/05/22 14:58 | | | | U | mg/L | | -0.15 | 0.15 | | | |
| L72231-03AS | AS | 04/05/22 15:01 | II220330-3 | 1.0008 | .16 | 1.074 | mg/L | 91 | 85 | 115 | | | |
| L72231-03ASD | ASD | 04/05/22 15:04 | II220330-3 | 1.0008 | .16 | 1.081 | mg/L | 92 | 85 | 115 | 1 | 20 | |
| WG539680CCV3 | CCV | 04/05/22 15:16 | II220228-4 | 1 | | .984 | mg/L | 98 | 90 | 110 | | | |
| WG539680CCB3 | CCB | 04/05/22 15:19 | | | | U | mg/L | | -0.15 | 0.15 | | | |
| **WG539702** | | | | | | | | | | | | | |
| WG539702ICV | ICV | 04/05/22 18:50 | II220401-2 | 2 | | 1.934 | mg/L | 97 | 95 | 105 | | | |
| WG539702ICB | ICB | 04/05/22 18:56 | | | | U | mg/L | | -0.15 | 0.15 | | | |
| WG539702PQV | PQV | 04/05/22 18:59 | II220329-2 | .2502 | | .25 | mg/L | 100 | 70 | 130 | | | |
| WG539702SIC | SIC | 04/05/22 19:02 | II220405-1 | 200.4102 | | 200.5 | mg/L | 100 | 1 | 200 | | | |
| WG539702LFB | LFB | 04/05/22 19:08 | II220330-3 | 1.0008 | | 1.01 | mg/L | 101 | 85 | 115 | | | |
| L72232-04AS | AS | 04/05/22 19:17 | II220330-3 | 1.0008 | U | 1.032 | mg/L | 103 | 85 | 115 | | | |
| L72232-04ASD | ASD | 04/05/22 19:20 | II220330-3 | 1.0008 | U | 1.04 | mg/L | 104 | 85 | 115 | 1 | 20 | |
| WG539702CCV1 | CCV | 04/05/22 19:39 | II220228-4 | 1 | | .972 | mg/L | 97 | 90 | 110 | | | |
| WG539702CCB1 | CCB | 04/05/22 19:42 | | | | U | mg/L | | -0.15 | 0.15 | | | |
| WG539702CCV2 | CCV | 04/05/22 20:16 | II220228-4 | 1 | | .987 | mg/L | 99 | 90 | 110 | | | |
| WG539702CCB2 | CCB | 04/05/22 20:19 | | | | U | mg/L | | -0.15 | 0.15 | | | |
| WG539702CCV3 | CCV | 04/05/22 20:38 | II220228-4 | 1 | | .978 | mg/L | 98 | 90 | 110 | | | |
| WG539702CCB3 | CCB | 04/05/22 20:41 | | | | U | mg/L | | -0.15 | 0.15 | | | |

## GCC

ACZ Project ID: ***L72232***

*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.*

**Arsenic, dissolved** M200.8 ICP-MS

| ACZ ID | Type | Analyzed | PCN/SCN | QC | Sample | Found | Units | Rec% | Lower | Upper | RPD | Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG539810** | | | | | | | | | | | | | |
| WG539810ICV | ICV | 04/06/22 17:04 | MS220401-7 | .05 | | .05255 | mg/L | 105 | 90 | 110 | | | |
| WG539810ICB | ICB | 04/06/22 17:06 | | | | .00021 | mg/L | | -0.00044 | 0.00044 | | | |
| WG539810LFB | LFB | 04/06/22 17:08 | MS220401-2 | .05005 | | .04983 | mg/L | 100 | 85 | 115 | | | |
| WG539810CCV1 | CCV | 04/06/22 17:27 | MS220330-4 | .1001 | | .09984 | mg/L | 100 | 90 | 110 | | | |
| WG539810CCB1 | CCB | 04/06/22 17:29 | | | | .00037 | mg/L | | -0.0006 | 0.0006 | | | |
| L72232-01AS | AS | 04/06/22 17:35 | MS220401-2 | .1001 | .00279 | .09849 | mg/L | 96 | 70 | 130 | | | |
| L72232-01ASD | ASD | 04/06/22 17:37 | MS220401-2 | .1001 | .00279 | .09967 | mg/L | 97 | 70 | 130 | 1 | 20 | |
| WG539810CCV2 | CCV | 04/06/22 17:50 | MS220330-4 | .1001 | | .10131 | mg/L | 101 | 90 | 110 | | | |
| WG539810CCB2 | CCB | 04/06/22 17:52 | | | | U | mg/L | | -0.0006 | 0.0006 | | | |
| L72257-03AS | AS | 04/06/22 17:55 | MS220401-2 | .05005 | .0131 | .06126 | mg/L | 96 | 70 | 130 | | | |
| L72257-03ASD | ASD | 04/06/22 17:57 | MS220401-2 | .05005 | .0131 | .0576 | mg/L | 89 | 70 | 130 | 6 | 20 | |
| WG539810CCV3 | CCV | 04/06/22 18:03 | MS220330-4 | .1001 | | .09793 | mg/L | 98 | 90 | 110 | | | |
| WG539810CCB3 | CCB | 04/06/22 18:05 | | | | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG539680** | | | | | | | | | | | | | |
| WG539680ICV | ICV | 04/05/22 13:28 | II220401-2 | 2 | | 1.956 | mg/L | 98 | 95 | 105 | | | |
| WG539680ICB | ICB | 04/05/22 13:34 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| WG539680PQV | PQV | 04/05/22 13:37 | II220329-2 | .05005 | | .053 | mg/L | 106 | 70 | 130 | | | |
| WG539680SIC | SIC | 04/05/22 13:40 | II220405-1 | .1001 | | .091 | mg/L | 91 | 80 | 120 | | | |
| WG539680LFB | LFB | 04/05/22 13:46 | II220330-3 | .5005 | | .466 | mg/L | 93 | 85 | 115 | | | |
| WG539680CCV1 | CCV | 04/05/22 14:17 | II220228-4 | 1 | | .976 | mg/L | 98 | 90 | 110 | | | |
| WG539680CCB1 | CCB | 04/05/22 14:20 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| WG539680CCV2 | CCV | 04/05/22 14:55 | II220228-4 | 1 | | .988 | mg/L | 99 | 90 | 110 | | | |
| WG539680CCB2 | CCB | 04/05/22 14:58 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| L72231-03AS | AS | 04/05/22 15:01 | II220330-3 | .5005 | U | .475 | mg/L | 95 | 85 | 115 | | | |
| L72231-03ASD | ASD | 04/05/22 15:04 | II220330-3 | .5005 | U | .476 | mg/L | 95 | 85 | 115 | 0 | 20 | |
| WG539680CCV3 | CCV | 04/05/22 15:16 | II220228-4 | 1 | | .989 | mg/L | 99 | 90 | 110 | | | |
| WG539680CCB3 | CCB | 04/05/22 15:19 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| **WG539702** | | | | | | | | | | | | | |
| WG539702ICV | ICV | 04/05/22 18:50 | II220401-2 | 2 | | 1.941 | mg/L | 97 | 95 | 105 | | | |
| WG539702ICB | ICB | 04/05/22 18:56 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| WG539702PQV | PQV | 04/05/22 18:59 | II220329-2 | .05005 | | .052 | mg/L | 104 | 70 | 130 | | | |
| WG539702SIC | SIC | 04/05/22 19:02 | II220405-1 | .1001 | | .099 | mg/L | 99 | 80 | 120 | | | |
| WG539702LFB | LFB | 04/05/22 19:08 | II220330-3 | .5005 | | .51 | mg/L | 102 | 85 | 115 | | | |
| L72232-04AS | AS | 04/05/22 19:17 | II220330-3 | .5005 | U | .505 | mg/L | 101 | 85 | 115 | | | |
| L72232-04ASD | ASD | 04/05/22 19:20 | II220330-3 | .5005 | U | .506 | mg/L | 101 | 85 | 115 | 0 | 20 | |
| WG539702CCV1 | CCV | 04/05/22 19:39 | II220228-4 | 1 | | .977 | mg/L | 98 | 90 | 110 | | | |
| WG539702CCB1 | CCB | 04/05/22 19:42 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| WG539702CCV2 | CCV | 04/05/22 20:16 | II220228-4 | 1 | | .993 | mg/L | 99 | 90 | 110 | | | |
| WG539702CCB2 | CCB | 04/05/22 20:19 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| WG539702CCV3 | CCV | 04/05/22 20:38 | II220228-4 | 1 | | .993 | mg/L | 99 | 90 | 110 | | | |
| WG539702CCB3 | CCB | 04/05/22 20:41 | | | | U | mg/L | | -0.03 | 0.03 | | | |

**GCC**

ACZ Project ID: ***L72232***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG539680** | | | | | | | | | | | | | |
| WG539680ICV | ICV | 04/05/22 13:28 | II220401-2 | 2 | | 2 | mg/L | 100 | 95 | 105 | | | |
| WG539680ICB | ICB | 04/05/22 13:34 | | | | U | mg/L | | -0.09 | 0.09 | | | |
| WG539680PQV | PQV | 04/05/22 13:37 | II220329-2 | .1001 | | .099 | mg/L | 99 | 70 | 130 | | | |
| WG539680SIC | SIC | 04/05/22 13:40 | II220405-1 | .1001 | | .088 | mg/L | 88 | 80 | 120 | | | |
| WG539680LFB | LFB | 04/05/22 13:46 | II220330-3 | .5005 | | .474 | mg/L | 95 | 85 | 115 | | | |
| WG539680CCV1 | CCV | 04/05/22 14:17 | II220228-4 | 1 | | .998 | mg/L | 100 | 90 | 110 | | | |
| WG539680CCB1 | CCB | 04/05/22 14:20 | | | | U | mg/L | | -0.09 | 0.09 | | | |
| WG539680CCV2 | CCV | 04/05/22 14:55 | II220228-4 | 1 | | 1.023 | mg/L | 102 | 90 | 110 | | | |
| WG539680CCB2 | CCB | 04/05/22 14:58 | | | | U | mg/L | | -0.09 | 0.09 | | | |
| L72231-03AS | AS | 04/05/22 15:01 | II220330-3 | .5005 | U | .5 | mg/L | 100 | 85 | 115 | | | |
| L72231-03ASD | ASD | 04/05/22 15:04 | II220330-3 | .5005 | U | .511 | mg/L | 102 | 85 | 115 | 2 | 20 | |
| WG539680CCV3 | CCV | 04/05/22 15:16 | II220228-4 | 1 | | .999 | mg/L | 100 | 90 | 110 | | | |
| WG539680CCB3 | CCB | 04/05/22 15:19 | | | | U | mg/L | | -0.09 | 0.09 | | | |
| **WG539702** | | | | | | | | | | | | | |
| WG539702ICV | ICV | 04/05/22 18:50 | II220401-2 | 2 | | 2.009 | mg/L | 100 | 95 | 105 | | | |
| WG539702ICB | ICB | 04/05/22 18:56 | | | | U | mg/L | | -0.09 | 0.09 | | | |
| WG539702PQV | PQV | 04/05/22 18:59 | II220329-2 | .1001 | | .097 | mg/L | 97 | 70 | 130 | | | |
| WG539702SIC | SIC | 04/05/22 19:02 | II220405-1 | .1001 | | .09 | mg/L | 90 | 80 | 120 | | | |
| WG539702LFB | LFB | 04/05/22 19:08 | II220330-3 | .5005 | | .532 | mg/L | 106 | 85 | 115 | | | |
| L72232-04AS | AS | 04/05/22 19:17 | II220330-3 | .5005 | .604 | 1.089 | mg/L | 97 | 85 | 115 | | | |
| L72232-04ASD | ASD | 04/05/22 19:20 | II220330-3 | .5005 | .604 | 1.067 | mg/L | 93 | 85 | 115 | 2 | 20 | |
| WG539702CCV1 | CCV | 04/05/22 19:39 | II220228-4 | 1 | | .996 | mg/L | 100 | 90 | 110 | | | |
| WG539702CCB1 | CCB | 04/05/22 19:42 | | | | U | mg/L | | -0.09 | 0.09 | | | |
| WG539702CCV2 | CCV | 04/05/22 20:16 | II220228-4 | 1 | | 1.029 | mg/L | 103 | 90 | 110 | | | |
| WG539702CCB2 | CCB | 04/05/22 20:19 | | | | U | mg/L | | -0.09 | 0.09 | | | |
| WG539702CCV3 | CCV | 04/05/22 20:38 | II220228-4 | 1 | | 1.034 | mg/L | 103 | 90 | 110 | | | |
| WG539702CCB3 | CCB | 04/05/22 20:41 | | | | U | mg/L | | -0.09 | 0.09 | | | |
| **WG539763** | | | | | | | | | | | | | |
| WG539763ICV | ICV | 04/06/22 13:21 | II220401-2 | 2 | | 1.991 | mg/L | 100 | 95 | 105 | | | |
| WG539763ICB | ICB | 04/06/22 13:27 | | | | U | mg/L | | -0.09 | 0.09 | | | |
| WG539763PQV | PQV | 04/06/22 13:30 | II220329-2 | .1001 | | .109 | mg/L | 109 | 70 | 130 | | | |
| WG539763SIC | SIC | 04/06/22 13:33 | II220405-1 | .1001 | | .108 | mg/L | 108 | 80 | 120 | | | |
| WG539763LFB | LFB | 04/06/22 13:40 | II220330-3 | .5005 | | .529 | mg/L | 106 | 85 | 115 | | | |
| L72232-04AS | AS | 04/06/22 13:52 | II220330-3 | .5005 | .603 | 1.068 | mg/L | 93 | 85 | 115 | | | |
| L72232-04ASD | ASD | 04/06/22 13:55 | II220330-3 | .5005 | .603 | 1.112 | mg/L | 102 | 85 | 115 | 4 | 20 | |
| WG539763CCV1 | CCV | 04/06/22 14:10 | II220228-4 | 1 | | 1.025 | mg/L | 103 | 90 | 110 | | | |
| WG539763CCB1 | CCB | 04/06/22 14:13 | | | | U | mg/L | | -0.09 | 0.09 | | | |
| WG539763CCV2 | CCV | 04/06/22 14:47 | II220228-4 | 1 | | 1.01 | mg/L | 101 | 90 | 110 | | | |
| WG539763CCB2 | CCB | 04/06/22 14:50 | | | | U | mg/L | | -0.09 | 0.09 | | | |
| WG539763CCV3 | CCV | 04/06/22 15:09 | II220228-4 | 1 | | 1.005 | mg/L | 101 | 90 | 110 | | | |
| WG539763CCB3 | CCB | 04/06/22 15:12 | | | | U | mg/L | | -0.09 | 0.09 | | | |

**GCC**

ACZ Project ID: ***L72232***

*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.*

**Cadmium, dissolved** M200.8 ICP-MS

| ACZ ID | Type | Analyzed | PCN/SCN | QC | Sample | Found | Units | Rec% | Lower | Upper | RPD | Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG539810** | | | | | | | | | | | | | |
| WG539810ICV | ICV | 04/06/22 17:04 | MS220401-7 | .05 | | .052731 | mg/L | 105 | 90 | 110 | | | |
| WG539810ICB | ICB | 04/06/22 17:06 | | | | U | mg/L | | -0.00011 | 0.00011 | | | |
| WG539810LFB | LFB | 04/06/22 17:08 | MS220401-2 | .05005 | | .049236 | mg/L | 98 | 85 | 115 | | | |
| WG539810CCV1 | CCV | 04/06/22 17:27 | MS220330-4 | .1001 | | .097223 | mg/L | 97 | 90 | 110 | | | |
| WG539810CCB1 | CCB | 04/06/22 17:29 | | | | U | mg/L | | -0.00015 | 0.00015 | | | |
| L72232-01AS | AS | 04/06/22 17:35 | MS220401-2 | .1001 | U | .094471 | mg/L | 94 | 70 | 130 | | | |
| L72232-01ASD | ASD | 04/06/22 17:37 | MS220401-2 | .1001 | U | .095469 | mg/L | 95 | 70 | 130 | 1 | 20 | |
| WG539810CCV2 | CCV | 04/06/22 17:50 | MS220330-4 | .1001 | | .098895 | mg/L | 99 | 90 | 110 | | | |
| WG539810CCB2 | CCB | 04/06/22 17:52 | | | | U | mg/L | | -0.00015 | 0.00015 | | | |
| L72257-03AS | AS | 04/06/22 17:55 | MS220401-2 | .05005 | .000539 | .049119 | mg/L | 97 | 70 | 130 | | | |
| L72257-03ASD | ASD | 04/06/22 17:57 | MS220401-2 | .05005 | .000539 | .046453 | mg/L | 92 | 70 | 130 | 6 | 20 | |
| WG539810CCV3 | CCV | 04/06/22 18:03 | MS220330-4 | .1001 | | .096079 | mg/L | 96 | 90 | 110 | | | |
| WG539810CCB3 | CCB | 04/06/22 18:05 | | | | U | mg/L | | -0.00015 | 0.00015 | | | |

**GCC**

ACZ Project ID: ***L72232***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG539680** | | | | | | | | | | | | | |
| WG539680ICV | ICV | 04/05/22 13:28 | II220401-2 | 100 | | 98.92 | mg/L | 99 | 95 | 105 | | | |
| WG539680ICB | ICB | 04/05/22 13:34 | | | | .13 | mg/L | | -0.3 | 0.3 | | | |
| WG539680PQV | PQV | 04/05/22 13:37 | II220329-2 | .5003 | | .56 | mg/L | 112 | 70 | 130 | | | |
| WG539680SIC | SIC | 04/05/22 13:40 | II220405-1 | 200.6203 | | 179.7 | mg/L | 90 | 1 | 200 | | | |
| WG539680LFB | LFB | 04/05/22 13:46 | II220330-3 | 67.99026 | | 58.52 | mg/L | 86 | 85 | 115 | | | |
| WG539680CCV1 | CCV | 04/05/22 14:17 | II220228-4 | 50 | | 48.75 | mg/L | 98 | 90 | 110 | | | |
| WG539680CCB1 | CCB | 04/05/22 14:20 | | | | .16 | mg/L | | -0.3 | 0.3 | | | |
| WG539680CCV2 | CCV | 04/05/22 14:55 | II220228-4 | 50 | | 49.13 | mg/L | 98 | 90 | 110 | | | |
| WG539680CCB2 | CCB | 04/05/22 14:58 | | | | .16 | mg/L | | -0.3 | 0.3 | | | |
| L72231-03AS | AS | 04/05/22 15:01 | II220330-3 | 67.99026 | 13 | 71.13 | mg/L | 85 | 85 | 115 | | | |
| L72231-03ASD | ASD | 04/05/22 15:04 | II220330-3 | 67.99026 | 13 | 71.63 | mg/L | 86 | 85 | 115 | 1 | 20 | |
| WG539680CCV3 | CCV | 04/05/22 15:16 | II220228-4 | 50 | | 48.16 | mg/L | 96 | 90 | 110 | | | |
| WG539680CCB3 | CCB | 04/05/22 15:19 | | | | .24 | mg/L | | -0.3 | 0.3 | | | |
| **WG539702** | | | | | | | | | | | | | |
| WG539702ICV | ICV | 04/05/22 18:50 | II220401-2 | 100 | | 99.02 | mg/L | 99 | 95 | 105 | | | |
| WG539702ICB | ICB | 04/05/22 18:56 | | | | U | mg/L | | -0.3 | 0.3 | | | |
| WG539702PQV | PQV | 04/05/22 18:59 | II220329-2 | .5003 | | .64 | mg/L | 128 | 70 | 130 | | | |
| WG539702SIC | SIC | 04/05/22 19:02 | II220405-1 | 200.6203 | | 197.7 | mg/L | 99 | 1 | 200 | | | |
| WG539702LFB | LFB | 04/05/22 19:08 | II220330-3 | 67.99026 | | 64.25 | mg/L | 94 | 85 | 115 | | | |
| L72232-04AS | AS | 04/05/22 19:17 | II220330-3 | 67.99026 | 10.8 | 73.76 | mg/L | 93 | 85 | 115 | | | |
| L72232-04ASD | ASD | 04/05/22 19:20 | II220330-3 | 67.99026 | 10.8 | 73.79 | mg/L | 93 | 85 | 115 | 0 | 20 | |
| WG539702CCV1 | CCV | 04/05/22 19:39 | II220228-4 | 50 | | 49.36 | mg/L | 99 | 90 | 110 | | | |
| WG539702CCB1 | CCB | 04/05/22 19:42 | | | | U | mg/L | | -0.3 | 0.3 | | | |
| WG539702CCV2 | CCV | 04/05/22 20:16 | II220228-4 | 50 | | 50.58 | mg/L | 101 | 90 | 110 | | | |
| WG539702CCB2 | CCB | 04/05/22 20:19 | | | | U | mg/L | | -0.3 | 0.3 | | | |
| WG539702CCV3 | CCV | 04/05/22 20:38 | II220228-4 | 50 | | 50.58 | mg/L | 101 | 90 | 110 | | | |
| WG539702CCB3 | CCB | 04/05/22 20:41 | | | | U | mg/L | | -0.3 | 0.3 | | | |
| **WG539763** | | | | | | | | | | | | | |
| WG539763ICV | ICV | 04/06/22 13:21 | II220401-2 | 100 | | 99.33 | mg/L | 99 | 95 | 105 | | | |
| WG539763ICB | ICB | 04/06/22 13:27 | | | | .11 | mg/L | | -0.3 | 0.3 | | | |
| WG539763PQV | PQV | 04/06/22 13:30 | II220329-2 | .5003 | | .52 | mg/L | 104 | 70 | 130 | | | |
| WG539763SIC | SIC | 04/06/22 13:33 | II220405-1 | 200.6203 | | 200.1 | mg/L | 100 | 1 | 200 | | | |
| WG539763LFB | LFB | 04/06/22 13:40 | II220330-3 | 67.99026 | | 62.96 | mg/L | 93 | 85 | 115 | | | |
| L72232-04AS | AS | 04/06/22 13:52 | II220330-3 | 67.99026 | 10.7 | 74.25 | mg/L | 93 | 85 | 115 | | | |
| L72232-04ASD | ASD | 04/06/22 13:55 | II220330-3 | 67.99026 | 10.7 | 75.23 | mg/L | 95 | 85 | 115 | 1 | 20 | |
| WG539763CCV1 | CCV | 04/06/22 14:10 | II220228-4 | 50 | | 50.19 | mg/L | 100 | 90 | 110 | | | |
| WG539763CCB1 | CCB | 04/06/22 14:13 | | | | U | mg/L | | -0.3 | 0.3 | | | |
| WG539763CCV2 | CCV | 04/06/22 14:47 | II220228-4 | 50 | | 50.11 | mg/L | 100 | 90 | 110 | | | |
| WG539763CCB2 | CCB | 04/06/22 14:50 | | | | .11 | mg/L | | -0.3 | 0.3 | | | |
| WG539763CCV3 | CCV | 04/06/22 15:09 | II220228-4 | 50 | | 48.64 | mg/L | 97 | 90 | 110 | | | |
| WG539763CCB3 | CCB | 04/06/22 15:12 | | | | .14 | mg/L | | -0.3 | 0.3 | | | |

**GCC**

ACZ Project ID: ***L72232***

*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.*

**Chloride** SM4500Cl-E

| ACZ ID | Type | Analyzed | PCN/SCN | QC | Sample | Found | Units | Rec% | Lower | Upper | RPD | Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG540080** | | | | | | | | | | | | | |
| WG540080ICV | ICV | 04/12/22 8:32 | WI210503-1 | 54.89 | | 56.27 | mg/L | 103 | 90 | 110 | | | |
| WG540080ICB | ICB | 04/12/22 8:33 | | | | .78 | mg/L | | -1.5 | 1.5 | | | |
| WG540080LFB1 | LFB | 04/12/22 8:33 | WI220328-1 | 29.97 | | 30.55 | mg/L | 102 | 90 | 110 | | | |
| L72232-04AS | AS | 04/12/22 8:36 | WI220328-1 | 749.25 | 374 | 1005.75 | mg/L | 84 | 90 | 110 | | | M2 |
| L72232-05DUP | DUP | 04/12/22 8:37 | | | 473 | 476.35 | mg/L | | | | 1 | 20 | |
| WG540080CCV1 | CCV | 04/12/22 8:38 | WI220323-1 | 49.95 | | 46.28 | mg/L | 93 | 90 | 110 | | | |
| WG540080CCB1 | CCB | 04/12/22 8:39 | | | | .89 | mg/L | | -1.5 | 1.5 | | | |
| WG540080CCV2 | CCV | 04/12/22 8:44 | WI220323-1 | 49.95 | | 46.84 | mg/L | 94 | 90 | 110 | | | |
| WG540080CCB2 | CCB | 04/12/22 8:45 | | | | .95 | mg/L | | -1.5 | 1.5 | | | |
| WG540080LFB2 | LFB | 04/12/22 8:48 | WI220328-1 | 29.97 | | 31.74 | mg/L | 106 | 90 | 110 | | | |
| WG540080CCV3 | CCV | 04/12/22 8:51 | WI220323-1 | 49.95 | | 45.48 | mg/L | 91 | 90 | 110 | | | |
| WG540080CCB3 | CCB | 04/12/22 8:51 | | | | .88 | mg/L | | -1.5 | 1.5 | | | |
| WG540080CCV4 | CCV | 04/12/22 8:55 | WI220323-1 | 49.95 | | 46.4 | mg/L | 93 | 90 | 110 | | | |
| WG540080CCB4 | CCB | 04/12/22 8:56 | | | | 1.2 | mg/L | | -1.5 | 1.5 | | | |

**Chromium, dissolved** M200.7 ICP

| ACZ ID | Type | Analyzed | PCN/SCN | QC | Sample | Found | Units | Rec% | Lower | Upper | RPD | Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG539680** | | | | | | | | | | | | | |
| WG539680ICV | ICV | 04/05/22 13:28 | II220401-2 | 2 | | 1.948 | mg/L | 97 | 95 | 105 | | | |
| WG539680ICB | ICB | 04/05/22 13:34 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| WG539680PQV | PQV | 04/05/22 13:37 | II220329-2 | .05005 | | .048 | mg/L | 96 | 70 | 130 | | | |
| WG539680SIC | SIC | 04/05/22 13:40 | II220405-1 | .1001 | | .08 | mg/L | 80 | 80 | 120 | | | |
| WG539680LFB | LFB | 04/05/22 13:46 | II220330-3 | .5005 | | .454 | mg/L | 91 | 85 | 115 | | | |
| WG539680CCV1 | CCV | 04/05/22 14:17 | II220228-4 | 1 | | .961 | mg/L | 96 | 90 | 110 | | | |
| WG539680CCB1 | CCB | 04/05/22 14:20 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| WG539680CCV2 | CCV | 04/05/22 14:55 | II220228-4 | 1 | | .982 | mg/L | 98 | 90 | 110 | | | |
| WG539680CCB2 | CCB | 04/05/22 14:58 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| L72231-03AS | AS | 04/05/22 15:01 | II220330-3 | .5005 | U | .467 | mg/L | 93 | 85 | 115 | | | |
| L72231-03ASD | ASD | 04/05/22 15:04 | II220330-3 | .5005 | U | .474 | mg/L | 95 | 85 | 115 | 1 | 20 | |
| WG539680CCV3 | CCV | 04/05/22 15:16 | II220228-4 | 1 | | .967 | mg/L | 97 | 90 | 110 | | | |
| WG539680CCB3 | CCB | 04/05/22 15:19 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| **WG539702** | | | | | | | | | | | | | |
| WG539702ICV | ICV | 04/05/22 18:50 | II220401-2 | 2 | | 1.957 | mg/L | 98 | 95 | 105 | | | |
| WG539702ICB | ICB | 04/05/22 18:56 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| WG539702PQV | PQV | 04/05/22 18:59 | II220329-2 | .05005 | | .046 | mg/L | 92 | 70 | 130 | | | |
| WG539702SIC | SIC | 04/05/22 19:02 | II220405-1 | .1001 | | .083 | mg/L | 83 | 80 | 120 | | | |
| WG539702LFB | LFB | 04/05/22 19:08 | II220330-3 | .5005 | | .512 | mg/L | 102 | 85 | 115 | | | |
| L72232-04AS | AS | 04/05/22 19:17 | II220330-3 | .5005 | U | .51 | mg/L | 102 | 85 | 115 | | | |
| L72232-04ASD | ASD | 04/05/22 19:20 | II220330-3 | .5005 | U | .501 | mg/L | 100 | 85 | 115 | 2 | 20 | |
| WG539702CCV1 | CCV | 04/05/22 19:39 | II220228-4 | 1 | | .984 | mg/L | 98 | 90 | 110 | | | |
| WG539702CCB1 | CCB | 04/05/22 19:42 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| WG539702CCV2 | CCV | 04/05/22 20:16 | II220228-4 | 1 | | 1.02 | mg/L | 102 | 90 | 110 | | | |
| WG539702CCB2 | CCB | 04/05/22 20:19 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| WG539702CCV3 | CCV | 04/05/22 20:38 | II220228-4 | 1 | | 1.023 | mg/L | 102 | 90 | 110 | | | |
| WG539702CCB3 | CCB | 04/05/22 20:41 | | | | U | mg/L | | -0.06 | 0.06 | | | |

**GCC**

ACZ Project ID: ***L72232***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG539680** | | | | | | | | | | | | | |
| WG539680ICV | ICV | 04/05/22 13:28 | II220401-2 | 2.01 | | 1.96 | mg/L | 98 | 95 | 105 | | | |
| WG539680ICB | ICB | 04/05/22 13:34 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| WG539680PQV | PQV | 04/05/22 13:37 | II220329-2 | .05005 | | .048 | mg/L | 96 | 70 | 130 | | | |
| WG539680SIC | SIC | 04/05/22 13:40 | II220405-1 | .1001 | | .081 | mg/L | 81 | 80 | 120 | | | |
| WG539680LFB | LFB | 04/05/22 13:46 | II220330-3 | .5005 | | .452 | mg/L | 90 | 85 | 115 | | | |
| WG539680CCV1 | CCV | 04/05/22 14:17 | II220228-4 | 1.005 | | .953 | mg/L | 95 | 90 | 110 | | | |
| WG539680CCB1 | CCB | 04/05/22 14:20 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| WG539680CCV2 | CCV | 04/05/22 14:55 | II220228-4 | 1.005 | | .985 | mg/L | 98 | 90 | 110 | | | |
| WG539680CCB2 | CCB | 04/05/22 14:58 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| L72231-03AS | AS | 04/05/22 15:01 | II220330-3 | .5005 | U | .47 | mg/L | 94 | 85 | 115 | | | |
| L72231-03ASD | ASD | 04/05/22 15:04 | II220330-3 | .5005 | U | .473 | mg/L | 95 | 85 | 115 | 1 | 20 | |
| WG539680CCV3 | CCV | 04/05/22 15:16 | II220228-4 | 1.005 | | .957 | mg/L | 95 | 90 | 110 | | | |
| WG539680CCB3 | CCB | 04/05/22 15:19 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| **WG539702** | | | | | | | | | | | | | |
| WG539702ICV | ICV | 04/05/22 18:50 | II220401-2 | 2.01 | | 1.968 | mg/L | 98 | 95 | 105 | | | |
| WG539702ICB | ICB | 04/05/22 18:56 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| WG539702PQV | PQV | 04/05/22 18:59 | II220329-2 | .05005 | | .044 | mg/L | 88 | 70 | 130 | | | |
| WG539702SIC | SIC | 04/05/22 19:02 | II220405-1 | .1001 | | .086 | mg/L | 86 | 80 | 120 | | | |
| WG539702LFB | LFB | 04/05/22 19:08 | II220330-3 | .5005 | | .505 | mg/L | 101 | 85 | 115 | | | |
| L72232-04AS | AS | 04/05/22 19:17 | II220330-3 | .5005 | U | .5 | mg/L | 100 | 85 | 115 | | | |
| L72232-04ASD | ASD | 04/05/22 19:20 | II220330-3 | .5005 | U | .495 | mg/L | 99 | 85 | 115 | 1 | 20 | |
| WG539702CCV1 | CCV | 04/05/22 19:39 | II220228-4 | 1.005 | | .988 | mg/L | 98 | 90 | 110 | | | |
| WG539702CCB1 | CCB | 04/05/22 19:42 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| WG539702CCV2 | CCV | 04/05/22 20:16 | II220228-4 | 1.005 | | 1.027 | mg/L | 102 | 90 | 110 | | | |
| WG539702CCB2 | CCB | 04/05/22 20:19 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| WG539702CCV3 | CCV | 04/05/22 20:38 | II220228-4 | 1.005 | | 1.034 | mg/L | 103 | 90 | 110 | | | |
| WG539702CCB3 | CCB | 04/05/22 20:41 | | | | U | mg/L | | -0.06 | 0.06 | | | |

**GCC**

ACZ Project ID: ***L72232***

*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.*

**Copper, dissolved** M200.7 ICP

| ACZ ID | Type | Analyzed | PCN/SCN | QC | Sample | Found | Units | Rec% | Lower | Upper | RPD | Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG539680** | | | | | | | | | | | | | |
| WG539680ICV | ICV | 04/05/22 13:28 | II220401-2 | 2 | | 1.993 | mg/L | 100 | 95 | 105 | | | |
| WG539680ICB | ICB | 04/05/22 13:34 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| WG539680PQV | PQV | 04/05/22 13:37 | II220329-2 | .05 | | .051 | mg/L | 102 | 70 | 130 | | | |
| WG539680SIC | SIC | 04/05/22 13:40 | II220405-1 | .1 | | .08 | mg/L | 80 | 80 | 120 | | | |
| WG539680LFB | LFB | 04/05/22 13:46 | II220330-3 | .5 | | .462 | mg/L | 92 | 85 | 115 | | | |
| WG539680CCV1 | CCV | 04/05/22 14:17 | II220228-4 | 1 | | .993 | mg/L | 99 | 90 | 110 | | | |
| WG539680CCB1 | CCB | 04/05/22 14:20 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| WG539680CCV2 | CCV | 04/05/22 14:55 | II220228-4 | 1 | | .994 | mg/L | 99 | 90 | 110 | | | |
| WG539680CCB2 | CCB | 04/05/22 14:58 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| L72231-03AS | AS | 04/05/22 15:01 | II220330-3 | .5 | U | .478 | mg/L | 96 | 85 | 115 | | | |
| L72231-03ASD | ASD | 04/05/22 15:04 | II220330-3 | .5 | U | .478 | mg/L | 96 | 85 | 115 | 0 | 20 | |
| WG539680CCV3 | CCV | 04/05/22 15:16 | II220228-4 | 1 | | 1 | mg/L | 100 | 90 | 110 | | | |
| WG539680CCB3 | CCB | 04/05/22 15:19 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| **WG539702** | | | | | | | | | | | | | |
| WG539702ICV | ICV | 04/05/22 18:50 | II220401-2 | 2 | | 1.98 | mg/L | 99 | 95 | 105 | | | |
| WG539702ICB | ICB | 04/05/22 18:56 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| WG539702PQV | PQV | 04/05/22 18:59 | II220329-2 | .05 | | .049 | mg/L | 98 | 70 | 130 | | | |
| WG539702SIC | SIC | 04/05/22 19:02 | II220405-1 | .1 | | .084 | mg/L | 84 | 80 | 120 | | | |
| WG539702LFB | LFB | 04/05/22 19:08 | II220330-3 | .5 | | .509 | mg/L | 102 | 85 | 115 | | | |
| L72232-04AS | AS | 04/05/22 19:17 | II220330-3 | .5 | U | .508 | mg/L | 102 | 85 | 115 | | | |
| L72232-04ASD | ASD | 04/05/22 19:20 | II220330-3 | .5 | U | .513 | mg/L | 103 | 85 | 115 | 1 | 20 | |
| WG539702CCV1 | CCV | 04/05/22 19:39 | II220228-4 | 1 | | .993 | mg/L | 99 | 90 | 110 | | | |
| WG539702CCB1 | CCB | 04/05/22 19:42 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| WG539702CCV2 | CCV | 04/05/22 20:16 | II220228-4 | 1 | | 1.007 | mg/L | 101 | 90 | 110 | | | |
| WG539702CCB2 | CCB | 04/05/22 20:19 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| WG539702CCV3 | CCV | 04/05/22 20:38 | II220228-4 | 1 | | 1.004 | mg/L | 100 | 90 | 110 | | | |
| WG539702CCB3 | CCB | 04/05/22 20:41 | | | | U | mg/L | | -0.03 | 0.03 | | | |

**Fluoride** SM4500F-C

| ACZ ID | Type | Analyzed | PCN/SCN | QC | Sample | Found | Units | Rec% | Lower | Upper | RPD | Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG540219** | | | | | | | | | | | | | |
| WG540219ICV | ICV | 04/13/22 10:30 | WC220408-1 | 2.008 | | 1.99 | mg/L | 99 | 90 | 110 | | | |
| WG540219ICB | ICB | 04/13/22 10:36 | | | | U | mg/L | | -0.3 | 0.3 | | | |
| WG540219PQV | PQV | 04/13/22 10:40 | WC220411-1 | .3514 | | .37 | mg/L | 105 | 70 | 130 | | | |
| WG540219LFB | LFB | 04/13/22 10:43 | WC220104-2 | 5.02 | | 4.91 | mg/L | 98 | 90 | 110 | | | |
| WG540219CCV1 | CCV | 04/13/22 11:33 | WC220408-1 | 2.008 | | 1.99 | mg/L | 99 | 90 | 110 | | | |
| WG540219CCB1 | CCB | 04/13/22 11:41 | | | | U | mg/L | | -0.3 | 0.3 | | | |
| L72232-01AS | AS | 04/13/22 12:36 | WC220104-2 | 5.02 | .92 | 5.77 | mg/L | 97 | 90 | 110 | | | |
| L72232-01ASD | ASD | 04/13/22 12:39 | WC220104-2 | 5.02 | .92 | 5.82 | mg/L | 98 | 90 | 110 | 1 | 20 | |
| WG540219CCV2 | CCV | 04/13/22 12:57 | WC220408-1 | 2.008 | | 2.04 | mg/L | 102 | 90 | 110 | | | |
| WG540219CCB2 | CCB | 04/13/22 13:05 | | | | U | mg/L | | -0.3 | 0.3 | | | |
| WG540219CCV3 | CCV | 04/13/22 13:28 | WC220408-1 | 2.008 | | 1.99 | mg/L | 99 | 90 | 110 | | | |
| WG540219CCB3 | CCB | 04/13/22 13:36 | | | | U | mg/L | | -0.3 | 0.3 | | | |

**GCC**

ACZ Project ID: ***L72232***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG539680** | | | | | | | | | | | | | |
| WG539680ICV | ICV | 04/05/22 13:28 | II220401-2 | 2 | | 1.923 | mg/L | 96 | 95 | 105 | | | |
| WG539680ICB | ICB | 04/05/22 13:34 | | | | U | mg/L | | -0.18 | 0.18 | | | |
| WG539680PQV | PQV | 04/05/22 13:37 | II220329-2 | .150015 | | .144 | mg/L | 96 | 70 | 130 | | | |
| WG539680SIC | SIC | 04/05/22 13:40 | II220405-1 | 200.410015 | | 172.7 | mg/L | 86 | 1 | 200 | | | |
| WG539680LFB | LFB | 04/05/22 13:46 | II220330-3 | 1.0001 | | .938 | mg/L | 94 | 85 | 115 | | | |
| WG539680CCV1 | CCV | 04/05/22 14:17 | II220228-4 | 1 | | .943 | mg/L | 94 | 90 | 110 | | | |
| WG539680CCB1 | CCB | 04/05/22 14:20 | | | | U | mg/L | | -0.18 | 0.18 | | | |
| WG539680CCV2 | CCV | 04/05/22 14:55 | II220228-4 | 1 | | .968 | mg/L | 97 | 90 | 110 | | | |
| WG539680CCB2 | CCB | 04/05/22 14:58 | | | | U | mg/L | | -0.18 | 0.18 | | | |
| L72231-03AS | AS | 04/05/22 15:01 | II220330-3 | 1.0001 | .122 | 1.024 | mg/L | 90 | 85 | 115 | | | |
| L72231-03ASD | ASD | 04/05/22 15:04 | II220330-3 | 1.0001 | .122 | 1.047 | mg/L | 92 | 85 | 115 | 2 | 20 | |
| WG539680CCV3 | CCV | 04/05/22 15:16 | II220228-4 | 1 | | .945 | mg/L | 95 | 90 | 110 | | | |
| WG539680CCB3 | CCB | 04/05/22 15:19 | | | | U | mg/L | | -0.18 | 0.18 | | | |
| **WG539702** | | | | | | | | | | | | | |
| WG539702ICV | ICV | 04/05/22 18:50 | II220401-2 | 2 | | 1.898 | mg/L | 95 | 95 | 105 | | | |
| WG539702ICB | ICB | 04/05/22 18:56 | | | | U | mg/L | | -0.18 | 0.18 | | | |
| WG539702PQV | PQV | 04/05/22 18:59 | II220329-2 | .150015 | | .157 | mg/L | 105 | 70 | 130 | | | |
| WG539702SIC | SIC | 04/05/22 19:02 | II220405-1 | 200.410015 | | 185.8 | mg/L | 93 | 1 | 200 | | | |
| WG539702LFB | LFB | 04/05/22 19:08 | II220330-3 | 1.0001 | | 1.024 | mg/L | 102 | 85 | 115 | | | |
| L72232-04AS | AS | 04/05/22 19:17 | II220330-3 | 1.0001 | U | 1 | mg/L | 100 | 85 | 115 | | | |
| L72232-04ASD | ASD | 04/05/22 19:20 | II220330-3 | 1.0001 | U | .999 | mg/L | 100 | 85 | 115 | 0 | 20 | |
| WG539702CCV1 | CCV | 04/05/22 19:39 | II220228-4 | 1 | | .959 | mg/L | 96 | 90 | 110 | | | |
| WG539702CCB1 | CCB | 04/05/22 19:42 | | | | U | mg/L | | -0.18 | 0.18 | | | |
| WG539702CCV2 | CCV | 04/05/22 20:16 | II220228-4 | 1 | | .993 | mg/L | 99 | 90 | 110 | | | |
| WG539702CCB2 | CCB | 04/05/22 20:19 | | | | U | mg/L | | -0.18 | 0.18 | | | |
| WG539702CCV3 | CCV | 04/05/22 20:38 | II220228-4 | 1 | | .99 | mg/L | 99 | 90 | 110 | | | |
| WG539702CCB3 | CCB | 04/05/22 20:41 | | | | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG539810** | | | | | | | | | | | | | |
| WG539810ICV | ICV | 04/06/22 17:04 | MS220401-7 | .05 | | .05364 | mg/L | 107 | 90 | 110 | | | |
| WG539810ICB | ICB | 04/06/22 17:06 | | | | U | mg/L | | -0.00022 | 0.00022 | | | |
| WG539810LFB | LFB | 04/06/22 17:08 | MS220401-2 | .0501 | | .04952 | mg/L | 99 | 85 | 115 | | | |
| WG539810CCV1 | CCV | 04/06/22 17:27 | MS220330-4 | .2505 | | .24493 | mg/L | 98 | 90 | 110 | | | |
| WG539810CCB1 | CCB | 04/06/22 17:29 | | | | U | mg/L | | -0.0003 | 0.0003 | | | |
| L72232-01AS | AS | 04/06/22 17:35 | MS220401-2 | .1002 | .00036 | .08026 | mg/L | 80 | 70 | 130 | | | |
| L72232-01ASD | ASD | 04/06/22 17:37 | MS220401-2 | .1002 | .00036 | .08151 | mg/L | 81 | 70 | 130 | 2 | 20 | |
| WG539810CCV2 | CCV | 04/06/22 17:50 | MS220330-4 | .2505 | | .24843 | mg/L | 99 | 90 | 110 | | | |
| WG539810CCB2 | CCB | 04/06/22 17:52 | | | | U | mg/L | | -0.0003 | 0.0003 | | | |
| L72257-03AS | AS | 04/06/22 17:55 | MS220401-2 | .0501 | U | .04227 | mg/L | 84 | 70 | 130 | | | |
| L72257-03ASD | ASD | 04/06/22 17:57 | MS220401-2 | .0501 | U | .0389 | mg/L | 78 | 70 | 130 | 8 | 20 | |
| WG539810CCV3 | CCV | 04/06/22 18:03 | MS220330-4 | .2505 | | .24205 | mg/L | 97 | 90 | 110 | | | |
| WG539810CCB3 | CCB | 04/06/22 18:05 | | | | U | mg/L | | -0.0003 | 0.0003 | | | |

**GCC**

ACZ Project ID: ***L72232***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG539680** | | | | | | | | | | | | | |
| WG539680ICV | ICV | 04/05/22 13:28 | II220401-2 | 2 | | 1.9675 | mg/L | 98 | 95 | 105 | | | |
| WG539680ICB | ICB | 04/05/22 13:34 | | | | U | mg/L | | -0.024 | 0.024 | | | |
| WG539680PQV | PQV | 04/05/22 13:37 | II220329-2 | .03992 | | .0429 | mg/L | 107 | 70 | 130 | | | |
| WG539680SIC | SIC | 04/05/22 13:40 | II220405-1 | .0998 | | .0955 | mg/L | 96 | 80 | 120 | | | |
| WG539680LFB | LFB | 04/05/22 13:46 | II220330-3 | .998 | | .8854 | mg/L | 89 | 85 | 115 | | | |
| WG539680CCV1 | CCV | 04/05/22 14:17 | II220228-4 | 1 | | .9862 | mg/L | 99 | 90 | 110 | | | |
| WG539680CCB1 | CCB | 04/05/22 14:20 | | | | U | mg/L | | -0.024 | 0.024 | | | |
| WG539680CCV2 | CCV | 04/05/22 14:55 | II220228-4 | 1 | | .987 | mg/L | 99 | 90 | 110 | | | |
| WG539680CCB2 | CCB | 04/05/22 14:58 | | | | U | mg/L | | -0.024 | 0.024 | | | |
| L72231-03AS | AS | 04/05/22 15:01 | II220330-3 | .998 | U | .9008 | mg/L | 90 | 85 | 115 | | | |
| L72231-03ASD | ASD | 04/05/22 15:04 | II220330-3 | .998 | U | .8945 | mg/L | 90 | 85 | 115 | 1 | 20 | |
| WG539680CCV3 | CCV | 04/05/22 15:16 | II220228-4 | 1 | | 1.003 | mg/L | 100 | 90 | 110 | | | |
| WG539680CCB3 | CCB | 04/05/22 15:19 | | | | U | mg/L | | -0.024 | 0.024 | | | |
| **WG539702** | | | | | | | | | | | | | |
| WG539702ICV | ICV | 04/05/22 18:50 | II220401-2 | 2 | | 1.9738 | mg/L | 99 | 95 | 105 | | | |
| WG539702ICB | ICB | 04/05/22 18:56 | | | | U | mg/L | | -0.024 | 0.024 | | | |
| WG539702PQV | PQV | 04/05/22 18:59 | II220329-2 | .03992 | | .0421 | mg/L | 105 | 70 | 130 | | | |
| WG539702SIC | SIC | 04/05/22 19:02 | II220405-1 | .0998 | | .1064 | mg/L | 107 | 80 | 120 | | | |
| WG539702LFB | LFB | 04/05/22 19:08 | II220330-3 | .998 | | .9657 | mg/L | 97 | 85 | 115 | | | |
| L72232-04AS | AS | 04/05/22 19:17 | II220330-3 | .998 | .108 | 1.075 | mg/L | 97 | 85 | 115 | | | |
| L72232-04ASD | ASD | 04/05/22 19:20 | II220330-3 | .998 | .108 | 1.083 | mg/L | 98 | 85 | 115 | 1 | 20 | |
| WG539702CCV1 | CCV | 04/05/22 19:39 | II220228-4 | 1 | | .9888 | mg/L | 99 | 90 | 110 | | | |
| WG539702CCB1 | CCB | 04/05/22 19:42 | | | | U | mg/L | | -0.024 | 0.024 | | | |
| WG539702CCV2 | CCV | 04/05/22 20:16 | II220228-4 | 1 | | .9984 | mg/L | 100 | 90 | 110 | | | |
| WG539702CCB2 | CCB | 04/05/22 20:19 | | | | U | mg/L | | -0.024 | 0.024 | | | |
| WG539702CCV3 | CCV | 04/05/22 20:38 | II220228-4 | 1 | | .9978 | mg/L | 100 | 90 | 110 | | | |
| WG539702CCB3 | CCB | 04/05/22 20:41 | | | | U | mg/L | | -0.024 | 0.024 | | | |
| **WG539763** | | | | | | | | | | | | | |
| WG539763ICV | ICV | 04/06/22 13:21 | II220401-2 | 2 | | 1.9582 | mg/L | 98 | 95 | 105 | | | |
| WG539763ICB | ICB | 04/06/22 13:27 | | | | U | mg/L | | -0.024 | 0.024 | | | |
| WG539763PQV | PQV | 04/06/22 13:30 | II220329-2 | .03992 | | .0418 | mg/L | 105 | 70 | 130 | | | |
| WG539763SIC | SIC | 04/06/22 13:33 | II220405-1 | .0998 | | .1063 | mg/L | 107 | 80 | 120 | | | |
| WG539763LFB | LFB | 04/06/22 13:40 | II220330-3 | .998 | | .9435 | mg/L | 95 | 85 | 115 | | | |
| L72232-04AS | AS | 04/06/22 13:52 | II220330-3 | .998 | .107 | 1.054 | mg/L | 95 | 85 | 115 | | | |
| L72232-04ASD | ASD | 04/06/22 13:55 | II220330-3 | .998 | .107 | 1.071 | mg/L | 97 | 85 | 115 | 2 | 20 | |
| WG539763CCV1 | CCV | 04/06/22 14:10 | II220228-4 | 1 | | .995 | mg/L | 100 | 90 | 110 | | | |
| WG539763CCB1 | CCB | 04/06/22 14:13 | | | | U | mg/L | | -0.024 | 0.024 | | | |
| WG539763CCV2 | CCV | 04/06/22 14:47 | II220228-4 | 1 | | .987 | mg/L | 99 | 90 | 110 | | | |
| WG539763CCB2 | CCB | 04/06/22 14:50 | | | | U | mg/L | | -0.024 | 0.024 | | | |
| WG539763CCV3 | CCV | 04/06/22 15:09 | II220228-4 | 1 | | 1.004 | mg/L | 100 | 90 | 110 | | | |
| WG539763CCB3 | CCB | 04/06/22 15:12 | | | | U | mg/L | | -0.024 | 0.024 | | | |

**GCC**

ACZ Project ID: ***L72232***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG539680** | | | | | | | | | | | | | |
| WG539680ICV | ICV | 04/05/22 13:28 | II220401-2 | 100 | | 95.22 | mg/L | 95 | 95 | 105 | | | |
| WG539680ICB | ICB | 04/05/22 13:34 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| WG539680PQV | PQV | 04/05/22 13:37 | II220329-2 | 1.0001 | | 1.02 | mg/L | 102 | 70 | 130 | | | |
| WG539680SIC | SIC | 04/05/22 13:40 | II220405-1 | 201.0201 | | 185.2 | mg/L | 92 | 1 | 200 | | | |
| WG539680LFB | LFB | 04/05/22 13:46 | II220330-3 | 49.99828 | | 44.83 | mg/L | 90 | 85 | 115 | | | |
| WG539680CCV1 | CCV | 04/05/22 14:17 | II220228-4 | 50 | | 46.34 | mg/L | 93 | 90 | 110 | | | |
| WG539680CCB1 | CCB | 04/05/22 14:20 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| WG539680CCV2 | CCV | 04/05/22 14:55 | II220228-4 | 50 | | 46.97 | mg/L | 94 | 90 | 110 | | | |
| WG539680CCB2 | CCB | 04/05/22 14:58 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| L72231-03AS | AS | 04/05/22 15:01 | II220330-3 | 49.99828 | 2.14 | 47.1 | mg/L | 90 | 85 | 115 | | | |
| L72231-03ASD | ASD | 04/05/22 15:04 | II220330-3 | 49.99828 | 2.14 | 47.35 | mg/L | 90 | 85 | 115 | 1 | 20 | |
| WG539680CCV3 | CCV | 04/05/22 15:16 | II220228-4 | 50 | | 45.63 | mg/L | 91 | 90 | 110 | | | |
| WG539680CCB3 | CCB | 04/05/22 15:19 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| **WG539702** | | | | | | | | | | | | | |
| WG539702ICV | ICV | 04/05/22 18:50 | II220401-2 | 100 | | 95.05 | mg/L | 95 | 95 | 105 | | | |
| WG539702ICB | ICB | 04/05/22 18:56 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| WG539702PQV | PQV | 04/05/22 18:59 | II220329-2 | 1.0001 | | .98 | mg/L | 98 | 70 | 130 | | | |
| WG539702SIC | SIC | 04/05/22 19:02 | II220405-1 | 201.0201 | | 203.7 | mg/L | 101 | 1 | 200 | | | |
| WG539702LFB | LFB | 04/05/22 19:08 | II220330-3 | 49.99828 | | 48.82 | mg/L | 98 | 85 | 115 | | | |
| L72232-04AS | AS | 04/05/22 19:17 | II220330-3 | 49.99828 | 3.12 | 50.86 | mg/L | 95 | 85 | 115 | | | |
| L72232-04ASD | ASD | 04/05/22 19:20 | II220330-3 | 49.99828 | 3.12 | 50.88 | mg/L | 96 | 85 | 115 | 0 | 20 | |
| WG539702CCV1 | CCV | 04/05/22 19:39 | II220228-4 | 50 | | 46.57 | mg/L | 93 | 90 | 110 | | | |
| WG539702CCB1 | CCB | 04/05/22 19:42 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| WG539702CCV2 | CCV | 04/05/22 20:16 | II220228-4 | 50 | | 47.85 | mg/L | 96 | 90 | 110 | | | |
| WG539702CCB2 | CCB | 04/05/22 20:19 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| WG539702CCV3 | CCV | 04/05/22 20:38 | II220228-4 | 50 | | 48.36 | mg/L | 97 | 90 | 110 | | | |
| WG539702CCB3 | CCB | 04/05/22 20:41 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| **WG539763** | | | | | | | | | | | | | |
| WG539763ICV | ICV | 04/06/22 13:21 | II220401-2 | 100 | | 95.85 | mg/L | 96 | 95 | 105 | | | |
| WG539763ICB | ICB | 04/06/22 13:27 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| WG539763PQV | PQV | 04/06/22 13:30 | II220329-2 | 1.0001 | | .96 | mg/L | 96 | 70 | 130 | | | |
| WG539763SIC | SIC | 04/06/22 13:33 | II220405-1 | 201.0201 | | 206.1 | mg/L | 103 | 1 | 200 | | | |
| WG539763LFB | LFB | 04/06/22 13:40 | II220330-3 | 49.99828 | | 48.38 | mg/L | 97 | 85 | 115 | | | |
| L72232-04AS | AS | 04/06/22 13:52 | II220330-3 | 49.99828 | 3.08 | 51.89 | mg/L | 98 | 85 | 115 | | | |
| L72232-04ASD | ASD | 04/06/22 13:55 | II220330-3 | 49.99828 | 3.08 | 52.8 | mg/L | 99 | 85 | 115 | 2 | 20 | |
| WG539763CCV1 | CCV | 04/06/22 14:10 | II220228-4 | 50 | | 48.45 | mg/L | 97 | 90 | 110 | | | |
| WG539763CCB1 | CCB | 04/06/22 14:13 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| WG539763CCV2 | CCV | 04/06/22 14:47 | II220228-4 | 50 | | 47.89 | mg/L | 96 | 90 | 110 | | | |
| WG539763CCB2 | CCB | 04/06/22 14:50 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| WG539763CCV3 | CCV | 04/06/22 15:09 | II220228-4 | 50 | | 45.82 | mg/L | 92 | 90 | 110 | | | |
| WG539763CCB3 | CCB | 04/06/22 15:12 | | | | U | mg/L | | -0.6 | 0.6 | | | |

**GCC**

ACZ Project ID: ***L72232***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG539680** | | | | | | | | | | | | | |
| WG539680ICV | ICV | 04/05/22 13:28 | II220401-2 | 2 | | 1.935 | mg/L | 97 | 95 | 105 | | | |
| WG539680ICB | ICB | 04/05/22 13:34 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| WG539680PQV | PQV | 04/05/22 13:37 | II220329-2 | .05005 | | .05 | mg/L | 100 | 70 | 130 | | | |
| WG539680SIC | SIC | 04/05/22 13:40 | II220405-1 | 49.95005 | | 43.46 | mg/L | 87 | 1 | 200 | | | |
| WG539680LFB | LFB | 04/05/22 13:46 | II220330-3 | .499 | | .471 | mg/L | 94 | 85 | 115 | | | |
| WG539680CCV1 | CCV | 04/05/22 14:17 | II220228-4 | 1 | | .966 | mg/L | 97 | 90 | 110 | | | |
| WG539680CCB1 | CCB | 04/05/22 14:20 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| WG539680CCV2 | CCV | 04/05/22 14:55 | II220228-4 | 1 | | .981 | mg/L | 98 | 90 | 110 | | | |
| WG539680CCB2 | CCB | 04/05/22 14:58 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| L72231-03AS | AS | 04/05/22 15:01 | II220330-3 | .499 | .141 | .588 | mg/L | 90 | 85 | 115 | | | |
| L72231-03ASD | ASD | 04/05/22 15:04 | II220330-3 | .499 | .141 | .589 | mg/L | 90 | 85 | 115 | 0 | 20 | |
| WG539680CCV3 | CCV | 04/05/22 15:16 | II220228-4 | 1 | | .967 | mg/L | 97 | 90 | 110 | | | |
| WG539680CCB3 | CCB | 04/05/22 15:19 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| **WG539702** | | | | | | | | | | | | | |
| WG539702ICV | ICV | 04/05/22 18:50 | II220401-2 | 2 | | 1.913 | mg/L | 96 | 95 | 105 | | | |
| WG539702ICB | ICB | 04/05/22 18:56 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| WG539702PQV | PQV | 04/05/22 18:59 | II220329-2 | .05005 | | .051 | mg/L | 102 | 70 | 130 | | | |
| WG539702SIC | SIC | 04/05/22 19:02 | II220405-1 | 49.95005 | | 46.66 | mg/L | 93 | 1 | 200 | | | |
| WG539702LFB | LFB | 04/05/22 19:08 | II220330-3 | .499 | | .512 | mg/L | 103 | 85 | 115 | | | |
| L72232-04AS | AS | 04/05/22 19:17 | II220330-3 | .499 | .014 | .515 | mg/L | 100 | 85 | 115 | | | |
| L72232-04ASD | ASD | 04/05/22 19:20 | II220330-3 | .499 | .014 | .516 | mg/L | 101 | 85 | 115 | 0 | 20 | |
| WG539702CCV1 | CCV | 04/05/22 19:39 | II220228-4 | 1 | | .96 | mg/L | 96 | 90 | 110 | | | |
| WG539702CCB1 | CCB | 04/05/22 19:42 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| WG539702CCV2 | CCV | 04/05/22 20:16 | II220228-4 | 1 | | .978 | mg/L | 98 | 90 | 110 | | | |
| WG539702CCB2 | CCB | 04/05/22 20:19 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| WG539702CCV3 | CCV | 04/05/22 20:38 | II220228-4 | 1 | | .979 | mg/L | 98 | 90 | 110 | | | |
| WG539702CCB3 | CCB | 04/05/22 20:41 | | | | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG539275** | | | | | | | | | | | | | |
| WG539275ICV | ICV | 03/30/22 13:29 | HG220328-3 | .005005 | | .0049 | mg/L | 98 | 90 | 110 | | | |
| WG539275ICB | ICB | 03/30/22 13:30 | | | | U | mg/L | | -0.0006 | 0.0006 | | | |
| **WG539278** | | | | | | | | | | | | | |
| WG539278CCV1 | CCV | 03/30/22 14:25 | HG220328-3 | .005005 | | .0051 | mg/L | 102 | 90 | 110 | | | |
| WG539278CCB1 | CCB | 03/30/22 14:25 | | | | U | mg/L | | -0.0002 | 0.0002 | | | |
| WG539278PQV | PQV | 03/30/22 14:26 | HG220328-5 | .001001 | | .00099 | mg/L | 99 | 70 | 130 | | | |
| WG539278LRB | LRB | 03/30/22 14:27 | | | | U | mg/L | | -0.00044 | 0.00044 | | | |
| WG539278LFB | LFB | 03/30/22 14:28 | HG220328-6 | .002002 | | .00211 | mg/L | 105 | 85 | 115 | | | |
| WG539278CCV2 | CCV | 03/30/22 14:36 | HG220328-3 | .005005 | | .00507 | mg/L | 101 | 90 | 110 | | | |
| WG539278CCB2 | CCB | 03/30/22 14:37 | | | | U | mg/L | | -0.0002 | 0.0002 | | | |
| WG539278CCV3 | CCV | 03/30/22 14:47 | HG220328-3 | .005005 | | .00495 | mg/L | 99 | 90 | 110 | | | |
| WG539278CCB3 | CCB | 03/30/22 14:48 | | | | U | mg/L | | -0.0002 | 0.0002 | | | |
| L72232-01LFM | LFM | 03/30/22 14:50 | HG220328-6 | .002002 | U | .00193 | mg/L | 96 | 85 | 115 | | | |
| L72232-01LFMD | LFMD | 03/30/22 14:51 | HG220328-6 | .002002 | U | .00194 | mg/L | 97 | 85 | 115 | 1 | 20 | |
| WG539278CCV4 | CCV | 03/30/22 14:56 | HG220328-3 | .005005 | | .00509 | mg/L | 102 | 90 | 110 | | | |
| WG539278CCB4 | CCB | 03/30/22 14:57 | | | | U | mg/L | | -0.0002 | 0.0002 | | | |

**GCC**

ACZ Project ID: ***L72232***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG539680** | | | | | | | | | | | | | |
| WG539680ICV | ICV | 04/05/22 13:28 | II220401-2 | 2 | | 1.9415 | mg/L | 97 | 95 | 105 | | | |
| WG539680ICB | ICB | 04/05/22 13:34 | | | | U | mg/L | | -0.024 | 0.024 | | | |
| WG539680PQV | PQV | 04/05/22 13:37 | II220329-2 | .04004 | | .04 | mg/L | 100 | 70 | 130 | | | |
| WG539680SIC | SIC | 04/05/22 13:40 | II220405-1 | .1001 | | .0846 | mg/L | 85 | 80 | 120 | | | |
| WG539680LFB | LFB | 04/05/22 13:46 | II220330-3 | .5005 | | .4642 | mg/L | 93 | 85 | 115 | | | |
| WG539680CCV1 | CCV | 04/05/22 14:17 | II220228-4 | 1 | | .9613 | mg/L | 96 | 90 | 110 | | | |
| WG539680CCB1 | CCB | 04/05/22 14:20 | | | | U | mg/L | | -0.024 | 0.024 | | | |
| WG539680CCV2 | CCV | 04/05/22 14:55 | II220228-4 | 1 | | .9677 | mg/L | 97 | 90 | 110 | | | |
| WG539680CCB2 | CCB | 04/05/22 14:58 | | | | U | mg/L | | -0.024 | 0.024 | | | |
| L72231-03AS | AS | 04/05/22 15:01 | II220330-3 | .5005 | U | .4704 | mg/L | 94 | 85 | 115 | | | |
| L72231-03ASD | ASD | 04/05/22 15:04 | II220330-3 | .5005 | U | .4682 | mg/L | 94 | 85 | 115 | 0 | 20 | |
| WG539680CCV3 | CCV | 04/05/22 15:16 | II220228-4 | 1 | | .9507 | mg/L | 95 | 90 | 110 | | | |
| WG539680CCB3 | CCB | 04/05/22 15:19 | | | | U | mg/L | | -0.024 | 0.024 | | | |
| **WG539702** | | | | | | | | | | | | | |
| WG539702ICV | ICV | 04/05/22 18:50 | II220401-2 | 2 | | 1.9552 | mg/L | 98 | 95 | 105 | | | |
| WG539702ICB | ICB | 04/05/22 18:56 | | | | U | mg/L | | -0.024 | 0.024 | | | |
| WG539702PQV | PQV | 04/05/22 18:59 | II220329-2 | .04004 | | .0426 | mg/L | 106 | 70 | 130 | | | |
| WG539702SIC | SIC | 04/05/22 19:02 | II220405-1 | .1001 | | .0948 | mg/L | 95 | 80 | 120 | | | |
| WG539702LFB | LFB | 04/05/22 19:08 | II220330-3 | .5005 | | .5179 | mg/L | 103 | 85 | 115 | | | |
| L72232-04AS | AS | 04/05/22 19:17 | II220330-3 | .5005 | U | .5126 | mg/L | 102 | 85 | 115 | | | |
| L72232-04ASD | ASD | 04/05/22 19:20 | II220330-3 | .5005 | U | .5051 | mg/L | 101 | 85 | 115 | 1 | 20 | |
| WG539702CCV1 | CCV | 04/05/22 19:39 | II220228-4 | 1 | | .9756 | mg/L | 98 | 90 | 110 | | | |
| WG539702CCB1 | CCB | 04/05/22 19:42 | | | | U | mg/L | | -0.024 | 0.024 | | | |
| WG539702CCV2 | CCV | 04/05/22 20:16 | II220228-4 | 1 | | .9962 | mg/L | 100 | 90 | 110 | | | |
| WG539702CCB2 | CCB | 04/05/22 20:19 | | | | U | mg/L | | -0.024 | 0.024 | | | |
| WG539702CCV3 | CCV | 04/05/22 20:38 | II220228-4 | 1 | | .9997 | mg/L | 100 | 90 | 110 | | | |
| WG539702CCB3 | CCB | 04/05/22 20:41 | | | | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG539243** | | | | | | | | | | | | | |
| WG539243ICV | ICV | 03/29/22 23:12 | WI220301-7 | 2.4161 | | 2.387 | mg/L | 99 | 90 | 110 | | | |
| WG539243ICB | ICB | 03/29/22 23:13 | | | | U | mg/L | | -0.02 | 0.02 | | | |
| WG539243LFB | LFB | 03/29/22 23:17 | WI211001-5 | 2 | | 2.058 | mg/L | 103 | 90 | 110 | | | |
| WG539243CCV1 | CCV | 03/29/22 23:27 | WI220329-5 | 2 | | 2.039 | mg/L | 102 | 90 | 110 | | | |
| WG539243CCB1 | CCB | 03/29/22 23:30 | | | | U | mg/L | | -0.02 | 0.02 | | | |
| L72231-03DUP | DUP | 03/29/22 23:42 | | | .195 | .186 | mg/L | | | | 5 | 20 | RA |
| WG539243CCV2 | CCV | 03/29/22 23:44 | WI220329-5 | 2 | | 1.866 | mg/L | 93 | 90 | 110 | | | |
| WG539243CCB2 | CCB | 03/29/22 23:47 | | | | U | mg/L | | -0.02 | 0.02 | | | |
| WG539243CCV3 | CCV | 03/30/22 0:01 | WI220329-5 | 2 | | 1.967 | mg/L | 98 | 90 | 110 | | | |
| WG539243CCB3 | CCB | 03/30/22 0:04 | | | | U | mg/L | | -0.02 | 0.02 | | | |
| L72231-02AS | AS | 03/30/22 0:09 | WI211001-5 | 6 | 2.85 | 9.2 | mg/L | 106 | 90 | 110 | | | |
| WG539243CCV4 | CCV | 03/30/22 0:13 | WI220329-5 | 2 | | 1.959 | mg/L | 98 | 90 | 110 | | | |
| WG539243CCB4 | CCB | 03/30/22 0:16 | | | | U | mg/L | | -0.02 | 0.02 | | | |

**GCC**

ACZ Project ID: ***L72232***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG539243** | | | | | | | | | | | | | |
| WG539243ICV | ICV | 03/29/22 23:12 | WI220301-7 | .6089 | | .611 | mg/L | 100 | 90 | 110 | | | |
| WG539243ICB | ICB | 03/29/22 23:13 | | | | U | mg/L | | -0.01 | 0.01 | | | |
| WG539243LFB | LFB | 03/29/22 23:17 | WI211001-5 | 1 | | 1.032 | mg/L | 103 | 90 | 110 | | | |
| WG539243CCV1 | CCV | 03/29/22 23:27 | WI220329-5 | 1 | | .979 | mg/L | 98 | 90 | 110 | | | |
| WG539243CCB1 | CCB | 03/29/22 23:30 | | | | U | mg/L | | -0.01 | 0.01 | | | |
| L72231-02AS | AS | 03/29/22 23:39 | WI211001-5 | 1 | U | 1.078 | mg/L | 108 | 90 | 110 | | | |
| L72231-03DUP | DUP | 03/29/22 23:42 | | | U | U | mg/L | | | | 0 | 20 | RA |
| WG539243CCV2 | CCV | 03/29/22 23:44 | WI220329-5 | 1 | | .976 | mg/L | 98 | 90 | 110 | | | |
| WG539243CCB2 | CCB | 03/29/22 23:47 | | | | U | mg/L | | -0.01 | 0.01 | | | |
| WG539243CCV3 | CCV | 03/30/22 0:01 | WI220329-5 | 1 | | .983 | mg/L | 98 | 90 | 110 | | | |
| WG539243CCB3 | CCB | 03/30/22 0:04 | | | | U | mg/L | | -0.01 | 0.01 | | | |
| WG539243CCV4 | CCV | 03/30/22 0:13 | WI220329-5 | 1 | | .977 | mg/L | 98 | 90 | 110 | | | |
| WG539243CCB4 | CCB | 03/30/22 0:16 | | | | U | mg/L | | -0.01 | 0.01 | | | |

**GCC**

ACZ Project ID: ***L72232***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG539680** | | | | | | | | | | | | | |
| WG539680ICV | ICV | 04/05/22 13:28 | II220401-2 | 20 | | 19.55 | mg/L | 98 | 95 | 105 | | | |
| WG539680ICB | ICB | 04/05/22 13:34 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| WG539680PQV | PQV | 04/05/22 13:37 | II220329-2 | .9958 | | 1.07 | mg/L | 107 | 70 | 130 | | | |
| WG539680SIC | SIC | 04/05/22 13:40 | II220405-1 | .9958 | | .95 | mg/L | 95 | 80 | 120 | | | |
| WG539680LFB | LFB | 04/05/22 13:46 | II220330-3 | 99.95169 | | 91.35 | mg/L | 91 | 85 | 115 | | | |
| WG539680CCV1 | CCV | 04/05/22 14:17 | II220228-4 | 10 | | 9.71 | mg/L | 97 | 90 | 110 | | | |
| WG539680CCB1 | CCB | 04/05/22 14:20 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| WG539680CCV2 | CCV | 04/05/22 14:55 | II220228-4 | 10 | | 9.76 | mg/L | 98 | 90 | 110 | | | |
| WG539680CCB2 | CCB | 04/05/22 14:58 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| L72231-03AS | AS | 04/05/22 15:01 | II220330-3 | 99.95169 | 1.14 | 93.96 | mg/L | 93 | 85 | 115 | | | |
| L72231-03ASD | ASD | 04/05/22 15:04 | II220330-3 | 99.95169 | 1.14 | 94.46 | mg/L | 93 | 85 | 115 | 1 | 20 | |
| WG539680CCV3 | CCV | 04/05/22 15:16 | II220228-4 | 10 | | 9.76 | mg/L | 98 | 90 | 110 | | | |
| WG539680CCB3 | CCB | 04/05/22 15:19 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| **WG539702** | | | | | | | | | | | | | |
| WG539702ICV | ICV | 04/05/22 18:50 | II220401-2 | 20 | | 19.52 | mg/L | 98 | 95 | 105 | | | |
| WG539702ICB | ICB | 04/05/22 18:56 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| WG539702PQV | PQV | 04/05/22 18:59 | II220329-2 | .9958 | | 1.09 | mg/L | 109 | 70 | 130 | | | |
| WG539702SIC | SIC | 04/05/22 19:02 | II220405-1 | .9958 | | 1.04 | mg/L | 104 | 80 | 120 | | | |
| WG539702LFB | LFB | 04/05/22 19:08 | II220330-3 | 99.95169 | | 100.1 | mg/L | 100 | 85 | 115 | | | |
| L72232-04AS | AS | 04/05/22 19:17 | II220330-3 | 99.95169 | 2.22 | 102.7 | mg/L | 101 | 85 | 115 | | | |
| L72232-04ASD | ASD | 04/05/22 19:20 | II220330-3 | 99.95169 | 2.22 | 103.4 | mg/L | 101 | 85 | 115 | 1 | 20 | |
| WG539702CCV1 | CCV | 04/05/22 19:39 | II220228-4 | 10 | | 9.82 | mg/L | 98 | 90 | 110 | | | |
| WG539702CCB1 | CCB | 04/05/22 19:42 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| WG539702CCV2 | CCV | 04/05/22 20:16 | II220228-4 | 10 | | 10 | mg/L | 100 | 90 | 110 | | | |
| WG539702CCB2 | CCB | 04/05/22 20:19 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| WG539702CCV3 | CCV | 04/05/22 20:38 | II220228-4 | 10 | | 9.98 | mg/L | 100 | 90 | 110 | | | |
| WG539702CCB3 | CCB | 04/05/22 20:41 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| **WG539763** | | | | | | | | | | | | | |
| WG539763ICV | ICV | 04/06/22 13:21 | II220401-2 | 20 | | 19.68 | mg/L | 98 | 95 | 105 | | | |
| WG539763ICB | ICB | 04/06/22 13:27 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| WG539763PQV | PQV | 04/06/22 13:30 | II220329-2 | .9958 | | 1 | mg/L | 100 | 70 | 130 | | | |
| WG539763SIC | SIC | 04/06/22 13:33 | II220405-1 | .9958 | | 1.01 | mg/L | 101 | 80 | 120 | | | |
| WG539763LFB | LFB | 04/06/22 13:40 | II220330-3 | 99.95169 | | 98.74 | mg/L | 99 | 85 | 115 | | | |
| L72232-04AS | AS | 04/06/22 13:52 | II220330-3 | 99.95169 | 2.19 | 102.6 | mg/L | 100 | 85 | 115 | | | |
| L72232-04ASD | ASD | 04/06/22 13:55 | II220330-3 | 99.95169 | 2.19 | 104.2 | mg/L | 102 | 85 | 115 | 2 | 20 | |
| WG539763CCV1 | CCV | 04/06/22 14:10 | II220228-4 | 10 | | 9.98 | mg/L | 100 | 90 | 110 | | | |
| WG539763CCB1 | CCB | 04/06/22 14:13 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| WG539763CCV2 | CCV | 04/06/22 14:47 | II220228-4 | 10 | | 9.9 | mg/L | 99 | 90 | 110 | | | |
| WG539763CCB2 | CCB | 04/06/22 14:50 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| WG539763CCV3 | CCV | 04/06/22 15:09 | II220228-4 | 10 | | 9.81 | mg/L | 98 | 90 | 110 | | | |
| WG539763CCB3 | CCB | 04/06/22 15:12 | | | | U | mg/L | | -0.6 | 0.6 | | | |

**GCC**

ACZ Project ID: ***L72232***

*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.*

**Residue, Filterable (TDS) @180C** SM2540C

| ACZ ID | Type | Analyzed | PCN/SCN | QC | Sample | Found | Units | Rec% | Lower | Upper | RPD | Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG539217** | | | | | | | | | | | | | |
| WG539217PBW | PBW | 03/29/22 14:50 | | | | U | mg/L | | -20 | 20 | | | |
| WG539217LCSW | LCSW | 03/29/22 14:52 | PCN65061 | 1000 | | 976 | mg/L | 98 | 80 | 120 | | | |
| L72232-01DUP | DUP | 03/29/22 15:26 | | | 3040 | 3096 | mg/L | | | | 2 | 10 | |
| L72243-01DUP | DUP | 03/29/22 15:39 | | | 448 | 460 | mg/L | | | | 3 | 10 | |
| **WG539432** | | | | | | | | | | | | | |
| WG539432PBW | PBW | 03/31/22 14:54 | | | | U | mg/L | | -20 | 20 | | | |
| WG539432LCSW | LCSW | 03/31/22 14:56 | PCN65067 | 1000 | | 976 | mg/L | 98 | 80 | 120 | | | |
| L49989-164DUP | DUP | 03/31/22 15:07 | | | U | U | mg/L | | | | 0 | 10 | RA |

**Selenium, dissolved** M200.8 ICP-MS

| ACZ ID | Type | Analyzed | PCN/SCN | QC | Sample | Found | Units | Rec% | Lower | Upper | RPD | Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG539810** | | | | | | | | | | | | | |
| WG539810ICV | ICV | 04/06/22 17:04 | MS220401-7 | .05 | | .0541 | mg/L | 108 | 90 | 110 | | | |
| WG539810ICB | ICB | 04/06/22 17:06 | | | | U | mg/L | | -0.00022 | 0.00022 | | | |
| WG539810LFB | LFB | 04/06/22 17:08 | MS220401-2 | .05 | | .04983 | mg/L | 100 | 85 | 115 | | | |
| WG539810CCV1 | CCV | 04/06/22 17:27 | MS220330-4 | .25 | | .25086 | mg/L | 100 | 90 | 110 | | | |
| WG539810CCB1 | CCB | 04/06/22 17:29 | | | | .00014 | mg/L | | -0.0003 | 0.0003 | | | |
| L72232-01AS | AS | 04/06/22 17:35 | MS220401-2 | .1 | U | .10042 | mg/L | 100 | 70 | 130 | | | |
| L72232-01ASD | ASD | 04/06/22 17:37 | MS220401-2 | .1 | U | .10371 | mg/L | 104 | 70 | 130 | 3 | 20 | |
| WG539810CCV2 | CCV | 04/06/22 17:50 | MS220330-4 | .25 | | .25887 | mg/L | 104 | 90 | 110 | | | |
| WG539810CCB2 | CCB | 04/06/22 17:52 | | | | .00016 | mg/L | | -0.0003 | 0.0003 | | | |
| L72257-03AS | AS | 04/06/22 17:55 | MS220401-2 | .05 | .0011 | .05367 | mg/L | 105 | 70 | 130 | | | |
| L72257-03ASD | ASD | 04/06/22 17:57 | MS220401-2 | .05 | .0011 | .0506 | mg/L | 99 | 70 | 130 | 6 | 20 | |
| WG539810CCV3 | CCV | 04/06/22 18:03 | MS220330-4 | .25 | | .24795 | mg/L | 99 | 90 | 110 | | | |
| WG539810CCB3 | CCB | 04/06/22 18:05 | | | | .0002 | mg/L | | -0.0003 | 0.0003 | | | |
| **WG539895** | | | | | | | | | | | | | |
| WG539895ICV | ICV | 04/07/22 15:48 | MS220401-7 | .05 | | .05016 | mg/L | 100 | 90 | 110 | | | |
| WG539895ICB | ICB | 04/07/22 15:50 | | | | U | mg/L | | -0.00022 | 0.00022 | | | |
| WG539895LFB | LFB | 04/07/22 16:00 | MS220401-2 | .05 | | .05163 | mg/L | 103 | 85 | 115 | | | |
| WG539895CCV1 | CCV | 04/07/22 16:18 | MS220330-4 | .25 | | .25481 | mg/L | 102 | 90 | 110 | | | |
| WG539895CCB1 | CCB | 04/07/22 16:20 | | | | U | mg/L | | -0.0003 | 0.0003 | | | |
| WG539895CCV2 | CCV | 04/07/22 16:41 | MS220330-4 | .25 | | .25638 | mg/L | 103 | 90 | 110 | | | |
| WG539895CCB2 | CCB | 04/07/22 16:43 | | | | U | mg/L | | -0.0003 | 0.0003 | | | |
| L72296-01AS | AS | 04/07/22 16:46 | MS220401-2 | .05 | U | .055 | mg/L | 110 | 70 | 130 | | | |
| L72296-01ASD | ASD | 04/07/22 16:48 | MS220401-2 | .05 | U | .05629 | mg/L | 113 | 70 | 130 | 2 | 20 | |
| WG539895CCV3 | CCV | 04/07/22 16:54 | MS220330-4 | .25 | | .25504 | mg/L | 102 | 90 | 110 | | | |
| WG539895CCB3 | CCB | 04/07/22 16:56 | | | | U | mg/L | | -0.0003 | 0.0003 | | | |

**GCC**

ACZ Project ID: ***L72232***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG539680** | | | | | | | | | | | | | |
| WG539680ICV | ICV | 04/05/22 13:28 | II220401-2 | 100 | | 98.55 | mg/L | 99 | 95 | 105 | | | |
| WG539680ICB | ICB | 04/05/22 13:34 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| WG539680PQV | PQV | 04/05/22 13:37 | II220329-2 | 1.0053 | | 1.06 | mg/L | 105 | 70 | 130 | | | |
| WG539680SIC | SIC | 04/05/22 13:40 | II220405-1 | 1.0053 | | .98 | mg/L | 97 | 80 | 120 | | | |
| WG539680LFB | LFB | 04/05/22 13:46 | II220330-3 | 100.0039 | | 91.48 | mg/L | 91 | 85 | 115 | | | |
| WG539680CCV1 | CCV | 04/05/22 14:17 | II220228-4 | 50 | | 49.14 | mg/L | 98 | 90 | 110 | | | |
| WG539680CCB1 | CCB | 04/05/22 14:20 | | | | .2 | mg/L | | -0.6 | 0.6 | | | |
| WG539680CCV2 | CCV | 04/05/22 14:55 | II220228-4 | 50 | | 49.2 | mg/L | 98 | 90 | 110 | | | |
| WG539680CCB2 | CCB | 04/05/22 14:58 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| L72231-03AS | AS | 04/05/22 15:01 | II220330-3 | 100.0039 | 2.16 | 94.57 | mg/L | 92 | 85 | 115 | | | |
| L72231-03ASD | ASD | 04/05/22 15:04 | II220330-3 | 100.0039 | 2.16 | 95.4 | mg/L | 93 | 85 | 115 | 1 | 20 | |
| WG539680CCV3 | CCV | 04/05/22 15:16 | II220228-4 | 50 | | 49.49 | mg/L | 99 | 90 | 110 | | | |
| WG539680CCB3 | CCB | 04/05/22 15:19 | | | | .26 | mg/L | | -0.6 | 0.6 | | | |
| **WG539702** | | | | | | | | | | | | | |
| WG539702ICV | ICV | 04/05/22 18:50 | II220401-2 | 100 | | 99.02 | mg/L | 99 | 95 | 105 | | | |
| WG539702ICB | ICB | 04/05/22 18:56 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| WG539702PQV | PQV | 04/05/22 18:59 | II220329-2 | 1.0053 | | 1.07 | mg/L | 106 | 70 | 130 | | | |
| WG539702SIC | SIC | 04/05/22 19:02 | II220405-1 | 1.0053 | | 1.05 | mg/L | 104 | 80 | 120 | | | |
| WG539702LFB | LFB | 04/05/22 19:08 | II220330-3 | 100.0039 | | 100.9 | mg/L | 101 | 85 | 115 | | | |
| L72232-04AS | AS | 04/05/22 19:17 | II220330-3 | 100.0039 | 488 | 549.6 | mg/L | 62 | 85 | 115 | | | M3 |
| L72232-04ASD | ASD | 04/05/22 19:20 | II220330-3 | 100.0039 | 488 | 557.6 | mg/L | 70 | 85 | 115 | 1 | 20 | M3 |
| WG539702CCV1 | CCV | 04/05/22 19:39 | II220228-4 | 50 | | 49.73 | mg/L | 99 | 90 | 110 | | | |
| WG539702CCB1 | CCB | 04/05/22 19:42 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| WG539702CCV2 | CCV | 04/05/22 20:16 | II220228-4 | 50 | | 50.44 | mg/L | 101 | 90 | 110 | | | |
| WG539702CCB2 | CCB | 04/05/22 20:19 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| WG539702CCV3 | CCV | 04/05/22 20:38 | II220228-4 | 50 | | 50.2 | mg/L | 100 | 90 | 110 | | | |
| WG539702CCB3 | CCB | 04/05/22 20:41 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| **WG539763** | | | | | | | | | | | | | |
| WG539763ICV | ICV | 04/06/22 13:21 | II220401-2 | 100 | | 98.99 | mg/L | 99 | 95 | 105 | | | |
| WG539763ICB | ICB | 04/06/22 13:27 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| WG539763PQV | PQV | 04/06/22 13:30 | II220329-2 | 1.0053 | | 1.01 | mg/L | 100 | 70 | 130 | | | |
| WG539763SIC | SIC | 04/06/22 13:33 | II220405-1 | 1.0053 | | 1.08 | mg/L | 107 | 80 | 120 | | | |
| WG539763LFB | LFB | 04/06/22 13:40 | II220330-3 | 100.0039 | | 98.94 | mg/L | 99 | 85 | 115 | | | |
| L72232-04AS | AS | 04/06/22 13:52 | II220330-3 | 100.0039 | 484 | 557 | mg/L | 73 | 85 | 115 | | | M3 |
| L72232-04ASD | ASD | 04/06/22 13:55 | II220330-3 | 100.0039 | 484 | 557.7 | mg/L | 74 | 85 | 115 | 0 | 20 | M3 |
| WG539763CCV1 | CCV | 04/06/22 14:10 | II220228-4 | 50 | | 50.27 | mg/L | 101 | 90 | 110 | | | |
| WG539763CCB1 | CCB | 04/06/22 14:13 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| WG539763CCV2 | CCV | 04/06/22 14:47 | II220228-4 | 50 | | 50.45 | mg/L | 101 | 90 | 110 | | | |
| WG539763CCB2 | CCB | 04/06/22 14:50 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| WG539763CCV3 | CCV | 04/06/22 15:09 | II220228-4 | 50 | | 50.03 | mg/L | 100 | 90 | 110 | | | |
| WG539763CCB3 | CCB | 04/06/22 15:12 | | | | U | mg/L | | -0.6 | 0.6 | | | |

**GCC**

ACZ Project ID: ***L72232***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG539238** | | | | | | | | | | | | | |
| WG539238ICB | ICB | 03/29/22 18:40 | | | | U | mg/L | | -3 | 3 | | | |
| WG539238ICV | ICV | 03/29/22 18:40 | WI220316-7 | 20.46 | | 20 | mg/L | 98 | 90 | 110 | | | |
| WG539238CCV1 | CCV | 03/29/22 21:16 | WI220316-6 | 24.875 | | 25.6 | mg/L | 103 | 90 | 110 | | | |
| WG539238CCB1 | CCB | 03/29/22 21:16 | | | | U | mg/L | | -3 | 3 | | | |
| WG539238LFB | LFB | 03/29/22 21:16 | WI211230-5 | 9.95 | | 10.7 | mg/L | 108 | 90 | 110 | | | |
| WG539238CCV2 | CCV | 03/29/22 21:18 | WI220316-6 | 24.875 | | 25.2 | mg/L | 101 | 90 | 110 | | | |
| WG539238CCB2 | CCB | 03/29/22 21:18 | | | | U | mg/L | | -3 | 3 | | | |
| WG539238CCV3 | CCV | 03/29/22 21:39 | WI220316-6 | 24.875 | | 25 | mg/L | 101 | 90 | 110 | | | |
| WG539238CCB3 | CCB | 03/29/22 21:39 | | | | U | mg/L | | -3 | 3 | | | |
| WG539238CCV4 | CCV | 03/29/22 21:43 | WI220316-6 | 24.875 | | 24.9 | mg/L | 100 | 90 | 110 | | | |
| WG539238CCB4 | CCB | 03/29/22 21:43 | | | | U | mg/L | | -3 | 3 | | | |
| L72037-01DUP | DUP | 03/29/22 21:45 | | | 823 | 801.5 | mg/L | | | | 3 | 20 | |
| L72037-02AS | AS | 03/29/22 21:45 | SO4TURB25X | 10 | 654 | 655.1 | mg/L | 11 | 90 | 110 | | | M3 |
| WG539238CCV5 | CCV | 03/29/22 21:46 | WI220316-6 | 24.875 | | 25.1 | mg/L | 101 | 90 | 110 | | | |
| WG539238CCB5 | CCB | 03/29/22 21:46 | | | | U | mg/L | | -3 | 3 | | | |
| WG539238CCV6 | CCV | 03/29/22 21:52 | WI220316-6 | 24.875 | | 24.9 | mg/L | 100 | 90 | 110 | | | |
| WG539238CCB6 | CCB | 03/29/22 21:52 | | | | U | mg/L | | -3 | 3 | | | |
| WG539238CCV7 | CCV | 03/29/22 21:54 | WI220316-6 | 24.875 | | 24.7 | mg/L | 99 | 90 | 110 | | | |
| WG539238CCB7 | CCB | 03/29/22 21:54 | | | | U | mg/L | | -3 | 3 | | | |

**GCC**

ACZ Project ID: ***L72232***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG539680** | | | | | | | | | | | | | |
| WG539680ICV | ICV | 04/05/22 13:28 | II220401-2 | 2 | | 1.983 | mg/L | 99 | 95 | 105 | | | |
| WG539680ICB | ICB | 04/05/22 13:34 | | | | U | mg/L | | -0.015 | 0.015 | | | |
| WG539680PQV | PQV | 04/05/22 13:37 | II220329-2 | .025025 | | .023 | mg/L | 92 | 70 | 130 | | | |
| WG539680SIC | SIC | 04/05/22 13:40 | II220405-1 | .1001 | | .089 | mg/L | 89 | 80 | 120 | | | |
| WG539680LFB | LFB | 04/05/22 13:46 | II220330-3 | .5005 | | .467 | mg/L | 93 | 85 | 115 | | | |
| WG539680CCV1 | CCV | 04/05/22 14:17 | II220228-4 | 1 | | .974 | mg/L | 97 | 90 | 110 | | | |
| WG539680CCB1 | CCB | 04/05/22 14:20 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| WG539680CCV2 | CCV | 04/05/22 14:55 | II220228-4 | 1 | | 1.002 | mg/L | 100 | 90 | 110 | | | |
| WG539680CCB2 | CCB | 04/05/22 14:58 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| L72231-03AS | AS | 04/05/22 15:01 | II220330-3 | .5005 | U | .4774 | mg/L | 95 | 85 | 115 | | | |
| L72231-03ASD | ASD | 04/05/22 15:04 | II220330-3 | .5005 | U | .483 | mg/L | 97 | 85 | 115 | 1 | 20 | |
| WG539680CCV3 | CCV | 04/05/22 15:16 | II220228-4 | 1 | | .99 | mg/L | 99 | 90 | 110 | | | |
| WG539680CCB3 | CCB | 04/05/22 15:19 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| **WG539702** | | | | | | | | | | | | | |
| WG539702ICV | ICV | 04/05/22 18:50 | II220401-2 | 2 | | 1.973 | mg/L | 99 | 95 | 105 | | | |
| WG539702ICB | ICB | 04/05/22 18:56 | | | | U | mg/L | | -0.015 | 0.015 | | | |
| WG539702PQV | PQV | 04/05/22 18:59 | II220329-2 | .025025 | | .025 | mg/L | 100 | 70 | 130 | | | |
| WG539702SIC | SIC | 04/05/22 19:02 | II220405-1 | .1001 | | .095 | mg/L | 95 | 80 | 120 | | | |
| WG539702LFB | LFB | 04/05/22 19:08 | II220330-3 | .5005 | | .5077 | mg/L | 101 | 85 | 115 | | | |
| L72232-04AS | AS | 04/05/22 19:17 | II220330-3 | .5005 | U | .5139 | mg/L | 103 | 85 | 115 | | | |
| L72232-04ASD | ASD | 04/05/22 19:20 | II220330-3 | .5005 | U | .516 | mg/L | 103 | 85 | 115 | 0 | 20 | |
| WG539702CCV1 | CCV | 04/05/22 19:39 | II220228-4 | 1 | | .993 | mg/L | 99 | 90 | 110 | | | |
| WG539702CCB1 | CCB | 04/05/22 19:42 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| WG539702CCV2 | CCV | 04/05/22 20:16 | II220228-4 | 1 | | 1.021 | mg/L | 102 | 90 | 110 | | | |
| WG539702CCB2 | CCB | 04/05/22 20:19 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| WG539702CCV3 | CCV | 04/05/22 20:38 | II220228-4 | 1 | | 1.028 | mg/L | 103 | 90 | 110 | | | |
| WG539702CCB3 | CCB | 04/05/22 20:41 | | | | U | mg/L | | -0.03 | 0.03 | | | |

**GCC**

ACZ Project ID: ***L72232***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG539680** | | | | | | | | | | | | | |
| WG539680ICV | ICV | 04/05/22 13:28 | II220401-2 | 2 | | 1.896 | mg/L | 95 | 95 | 105 | | | |
| WG539680ICB | ICB | 04/05/22 13:34 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| WG539680PQV | PQV | 04/05/22 13:37 | II220329-2 | .05015 | | .048 | mg/L | 96 | 70 | 130 | | | |
| WG539680SIC | SIC | 04/05/22 13:40 | II220405-1 | .1003 | | .085 | mg/L | 85 | 80 | 120 | | | |
| WG539680LFB | LFB | 04/05/22 13:46 | II220330-3 | .50045 | | .475 | mg/L | 95 | 85 | 115 | | | |
| WG539680CCV1 | CCV | 04/05/22 14:17 | II220228-4 | 1 | | .927 | mg/L | 93 | 90 | 110 | | | |
| WG539680CCB1 | CCB | 04/05/22 14:20 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| WG539680CCV2 | CCV | 04/05/22 14:55 | II220228-4 | 1 | | .957 | mg/L | 96 | 90 | 110 | | | |
| WG539680CCB2 | CCB | 04/05/22 14:58 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| L72231-03AS | AS | 04/05/22 15:01 | II220330-3 | .50045 | 1.09 | 1.475 | mg/L | 77 | 85 | 115 | | | M2 |
| L72231-03ASD | ASD | 04/05/22 15:04 | II220330-3 | .50045 | 1.09 | 1.499 | mg/L | 82 | 85 | 115 | 2 | 20 | M2 |
| WG539680CCV3 | CCV | 04/05/22 15:16 | II220228-4 | 1 | | .922 | mg/L | 92 | 90 | 110 | | | |
| WG539680CCB3 | CCB | 04/05/22 15:19 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| **WG539763** | | | | | | | | | | | | | |
| WG539763ICV | ICV | 04/06/22 13:21 | II220401-2 | 2 | | 1.892 | mg/L | 95 | 95 | 105 | | | |
| WG539763ICB | ICB | 04/06/22 13:27 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| WG539763PQV | PQV | 04/06/22 13:30 | II220329-2 | .05015 | | .051 | mg/L | 102 | 70 | 130 | | | |
| WG539763SIC | SIC | 04/06/22 13:33 | II220405-1 | .1003 | | .099 | mg/L | 99 | 80 | 120 | | | |
| WG539763LFB | LFB | 04/06/22 13:40 | II220330-3 | .50045 | | .495 | mg/L | 99 | 85 | 115 | | | |
| L72232-04AS | AS | 04/06/22 13:52 | II220330-3 | .50045 | U | .495 | mg/L | 99 | 85 | 115 | | | |
| L72232-04ASD | ASD | 04/06/22 13:55 | II220330-3 | .50045 | U | .524 | mg/L | 105 | 85 | 115 | 6 | 20 | |
| WG539763CCV1 | CCV | 04/06/22 14:10 | II220228-4 | 1 | | .954 | mg/L | 95 | 90 | 110 | | | |
| WG539763CCB1 | CCB | 04/06/22 14:13 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| WG539763CCV2 | CCV | 04/06/22 14:47 | II220228-4 | 1 | | .96 | mg/L | 96 | 90 | 110 | | | |
| WG539763CCB2 | CCB | 04/06/22 14:50 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| WG539763CCV3 | CCV | 04/06/22 15:09 | II220228-4 | 1 | | .898 | mg/L | 90 | 90 | 110 | | | |
| WG539763CCB3 | CCB | 04/06/22 15:12 | | | | U | mg/L | | -0.06 | 0.06 | | | |

**GCC Rio Grande** ACZ Project ID: ***L72232***

| ACZ ID | WORKNUM | PARAMETER | METHOD | QUAL | DESCRIPTION |
|---|---|---|---|---|---|
| **L72232-01** | WG539236 | Bicarbonate as CaCO3 | SM2320B - Titration | Q6 | Sample was received above recommended temperature. |
| | | Carbonate as CaCO3 | SM2320B - Titration | Q6 | Sample was received above recommended temperature. |
| | WG540080 | Chloride | SM4500Cl-E | M2 | Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable. |
| | | | SM4500Cl-E | Q6 | Sample was received above recommended temperature. |
| | WG540219 | Fluoride | SM4500F-C | Q6 | Sample was received above recommended temperature. |
| | WG539236 | Hydroxide as CaCO3 | SM2320B - Titration | Q6 | Sample was received above recommended temperature. |
| | WG539243 | Nitrate/Nitrite as N, dissolved | M353.2 - Automated Cadmium Reduction | Q6 | Sample was received above recommended temperature. |
| | | | 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 | Q6 | Sample was received above recommended temperature. |
| | | | 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). |
| | WG539217 | Residue, Filterable (TDS) @180C | SM2540C | Q6 | Sample was received above recommended temperature. |
| | WG539238 | 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. |
| | | | D516-02/-07/-11 - TURBIDIMETRIC | Q6 | Sample was received above recommended temperature. |
| | WG539236 | Total Alkalinity | SM2320B - Titration | Q6 | Sample was received above recommended temperature. |
| | | | SM2320B - Titration | ZW | Method deviation. The sample was centrifuged prior to analysis due to high solid content. |
| | WG539680 | Zinc, dissolved | M200.7 ICP | M2 | Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable. |
| **L72232-02** | WG539236 | Bicarbonate as CaCO3 | SM2320B - Titration | Q6 | Sample was received above recommended temperature. |
| | | Carbonate as CaCO3 | SM2320B - Titration | Q6 | Sample was received above recommended temperature. |
| | WG540080 | Chloride | SM4500Cl-E | M2 | Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable. |
| | | | SM4500Cl-E | Q6 | Sample was received above recommended temperature. |
| | WG540219 | Fluoride | SM4500F-C | Q6 | Sample was received above recommended temperature. |
| | WG539236 | Hydroxide as CaCO3 | SM2320B - Titration | Q6 | Sample was received above recommended temperature. |
| | WG539243 | Nitrate/Nitrite as N, dissolved | M353.2 - Automated Cadmium Reduction | Q6 | Sample was received above recommended temperature. |
| | | | 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 | Q6 | Sample was received above recommended temperature. |
| | | | 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). |
| | WG539432 | Residue, Filterable (TDS) @180C | SM2540C | Q6 | Sample was received above recommended temperature. |
| | | | 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). |
| | WG539238 | 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. |
| | | | D516-02/-07/-11 - TURBIDIMETRIC | Q6 | Sample was received above recommended temperature. |
| | WG539236 | Total Alkalinity | SM2320B - Titration | Q6 | Sample was received above recommended temperature. |
| | WG539680 | Zinc, dissolved | M200.7 ICP | M2 | Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable. |

**GCC Rio Grande** ACZ Project ID: ***L72232***

| ACZ ID | WORKNUM | PARAMETER | METHOD | QUAL | DESCRIPTION |
|---|---|---|---|---|---|
| **L72232-03** | WG539236 | Bicarbonate as CaCO3 | SM2320B - Titration | Q6 | Sample was received above recommended temperature. |
| | | Carbonate as CaCO3 | SM2320B - Titration | Q6 | Sample was received above recommended temperature. |
| | WG540080 | Chloride | SM4500Cl-E | M2 | Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable. |
| | | | SM4500Cl-E | Q6 | Sample was received above recommended temperature. |
| | WG540219 | Fluoride | SM4500F-C | Q6 | Sample was received above recommended temperature. |
| | WG539236 | Hydroxide as CaCO3 | SM2320B - Titration | Q6 | Sample was received above recommended temperature. |
| | WG539243 | Nitrate/Nitrite as N, dissolved | M353.2 - Automated Cadmium Reduction | Q6 | Sample was received above recommended temperature. |
| | | | 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 | Q6 | Sample was received above recommended temperature. |
| | | | 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). |
| | WG539217 | Residue, Filterable (TDS) @180C | SM2540C | Q6 | Sample was received above recommended temperature. |
| | WG539702 | 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. |
| | WG539238 | 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. |
| | | | D516-02/-07/-11 - TURBIDIMETRIC | Q6 | Sample was received above recommended temperature. |
| | WG539236 | Total Alkalinity | SM2320B - Titration | Q6 | Sample was received above recommended temperature. |
| | WG539763 | Zinc, dissolved | M200.7 ICP | D5 | Sample required dilution. Sample matrix causing internal standards to recover outside method limits. |

**GCC Rio Grande** ACZ Project ID: ***L72232***

| ACZ ID | WORKNUM | PARAMETER | METHOD | QUAL | DESCRIPTION |
|---|---|---|---|---|---|
| **L72232-04** | WG539236 | Bicarbonate as CaCO3 | SM2320B - Titration | Q6 | Sample was received above recommended temperature. |
| | | Carbonate as CaCO3 | SM2320B - Titration | Q6 | Sample was received above recommended temperature. |
| | WG540080 | Chloride | SM4500Cl-E | M2 | Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable. |
| | | | SM4500Cl-E | Q6 | Sample was received above recommended temperature. |
| | WG540219 | Fluoride | SM4500F-C | Q6 | Sample was received above recommended temperature. |
| | WG539236 | Hydroxide as CaCO3 | SM2320B - Titration | Q6 | Sample was received above recommended temperature. |
| | WG539243 | Nitrate/Nitrite as N, dissolved | M353.2 - Automated Cadmium Reduction | Q6 | Sample was received above recommended temperature. |
| | | | 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 | Q6 | Sample was received above recommended temperature. |
| | | | 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). |
| | WG539217 | Residue, Filterable (TDS) @180C | SM2540C | Q6 | Sample was received above recommended temperature. |
| | WG539895 | Selenium, dissolved | M200.8 ICP-MS | DB | Sample required dilution due to low bias result. |
| | WG539702 | 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. |
| | WG539238 | 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. |
| | | | D516-02/-07/-11 - TURBIDIMETRIC | Q6 | Sample was received above recommended temperature. |
| | WG539236 | Total Alkalinity | SM2320B - Titration | Q6 | Sample was received above recommended temperature. |

**GCC Rio Grande** ACZ Project ID: ***L72232***

| ACZ ID | WORKNUM | PARAMETER | METHOD | QUAL | DESCRIPTION |
|---|---|---|---|---|---|
| **L72232-05** | WG539702 | Aluminum, dissolved | M200.7 ICP | IA | Internal standard recovery exceeded the acceptance limits. Concentration of associated target analyte(s) in the sample is < MDL. |
| | | Beryllium, dissolved | M200.7 ICP | IA | Internal standard recovery exceeded the acceptance limits. Concentration of associated target analyte(s) in the sample is < MDL. |
| | WG539236 | Bicarbonate as CaCO3 | SM2320B - Titration | Q6 | Sample was received above recommended temperature. |
| | | Carbonate as CaCO3 | SM2320B - Titration | Q6 | Sample was received above recommended temperature. |
| | WG540080 | Chloride | SM4500Cl-E | M2 | Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable. |
| | | | SM4500Cl-E | Q6 | Sample was received above recommended temperature. |
| | WG539702 | Chromium, dissolved | M200.7 ICP | IA | Internal standard recovery exceeded the acceptance limits. Concentration of associated target analyte(s) in the sample is < MDL. |
| | | Cobalt, dissolved | M200.7 ICP | IA | Internal standard recovery exceeded the acceptance limits. Concentration of associated target analyte(s) in the sample is < MDL. |
| | | Copper, dissolved | M200.7 ICP | IA | Internal standard recovery exceeded the acceptance limits. Concentration of associated target analyte(s) in the sample is < MDL. |
| | WG540219 | Fluoride | SM4500F-C | Q6 | Sample was received above recommended temperature. |
| | WG539236 | Hydroxide as CaCO3 | SM2320B - Titration | Q6 | Sample was received above recommended temperature. |
| | WG539702 | Iron, dissolved | M200.7 ICP | IA | Internal standard recovery exceeded the acceptance limits. Concentration of associated target analyte(s) in the sample is < MDL. |
| | | Manganese, dissolved | M200.7 ICP | IA | Internal standard recovery exceeded the acceptance limits. Concentration of associated target analyte(s) in the sample is < MDL. |
| | | Nickel, dissolved | M200.7 ICP | IA | Internal standard recovery exceeded the acceptance limits. Concentration of associated target analyte(s) in the sample is < MDL. |
| | WG539243 | Nitrate/Nitrite as N, dissolved | M353.2 - Automated Cadmium Reduction | Q6 | Sample was received above recommended temperature. |
| | | | 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 | Q6 | Sample was received above recommended temperature. |
| | | | 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). |
| | WG539217 | Residue, Filterable (TDS) @180C | SM2540C | Q6 | Sample was received above recommended temperature. |
| | WG539763 | 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. |
| | WG539238 | 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. |
| | | | D516-02/-07/-11 - TURBIDIMETRIC | Q6 | Sample was received above recommended temperature. |
| | WG539236 | Total Alkalinity | SM2320B - Titration | Q6 | Sample was received above recommended temperature. |
| | | | SM2320B - Titration | ZW | Method deviation. The sample was centrifuged prior to analysis due to high solid content. |
| | WG539702 | Vanadium, dissolved | M200.7 ICP | IA | Internal standard recovery exceeded the acceptance limits. Concentration of associated target analyte(s) in the sample is < MDL. |
| | WG539763 | Zinc, dissolved | M200.7 ICP | D5 | Sample required dilution. Sample matrix causing internal standards to recover outside method limits. |

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
105495

ACZ Project ID: L72232
Date Received: 03/29/2022 11:28
Received By:
Date Printed: 3/30/2022

## 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 | |

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? |
|---|---|---|---|---|
| NA37253 | 7.9 | <=6.0 | 15 | Yes |

Was ice present in the shipment container(s)?

Yes - Wet ice was present in the shipment container(s) but was thawed by receipt at ACZ.

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
105495

ACZ Project ID: L72232
Date Received: 03/29/2022 11:28
Received By:
Date Printed: 3/30/2022

[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 | Accredited Environmental Testing | 2773 Downhill Drive, Steamboat Springs, CO 80487, (970) 879-6590 | L72232

# CHAIN of CUSTODY

**Report to:**

Name: Amy Veek
Company: GCC Rio Grande
E-mail: aveek@gcc.com
Address: 3372 Lime Road, Pueblo CO 81004
Telephone: 719-647-6861

**Copy of Report to:**

Name: Landon Beck
Company: RHS
E-mail: lbeck@resourcehydrogeologic.com
Telephone:

**Invoice to:**

Name: Amy Veek
Company: GCC Rio Grande
E-mail: aveek@gcc.com
Address: 3372 Lime Road, Pueblo CO 81004
Telephone: 719-647-6861

**Copy of Invoice to:**

Name:
Company:
E-mail:
Address:
Telephone:

**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:** Amy Veek **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
PO#: 105495
Reporting state for compliance testing:
Check box if samples include NRC licensed material?

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

| SAMPLE IDENTIFICATION | DATE:TIME | Matrix | # of Containers | GW-Compliance | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MW-8 | 3/28/2022 09:52 | GW | 3 | ✓ | | | | | | | | |
| MW-9 | 3/28/2022 11:26 | GW | 3 | ✓ | | | | | | | | |
| MW-10 | 3/28/2022 11:02 | GW | 3 | ✓ | | | | | | | | |
| MW-12 | 3/28/2022 10:23 | GW | 3 | ✓ | | | | | | | | |
| MW-14 | 3/28/2022 13:15 | 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] | 3/28/22 15:32 | [signature] | 3/29/22 11:25 |
| | | | |
| | | | |

Qualtrax ID: 1984 Revision #: 2 White - Return with sample. Yellow - Retain for your records.

L72232 Chain of Custod

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

**Revised Analytical Report**

June 09, 2022

Report to:
Amy Veek
GCC Rio Grande
3372 Lime Road
Pueblo, CO 81004

Bill to:
Amy Veek
GCC Rio Grande
3372 Lime Road
Pueblo, CO 81004

cc: Landon Beck

Project ID: 105495
ACZ Project ID: L73169

Amy Veek:

Enclosed are revised analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on May 12, 2022 and originally reported on May 31, 2022. Refer to the case narrative for an explanation of the changes. This project was assigned to ACZ's project number, L73169. 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 L73169. 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 May 31, 2023. If the samples are determined to be hazardous, additional charges apply for disposal (typically less than $10/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 reports for five 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: 105495
Sample ID: MW-13

ACZ Sample ID: ***L73169-01***
Date Sampled: *05/10/22 11:37*
Date Received: *05/12/22*
Sample Matrix: *Groundwater*

Metals Analysis

| Parameter | EPA Method | Dilution | Result | Qual | XQ | Units | MDL | PQL | Date | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum, dissolved | M200.7 ICP | 2 | <0.1 | U | | mg/L | 0.1 | 0.5 | 05/23/22 17:53 | keh1 |
| Arsenic, dissolved | M200.8 ICP-MS | 2 | 0.00075 | B | | mg/L | 0.0004 | 0.002 | 05/24/22 9:51 | kja |
| Beryllium, dissolved | M200.7 ICP | 2 | <0.02 | U | | mg/L | 0.02 | 0.1 | 05/23/22 17:53 | keh1 |
| Boron, dissolved | M200.7 ICP | 2 | 0.948 | | | mg/L | 0.06 | 0.2 | 05/23/22 17:53 | keh1 |
| Cadmium, dissolved | M200.8 ICP-MS | 2 | <0.0001 | U | | mg/L | 0.0001 | 0.0005 | 05/24/22 9:51 | kja |
| Calcium, dissolved | M200.7 ICP | 2 | 4.13 | | | mg/L | 0.2 | 1 | 05/23/22 17:53 | keh1 |
| Chromium, dissolved | M200.7 ICP | 2 | <0.04 | U | | mg/L | 0.04 | 0.1 | 05/23/22 17:53 | keh1 |
| Cobalt, dissolved | M200.7 ICP | 2 | <0.04 | U | | mg/L | 0.04 | 0.1 | 05/23/22 17:53 | keh1 |
| Copper, dissolved | M200.7 ICP | 2 | <0.02 | U | | mg/L | 0.02 | 0.1 | 05/23/22 17:53 | keh1 |
| Iron, dissolved | M200.7 ICP | 2 | <0.12 | U | | mg/L | 0.12 | 0.3 | 05/23/22 17:53 | keh1 |
| Lead, dissolved | M200.8 ICP-MS | 2 | <0.0002 | U | | mg/L | 0.0002 | 0.001 | 05/24/22 9:51 | kja |
| Lithium, dissolved | M200.7 ICP | 2 | 0.180 | | | mg/L | 0.016 | 0.08 | 05/23/22 17:53 | keh1 |
| Magnesium, dissolved | M200.7 ICP | 2 | 1.00 | B | | mg/L | 0.4 | 2 | 05/23/22 17:53 | keh1 |
| Manganese, dissolved | M200.7 ICP | 2 | <0.02 | U | | mg/L | 0.02 | 0.1 | 05/23/22 17:53 | keh1 |
| Mercury, dissolved | M245.1 CVAA | 1 | <0.0002 | U | | mg/L | 0.0002 | 0.001 | 05/18/22 12:24 | mlh |
| Nickel, dissolved | M200.7 ICP | 2 | <0.016 | U | | mg/L | 0.016 | 0.08 | 05/23/22 17:53 | keh1 |
| Potassium, dissolved | M200.7 ICP | 2 | 2.44 | | | mg/L | 0.4 | 2 | 05/23/22 17:53 | keh1 |
| Selenium, dissolved | M200.8 ICP-MS | 2 | 0.0184 | | | mg/L | 0.0002 | 0.0005 | 05/24/22 9:51 | kja |
| Sodium, dissolved | M200.7 ICP | 2 | 782 | | * | mg/L | 0.4 | 2 | 05/23/22 17:53 | keh1 |
| Vanadium, dissolved | M200.7 ICP | 2 | <0.02 | U | | mg/L | 0.02 | 0.05 | 05/23/22 17:53 | keh1 |
| Zinc, dissolved | M200.7 ICP | 2 | <0.04 | U | | mg/L | 0.04 | 0.1 | 05/23/22 17:53 | keh1 |

Wet Chemistry

| Parameter | EPA Method | Dilution | Result | Qual | XQ | Units | MDL | PQL | Date | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Alkalinity as CaCO3 | SM2320B - Titration | | | | | | | | | |
| Bicarbonate as CaCO3 | | 1 | 933 | | | mg/L | 2 | 20 | 05/21/22 0:00 | eep |
| Carbonate as CaCO3 | | 1 | 61.8 | | | mg/L | 2 | 20 | 05/21/22 0:00 | eep |
| Hydroxide as CaCO3 | | 1 | <2 | U | | mg/L | 2 | 20 | 05/21/22 0:00 | eep |
| Total Alkalinity | | 1 | 995 | | * | mg/L | 2 | 20 | 05/21/22 0:00 | eep |
| Chloride | SM4500Cl-E | 25 | 566 | | * | mg/L | 12.5 | 50 | 05/19/22 13:05 | mjj1 |
| Fluoride | SM4500F-C | 1 | 6.06 | | | mg/L | 0.15 | 0.35 | 05/26/22 17:46 | emk |
| Nitrate as N, dissolved | Calculation: NO3NO2 minus NO2 | | 0.109 | H | | mg/L | 0.02 | 0.1 | 06/09/22 0:00 | calc |
| Nitrate/Nitrite as N, dissolved | M353.2 - Automated Cadmium Reduction | 1 | 0.109 | H | * | mg/L | 0.02 | 0.1 | 05/12/22 23:31 | pjb |
| Nitrite as N, dissolved | M353.2 - Automated Cadmium Reduction | 1 | <0.01 | UH | * | mg/L | 0.01 | 0.05 | 05/12/22 23:31 | pjb |
| Residue, Filterable (TDS) @180C | SM2540C | 2 | 2150 | | | mg/L | 40 | 80 | 05/16/22 11:41 | emk |
| Sulfate | D516-02/-07/-11 - TURBIDIMETRIC | 5 | 88.5 | | | mg/L | 5 | 25 | 05/19/22 15:51 | mjj1 |

**GCC Rio Grande**
Project ID: 105495
Sample ID: MW-2B

ACZ Sample ID: ***L73169-02***
Date Sampled: *05/10/22 12:00*
Date Received: *05/12/22*
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 | 05/23/22 17:56 | keh1 |
| Arsenic, dissolved | M200.8 ICP-MS | 5 | <0.001 | U | | mg/L | 0.001 | 0.005 | 05/24/22 9:53 | kja |
| Beryllium, dissolved | M200.7 ICP | 5 | <0.05 | U | | mg/L | 0.05 | 0.25 | 05/23/22 17:56 | keh1 |
| Boron, dissolved | M200.7 ICP | 5 | 0.386 | B | | mg/L | 0.15 | 0.5 | 05/23/22 17:56 | keh1 |
| Cadmium, dissolved | M200.8 ICP-MS | 5 | <0.00025 | U | | mg/L | 0.00025 | 0.00125 | 05/24/22 9:53 | kja |
| Calcium, dissolved | M200.7 ICP | 5 | 373 | | | mg/L | 0.5 | 2.5 | 05/23/22 17:56 | keh1 |
| Chromium, dissolved | M200.7 ICP | 5 | <0.1 | U | | mg/L | 0.1 | 0.25 | 05/23/22 17:56 | keh1 |
| Cobalt, dissolved | M200.8 ICP-MS | 5 | 0.00220 | | | mg/L | 0.00025 | 0.00125 | 05/24/22 9:53 | kja |
| Cobalt, dissolved | M200.7 ICP | 5 | <0.1 | U | | mg/L | 0.1 | 0.25 | 05/23/22 17:56 | keh1 |
| Copper, dissolved | M200.7 ICP | 5 | <0.05 | U | | mg/L | 0.05 | 0.25 | 05/23/22 17:56 | keh1 |
| Iron, dissolved | M200.7 ICP | 5 | <0.3 | U | | mg/L | 0.3 | 0.75 | 05/23/22 17:56 | keh1 |
| Lead, dissolved | M200.8 ICP-MS | 5 | <0.0005 | U | | mg/L | 0.0005 | 0.0025 | 05/24/22 9:53 | kja |
| Lithium, dissolved | M200.7 ICP | 5 | 0.559 | | | mg/L | 0.04 | 0.2 | 05/23/22 17:56 | keh1 |
| Magnesium, dissolved | M200.7 ICP | 5 | 389 | | | mg/L | 1 | 5 | 05/23/22 17:56 | keh1 |
| Manganese, dissolved | M200.7 ICP | 5 | 0.096 | B | | mg/L | 0.05 | 0.25 | 05/23/22 17:56 | keh1 |
| Mercury, dissolved | M245.1 CVAA | 1 | <0.0002 | U | | mg/L | 0.0002 | 0.001 | 05/18/22 12:25 | mlh |
| Nickel, dissolved | M200.7 ICP | 5 | <0.04 | U | | mg/L | 0.04 | 0.2 | 05/23/22 17:56 | keh1 |
| Potassium, dissolved | M200.7 ICP | 5 | 10.3 | | | mg/L | 1 | 5 | 05/23/22 17:56 | keh1 |
| Selenium, dissolved | M200.8 ICP-MS | 5 | 0.00605 | | | mg/L | 0.0005 | 0.00125 | 05/24/22 9:53 | kja |
| Sodium, dissolved | M200.7 ICP | 5 | 675 | | * | mg/L | 1 | 5 | 05/23/22 17:56 | keh1 |
| Vanadium, dissolved | M200.7 ICP | 5 | <0.05 | U | | mg/L | 0.05 | 0.125 | 05/23/22 17:56 | keh1 |
| Zinc, dissolved | M200.7 ICP | 5 | <0.1 | U | | mg/L | 0.1 | 0.25 | 05/23/22 17:56 | keh1 |

Wet Chemistry

| Parameter | EPA Method | Dilution | Result | Qual | XQ | Units | MDL | PQL | Date | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Alkalinity as CaCO3 | SM2320B - Titration | | | | | | | | | |
| Bicarbonate as CaCO3 | | 1 | 490 | | | mg/L | 2 | 20 | 05/21/22 0:00 | eep |
| Carbonate as CaCO3 | | 1 | <2 | U | | mg/L | 2 | 20 | 05/21/22 0:00 | eep |
| Hydroxide as CaCO3 | | 1 | <2 | U | | mg/L | 2 | 20 | 05/21/22 0:00 | eep |
| Total Alkalinity | | 1 | 490 | | * | mg/L | 2 | 20 | 05/21/22 0:00 | eep |
| Chloride | SM4500Cl-E | 5 | 104 | | | mg/L | 2.5 | 10 | 05/19/22 12:52 | mjj1 |
| Fluoride | SM4500F-C | 1 | 0.58 | | | mg/L | 0.15 | 0.35 | 05/26/22 17:50 | emk |
| Nitrate as N, dissolved | Calculation: NO3NO2 minus NO2 | | 0.200 | H | | mg/L | 0.02 | 0.1 | 06/09/22 0:00 | calc |
| Nitrate/Nitrite as N, dissolved | M353.2 - Automated Cadmium Reduction | 1 | 0.200 | H | * | mg/L | 0.02 | 0.1 | 05/12/22 23:34 | pjb |
| Nitrite as N, dissolved | M353.2 - Automated Cadmium Reduction | 1 | <0.01 | UH | * | mg/L | 0.01 | 0.05 | 05/12/22 23:34 | pjb |
| Residue, Filterable (TDS) @180C | SM2540C | 2 | 5660 | H | * | mg/L | 40 | 80 | 05/20/22 10:17 | anc |
| Sulfate | D516-02/-07/-11 - TURBIDIMETRIC | 120 | 3290 | | | mg/L | 120 | 600 | 05/19/22 15:53 | mjj1 |

**GCC Rio Grande**
Project ID: 105495
Sample ID: MW-7

ACZ Sample ID: ***L73169-03***
Date Sampled: *05/10/22 12:38*
Date Received: *05/12/22*
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 | 05/23/22 17:59 | keh1 |
| Arsenic, dissolved | M200.8 ICP-MS | 5 | <0.001 | U | | mg/L | 0.001 | 0.005 | 05/24/22 9:54 | kja |
| Beryllium, dissolved | M200.7 ICP | 5 | <0.05 | U | | mg/L | 0.05 | 0.25 | 05/23/22 17:59 | keh1 |
| Boron, dissolved | M200.7 ICP | 5 | 0.372 | B | | mg/L | 0.15 | 0.5 | 05/23/22 17:59 | keh1 |
| Cadmium, dissolved | M200.8 ICP-MS | 5 | <0.00025 | U | | mg/L | 0.00025 | 0.00125 | 05/24/22 9:54 | kja |
| Calcium, dissolved | M200.7 ICP | 5 | 376 | | | mg/L | 0.5 | 2.5 | 05/23/22 17:59 | keh1 |
| Chromium, dissolved | M200.7 ICP | 5 | <0.1 | U | | mg/L | 0.1 | 0.25 | 05/23/22 17:59 | keh1 |
| Cobalt, dissolved | M200.8 ICP-MS | 5 | 0.00228 | | | mg/L | 0.00025 | 0.00125 | 05/24/22 9:54 | kja |
| Cobalt, dissolved | M200.7 ICP | 5 | <0.1 | U | | mg/L | 0.1 | 0.25 | 05/23/22 17:59 | keh1 |
| Copper, dissolved | M200.7 ICP | 5 | <0.05 | U | | mg/L | 0.05 | 0.25 | 05/23/22 17:59 | keh1 |
| Iron, dissolved | M200.7 ICP | 5 | <0.3 | U | | mg/L | 0.3 | 0.75 | 05/23/22 17:59 | keh1 |
| Lead, dissolved | M200.8 ICP-MS | 5 | <0.0005 | U | | mg/L | 0.0005 | 0.0025 | 05/24/22 9:54 | kja |
| Lithium, dissolved | M200.7 ICP | 5 | 0.551 | | | mg/L | 0.04 | 0.2 | 05/23/22 17:59 | keh1 |
| Magnesium, dissolved | M200.7 ICP | 5 | 392 | | | mg/L | 1 | 5 | 05/23/22 17:59 | keh1 |
| Manganese, dissolved | M200.7 ICP | 5 | 0.093 | B | | mg/L | 0.05 | 0.25 | 05/23/22 17:59 | keh1 |
| Mercury, dissolved | M245.1 CVAA | 1 | <0.0002 | U | | mg/L | 0.0002 | 0.001 | 05/18/22 12:26 | mlh |
| Nickel, dissolved | M200.7 ICP | 5 | <0.04 | U | | mg/L | 0.04 | 0.2 | 05/23/22 17:59 | keh1 |
| Potassium, dissolved | M200.7 ICP | 5 | 10.1 | | | mg/L | 1 | 5 | 05/23/22 17:59 | keh1 |
| Selenium, dissolved | M200.8 ICP-MS | 5 | 0.00549 | | | mg/L | 0.0005 | 0.00125 | 05/24/22 9:54 | kja |
| Sodium, dissolved | M200.7 ICP | 5 | 662 | | * | mg/L | 1 | 5 | 05/23/22 17:59 | keh1 |
| Vanadium, dissolved | M200.7 ICP | 5 | <0.05 | U | | mg/L | 0.05 | 0.125 | 05/23/22 17:59 | keh1 |
| Zinc, dissolved | M200.7 ICP | 5 | <0.1 | U | | mg/L | 0.1 | 0.25 | 05/23/22 17:59 | keh1 |

Wet Chemistry

| Parameter | EPA Method | Dilution | Result | Qual | XQ | Units | MDL | PQL | Date | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Alkalinity as CaCO3 | SM2320B - Titration | | | | | | | | | |
| Bicarbonate as CaCO3 | | 1 | 477 | | | mg/L | 2 | 20 | 05/21/22 0:00 | eep |
| Carbonate as CaCO3 | | 1 | <2 | U | | mg/L | 2 | 20 | 05/21/22 0:00 | eep |
| Hydroxide as CaCO3 | | 1 | <2 | U | | mg/L | 2 | 20 | 05/21/22 0:00 | eep |
| Total Alkalinity | | 1 | 477 | | * | mg/L | 2 | 20 | 05/21/22 0:00 | eep |
| Chloride | SM4500Cl-E | 5 | 104 | | | mg/L | 2.5 | 10 | 05/19/22 12:53 | mjj1 |
| Fluoride | SM4500F-C | 1 | 0.58 | | | mg/L | 0.15 | 0.35 | 05/26/22 17:54 | emk |
| Nitrate as N, dissolved | Calculation: NO3NO2 minus NO2 | | 0.186 | H | | mg/L | 0.02 | 0.1 | 06/09/22 0:00 | calc |
| Nitrate/Nitrite as N, dissolved | M353.2 - Automated Cadmium Reduction | 1 | 0.186 | H | * | mg/L | 0.02 | 0.1 | 05/12/22 23:39 | pjb |
| Nitrite as N, dissolved | M353.2 - Automated Cadmium Reduction | 1 | <0.01 | UH | * | mg/L | 0.01 | 0.05 | 05/12/22 23:39 | pjb |
| Residue, Filterable (TDS) @180C | SM2540C | 2 | 5660 | H | * | mg/L | 40 | 80 | 05/20/22 10:19 | anc |
| Sulfate | D516-02/-07/-11 - TURBIDIMETRIC | 120 | 3240 | | | mg/L | 120 | 600 | 05/19/22 15:53 | mjj1 |

## 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: ***L73169***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG542697** | | | | | | | | | | | | | |
| WG542697PBW1 | PBW | 05/20/22 18:39 | | | | 10.7 | mg/L | | -20 | 20 | | | |
| WG542697LCSW3 | LCSW | 05/20/22 18:58 | WC220513-7 | 820.0001 | | 794.8 | mg/L | 97 | 90 | 110 | | | |
| WG542697LCSW6 | LCSW | 05/20/22 21:23 | WC220513-7 | 820.0001 | | 796.9 | mg/L | 97 | 90 | 110 | | | |
| WG542697PBW2 | PBW | 05/20/22 21:29 | | | | 6.7 | mg/L | | -20 | 20 | | | |
| WG542697LCSW9 | LCSW | 05/21/22 0:04 | WC220513-7 | 820.0001 | | 800.5 | mg/L | 98 | 90 | 110 | | | |
| WG542697PBW3 | PBW | 05/21/22 0:10 | | | | 4.8 | mg/L | | -20 | 20 | | | |
| L73190-01DUP | DUP | 05/21/22 2:16 | | | U | U | mg/L | | | | 0 | 20 | RA |
| WG542697LCSW12 | LCSW | 05/21/22 3:34 | WC220513-7 | 820.0001 | | 781 | mg/L | 95 | 90 | 110 | | | |
| WG542697PBW4 | PBW | 05/21/22 3:40 | | | | 6.7 | mg/L | | -20 | 20 | | | |
| WG542697LCSW15 | LCSW | 05/21/22 6:36 | WC220513-7 | 820.0001 | | 791.8 | mg/L | 97 | 90 | 110 | | | |

**Aluminum, dissolved** M200.7 ICP

| ACZ ID | Type | Analyzed | PCN/SCN | QC | Sample | Found | Units | Rec% | Lower | Upper | RPD | Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG542780** | | | | | | | | | | | | | |
| WG542780ICV | ICV | 05/23/22 16:39 | II220519-3 | 2 | | 1.937 | mg/L | 97 | 95 | 105 | | | |
| WG542780ICB | ICB | 05/23/22 16:45 | | | | U | mg/L | | -0.15 | 0.15 | | | |
| WG542780PQV | PQV | 05/23/22 16:48 | II220429-4 | .2502 | | .247 | mg/L | 99 | 70 | 130 | | | |
| WG542780SIC | SIC | 05/23/22 16:51 | II220503-2 | 200.4102 | | 201.4 | mg/L | 100 | 1 | 200 | | | |
| WG542780LFB | LFB | 05/23/22 16:58 | II220505-2 | 1.0008 | | 1.04 | mg/L | 104 | 85 | 115 | | | |
| WG542780CCV1 | CCV | 05/23/22 17:28 | II220520-1 | 1 | | .968 | mg/L | 97 | 90 | 110 | | | |
| WG542780CCB1 | CCB | 05/23/22 17:31 | | | | U | mg/L | | -0.15 | 0.15 | | | |
| WG542780CCV2 | CCV | 05/23/22 18:05 | II220520-1 | 1 | | .963 | mg/L | 96 | 90 | 110 | | | |
| WG542780CCB2 | CCB | 05/23/22 18:08 | | | | U | mg/L | | -0.15 | 0.15 | | | |
| L73170-02AS | AS | 05/23/22 18:14 | II220505-2 | 1.0008 | U | 1.011 | mg/L | 101 | 85 | 115 | | | |
| L73170-02ASD | ASD | 05/23/22 18:18 | II220505-2 | 1.0008 | U | 1.021 | mg/L | 102 | 85 | 115 | 1 | 20 | |
| WG542780CCV3 | CCV | 05/23/22 18:27 | II220520-1 | 1 | | .957 | mg/L | 96 | 90 | 110 | | | |
| WG542780CCB3 | CCB | 05/23/22 18:30 | | | | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG542701** | | | | | | | | | | | | | |
| WG542701ICV | ICV | 05/24/22 9:08 | MS220502-1 | .05 | | .05103 | mg/L | 102 | 90 | 110 | | | |
| WG542701ICB | ICB | 05/24/22 9:09 | | | | U | mg/L | | -0.00044 | 0.00044 | | | |
| WG542701LFB | LFB | 05/24/22 9:11 | MS220506-2 | .05005 | | .05077 | mg/L | 101 | 85 | 115 | | | |
| WG542701CCV1 | CCV | 05/24/22 9:26 | MS220502-5 | .1001 | | .10002 | mg/L | 100 | 90 | 110 | | | |
| WG542701CCB1 | CCB | 05/24/22 9:27 | | | | U | mg/L | | -0.0006 | 0.0006 | | | |
| L73154-03AS | AS | 05/24/22 9:42 | MS220506-2 | .05005 | .00064 | .05169 | mg/L | 102 | 70 | 130 | | | |
| L73154-03ASD | ASD | 05/24/22 9:44 | MS220506-2 | .05005 | .00064 | .05146 | mg/L | 102 | 70 | 130 | 0 | 20 | |
| WG542701CCV2 | CCV | 05/24/22 9:47 | MS220502-5 | .1001 | | .09744 | mg/L | 97 | 90 | 110 | | | |
| WG542701CCB2 | CCB | 05/24/22 9:49 | | | | U | mg/L | | -0.0006 | 0.0006 | | | |
| WG542701CCV3 | CCV | 05/24/22 10:03 | MS220502-5 | .1001 | | .09614 | mg/L | 96 | 90 | 110 | | | |
| WG542701CCB3 | CCB | 05/24/22 10:05 | | | | U | mg/L | | -0.0006 | 0.0006 | | | |

**GCC**

ACZ Project ID: ***L73169***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG542780** | | | | | | | | | | | | | |
| WG542780ICV | ICV | 05/23/22 16:39 | II220519-3 | 2 | | 1.901 | mg/L | 95 | 95 | 105 | | | |
| WG542780ICB | ICB | 05/23/22 16:45 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| WG542780PQV | PQV | 05/23/22 16:48 | II220429-4 | .05005 | | .056 | mg/L | 112 | 70 | 130 | | | |
| WG542780SIC | SIC | 05/23/22 16:51 | II220503-2 | .1001 | | .102 | mg/L | 102 | 80 | 120 | | | |
| WG542780LFB | LFB | 05/23/22 16:58 | II220505-2 | .501 | | .489 | mg/L | 98 | 85 | 115 | | | |
| WG542780CCV1 | CCV | 05/23/22 17:28 | II220520-1 | 1 | | .956 | mg/L | 96 | 90 | 110 | | | |
| WG542780CCB1 | CCB | 05/23/22 17:31 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| WG542780CCV2 | CCV | 05/23/22 18:05 | II220520-1 | 1 | | .951 | mg/L | 95 | 90 | 110 | | | |
| WG542780CCB2 | CCB | 05/23/22 18:08 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| L73170-02AS | AS | 05/23/22 18:14 | II220505-2 | .501 | U | .476 | mg/L | 95 | 85 | 115 | | | |
| L73170-02ASD | ASD | 05/23/22 18:18 | II220505-2 | .501 | U | .479 | mg/L | 96 | 85 | 115 | 1 | 20 | |
| WG542780CCV3 | CCV | 05/23/22 18:27 | II220520-1 | 1 | | .949 | mg/L | 95 | 90 | 110 | | | |
| WG542780CCB3 | CCB | 05/23/22 18:30 | | | | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG542780** | | | | | | | | | | | | | |
| WG542780ICV | ICV | 05/23/22 16:39 | II220519-3 | 2 | | 2.006 | mg/L | 100 | 95 | 105 | | | |
| WG542780ICB | ICB | 05/23/22 16:45 | | | | U | mg/L | | -0.09 | 0.09 | | | |
| WG542780PQV | PQV | 05/23/22 16:48 | II220429-4 | .1001 | | .11 | mg/L | 110 | 70 | 130 | | | |
| WG542780SIC | SIC | 05/23/22 16:51 | II220503-2 | .1001 | | .108 | mg/L | 108 | 80 | 120 | | | |
| WG542780LFB | LFB | 05/23/22 16:58 | II220505-2 | .5005 | | .533 | mg/L | 106 | 85 | 115 | | | |
| WG542780CCV1 | CCV | 05/23/22 17:28 | II220520-1 | 1 | | .999 | mg/L | 100 | 90 | 110 | | | |
| WG542780CCB1 | CCB | 05/23/22 17:31 | | | | U | mg/L | | -0.09 | 0.09 | | | |
| WG542780CCV2 | CCV | 05/23/22 18:05 | II220520-1 | 1 | | .994 | mg/L | 99 | 90 | 110 | | | |
| WG542780CCB2 | CCB | 05/23/22 18:08 | | | | U | mg/L | | -0.09 | 0.09 | | | |
| L73170-02AS | AS | 05/23/22 18:14 | II220505-2 | .5005 | .706 | 1.198 | mg/L | 98 | 85 | 115 | | | |
| L73170-02ASD | ASD | 05/23/22 18:18 | II220505-2 | .5005 | .706 | 1.187 | mg/L | 96 | 85 | 115 | 1 | 20 | |
| WG542780CCV3 | CCV | 05/23/22 18:27 | II220520-1 | 1 | | .994 | mg/L | 99 | 90 | 110 | | | |
| WG542780CCB3 | CCB | 05/23/22 18:30 | | | | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG542701** | | | | | | | | | | | | | |
| WG542701ICV | ICV | 05/24/22 9:08 | MS220502-1 | .05 | | .050982 | mg/L | 102 | 90 | 110 | | | |
| WG542701ICB | ICB | 05/24/22 9:09 | | | | U | mg/L | | -0.00011 | 0.00011 | | | |
| WG542701LFB | LFB | 05/24/22 9:11 | MS220506-2 | .05005 | | .0498 | mg/L | 100 | 85 | 115 | | | |
| WG542701CCV1 | CCV | 05/24/22 9:26 | MS220502-5 | .1001 | | .099454 | mg/L | 99 | 90 | 110 | | | |
| WG542701CCB1 | CCB | 05/24/22 9:27 | | | | U | mg/L | | -0.00015 | 0.00015 | | | |
| L73154-03AS | AS | 05/24/22 9:42 | MS220506-2 | .05005 | .000059 | .048381 | mg/L | 97 | 70 | 130 | | | |
| L73154-03ASD | ASD | 05/24/22 9:44 | MS220506-2 | .05005 | .000059 | .048715 | mg/L | 97 | 70 | 130 | 1 | 20 | |
| WG542701CCV2 | CCV | 05/24/22 9:47 | MS220502-5 | .1001 | | .098352 | mg/L | 98 | 90 | 110 | | | |
| WG542701CCB2 | CCB | 05/24/22 9:49 | | | | U | mg/L | | -0.00015 | 0.00015 | | | |
| WG542701CCV3 | CCV | 05/24/22 10:03 | MS220502-5 | .1001 | | .097981 | mg/L | 98 | 90 | 110 | | | |
| WG542701CCB3 | CCB | 05/24/22 10:05 | | | | U | mg/L | | -0.00015 | 0.00015 | | | |

**GCC**

ACZ Project ID: ***L73169***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG542780** | | | | | | | | | | | | | |
| WG542780ICV | ICV | 05/23/22 16:39 | II220519-3 | 100 | | 99.87 | mg/L | 100 | 95 | 105 | | | |
| WG542780ICB | ICB | 05/23/22 16:45 | | | | U | mg/L | | -0.3 | 0.3 | | | |
| WG542780PQV | PQV | 05/23/22 16:48 | II220429-4 | .5003 | | .51 | mg/L | 102 | 70 | 130 | | | |
| WG542780SIC | SIC | 05/23/22 16:51 | II220503-2 | 200.6203 | | 198.7 | mg/L | 99 | 1 | 200 | | | |
| WG542780LFB | LFB | 05/23/22 16:58 | II220505-2 | 67.9908 | | 70.27 | mg/L | 103 | 85 | 115 | | | |
| WG542780CCV1 | CCV | 05/23/22 17:28 | II220520-1 | 50 | | 50 | mg/L | 100 | 90 | 110 | | | |
| WG542780CCB1 | CCB | 05/23/22 17:31 | | | | U | mg/L | | -0.3 | 0.3 | | | |
| WG542780CCV2 | CCV | 05/23/22 18:05 | II220520-1 | 50 | | 49.56 | mg/L | 99 | 90 | 110 | | | |
| WG542780CCB2 | CCB | 05/23/22 18:08 | | | | U | mg/L | | -0.3 | 0.3 | | | |
| L73170-02AS | AS | 05/23/22 18:14 | II220505-2 | 67.9908 | 2.45 | 70.65 | mg/L | 100 | 85 | 115 | | | |
| L73170-02ASD | ASD | 05/23/22 18:18 | II220505-2 | 67.9908 | 2.45 | 71.33 | mg/L | 101 | 85 | 115 | 1 | 20 | |
| WG542780CCV3 | CCV | 05/23/22 18:27 | II220520-1 | 50 | | 49.18 | mg/L | 98 | 90 | 110 | | | |
| WG542780CCB3 | CCB | 05/23/22 18:30 | | | | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG542552** | | | | | | | | | | | | | |
| WG542552ICV | ICV | 05/19/22 12:14 | WI220502-12 | 54.945 | | 56.35 | mg/L | 103 | 90 | 110 | | | |
| WG542552ICB | ICB | 05/19/22 12:14 | | | | .7 | mg/L | | -1.5 | 1.5 | | | |
| WG542552LFB1 | LFB | 05/19/22 12:15 | WI220328-1 | 29.97 | | 29.75 | mg/L | 99 | 90 | 110 | | | |
| WG542552CCV1 | CCV | 05/19/22 12:20 | WI220323-1 | 49.95 | | 50.86 | mg/L | 102 | 90 | 110 | | | |
| WG542552CCB1 | CCB | 05/19/22 12:20 | | | | .54 | mg/L | | -1.5 | 1.5 | | | |
| L71593-13AS | AS | 05/19/22 12:23 | WI220328-1 | 29.97 | .71 | 33.27 | mg/L | 109 | 90 | 110 | | | |
| L71594-13DUP | DUP | 05/19/22 12:24 | | | .95 | .94 | mg/L | | | | 1 | 20 | RA |
| WG542552CCV2 | CCV | 05/19/22 12:26 | WI220323-1 | 49.95 | | 50.16 | mg/L | 100 | 90 | 110 | | | |
| WG542552CCB2 | CCB | 05/19/22 12:27 | | | | .7 | mg/L | | -1.5 | 1.5 | | | |
| WG542552LFB2 | LFB | 05/19/22 12:30 | WI220328-1 | 29.97 | | 30.64 | mg/L | 102 | 90 | 110 | | | |
| WG542552CCV3 | CCV | 05/19/22 12:32 | WI220323-1 | 49.95 | | 51.39 | mg/L | 103 | 90 | 110 | | | |
| WG542552CCB3 | CCB | 05/19/22 12:32 | | | | .87 | mg/L | | -1.5 | 1.5 | | | |
| WG542552CCV4 | CCV | 05/19/22 12:37 | WI220323-1 | 49.95 | | 51.66 | mg/L | 103 | 90 | 110 | | | |
| WG542552CCB4 | CCB | 05/19/22 12:37 | | | | .95 | mg/L | | -1.5 | 1.5 | | | |
| WG542552CCV5 | CCV | 05/19/22 12:51 | WI220323-1 | 49.95 | | 51.52 | mg/L | 103 | 90 | 110 | | | |
| WG542552CCB5 | CCB | 05/19/22 12:51 | | | | 1.16 | mg/L | | -1.5 | 1.5 | | | |
| L73169-02AS | AS | 05/19/22 12:53 | 5XCL | 30 | 104 | 134.35 | mg/L | 101 | 90 | 110 | | | |
| L73169-03DUP | DUP | 05/19/22 12:54 | | | 104 | 104.09 | mg/L | | | | 0 | 20 | |
| WG542552CCV6 | CCV | 05/19/22 12:54 | WI220323-1 | 49.95 | | 51.53 | mg/L | 103 | 90 | 110 | | | |
| WG542552CCB6 | CCB | 05/19/22 12:55 | | | | 1.14 | mg/L | | -1.5 | 1.5 | | | |
| WG542552CCV7 | CCV | 05/19/22 13:04 | WI220323-1 | 49.95 | | 50.68 | mg/L | 101 | 90 | 110 | | | |
| WG542552CCB7 | CCB | 05/19/22 13:05 | | | | 1.05 | mg/L | | -1.5 | 1.5 | | | |
| WG542552CCV8 | CCV | 05/19/22 13:05 | WI220323-1 | 49.95 | | 51.63 | mg/L | 103 | 90 | 110 | | | |
| WG542552CCB8 | CCB | 05/19/22 13:06 | | | | 1.11 | mg/L | | -1.5 | 1.5 | | | |

**GCC**

ACZ Project ID: ***L73169***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG542780** | | | | | | | | | | | | | |
| WG542780ICV | ICV | 05/23/22 16:39 | II220519-3 | 2 | | 1.975 | mg/L | 99 | 95 | 105 | | | |
| WG542780ICB | ICB | 05/23/22 16:45 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| WG542780PQV | PQV | 05/23/22 16:48 | II220429-4 | .05005 | | .055 | mg/L | 110 | 70 | 130 | | | |
| WG542780SIC | SIC | 05/23/22 16:51 | II220503-2 | .1001 | | .091 | mg/L | 91 | 80 | 120 | | | |
| WG542780LFB | LFB | 05/23/22 16:58 | II220505-2 | .501 | | .505 | mg/L | 101 | 85 | 115 | | | |
| WG542780CCV1 | CCV | 05/23/22 17:28 | II220520-1 | 1 | | .982 | mg/L | 98 | 90 | 110 | | | |
| WG542780CCB1 | CCB | 05/23/22 17:31 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| WG542780CCV2 | CCV | 05/23/22 18:05 | II220520-1 | 1 | | .973 | mg/L | 97 | 90 | 110 | | | |
| WG542780CCB2 | CCB | 05/23/22 18:08 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| L73170-02AS | AS | 05/23/22 18:14 | II220505-2 | .501 | U | .497 | mg/L | 99 | 85 | 115 | | | |
| L73170-02ASD | ASD | 05/23/22 18:18 | II220505-2 | .501 | U | .489 | mg/L | 98 | 85 | 115 | 2 | 20 | |
| WG542780CCV3 | CCV | 05/23/22 18:27 | II220520-1 | 1 | | .966 | mg/L | 97 | 90 | 110 | | | |
| WG542780CCB3 | CCB | 05/23/22 18:30 | | | | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG542780** | | | | | | | | | | | | | |
| WG542780ICV | ICV | 05/23/22 16:39 | II220519-3 | 2.01 | | 2.005 | mg/L | 100 | 95 | 105 | | | |
| WG542780ICB | ICB | 05/23/22 16:45 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| WG542780PQV | PQV | 05/23/22 16:48 | II220429-4 | .05005 | | .056 | mg/L | 112 | 70 | 130 | | | |
| WG542780SIC | SIC | 05/23/22 16:51 | II220503-2 | .1001 | | .101 | mg/L | 101 | 80 | 120 | | | |
| WG542780LFB | LFB | 05/23/22 16:58 | II220505-2 | .5005 | | .507 | mg/L | 101 | 85 | 115 | | | |
| WG542780CCV1 | CCV | 05/23/22 17:28 | II220520-1 | 1.005 | | 1.004 | mg/L | 100 | 90 | 110 | | | |
| WG542780CCB1 | CCB | 05/23/22 17:31 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| WG542780CCV2 | CCV | 05/23/22 18:05 | II220520-1 | 1.005 | | .998 | mg/L | 99 | 90 | 110 | | | |
| WG542780CCB2 | CCB | 05/23/22 18:08 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| L73170-02AS | AS | 05/23/22 18:14 | II220505-2 | .5005 | U | .484 | mg/L | 97 | 85 | 115 | | | |
| L73170-02ASD | ASD | 05/23/22 18:18 | II220505-2 | .5005 | U | .488 | mg/L | 98 | 85 | 115 | 1 | 20 | |
| WG542780CCV3 | CCV | 05/23/22 18:27 | II220520-1 | 1.005 | | .985 | mg/L | 98 | 90 | 110 | | | |
| WG542780CCB3 | CCB | 05/23/22 18:30 | | | | U | mg/L | | -0.06 | 0.06 | | | |

**Cobalt, dissolved** M200.8 ICP-MS

| ACZ ID | Type | Analyzed | PCN/SCN | QC | Sample | Found | Units | Rec% | Lower | Upper | RPD | Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG542701** | | | | | | | | | | | | | |
| WG542701ICV | ICV | 05/24/22 9:08 | MS220502-1 | .05 | | .050841 | mg/L | 102 | 90 | 110 | | | |
| WG542701ICB | ICB | 05/24/22 9:09 | | | | U | mg/L | | -0.00011 | 0.00011 | | | |
| WG542701LFB | LFB | 05/24/22 9:11 | MS220506-2 | .05005 | | .050299 | mg/L | 100 | 85 | 115 | | | |
| WG542701CCV1 | CCV | 05/24/22 9:26 | MS220502-5 | .1001 | | .098451 | mg/L | 98 | 90 | 110 | | | |
| WG542701CCB1 | CCB | 05/24/22 9:27 | | | | U | mg/L | | -0.00015 | 0.00015 | | | |
| L73154-03AS | AS | 05/24/22 9:42 | MS220506-2 | .05005 | U | .04984 | mg/L | 100 | 70 | 130 | | | |
| L73154-03ASD | ASD | 05/24/22 9:44 | MS220506-2 | .05005 | U | .050543 | mg/L | 101 | 70 | 130 | 1 | 20 | |
| WG542701CCV2 | CCV | 05/24/22 9:47 | MS220502-5 | .1001 | | .100211 | mg/L | 100 | 90 | 110 | | | |
| WG542701CCB2 | CCB | 05/24/22 9:49 | | | | U | mg/L | | -0.00015 | 0.00015 | | | |
| WG542701CCV3 | CCV | 05/24/22 10:03 | MS220502-5 | .1001 | | .098638 | mg/L | 99 | 90 | 110 | | | |
| WG542701CCB3 | CCB | 05/24/22 10:05 | | | | U | mg/L | | -0.00015 | 0.00015 | | | |

**GCC**

ACZ Project ID: ***L73169***

*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.*

**Copper, dissolved** M200.7 ICP

| ACZ ID | Type | Analyzed | PCN/SCN | QC | Sample | Found | Units | Rec% | Lower | Upper | RPD | Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG542780** | | | | | | | | | | | | | |
| WG542780ICV | ICV | 05/23/22 16:39 | II220519-3 | 2 | | 2.012 | mg/L | 101 | 95 | 105 | | | |
| WG542780ICB | ICB | 05/23/22 16:45 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| WG542780PQV | PQV | 05/23/22 16:48 | II220429-4 | .05 | | .055 | mg/L | 110 | 70 | 130 | | | |
| WG542780SIC | SIC | 05/23/22 16:51 | II220503-2 | .1 | | .1 | mg/L | 100 | 80 | 120 | | | |
| WG542780LFB | LFB | 05/23/22 16:58 | II220505-2 | .5 | | .513 | mg/L | 103 | 85 | 115 | | | |
| WG542780CCV1 | CCV | 05/23/22 17:28 | II220520-1 | 1 | | 1.009 | mg/L | 101 | 90 | 110 | | | |
| WG542780CCB1 | CCB | 05/23/22 17:31 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| WG542780CCV2 | CCV | 05/23/22 18:05 | II220520-1 | 1 | | 1.007 | mg/L | 101 | 90 | 110 | | | |
| WG542780CCB2 | CCB | 05/23/22 18:08 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| L73170-02AS | AS | 05/23/22 18:14 | II220505-2 | .5 | U | .504 | mg/L | 101 | 85 | 115 | | | |
| L73170-02ASD | ASD | 05/23/22 18:18 | II220505-2 | .5 | U | .507 | mg/L | 101 | 85 | 115 | 1 | 20 | |
| WG542780CCV3 | CCV | 05/23/22 18:27 | II220520-1 | 1 | | 1.005 | mg/L | 101 | 90 | 110 | | | |
| WG542780CCB3 | CCB | 05/23/22 18:30 | | | | U | mg/L | | -0.03 | 0.03 | | | |

**Fluoride** SM4500F-C

| ACZ ID | Type | Analyzed | PCN/SCN | QC | Sample | Found | Units | Rec% | Lower | Upper | RPD | Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG543079** | | | | | | | | | | | | | |
| WG543079ICV | ICV | 05/26/22 14:41 | WC220517-1 | 2.008 | | 2.02 | mg/L | 101 | 90 | 110 | | | |
| WG543079ICB | ICB | 05/26/22 14:47 | | | | U | mg/L | | -0.3 | 0.3 | | | |
| WG543079PQV | PQV | 05/26/22 14:50 | WC220520-8 | .3514 | | .39 | mg/L | 111 | 70 | 130 | | | |
| WG543079LFB1 | LFB | 05/26/22 14:54 | WC220104-2 | 5.02 | | 5.05 | mg/L | 101 | 90 | 110 | | | |
| WG543079CCV1 | CCV | 05/26/22 15:50 | WC220517-1 | 2.008 | | 2.11 | mg/L | 105 | 90 | 110 | | | |
| WG543079CCB1 | CCB | 05/26/22 15:57 | | | | U | mg/L | | -0.3 | 0.3 | | | |
| WG543079CCV2 | CCV | 05/26/22 16:40 | WC220517-1 | 2.008 | | 2.13 | mg/L | 106 | 90 | 110 | | | |
| WG543079CCB2 | CCB | 05/26/22 16:48 | | | | U | mg/L | | -0.3 | 0.3 | | | |
| WG543079LFB2 | LFB | 05/26/22 17:09 | WC220104-2 | 5.02 | | 5.21 | mg/L | 104 | 90 | 110 | | | |
| L73118-03AS | AS | 05/26/22 17:16 | WC220104-2 | 5.02 | 2.31 | 7.22 | mg/L | 98 | 90 | 110 | | | |
| L73118-03ASD | ASD | 05/26/22 17:20 | WC220104-2 | 5.02 | 2.31 | 7.22 | mg/L | 98 | 90 | 110 | 0 | 20 | |
| WG543079CCV3 | CCV | 05/26/22 17:27 | WC220517-1 | 2.008 | | 2.16 | mg/L | 108 | 90 | 110 | | | |
| WG543079CCB3 | CCB | 05/26/22 17:35 | | | | U | mg/L | | -0.3 | 0.3 | | | |
| WG543079CCV4 | CCV | 05/26/22 18:08 | WC220517-1 | 2.008 | | 2.15 | mg/L | 107 | 90 | 110 | | | |
| WG543079CCB4 | CCB | 05/26/22 18:16 | | | | U | mg/L | | -0.3 | 0.3 | | | |

**GCC**

ACZ Project ID: ***L73169***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG542780** | | | | | | | | | | | | | |
| WG542780ICV | ICV | 05/23/22 16:39 | II220519-3 | 2 | | 2.002 | mg/L | 100 | 95 | 105 | | | |
| WG542780ICB | ICB | 05/23/22 16:45 | | | | U | mg/L | | -0.18 | 0.18 | | | |
| WG542780PQV | PQV | 05/23/22 16:48 | II220429-4 | .150195 | | .152 | mg/L | 101 | 70 | 130 | | | |
| WG542780SIC | SIC | 05/23/22 16:51 | II220503-2 | 200.410195 | | 195.3 | mg/L | 97 | 1 | 200 | | | |
| WG542780LFB | LFB | 05/23/22 16:58 | II220505-2 | 1.0013 | | 1.036 | mg/L | 103 | 85 | 115 | | | |
| WG542780CCV1 | CCV | 05/23/22 17:28 | II220520-1 | 1 | | 1.004 | mg/L | 100 | 90 | 110 | | | |
| WG542780CCB1 | CCB | 05/23/22 17:31 | | | | U | mg/L | | -0.18 | 0.18 | | | |
| WG542780CCV2 | CCV | 05/23/22 18:05 | II220520-1 | 1 | | .989 | mg/L | 99 | 90 | 110 | | | |
| WG542780CCB2 | CCB | 05/23/22 18:08 | | | | U | mg/L | | -0.18 | 0.18 | | | |
| L73170-02AS | AS | 05/23/22 18:14 | II220505-2 | 1.0013 | U | 1.023 | mg/L | 102 | 85 | 115 | | | |
| L73170-02ASD | ASD | 05/23/22 18:18 | II220505-2 | 1.0013 | U | 1.052 | mg/L | 105 | 85 | 115 | 3 | 20 | |
| WG542780CCV3 | CCV | 05/23/22 18:27 | II220520-1 | 1 | | .975 | mg/L | 98 | 90 | 110 | | | |
| WG542780CCB3 | CCB | 05/23/22 18:30 | | | | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG542701** | | | | | | | | | | | | | |
| WG542701ICV | ICV | 05/24/22 9:08 | MS220502-1 | .05 | | .05055 | mg/L | 101 | 90 | 110 | | | |
| WG542701ICB | ICB | 05/24/22 9:09 | | | | U | mg/L | | -0.00022 | 0.00022 | | | |
| WG542701LFB | LFB | 05/24/22 9:11 | MS220506-2 | .0501 | | .04959 | mg/L | 99 | 85 | 115 | | | |
| WG542701CCV1 | CCV | 05/24/22 9:26 | MS220502-5 | .2505 | | .25119 | mg/L | 100 | 90 | 110 | | | |
| WG542701CCB1 | CCB | 05/24/22 9:27 | | | | U | mg/L | | -0.0003 | 0.0003 | | | |
| L73154-03AS | AS | 05/24/22 9:42 | MS220506-2 | .0501 | U | .04994 | mg/L | 100 | 70 | 130 | | | |
| L73154-03ASD | ASD | 05/24/22 9:44 | MS220506-2 | .0501 | U | .0506 | mg/L | 101 | 70 | 130 | 1 | 20 | |
| WG542701CCV2 | CCV | 05/24/22 9:47 | MS220502-5 | .2505 | | .2475 | mg/L | 99 | 90 | 110 | | | |
| WG542701CCB2 | CCB | 05/24/22 9:49 | | | | U | mg/L | | -0.0003 | 0.0003 | | | |
| WG542701CCV3 | CCV | 05/24/22 10:03 | MS220502-5 | .2505 | | .23521 | mg/L | 94 | 90 | 110 | | | |
| WG542701CCB3 | CCB | 05/24/22 10:05 | | | | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG542780** | | | | | | | | | | | | | |
| WG542780ICV | ICV | 05/23/22 16:39 | II220519-3 | 2 | | 1.9775 | mg/L | 99 | 95 | 105 | | | |
| WG542780ICB | ICB | 05/23/22 16:45 | | | | U | mg/L | | -0.024 | 0.024 | | | |
| WG542780PQV | PQV | 05/23/22 16:48 | II220429-4 | .03992 | | .0442 | mg/L | 111 | 70 | 130 | | | |
| WG542780SIC | SIC | 05/23/22 16:51 | II220503-2 | .0998 | | .107 | mg/L | 107 | 80 | 120 | | | |
| WG542780LFB | LFB | 05/23/22 16:58 | II220505-2 | .998 | | .9852 | mg/L | 99 | 85 | 115 | | | |
| WG542780CCV1 | CCV | 05/23/22 17:28 | II220520-1 | 1 | | .9898 | mg/L | 99 | 90 | 110 | | | |
| WG542780CCB1 | CCB | 05/23/22 17:31 | | | | U | mg/L | | -0.024 | 0.024 | | | |
| WG542780CCV2 | CCV | 05/23/22 18:05 | II220520-1 | 1 | | .9903 | mg/L | 99 | 90 | 110 | | | |
| WG542780CCB2 | CCB | 05/23/22 18:08 | | | | U | mg/L | | -0.024 | 0.024 | | | |
| L73170-02AS | AS | 05/23/22 18:14 | II220505-2 | .998 | .119 | 1.08 | mg/L | 96 | 85 | 115 | | | |
| L73170-02ASD | ASD | 05/23/22 18:18 | II220505-2 | .998 | .119 | 1.091 | mg/L | 97 | 85 | 115 | 1 | 20 | |
| WG542780CCV3 | CCV | 05/23/22 18:27 | II220520-1 | 1 | | .9926 | mg/L | 99 | 90 | 110 | | | |
| WG542780CCB3 | CCB | 05/23/22 18:30 | | | | U | mg/L | | -0.024 | 0.024 | | | |

**GCC**

ACZ Project ID: ***L73169***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG542780** | | | | | | | | | | | | | |
| WG542780ICV | ICV | 05/23/22 16:39 | II220519-3 | 100 | | 96.45 | mg/L | 96 | 95 | 105 | | | |
| WG542780ICB | ICB | 05/23/22 16:45 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| WG542780PQV | PQV | 05/23/22 16:48 | II220429-4 | 1.0001 | | .94 | mg/L | 94 | 70 | 130 | | | |
| WG542780SIC | SIC | 05/23/22 16:51 | II220503-2 | 201.0201 | | 205.6 | mg/L | 102 | 1 | 200 | | | |
| WG542780LFB | LFB | 05/23/22 16:58 | II220505-2 | 49.99922 | | 49.18 | mg/L | 98 | 85 | 115 | | | |
| WG542780CCV1 | CCV | 05/23/22 17:28 | II220520-1 | 50 | | 47.93 | mg/L | 96 | 90 | 110 | | | |
| WG542780CCB1 | CCB | 05/23/22 17:31 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| WG542780CCV2 | CCV | 05/23/22 18:05 | II220520-1 | 50 | | 47.16 | mg/L | 94 | 90 | 110 | | | |
| WG542780CCB2 | CCB | 05/23/22 18:08 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| L73170-02AS | AS | 05/23/22 18:14 | II220505-2 | 49.99922 | 1.48 | 49.36 | mg/L | 96 | 85 | 115 | | | |
| L73170-02ASD | ASD | 05/23/22 18:18 | II220505-2 | 49.99922 | 1.48 | 49.6 | mg/L | 96 | 85 | 115 | 0 | 20 | |
| WG542780CCV3 | CCV | 05/23/22 18:27 | II220520-1 | 50 | | 46.38 | mg/L | 93 | 90 | 110 | | | |
| WG542780CCB3 | CCB | 05/23/22 18:30 | | | | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG542780** | | | | | | | | | | | | | |
| WG542780ICV | ICV | 05/23/22 16:39 | II220519-3 | 2 | | 1.959 | mg/L | 98 | 95 | 105 | | | |
| WG542780ICB | ICB | 05/23/22 16:45 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| WG542780PQV | PQV | 05/23/22 16:48 | II220429-4 | .0498 | | .055 | mg/L | 110 | 70 | 130 | | | |
| WG542780SIC | SIC | 05/23/22 16:51 | II220503-2 | 49.9498 | | 49 | mg/L | 98 | 1 | 200 | | | |
| WG542780LFB | LFB | 05/23/22 16:58 | II220505-2 | .499 | | .517 | mg/L | 104 | 85 | 115 | | | |
| WG542780CCV1 | CCV | 05/23/22 17:28 | II220520-1 | 1 | | .991 | mg/L | 99 | 90 | 110 | | | |
| WG542780CCB1 | CCB | 05/23/22 17:31 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| WG542780CCV2 | CCV | 05/23/22 18:05 | II220520-1 | 1 | | .981 | mg/L | 98 | 90 | 110 | | | |
| WG542780CCB2 | CCB | 05/23/22 18:08 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| L73170-02AS | AS | 05/23/22 18:14 | II220505-2 | .499 | U | .505 | mg/L | 101 | 85 | 115 | | | |
| L73170-02ASD | ASD | 05/23/22 18:18 | II220505-2 | .499 | U | .506 | mg/L | 101 | 85 | 115 | 0 | 20 | |
| WG542780CCV3 | CCV | 05/23/22 18:27 | II220520-1 | 1 | | .976 | mg/L | 98 | 90 | 110 | | | |
| WG542780CCB3 | CCB | 05/23/22 18:30 | | | | U | mg/L | | -0.03 | 0.03 | | | |

**GCC**

ACZ Project ID: ***L73169***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG542376** | | | | | | | | | | | | | |
| WG542376ICV1 | ICV | 05/18/22 8:45 | HG220508-3 | .005005 | | .00505 | mg/L | 101 | 90 | 110 | | | |
| WG542376ICB | ICB | 05/18/22 8:46 | | | | U | mg/L | | -0.0006 | 0.0006 | | | |
| **WG542419** | | | | | | | | | | | | | |
| WG542419CCV1 | CCV | 05/18/22 12:06 | HG220508-3 | .005005 | | .00538 | mg/L | 107 | 90 | 110 | | | |
| WG542419CCB1 | CCB | 05/18/22 12:07 | | | | U | mg/L | | -0.0002 | 0.0002 | | | |
| WG542419PQV | PQV | 05/18/22 12:08 | HG220508-5 | .001001 | | .00095 | mg/L | 95 | 70 | 130 | | | |
| WG542419LRB | LRB | 05/18/22 12:09 | | | | U | mg/L | | -0.00044 | 0.00044 | | | |
| WG542419LFB | LFB | 05/18/22 12:10 | HG220508-6 | .002002 | | .00197 | mg/L | 98 | 85 | 115 | | | |
| WG542419CCV2 | CCV | 05/18/22 12:18 | HG220508-3 | .005005 | | .00515 | mg/L | 103 | 90 | 110 | | | |
| WG542419CCB2 | CCB | 05/18/22 12:18 | | | | U | mg/L | | -0.0002 | 0.0002 | | | |
| WG542419CCV3 | CCV | 05/18/22 12:29 | HG220508-3 | .005005 | | .00522 | mg/L | 104 | 90 | 110 | | | |
| WG542419CCB3 | CCB | 05/18/22 12:30 | | | | U | mg/L | | -0.0002 | 0.0002 | | | |
| L73221-03LFM | LFM | 05/18/22 12:32 | HG220508-6 | .002002 | U | .00192 | mg/L | 96 | 85 | 115 | | | |
| L73221-03LFMD | LFMD | 05/18/22 12:33 | HG220508-6 | .002002 | U | .00196 | mg/L | 98 | 85 | 115 | 2 | 20 | |
| WG542419CCV4 | CCV | 05/18/22 12:37 | HG220508-3 | .005005 | | .00523 | mg/L | 104 | 90 | 110 | | | |
| WG542419CCB4 | CCB | 05/18/22 12:38 | | | | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG542780** | | | | | | | | | | | | | |
| WG542780ICV | ICV | 05/23/22 16:39 | II220519-3 | 2 | | 1.9772 | mg/L | 99 | 95 | 105 | | | |
| WG542780ICB | ICB | 05/23/22 16:45 | | | | U | mg/L | | -0.024 | 0.024 | | | |
| WG542780PQV | PQV | 05/23/22 16:48 | II220429-4 | .04004 | | .0386 | mg/L | 96 | 70 | 130 | | | |
| WG542780SIC | SIC | 05/23/22 16:51 | II220503-2 | .1001 | | .0927 | mg/L | 93 | 80 | 120 | | | |
| WG542780LFB | LFB | 05/23/22 16:58 | II220505-2 | .5005 | | .5119 | mg/L | 102 | 85 | 115 | | | |
| WG542780CCV1 | CCV | 05/23/22 17:28 | II220520-1 | 1 | | 1.006 | mg/L | 101 | 90 | 110 | | | |
| WG542780CCB1 | CCB | 05/23/22 17:31 | | | | U | mg/L | | -0.024 | 0.024 | | | |
| WG542780CCV2 | CCV | 05/23/22 18:05 | II220520-1 | 1 | | 1 | mg/L | 100 | 90 | 110 | | | |
| WG542780CCB2 | CCB | 05/23/22 18:08 | | | | U | mg/L | | -0.024 | 0.024 | | | |
| L73170-02AS | AS | 05/23/22 18:14 | II220505-2 | .5005 | U | .4947 | mg/L | 99 | 85 | 115 | | | |
| L73170-02ASD | ASD | 05/23/22 18:18 | II220505-2 | .5005 | U | .4929 | mg/L | 98 | 85 | 115 | 0 | 20 | |
| WG542780CCV3 | CCV | 05/23/22 18:27 | II220520-1 | 1 | | .995 | mg/L | 100 | 90 | 110 | | | |
| WG542780CCB3 | CCB | 05/23/22 18:30 | | | | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG542174** | | | | | | | | | | | | | |
| WG542174ICV | ICV | 05/12/22 23:03 | WI220301-7 | 2.4161 | | 2.291 | mg/L | 95 | 90 | 110 | | | |
| WG542174ICB | ICB | 05/12/22 23:04 | | | | U | mg/L | | -0.02 | 0.02 | | | |
| WG542174LFB | LFB | 05/12/22 23:08 | WI220401-10 | 2 | | 2.037 | mg/L | 102 | 90 | 110 | | | |
| WG542174CCV1 | CCV | 05/12/22 23:18 | WI220505-1 | 2 | | 2.001 | mg/L | 100 | 90 | 110 | | | |
| WG542174CCB1 | CCB | 05/12/22 23:21 | | | | U | mg/L | | -0.02 | 0.02 | | | |
| L73168-01AS | AS | 05/12/22 23:30 | WI220401-10 | 2 | .46 | 2.495 | mg/L | 102 | 90 | 110 | | | |
| L73169-01DUP | DUP | 05/12/22 23:32 | | | .109 | .112 | mg/L | | | | 3 | 20 | RA |
| WG542174CCV2 | CCV | 05/12/22 23:35 | WI220505-1 | 2 | | 1.904 | mg/L | 95 | 90 | 110 | | | |
| WG542174CCB2 | CCB | 05/12/22 23:38 | | | | U | mg/L | | -0.02 | 0.02 | | | |
| WG542174CCV3 | CCV | 05/12/22 23:52 | WI220505-1 | 2 | | 2.004 | mg/L | 100 | 90 | 110 | | | |
| WG542174CCB3 | CCB | 05/12/22 23:55 | | | | U | mg/L | | -0.02 | 0.02 | | | |

**GCC**

ACZ Project ID: ***L73169***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG542174** | | | | | | | | | | | | | |
| WG542174ICV | ICV | 05/12/22 23:03 | WI220301-7 | .6089 | | .618 | mg/L | 101 | 90 | 110 | | | |
| WG542174ICB | ICB | 05/12/22 23:04 | | | | U | mg/L | | -0.01 | 0.01 | | | |
| WG542174LFB | LFB | 05/12/22 23:08 | WI220401-10 | 1 | | 1.038 | mg/L | 104 | 90 | 110 | | | |
| WG542174CCV1 | CCV | 05/12/22 23:18 | WI220505-1 | 1 | | 1.005 | mg/L | 101 | 90 | 110 | | | |
| WG542174CCB1 | CCB | 05/12/22 23:21 | | | | U | mg/L | | -0.01 | 0.01 | | | |
| L73168-01AS | AS | 05/12/22 23:30 | WI220401-10 | 1 | U | 1.044 | mg/L | 104 | 90 | 110 | | | |
| L73169-01DUP | DUP | 05/12/22 23:32 | | | U | U | mg/L | | | | 0 | 20 | RA |
| WG542174CCV2 | CCV | 05/12/22 23:35 | WI220505-1 | 1 | | 1.004 | mg/L | 100 | 90 | 110 | | | |
| WG542174CCB2 | CCB | 05/12/22 23:38 | | | | U | mg/L | | -0.01 | 0.01 | | | |
| WG542174CCV3 | CCV | 05/12/22 23:52 | WI220505-1 | 1 | | 1.007 | mg/L | 101 | 90 | 110 | | | |
| WG542174CCB3 | CCB | 05/12/22 23:55 | | | | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG542780** | | | | | | | | | | | | | |
| WG542780ICV | ICV | 05/23/22 16:39 | II220519-3 | 20 | | 19.8 | mg/L | 99 | 95 | 105 | | | |
| WG542780ICB | ICB | 05/23/22 16:45 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| WG542780PQV | PQV | 05/23/22 16:48 | II220429-4 | 1.005 | | 1.01 | mg/L | 100 | 70 | 130 | | | |
| WG542780SIC | SIC | 05/23/22 16:51 | II220503-2 | 1.005 | | 1.02 | mg/L | 101 | 80 | 120 | | | |
| WG542780LFB | LFB | 05/23/22 16:58 | II220505-2 | 99.96218 | | 101.8 | mg/L | 102 | 85 | 115 | | | |
| WG542780CCV1 | CCV | 05/23/22 17:28 | II220520-1 | 10 | | 9.9 | mg/L | 99 | 90 | 110 | | | |
| WG542780CCB1 | CCB | 05/23/22 17:31 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| WG542780CCV2 | CCV | 05/23/22 18:05 | II220520-1 | 10 | | 9.89 | mg/L | 99 | 90 | 110 | | | |
| WG542780CCB2 | CCB | 05/23/22 18:08 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| L73170-02AS | AS | 05/23/22 18:14 | II220505-2 | 99.96218 | .81 | 100.2 | mg/L | 99 | 85 | 115 | | | |
| L73170-02ASD | ASD | 05/23/22 18:18 | II220505-2 | 99.96218 | .81 | 101.5 | mg/L | 101 | 85 | 115 | 1 | 20 | |
| WG542780CCV3 | CCV | 05/23/22 18:27 | II220520-1 | 10 | | 9.89 | mg/L | 99 | 90 | 110 | | | |
| WG542780CCB3 | CCB | 05/23/22 18:30 | | | | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG542276** | | | | | | | | | | | | | |
| WG542276PBW | PBW | 05/16/22 11:00 | | | | U | mg/L | | -20 | 20 | | | |
| WG542276LCSW | LCSW | 05/16/22 11:02 | PCN65839 | 1000 | | 988 | mg/L | 99 | 80 | 120 | | | |
| L73190-16DUP | DUP | 05/16/22 12:00 | | | 47400 | 46400 | mg/L | | | | 2 | 10 | |
| **WG542661** | | | | | | | | | | | | | |
| WG542661PBW | PBW | 05/20/22 10:12 | | | | U | mg/L | | -20 | 20 | | | |
| WG542661LCSW | LCSW | 05/20/22 10:14 | PCN65838 | 1000 | | 968 | mg/L | 97 | 80 | 120 | | | |
| L73340-08DUP | DUP | 05/20/22 10:43 | | | 270 | 268 | mg/L | | | | 1 | 10 | |

## GCC

ACZ Project ID: ***L73169***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG542701** | | | | | | | | | | | | | |
| WG542701ICV | ICV | 05/24/22 9:08 | MS220502-1 | .05 | | .05091 | mg/L | 102 | 90 | 110 | | | |
| WG542701ICB | ICB | 05/24/22 9:09 | | | | U | mg/L | | -0.00022 | 0.00022 | | | |
| WG542701LFB | LFB | 05/24/22 9:11 | MS220506-2 | .05 | | .05031 | mg/L | 101 | 85 | 115 | | | |
| WG542701CCV1 | CCV | 05/24/22 9:26 | MS220502-5 | .25 | | .25204 | mg/L | 101 | 90 | 110 | | | |
| WG542701CCB1 | CCB | 05/24/22 9:27 | | | | U | mg/L | | -0.0003 | 0.0003 | | | |
| L73154-03AS | AS | 05/24/22 9:42 | MS220506-2 | .05 | U | .04945 | mg/L | 99 | 70 | 130 | | | |
| L73154-03ASD | ASD | 05/24/22 9:44 | MS220506-2 | .05 | U | .04949 | mg/L | 99 | 70 | 130 | 0 | 20 | |
| WG542701CCV2 | CCV | 05/24/22 9:47 | MS220502-5 | .25 | | .24292 | mg/L | 97 | 90 | 110 | | | |
| WG542701CCB2 | CCB | 05/24/22 9:49 | | | | U | mg/L | | -0.0003 | 0.0003 | | | |
| WG542701CCV3 | CCV | 05/24/22 10:03 | MS220502-5 | .25 | | .24236 | mg/L | 97 | 90 | 110 | | | |
| WG542701CCB3 | CCB | 05/24/22 10:05 | | | | .00012 | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG542780** | | | | | | | | | | | | | |
| WG542780ICV | ICV | 05/23/22 16:39 | II220519-3 | 100 | | 99.43 | mg/L | 99 | 95 | 105 | | | |
| WG542780ICB | ICB | 05/23/22 16:45 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| WG542780PQV | PQV | 05/23/22 16:48 | II220429-4 | 1.002 | | 1.04 | mg/L | 104 | 70 | 130 | | | |
| WG542780SIC | SIC | 05/23/22 16:51 | II220503-2 | 1.002 | | 1.09 | mg/L | 109 | 80 | 120 | | | |
| WG542780LFB | LFB | 05/23/22 16:58 | II220505-2 | 100.0282 | | 101.2 | mg/L | 101 | 85 | 115 | | | |
| WG542780CCV1 | CCV | 05/23/22 17:28 | II220520-1 | 50 | | 49.48 | mg/L | 99 | 90 | 110 | | | |
| WG542780CCB1 | CCB | 05/23/22 17:31 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| WG542780CCV2 | CCV | 05/23/22 18:05 | II220520-1 | 50 | | 49.23 | mg/L | 98 | 90 | 110 | | | |
| WG542780CCB2 | CCB | 05/23/22 18:08 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| L73170-02AS | AS | 05/23/22 18:14 | II220505-2 | 100.0282 | 349 | 423.9 | mg/L | 75 | 85 | 115 | | | M3 |
| L73170-02ASD | ASD | 05/23/22 18:18 | II220505-2 | 100.0282 | 349 | 436.9 | mg/L | 88 | 85 | 115 | 3 | 20 | |
| WG542780CCV3 | CCV | 05/23/22 18:27 | II220520-1 | 50 | | 49.25 | mg/L | 99 | 90 | 110 | | | |
| WG542780CCB3 | CCB | 05/23/22 18:30 | | | | U | mg/L | | -0.6 | 0.6 | | | |

**GCC**

ACZ Project ID: ***L73169***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG542600** | | | | | | | | | | | | | |
| WG542600ICB | ICB | 05/19/22 10:02 | | | | U | mg/L | | -3 | 3 | | | |
| WG542600ICV | ICV | 05/19/22 10:02 | WI220517-1 | 20.46 | | 19.4 | mg/L | 95 | 90 | 110 | | | |
| WG542600CCV1 | CCV | 05/19/22 15:00 | WI220517-2 | 24.875 | | 24.3 | mg/L | 98 | 90 | 110 | | | |
| WG542600CCB1 | CCB | 05/19/22 15:00 | | | | U | mg/L | | -3 | 3 | | | |
| WG542600LFB | LFB | 05/19/22 15:00 | WI220415-3 | 9.95 | | 10 | mg/L | 101 | 90 | 110 | | | |
| L73155-01AS | AS | 05/19/22 15:00 | WI220415-3 | 9.95 | 5.1 | 14.6 | mg/L | 95 | 90 | 110 | | | |
| WG542600CCV2 | CCV | 05/19/22 15:01 | WI220517-2 | 24.875 | | 24.3 | mg/L | 98 | 90 | 110 | | | |
| WG542600CCB2 | CCB | 05/19/22 15:01 | | | | U | mg/L | | -3 | 3 | | | |
| WG542600CCV3 | CCV | 05/19/22 15:51 | WI220517-2 | 24.875 | | 24.1 | mg/L | 97 | 90 | 110 | | | |
| WG542600CCB3 | CCB | 05/19/22 15:51 | | | | U | mg/L | | -3 | 3 | | | |
| L73130-02DUP | DUP | 05/19/22 15:51 | | | 291 | 290.9 | mg/L | | | | 0 | 20 | |
| WG542600CCV4 | CCV | 05/19/22 15:54 | WI220517-2 | 24.875 | | 24.1 | mg/L | 97 | 90 | 110 | | | |
| WG542600CCB4 | CCB | 05/19/22 15:54 | | | | U | mg/L | | -3 | 3 | | | |
| WG542600CCV5 | CCV | 05/19/22 15:57 | WI220517-2 | 24.875 | | 24.3 | mg/L | 98 | 90 | 110 | | | |
| WG542600CCB5 | CCB | 05/19/22 15:57 | | | | U | mg/L | | -3 | 3 | | | |
| WG542600CCV6 | CCV | 05/19/22 16:00 | WI220517-2 | 24.875 | | 24.2 | mg/L | 97 | 90 | 110 | | | |
| WG542600CCB6 | CCB | 05/19/22 16:00 | | | | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG542780** | | | | | | | | | | | | | |
| WG542780ICV | ICV | 05/23/22 16:39 | II220519-3 | 2 | | 1.998 | mg/L | 100 | 95 | 105 | | | |
| WG542780ICB | ICB | 05/23/22 16:45 | | | | U | mg/L | | -0.015 | 0.015 | | | |
| WG542780PQV | PQV | 05/23/22 16:48 | II220429-4 | .025025 | | .027 | mg/L | 108 | 70 | 130 | | | |
| WG542780SIC | SIC | 05/23/22 16:51 | II220503-2 | .1001 | | .099 | mg/L | 99 | 80 | 120 | | | |
| WG542780LFB | LFB | 05/23/22 16:58 | II220505-2 | .5005 | | .5183 | mg/L | 104 | 85 | 115 | | | |
| WG542780CCV1 | CCV | 05/23/22 17:28 | II220520-1 | 1 | | .999 | mg/L | 100 | 90 | 110 | | | |
| WG542780CCB1 | CCB | 05/23/22 17:31 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| WG542780CCV2 | CCV | 05/23/22 18:05 | II220520-1 | 1 | | .988 | mg/L | 99 | 90 | 110 | | | |
| WG542780CCB2 | CCB | 05/23/22 18:08 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| L73170-02AS | AS | 05/23/22 18:14 | II220505-2 | .5005 | U | .5097 | mg/L | 102 | 85 | 115 | | | |
| L73170-02ASD | ASD | 05/23/22 18:18 | II220505-2 | .5005 | U | .511 | mg/L | 102 | 85 | 115 | 0 | 20 | |
| WG542780CCV3 | CCV | 05/23/22 18:27 | II220520-1 | 1 | | .985 | mg/L | 99 | 90 | 110 | | | |
| WG542780CCB3 | CCB | 05/23/22 18:30 | | | | U | mg/L | | -0.03 | 0.03 | | | |

**GCC**

ACZ Project ID: ***L73169***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG542780** | | | | | | | | | | | | | |
| WG542780ICV | ICV | 05/23/22 16:39 | II220519-3 | 2 | | 1.925 | mg/L | 96 | 95 | 105 | | | |
| WG542780ICB | ICB | 05/23/22 16:45 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| WG542780PQV | PQV | 05/23/22 16:48 | II220429-4 | .0501 | | .051 | mg/L | 102 | 70 | 130 | | | |
| WG542780SIC | SIC | 05/23/22 16:51 | II220503-2 | .1002 | | .094 | mg/L | 94 | 80 | 120 | | | |
| WG542780LFB | LFB | 05/23/22 16:58 | II220505-2 | .50045 | | .515 | mg/L | 103 | 85 | 115 | | | |
| WG542780CCV1 | CCV | 05/23/22 17:28 | II220520-1 | 1 | | .961 | mg/L | 96 | 90 | 110 | | | |
| WG542780CCB1 | CCB | 05/23/22 17:31 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| WG542780CCV2 | CCV | 05/23/22 18:05 | II220520-1 | 1 | | .949 | mg/L | 95 | 90 | 110 | | | |
| WG542780CCB2 | CCB | 05/23/22 18:08 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| L73170-02AS | AS | 05/23/22 18:14 | II220505-2 | .50045 | U | .504 | mg/L | 101 | 85 | 115 | | | |
| L73170-02ASD | ASD | 05/23/22 18:18 | II220505-2 | .50045 | U | .499 | mg/L | 100 | 85 | 115 | 1 | 20 | |
| WG542780CCV3 | CCV | 05/23/22 18:27 | II220520-1 | 1 | | .929 | mg/L | 93 | 90 | 110 | | | |
| WG542780CCB3 | CCB | 05/23/22 18:30 | | | | U | mg/L | | -0.06 | 0.06 | | | |

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

# Inorganic Extended Qualifier Report

**GCC Rio Grande** ACZ Project ID: ***L73169***

| ACZ ID | WORKNUM | PARAMETER | METHOD | QUAL | DESCRIPTION |
|---|---|---|---|---|---|
| **L73169-01** | WG542552 | Chloride | 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). |
| | WG542174 | 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). |
| | WG542780 | 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. |
| | WG542697 | 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). |
| **L73169-02** | WG542174 | 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). |
| | WG542661 | Residue, Filterable (TDS) @180C | SM2540C | H2 | Initial analysis within holding time. Reanalysis for the required dilution was past holding time. |
| | WG542780 | 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. |
| | WG542697 | 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). |

**GCC Rio Grande** ACZ Project ID: ***L73169***

| ACZ ID | WORKNUM | PARAMETER | METHOD | QUAL | DESCRIPTION |
|---|---|---|---|---|---|
| **L73169-03** | WG542174 | 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). |
| | WG542661 | Residue, Filterable (TDS) @180C | SM2540C | H2 | Initial analysis within holding time. Reanalysis for the required dilution was past holding time. |
| | WG542780 | 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. |
| | WG542697 | 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: ***L73169***

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
105495

ACZ Project ID: L73169
Date Received: 05/12/2022 11:06
Received By:
Date Printed: 5/13/2022

## 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? |
|---|---|---|---|---|
| 6670 | -1.4 | <=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
105495

ACZ Project ID: L73169
Date Received: 05/12/2022 11:06
Received By:
Date Printed: 5/13/2022

[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 | Accredited Environmental Testing | 2773 Downhill Drive, Steamboat Springs, CO 80487, (970) 879-6590 | L73169

# CHAIN of CUSTODY

**Report to:**

| | |
|---|---|
| Name: Amy Veek | Address: 3372 Lime Road |
| Company: GCC Rio Grande Inc | Pueblo CO 81004 |
| E-mail: aveek@gcc.com | Telephone: 719-647-6861 |

**Copy of Report to:**

| | |
|---|---|
| Name: Landon Beck | E-mail: lbeck@resourcehydrogeologic.com |
| Company: Resource Hydrogeologic | Telephone: (970) 459-4865 |

**Invoice to:**

| | |
|---|---|
| Name: Amy Veek | Address: 3372 Lime Road |
| Company: GCC Rio Grande Inc | Pueblo CO 81004 |
| E-mail: aveek@gcc.com | Telephone: 719-647-6861 |

**Copy of Invoice to:**

| | |
|---|---|
| Name: | Address: |
| Company: | |
| E-mail: | Telephone: |

**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:** Amy Veek **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

PO#: 105495

Reporting state for compliance testing:

Check box if samples include NRC licensed material?

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

| SAMPLE IDENTIFICATION | DATE:TIME | Matrix | # of Containers | GW-COmpliance |
|---|---|---|---|---|
| MW-13 | 5/10/2022 11:37 | GW | 3 | ✓ |
| MW-2B | 5/10/2022 12:00 | GW | 3 | ✓ |
| MW-7 | 5/10/2022 12:38 | 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] | 5/10/22 16:33 | [signature] | 5/12/22 11:06 |
| | | | |
| | | | |

Qualtrax ID: 1984 Revision #: 2 White - Return with sample. Yellow - Retain for your records.

L73169 Chain of Custod

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

# Revised Analytical Report

June 09, 2022

Report to:
Amy Veek
GCC Rio Grande
3372 Lime Road
Pueblo, CO 81004

Bill to:
Amy Veek
GCC Rio Grande
3372 Lime Road
Pueblo, CO 81004

cc: Landon Beck

Project ID: 105495
ACZ Project ID: L73303

Amy Veek:

Enclosed are revised analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on May 18, 2022 and originally reported on June 07, 2022. Refer to the case narrative for an explanation of the changes. This project was assigned to ACZ's project number, L73303. 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 L73303. 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 07, 2023. If the samples are determined to be hazardous, additional charges apply for disposal (typically less than $10/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 reports for five 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: 105495
Sample ID: MW-14

ACZ Sample ID: ***L73303-01***
Date Sampled: *05/17/22 09:32*
Date Received: *05/18/22*
Sample Matrix: *Groundwater*

Metals Analysis

| Parameter | EPA Method | Dilution | Result | Qual | XQ | Units | MDL | PQL | Date | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum, dissolved | M200.7 ICP | 2 | <0.1 | U | | mg/L | 0.1 | 0.5 | 06/03/22 22:27 | wtc |
| Arsenic, dissolved | M200.8 ICP-MS | 1 | 0.00382 | | | mg/L | 0.0002 | 0.001 | 05/26/22 18:30 | kja |
| Beryllium, dissolved | M200.7 ICP | 2 | <0.02 | U | | mg/L | 0.02 | 0.1 | 06/03/22 22:27 | wtc |
| Boron, dissolved | M200.7 ICP | 2 | 1.26 | | * | mg/L | 0.06 | 0.2 | 06/03/22 22:27 | wtc |
| Cadmium, dissolved | M200.8 ICP-MS | 1 | 0.000066 | B | | mg/L | 0.00005 | 0.00025 | 05/26/22 18:30 | kja |
| Calcium, dissolved | M200.7 ICP | 2 | 15.9 | | | mg/L | 0.2 | 1 | 06/03/22 22:27 | wtc |
| Chromium, dissolved | M200.7 ICP | 2 | <0.04 | U | | mg/L | 0.04 | 0.1 | 06/03/22 22:27 | wtc |
| Cobalt, dissolved | M200.7 ICP | 2 | <0.04 | U | | mg/L | 0.04 | 0.1 | 06/03/22 22:27 | wtc |
| Copper, dissolved | M200.7 ICP | 2 | <0.02 | U | | mg/L | 0.02 | 0.1 | 06/03/22 22:27 | wtc |
| Iron, dissolved | M200.7 ICP | 2 | <0.12 | U | * | mg/L | 0.12 | 0.3 | 06/03/22 22:27 | wtc |
| Lead, dissolved | M200.8 ICP-MS | 1 | <0.0001 | U | | mg/L | 0.0001 | 0.0005 | 05/26/22 18:30 | kja |
| Lithium, dissolved | M200.7 ICP | 2 | 0.404 | | | mg/L | 0.016 | 0.08 | 06/03/22 22:27 | wtc |
| Magnesium, dissolved | M200.7 ICP | 2 | 4.75 | | | mg/L | 0.4 | 2 | 06/03/22 22:27 | wtc |
| Manganese, dissolved | M200.7 ICP | 2 | <0.02 | U | | mg/L | 0.02 | 0.1 | 06/03/22 22:27 | wtc |
| Mercury, dissolved | M245.1 CVAA | 1 | <0.0002 | U | | mg/L | 0.0002 | 0.001 | 05/23/22 14:50 | mlh |
| Nickel, dissolved | M200.7 ICP | 2 | <0.016 | U | | mg/L | 0.016 | 0.08 | 06/06/22 19:45 | aeh |
| Potassium, dissolved | M200.7 ICP | 2 | 4.62 | | | mg/L | 0.4 | 2 | 06/06/22 19:45 | aeh |
| Selenium, dissolved | M200.8 ICP-MS | 1 | 0.00124 | | | mg/L | 0.0001 | 0.00025 | 05/26/22 18:30 | kja |
| Sodium, dissolved | M200.7 ICP | 2 | 1390 | | * | mg/L | 0.4 | 2 | 06/03/22 22:27 | wtc |
| Vanadium, dissolved | M200.7 ICP | 2 | <0.02 | U | | mg/L | 0.02 | 0.05 | 06/03/22 22:27 | wtc |
| Zinc, dissolved | M200.7 ICP | 2 | <0.04 | U | * | mg/L | 0.04 | 0.1 | 06/03/22 22:27 | wtc |

Wet Chemistry

| Parameter | EPA Method | Dilution | Result | Qual | XQ | Units | MDL | PQL | Date | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Alkalinity as CaCO3 | SM2320B - Titration | | | | | | | | | |
| Bicarbonate as CaCO3 | | 1 | 1300 | | | mg/L | 2 | 20 | 05/27/22 0:00 | emk |
| Carbonate as CaCO3 | | 1 | 27.4 | | | mg/L | 2 | 20 | 05/27/22 0:00 | emk |
| Hydroxide as CaCO3 | | 1 | <2 | U | | mg/L | 2 | 20 | 05/27/22 0:00 | emk |
| Total Alkalinity | | 1 | 1320 | | | mg/L | 2 | 20 | 05/27/22 0:00 | emk |
| Chloride | SM4500Cl-E | 25 | 1410 | | | mg/L | 12.5 | 50 | 05/24/22 12:58 | mjj1 |
| Fluoride | SM4500F-C | 1 | 3.10 | | | mg/L | 0.15 | 0.35 | 06/02/22 12:38 | emk |
| Nitrate as N, dissolved | Calculation: NO3NO2 minus NO2 | | 0.020 | B | | mg/L | 0.02 | 0.1 | 06/09/22 0:00 | calc |
| Nitrate/Nitrite as N, dissolved | M353.2 - Automated Cadmium Reduction | 1 | 0.020 | B | | mg/L | 0.02 | 0.1 | 05/18/22 23:01 | pjb |
| Nitrite as N, dissolved | M353.2 - Automated Cadmium Reduction | 1 | <0.01 | U | * | mg/L | 0.01 | 0.05 | 05/18/22 22:41 | pjb |
| Residue, Filterable (TDS) @180C | SM2540C | 2 | 3610 | | * | mg/L | 40 | 80 | 05/23/22 13:59 | anc |
| Sulfate | D516-02/-07/-11 - TURBIDIMETRIC | 5 | 143 | | * | mg/L | 5 | 25 | 05/24/22 9:43 | bls |

**GCC Rio Grande**
Project ID: 105495
Sample ID: MW-10

ACZ Sample ID: ***L73303-02***
Date Sampled: *05/17/22 10:18*
Date Received: *05/18/22*
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 | 06/03/22 22:30 | wtc |
| Arsenic, dissolved | M200.8 ICP-MS | 1 | 0.00321 | | | mg/L | 0.0002 | 0.001 | 05/26/22 18:36 | kja |
| Beryllium, dissolved | M200.7 ICP | 5 | <0.05 | U | | mg/L | 0.05 | 0.25 | 06/03/22 22:30 | wtc |
| Boron, dissolved | M200.7 ICP | 5 | 1.59 | | * | mg/L | 0.15 | 0.5 | 06/03/22 22:30 | wtc |
| Cadmium, dissolved | M200.8 ICP-MS | 1 | <0.00005 | U | | mg/L | 0.00005 | 0.00025 | 05/26/22 18:36 | kja |
| Calcium, dissolved | M200.7 ICP | 5 | 82.6 | | | mg/L | 0.5 | 2.5 | 06/03/22 22:30 | wtc |
| Chromium, dissolved | M200.7 ICP | 5 | <0.1 | U | | mg/L | 0.1 | 0.25 | 06/03/22 22:30 | wtc |
| Cobalt, dissolved | M200.8 ICP-MS | 1 | 0.00102 | | | mg/L | 0.00005 | 0.00025 | 05/26/22 18:36 | kja |
| Cobalt, dissolved | M200.7 ICP | 5 | <0.1 | U | | mg/L | 0.1 | 0.25 | 06/03/22 22:30 | wtc |
| Copper, dissolved | M200.7 ICP | 5 | <0.05 | U | | mg/L | 0.05 | 0.25 | 06/03/22 22:30 | wtc |
| Iron, dissolved | M200.7 ICP | 5 | 0.508 | B | * | mg/L | 0.3 | 0.75 | 06/03/22 22:30 | wtc |
| Lead, dissolved | M200.8 ICP-MS | 1 | <0.0001 | U | | mg/L | 0.0001 | 0.0005 | 05/26/22 18:36 | kja |
| Lithium, dissolved | M200.7 ICP | 5 | 0.337 | | | mg/L | 0.04 | 0.2 | 06/03/22 22:30 | wtc |
| Magnesium, dissolved | M200.7 ICP | 5 | 24.2 | | | mg/L | 1 | 5 | 06/03/22 22:30 | wtc |
| Manganese, dissolved | M200.7 ICP | 5 | 0.072 | B | | mg/L | 0.05 | 0.25 | 06/03/22 22:30 | wtc |
| Mercury, dissolved | M245.1 CVAA | 1 | <0.0002 | U | | mg/L | 0.0002 | 0.001 | 05/23/22 14:51 | mlh |
| Nickel, dissolved | M200.7 ICP | 5 | <0.04 | U | | mg/L | 0.04 | 0.2 | 06/06/22 19:49 | aeh |
| Potassium, dissolved | M200.7 ICP | 5 | 6.87 | | | mg/L | 1 | 5 | 06/06/22 19:49 | aeh |
| Selenium, dissolved | M200.8 ICP-MS | 1 | 0.00037 | | | mg/L | 0.0001 | 0.00025 | 05/26/22 18:36 | kja |
| Sodium, dissolved | M200.7 ICP | 5 | 1400 | | * | mg/L | 1 | 5 | 06/03/22 22:30 | wtc |
| Vanadium, dissolved | M200.7 ICP | 5 | <0.05 | U | | mg/L | 0.05 | 0.125 | 06/03/22 22:30 | wtc |
| Zinc, dissolved | M200.7 ICP | 5 | <0.1 | U | * | mg/L | 0.1 | 0.25 | 06/03/22 22:30 | wtc |

Wet Chemistry

| Parameter | EPA Method | Dilution | Result | Qual | XQ | Units | MDL | PQL | Date | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Alkalinity as CaCO3 | SM2320B - Titration | | | | | | | | | |
| Bicarbonate as CaCO3 | | 1 | 627 | | | mg/L | 2 | 20 | 05/27/22 0:00 | emk |
| Carbonate as CaCO3 | | 1 | <2 | U | | mg/L | 2 | 20 | 05/27/22 0:00 | emk |
| Hydroxide as CaCO3 | | 1 | <2 | U | | mg/L | 2 | 20 | 05/27/22 0:00 | emk |
| Total Alkalinity | | 1 | 627 | | | mg/L | 2 | 20 | 05/27/22 0:00 | emk |
| Chloride | SM4500Cl-E | 5 | 358 | | | mg/L | 2.5 | 10 | 05/24/22 12:59 | mjj1 |
| Fluoride | SM4500F-C | 1 | 1.08 | | | mg/L | 0.15 | 0.35 | 06/02/22 12:43 | emk |
| Nitrate as N, dissolved | Calculation: NO3NO2 minus NO2 | | <0.02 | U | | mg/L | 0.02 | 0.1 | 06/09/22 0:00 | calc |
| Nitrate/Nitrite as N, dissolved | M353.2 - Automated Cadmium Reduction | 1 | <0.02 | U | | mg/L | 0.02 | 0.1 | 05/18/22 22:42 | pjb |
| Nitrite as N, dissolved | M353.2 - Automated Cadmium Reduction | 1 | <0.01 | U | * | mg/L | 0.01 | 0.05 | 05/18/22 22:42 | pjb |
| Residue, Filterable (TDS) @180C | SM2540C | 2 | 4170 | | * | mg/L | 40 | 80 | 05/23/22 14:02 | anc |
| Sulfate | D516-02/-07/-11 - TURBIDIMETRIC | 120 | 1990 | | * | mg/L | 120 | 600 | 05/24/22 9:45 | bls |

**GCC Rio Grande**
Project ID: 105495
Sample ID: MW-9

ACZ Sample ID: ***L73303-03***
Date Sampled: *05/17/22 10:32*
Date Received: *05/18/22*
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 | 06/03/22 22:33 | wtc |
| Arsenic, dissolved | M200.8 ICP-MS | 1 | <0.0002 | U | | mg/L | 0.0002 | 0.001 | 05/26/22 18:42 | kja |
| Beryllium, dissolved | M200.7 ICP | 5 | <0.05 | U | | mg/L | 0.05 | 0.25 | 06/03/22 22:33 | wtc |
| Boron, dissolved | M200.7 ICP | 5 | 1.19 | | * | mg/L | 0.15 | 0.5 | 06/03/22 22:33 | wtc |
| Cadmium, dissolved | M200.8 ICP-MS | 1 | <0.00005 | U | | mg/L | 0.00005 | 0.00025 | 05/26/22 18:42 | kja |
| Calcium, dissolved | M200.7 ICP | 5 | 478 | | | mg/L | 0.5 | 2.5 | 06/03/22 22:33 | wtc |
| Chromium, dissolved | M200.7 ICP | 5 | <0.1 | U | | mg/L | 0.1 | 0.25 | 06/03/22 22:33 | wtc |
| Cobalt, dissolved | M200.8 ICP-MS | 1 | 0.00929 | | | mg/L | 0.00005 | 0.00025 | 05/26/22 18:42 | kja |
| Cobalt, dissolved | M200.7 ICP | 5 | <0.1 | U | | mg/L | 0.1 | 0.25 | 06/03/22 22:33 | wtc |
| Copper, dissolved | M200.7 ICP | 5 | <0.05 | U | | mg/L | 0.05 | 0.25 | 06/03/22 22:33 | wtc |
| Iron, dissolved | M200.7 ICP | 5 | <0.3 | U | * | mg/L | 0.3 | 0.75 | 06/03/22 22:33 | wtc |
| Lead, dissolved | M200.8 ICP-MS | 1 | <0.0001 | U | | mg/L | 0.0001 | 0.0005 | 05/26/22 18:42 | kja |
| Lithium, dissolved | M200.7 ICP | 5 | 0.356 | | | mg/L | 0.04 | 0.2 | 06/03/22 22:33 | wtc |
| Magnesium, dissolved | M200.7 ICP | 5 | 216 | | | mg/L | 1 | 5 | 06/03/22 22:33 | wtc |
| Manganese, dissolved | M200.7 ICP | 5 | 0.761 | | | mg/L | 0.05 | 0.25 | 06/03/22 22:33 | wtc |
| Mercury, dissolved | M245.1 CVAA | 1 | <0.0002 | U | | mg/L | 0.0002 | 0.001 | 05/23/22 14:52 | mlh |
| Nickel, dissolved | M200.7 ICP | 5 | <0.04 | U | | mg/L | 0.04 | 0.2 | 06/06/22 19:52 | aeh |
| Potassium, dissolved | M200.7 ICP | 5 | 9.26 | | | mg/L | 1 | 5 | 06/06/22 19:52 | aeh |
| Selenium, dissolved | M200.8 ICP-MS | 1 | 0.00030 | | | mg/L | 0.0001 | 0.00025 | 05/27/22 14:52 | kja |
| Sodium, dissolved | M200.7 ICP | 5 | 694 | | * | mg/L | 1 | 5 | 06/03/22 22:33 | wtc |
| Vanadium, dissolved | M200.7 ICP | 5 | <0.05 | U | | mg/L | 0.05 | 0.125 | 06/03/22 22:33 | wtc |
| Zinc, dissolved | M200.7 ICP | 5 | <0.1 | U | * | mg/L | 0.1 | 0.25 | 06/03/22 22:33 | wtc |

Wet Chemistry

| Parameter | EPA Method | Dilution | Result | Qual | XQ | Units | MDL | PQL | Date | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Alkalinity as CaCO3 | SM2320B - Titration | | | | | | | | | |
| Bicarbonate as CaCO3 | | 1 | 232 | | | mg/L | 2 | 20 | 05/27/22 0:00 | emk |
| Carbonate as CaCO3 | | 1 | <2 | U | | mg/L | 2 | 20 | 05/27/22 0:00 | emk |
| Hydroxide as CaCO3 | | 1 | <2 | U | | mg/L | 2 | 20 | 05/27/22 0:00 | emk |
| Total Alkalinity | | 1 | 232 | | | mg/L | 2 | 20 | 05/27/22 0:00 | emk |
| Chloride | SM4500Cl-E | 1 | 44.4 | | | mg/L | 0.5 | 2 | 05/24/22 11:53 | mjj1 |
| Fluoride | SM4500F-C | 1 | 0.44 | | | mg/L | 0.15 | 0.35 | 06/02/22 12:59 | emk |
| Nitrate as N, dissolved | Calculation: NO3NO2 minus NO2 | | 0.890 | | | mg/L | 0.02 | 0.1 | 06/09/22 0:00 | calc |
| Nitrate/Nitrite as N, dissolved | M353.2 - Automated Cadmium Reduction | 1 | 1.33 | | | mg/L | 0.02 | 0.1 | 05/18/22 22:43 | pjb |
| Nitrite as N, dissolved | M353.2 - Automated Cadmium Reduction | 1 | 0.440 | | | mg/L | 0.01 | 0.05 | 05/18/22 22:43 | pjb |
| Residue, Filterable (TDS) @180C | SM2540C | 5 | 4390 | H | * | mg/L | 100 | 200 | 05/28/22 12:42 | eep |
| Sulfate | D516-02/-07/-11 - TURBIDIMETRIC | 120 | 2980 | | * | mg/L | 120 | 600 | 05/24/22 9:47 | bls |

**GCC Rio Grande**
Project ID: 105495
Sample ID: MW-12

ACZ Sample ID: ***L73303-04***
Date Sampled: *05/17/22 11:01*
Date Received: *05/18/22*
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 | 06/03/22 22:36 | wtc |
| Arsenic, dissolved | M200.8 ICP-MS | 1 | 0.00233 | | | mg/L | 0.0002 | 0.001 | 05/26/22 18:43 | kja |
| Beryllium, dissolved | M200.7 ICP | 1 | <0.01 | U | | mg/L | 0.01 | 0.05 | 06/03/22 22:36 | wtc |
| Boron, dissolved | M200.7 ICP | 1 | 0.795 | | * | mg/L | 0.03 | 0.1 | 06/03/22 22:36 | wtc |
| Cadmium, dissolved | M200.8 ICP-MS | 1 | <0.00005 | U | | mg/L | 0.00005 | 0.00025 | 05/26/22 18:43 | kja |
| Calcium, dissolved | M200.7 ICP | 1 | 14.2 | | | mg/L | 0.1 | 0.5 | 06/03/22 22:36 | wtc |
| Chromium, dissolved | M200.7 ICP | 1 | <0.02 | U | | mg/L | 0.02 | 0.05 | 06/03/22 22:36 | wtc |
| Cobalt, dissolved | M200.7 ICP | 1 | <0.02 | U | | mg/L | 0.02 | 0.05 | 06/03/22 22:36 | wtc |
| Copper, dissolved | M200.7 ICP | 1 | <0.01 | U | | mg/L | 0.01 | 0.05 | 06/03/22 22:36 | wtc |
| Iron, dissolved | M200.7 ICP | 1 | <0.06 | U | * | mg/L | 0.06 | 0.15 | 06/03/22 22:36 | wtc |
| Lead, dissolved | M200.8 ICP-MS | 1 | <0.0001 | U | | mg/L | 0.0001 | 0.0005 | 05/26/22 18:43 | kja |
| Lithium, dissolved | M200.7 ICP | 1 | 0.174 | | | mg/L | 0.008 | 0.04 | 06/03/22 22:36 | wtc |
| Magnesium, dissolved | M200.7 ICP | 1 | 4.55 | | | mg/L | 0.2 | 1 | 06/03/22 22:36 | wtc |
| Manganese, dissolved | M200.7 ICP | 1 | 0.030 | B | | mg/L | 0.01 | 0.05 | 06/03/22 22:36 | wtc |
| Mercury, dissolved | M245.1 CVAA | 1 | <0.0002 | U | | mg/L | 0.0002 | 0.001 | 05/23/22 14:52 | mlh |
| Nickel, dissolved | M200.7 ICP | 1 | <0.008 | U | | mg/L | 0.008 | 0.04 | 06/06/22 19:55 | aeh |
| Potassium, dissolved | M200.7 ICP | 1 | 2.86 | | | mg/L | 0.2 | 1 | 06/06/22 19:55 | aeh |
| Selenium, dissolved | M200.8 ICP-MS | 1 | 0.00074 | | | mg/L | 0.0001 | 0.00025 | 05/27/22 14:58 | kja |
| Sodium, dissolved | M200.7 ICP | 1 | 707 | | * | mg/L | 0.2 | 1 | 06/03/22 22:36 | wtc |
| Vanadium, dissolved | M200.7 ICP | 1 | <0.01 | U | | mg/L | 0.01 | 0.025 | 06/03/22 22:36 | wtc |
| Zinc, dissolved | M200.7 ICP | 1 | <0.02 | U | * | mg/L | 0.02 | 0.05 | 06/03/22 22:36 | wtc |

Wet Chemistry

| Parameter | EPA Method | Dilution | Result | Qual | XQ | Units | MDL | PQL | Date | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Alkalinity as CaCO3 | SM2320B - Titration | | | | | | | | | |
| Bicarbonate as CaCO3 | | 1 | 448 | | | mg/L | 2 | 20 | 05/27/22 0:00 | emk |
| Carbonate as CaCO3 | | 1 | 23.6 | | | mg/L | 2 | 20 | 05/27/22 0:00 | emk |
| Hydroxide as CaCO3 | | 1 | <2 | U | | mg/L | 2 | 20 | 05/27/22 0:00 | emk |
| Total Alkalinity | | 1 | 472 | | | mg/L | 2 | 20 | 05/27/22 0:00 | emk |
| Chloride | SM4500Cl-E | 25 | 793 | | | mg/L | 12.5 | 50 | 05/24/22 12:59 | mjj1 |
| Fluoride | SM4500F-C | 1 | 2.21 | | | mg/L | 0.15 | 0.35 | 06/02/22 13:03 | emk |
| Nitrate as N, dissolved | Calculation: NO3NO2 minus NO2 | | 0.323 | | | mg/L | 0.02 | 0.1 | 06/09/22 0:00 | calc |
| Nitrate/Nitrite as N, dissolved | M353.2 - Automated Cadmium Reduction | 1 | 1.28 | | | mg/L | 0.02 | 0.1 | 05/18/22 22:46 | pjb |
| Nitrite as N, dissolved | M353.2 - Automated Cadmium Reduction | 1 | 0.957 | | | mg/L | 0.01 | 0.05 | 05/18/22 22:46 | pjb |
| Residue, Filterable (TDS) @180C | SM2540C | 1 | 1810 | | * | mg/L | 20 | 40 | 05/23/22 14:10 | anc |
| Sulfate | D516-02/-07/-11 - TURBIDIMETRIC | 5 | 88.3 | | * | mg/L | 5 | 25 | 05/24/22 9:43 | bls |

**GCC Rio Grande**
Project ID: 105495
Sample ID: MW-11

ACZ Sample ID: ***L73303-05***
Date Sampled: *05/17/22 11:12*
Date Received: *05/18/22*
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 | 06/03/22 22:51 | wtc |
| Arsenic, dissolved | M200.8 ICP-MS | 1 | 0.00078 | B | | mg/L | 0.0002 | 0.001 | 05/26/22 18:45 | kja |
| Beryllium, dissolved | M200.7 ICP | 1 | <0.01 | U | | mg/L | 0.01 | 0.05 | 06/03/22 22:51 | wtc |
| Boron, dissolved | M200.7 ICP | 1 | 0.489 | | * | mg/L | 0.03 | 0.1 | 06/03/22 22:51 | wtc |
| Cadmium, dissolved | M200.8 ICP-MS | 1 | <0.00005 | U | | mg/L | 0.00005 | 0.00025 | 05/26/22 18:45 | kja |
| Calcium, dissolved | M200.7 ICP | 1 | 52.4 | | | mg/L | 0.1 | 0.5 | 06/03/22 22:51 | wtc |
| Chromium, dissolved | M200.7 ICP | 1 | <0.02 | U | | mg/L | 0.02 | 0.05 | 06/03/22 22:51 | wtc |
| Cobalt, dissolved | M200.7 ICP | 1 | <0.02 | U | | mg/L | 0.02 | 0.05 | 06/03/22 22:51 | wtc |
| Copper, dissolved | M200.7 ICP | 1 | <0.01 | U | | mg/L | 0.01 | 0.05 | 06/03/22 22:51 | wtc |
| Iron, dissolved | M200.7 ICP | 1 | <0.06 | U | * | mg/L | 0.06 | 0.15 | 06/03/22 22:51 | wtc |
| Lead, dissolved | M200.8 ICP-MS | 1 | <0.0001 | U | | mg/L | 0.0001 | 0.0005 | 05/26/22 18:45 | kja |
| Lithium, dissolved | M200.7 ICP | 1 | 0.175 | | | mg/L | 0.008 | 0.04 | 06/03/22 22:51 | wtc |
| Magnesium, dissolved | M200.7 ICP | 1 | 28.9 | | | mg/L | 0.2 | 1 | 06/03/22 22:51 | wtc |
| Manganese, dissolved | M200.7 ICP | 1 | 0.022 | B | | mg/L | 0.01 | 0.05 | 06/03/22 22:51 | wtc |
| Mercury, dissolved | M245.1 CVAA | 1 | <0.0002 | U | | mg/L | 0.0002 | 0.001 | 05/23/22 14:53 | mlh |
| Nickel, dissolved | M200.7 ICP | 1 | <0.008 | U | | mg/L | 0.008 | 0.04 | 06/06/22 19:59 | aeh |
| Potassium, dissolved | M200.7 ICP | 1 | 3.41 | | | mg/L | 0.2 | 1 | 06/06/22 19:59 | aeh |
| Selenium, dissolved | M200.8 ICP-MS | 1 | 0.132 | | * | mg/L | 0.0001 | 0.00025 | 05/26/22 18:45 | kja |
| Sodium, dissolved | M200.7 ICP | 1 | 513 | | * | mg/L | 0.2 | 1 | 06/03/22 22:51 | wtc |
| Vanadium, dissolved | M200.7 ICP | 1 | <0.01 | U | | mg/L | 0.01 | 0.025 | 06/03/22 22:51 | wtc |
| Zinc, dissolved | M200.7 ICP | 1 | <0.02 | U | * | mg/L | 0.02 | 0.05 | 06/03/22 22:51 | wtc |

Wet Chemistry

| Parameter | EPA Method | Dilution | Result | Qual | XQ | Units | MDL | PQL | Date | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Alkalinity as CaCO3 | SM2320B - Titration | | | | | | | | | |
| Bicarbonate as CaCO3 | | 1 | 821 | | | mg/L | 2 | 20 | 05/27/22 0:00 | emk |
| Carbonate as CaCO3 | | 1 | 20.4 | | | mg/L | 2 | 20 | 05/27/22 0:00 | emk |
| Hydroxide as CaCO3 | | 1 | <2 | U | | mg/L | 2 | 20 | 05/27/22 0:00 | emk |
| Total Alkalinity | | 1 | 842 | | | mg/L | 2 | 20 | 05/27/22 0:00 | emk |
| Chloride | SM4500Cl-E | 5 | 136 | | | mg/L | 2.5 | 10 | 05/24/22 13:00 | mjj1 |
| Fluoride | SM4500F-C | 1 | 0.91 | | | mg/L | 0.15 | 0.35 | 06/02/22 13:08 | emk |
| Nitrate as N, dissolved | Calculation: NO3NO2 minus NO2 | | <0.02 | U | | mg/L | 0.02 | 0.1 | 06/09/22 0:00 | calc |
| Nitrate/Nitrite as N, dissolved | M353.2 - Automated Cadmium Reduction | 1 | 0.030 | B | | mg/L | 0.02 | 0.1 | 05/18/22 22:48 | pjb |
| Nitrite as N, dissolved | M353.2 - Automated Cadmium Reduction | 1 | 0.033 | B | | mg/L | 0.01 | 0.05 | 05/18/22 22:48 | pjb |
| Residue, Filterable (TDS) @180C | SM2540C | 1 | 1580 | | * | mg/L | 20 | 40 | 05/23/22 14:12 | anc |
| Sulfate | D516-02/-07/-11 - TURBIDIMETRIC | 25 | 330 | | * | mg/L | 25 | 125 | 05/24/22 9:47 | bls |

**GCC Rio Grande**
Project ID: 105495
Sample ID: MW-6

ACZ Sample ID: ***L73303-06***
Date Sampled: *05/17/22 11:33*
Date Received: *05/18/22*
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 | 06/03/22 22:54 | wtc |
| Arsenic, dissolved | M200.8 ICP-MS | 1 | <0.0002 | U | | mg/L | 0.0002 | 0.001 | 05/26/22 18:47 | kja |
| Beryllium, dissolved | M200.7 ICP | 5 | <0.05 | U | | mg/L | 0.05 | 0.25 | 06/03/22 22:54 | wtc |
| Boron, dissolved | M200.7 ICP | 5 | 0.315 | B | * | mg/L | 0.15 | 0.5 | 06/03/22 22:54 | wtc |
| Cadmium, dissolved | M200.8 ICP-MS | 1 | <0.00005 | U | | mg/L | 0.00005 | 0.00025 | 05/26/22 18:47 | kja |
| Calcium, dissolved | M200.7 ICP | 5 | 440 | | | mg/L | 0.5 | 2.5 | 06/03/22 22:54 | wtc |
| Chromium, dissolved | M200.7 ICP | 5 | <0.1 | U | | mg/L | 0.1 | 0.25 | 06/03/22 22:54 | wtc |
| Cobalt, dissolved | M200.8 ICP-MS | 1 | 0.0124 | | | mg/L | 0.00005 | 0.00025 | 05/26/22 18:47 | kja |
| Cobalt, dissolved | M200.7 ICP | 5 | <0.1 | U | | mg/L | 0.1 | 0.25 | 06/03/22 22:54 | wtc |
| Copper, dissolved | M200.7 ICP | 5 | <0.05 | U | | mg/L | 0.05 | 0.25 | 06/03/22 22:54 | wtc |
| Iron, dissolved | M200.7 ICP | 5 | <0.3 | U | * | mg/L | 0.3 | 0.75 | 06/03/22 22:54 | wtc |
| Lead, dissolved | M200.8 ICP-MS | 1 | <0.0001 | U | | mg/L | 0.0001 | 0.0005 | 05/26/22 18:47 | kja |
| Lithium, dissolved | M200.7 ICP | 5 | 0.464 | | | mg/L | 0.04 | 0.2 | 06/03/22 22:54 | wtc |
| Magnesium, dissolved | M200.7 ICP | 5 | 422 | | | mg/L | 1 | 5 | 06/03/22 22:54 | wtc |
| Manganese, dissolved | M200.7 ICP | 5 | 0.200 | B | | mg/L | 0.05 | 0.25 | 06/03/22 22:54 | wtc |
| Mercury, dissolved | M245.1 CVAA | 1 | <0.0002 | U | | mg/L | 0.0002 | 0.001 | 05/23/22 14:54 | mlh |
| Nickel, dissolved | M200.7 ICP | 5 | 0.121 | B | | mg/L | 0.04 | 0.2 | 06/06/22 20:09 | aeh |
| Potassium, dissolved | M200.7 ICP | 5 | 10.9 | | | mg/L | 1 | 5 | 06/06/22 20:09 | aeh |
| Selenium, dissolved | M200.8 ICP-MS | 1 | 0.0538 | | * | mg/L | 0.0001 | 0.00025 | 05/26/22 18:47 | kja |
| Sodium, dissolved | M200.7 ICP | 5 | 522 | | * | mg/L | 1 | 5 | 06/03/22 22:54 | wtc |
| Vanadium, dissolved | M200.7 ICP | 5 | <0.05 | U | | mg/L | 0.05 | 0.125 | 06/03/22 22:54 | wtc |
| Zinc, dissolved | M200.7 ICP | 5 | <0.1 | U | * | mg/L | 0.1 | 0.25 | 06/03/22 22:54 | wtc |

Wet Chemistry

| Parameter | EPA Method | Dilution | Result | Qual | XQ | Units | MDL | PQL | Date | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Alkalinity as CaCO3 | SM2320B - Titration | | | | | | | | | |
| Bicarbonate as CaCO3 | | 1 | 461 | | | mg/L | 2 | 20 | 05/27/22 0:00 | emk |
| Carbonate as CaCO3 | | 1 | <2 | U | | mg/L | 2 | 20 | 05/27/22 0:00 | emk |
| Hydroxide as CaCO3 | | 1 | <2 | U | | mg/L | 2 | 20 | 05/27/22 0:00 | emk |
| Total Alkalinity | | 1 | 461 | | | mg/L | 2 | 20 | 05/27/22 0:00 | emk |
| Chloride | SM4500Cl-E | 1 | 89.1 | | | mg/L | 0.5 | 2 | 05/24/22 11:55 | mjj1 |
| Fluoride | SM4500F-C | 1 | 0.57 | | | mg/L | 0.15 | 0.35 | 06/02/22 13:13 | emk |
| Nitrate as N, dissolved | Calculation: NO3NO2 minus NO2 | | 3.24 | | | mg/L | 0.02 | 0.1 | 06/09/22 0:00 | calc |
| Nitrate/Nitrite as N, dissolved | M353.2 - Automated Cadmium Reduction | 1 | 3.25 | | | mg/L | 0.02 | 0.1 | 05/18/22 22:54 | pjb |
| Nitrite as N, dissolved | M353.2 - Automated Cadmium Reduction | 1 | 0.015 | B | | mg/L | 0.01 | 0.05 | 05/18/22 22:54 | pjb |
| Residue, Filterable (TDS) @180C | SM2540C | 2 | 5190 | | * | mg/L | 40 | 80 | 05/23/22 14:15 | anc |
| Sulfate | D516-02/-07/-11 - TURBIDIMETRIC | 120 | 3140 | | * | mg/L | 120 | 600 | 05/24/22 9:47 | bls |

**GCC Rio Grande**
Project ID: 105495
Sample ID: MW-8

ACZ Sample ID: ***L73303-07***
Date Sampled: *05/17/22 11:50*
Date Received: *05/18/22*
Sample Matrix: *Groundwater*

Metals Analysis

| Parameter | EPA Method | Dilution | Result | Qual | XQ | Units | MDL | PQL | Date | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum, dissolved | M200.7 ICP | 2 | <0.1 | U | | mg/L | 0.1 | 0.5 | 06/03/22 22:57 | wtc |
| Arsenic, dissolved | M200.8 ICP-MS | 1 | 0.00427 | | | mg/L | 0.0002 | 0.001 | 05/26/22 18:53 | kja |
| Beryllium, dissolved | M200.7 ICP | 2 | <0.02 | U | | mg/L | 0.02 | 0.1 | 06/03/22 22:57 | wtc |
| Boron, dissolved | M200.7 ICP | 2 | 0.882 | | * | mg/L | 0.06 | 0.2 | 06/03/22 22:57 | wtc |
| Cadmium, dissolved | M200.8 ICP-MS | 1 | <0.00005 | U | | mg/L | 0.00005 | 0.00025 | 05/26/22 18:53 | kja |
| Calcium, dissolved | M200.7 ICP | 2 | 77.1 | | | mg/L | 0.2 | 1 | 06/03/22 22:57 | wtc |
| Chromium, dissolved | M200.7 ICP | 2 | <0.04 | U | | mg/L | 0.04 | 0.1 | 06/03/22 22:57 | wtc |
| Cobalt, dissolved | M200.7 ICP | 2 | <0.04 | U | | mg/L | 0.04 | 0.1 | 06/03/22 22:57 | wtc |
| Copper, dissolved | M200.7 ICP | 2 | <0.02 | U | | mg/L | 0.02 | 0.1 | 06/03/22 22:57 | wtc |
| Iron, dissolved | M200.7 ICP | 2 | <0.12 | U | * | mg/L | 0.12 | 0.3 | 06/03/22 22:57 | wtc |
| Lead, dissolved | M200.8 ICP-MS | 1 | <0.0001 | U | | mg/L | 0.0001 | 0.0005 | 05/26/22 18:53 | kja |
| Lithium, dissolved | M200.7 ICP | 2 | 0.388 | | | mg/L | 0.016 | 0.08 | 06/03/22 22:57 | wtc |
| Magnesium, dissolved | M200.7 ICP | 2 | 28.9 | | | mg/L | 0.4 | 2 | 06/03/22 22:57 | wtc |
| Manganese, dissolved | M200.7 ICP | 2 | 0.299 | | | mg/L | 0.02 | 0.1 | 06/03/22 22:57 | wtc |
| Mercury, dissolved | M245.1 CVAA | 1 | <0.0002 | U | | mg/L | 0.0002 | 0.001 | 05/23/22 14:55 | mlh |
| Nickel, dissolved | M200.7 ICP | 2 | <0.016 | U | | mg/L | 0.016 | 0.08 | 06/06/22 20:12 | aeh |
| Potassium, dissolved | M200.7 ICP | 2 | 5.30 | | | mg/L | 0.4 | 2 | 06/06/22 20:12 | aeh |
| Selenium, dissolved | M200.8 ICP-MS | 1 | <0.0001 | U | | mg/L | 0.0001 | 0.00025 | 05/27/22 15:00 | kja |
| Sodium, dissolved | M200.7 ICP | 2 | 1180 | | * | mg/L | 0.4 | 2 | 06/03/22 22:57 | wtc |
| Vanadium, dissolved | M200.7 ICP | 2 | <0.02 | U | | mg/L | 0.02 | 0.05 | 06/03/22 22:57 | wtc |
| Zinc, dissolved | M200.7 ICP | 2 | <0.04 | U | * | mg/L | 0.04 | 0.1 | 06/03/22 22:57 | wtc |

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 | 05/27/22 0:00 | emk |
| Carbonate as CaCO3 | | 1 | <2 | U | | mg/L | 2 | 20 | 05/27/22 0:00 | emk |
| Hydroxide as CaCO3 | | 1 | <2 | U | | mg/L | 2 | 20 | 05/27/22 0:00 | emk |
| Total Alkalinity | | 1 | 1130 | | | mg/L | 2 | 20 | 05/27/22 0:00 | emk |
| Chloride | SM4500Cl-E | 5 | 315 | | | mg/L | 2.5 | 10 | 05/24/22 13:00 | mjj1 |
| Fluoride | SM4500F-C | 1 | 1.01 | | | mg/L | 0.15 | 0.35 | 06/02/22 13:17 | emk |
| Nitrate as N, dissolved | Calculation: NO3NO2 minus NO2 | | <0.02 | U | | mg/L | 0.02 | 0.1 | 06/09/22 0:00 | calc |
| Nitrate/Nitrite as N, dissolved | M353.2 - Automated Cadmium Reduction | 1 | <0.02 | U | | mg/L | 0.02 | 0.1 | 05/18/22 22:55 | pjb |
| Nitrite as N, dissolved | M353.2 - Automated Cadmium Reduction | 1 | <0.01 | U | | mg/L | 0.01 | 0.05 | 05/18/22 22:55 | pjb |
| Residue, Filterable (TDS) @180C | SM2540C | 2 | 3630 | | * | mg/L | 40 | 80 | 05/23/22 14:17 | anc |
| Sulfate | D516-02/-07/-11 - TURBIDIMETRIC | 120 | 1260 | | * | mg/L | 120 | 600 | 05/24/22 9:47 | bls |

## 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: ***L73303***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG543160** | | | | | | | | | | | | | |
| WG543160PBW1 | PBW | 05/27/22 16:53 | | | | 9 | mg/L | | -20 | 20 | | | |
| WG543160LCSW3 | LCSW | 05/27/22 17:12 | WC220513-7 | 820.0001 | | 791.2 | mg/L | 96 | 90 | 110 | | | |
| L73303-05DUP | DUP | 05/27/22 20:47 | | | 842 | 823.4 | mg/L | | | | 2 | 20 | |
| WG543160LCSW6 | LCSW | 05/27/22 21:06 | WC220513-7 | 820.0001 | | 791.6 | mg/L | 97 | 90 | 110 | | | |
| WG543160PBW2 | PBW | 05/27/22 21:12 | | | | 5 | mg/L | | -20 | 20 | | | |
| L73318-03DUP | DUP | 05/27/22 22:46 | | | 776 | 777 | mg/L | | | | 0 | 20 | |
| WG543160LCSW9 | LCSW | 05/28/22 0:26 | WC220513-7 | 820.0001 | | 782.3 | mg/L | 95 | 90 | 110 | | | |
| WG543160PBW3 | PBW | 05/28/22 0:32 | | | | 6.8 | mg/L | | -20 | 20 | | | |
| WG543160LCSW12 | LCSW | 05/28/22 3:41 | WC220513-7 | 820.0001 | | 801 | mg/L | 98 | 90 | 110 | | | |
| WG543160PBW4 | PBW | 05/28/22 3:47 | | | | 5.5 | mg/L | | -20 | 20 | | | |
| WG543160LCSW15 | LCSW | 05/28/22 6:48 | WC220513-7 | 820.0001 | | 805.5 | mg/L | 98 | 90 | 110 | | | |

**Aluminum, dissolved** M200.7 ICP

| ACZ ID | Type | Analyzed | PCN/SCN | QC | Sample | Found | Units | Rec% | Lower | Upper | RPD | Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG543340** | | | | | | | | | | | | | |
| WG543340ICV | ICV | 06/03/22 21:20 | II220519-3 | 2 | | 1.994 | mg/L | 100 | 95 | 105 | | | |
| WG543340ICB | ICB | 06/03/22 21:26 | | | | U | mg/L | | -0.15 | 0.15 | | | |
| WG543340PQV | PQV | 06/03/22 21:29 | II220531-4 | .2502 | | .245 | mg/L | 98 | 70 | 130 | | | |
| WG543340SIC | SIC | 06/03/22 21:32 | II220503-2 | 200.4102 | | 208.5 | mg/L | 104 | 1 | 200 | | | |
| WG543340LFB | LFB | 06/03/22 21:38 | II220505-2 | 1.0008 | | 1.066 | mg/L | 107 | 85 | 115 | | | |
| WG543340CCV1 | CCV | 06/03/22 22:08 | II220520-1 | 1 | | 1.017 | mg/L | 102 | 90 | 110 | | | |
| WG543340CCB1 | CCB | 06/03/22 22:11 | | | | U | mg/L | | -0.15 | 0.15 | | | |
| L73303-04AS | AS | 06/03/22 22:39 | II220505-2 | 1.0008 | U | 1.1 | mg/L | 110 | 85 | 115 | | | |
| L73303-04ASD | ASD | 06/03/22 22:42 | II220505-2 | 1.0008 | U | 1.153 | mg/L | 115 | 85 | 115 | 5 | 20 | |
| WG543340CCV2 | CCV | 06/03/22 22:45 | II220520-1 | 1 | | .979 | mg/L | 98 | 90 | 110 | | | |
| WG543340CCB2 | CCB | 06/03/22 22:48 | | | | U | mg/L | | -0.15 | 0.15 | | | |
| WG543340CCV3 | CCV | 06/03/22 23:07 | II220520-1 | 1 | | 1.01 | mg/L | 101 | 90 | 110 | | | |
| WG543340CCB3 | CCB | 06/03/22 23:10 | | | | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG543092** | | | | | | | | | | | | | |
| WG543092ICV | ICV | 05/26/22 17:57 | MS220502-1 | .05 | | .0511 | mg/L | 102 | 90 | 110 | | | |
| WG543092ICB | ICB | 05/26/22 17:59 | | | | U | mg/L | | -0.00044 | 0.00044 | | | |
| WG543092LFB | LFB | 05/26/22 18:01 | MS220506-2 | .05005 | | .05083 | mg/L | 102 | 85 | 115 | | | |
| WG543092CCV1 | CCV | 05/26/22 18:16 | MS220502-5 | .1001 | | .10099 | mg/L | 101 | 90 | 110 | | | |
| WG543092CCB1 | CCB | 05/26/22 18:17 | | | | U | mg/L | | -0.0006 | 0.0006 | | | |
| L73303-01AS | AS | 05/26/22 18:32 | MS220506-2 | .05005 | .00382 | .05858 | mg/L | 109 | 70 | 130 | | | |
| L73303-01ASD | ASD | 05/26/22 18:34 | MS220506-2 | .05005 | .00382 | .06077 | mg/L | 114 | 70 | 130 | 4 | 20 | |
| WG543092CCV2 | CCV | 05/26/22 18:38 | MS220502-5 | .1001 | | .10001 | mg/L | 100 | 90 | 110 | | | E6 |
| WG543092CCB2 | CCB | 05/26/22 18:40 | | | | U | mg/L | | -0.0006 | 0.0006 | | | |
| L73303-06AS | AS | 05/26/22 18:49 | MS220506-2 | .05005 | U | .05433 | mg/L | 109 | 70 | 130 | | | |
| L73303-06ASD | ASD | 05/26/22 18:51 | MS220506-2 | .05005 | U | .05544 | mg/L | 111 | 70 | 130 | 2 | 20 | |
| WG543092CCV3 | CCV | 05/26/22 18:55 | MS220502-5 | .1001 | | .0988 | mg/L | 99 | 90 | 110 | | | |
| WG543092CCB3 | CCB | 05/26/22 18:56 | | | | U | mg/L | | -0.0006 | 0.0006 | | | |

**GCC**

ACZ Project ID: ***L73303***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG543340** | | | | | | | | | | | | | |
| WG543340ICV | ICV | 06/03/22 21:20 | II220519-3 | 2 | | 1.946 | mg/L | 97 | 95 | 105 | | | |
| WG543340ICB | ICB | 06/03/22 21:26 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| WG543340PQV | PQV | 06/03/22 21:29 | II220531-4 | .05005 | | .053 | mg/L | 106 | 70 | 130 | | | |
| WG543340SIC | SIC | 06/03/22 21:32 | II220503-2 | .1001 | | .102 | mg/L | 102 | 80 | 120 | | | |
| WG543340LFB | LFB | 06/03/22 21:38 | II220505-2 | .501 | | .51 | mg/L | 102 | 85 | 115 | | | |
| WG543340CCV1 | CCV | 06/03/22 22:08 | II220520-1 | 1 | | 1.013 | mg/L | 101 | 90 | 110 | | | |
| WG543340CCB1 | CCB | 06/03/22 22:11 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| L73303-04AS | AS | 06/03/22 22:39 | II220505-2 | .501 | U | .514 | mg/L | 103 | 85 | 115 | | | |
| L73303-04ASD | ASD | 06/03/22 22:42 | II220505-2 | .501 | U | .536 | mg/L | 107 | 85 | 115 | 4 | 20 | |
| WG543340CCV2 | CCV | 06/03/22 22:45 | II220520-1 | 1 | | 1.005 | mg/L | 101 | 90 | 110 | | | |
| WG543340CCB2 | CCB | 06/03/22 22:48 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| WG543340CCV3 | CCV | 06/03/22 23:07 | II220520-1 | 1 | | 1.019 | mg/L | 102 | 90 | 110 | | | |
| WG543340CCB3 | CCB | 06/03/22 23:10 | | | | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG543340** | | | | | | | | | | | | | |
| WG543340ICV | ICV | 06/03/22 21:20 | II220519-3 | 2 | | 2.088 | mg/L | 104 | 95 | 105 | | | |
| WG543340ICB | ICB | 06/03/22 21:26 | | | | U | mg/L | | -0.09 | 0.09 | | | |
| WG543340PQV | PQV | 06/03/22 21:29 | II220531-4 | .1001 | | .106 | mg/L | 106 | 70 | 130 | | | |
| WG543340SIC | SIC | 06/03/22 21:32 | II220503-2 | .1001 | | .108 | mg/L | 108 | 80 | 120 | | | |
| WG543340LFB | LFB | 06/03/22 21:38 | II220505-2 | .5005 | | .56 | mg/L | 112 | 85 | 115 | | | |
| WG543340CCV1 | CCV | 06/03/22 22:08 | II220520-1 | 1 | | 1.082 | mg/L | 108 | 90 | 110 | | | |
| WG543340CCB1 | CCB | 06/03/22 22:11 | | | | U | mg/L | | -0.09 | 0.09 | | | |
| L73303-04AS | AS | 06/03/22 22:39 | II220505-2 | .5005 | .795 | 1.315 | mg/L | 104 | 85 | 115 | | | |
| L73303-04ASD | ASD | 06/03/22 22:42 | II220505-2 | .5005 | .795 | 1.377 | mg/L | 116 | 85 | 115 | 5 | 20 | MA |
| WG543340CCV2 | CCV | 06/03/22 22:45 | II220520-1 | 1 | | 1.073 | mg/L | 107 | 90 | 110 | | | |
| WG543340CCB2 | CCB | 06/03/22 22:48 | | | | U | mg/L | | -0.09 | 0.09 | | | |
| WG543340CCV3 | CCV | 06/03/22 23:07 | II220520-1 | 1 | | 1.089 | mg/L | 109 | 90 | 110 | | | |
| WG543340CCB3 | CCB | 06/03/22 23:10 | | | | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG543092** | | | | | | | | | | | | | |
| WG543092ICV | ICV | 05/26/22 17:57 | MS220502-1 | .05 | | .051139 | mg/L | 102 | 90 | 110 | | | |
| WG543092ICB | ICB | 05/26/22 17:59 | | | | U | mg/L | | -0.00011 | 0.00011 | | | |
| WG543092LFB | LFB | 05/26/22 18:01 | MS220506-2 | .05005 | | .049413 | mg/L | 99 | 85 | 115 | | | |
| WG543092CCV1 | CCV | 05/26/22 18:16 | MS220502-5 | .1001 | | .100038 | mg/L | 100 | 90 | 110 | | | |
| WG543092CCB1 | CCB | 05/26/22 18:17 | | | | U | mg/L | | -0.00015 | 0.00015 | | | |
| L73303-01AS | AS | 05/26/22 18:32 | MS220506-2 | .05005 | .000066 | .046468 | mg/L | 93 | 70 | 130 | | | |
| L73303-01ASD | ASD | 05/26/22 18:34 | MS220506-2 | .05005 | .000066 | .048344 | mg/L | 96 | 70 | 130 | 4 | 20 | |
| WG543092CCV2 | CCV | 05/26/22 18:38 | MS220502-5 | .1001 | | .098747 | mg/L | 99 | 90 | 110 | | | |
| WG543092CCB2 | CCB | 05/26/22 18:40 | | | | U | mg/L | | -0.00015 | 0.00015 | | | |
| L73303-06AS | AS | 05/26/22 18:49 | MS220506-2 | .05005 | U | .046872 | mg/L | 94 | 70 | 130 | | | |
| L73303-06ASD | ASD | 05/26/22 18:51 | MS220506-2 | .05005 | U | .047108 | mg/L | 94 | 70 | 130 | 1 | 20 | |
| WG543092CCV3 | CCV | 05/26/22 18:55 | MS220502-5 | .1001 | | .099373 | mg/L | 99 | 90 | 110 | | | |
| WG543092CCB3 | CCB | 05/26/22 18:56 | | | | U | mg/L | | -0.00015 | 0.00015 | | | |

**GCC**

ACZ Project ID: ***L73303***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG543340** | | | | | | | | | | | | | |
| WG543340ICV | ICV | 06/03/22 21:20 | II220519-3 | 100 | | 101.18 | mg/L | 101 | 95 | 105 | | | |
| WG543340ICB | ICB | 06/03/22 21:26 | | | | U | mg/L | | -0.3 | 0.3 | | | |
| WG543340PQV | PQV | 06/03/22 21:29 | II220531-4 | .5003 | | .54 | mg/L | 108 | 70 | 130 | | | |
| WG543340SIC | SIC | 06/03/22 21:32 | II220503-2 | 200.6203 | | 201.4 | mg/L | 100 | 1 | 200 | | | |
| WG543340LFB | LFB | 06/03/22 21:38 | II220505-2 | 67.9908 | | 72.14 | mg/L | 106 | 85 | 115 | | | |
| WG543340CCV1 | CCV | 06/03/22 22:08 | II220520-1 | 50 | | 52.27 | mg/L | 105 | 90 | 110 | | | |
| WG543340CCB1 | CCB | 06/03/22 22:11 | | | | U | mg/L | | -0.3 | 0.3 | | | |
| L73303-04AS | AS | 06/03/22 22:39 | II220505-2 | 67.9908 | 14.2 | 86.21 | mg/L | 106 | 85 | 115 | | | |
| L73303-04ASD | ASD | 06/03/22 22:42 | II220505-2 | 67.9908 | 14.2 | 89.74 | mg/L | 111 | 85 | 115 | 4 | 20 | |
| WG543340CCV2 | CCV | 06/03/22 22:45 | II220520-1 | 50 | | 51.76 | mg/L | 104 | 90 | 110 | | | |
| WG543340CCB2 | CCB | 06/03/22 22:48 | | | | U | mg/L | | -0.3 | 0.3 | | | |
| WG543340CCV3 | CCV | 06/03/22 23:07 | II220520-1 | 50 | | 52.64 | mg/L | 105 | 90 | 110 | | | |
| WG543340CCB3 | CCB | 06/03/22 23:10 | | | | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG542815** | | | | | | | | | | | | | |
| WG542815ICV | ICV | 05/24/22 11:47 | WI220502-12 | 54.945 | | 55.42 | mg/L | 101 | 90 | 110 | | | |
| WG542815ICB | ICB | 05/24/22 11:48 | | | | U | mg/L | | -1.5 | 1.5 | | | |
| WG542815LFB1 | LFB | 05/24/22 11:49 | WI220328-1 | 29.97 | | 29.25 | mg/L | 98 | 90 | 110 | | | |
| L73226-01AS | AS | 05/24/22 11:50 | WI220328-1 | 29.97 | 11.4 | 41.7 | mg/L | 101 | 90 | 110 | | | |
| L73226-02DUP | DUP | 05/24/22 11:51 | | | 12.1 | 11.92 | mg/L | | | | 1 | 20 | |
| WG542815CCV1 | CCV | 05/24/22 11:54 | WI220323-1 | 49.95 | | 52.32 | mg/L | 105 | 90 | 110 | | | |
| WG542815CCB1 | CCB | 05/24/22 11:54 | | | | U | mg/L | | -1.5 | 1.5 | | | |
| WG542815CCV2 | CCV | 05/24/22 12:00 | WI220323-1 | 49.95 | | 51.46 | mg/L | 103 | 90 | 110 | | | |
| WG542815CCB2 | CCB | 05/24/22 12:00 | | | | U | mg/L | | -1.5 | 1.5 | | | |
| WG542815LFB2 | LFB | 05/24/22 12:04 | WI220328-1 | 29.97 | | 29.61 | mg/L | 99 | 90 | 110 | | | |
| WG542815CCV3 | CCV | 05/24/22 12:06 | WI220323-1 | 49.95 | | 51.83 | mg/L | 104 | 90 | 110 | | | |
| WG542815CCB3 | CCB | 05/24/22 12:06 | | | | U | mg/L | | -1.5 | 1.5 | | | |
| WG542815CCV4 | CCV | 05/24/22 12:11 | WI220323-1 | 49.95 | | 51.56 | mg/L | 103 | 90 | 110 | | | |
| WG542815CCB4 | CCB | 05/24/22 12:11 | | | | .91 | mg/L | | -1.5 | 1.5 | | | |
| WG542815CCV10 | CCV | 05/24/22 12:57 | WI220323-1 | 49.95 | | 51.29 | mg/L | 103 | 90 | 110 | | | |
| WG542815CCB10 | CCB | 05/24/22 12:58 | | | | .72 | mg/L | | -1.5 | 1.5 | | | |
| WG542815CCV11 | CCV | 05/24/22 13:05 | WI220323-1 | 49.95 | | 52.22 | mg/L | 105 | 90 | 110 | | | |
| WG542815CCB11 | CCB | 05/24/22 13:06 | | | | .85 | mg/L | | -1.5 | 1.5 | | | |

**GCC**

ACZ Project ID: ***L73303***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG543340** | | | | | | | | | | | | | |
| WG543340ICV | ICV | 06/03/22 21:20 | II220519-3 | 2 | | 2.02 | mg/L | 101 | 95 | 105 | | | |
| WG543340ICB | ICB | 06/03/22 21:26 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| WG543340PQV | PQV | 06/03/22 21:29 | II220531-4 | .05005 | | .052 | mg/L | 104 | 70 | 130 | | | |
| WG543340SIC | SIC | 06/03/22 21:32 | II220503-2 | .1001 | | .093 | mg/L | 93 | 80 | 120 | | | |
| WG543340LFB | LFB | 06/03/22 21:38 | II220505-2 | .501 | | .535 | mg/L | 107 | 85 | 115 | | | |
| WG543340CCV1 | CCV | 06/03/22 22:08 | II220520-1 | 1 | | 1.046 | mg/L | 105 | 90 | 110 | | | |
| WG543340CCB1 | CCB | 06/03/22 22:11 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| L73303-04AS | AS | 06/03/22 22:39 | II220505-2 | .501 | U | .538 | mg/L | 107 | 85 | 115 | | | |
| L73303-04ASD | ASD | 06/03/22 22:42 | II220505-2 | .501 | U | .566 | mg/L | 113 | 85 | 115 | 5 | 20 | |
| WG543340CCV2 | CCV | 06/03/22 22:45 | II220520-1 | 1 | | 1.039 | mg/L | 104 | 90 | 110 | | | |
| WG543340CCB2 | CCB | 06/03/22 22:48 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| WG543340CCV3 | CCV | 06/03/22 23:07 | II220520-1 | 1 | | 1.049 | mg/L | 105 | 90 | 110 | | | |
| WG543340CCB3 | CCB | 06/03/22 23:10 | | | | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG543340** | | | | | | | | | | | | | |
| WG543340ICV | ICV | 06/03/22 21:20 | II220519-3 | 2.01 | | 2.065 | mg/L | 103 | 95 | 105 | | | |
| WG543340ICB | ICB | 06/03/22 21:26 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| WG543340PQV | PQV | 06/03/22 21:29 | II220531-4 | .05005 | | .051 | mg/L | 102 | 70 | 130 | | | |
| WG543340SIC | SIC | 06/03/22 21:32 | II220503-2 | .1001 | | .098 | mg/L | 98 | 80 | 120 | | | |
| WG543340LFB | LFB | 06/03/22 21:38 | II220505-2 | .5005 | | .528 | mg/L | 105 | 85 | 115 | | | |
| WG543340CCV1 | CCV | 06/03/22 22:08 | II220520-1 | 1.005 | | 1.08 | mg/L | 107 | 90 | 110 | | | |
| WG543340CCB1 | CCB | 06/03/22 22:11 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| L73303-04AS | AS | 06/03/22 22:39 | II220505-2 | .5005 | U | .533 | mg/L | 106 | 85 | 115 | | | |
| L73303-04ASD | ASD | 06/03/22 22:42 | II220505-2 | .5005 | U | .558 | mg/L | 111 | 85 | 115 | 5 | 20 | |
| WG543340CCV2 | CCV | 06/03/22 22:45 | II220520-1 | 1.005 | | 1.083 | mg/L | 108 | 90 | 110 | | | |
| WG543340CCB2 | CCB | 06/03/22 22:48 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| WG543340CCV3 | CCV | 06/03/22 23:07 | II220520-1 | 1.005 | | 1.1 | mg/L | 109 | 90 | 110 | | | |
| WG543340CCB3 | CCB | 06/03/22 23:10 | | | | U | mg/L | | -0.06 | 0.06 | | | |

**Cobalt, dissolved** M200.8 ICP-MS

| ACZ ID | Type | Analyzed | PCN/SCN | QC | Sample | Found | Units | Rec% | Lower | Upper | RPD | Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG543092** | | | | | | | | | | | | | |
| WG543092ICV | ICV | 05/26/22 17:57 | MS220502-1 | .05 | | .051325 | mg/L | 103 | 90 | 110 | | | |
| WG543092ICB | ICB | 05/26/22 17:59 | | | | U | mg/L | | -0.00011 | 0.00011 | | | |
| WG543092LFB | LFB | 05/26/22 18:01 | MS220506-2 | .05005 | | .049753 | mg/L | 99 | 85 | 115 | | | |
| WG543092CCV1 | CCV | 05/26/22 18:16 | MS220502-5 | .1001 | | .101399 | mg/L | 101 | 90 | 110 | | | |
| WG543092CCB1 | CCB | 05/26/22 18:17 | | | | U | mg/L | | -0.00015 | 0.00015 | | | |
| L73303-01AS | AS | 05/26/22 18:32 | MS220506-2 | .05005 | .000335 | .049761 | mg/L | 99 | 70 | 130 | | | |
| L73303-01ASD | ASD | 05/26/22 18:34 | MS220506-2 | .05005 | .000335 | .051428 | mg/L | 102 | 70 | 130 | 3 | 20 | |
| WG543092CCV2 | CCV | 05/26/22 18:38 | MS220502-5 | .1001 | | .107489 | mg/L | 107 | 90 | 110 | | | |
| WG543092CCB2 | CCB | 05/26/22 18:40 | | | | U | mg/L | | -0.00015 | 0.00015 | | | |
| L73303-06AS | AS | 05/26/22 18:49 | MS220506-2 | .05005 | .0124 | .060583 | mg/L | 96 | 70 | 130 | | | |
| L73303-06ASD | ASD | 05/26/22 18:51 | MS220506-2 | .05005 | .0124 | .060663 | mg/L | 96 | 70 | 130 | 0 | 20 | |
| WG543092CCV3 | CCV | 05/26/22 18:55 | MS220502-5 | .1001 | | .104063 | mg/L | 104 | 90 | 110 | | | |
| WG543092CCB3 | CCB | 05/26/22 18:56 | | | | U | mg/L | | -0.00015 | 0.00015 | | | |

**GCC**

ACZ Project ID: ***L73303***

*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.*

**Copper, dissolved** M200.7 ICP

| ACZ ID | Type | Analyzed | PCN/SCN | QC | Sample | Found | Units | Rec% | Lower | Upper | RPD | Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG543340** | | | | | | | | | | | | | |
| WG543340ICV | ICV | 06/03/22 21:20 | II220519-3 | 2 | | 2.072 | mg/L | 104 | 95 | 105 | | | |
| WG543340ICB | ICB | 06/03/22 21:26 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| WG543340PQV | PQV | 06/03/22 21:29 | II220531-4 | .05 | | .053 | mg/L | 106 | 70 | 130 | | | |
| WG543340SIC | SIC | 06/03/22 21:32 | II220503-2 | .1 | | .107 | mg/L | 107 | 80 | 120 | | | |
| WG543340LFB | LFB | 06/03/22 21:38 | II220505-2 | .5 | | .539 | mg/L | 108 | 85 | 115 | | | |
| WG543340CCV1 | CCV | 06/03/22 22:08 | II220520-1 | 1 | | 1.073 | mg/L | 107 | 90 | 110 | | | |
| WG543340CCB1 | CCB | 06/03/22 22:11 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| L73303-04AS | AS | 06/03/22 22:39 | II220505-2 | .5 | U | .55 | mg/L | 110 | 85 | 115 | | | |
| L73303-04ASD | ASD | 06/03/22 22:42 | II220505-2 | .5 | U | .576 | mg/L | 115 | 85 | 115 | 5 | 20 | |
| WG543340CCV2 | CCV | 06/03/22 22:45 | II220520-1 | 1 | | 1.066 | mg/L | 107 | 90 | 110 | | | |
| WG543340CCB2 | CCB | 06/03/22 22:48 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| WG543340CCV3 | CCV | 06/03/22 23:07 | II220520-1 | 1 | | 1.082 | mg/L | 108 | 90 | 110 | | | |
| WG543340CCB3 | CCB | 06/03/22 23:10 | | | | U | mg/L | | -0.03 | 0.03 | | | |

**Fluoride** SM4500F-C

| ACZ ID | Type | Analyzed | PCN/SCN | QC | Sample | Found | Units | Rec% | Lower | Upper | RPD | Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG543410** | | | | | | | | | | | | | |
| WG543410ICV | ICV | 06/02/22 9:56 | WC220602-7 | 2.008 | | 2.1 | mg/L | 105 | 90 | 110 | | | |
| WG543410ICB | ICB | 06/02/22 10:01 | | | | U | mg/L | | -0.3 | 0.3 | | | |
| WG543410PQV | PQV | 06/02/22 10:05 | WC220520-8 | .3514 | | .39 | mg/L | 111 | 70 | 130 | | | |
| WG543410LFB1 | LFB | 06/02/22 10:08 | WC220104-2 | 5.02 | | 5.18 | mg/L | 103 | 90 | 110 | | | |
| WG543410CCV1 | CCV | 06/02/22 10:44 | WC220602-7 | 2.008 | | 2.16 | mg/L | 108 | 90 | 110 | | | |
| WG543410CCB1 | CCB | 06/02/22 10:52 | | | | U | mg/L | | -0.3 | 0.3 | | | |
| L73270-01AS | AS | 06/02/22 12:19 | WC220104-2 | 2008 | U | 2009 | mg/L | 100 | 90 | 110 | | | |
| L73270-01ASD | ASD | 06/02/22 12:24 | WC220104-2 | 2008 | U | 1945.64 | mg/L | 97 | 90 | 110 | 3 | 20 | |
| WG543410CCV2 | CCV | 06/02/22 12:47 | WC220602-7 | 2.008 | | 2.19 | mg/L | 109 | 90 | 110 | | | |
| WG543410CCB2 | CCB | 06/02/22 12:55 | | | | U | mg/L | | -0.3 | 0.3 | | | |
| WG543410LFB2 | LFB | 06/02/22 13:21 | WC220104-2 | 5.02 | | 5.21 | mg/L | 104 | 90 | 110 | | | |
| WG543410CCV3 | CCV | 06/02/22 13:40 | WC220602-7 | 2.008 | | 2.15 | mg/L | 107 | 90 | 110 | | | |
| WG543410CCB3 | CCB | 06/02/22 13:48 | | | | U | mg/L | | -0.3 | 0.3 | | | |
| WG543410CCV4 | CCV | 06/02/22 14:46 | WC220602-7 | 2.008 | | 2.19 | mg/L | 109 | 90 | 110 | | | |
| WG543410CCB4 | CCB | 06/02/22 14:54 | | | | U | mg/L | | -0.3 | 0.3 | | | |
| WG543410CCV5 | CCV | 06/02/22 16:13 | WC220602-7 | 2.008 | | 2.14 | mg/L | 107 | 90 | 110 | | | |
| WG543410CCB5 | CCB | 06/02/22 16:21 | | | | U | mg/L | | -0.3 | 0.3 | | | |

**GCC**

ACZ Project ID: ***L73303***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG543340** | | | | | | | | | | | | | |
| WG543340ICV | ICV | 06/03/22 21:20 | II220519-3 | 2 | | 2.04 | mg/L | 102 | 95 | 105 | | | |
| WG543340ICB | ICB | 06/03/22 21:26 | | | | U | mg/L | | -0.18 | 0.18 | | | |
| WG543340PQV | PQV | 06/03/22 21:29 | II220531-4 | .150195 | | .143 | mg/L | 95 | 70 | 130 | | | |
| WG543340SIC | SIC | 06/03/22 21:32 | II220503-2 | 200.410195 | | 194.5 | mg/L | 97 | 1 | 200 | | | |
| WG543340LFB | LFB | 06/03/22 21:38 | II220505-2 | 1.0013 | | 1.084 | mg/L | 108 | 85 | 115 | | | |
| WG543340CCV1 | CCV | 06/03/22 22:08 | II220520-1 | 1 | | 1.063 | mg/L | 106 | 90 | 110 | | | |
| WG543340CCB1 | CCB | 06/03/22 22:11 | | | | U | mg/L | | -0.18 | 0.18 | | | |
| L73303-04AS | AS | 06/03/22 22:39 | II220505-2 | 1.0013 | U | 1.083 | mg/L | 108 | 85 | 115 | | | |
| L73303-04ASD | ASD | 06/03/22 22:42 | II220505-2 | 1.0013 | U | 1.157 | mg/L | 116 | 85 | 115 | 7 | 20 | MA |
| WG543340CCV2 | CCV | 06/03/22 22:45 | II220520-1 | 1 | | 1.053 | mg/L | 105 | 90 | 110 | | | |
| WG543340CCB2 | CCB | 06/03/22 22:48 | | | | U | mg/L | | -0.18 | 0.18 | | | |
| WG543340CCV3 | CCV | 06/03/22 23:07 | II220520-1 | 1 | | 1.068 | mg/L | 107 | 90 | 110 | | | |
| WG543340CCB3 | CCB | 06/03/22 23:10 | | | | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG543092** | | | | | | | | | | | | | |
| WG543092ICV | ICV | 05/26/22 17:57 | MS220502-1 | .05 | | .05022 | mg/L | 100 | 90 | 110 | | | |
| WG543092ICB | ICB | 05/26/22 17:59 | | | | U | mg/L | | -0.00022 | 0.00022 | | | |
| WG543092LFB | LFB | 05/26/22 18:01 | MS220506-2 | .0501 | | .04907 | mg/L | 98 | 85 | 115 | | | |
| WG543092CCV1 | CCV | 05/26/22 18:16 | MS220502-5 | .2505 | | .24802 | mg/L | 99 | 90 | 110 | | | |
| WG543092CCB1 | CCB | 05/26/22 18:17 | | | | U | mg/L | | -0.0003 | 0.0003 | | | |
| L73303-01AS | AS | 05/26/22 18:32 | MS220506-2 | .0501 | U | .05037 | mg/L | 101 | 70 | 130 | | | |
| L73303-01ASD | ASD | 05/26/22 18:34 | MS220506-2 | .0501 | U | .05286 | mg/L | 106 | 70 | 130 | 5 | 20 | |
| WG543092CCV2 | CCV | 05/26/22 18:38 | MS220502-5 | .2505 | | .24804 | mg/L | 99 | 90 | 110 | | | |
| WG543092CCB2 | CCB | 05/26/22 18:40 | | | | U | mg/L | | -0.0003 | 0.0003 | | | |
| L73303-06AS | AS | 05/26/22 18:49 | MS220506-2 | .0501 | U | .04985 | mg/L | 100 | 70 | 130 | | | |
| L73303-06ASD | ASD | 05/26/22 18:51 | MS220506-2 | .0501 | U | .04984 | mg/L | 99 | 70 | 130 | 0 | 20 | |
| WG543092CCV3 | CCV | 05/26/22 18:55 | MS220502-5 | .2505 | | .24028 | mg/L | 96 | 90 | 110 | | | |
| WG543092CCB3 | CCB | 05/26/22 18:56 | | | | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG543340** | | | | | | | | | | | | | |
| WG543340ICV | ICV | 06/03/22 21:20 | II220519-3 | 2 | | 2.04 | mg/L | 102 | 95 | 105 | | | |
| WG543340ICB | ICB | 06/03/22 21:26 | | | | U | mg/L | | -0.024 | 0.024 | | | |
| WG543340PQV | PQV | 06/03/22 21:29 | II220531-4 | .03992 | | .0412 | mg/L | 103 | 70 | 130 | | | |
| WG543340SIC | SIC | 06/03/22 21:32 | II220503-2 | .0998 | | .1082 | mg/L | 108 | 80 | 120 | | | |
| WG543340LFB | LFB | 06/03/22 21:38 | II220505-2 | .998 | | 1.025 | mg/L | 103 | 85 | 115 | | | |
| WG543340CCV1 | CCV | 06/03/22 22:08 | II220520-1 | 1 | | 1.057 | mg/L | 106 | 90 | 110 | | | |
| WG543340CCB1 | CCB | 06/03/22 22:11 | | | | U | mg/L | | -0.024 | 0.024 | | | |
| L73303-04AS | AS | 06/03/22 22:39 | II220505-2 | .998 | .174 | 1.221 | mg/L | 105 | 85 | 115 | | | |
| L73303-04ASD | ASD | 06/03/22 22:42 | II220505-2 | .998 | .174 | 1.269 | mg/L | 110 | 85 | 115 | 4 | 20 | |
| WG543340CCV2 | CCV | 06/03/22 22:45 | II220520-1 | 1 | | 1.045 | mg/L | 105 | 90 | 110 | | | |
| WG543340CCB2 | CCB | 06/03/22 22:48 | | | | U | mg/L | | -0.024 | 0.024 | | | |
| WG543340CCV3 | CCV | 06/03/22 23:07 | II220520-1 | 1 | | 1.057 | mg/L | 106 | 90 | 110 | | | |
| WG543340CCB3 | CCB | 06/03/22 23:10 | | | | U | mg/L | | -0.024 | 0.024 | | | |

**GCC**

ACZ Project ID: ***L73303***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG543340** | | | | | | | | | | | | | |
| WG543340ICV | ICV | 06/03/22 21:20 | II220519-3 | 100 | | 97.45 | mg/L | 97 | 95 | 105 | | | |
| WG543340ICB | ICB | 06/03/22 21:26 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| WG543340PQV | PQV | 06/03/22 21:29 | II220531-4 | 1.0001 | | 1.16 | mg/L | 116 | 70 | 130 | | | |
| WG543340SIC | SIC | 06/03/22 21:32 | II220503-2 | 201.0201 | | 206.7 | mg/L | 103 | 1 | 200 | | | |
| WG543340LFB | LFB | 06/03/22 21:38 | II220505-2 | 49.99922 | | 50.98 | mg/L | 102 | 85 | 115 | | | |
| WG543340CCV1 | CCV | 06/03/22 22:08 | II220520-1 | 50 | | 49.99 | mg/L | 100 | 90 | 110 | | | |
| WG543340CCB1 | CCB | 06/03/22 22:11 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| L73303-04AS | AS | 06/03/22 22:39 | II220505-2 | 49.99922 | 4.55 | 55.42 | mg/L | 102 | 85 | 115 | | | |
| L73303-04ASD | ASD | 06/03/22 22:42 | II220505-2 | 49.99922 | 4.55 | 57.91 | mg/L | 107 | 85 | 115 | 4 | 20 | |
| WG543340CCV2 | CCV | 06/03/22 22:45 | II220520-1 | 50 | | 49.38 | mg/L | 99 | 90 | 110 | | | |
| WG543340CCB2 | CCB | 06/03/22 22:48 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| WG543340CCV3 | CCV | 06/03/22 23:07 | II220520-1 | 50 | | 50.59 | mg/L | 101 | 90 | 110 | | | |
| WG543340CCB3 | CCB | 06/03/22 23:10 | | | | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG543340** | | | | | | | | | | | | | |
| WG543340ICV | ICV | 06/03/22 21:20 | II220519-3 | 2 | | 2.007 | mg/L | 100 | 95 | 105 | | | |
| WG543340ICB | ICB | 06/03/22 21:26 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| WG543340PQV | PQV | 06/03/22 21:29 | II220531-4 | .0498 | | .054 | mg/L | 108 | 70 | 130 | | | |
| WG543340SIC | SIC | 06/03/22 21:32 | II220503-2 | 49.9498 | | 50.63 | mg/L | 101 | 1 | 200 | | | |
| WG543340LFB | LFB | 06/03/22 21:38 | II220505-2 | .499 | | .536 | mg/L | 107 | 85 | 115 | | | |
| WG543340CCV1 | CCV | 06/03/22 22:08 | II220520-1 | 1 | | 1.049 | mg/L | 105 | 90 | 110 | | | |
| WG543340CCB1 | CCB | 06/03/22 22:11 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| L73303-04AS | AS | 06/03/22 22:39 | II220505-2 | .499 | .03 | .573 | mg/L | 109 | 85 | 115 | | | |
| L73303-04ASD | ASD | 06/03/22 22:42 | II220505-2 | .499 | .03 | .596 | mg/L | 113 | 85 | 115 | 4 | 20 | |
| WG543340CCV2 | CCV | 06/03/22 22:45 | II220520-1 | 1 | | 1.026 | mg/L | 103 | 90 | 110 | | | |
| WG543340CCB2 | CCB | 06/03/22 22:48 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| WG543340CCV3 | CCV | 06/03/22 23:07 | II220520-1 | 1 | | 1.052 | mg/L | 105 | 90 | 110 | | | |
| WG543340CCB3 | CCB | 06/03/22 23:10 | | | | U | mg/L | | -0.03 | 0.03 | | | |

**GCC**

ACZ Project ID: ***L73303***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG542728** | | | | | | | | | | | | | |
| WG542728ICV | ICV | 05/23/22 13:51 | HG220523-3 | .005005 | | .00509 | mg/L | 102 | 95 | 105 | | | |
| WG542728ICB | ICB | 05/23/22 13:52 | | | | U | mg/L | | -0.0002 | 0.0002 | | | |
| **WG542729** | | | | | | | | | | | | | |
| WG542729CCV1 | CCV | 05/23/22 14:25 | HG220523-3 | .005005 | | .00513 | mg/L | 102 | 90 | 110 | | | |
| WG542729CCB1 | CCB | 05/23/22 14:26 | | | | U | mg/L | | -0.0002 | 0.0002 | | | |
| WG542729PQV | PQV | 05/23/22 14:27 | HG220523-5 | .001001 | | .00095 | mg/L | 95 | 70 | 130 | | | |
| WG542729LRB | LRB | 05/23/22 14:28 | | | | U | mg/L | | -0.00044 | 0.00044 | | | |
| WG542729LFB | LFB | 05/23/22 14:29 | HG220523-6 | .002002 | | .00194 | mg/L | 97 | 85 | 115 | | | |
| WG542729CCV2 | CCV | 05/23/22 14:36 | HG220523-3 | .005005 | | .00503 | mg/L | 100 | 90 | 110 | | | |
| WG542729CCB2 | CCB | 05/23/22 14:37 | | | | U | mg/L | | -0.0002 | 0.0002 | | | |
| L73270-03LFM | LFM | 05/23/22 14:46 | HG220523-6 | .002002 | U | .00191 | mg/L | 95 | 85 | 115 | | | |
| L73270-03LFMD | LFMD | 05/23/22 14:47 | HG220523-6 | .002002 | U | .00194 | mg/L | 97 | 85 | 115 | 2 | 20 | |
| WG542729CCV3 | CCV | 05/23/22 14:48 | HG220523-3 | .005005 | | .00504 | mg/L | 101 | 90 | 110 | | | |
| WG542729CCB3 | CCB | 05/23/22 14:49 | | | | U | mg/L | | -0.0002 | 0.0002 | | | |
| WG542729CCV4 | CCV | 05/23/22 14:56 | HG220523-3 | .005005 | | .00504 | mg/L | 101 | 90 | 110 | | | |
| WG542729CCB4 | CCB | 05/23/22 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG543681** | | | | | | | | | | | | | |
| WG543681ICV | ICV | 06/06/22 18:43 | II220519-3 | 2 | | 1.91 | mg/L | 96 | 95 | 105 | | | |
| WG543681ICB | ICB | 06/06/22 18:49 | | | | .009 | mg/L | | -0.024 | 0.024 | | | |
| WG543681PQV | PQV | 06/06/22 18:53 | II220602-4 | .04004 | | .0372 | mg/L | 93 | 70 | 130 | | | |
| WG543681SIC | SIC | 06/06/22 18:56 | II220503-2 | .1001 | | .0915 | mg/L | 91 | 80 | 120 | | | |
| WG543681LFB | LFB | 06/06/22 19:03 | II220602-7 | .5005 | | .4994 | mg/L | 100 | 85 | 115 | | | |
| L73297-03AS | AS | 06/06/22 19:22 | II220602-7 | .5005 | U | .5108 | mg/L | 102 | 85 | 115 | | | |
| L73297-03ASD | ASD | 06/06/22 19:26 | II220602-7 | .5005 | U | .4993 | mg/L | 100 | 85 | 115 | 2 | 20 | |
| WG543681CCV1 | CCV | 06/06/22 19:35 | II220520-1 | 1 | | .9873 | mg/L | 99 | 90 | 110 | | | |
| WG543681CCB1 | CCB | 06/06/22 19:39 | | | | U | mg/L | | -0.024 | 0.024 | | | |
| L73303-05AS | AS | 06/06/22 20:02 | II220602-7 | .5005 | U | .5071 | mg/L | 101 | 85 | 115 | | | |
| L73303-05ASD | ASD | 06/06/22 20:06 | II220602-7 | .5005 | U | .4988 | mg/L | 100 | 85 | 115 | 2 | 20 | |
| WG543681CCV2 | CCV | 06/06/22 20:16 | II220520-1 | 1 | | .9771 | mg/L | 98 | 90 | 110 | | | |
| WG543681CCB2 | CCB | 06/06/22 20:19 | | | | U | mg/L | | -0.024 | 0.024 | | | |
| WG543681CCV3 | CCV | 06/06/22 20:29 | II220520-1 | 1 | | .9673 | mg/L | 97 | 90 | 110 | | | |
| WG543681CCB3 | CCB | 06/06/22 20:32 | | | | U | mg/L | | -0.024 | 0.024 | | | |

**GCC**

ACZ Project ID: ***L73303***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG542537** | | | | | | | | | | | | | |
| WG542537ICV | ICV | 05/18/22 22:17 | WI220301-7 | 2.4161 | | 2.234 | mg/L | 92 | 90 | 110 | | | |
| WG542537ICB | ICB | 05/18/22 22:19 | | | | U | mg/L | | -0.02 | 0.02 | | | |
| WG542537LFB | LFB | 05/18/22 22:22 | WI220401-10 | 2 | | 1.98 | mg/L | 99 | 90 | 110 | | | |
| L73300-01AS | AS | 05/18/22 22:25 | WI220401-10 | 2 | .815 | 2.763 | mg/L | 97 | 90 | 110 | | | |
| L73300-02DUP | DUP | 05/18/22 22:27 | | | .993 | .991 | mg/L | | | | 0 | 20 | |
| WG542537CCV1 | CCV | 05/18/22 22:32 | WI220513-1 | 2 | | 1.91 | mg/L | 96 | 90 | 110 | | | |
| WG542537CCB1 | CCB | 05/18/22 22:36 | | | | U | mg/L | | -0.02 | 0.02 | | | |
| L73303-03AS | AS | 05/18/22 22:44 | WI220401-10 | 2 | 1.33 | 3.35 | mg/L | 101 | 90 | 110 | | | |
| L73303-04DUP | DUP | 05/18/22 22:47 | | | 1.28 | 1.274 | mg/L | | | | 0 | 20 | |
| WG542537CCV2 | CCV | 05/18/22 22:49 | WI220513-1 | 2 | | 2.013 | mg/L | 101 | 90 | 110 | | | |
| WG542537CCB2 | CCB | 05/18/22 22:53 | | | | U | mg/L | | -0.02 | 0.02 | | | |
| WG542537CCV3 | CCV | 05/18/22 23:04 | WI220513-1 | 2 | | 2.015 | mg/L | 101 | 90 | 110 | | | |
| WG542537CCB3 | CCB | 05/18/22 23:07 | | | | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG542537** | | | | | | | | | | | | | |
| WG542537ICV | ICV | 05/18/22 22:17 | WI220301-7 | .6089 | | .582 | mg/L | 96 | 90 | 110 | | | |
| WG542537ICB | ICB | 05/18/22 22:19 | | | | U | mg/L | | -0.01 | 0.01 | | | |
| WG542537LFB | LFB | 05/18/22 22:22 | WI220401-10 | 1 | | 1.011 | mg/L | 101 | 90 | 110 | | | |
| L73300-01AS | AS | 05/18/22 22:25 | WI220401-10 | 1 | .013 | 1.027 | mg/L | 101 | 90 | 110 | | | |
| L73300-02DUP | DUP | 05/18/22 22:27 | | | .012 | .012 | mg/L | | | | 0 | 20 | RA |
| WG542537CCV1 | CCV | 05/18/22 22:32 | WI220513-1 | 1 | | 1.015 | mg/L | 102 | 90 | 110 | | | |
| WG542537CCB1 | CCB | 05/18/22 22:36 | | | | U | mg/L | | -0.01 | 0.01 | | | |
| L73303-03AS | AS | 05/18/22 22:44 | WI220401-10 | 1 | .44 | 1.509 | mg/L | 107 | 90 | 110 | | | |
| L73303-04DUP | DUP | 05/18/22 22:47 | | | .957 | .961 | mg/L | | | | 0 | 20 | |
| WG542537CCV2 | CCV | 05/18/22 22:49 | WI220513-1 | 1 | | 1.016 | mg/L | 102 | 90 | 110 | | | |
| WG542537CCB2 | CCB | 05/18/22 22:53 | | | | U | mg/L | | -0.01 | 0.01 | | | |
| WG542537CCV3 | CCV | 05/18/22 23:04 | WI220513-1 | 1 | | 1.016 | mg/L | 102 | 90 | 110 | | | |
| WG542537CCB3 | CCB | 05/18/22 23:07 | | | | U | mg/L | | -0.01 | 0.01 | | | |

**GCC**

ACZ Project ID: ***L73303***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG543681** | | | | | | | | | | | | | |
| WG543681ICV | ICV | 06/06/22 18:43 | II220519-3 | 20 | | 19.3 | mg/L | 97 | 95 | 105 | | | |
| WG543681ICB | ICB | 06/06/22 18:49 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| WG543681PQV | PQV | 06/06/22 18:53 | II220602-4 | 1.005 | | 1.05 | mg/L | 104 | 70 | 130 | | | |
| WG543681SIC | SIC | 06/06/22 18:56 | II220503-2 | 1.005 | | 1.04 | mg/L | 103 | 80 | 120 | | | |
| WG543681LFB | LFB | 06/06/22 19:03 | II220602-7 | 99.96218 | | 100.6 | mg/L | 101 | 85 | 115 | | | |
| L73297-03AS | AS | 06/06/22 19:22 | II220602-7 | 99.96218 | .85 | 101.9 | mg/L | 101 | 85 | 115 | | | |
| L73297-03ASD | ASD | 06/06/22 19:26 | II220602-7 | 99.96218 | .85 | 101.2 | mg/L | 100 | 85 | 115 | 1 | 20 | |
| WG543681CCV1 | CCV | 06/06/22 19:35 | II220520-1 | 10 | | 9.96 | mg/L | 100 | 90 | 110 | | | |
| WG543681CCB1 | CCB | 06/06/22 19:39 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| L73303-05AS | AS | 06/06/22 20:02 | II220602-7 | 99.96218 | 3.41 | 104.2 | mg/L | 101 | 85 | 115 | | | |
| L73303-05ASD | ASD | 06/06/22 20:06 | II220602-7 | 99.96218 | 3.41 | 103.5 | mg/L | 100 | 85 | 115 | 1 | 20 | |
| WG543681CCV2 | CCV | 06/06/22 20:16 | II220520-1 | 10 | | 9.86 | mg/L | 99 | 90 | 110 | | | |
| WG543681CCB2 | CCB | 06/06/22 20:19 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| WG543681CCV3 | CCV | 06/06/22 20:29 | II220520-1 | 10 | | 9.71 | mg/L | 97 | 90 | 110 | | | |
| WG543681CCB3 | CCB | 06/06/22 20:32 | | | | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG542775** | | | | | | | | | | | | | |
| WG542775PBW | PBW | 05/23/22 13:36 | | | | U | mg/L | | -20 | 20 | | | |
| WG542775LCSW | LCSW | 05/23/22 13:38 | PCN65840 | 1000 | | 994 | mg/L | 99 | 80 | 120 | | | |
| L73329-06DUP | DUP | 05/23/22 14:36 | | | 184 | 182 | mg/L | | | | 1 | 10 | RA |
| **WG543182** | | | | | | | | | | | | | |
| WG543182PBW | PBW | 05/28/22 12:15 | | | | U | mg/L | | -20 | 20 | | | |
| WG543182LCSW | LCSW | 05/28/22 12:16 | PCN65841 | 1000 | | 982 | mg/L | 98 | 80 | 120 | | | |
| L73305-01DUP | DUP | 05/28/22 12:46 | | | 32 | 32 | mg/L | | | | 0 | 10 | RA |

**GCC**

ACZ Project ID: ***L73303***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG543092** | | | | | | | | | | | | | |
| WG543092ICV | ICV | 05/26/22 17:57 | MS220502-1 | .05 | | .0507 | mg/L | 101 | 90 | 110 | | | |
| WG543092ICB | ICB | 05/26/22 17:59 | | | | U | mg/L | | -0.00022 | 0.00022 | | | |
| WG543092LFB | LFB | 05/26/22 18:01 | MS220506-2 | .05 | | .04889 | mg/L | 98 | 85 | 115 | | | |
| WG543092CCV1 | CCV | 05/26/22 18:16 | MS220502-5 | .25 | | .24918 | mg/L | 100 | 90 | 110 | | | |
| WG543092CCB1 | CCB | 05/26/22 18:17 | | | | U | mg/L | | -0.0003 | 0.0003 | | | |
| L73303-01AS | AS | 05/26/22 18:32 | MS220506-2 | .05 | .00124 | .05355 | mg/L | 105 | 70 | 130 | | | |
| L73303-01ASD | ASD | 05/26/22 18:34 | MS220506-2 | .05 | .00124 | .05394 | mg/L | 105 | 70 | 130 | 1 | 20 | |
| WG543092CCV2 | CCV | 05/26/22 18:38 | MS220502-5 | .25 | | .23381 | mg/L | 94 | 90 | 110 | | | E6 |
| WG543092CCB2 | CCB | 05/26/22 18:40 | | | | U | mg/L | | -0.0003 | 0.0003 | | | E6 |
| L73303-06AS | AS | 05/26/22 18:49 | MS220506-2 | .05 | .0538 | .09956 | mg/L | 92 | 70 | 130 | | | |
| L73303-06ASD | ASD | 05/26/22 18:51 | MS220506-2 | .05 | .0538 | .0939 | mg/L | 80 | 70 | 130 | 6 | 20 | |
| WG543092CCV3 | CCV | 05/26/22 18:55 | MS220502-5 | .25 | | .2398 | mg/L | 96 | 90 | 110 | | | E6 |
| WG543092CCB3 | CCB | 05/26/22 18:56 | | | | .00311 | mg/L | | -0.0003 | 0.0003 | | | BB |
| **WG543142** | | | | | | | | | | | | | |
| WG543142ICV | ICV | 05/27/22 14:26 | MS220502-1 | .05 | | .04975 | mg/L | 100 | 90 | 110 | | | |
| WG543142ICB | ICB | 05/27/22 14:28 | | | | U | mg/L | | -0.00022 | 0.00022 | | | |
| WG543142LFB | LFB | 05/27/22 14:30 | MS220506-2 | .05 | | .04987 | mg/L | 100 | 85 | 115 | | | |
| WG543142CCV1 | CCV | 05/27/22 14:45 | MS220502-5 | .25 | | .25692 | mg/L | 103 | 90 | 110 | | | |
| WG543142CCB1 | CCB | 05/27/22 14:47 | | | | U | mg/L | | -0.0003 | 0.0003 | | | |
| L73303-03AS | AS | 05/27/22 14:54 | MS220506-2 | .05 | .0003 | .0527 | mg/L | 105 | 70 | 130 | | | |
| L73303-03ASD | ASD | 05/27/22 14:57 | MS220506-2 | .05 | .0003 | .05723 | mg/L | 114 | 70 | 130 | 8 | 20 | |
| L73303-07AS | AS | 05/27/22 15:02 | MS220506-2 | .05 | U | .05448 | mg/L | 109 | 70 | 130 | | | |
| L73303-07ASD | ASD | 05/27/22 15:04 | MS220506-2 | .05 | U | .05535 | mg/L | 111 | 70 | 130 | 2 | 20 | |
| WG543142CCV2 | CCV | 05/27/22 15:06 | MS220502-5 | .25 | | .23862 | mg/L | 95 | 90 | 110 | | | |
| WG543142CCB2 | CCB | 05/27/22 15:08 | | | | U | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG543340** | | | | | | | | | | | | | |
| WG543340ICV | ICV | 06/03/22 21:20 | II220519-3 | 100 | | 100.48 | mg/L | 100 | 95 | 105 | | | |
| WG543340ICB | ICB | 06/03/22 21:26 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| WG543340PQV | PQV | 06/03/22 21:29 | II220531-4 | 1.002 | | 1.06 | mg/L | 106 | 70 | 130 | | | |
| WG543340SIC | SIC | 06/03/22 21:32 | II220503-2 | 1.002 | | 1.14 | mg/L | 114 | 80 | 120 | | | |
| WG543340LFB | LFB | 06/03/22 21:38 | II220505-2 | 100.0282 | | 103.6 | mg/L | 104 | 85 | 115 | | | |
| WG543340CCV1 | CCV | 06/03/22 22:08 | II220520-1 | 50 | | 51.85 | mg/L | 104 | 90 | 110 | | | |
| WG543340CCB1 | CCB | 06/03/22 22:11 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| L73303-04AS | AS | 06/03/22 22:39 | II220505-2 | 100.0282 | 707 | 760.6 | mg/L | 54 | 85 | 115 | | | M3 |
| L73303-04ASD | ASD | 06/03/22 22:42 | II220505-2 | 100.0282 | 707 | 784.8 | mg/L | 78 | 85 | 115 | 3 | 20 | M3 |
| WG543340CCV2 | CCV | 06/03/22 22:45 | II220520-1 | 50 | | 51.78 | mg/L | 104 | 90 | 110 | | | |
| WG543340CCB2 | CCB | 06/03/22 22:48 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| WG543340CCV3 | CCV | 06/03/22 23:07 | II220520-1 | 50 | | 52.59 | mg/L | 105 | 90 | 110 | | | |
| WG543340CCB3 | CCB | 06/03/22 23:10 | | | | U | mg/L | | -0.6 | 0.6 | | | |

**GCC**

ACZ Project ID: ***L73303***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG542820** | | | | | | | | | | | | | |
| WG542820ICB | ICB | 05/24/22 8:54 | | | | U | mg/L | | -3 | 3 | | | |
| WG542820ICV | ICV | 05/24/22 8:54 | WI220517-1 | 20.46 | | 19.6 | mg/L | 96 | 90 | 110 | | | |
| WG542820CCV1 | CCV | 05/24/22 9:06 | WI220517-2 | 24.875 | | 24.6 | mg/L | 99 | 90 | 110 | | | |
| WG542820CCB1 | CCB | 05/24/22 9:06 | | | | U | mg/L | | -3 | 3 | | | |
| WG542820LFB | LFB | 05/24/22 9:06 | WI220415-3 | 9.95 | | 9.9 | mg/L | 99 | 90 | 110 | | | |
| WG542820CCV2 | CCV | 05/24/22 9:10 | WI220517-2 | 24.875 | | 24.9 | mg/L | 100 | 90 | 110 | | | |
| WG542820CCB2 | CCB | 05/24/22 9:10 | | | | U | mg/L | | -3 | 3 | | | |
| L73303-01DUP | DUP | 05/24/22 9:43 | | | 143 | 141.7 | mg/L | | | | 1 | 20 | |
| L73303-02AS | AS | 05/24/22 9:45 | SO4TURB | 10.0000008 | 1990 | 1993.8 | mg/L | 38 | 90 | 110 | | | M3 |
| WG542820CCV3 | CCV | 05/24/22 9:45 | WI220517-2 | 24.875 | | 24.3 | mg/L | 98 | 90 | 110 | | | |
| WG542820CCB3 | CCB | 05/24/22 9:45 | | | | U | mg/L | | -3 | 3 | | | |
| WG542820CCV4 | CCV | 05/24/22 9:48 | WI220517-2 | 24.875 | | 24.6 | mg/L | 99 | 90 | 110 | | | |
| WG542820CCB4 | CCB | 05/24/22 9:48 | | | | U | mg/L | | -3 | 3 | | | |
| WG542820CCV5 | CCV | 05/24/22 9:50 | WI220517-2 | 24.875 | | 24.7 | mg/L | 99 | 90 | 110 | | | |
| WG542820CCB5 | CCB | 05/24/22 9:51 | | | | U | mg/L | | -3 | 3 | | | |
| WG542820CCV6 | CCV | 05/24/22 11:05 | WI220517-2 | 24.875 | | 24.8 | mg/L | 100 | 90 | 110 | | | |
| WG542820CCB6 | CCB | 05/24/22 11:05 | | | | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG543340** | | | | | | | | | | | | | |
| WG543340ICV | ICV | 06/03/22 21:20 | II220519-3 | 2 | | 2.056 | mg/L | 103 | 95 | 105 | | | |
| WG543340ICB | ICB | 06/03/22 21:26 | | | | U | mg/L | | -0.015 | 0.015 | | | |
| WG543340PQV | PQV | 06/03/22 21:29 | II220531-4 | .025025 | | .027 | mg/L | 108 | 70 | 130 | | | |
| WG543340SIC | SIC | 06/03/22 21:32 | II220503-2 | .1001 | | .102 | mg/L | 102 | 80 | 120 | | | |
| WG543340LFB | LFB | 06/03/22 21:38 | II220505-2 | .5005 | | .5435 | mg/L | 109 | 85 | 115 | | | |
| WG543340CCV1 | CCV | 06/03/22 22:08 | II220520-1 | 1 | | 1.067 | mg/L | 107 | 90 | 110 | | | |
| WG543340CCB1 | CCB | 06/03/22 22:11 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| L73303-04AS | AS | 06/03/22 22:39 | II220505-2 | .5005 | U | .5564 | mg/L | 111 | 85 | 115 | | | |
| L73303-04ASD | ASD | 06/03/22 22:42 | II220505-2 | .5005 | U | .576 | mg/L | 115 | 85 | 115 | 3 | 20 | |
| WG543340CCV2 | CCV | 06/03/22 22:45 | II220520-1 | 1 | | 1.065 | mg/L | 107 | 90 | 110 | | | |
| WG543340CCB2 | CCB | 06/03/22 22:48 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| WG543340CCV3 | CCV | 06/03/22 23:07 | II220520-1 | 1 | | 1.082 | mg/L | 108 | 90 | 110 | | | |
| WG543340CCB3 | CCB | 06/03/22 23:10 | | | | U | mg/L | | -0.03 | 0.03 | | | |

**GCC**

ACZ Project ID: ***L73303***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG543340** | | | | | | | | | | | | | |
| WG543340ICV | ICV | 06/03/22 21:20 | II220519-3 | 2 | | 2.001 | mg/L | 100 | 95 | 105 | | | |
| WG543340ICB | ICB | 06/03/22 21:26 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| WG543340PQV | PQV | 06/03/22 21:29 | II220531-4 | .0501 | | .049 | mg/L | 98 | 70 | 130 | | | |
| WG543340SIC | SIC | 06/03/22 21:32 | II220503-2 | .1002 | | .098 | mg/L | 98 | 80 | 120 | | | |
| WG543340LFB | LFB | 06/03/22 21:38 | II220505-2 | .50045 | | .55 | mg/L | 110 | 85 | 115 | | | |
| WG543340CCV1 | CCV | 06/03/22 22:08 | II220520-1 | 1 | | 1.039 | mg/L | 104 | 90 | 110 | | | |
| WG543340CCB1 | CCB | 06/03/22 22:11 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| L73303-04AS | AS | 06/03/22 22:39 | II220505-2 | .50045 | U | .555 | mg/L | 111 | 85 | 115 | | | |
| L73303-04ASD | ASD | 06/03/22 22:42 | II220505-2 | .50045 | U | .6 | mg/L | 120 | 85 | 115 | 8 | 20 | MA |
| WG543340CCV2 | CCV | 06/03/22 22:45 | II220520-1 | 1 | | 1.048 | mg/L | 105 | 90 | 110 | | | |
| WG543340CCB2 | CCB | 06/03/22 22:48 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| WG543340CCV3 | CCV | 06/03/22 23:07 | II220520-1 | 1 | | 1.075 | mg/L | 108 | 90 | 110 | | | |
| WG543340CCB3 | CCB | 06/03/22 23:10 | | | | U | mg/L | | -0.06 | 0.06 | | | |

**GCC Rio Grande** ACZ Project ID: ***L73303***

| ACZ ID | WORKNUM | PARAMETER | METHOD | QUAL | DESCRIPTION |
|---|---|---|---|---|---|
| **L73303-01** | WG543340 | Boron, dissolved | M200.7 ICP | MA | Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits. |
| | | Iron, dissolved | M200.7 ICP | MA | Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits. |
| | WG542537 | 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). |
| | WG542775 | 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). |
| | | | SM2540C | RO | The duplicate originally assigned to this sample was not used for precision assessment because residue density did not meet method limits. Another duplicate in the batch was used to assess precision. Method required duplicate frequency was not met. |
| | WG543340 | 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. |
| | WG542820 | 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. |
| | WG543340 | Zinc, dissolved | M200.7 ICP | MA | Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits. |
| **L73303-02** | WG543340 | Boron, dissolved | M200.7 ICP | MA | Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits. |
| | | Iron, dissolved | M200.7 ICP | MA | Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits. |
| | WG542537 | 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). |
| | WG542775 | 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). |
| | | | SM2540C | RO | The duplicate originally assigned to this sample was not used for precision assessment because residue density did not meet method limits. Another duplicate in the batch was used to assess precision. Method required duplicate frequency was not met. |
| | WG543340 | 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. |
| | WG542820 | 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. |
| | WG543340 | Zinc, dissolved | M200.7 ICP | MA | Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits. |

**GCC Rio Grande** ACZ Project ID: ***L73303***

| ACZ ID | WORKNUM | PARAMETER | METHOD | QUAL | DESCRIPTION |
|---|---|---|---|---|---|
| **L73303-03** | WG543340 | Boron, dissolved | M200.7 ICP | MA | Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits. |
| | | Iron, dissolved | M200.7 ICP | MA | Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits. |
| | WG543182 | Residue, Filterable (TDS) @180C | SM2540C | H2 | Initial analysis within holding time. Reanalysis for the required dilution was past holding time. |
| | | | 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). |
| | WG543340 | 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. |
| | WG542820 | 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. |
| | WG543340 | Zinc, dissolved | M200.7 ICP | MA | Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits. |
| **L73303-04** | WG543340 | Boron, dissolved | M200.7 ICP | MA | Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits. |
| | | Iron, dissolved | M200.7 ICP | MA | Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits. |
| | WG542775 | 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). |
| | WG543340 | 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. |
| | WG542820 | 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. |
| | WG543340 | Zinc, dissolved | M200.7 ICP | MA | Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits. |
| **L73303-05** | WG543340 | Boron, dissolved | M200.7 ICP | MA | Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits. |
| | | Iron, dissolved | M200.7 ICP | MA | Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits. |
| | WG542775 | 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). |
| | WG543092 | 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. |
| | WG543340 | 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. |
| | WG542820 | 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. |
| | WG543340 | Zinc, dissolved | M200.7 ICP | MA | Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits. |

**GCC Rio Grande** ACZ Project ID: ***L73303***

| ACZ ID | WORKNUM | PARAMETER | METHOD | QUAL | DESCRIPTION |
|---|---|---|---|---|---|
| **L73303-06** | WG543340 | Boron, dissolved | M200.7 ICP | MA | Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits. |
| | | Iron, dissolved | M200.7 ICP | MA | Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits. |
| | WG542775 | 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). |
| | WG543092 | 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. |
| | WG543340 | 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. |
| | WG542820 | 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. |
| | WG543340 | Zinc, dissolved | M200.7 ICP | MA | Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits. |
| **L73303-07** | WG543340 | Boron, dissolved | M200.7 ICP | MA | Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits. |
| | | Iron, dissolved | M200.7 ICP | MA | Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits. |
| | WG542775 | 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). |
| | WG543340 | 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. |
| | WG542820 | 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. |
| | WG543340 | Zinc, dissolved | M200.7 ICP | MA | Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits. |

# Certification Qualifiers

**GCC Rio Grande** ACZ Project ID: ***L73303***

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
105495

ACZ Project ID: L73303
Date Received: 05/18/2022 10:46
Received By:
Date Printed: 5/19/2022

## 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? |
|---|---|---|---|---|
| 2195 | 2.3 | <=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
105495

ACZ Project ID: L73303
Date Received: 05/18/2022 10:46
Received By:
Date Printed: 5/19/2022

[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 | Accredited Environmental Testing | 2773 Downhill Drive, Steamboat Springs, CO 80487, (970) 879-6590 | L73303

# CHAIN of CUSTODY

**Report to:**

Name: Amy Veek
Company: GCC Rio Grande Inc
E-mail: aveek@gcc.com
Address: 3372 Lime Road, Pueblo CO 81004
Telephone: 719-647-6861

**Copy of Report to:**

Name: Landon Beck
Company: Resource Hydrogeologic
E-mail: lbeck@resourcehydrogeologic.com
Telephone: (970) 459-4865

**Invoice to:**

Name: Amy Veek
Company: GCC Rio Grande Inc
E-mail: aveek@gcc.com
Address: 3372 Lime Road, Pueblo CO 81004
Telephone: 719-647-6861

**Copy of Invoice to:**

Name:
Company:
E-mail:
Address:
Telephone:

**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:** Amy Veek **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
PO#: 105495
Reporting state for compliance testing:
Check box if samples include NRC licensed material?

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

| SAMPLE IDENTIFICATION | DATE:TIME | Matrix | # of Containers | GW-COmpliance | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| MW-14 | 5/17/2022 09:32 | GW | 3 | ✓ | | | | | | | |
| MW-10 | 5/17/2022 10:18 | GW | 3 | ✓ | | | | | | | |
| MW-9 | 5/17/2022 10:32 | GW | 3 | ✓ | | | | | | | |
| MW-12 | 5/17/2022 11:01 | GW | 3 | ✓ | | | | | | | |
| MW-11 | 5/17/2022 11:12 | GW | 3 | ✓ | | | | | | | |
| MW-6 | 5/17/2022 11:33 | GW | 3 | ✓ | | | | | | | |
| MW-8 | 5/17/2022 11:50 | 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] | 5/17/22 15:02 | [signature] | 5/18/22 10:46 |
| | | | |
| | | | |

Qualtrax ID: 1984 Revision #: 2 White - Return with sample. Yellow - Retain for your records.

L73303 Chain of Custod

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

# Revised Analytical Report

September 07, 2022

Report to:
Amy Veek
GCC Rio Grande
3372 Lime Road
Pueblo, CO 81004

Bill to:
Amy Veek
GCC Rio Grande
3372 Lime Road
Pueblo, CO 81004

cc: Landon Beck

Project ID: 105495
ACZ Project ID: L75198

Amy Veek:

Enclosed are revised analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on August 16, 2022 and originally reported on September 06, 2022. Refer to the case narrative for an explanation of the changes. This project was assigned to ACZ's project number, L75198. 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 L75198. 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 06, 2023. If the samples are determined to be hazardous, additional charges apply for disposal (typically less than $10/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 reports for five years.

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

Sue Webber has reviewed and approved this report.

GCC Rio Grande

September 06, 2022

Project ID: 105495
ACZ Project ID: L75198

## Sample Receipt

ACZ Laboratories, Inc. (ACZ) received 10 groundwater samples from GCC Rio Grande on August 16, 2022. The samples were received in good condition. Upon receipt, the sample custodian removed the samples from the cooler, inspected the contents, and logged the samples into ACZ's computerized Laboratory Information Management System (LIMS). The samples were assigned ACZ LIMS project number L75198. The custodian verified the sample information entered into the computer against the chain of custody (COC) forms and sample bottle labels.

## Holding Times

All analyses were performed within EPA recommended holding times.

## Sample Analysis

These samples were analyzed for inorganic parameters. The individual methods are referenced on both, the ACZ invoice and the analytical reports.

This project was revised on 09/06/2022 to report dissolved cobalt by ICPMS for L75198-01, -03, -05, -09, and -10 per client request. No other changes were made.

**GCC Rio Grande**
Project ID: 105495
Sample ID: MW-14

ACZ Sample ID: ***L75198-01***
Date Sampled: *08/15/22 10:03*
Date Received: *08/16/22*
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 | 08/31/22 10:52 | wtc |
| Arsenic, dissolved | M200.8 ICP-MS | 1 | 0.00590 | | | mg/L | 0.0002 | 0.001 | 08/18/22 16:53 | mfm |
| Beryllium, dissolved | M200.7 ICP | 5 | <0.05 | U | | mg/L | 0.05 | 0.25 | 08/31/22 10:52 | wtc |
| Boron, dissolved | M200.7 ICP | 5 | 1.17 | | | mg/L | 0.15 | 0.5 | 08/31/22 10:52 | wtc |
| Cadmium, dissolved | M200.8 ICP-MS | 1 | <0.00005 | U | | mg/L | 0.00005 | 0.00025 | 08/18/22 16:53 | mfm |
| Calcium, dissolved | M200.7 ICP | 5 | 17.3 | | | mg/L | 0.5 | 2.5 | 08/31/22 10:52 | wtc |
| Chromium, dissolved | M200.7 ICP | 5 | <0.1 | U | | mg/L | 0.1 | 0.25 | 08/31/22 10:52 | wtc |
| Cobalt, dissolved | M200.8 ICP-MS | 1 | 0.000751 | | | mg/L | 0.00005 | 0.00025 | 08/18/22 16:53 | mfm |
| Copper, dissolved | M200.7 ICP | 5 | <0.05 | U | * | mg/L | 0.05 | 0.25 | 08/31/22 10:52 | wtc |
| Iron, dissolved | M200.7 ICP | 5 | <0.3 | U | | mg/L | 0.3 | 0.75 | 08/31/22 10:52 | wtc |
| Lead, dissolved | M200.8 ICP-MS | 2 | <0.0002 | U | * | mg/L | 0.0002 | 0.001 | 08/22/22 10:43 | mfm |
| Lithium, dissolved | M200.7 ICP | 5 | 0.358 | | | mg/L | 0.04 | 0.2 | 08/31/22 10:52 | wtc |
| Magnesium, dissolved | M200.7 ICP | 5 | 4.86 | B | | mg/L | 1 | 5 | 08/31/22 10:52 | wtc |
| Manganese, dissolved | M200.7 ICP | 5 | <0.05 | U | | mg/L | 0.05 | 0.25 | 08/31/22 10:52 | wtc |
| Mercury, dissolved | M245.1 CVAA | 1 | <0.0002 | U | * | mg/L | 0.0002 | 0.001 | 08/18/22 14:50 | mlh |
| Nickel, dissolved | M200.7 ICP | 5 | <0.04 | U | | mg/L | 0.04 | 0.2 | 08/31/22 10:52 | wtc |
| Potassium, dissolved | M200.7 ICP | 5 | 5.31 | | | mg/L | 1 | 5 | 08/31/22 10:52 | wtc |
| Selenium, dissolved | M200.8 ICP-MS | 2 | <0.0002 | U | * | mg/L | 0.0002 | 0.0005 | 08/22/22 10:43 | mfm |
| Sodium, dissolved | M200.7 ICP | 5 | 1450 | | * | mg/L | 1 | 5 | 08/31/22 10:52 | wtc |
| Vanadium, dissolved | M200.7 ICP | 5 | <0.05 | U | | mg/L | 0.05 | 0.125 | 08/31/22 10:52 | wtc |
| Zinc, dissolved | M200.7 ICP | 5 | <0.1 | U | | mg/L | 0.1 | 0.25 | 08/31/22 10:52 | wtc |

Wet Chemistry

| Parameter | EPA Method | Dilution | Result | Qual | XQ | Units | MDL | PQL | Date | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Alkalinity as CaCO3 | SM2320B - Titration | | | | | | | | | |
| Bicarbonate as CaCO3 | | 1 | 1300 | | | mg/L | 2 | 20 | 08/19/22 0:00 | jck |
| Carbonate as CaCO3 | | 1 | <2 | U | | mg/L | 2 | 20 | 08/19/22 0:00 | jck |
| Hydroxide as CaCO3 | | 1 | <2 | U | | mg/L | 2 | 20 | 08/19/22 0:00 | jck |
| Total Alkalinity | | 1 | 1300 | | | mg/L | 2 | 20 | 08/19/22 0:00 | jck |
| Chloride | SM4500Cl-E | 50 | 1480 | | * | mg/L | 50 | 100 | 08/24/22 13:20 | mjj1 |
| Fluoride | SM4500F-C | 1 | 3.10 | | * | mg/L | 0.15 | 0.35 | 08/24/22 14:52 | emk |
| Nitrate as N, dissolved | Calculation: NO3NO2 minus NO2 | | <0.02 | U | | mg/L | 0.02 | 0.1 | 09/07/22 0:00 | calc |
| Nitrate/Nitrite as N, dissolved | M353.2 - Automated Cadmium Reduction | 1 | <0.02 | U | | mg/L | 0.02 | 0.1 | 08/16/22 23:24 | pjb |
| Nitrite as N, dissolved | M353.2 - Automated Cadmium Reduction | 1 | <0.01 | U | * | mg/L | 0.01 | 0.05 | 08/16/22 23:24 | pjb |
| Residue, Filterable (TDS) @180C | SM2540C | 2 | 4240 | | | mg/L | 40 | 80 | 08/22/22 16:37 | svm |
| Sulfate | D516-02/-07/-11 - TURBIDIMETRIC | 10 | 321 | | * | mg/L | 10 | 50 | 08/23/22 16:44 | mjj1 |

**GCC Rio Grande**
Project ID: 105495
Sample ID: MW-13

ACZ Sample ID: ***L75198-02***
Date Sampled: *08/15/22 10:57*
Date Received: *08/16/22*
Sample Matrix: *Groundwater*

Metals Analysis

| Parameter | EPA Method | Dilution | Result | Qual | XQ | Units | MDL | PQL | Date | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum, dissolved | M200.7 ICP | 2 | <0.1 | U | | mg/L | 0.1 | 0.5 | 08/31/22 10:55 | wtc |
| Arsenic, dissolved | M200.8 ICP-MS | 1 | 0.00285 | | | mg/L | 0.0002 | 0.001 | 08/18/22 16:59 | mfm |
| Beryllium, dissolved | M200.7 ICP | 2 | <0.02 | U | | mg/L | 0.02 | 0.1 | 08/31/22 10:55 | wtc |
| Boron, dissolved | M200.7 ICP | 2 | 0.996 | | | mg/L | 0.06 | 0.2 | 08/31/22 10:55 | wtc |
| Cadmium, dissolved | M200.8 ICP-MS | 1 | <0.00005 | U | | mg/L | 0.00005 | 0.00025 | 08/18/22 16:59 | mfm |
| Calcium, dissolved | M200.7 ICP | 2 | 7.84 | | | mg/L | 0.2 | 1 | 08/31/22 10:55 | wtc |
| Chromium, dissolved | M200.7 ICP | 2 | <0.04 | U | | mg/L | 0.04 | 0.1 | 08/31/22 10:55 | wtc |
| Cobalt, dissolved | M200.7 ICP | 2 | <0.04 | U | | mg/L | 0.04 | 0.1 | 08/31/22 10:55 | wtc |
| Copper, dissolved | M200.7 ICP | 2 | <0.02 | U | * | mg/L | 0.02 | 0.1 | 08/31/22 10:55 | wtc |
| Iron, dissolved | M200.7 ICP | 2 | <0.12 | U | | mg/L | 0.12 | 0.3 | 08/31/22 10:55 | wtc |
| Lead, dissolved | M200.8 ICP-MS | 1 | <0.0001 | U | * | mg/L | 0.0001 | 0.0005 | 08/18/22 16:59 | mfm |
| Lithium, dissolved | M200.7 ICP | 2 | 0.207 | | | mg/L | 0.016 | 0.08 | 08/31/22 10:55 | wtc |
| Magnesium, dissolved | M200.7 ICP | 2 | 1.74 | B | | mg/L | 0.4 | 2 | 08/31/22 10:55 | wtc |
| Manganese, dissolved | M200.7 ICP | 2 | <0.02 | U | | mg/L | 0.02 | 0.1 | 08/31/22 10:55 | wtc |
| Mercury, dissolved | M245.1 CVAA | 1 | <0.0002 | U | * | mg/L | 0.0002 | 0.001 | 08/18/22 14:55 | mlh |
| Nickel, dissolved | M200.7 ICP | 2 | <0.016 | U | | mg/L | 0.016 | 0.08 | 08/31/22 10:55 | wtc |
| Potassium, dissolved | M200.7 ICP | 2 | 3.14 | | | mg/L | 0.4 | 2 | 08/31/22 10:55 | wtc |
| Selenium, dissolved | M200.8 ICP-MS | 2 | <0.0002 | U | * | mg/L | 0.0002 | 0.0005 | 08/22/22 10:48 | mfm |
| Sodium, dissolved | M200.7 ICP | 2 | 910 | | * | mg/L | 0.4 | 2 | 08/31/22 10:55 | wtc |
| Vanadium, dissolved | M200.7 ICP | 2 | <0.02 | U | | mg/L | 0.02 | 0.05 | 08/31/22 10:55 | wtc |
| Zinc, dissolved | M200.7 ICP | 2 | <0.04 | U | | mg/L | 0.04 | 0.1 | 08/31/22 10:55 | wtc |

Wet Chemistry

| Parameter | EPA Method | Dilution | Result | Qual | XQ | Units | MDL | PQL | Date | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Alkalinity as CaCO3 | SM2320B - Titration | | | | | | | | | |
| Bicarbonate as CaCO3 | | 1 | 1180 | | | mg/L | 2 | 20 | 08/19/22 0:00 | jck |
| Carbonate as CaCO3 | | 1 | <2 | U | | mg/L | 2 | 20 | 08/19/22 0:00 | jck |
| Hydroxide as CaCO3 | | 1 | <2 | U | | mg/L | 2 | 20 | 08/19/22 0:00 | jck |
| Total Alkalinity | | 1 | 1180 | | | mg/L | 2 | 20 | 08/19/22 0:00 | jck |
| Chloride | SM4500Cl-E | 10 | 606 | | * | mg/L | 10 | 20 | 08/24/22 12:27 | mjj1 |
| Fluoride | SM4500F-C | 1 | 6.46 | | * | mg/L | 0.15 | 0.35 | 08/24/22 15:00 | emk |
| Nitrate as N, dissolved | Calculation: NO3NO2 minus NO2 | | <0.02 | U | | mg/L | 0.02 | 0.1 | 09/07/22 0:00 | calc |
| Nitrate/Nitrite as N, dissolved | M353.2 - Automated Cadmium Reduction | 1 | <0.02 | U | | mg/L | 0.02 | 0.1 | 08/16/22 23:25 | pjb |
| Nitrite as N, dissolved | M353.2 - Automated Cadmium Reduction | 1 | 0.029 | B | * | mg/L | 0.01 | 0.05 | 08/16/22 23:25 | pjb |
| Residue, Filterable (TDS) @180C | SM2540C | 1 | 2610 | | * | mg/L | 20 | 40 | 08/19/22 10:43 | svm |
| Sulfate | D516-02/-07/-11 - TURBIDIMETRIC | 5 | 172 | | * | mg/L | 5 | 25 | 08/23/22 16:44 | mjj1 |

**GCC Rio Grande**
Project ID: 105495
Sample ID: MW-6

ACZ Sample ID: ***L75198-03***
Date Sampled: *08/15/22 11:51*
Date Received: *08/16/22*
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 | 08/31/22 10:58 | wtc |
| Arsenic, dissolved | M200.8 ICP-MS | 1 | 0.00040 | B | | mg/L | 0.0002 | 0.001 | 08/18/22 17:01 | mfm |
| Beryllium, dissolved | M200.7 ICP | 5 | <0.05 | U | | mg/L | 0.05 | 0.25 | 08/31/22 10:58 | wtc |
| Boron, dissolved | M200.7 ICP | 5 | 0.187 | B | | mg/L | 0.15 | 0.5 | 08/31/22 10:58 | wtc |
| Cadmium, dissolved | M200.8 ICP-MS | 1 | 0.000131 | B | | mg/L | 0.00005 | 0.00025 | 08/18/22 17:01 | mfm |
| Calcium, dissolved | M200.7 ICP | 5 | 421 | | | mg/L | 0.5 | 2.5 | 08/31/22 10:58 | wtc |
| Chromium, dissolved | M200.7 ICP | 5 | <0.1 | U | | mg/L | 0.1 | 0.25 | 08/31/22 10:58 | wtc |
| Cobalt, dissolved | M200.8 ICP-MS | 1 | 0.0204 | | | mg/L | 0.00005 | 0.00025 | 08/18/22 17:01 | mfm |
| Copper, dissolved | M200.7 ICP | 5 | <0.05 | U | * | mg/L | 0.05 | 0.25 | 08/31/22 10:58 | wtc |
| Iron, dissolved | M200.7 ICP | 5 | 0.696 | B | | mg/L | 0.3 | 0.75 | 08/31/22 10:58 | wtc |
| Lead, dissolved | M200.8 ICP-MS | 1 | <0.0001 | U | * | mg/L | 0.0001 | 0.0005 | 08/18/22 17:01 | mfm |
| Lithium, dissolved | M200.7 ICP | 5 | 0.425 | | | mg/L | 0.04 | 0.2 | 08/31/22 10:58 | wtc |
| Magnesium, dissolved | M200.7 ICP | 5 | 410 | | | mg/L | 1 | 5 | 08/31/22 10:58 | wtc |
| Manganese, dissolved | M200.7 ICP | 5 | 0.290 | | | mg/L | 0.05 | 0.25 | 08/31/22 10:58 | wtc |
| Mercury, dissolved | M245.1 CVAA | 1 | <0.0002 | U | * | mg/L | 0.0002 | 0.001 | 08/18/22 14:56 | mlh |
| Nickel, dissolved | M200.7 ICP | 5 | 0.409 | | | mg/L | 0.04 | 0.2 | 08/31/22 10:58 | wtc |
| Potassium, dissolved | M200.7 ICP | 5 | 10.8 | | | mg/L | 1 | 5 | 08/31/22 10:58 | wtc |
| Selenium, dissolved | M200.8 ICP-MS | 1 | 0.0112 | | | mg/L | 0.0001 | 0.00025 | 08/23/22 15:06 | mfm |
| Sodium, dissolved | M200.7 ICP | 5 | 456 | | * | mg/L | 1 | 5 | 08/31/22 10:58 | wtc |
| Vanadium, dissolved | M200.7 ICP | 5 | <0.05 | U | | mg/L | 0.05 | 0.125 | 08/31/22 10:58 | wtc |
| Zinc, dissolved | M200.7 ICP | 5 | <0.1 | U | | mg/L | 0.1 | 0.25 | 08/31/22 10:58 | wtc |

Wet Chemistry

| Parameter | EPA Method | Dilution | Result | Qual | XQ | Units | MDL | PQL | Date | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Alkalinity as CaCO3 | SM2320B - Titration | | | | | | | | | |
| Bicarbonate as CaCO3 | | 1 | 421 | | | mg/L | 2 | 20 | 08/19/22 0:00 | jck |
| Carbonate as CaCO3 | | 1 | <2 | U | | mg/L | 2 | 20 | 08/19/22 0:00 | jck |
| Hydroxide as CaCO3 | | 1 | <2 | U | | mg/L | 2 | 20 | 08/19/22 0:00 | jck |
| Total Alkalinity | | 1 | 421 | | | mg/L | 2 | 20 | 08/19/22 0:00 | jck |
| Chloride | SM4500Cl-E | 1 | 68.7 | | * | mg/L | 1 | 2 | 08/24/22 12:25 | mjj1 |
| Fluoride | SM4500F-C | 1 | 0.50 | | | mg/L | 0.15 | 0.35 | 08/24/22 15:21 | emk |
| Nitrate as N, dissolved | Calculation: NO3NO2 minus NO2 | | 1.02 | | | mg/L | 0.02 | 0.1 | 09/07/22 0:00 | calc |
| Nitrate/Nitrite as N, dissolved | M353.2 - Automated Cadmium Reduction | 1 | 1.09 | | | mg/L | 0.02 | 0.1 | 08/16/22 23:27 | pjb |
| Nitrite as N, dissolved | M353.2 - Automated Cadmium Reduction | 1 | 0.070 | | * | mg/L | 0.01 | 0.05 | 08/16/22 23:27 | pjb |
| Residue, Filterable (TDS) @180C | SM2540C | 2 | 5410 | | | mg/L | 40 | 80 | 08/22/22 16:40 | svm |
| Sulfate | D516-02/-07/-11 - TURBIDIMETRIC | 120 | 3700 | | * | mg/L | 120 | 600 | 08/23/22 17:16 | mjj1 |

**GCC Rio Grande**
Project ID: 105495
Sample ID: MW-2B

ACZ Sample ID: ***L75198-04***
Date Sampled: *08/15/22 12:00*
Date Received: *08/16/22*
Sample Matrix: *Groundwater*

Metals Analysis

| Parameter | EPA Method | Dilution | Result | Qual | XQ | Units | MDL | PQL | Date | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum, dissolved | M200.7 ICP | 2 | <0.1 | U | | mg/L | 0.1 | 0.5 | 08/31/22 11:01 | wtc |
| Arsenic, dissolved | M200.8 ICP-MS | 1 | 0.00788 | | | mg/L | 0.0002 | 0.001 | 08/18/22 17:02 | mfm |
| Beryllium, dissolved | M200.7 ICP | 2 | <0.02 | U | | mg/L | 0.02 | 0.1 | 08/31/22 11:01 | wtc |
| Boron, dissolved | M200.7 ICP | 2 | 0.803 | | | mg/L | 0.06 | 0.2 | 08/31/22 11:01 | wtc |
| Cadmium, dissolved | M200.8 ICP-MS | 1 | <0.00005 | U | | mg/L | 0.00005 | 0.00025 | 08/18/22 17:02 | mfm |
| Calcium, dissolved | M200.7 ICP | 2 | 68.1 | | | mg/L | 0.2 | 1 | 08/31/22 11:01 | wtc |
| Chromium, dissolved | M200.7 ICP | 2 | <0.04 | U | | mg/L | 0.04 | 0.1 | 08/31/22 11:01 | wtc |
| Cobalt, dissolved | M200.7 ICP | 2 | <0.04 | U | | mg/L | 0.04 | 0.1 | 08/31/22 11:01 | wtc |
| Copper, dissolved | M200.7 ICP | 2 | <0.02 | U | * | mg/L | 0.02 | 0.1 | 08/31/22 11:01 | wtc |
| Iron, dissolved | M200.7 ICP | 2 | 0.832 | | | mg/L | 0.12 | 0.3 | 08/31/22 11:01 | wtc |
| Lead, dissolved | M200.8 ICP-MS | 1 | <0.0001 | U | * | mg/L | 0.0001 | 0.0005 | 08/18/22 17:02 | mfm |
| Lithium, dissolved | M200.7 ICP | 2 | 0.362 | | | mg/L | 0.016 | 0.08 | 08/31/22 11:01 | wtc |
| Magnesium, dissolved | M200.7 ICP | 2 | 26.5 | | | mg/L | 0.4 | 2 | 08/31/22 11:01 | wtc |
| Manganese, dissolved | M200.7 ICP | 2 | 0.239 | | | mg/L | 0.02 | 0.1 | 08/31/22 11:01 | wtc |
| Mercury, dissolved | M245.1 CVAA | 1 | <0.0002 | U | * | mg/L | 0.0002 | 0.001 | 08/18/22 14:57 | mlh |
| Nickel, dissolved | M200.7 ICP | 2 | <0.016 | U | | mg/L | 0.016 | 0.08 | 08/31/22 11:01 | wtc |
| Potassium, dissolved | M200.7 ICP | 2 | 5.40 | | | mg/L | 0.4 | 2 | 08/31/22 11:01 | wtc |
| Selenium, dissolved | M200.8 ICP-MS | 2 | <0.0002 | U | * | mg/L | 0.0002 | 0.0005 | 08/22/22 10:52 | mfm |
| Sodium, dissolved | M200.7 ICP | 2 | 1100 | | * | mg/L | 0.4 | 2 | 08/31/22 11:01 | wtc |
| Vanadium, dissolved | M200.7 ICP | 2 | <0.02 | U | | mg/L | 0.02 | 0.05 | 08/31/22 11:01 | wtc |
| Zinc, dissolved | M200.7 ICP | 2 | <0.04 | U | | mg/L | 0.04 | 0.1 | 08/31/22 11:01 | wtc |

Wet Chemistry

| Parameter | EPA Method | Dilution | Result | Qual | XQ | Units | MDL | PQL | Date | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Alkalinity as CaCO3 | SM2320B - Titration | | | | | | | | | |
| Bicarbonate as CaCO3 | | 1 | 1100 | | | mg/L | 2 | 20 | 08/19/22 0:00 | jck |
| Carbonate as CaCO3 | | 1 | <2 | U | | mg/L | 2 | 20 | 08/19/22 0:00 | jck |
| Hydroxide as CaCO3 | | 1 | <2 | U | | mg/L | 2 | 20 | 08/19/22 0:00 | jck |
| Total Alkalinity | | 1 | 1100 | | | mg/L | 2 | 20 | 08/19/22 0:00 | jck |
| Chloride | SM4500Cl-E | 10 | 290 | | * | mg/L | 10 | 20 | 08/24/22 12:27 | mjj1 |
| Fluoride | SM4500F-C | 1 | 1.07 | | | mg/L | 0.15 | 0.35 | 08/24/22 15:29 | emk |
| Nitrate as N, dissolved | Calculation: NO3NO2 minus NO2 | | <0.02 | U | | mg/L | 0.02 | 0.1 | 09/07/22 0:00 | calc |
| Nitrate/Nitrite as N, dissolved | M353.2 - Automated Cadmium Reduction | 1 | <0.02 | U | | mg/L | 0.02 | 0.1 | 08/16/22 23:28 | pjb |
| Nitrite as N, dissolved | M353.2 - Automated Cadmium Reduction | 1 | <0.01 | U | * | mg/L | 0.01 | 0.05 | 08/16/22 23:28 | pjb |
| Residue, Filterable (TDS) @180C | SM2540C | 2 | 3730 | | * | mg/L | 40 | 80 | 08/19/22 10:48 | svm |
| Sulfate | D516-02/-07/-11 - TURBIDIMETRIC | 50 | 1560 | | * | mg/L | 50 | 250 | 08/23/22 16:44 | mjj1 |

**GCC Rio Grande**
Project ID: 105495
Sample ID: MW-7

ACZ Sample ID: ***L75198-05***
Date Sampled: *08/15/22 12:21*
Date Received: *08/16/22*
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 | 08/31/22 11:04 | wtc |
| Arsenic, dissolved | M200.8 ICP-MS | 1 | 0.00040 | B | | mg/L | 0.0002 | 0.001 | 08/18/22 17:04 | mfm |
| Beryllium, dissolved | M200.7 ICP | 5 | <0.05 | U | | mg/L | 0.05 | 0.25 | 08/31/22 11:04 | wtc |
| Boron, dissolved | M200.7 ICP | 5 | 0.294 | B | | mg/L | 0.15 | 0.5 | 08/31/22 11:04 | wtc |
| Cadmium, dissolved | M200.8 ICP-MS | 1 | 0.000067 | B | | mg/L | 0.00005 | 0.00025 | 08/18/22 17:04 | mfm |
| Calcium, dissolved | M200.7 ICP | 5 | 346 | | | mg/L | 0.5 | 2.5 | 08/31/22 11:04 | wtc |
| Chromium, dissolved | M200.7 ICP | 5 | <0.1 | U | | mg/L | 0.1 | 0.25 | 08/31/22 11:04 | wtc |
| Cobalt, dissolved | M200.8 ICP-MS | 1 | 0.00277 | | | mg/L | 0.00005 | 0.00025 | 08/18/22 17:04 | mfm |
| Copper, dissolved | M200.7 ICP | 5 | <0.05 | U | * | mg/L | 0.05 | 0.25 | 08/31/22 11:04 | wtc |
| Iron, dissolved | M200.7 ICP | 5 | 0.438 | B | | mg/L | 0.3 | 0.75 | 08/31/22 11:04 | wtc |
| Lead, dissolved | M200.8 ICP-MS | 1 | <0.0001 | U | * | mg/L | 0.0001 | 0.0005 | 08/18/22 17:04 | mfm |
| Lithium, dissolved | M200.7 ICP | 5 | 0.543 | | | mg/L | 0.04 | 0.2 | 08/31/22 11:04 | wtc |
| Magnesium, dissolved | M200.7 ICP | 5 | 371 | | | mg/L | 1 | 5 | 08/31/22 11:04 | wtc |
| Manganese, dissolved | M200.7 ICP | 5 | 0.072 | B | | mg/L | 0.05 | 0.25 | 08/31/22 11:04 | wtc |
| Mercury, dissolved | M245.1 CVAA | 1 | <0.0002 | U | * | mg/L | 0.0002 | 0.001 | 08/18/22 14:58 | mlh |
| Nickel, dissolved | M200.7 ICP | 5 | <0.04 | U | | mg/L | 0.04 | 0.2 | 08/31/22 11:04 | wtc |
| Potassium, dissolved | M200.7 ICP | 5 | 10.5 | | | mg/L | 1 | 5 | 08/31/22 11:04 | wtc |
| Selenium, dissolved | M200.8 ICP-MS | 1 | 0.00075 | | | mg/L | 0.0001 | 0.00025 | 08/23/22 15:08 | mfm |
| Sodium, dissolved | M200.7 ICP | 5 | 703 | | * | mg/L | 1 | 5 | 08/31/22 11:04 | wtc |
| Vanadium, dissolved | M200.7 ICP | 5 | <0.05 | U | | mg/L | 0.05 | 0.125 | 08/31/22 11:04 | wtc |
| Zinc, dissolved | M200.7 ICP | 5 | <0.1 | U | | mg/L | 0.1 | 0.25 | 08/31/22 11:04 | wtc |

Wet Chemistry

| Parameter | EPA Method | Dilution | Result | Qual | XQ | Units | MDL | PQL | Date | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Alkalinity as CaCO3 | SM2320B - Titration | | | | | | | | | |
| Bicarbonate as CaCO3 | | 1 | 484 | | | mg/L | 2 | 20 | 08/19/22 0:00 | jck |
| Carbonate as CaCO3 | | 1 | <2 | U | | mg/L | 2 | 20 | 08/19/22 0:00 | jck |
| Hydroxide as CaCO3 | | 1 | <2 | U | | mg/L | 2 | 20 | 08/19/22 0:00 | jck |
| Total Alkalinity | | 1 | 484 | | | mg/L | 2 | 20 | 08/19/22 0:00 | jck |
| Chloride | SM4500Cl-E | 1 | 96.8 | | * | mg/L | 1 | 2 | 08/24/22 12:25 | mjj1 |
| Fluoride | SM4500F-C | 1 | 0.50 | | | mg/L | 0.15 | 0.35 | 08/24/22 15:37 | emk |
| Nitrate as N, dissolved | Calculation: NO3NO2 minus NO2 | | 0.151 | | | mg/L | 0.02 | 0.1 | 09/07/22 0:00 | calc |
| Nitrate/Nitrite as N, dissolved | M353.2 - Automated Cadmium Reduction | 1 | 0.151 | | | mg/L | 0.02 | 0.1 | 08/16/22 23:29 | pjb |
| Nitrite as N, dissolved | M353.2 - Automated Cadmium Reduction | 1 | <0.01 | U | * | mg/L | 0.01 | 0.05 | 08/16/22 23:29 | pjb |
| Residue, Filterable (TDS) @180C | SM2540C | 2 | 6170 | | | mg/L | 40 | 80 | 08/22/22 16:43 | svm |
| Sulfate | D516-02/-07/-11 - TURBIDIMETRIC | 120 | 3810 | | * | mg/L | 120 | 600 | 08/23/22 17:16 | mjj1 |

**GCC Rio Grande**
Project ID: 105495
Sample ID: MW-8

ACZ Sample ID: ***L75198-06***
Date Sampled: *08/15/22 12:41*
Date Received: *08/16/22*
Sample Matrix: *Groundwater*

Metals Analysis

| Parameter | EPA Method | Dilution | Result | Qual | XQ | Units | MDL | PQL | Date | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum, dissolved | M200.7 ICP | 2 | <0.1 | U | | mg/L | 0.1 | 0.5 | 08/31/22 11:07 | wtc |
| Arsenic, dissolved | M200.8 ICP-MS | 1 | 0.00767 | | | mg/L | 0.0002 | 0.001 | 08/18/22 17:06 | mfm |
| Beryllium, dissolved | M200.7 ICP | 2 | <0.02 | U | | mg/L | 0.02 | 0.1 | 08/31/22 11:07 | wtc |
| Boron, dissolved | M200.7 ICP | 2 | 0.811 | | | mg/L | 0.06 | 0.2 | 08/31/22 11:07 | wtc |
| Cadmium, dissolved | M200.8 ICP-MS | 1 | <0.00005 | U | | mg/L | 0.00005 | 0.00025 | 08/18/22 17:06 | mfm |
| Calcium, dissolved | M200.7 ICP | 2 | 68.1 | | | mg/L | 0.2 | 1 | 08/31/22 11:07 | wtc |
| Chromium, dissolved | M200.7 ICP | 2 | <0.04 | U | | mg/L | 0.04 | 0.1 | 08/31/22 11:07 | wtc |
| Cobalt, dissolved | M200.7 ICP | 2 | <0.04 | U | | mg/L | 0.04 | 0.1 | 08/31/22 11:07 | wtc |
| Copper, dissolved | M200.7 ICP | 2 | <0.02 | U | * | mg/L | 0.02 | 0.1 | 08/31/22 11:07 | wtc |
| Iron, dissolved | M200.7 ICP | 2 | 0.830 | | | mg/L | 0.12 | 0.3 | 08/31/22 11:07 | wtc |
| Lead, dissolved | M200.8 ICP-MS | 1 | <0.0001 | U | * | mg/L | 0.0001 | 0.0005 | 08/18/22 17:06 | mfm |
| Lithium, dissolved | M200.7 ICP | 2 | 0.366 | | | mg/L | 0.016 | 0.08 | 08/31/22 11:07 | wtc |
| Magnesium, dissolved | M200.7 ICP | 2 | 26.6 | | | mg/L | 0.4 | 2 | 08/31/22 11:07 | wtc |
| Manganese, dissolved | M200.7 ICP | 2 | 0.236 | | | mg/L | 0.02 | 0.1 | 08/31/22 11:07 | wtc |
| Mercury, dissolved | M245.1 CVAA | 1 | <0.0002 | U | * | mg/L | 0.0002 | 0.001 | 08/18/22 14:59 | mlh |
| Nickel, dissolved | M200.7 ICP | 2 | <0.016 | U | | mg/L | 0.016 | 0.08 | 08/31/22 11:07 | wtc |
| Potassium, dissolved | M200.7 ICP | 2 | 5.43 | | | mg/L | 0.4 | 2 | 08/31/22 11:07 | wtc |
| Selenium, dissolved | M200.8 ICP-MS | 2 | <0.0002 | U | * | mg/L | 0.0002 | 0.0005 | 08/22/22 10:56 | mfm |
| Sodium, dissolved | M200.7 ICP | 2 | 1110 | | * | mg/L | 0.4 | 2 | 08/31/22 11:07 | wtc |
| Vanadium, dissolved | M200.7 ICP | 2 | <0.02 | U | | mg/L | 0.02 | 0.05 | 08/31/22 11:07 | wtc |
| Zinc, dissolved | M200.7 ICP | 2 | <0.04 | U | | mg/L | 0.04 | 0.1 | 08/31/22 11:07 | wtc |

Wet Chemistry

| Parameter | EPA Method | Dilution | Result | Qual | XQ | Units | MDL | PQL | Date | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Alkalinity as CaCO3 | SM2320B - Titration | | | | | | | | | |
| Bicarbonate as CaCO3 | | 1 | 1090 | | | mg/L | 2 | 20 | 08/19/22 0:00 | jck |
| Carbonate as CaCO3 | | 1 | <2 | U | | mg/L | 2 | 20 | 08/19/22 0:00 | jck |
| Hydroxide as CaCO3 | | 1 | <2 | U | | mg/L | 2 | 20 | 08/19/22 0:00 | jck |
| Total Alkalinity | | 1 | 1090 | | | mg/L | 2 | 20 | 08/19/22 0:00 | jck |
| Chloride | SM4500Cl-E | 10 | 291 | | * | mg/L | 10 | 20 | 08/24/22 12:27 | mjj1 |
| Fluoride | SM4500F-C | 1 | 1.09 | | | mg/L | 0.15 | 0.35 | 08/24/22 15:45 | emk |
| Nitrate as N, dissolved | Calculation: NO3NO2 minus NO2 | | <0.02 | U | | mg/L | 0.02 | 0.1 | 09/07/22 0:00 | calc |
| Nitrate/Nitrite as N, dissolved | M353.2 - Automated Cadmium Reduction | 1 | <0.02 | U | | mg/L | 0.02 | 0.1 | 08/16/22 23:30 | pjb |
| Nitrite as N, dissolved | M353.2 - Automated Cadmium Reduction | 1 | <0.01 | U | | mg/L | 0.01 | 0.05 | 08/16/22 23:30 | pjb |
| Residue, Filterable (TDS) @180C | SM2540C | 1 | 3790 | | * | mg/L | 20 | 40 | 08/19/22 10:53 | svm |
| Sulfate | D516-02/-07/-11 - TURBIDIMETRIC | 50 | 1510 | | * | mg/L | 50 | 250 | 08/23/22 16:46 | mjj1 |

**GCC Rio Grande**
Project ID: 105495
Sample ID: MW-12

ACZ Sample ID: ***L75198-07***
Date Sampled: *08/15/22 14:15*
Date Received: *08/16/22*
Sample Matrix: *Groundwater*

Metals Analysis

| Parameter | EPA Method | Dilution | Result | Qual | XQ | Units | MDL | PQL | Date | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum, dissolved | M200.7 ICP | 2 | <0.1 | U | | mg/L | 0.1 | 0.5 | 08/31/22 11:16 | wtc |
| Arsenic, dissolved | M200.8 ICP-MS | 1 | 0.00157 | | | mg/L | 0.0002 | 0.001 | 08/18/22 17:08 | mfm |
| Beryllium, dissolved | M200.7 ICP | 2 | <0.02 | U | | mg/L | 0.02 | 0.1 | 08/31/22 11:16 | wtc |
| Boron, dissolved | M200.7 ICP | 2 | 0.785 | | | mg/L | 0.06 | 0.2 | 08/31/22 11:16 | wtc |
| Cadmium, dissolved | M200.8 ICP-MS | 1 | <0.00005 | U | | mg/L | 0.00005 | 0.00025 | 08/18/22 17:08 | mfm |
| Calcium, dissolved | M200.7 ICP | 2 | 25.5 | | | mg/L | 0.2 | 1 | 08/31/22 11:16 | wtc |
| Chromium, dissolved | M200.7 ICP | 2 | <0.04 | U | | mg/L | 0.04 | 0.1 | 08/31/22 11:16 | wtc |
| Cobalt, dissolved | M200.7 ICP | 2 | <0.04 | U | | mg/L | 0.04 | 0.1 | 08/31/22 11:16 | wtc |
| Copper, dissolved | M200.7 ICP | 2 | <0.02 | U | | mg/L | 0.02 | 0.1 | 08/31/22 11:16 | wtc |
| Iron, dissolved | M200.7 ICP | 2 | <0.12 | U | | mg/L | 0.12 | 0.3 | 08/31/22 11:16 | wtc |
| Lead, dissolved | M200.8 ICP-MS | 2 | <0.0002 | U | * | mg/L | 0.0002 | 0.001 | 08/22/22 10:58 | mfm |
| Lithium, dissolved | M200.7 ICP | 2 | 0.193 | | | mg/L | 0.016 | 0.08 | 08/31/22 11:16 | wtc |
| Magnesium, dissolved | M200.7 ICP | 2 | 6.19 | | | mg/L | 0.4 | 2 | 08/31/22 11:16 | wtc |
| Manganese, dissolved | M200.7 ICP | 2 | <0.02 | U | | mg/L | 0.02 | 0.1 | 08/31/22 11:16 | wtc |
| Mercury, dissolved | M245.1 CVAA | 1 | <0.0002 | U | | mg/L | 0.0002 | 0.001 | 08/18/22 15:00 | mlh |
| Nickel, dissolved | M200.7 ICP | 2 | <0.016 | U | | mg/L | 0.016 | 0.08 | 08/31/22 11:16 | wtc |
| Potassium, dissolved | M200.7 ICP | 2 | 3.74 | | | mg/L | 0.4 | 2 | 08/31/22 11:16 | wtc |
| Selenium, dissolved | M200.8 ICP-MS | 2 | <0.0002 | U | * | mg/L | 0.0002 | 0.0005 | 08/22/22 10:58 | mfm |
| Sodium, dissolved | M200.7 ICP | 2 | 805 | | | mg/L | 0.4 | 2 | 08/31/22 11:16 | wtc |
| Vanadium, dissolved | M200.7 ICP | 2 | <0.02 | U | | mg/L | 0.02 | 0.05 | 08/31/22 11:16 | wtc |
| Zinc, dissolved | M200.7 ICP | 2 | <0.04 | U | | mg/L | 0.04 | 0.1 | 08/31/22 11:16 | wtc |

Wet Chemistry

| Parameter | EPA Method | Dilution | Result | Qual | XQ | Units | MDL | PQL | Date | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Alkalinity as CaCO3 | SM2320B - Titration | | | | | | | | | |
| Bicarbonate as CaCO3 | | 1 | 523 | | | mg/L | 2 | 20 | 08/19/22 0:00 | jck |
| Carbonate as CaCO3 | | 1 | <2 | U | | mg/L | 2 | 20 | 08/19/22 0:00 | jck |
| Hydroxide as CaCO3 | | 1 | <2 | U | | mg/L | 2 | 20 | 08/19/22 0:00 | jck |
| Total Alkalinity | | 1 | 523 | | | mg/L | 2 | 20 | 08/19/22 0:00 | jck |
| Chloride | SM4500Cl-E | 50 | 954 | | * | mg/L | 50 | 100 | 08/24/22 13:20 | mjj1 |
| Fluoride | SM4500F-C | 1 | 1.85 | | | mg/L | 0.15 | 0.35 | 08/24/22 15:52 | emk |
| Nitrate as N, dissolved | Calculation: NO3NO2 minus NO2 | | 8.89 | | | mg/L | 0.1 | 0.5 | 09/07/22 0:00 | calc |
| Nitrate/Nitrite as N, dissolved | M353.2 - Automated Cadmium Reduction | 5 | 9.40 | | | mg/L | 0.1 | 0.5 | 08/16/22 23:48 | pjb |
| Nitrite as N, dissolved | M353.2 - Automated Cadmium Reduction | 1 | 0.511 | | | mg/L | 0.01 | 0.05 | 08/16/22 23:33 | pjb |
| Residue, Filterable (TDS) @180C | SM2540C | 1 | 2370 | | | mg/L | 20 | 40 | 08/19/22 12:45 | svm |
| Sulfate | D516-02/-07/-11 - TURBIDIMETRIC | 10 | 204 | | * | mg/L | 10 | 50 | 08/23/22 16:46 | mjj1 |

**GCC Rio Grande**
Project ID: 105495
Sample ID: MW-11

ACZ Sample ID: ***L75198-08***
Date Sampled: *08/15/22 14:33*
Date Received: *08/16/22*
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 | 08/31/22 11:20 | wtc |
| Arsenic, dissolved | M200.8 ICP-MS | 1 | 0.00051 | B | | mg/L | 0.0002 | 0.001 | 08/18/22 17:14 | mfm |
| Beryllium, dissolved | M200.7 ICP | 1 | <0.01 | U | | mg/L | 0.01 | 0.05 | 08/31/22 11:20 | wtc |
| Boron, dissolved | M200.7 ICP | 1 | 0.446 | | | mg/L | 0.03 | 0.1 | 08/31/22 11:20 | wtc |
| Cadmium, dissolved | M200.8 ICP-MS | 1 | <0.00005 | U | | mg/L | 0.00005 | 0.00025 | 08/18/22 17:14 | mfm |
| Calcium, dissolved | M200.7 ICP | 1 | 47.2 | | | mg/L | 0.1 | 0.5 | 08/31/22 11:20 | wtc |
| Chromium, dissolved | M200.7 ICP | 1 | <0.02 | U | | mg/L | 0.02 | 0.05 | 08/31/22 11:20 | wtc |
| Cobalt, dissolved | M200.7 ICP | 1 | <0.02 | U | | mg/L | 0.02 | 0.05 | 08/31/22 11:20 | wtc |
| Copper, dissolved | M200.7 ICP | 1 | <0.01 | U | * | mg/L | 0.01 | 0.05 | 08/31/22 11:20 | wtc |
| Iron, dissolved | M200.7 ICP | 1 | <0.06 | U | | mg/L | 0.06 | 0.15 | 08/31/22 11:20 | wtc |
| Lead, dissolved | M200.8 ICP-MS | 1 | <0.0001 | U | * | mg/L | 0.0001 | 0.0005 | 08/18/22 17:14 | mfm |
| Lithium, dissolved | M200.7 ICP | 1 | 0.163 | | | mg/L | 0.008 | 0.04 | 08/31/22 11:20 | wtc |
| Magnesium, dissolved | M200.7 ICP | 1 | 26.3 | | | mg/L | 0.2 | 1 | 08/31/22 11:20 | wtc |
| Manganese, dissolved | M200.7 ICP | 1 | <0.01 | U | | mg/L | 0.01 | 0.05 | 08/31/22 11:20 | wtc |
| Mercury, dissolved | M245.1 CVAA | 1 | <0.0002 | U | | mg/L | 0.0002 | 0.001 | 08/18/22 15:01 | mlh |
| Nickel, dissolved | M200.7 ICP | 1 | <0.008 | U | | mg/L | 0.008 | 0.04 | 08/31/22 11:20 | wtc |
| Potassium, dissolved | M200.7 ICP | 1 | 3.54 | | | mg/L | 0.2 | 1 | 08/31/22 11:20 | wtc |
| Selenium, dissolved | M200.8 ICP-MS | 1 | 0.125 | | * | mg/L | 0.0001 | 0.00025 | 08/22/22 11:03 | mfm |
| Sodium, dissolved | M200.7 ICP | 1 | 477 | | * | mg/L | 0.2 | 1 | 08/31/22 11:20 | wtc |
| Vanadium, dissolved | M200.7 ICP | 1 | <0.01 | U | | mg/L | 0.01 | 0.025 | 08/31/22 11:20 | wtc |
| Zinc, dissolved | M200.7 ICP | 1 | <0.02 | U | | mg/L | 0.02 | 0.05 | 08/31/22 11:20 | wtc |

Wet Chemistry

| Parameter | EPA Method | Dilution | Result | Qual | XQ | Units | MDL | PQL | Date | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Alkalinity as CaCO3 | SM2320B - Titration | | | | | | | | | |
| Bicarbonate as CaCO3 | | 1 | 839 | | | mg/L | 2 | 20 | 08/19/22 0:00 | jck |
| Carbonate as CaCO3 | | 1 | <2 | U | | mg/L | 2 | 20 | 08/19/22 0:00 | jck |
| Hydroxide as CaCO3 | | 1 | <2 | U | | mg/L | 2 | 20 | 08/19/22 0:00 | jck |
| Total Alkalinity | | 1 | 839 | | | mg/L | 2 | 20 | 08/19/22 0:00 | jck |
| Chloride | SM4500Cl-E | 10 | 135 | | * | mg/L | 10 | 20 | 08/24/22 12:27 | mjj1 |
| Fluoride | SM4500F-C | 1 | 0.93 | | | mg/L | 0.15 | 0.35 | 08/24/22 16:08 | emk |
| Nitrate as N, dissolved | Calculation: NO3NO2 minus NO2 | | <0.2 | U | | mg/L | 0.2 | 1 | 09/07/22 0:00 | calc |
| Nitrate/Nitrite as N, dissolved | M353.2 - Automated Cadmium Reduction | 10 | <0.2 | U | * | mg/L | 0.2 | 1 | 08/16/22 23:50 | pjb |
| Nitrite as N, dissolved | M353.2 - Automated Cadmium Reduction | 1 | <0.01 | U | | mg/L | 0.01 | 0.05 | 08/16/22 23:40 | pjb |
| Residue, Filterable (TDS) @180C | SM2540C | 1 | 1640 | | | mg/L | 20 | 40 | 08/19/22 12:48 | svm |
| Sulfate | D516-02/-07/-11 - TURBIDIMETRIC | 25 | 401 | | * | mg/L | 25 | 125 | 08/23/22 16:46 | mjj1 |

**GCC Rio Grande**
Project ID: 105495
Sample ID: MW-10

ACZ Sample ID: ***L75198-09***
Date Sampled: *08/15/22 15:23*
Date Received: *08/16/22*
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 | 08/31/22 11:29 | wtc |
| Arsenic, dissolved | M200.8 ICP-MS | 1 | 0.00404 | | | mg/L | 0.0002 | 0.001 | 08/18/22 17:16 | mfm |
| Beryllium, dissolved | M200.7 ICP | 5 | <0.05 | U | | mg/L | 0.05 | 0.25 | 08/31/22 11:29 | wtc |
| Boron, dissolved | M200.7 ICP | 5 | 1.32 | | | mg/L | 0.15 | 0.5 | 08/31/22 11:29 | wtc |
| Cadmium, dissolved | M200.8 ICP-MS | 1 | <0.00005 | U | | mg/L | 0.00005 | 0.00025 | 08/18/22 17:16 | mfm |
| Calcium, dissolved | M200.7 ICP | 5 | 53.5 | | | mg/L | 0.5 | 2.5 | 08/31/22 11:29 | wtc |
| Chromium, dissolved | M200.7 ICP | 5 | <0.1 | U | | mg/L | 0.1 | 0.25 | 08/31/22 11:29 | wtc |
| Cobalt, dissolved | M200.8 ICP-MS | 1 | 0.000287 | | | mg/L | 0.00005 | 0.00025 | 08/18/22 17:16 | mfm |
| Copper, dissolved | M200.7 ICP | 5 | <0.05 | U | | mg/L | 0.05 | 0.25 | 08/31/22 11:29 | wtc |
| Iron, dissolved | M200.7 ICP | 5 | 0.622 | B | | mg/L | 0.3 | 0.75 | 08/31/22 11:29 | wtc |
| Lead, dissolved | M200.8 ICP-MS | 1 | 0.00021 | B | | mg/L | 0.0001 | 0.0005 | 08/22/22 11:05 | mfm |
| Lithium, dissolved | M200.7 ICP | 5 | 0.311 | | | mg/L | 0.04 | 0.2 | 08/31/22 11:29 | wtc |
| Magnesium, dissolved | M200.7 ICP | 5 | 16.2 | | | mg/L | 1 | 5 | 08/31/22 11:29 | wtc |
| Manganese, dissolved | M200.7 ICP | 5 | <0.05 | U | | mg/L | 0.05 | 0.25 | 08/31/22 11:29 | wtc |
| Mercury, dissolved | M245.1 CVAA | 1 | <0.0002 | U | | mg/L | 0.0002 | 0.001 | 08/18/22 15:02 | mlh |
| Nickel, dissolved | M200.7 ICP | 5 | <0.04 | U | | mg/L | 0.04 | 0.2 | 08/31/22 11:29 | wtc |
| Potassium, dissolved | M200.7 ICP | 5 | 6.85 | | | mg/L | 1 | 5 | 08/31/22 11:29 | wtc |
| Selenium, dissolved | M200.8 ICP-MS | 2 | <0.0002 | U | * | mg/L | 0.0002 | 0.0005 | 08/24/22 16:18 | mfm |
| Sodium, dissolved | M200.7 ICP | 5 | 1240 | | | mg/L | 1 | 5 | 08/31/22 11:29 | wtc |
| Vanadium, dissolved | M200.7 ICP | 5 | <0.05 | U | | mg/L | 0.05 | 0.125 | 08/31/22 11:29 | wtc |
| Zinc, dissolved | M200.7 ICP | 5 | <0.1 | U | | mg/L | 0.1 | 0.25 | 08/31/22 11:29 | wtc |

Wet Chemistry

| Parameter | EPA Method | Dilution | Result | Qual | XQ | Units | MDL | PQL | Date | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Alkalinity as CaCO3 | SM2320B - Titration | | | | | | | | | |
| Bicarbonate as CaCO3 | | 1 | 644 | | | mg/L | 2 | 20 | 08/19/22 0:00 | jck |
| Carbonate as CaCO3 | | 1 | <2 | U | | mg/L | 2 | 20 | 08/19/22 0:00 | jck |
| Hydroxide as CaCO3 | | 1 | <2 | U | | mg/L | 2 | 20 | 08/19/22 0:00 | jck |
| Total Alkalinity | | 1 | 644 | | | mg/L | 2 | 20 | 08/19/22 0:00 | jck |
| Chloride | SM4500Cl-E | 10 | 350 | | * | mg/L | 10 | 20 | 08/24/22 12:27 | mjj1 |
| Fluoride | SM4500F-C | 1 | 1.16 | | | mg/L | 0.15 | 0.35 | 08/24/22 16:29 | emk |
| Nitrate as N, dissolved | Calculation: NO3NO2 minus NO2 | | <0.02 | U | | mg/L | 0.02 | 0.1 | 09/07/22 0:00 | calc |
| Nitrate/Nitrite as N, dissolved | M353.2 - Automated Cadmium Reduction | 1 | <0.02 | U | | mg/L | 0.02 | 0.1 | 08/16/22 23:41 | pjb |
| Nitrite as N, dissolved | M353.2 - Automated Cadmium Reduction | 1 | <0.01 | U | | mg/L | 0.01 | 0.05 | 08/16/22 23:41 | pjb |
| Residue, Filterable (TDS) @180C | SM2540C | 2 | 4210 | | | mg/L | 40 | 80 | 08/22/22 16:45 | svm |
| Sulfate | D516-02/-07/-11 - TURBIDIMETRIC | 100 | 2240 | | * | mg/L | 100 | 500 | 08/23/22 17:16 | mjj1 |

**GCC Rio Grande**
Project ID: 105495
Sample ID: MW-9

ACZ Sample ID: ***L75198-10***
Date Sampled: *08/15/22 15:37*
Date Received: *08/16/22*
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 | 08/31/22 11:32 | wtc |
| Arsenic, dissolved | M200.8 ICP-MS | 1 | 0.00058 | B | | mg/L | 0.0002 | 0.001 | 08/18/22 17:22 | mfm |
| Beryllium, dissolved | M200.7 ICP | 5 | <0.05 | U | | mg/L | 0.05 | 0.25 | 08/31/22 11:32 | wtc |
| Boron, dissolved | M200.7 ICP | 5 | 1.15 | | | mg/L | 0.15 | 0.5 | 08/31/22 11:32 | wtc |
| Cadmium, dissolved | M200.8 ICP-MS | 1 | 0.000065 | B | | mg/L | 0.00005 | 0.00025 | 08/22/22 11:11 | mfm |
| Calcium, dissolved | M200.7 ICP | 5 | 417 | | | mg/L | 0.5 | 2.5 | 08/31/22 11:32 | wtc |
| Chromium, dissolved | M200.7 ICP | 5 | <0.1 | U | | mg/L | 0.1 | 0.25 | 08/31/22 11:32 | wtc |
| Cobalt, dissolved | M200.8 ICP-MS | 1 | 0.00399 | | | mg/L | 0.00005 | 0.00025 | 08/18/22 17:22 | mfm |
| Copper, dissolved | M200.7 ICP | 5 | <0.05 | U | | mg/L | 0.05 | 0.25 | 08/31/22 11:32 | wtc |
| Iron, dissolved | M200.7 ICP | 5 | <0.3 | U | | mg/L | 0.3 | 0.75 | 08/31/22 11:32 | wtc |
| Lead, dissolved | M200.8 ICP-MS | 1 | <0.0001 | U | | mg/L | 0.0001 | 0.0005 | 08/18/22 17:22 | mfm |
| Lithium, dissolved | M200.7 ICP | 5 | 0.358 | | | mg/L | 0.04 | 0.2 | 08/31/22 11:32 | wtc |
| Magnesium, dissolved | M200.7 ICP | 5 | 156 | | | mg/L | 1 | 5 | 08/31/22 11:32 | wtc |
| Manganese, dissolved | M200.7 ICP | 5 | 0.547 | | | mg/L | 0.05 | 0.25 | 08/31/22 11:32 | wtc |
| Mercury, dissolved | M245.1 CVAA | 1 | <0.0002 | U | | mg/L | 0.0002 | 0.001 | 08/18/22 15:03 | mlh |
| Nickel, dissolved | M200.7 ICP | 5 | <0.04 | U | | mg/L | 0.04 | 0.2 | 08/31/22 11:32 | wtc |
| Potassium, dissolved | M200.7 ICP | 5 | 9.51 | | | mg/L | 1 | 5 | 08/31/22 11:32 | wtc |
| Selenium, dissolved | M200.8 ICP-MS | 1 | <0.0001 | U | | mg/L | 0.0001 | 0.00025 | 08/23/22 15:15 | mfm |
| Sodium, dissolved | M200.7 ICP | 5 | 716 | | | mg/L | 1 | 5 | 08/31/22 11:32 | wtc |
| Vanadium, dissolved | M200.7 ICP | 5 | <0.05 | U | | mg/L | 0.05 | 0.125 | 08/31/22 11:32 | wtc |
| Zinc, dissolved | M200.7 ICP | 5 | <0.1 | U | | mg/L | 0.1 | 0.25 | 08/31/22 11:32 | wtc |

Wet Chemistry

| Parameter | EPA Method | Dilution | Result | Qual | XQ | Units | MDL | PQL | Date | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Alkalinity as CaCO3 | SM2320B - Titration | | | | | | | | | |
| Bicarbonate as CaCO3 | | 1 | 323 | | | mg/L | 2 | 20 | 08/19/22 0:00 | jck |
| Carbonate as CaCO3 | | 1 | <2 | U | | mg/L | 2 | 20 | 08/19/22 0:00 | jck |
| Hydroxide as CaCO3 | | 1 | <2 | U | | mg/L | 2 | 20 | 08/19/22 0:00 | jck |
| Total Alkalinity | | 1 | 323 | | | mg/L | 2 | 20 | 08/19/22 0:00 | jck |
| Chloride | SM4500Cl-E | 1 | 44.5 | | * | mg/L | 1 | 2 | 08/24/22 12:25 | mjj1 |
| Fluoride | SM4500F-C | 1 | 0.43 | | | mg/L | 0.15 | 0.35 | 08/24/22 16:50 | emk |
| Nitrate as N, dissolved | Calculation: NO3NO2 minus NO2 | | 0.038 | B | | mg/L | 0.02 | 0.1 | 09/07/22 0:00 | calc |
| Nitrate/Nitrite as N, dissolved | M353.2 - Automated Cadmium Reduction | 1 | 0.038 | B | | mg/L | 0.02 | 0.1 | 08/16/22 23:42 | pjb |
| Nitrite as N, dissolved | M353.2 - Automated Cadmium Reduction | 1 | <0.01 | U | | mg/L | 0.01 | 0.05 | 08/16/22 23:42 | pjb |
| Residue, Filterable (TDS) @180C | SM2540C | 2 | 4640 | | | mg/L | 40 | 80 | 08/22/22 16:48 | svm |
| Sulfate | D516-02/-07/-11 - TURBIDIMETRIC | 120 | 3160 | | * | mg/L | 120 | 600 | 08/23/22 17:16 | mjj1 |

## 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: ***L75198***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG548872** | | | | | | | | | | | | | |
| WG548872PBW1 | PBW | 08/19/22 16:58 | | | | 7.7 | mg/L | | -20 | 20 | | | |
| WG548872LCSW3 | LCSW | 08/19/22 17:17 | WC220816-1 | 820.0001 | | 758.3 | mg/L | 92 | 90 | 110 | | | |
| L75198-06DUP | DUP | 08/19/22 19:37 | | | 1090 | 1107.8 | mg/L | | | | 2 | 20 | |
| L75218-03DUP | DUP | 08/19/22 22:14 | | | 418 | 400.4 | mg/L | | | | 4 | 20 | |
| WG548872LCSW6 | LCSW | 08/19/22 22:33 | WC220816-1 | 820.0001 | | 783.3 | mg/L | 96 | 90 | 110 | | | |
| WG548872PBW2 | PBW | 08/19/22 22:42 | | | | 7.7 | mg/L | | -20 | 20 | | | |
| WG548872LCSW9 | LCSW | 08/20/22 3:14 | WC220816-1 | 820.0001 | | 784.6 | mg/L | 96 | 90 | 110 | | | |
| WG548872PBW3 | PBW | 08/20/22 3:22 | | | | 7.2 | mg/L | | -20 | 20 | | | |
| WG548872LCSW12 | LCSW | 08/20/22 6:30 | WC220816-1 | 820.0001 | | 787.7 | mg/L | 96 | 90 | 110 | | | |
| WG548872PBW4 | PBW | 08/20/22 6:38 | | | | 6.5 | mg/L | | -20 | 20 | | | |
| WG548872LCSW15 | LCSW | 08/20/22 10:27 | WC220816-1 | 820.0001 | | 774.7 | mg/L | 94 | 90 | 110 | | | |

**Aluminum, dissolved** M200.7 ICP

| ACZ ID | Type | Analyzed | PCN/SCN | QC | Sample | Found | Units | Rec% | Lower | Upper | RPD | Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG549521** | | | | | | | | | | | | | |
| WG549521ICV | ICV | 08/31/22 10:21 | II220815-2 | 2 | | 2.024 | mg/L | 101 | 95 | 105 | | | |
| WG549521ICB | ICB | 08/31/22 10:27 | | | | U | mg/L | | -0.15 | 0.15 | | | |
| WG549521PQV | PQV | 08/31/22 10:30 | II220802-1 | .2502 | | .234 | mg/L | 94 | 70 | 130 | | | |
| WG549521SIC | SIC | 08/31/22 10:33 | II220801-1 | 200.4102 | | 199.5 | mg/L | 100 | 1 | 200 | | | |
| WG549521LFB | LFB | 08/31/22 10:39 | II220827-3 | 1.0008 | | .996 | mg/L | 100 | 85 | 115 | | | |
| WG549521CCV1 | CCV | 08/31/22 11:10 | II220815-1 | 1 | | .996 | mg/L | 100 | 90 | 110 | | | |
| WG549521CCB1 | CCB | 08/31/22 11:13 | | | | U | mg/L | | -0.15 | 0.15 | | | |
| L75198-08AS | AS | 08/31/22 11:23 | II220827-3 | 1.0008 | U | 1.03 | mg/L | 103 | 85 | 115 | | | |
| L75198-08ASD | ASD | 08/31/22 11:26 | II220827-3 | 1.0008 | U | 1.035 | mg/L | 103 | 85 | 115 | 0 | 20 | |
| WG549521CCV2 | CCV | 08/31/22 11:48 | II220815-1 | 1 | | .971 | mg/L | 97 | 90 | 110 | | | |
| WG549521CCB2 | CCB | 08/31/22 11:51 | | | | U | mg/L | | -0.15 | 0.15 | | | |
| L75213-01AS | AS | 08/31/22 11:57 | II220827-3 | 1.0008 | U | 1.024 | mg/L | 102 | 85 | 115 | | | |
| L75213-01ASD | ASD | 08/31/22 12:00 | II220827-3 | 1.0008 | U | 1.099 | mg/L | 110 | 85 | 115 | 7 | 20 | |
| WG549521CCV3 | CCV | 08/31/22 12:09 | II220815-1 | 1 | | .984 | mg/L | 98 | 90 | 110 | | | |
| WG549521CCB3 | CCB | 08/31/22 12:12 | | | | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG548812** | | | | | | | | | | | | | |
| WG548812ICV | ICV | 08/18/22 16:32 | MS220701-3 | .05 | | .05292 | mg/L | 106 | 90 | 110 | | | |
| WG548812ICB | ICB | 08/18/22 16:34 | | | | .00038 | mg/L | | -0.00044 | 0.00044 | | | |
| WG548812LFB | LFB | 08/18/22 16:36 | MS220722-2 | .05005 | | .04939 | mg/L | 99 | 85 | 115 | | | |
| L75196-04AS | AS | 08/18/22 16:47 | MS220722-2 | .05005 | .00177 | .06132 | mg/L | 119 | 70 | 130 | | | |
| L75196-04ASD | ASD | 08/18/22 16:49 | MS220722-2 | .05005 | .00177 | .06126 | mg/L | 119 | 70 | 130 | 0 | 20 | |
| WG548812CCV1 | CCV | 08/18/22 16:55 | MS220721-6 | .1001 | | .10887 | mg/L | 109 | 90 | 110 | | | |
| WG548812CCB1 | CCB | 08/18/22 16:57 | | | | U | mg/L | | -0.0006 | 0.0006 | | | |
| L75198-07AS | AS | 08/18/22 17:10 | MS220722-2 | .05005 | .00157 | .05964 | mg/L | 116 | 70 | 130 | | | |
| L75198-07ASD | ASD | 08/18/22 17:12 | MS220722-2 | .05005 | .00157 | .06055 | mg/L | 118 | 70 | 130 | 2 | 20 | |
| WG548812CCV2 | CCV | 08/18/22 17:18 | MS220721-6 | .1001 | | .10335 | mg/L | 103 | 90 | 110 | | | |
| WG548812CCB2 | CCB | 08/18/22 17:20 | | | | U | mg/L | | -0.0006 | 0.0006 | | | |
| WG548812CCV3 | CCV | 08/18/22 17:31 | MS220721-6 | .1001 | | .1062 | mg/L | 106 | 90 | 110 | | | |
| WG548812CCB3 | CCB | 08/18/22 17:33 | | | | U | mg/L | | -0.0006 | 0.0006 | | | |

**GCC**

ACZ Project ID: ***L75198***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG549521** | | | | | | | | | | | | | |
| WG549521ICV | ICV | 08/31/22 10:21 | II220815-2 | 2 | | 2.005 | mg/L | 100 | 95 | 105 | | | |
| WG549521ICB | ICB | 08/31/22 10:27 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| WG549521PQV | PQV | 08/31/22 10:30 | II220802-1 | .05005 | | .057 | mg/L | 114 | 70 | 130 | | | |
| WG549521SIC | SIC | 08/31/22 10:33 | II220801-1 | .1001 | | .107 | mg/L | 107 | 80 | 120 | | | |
| WG549521LFB | LFB | 08/31/22 10:39 | II220827-3 | .501 | | .471 | mg/L | 94 | 85 | 115 | | | |
| WG549521CCV1 | CCV | 08/31/22 11:10 | II220815-1 | 1 | | 1.008 | mg/L | 101 | 90 | 110 | | | |
| WG549521CCB1 | CCB | 08/31/22 11:13 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| L75198-08AS | AS | 08/31/22 11:23 | II220827-3 | .501 | U | .474 | mg/L | 95 | 85 | 115 | | | |
| L75198-08ASD | ASD | 08/31/22 11:26 | II220827-3 | .501 | U | .481 | mg/L | 96 | 85 | 115 | 1 | 20 | |
| WG549521CCV2 | CCV | 08/31/22 11:48 | II220815-1 | 1 | | .982 | mg/L | 98 | 90 | 110 | | | |
| WG549521CCB2 | CCB | 08/31/22 11:51 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| L75213-01AS | AS | 08/31/22 11:57 | II220827-3 | .501 | U | .482 | mg/L | 96 | 85 | 115 | | | |
| L75213-01ASD | ASD | 08/31/22 12:00 | II220827-3 | .501 | U | .487 | mg/L | 97 | 85 | 115 | 1 | 20 | |
| WG549521CCV3 | CCV | 08/31/22 12:09 | II220815-1 | 1 | | .988 | mg/L | 99 | 90 | 110 | | | |
| WG549521CCB3 | CCB | 08/31/22 12:12 | | | | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG549521** | | | | | | | | | | | | | |
| WG549521ICV | ICV | 08/31/22 10:21 | II220815-2 | 2.17 | | 2.219 | mg/L | 102 | 95 | 105 | | | |
| WG549521ICB | ICB | 08/31/22 10:27 | | | | U | mg/L | | -0.09 | 0.09 | | | |
| WG549521PQV | PQV | 08/31/22 10:30 | II220802-1 | .1001 | | .097 | mg/L | 97 | 70 | 130 | | | |
| WG549521SIC | SIC | 08/31/22 10:33 | II220801-1 | .1001 | | .096 | mg/L | 96 | 80 | 120 | | | |
| WG549521LFB | LFB | 08/31/22 10:39 | II220827-3 | .5005 | | .484 | mg/L | 97 | 85 | 115 | | | |
| WG549521CCV1 | CCV | 08/31/22 11:10 | II220815-1 | 1 | | .986 | mg/L | 99 | 90 | 110 | | | |
| WG549521CCB1 | CCB | 08/31/22 11:13 | | | | U | mg/L | | -0.09 | 0.09 | | | |
| L75198-08AS | AS | 08/31/22 11:23 | II220827-3 | .5005 | .446 | .954 | mg/L | 101 | 85 | 115 | | | |
| L75198-08ASD | ASD | 08/31/22 11:26 | II220827-3 | .5005 | .446 | .957 | mg/L | 102 | 85 | 115 | 0 | 20 | |
| WG549521CCV2 | CCV | 08/31/22 11:48 | II220815-1 | 1 | | .963 | mg/L | 96 | 90 | 110 | | | |
| WG549521CCB2 | CCB | 08/31/22 11:51 | | | | U | mg/L | | -0.09 | 0.09 | | | |
| L75213-01AS | AS | 08/31/22 11:57 | II220827-3 | .5005 | U | .529 | mg/L | 106 | 85 | 115 | | | |
| L75213-01ASD | ASD | 08/31/22 12:00 | II220827-3 | .5005 | U | .533 | mg/L | 106 | 85 | 115 | 1 | 20 | |
| WG549521CCV3 | CCV | 08/31/22 12:09 | II220815-1 | 1 | | .976 | mg/L | 98 | 90 | 110 | | | |
| WG549521CCB3 | CCB | 08/31/22 12:12 | | | | U | mg/L | | -0.09 | 0.09 | | | |

**GCC**

ACZ Project ID: ***L75198***

*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.*

**Cadmium, dissolved** M200.8 ICP-MS

| ACZ ID | Type | Analyzed | PCN/SCN | QC | Sample | Found | Units | Rec% | Lower | Upper | RPD | Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG548812** | | | | | | | | | | | | | |
| WG548812ICV | ICV | 08/18/22 16:32 | MS220701-3 | .05 | | .052788 | mg/L | 106 | 90 | 110 | | | |
| WG548812ICB | ICB | 08/18/22 16:34 | | | | U | mg/L | | -0.00011 | 0.00011 | | | |
| WG548812LFB | LFB | 08/18/22 16:36 | MS220722-2 | .05005 | | .049528 | mg/L | 99 | 85 | 115 | | | |
| L75196-04AS | AS | 08/18/22 16:47 | MS220722-2 | .05005 | .000081 | .057979 | mg/L | 116 | 70 | 130 | | | |
| L75196-04ASD | ASD | 08/18/22 16:49 | MS220722-2 | .05005 | .000081 | .057205 | mg/L | 114 | 70 | 130 | 1 | 20 | |
| WG548812CCV1 | CCV | 08/18/22 16:55 | MS220721-6 | .1001 | | .108332 | mg/L | 108 | 90 | 110 | | | |
| WG548812CCB1 | CCB | 08/18/22 16:57 | | | | U | mg/L | | -0.00015 | 0.00015 | | | |
| L75198-07AS | AS | 08/18/22 17:10 | MS220722-2 | .05005 | U | .045607 | mg/L | 91 | 70 | 130 | | | |
| L75198-07ASD | ASD | 08/18/22 17:12 | MS220722-2 | .05005 | U | .046475 | mg/L | 93 | 70 | 130 | 2 | 20 | |
| WG548812CCV2 | CCV | 08/18/22 17:18 | MS220721-6 | .1001 | | .100034 | mg/L | 100 | 90 | 110 | | | |
| WG548812CCB2 | CCB | 08/18/22 17:20 | | | | U | mg/L | | -0.00015 | 0.00015 | | | |
| WG548812CCV3 | CCV | 08/18/22 17:31 | MS220721-6 | .1001 | | .103177 | mg/L | 103 | 90 | 110 | | | |
| WG548812CCB3 | CCB | 08/18/22 17:33 | | | | .000236 | mg/L | | -0.00015 | 0.00015 | | | BB |
| **WG548913** | | | | | | | | | | | | | |
| WG548913ICV | ICV | 08/22/22 10:20 | MS220701-3 | .05 | | .050978 | mg/L | 102 | 90 | 110 | | | |
| WG548913ICB | ICB | 08/22/22 10:22 | | | | U | mg/L | | -0.00011 | 0.00011 | | | |
| WG548913LFB | LFB | 08/22/22 10:26 | MS220722-2 | .05005 | | .047207 | mg/L | 94 | 85 | 115 | | | |
| L75142-01AS | AS | 08/22/22 10:30 | MS220722-2 | .05005 | .000123 | .051041 | mg/L | 102 | 70 | 130 | | | |
| L75142-01ASD | ASD | 08/22/22 10:31 | MS220722-2 | .05005 | .000123 | .050051 | mg/L | 100 | 70 | 130 | 2 | 20 | |
| WG548913CCV1 | CCV | 08/22/22 10:45 | MS220721-6 | .1001 | | .100405 | mg/L | 100 | 90 | 110 | | | |
| WG548913CCB1 | CCB | 08/22/22 10:47 | | | | U | mg/L | | -0.00015 | 0.00015 | | | |
| L75198-07AS | AS | 08/22/22 11:00 | MS220722-2 | .1001 | U | .09007 | mg/L | 90 | 70 | 130 | | | |
| L75198-07ASD | ASD | 08/22/22 11:02 | MS220722-2 | .1001 | U | .094488 | mg/L | 94 | 70 | 130 | 5 | 20 | |
| WG548913CCV2 | CCV | 08/22/22 11:07 | MS220721-6 | .1001 | | .097421 | mg/L | 97 | 90 | 110 | | | |
| WG548913CCB2 | CCB | 08/22/22 11:09 | | | | U | mg/L | | -0.00015 | 0.00015 | | | |
| WG548913CCV3 | CCV | 08/22/22 11:20 | MS220721-6 | .1001 | | .094309 | mg/L | 94 | 90 | 110 | | | |
| WG548913CCB3 | CCB | 08/22/22 11:22 | | | | U | mg/L | | -0.00015 | 0.00015 | | | |

**Calcium, dissolved** M200.7 ICP

| ACZ ID | Type | Analyzed | PCN/SCN | QC | Sample | Found | Units | Rec% | Lower | Upper | RPD | Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG549521** | | | | | | | | | | | | | |
| WG549521ICV | ICV | 08/31/22 10:21 | II220815-2 | 100 | | 99.61 | mg/L | 100 | 95 | 105 | | | |
| WG549521ICB | ICB | 08/31/22 10:27 | | | | U | mg/L | | -0.3 | 0.3 | | | |
| WG549521PQV | PQV | 08/31/22 10:30 | II220802-1 | .5003 | | .53 | mg/L | 106 | 70 | 130 | | | |
| WG549521SIC | SIC | 08/31/22 10:33 | II220801-1 | 200.7203 | | 202.3 | mg/L | 101 | 1 | 200 | | | |
| WG549521LFB | LFB | 08/31/22 10:39 | II220827-3 | 67.98862 | | 67.48 | mg/L | 99 | 85 | 115 | | | |
| WG549521CCV1 | CCV | 08/31/22 11:10 | II220815-1 | 50 | | 49.41 | mg/L | 99 | 90 | 110 | | | |
| WG549521CCB1 | CCB | 08/31/22 11:13 | | | | U | mg/L | | -0.3 | 0.3 | | | |
| L75198-08AS | AS | 08/31/22 11:23 | II220827-3 | 67.98862 | 47.2 | 110.8 | mg/L | 94 | 85 | 115 | | | |
| L75198-08ASD | ASD | 08/31/22 11:26 | II220827-3 | 67.98862 | 47.2 | 111.6 | mg/L | 95 | 85 | 115 | 1 | 20 | |
| WG549521CCV2 | CCV | 08/31/22 11:48 | II220815-1 | 50 | | 47.76 | mg/L | 96 | 90 | 110 | | | |
| WG549521CCB2 | CCB | 08/31/22 11:51 | | | | U | mg/L | | -0.3 | 0.3 | | | |
| L75213-01AS | AS | 08/31/22 11:57 | II220827-3 | 67.98862 | 47 | 111.9 | mg/L | 95 | 85 | 115 | | | |
| L75213-01ASD | ASD | 08/31/22 12:00 | II220827-3 | 67.98862 | 47 | 116.9 | mg/L | 103 | 85 | 115 | 4 | 20 | |
| WG549521CCV3 | CCV | 08/31/22 12:09 | II220815-1 | 50 | | 48.49 | mg/L | 97 | 90 | 110 | | | |
| WG549521CCB3 | CCB | 08/31/22 12:12 | | | | U | mg/L | | -0.3 | 0.3 | | | |

**GCC**

ACZ Project ID: ***L75198***

*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.*

**Chloride** SM4500Cl-E

| ACZ ID | Type | Analyzed | PCN/SCN | QC | Sample | Found | Units | Rec% | Lower | Upper | RPD | Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG549099** | | | | | | | | | | | | | |
| WG549099ICB | ICB | 08/24/22 10:34 | | | | U | mg/L | | -3 | 3 | | | |
| WG549099ICV | ICV | 08/24/22 10:35 | WI220502-12 | 54.945 | | 56.1 | mg/L | 102 | 90 | 110 | | | |
| WG549099CCV1 | CCV | 08/24/22 11:55 | WI220323-1 | 49.95 | | 50.68 | mg/L | 101 | 90 | 110 | | | |
| WG549099CCB1 | CCB | 08/24/22 11:55 | | | | U | mg/L | | -3 | 3 | | | |
| WG549099LFB1 | LFB | 08/24/22 11:55 | WI220328-1 | 29.97 | | 30.5 | mg/L | 102 | 90 | 110 | | | |
| WG549099CCV2 | CCV | 08/24/22 11:56 | WI220323-1 | 49.95 | | 49.93 | mg/L | 100 | 90 | 110 | | | |
| WG549099CCB2 | CCB | 08/24/22 11:57 | | | | U | mg/L | | -3 | 3 | | | |
| WG549099CCV3 | CCV | 08/24/22 11:58 | WI220323-1 | 49.95 | | 50.52 | mg/L | 101 | 90 | 110 | | | |
| WG549099CCB3 | CCB | 08/24/22 11:58 | | | | U | mg/L | | -3 | 3 | | | |
| WG549099LFB2 | LFB | 08/24/22 11:59 | WI220328-1 | 29.97 | | 30.6 | mg/L | 102 | 90 | 110 | | | |
| WG549099CCV4 | CCV | 08/24/22 12:04 | WI220323-1 | 49.95 | | 49.85 | mg/L | 100 | 90 | 110 | | | |
| WG549099CCB4 | CCB | 08/24/22 12:04 | | | | U | mg/L | | -3 | 3 | | | |
| WG549099CCV5 | CCV | 08/24/22 12:06 | WI220323-1 | 49.95 | | 50.66 | mg/L | 101 | 90 | 110 | | | |
| WG549099CCB5 | CCB | 08/24/22 12:06 | | | | U | mg/L | | -3 | 3 | | | |
| WG549099CCV6 | CCV | 08/24/22 12:20 | WI220323-1 | 49.95 | | 50.54 | mg/L | 101 | 90 | 110 | | | |
| WG549099CCB6 | CCB | 08/24/22 12:20 | | | | U | mg/L | | -3 | 3 | | | |
| L75198-02DUP | DUP | 08/24/22 12:27 | | | 606 | 607.48 | mg/L | | | | 0 | 20 | |
| WG549099CCV7 | CCV | 08/24/22 12:27 | WI220323-1 | 49.95 | | 49.91 | mg/L | 100 | 90 | 110 | | | |
| WG549099CCB7 | CCB | 08/24/22 12:27 | | | | U | mg/L | | -3 | 3 | | | |
| WG549099CCV8 | CCV | 08/24/22 13:20 | WI220323-1 | 49.95 | | 50.16 | mg/L | 100 | 90 | 110 | | | |
| WG549099CCB8 | CCB | 08/24/22 13:20 | | | | U | mg/L | | -3 | 3 | | | |
| L75198-01AS | AS | 08/24/22 13:20 | 50XCL | 30 | 1480 | 1441.24 | mg/L | -129 | 90 | 110 | | | M3 |
| WG549099CCV9 | CCV | 08/24/22 13:22 | WI220323-1 | 49.95 | | 50.19 | mg/L | 100 | 90 | 110 | | | |
| WG549099CCB9 | CCB | 08/24/22 13:22 | | | | U | mg/L | | -3 | 3 | | | |

**Chromium, dissolved** M200.7 ICP

| ACZ ID | Type | Analyzed | PCN/SCN | QC | Sample | Found | Units | Rec% | Lower | Upper | RPD | Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG549521** | | | | | | | | | | | | | |
| WG549521ICV | ICV | 08/31/22 10:21 | II220815-2 | 2 | | 1.998 | mg/L | 100 | 95 | 105 | | | |
| WG549521ICB | ICB | 08/31/22 10:27 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| WG549521PQV | PQV | 08/31/22 10:30 | II220802-1 | .0501 | | .044 | mg/L | 88 | 70 | 130 | | | |
| WG549521SIC | SIC | 08/31/22 10:33 | II220801-1 | .1002 | | .092 | mg/L | 92 | 80 | 120 | | | |
| WG549521LFB | LFB | 08/31/22 10:39 | II220827-3 | .501 | | .461 | mg/L | 92 | 85 | 115 | | | |
| WG549521CCV1 | CCV | 08/31/22 11:10 | II220815-1 | 1 | | .98 | mg/L | 98 | 90 | 110 | | | |
| WG549521CCB1 | CCB | 08/31/22 11:13 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| L75198-08AS | AS | 08/31/22 11:23 | II220827-3 | .501 | U | .457 | mg/L | 91 | 85 | 115 | | | |
| L75198-08ASD | ASD | 08/31/22 11:26 | II220827-3 | .501 | U | .471 | mg/L | 94 | 85 | 115 | 3 | 20 | |
| WG549521CCV2 | CCV | 08/31/22 11:48 | II220815-1 | 1 | | .967 | mg/L | 97 | 90 | 110 | | | |
| WG549521CCB2 | CCB | 08/31/22 11:51 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| L75213-01AS | AS | 08/31/22 11:57 | II220827-3 | .501 | U | .476 | mg/L | 95 | 85 | 115 | | | |
| L75213-01ASD | ASD | 08/31/22 12:00 | II220827-3 | .501 | U | .485 | mg/L | 97 | 85 | 115 | 2 | 20 | |
| WG549521CCV3 | CCV | 08/31/22 12:09 | II220815-1 | 1 | | .993 | mg/L | 99 | 90 | 110 | | | |
| WG549521CCB3 | CCB | 08/31/22 12:12 | | | | U | mg/L | | -0.06 | 0.06 | | | |

**GCC**

ACZ Project ID: ***L75198***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG549521** | | | | | | | | | | | | | |
| WG549521ICV | ICV | 08/31/22 10:21 | II220815-2 | 2.01 | | 2.023 | mg/L | 101 | 95 | 105 | | | |
| WG549521ICB | ICB | 08/31/22 10:27 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| WG549521PQV | PQV | 08/31/22 10:30 | II220802-1 | .05005 | | .051 | mg/L | 102 | 70 | 130 | | | |
| WG549521SIC | SIC | 08/31/22 10:33 | II220801-1 | .1001 | | .094 | mg/L | 94 | 80 | 120 | | | |
| WG549521LFB | LFB | 08/31/22 10:39 | II220827-3 | .5005 | | .462 | mg/L | 92 | 85 | 115 | | | |
| WG549521CCV1 | CCV | 08/31/22 11:10 | II220815-1 | 1.005 | | 1.005 | mg/L | 100 | 90 | 110 | | | |
| WG549521CCB1 | CCB | 08/31/22 11:13 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| L75198-08AS | AS | 08/31/22 11:23 | II220827-3 | .5005 | U | .458 | mg/L | 92 | 85 | 115 | | | |
| L75198-08ASD | ASD | 08/31/22 11:26 | II220827-3 | .5005 | U | .468 | mg/L | 94 | 85 | 115 | 2 | 20 | |
| WG549521CCV2 | CCV | 08/31/22 11:48 | II220815-1 | 1.005 | | .975 | mg/L | 97 | 90 | 110 | | | |
| WG549521CCB2 | CCB | 08/31/22 11:51 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| L75213-01AS | AS | 08/31/22 11:57 | II220827-3 | .5005 | U | .473 | mg/L | 95 | 85 | 115 | | | |
| L75213-01ASD | ASD | 08/31/22 12:00 | II220827-3 | .5005 | U | .477 | mg/L | 95 | 85 | 115 | 1 | 20 | |
| WG549521CCV3 | CCV | 08/31/22 12:09 | II220815-1 | 1.005 | | .996 | mg/L | 99 | 90 | 110 | | | |
| WG549521CCB3 | CCB | 08/31/22 12:12 | | | | U | mg/L | | -0.06 | 0.06 | | | |

**Cobalt, dissolved** M200.8 ICP-MS

| ACZ ID | Type | Analyzed | PCN/SCN | QC | Sample | Found | Units | Rec% | Lower | Upper | RPD | Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG548812** | | | | | | | | | | | | | |
| WG548812ICV | ICV | 08/18/22 16:32 | MS220701-3 | .05 | | .054238 | mg/L | 108 | 90 | 110 | | | |
| WG548812ICB | ICB | 08/18/22 16:34 | | | | U | mg/L | | -0.00011 | 0.00011 | | | |
| WG548812LFB | LFB | 08/18/22 16:36 | MS220722-2 | .05005 | | .050282 | mg/L | 100 | 85 | 115 | | | |
| L75196-04AS | AS | 08/18/22 16:47 | MS220722-2 | .05005 | .000895 | .055014 | mg/L | 108 | 70 | 130 | | | |
| L75196-04ASD | ASD | 08/18/22 16:49 | MS220722-2 | .05005 | .000895 | .054226 | mg/L | 107 | 70 | 130 | 1 | 20 | |
| WG548812CCV1 | CCV | 08/18/22 16:55 | MS220721-6 | .1001 | | .108052 | mg/L | 108 | 90 | 110 | | | |
| WG548812CCB1 | CCB | 08/18/22 16:57 | | | | U | mg/L | | -0.00015 | 0.00015 | | | |
| L75198-07AS | AS | 08/18/22 17:10 | MS220722-2 | .05005 | .00024 | .051195 | mg/L | 102 | 70 | 130 | | | |
| L75198-07ASD | ASD | 08/18/22 17:12 | MS220722-2 | .05005 | .00024 | .051214 | mg/L | 102 | 70 | 130 | 0 | 20 | |
| WG548812CCV2 | CCV | 08/18/22 17:18 | MS220721-6 | .1001 | | .100851 | mg/L | 101 | 90 | 110 | | | |
| WG548812CCB2 | CCB | 08/18/22 17:20 | | | | U | mg/L | | -0.00015 | 0.00015 | | | |
| WG548812CCV3 | CCV | 08/18/22 17:31 | MS220721-6 | .1001 | | .097241 | mg/L | 97 | 90 | 110 | | | |
| WG548812CCB3 | CCB | 08/18/22 17:33 | | | | .000069 | mg/L | | -0.00015 | 0.00015 | | | |

**GCC**

ACZ Project ID: ***L75198***

*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.*

**Copper, dissolved** M200.7 ICP

| ACZ ID | Type | Analyzed | PCN/SCN | QC | Sample | Found | Units | Rec% | Lower | Upper | RPD | Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG549521** | | | | | | | | | | | | | |
| WG549521ICV | ICV | 08/31/22 10:21 | II220815-2 | 2 | | 1.992 | mg/L | 100 | 95 | 105 | | | |
| WG549521ICB | ICB | 08/31/22 10:27 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| WG549521PQV | PQV | 08/31/22 10:30 | II220802-1 | .05005 | | .048 | mg/L | 96 | 70 | 130 | | | |
| WG549521SIC | SIC | 08/31/22 10:33 | II220801-1 | .1001 | | .086 | mg/L | 86 | 80 | 120 | | | |
| WG549521LFB | LFB | 08/31/22 10:39 | II220827-3 | .5005 | | .463 | mg/L | 93 | 85 | 115 | | | |
| WG549521CCV1 | CCV | 08/31/22 11:10 | II220815-1 | 1 | | 1.001 | mg/L | 100 | 90 | 110 | | | |
| WG549521CCB1 | CCB | 08/31/22 11:13 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| L75198-08AS | AS | 08/31/22 11:23 | II220827-3 | .5005 | U | .074 | mg/L | 15 | 85 | 115 | | | M2 |
| L75198-08ASD | ASD | 08/31/22 11:26 | II220827-3 | .5005 | U | .082 | mg/L | 16 | 85 | 115 | 10 | 20 | M2 |
| WG549521CCV2 | CCV | 08/31/22 11:48 | II220815-1 | 1 | | .982 | mg/L | 98 | 90 | 110 | | | |
| WG549521CCB2 | CCB | 08/31/22 11:51 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| L75213-01AS | AS | 08/31/22 11:57 | II220827-3 | .5005 | U | .485 | mg/L | 97 | 85 | 115 | | | |
| L75213-01ASD | ASD | 08/31/22 12:00 | II220827-3 | .5005 | U | .491 | mg/L | 98 | 85 | 115 | 1 | 20 | |
| WG549521CCV3 | CCV | 08/31/22 12:09 | II220815-1 | 1 | | .982 | mg/L | 98 | 90 | 110 | | | |
| WG549521CCB3 | CCB | 08/31/22 12:12 | | | | U | mg/L | | -0.03 | 0.03 | | | |

**Fluoride** SM4500F-C

| ACZ ID | Type | Analyzed | PCN/SCN | QC | Sample | Found | Units | Rec% | Lower | Upper | RPD | Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG549132** | | | | | | | | | | | | | |
| WG549132ICV | ICV | 08/24/22 12:30 | WC220823-7 | 2.008 | | 2.07 | mg/L | 103 | 90 | 110 | | | |
| WG549132ICB | ICB | 08/24/22 12:34 | | | | U | mg/L | | -0.3 | 0.3 | | | |
| WG549132PQV | PQV | 08/24/22 12:39 | WC220810-2 | .3514 | | .35 | mg/L | 100 | 70 | 130 | | | |
| WG549132LFB1 | LFB | 08/24/22 12:49 | WC220606-1 | 5.02 | | 5.26 | mg/L | 105 | 90 | 110 | | | |
| L74959-01AS | AS | 08/24/22 13:52 | WC220606-1 | 5.02 | U | 5.6 | mg/L | 112 | 90 | 110 | | | MA |
| L74959-01ASD | ASD | 08/24/22 14:00 | WC220606-1 | 5.02 | U | 5.53 | mg/L | 110 | 90 | 110 | 1 | 20 | |
| WG549132CCV1 | CCV | 08/24/22 14:05 | WC220823-7 | 2.008 | | 2.142 | mg/L | 107 | 90 | 110 | | | |
| WG549132CCB1 | CCB | 08/24/22 14:13 | | | | U | mg/L | | -0.3 | 0.3 | | | |
| L75141-01AS | AS | 08/24/22 14:28 | WC220606-1 | 5.02 | 1.06 | 6.28 | mg/L | 104 | 90 | 110 | | | |
| L75141-01ASD | ASD | 08/24/22 14:36 | WC220606-1 | 5.02 | 1.06 | 6.22 | mg/L | 103 | 90 | 110 | 1 | 20 | |
| WG549132CCV2 | CCV | 08/24/22 15:05 | WC220823-7 | 2.008 | | 2.215 | mg/L | 110 | 90 | 110 | | | |
| WG549132CCB2 | CCB | 08/24/22 15:13 | | | | U | mg/L | | -0.3 | 0.3 | | | |
| WG549132LFB2 | LFB | 08/24/22 16:00 | WC220606-1 | 5.02 | | 5.48 | mg/L | 109 | 90 | 110 | | | |
| L75198-08AS | AS | 08/24/22 16:13 | WC220606-1 | 5.02 | .93 | 6.17 | mg/L | 104 | 90 | 110 | | | |
| L75198-08ASD | ASD | 08/24/22 16:21 | WC220606-1 | 5.02 | .93 | 6.37 | mg/L | 108 | 90 | 110 | 3 | 20 | |
| WG549132CCV3 | CCV | 08/24/22 16:34 | WC220823-7 | 2.008 | | 2.194 | mg/L | 109 | 90 | 110 | | | |
| WG549132CCB3 | CCB | 08/24/22 16:42 | | | | U | mg/L | | -0.3 | 0.3 | | | |
| WG549132CCV4 | CCV | 08/24/22 18:06 | WC220823-7 | 2.008 | | 2.194 | mg/L | 109 | 90 | 110 | | | |
| WG549132CCB4 | CCB | 08/24/22 18:14 | | | | U | mg/L | | -0.3 | 0.3 | | | |
| WG549132CCV5 | CCV | 08/24/22 19:34 | WC220823-7 | 2.008 | | 1.955 | mg/L | 97 | 90 | 110 | | | |
| WG549132CCB5 | CCB | 08/24/22 19:39 | | | | U | mg/L | | -0.3 | 0.3 | | | |

**GCC**

ACZ Project ID: ***L75198***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG549521** | | | | | | | | | | | | | |
| WG549521ICV | ICV | 08/31/22 10:21 | II220815-2 | 2 | | 1.984 | mg/L | 99 | 95 | 105 | | | |
| WG549521ICB | ICB | 08/31/22 10:27 | | | | U | mg/L | | -0.18 | 0.18 | | | |
| WG549521PQV | PQV | 08/31/22 10:30 | II220802-1 | .150195 | | .153 | mg/L | 102 | 70 | 130 | | | |
| WG549521SIC | SIC | 08/31/22 10:33 | II220801-1 | 200.410195 | | 196 | mg/L | 98 | 1 | 200 | | | |
| WG549521LFB | LFB | 08/31/22 10:39 | II220827-3 | 1.0013 | | .918 | mg/L | 92 | 85 | 115 | | | |
| WG549521CCV1 | CCV | 08/31/22 11:10 | II220815-1 | 1 | | .972 | mg/L | 97 | 90 | 110 | | | |
| WG549521CCB1 | CCB | 08/31/22 11:13 | | | | U | mg/L | | -0.18 | 0.18 | | | |
| L75198-08AS | AS | 08/31/22 11:23 | II220827-3 | 1.0013 | U | .918 | mg/L | 92 | 85 | 115 | | | |
| L75198-08ASD | ASD | 08/31/22 11:26 | II220827-3 | 1.0013 | U | .934 | mg/L | 93 | 85 | 115 | 2 | 20 | |
| WG549521CCV2 | CCV | 08/31/22 11:48 | II220815-1 | 1 | | .968 | mg/L | 97 | 90 | 110 | | | |
| WG549521CCB2 | CCB | 08/31/22 11:51 | | | | U | mg/L | | -0.18 | 0.18 | | | |
| L75213-01AS | AS | 08/31/22 11:57 | II220827-3 | 1.0013 | U | .954 | mg/L | 95 | 85 | 115 | | | |
| L75213-01ASD | ASD | 08/31/22 12:00 | II220827-3 | 1.0013 | U | .975 | mg/L | 97 | 85 | 115 | 2 | 20 | |
| WG549521CCV3 | CCV | 08/31/22 12:09 | II220815-1 | 1 | | 1.03 | mg/L | 103 | 90 | 110 | | | |
| WG549521CCB3 | CCB | 08/31/22 12:12 | | | | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG548812** | | | | | | | | | | | | | |
| WG548812ICV | ICV | 08/18/22 16:32 | MS220701-3 | .05 | | .05323 | mg/L | 106 | 90 | 110 | | | |
| WG548812ICB | ICB | 08/18/22 16:34 | | | | U | mg/L | | -0.00022 | 0.00022 | | | |
| WG548812LFB | LFB | 08/18/22 16:36 | MS220722-2 | .0501 | | .04933 | mg/L | 98 | 85 | 115 | | | |
| L75196-04AS | AS | 08/18/22 16:47 | MS220722-2 | .0501 | U | .05452 | mg/L | 109 | 70 | 130 | | | |
| L75196-04ASD | ASD | 08/18/22 16:49 | MS220722-2 | .0501 | U | .05385 | mg/L | 107 | 70 | 130 | 1 | 20 | |
| WG548812CCV1 | CCV | 08/18/22 16:55 | MS220721-6 | .2505 | | .27953 | mg/L | 112 | 90 | 110 | | | VC |
| WG548812CCB1 | CCB | 08/18/22 16:57 | | | | U | mg/L | | -0.0003 | 0.0003 | | | |
| L75198-07AS | AS | 08/18/22 17:10 | MS220722-2 | .0501 | .00014 | .04498 | mg/L | 90 | 70 | 130 | | | |
| L75198-07ASD | ASD | 08/18/22 17:12 | MS220722-2 | .0501 | .00014 | .04655 | mg/L | 93 | 70 | 130 | 3 | 20 | |
| WG548812CCV2 | CCV | 08/18/22 17:18 | MS220721-6 | .2505 | | .26725 | mg/L | 107 | 90 | 110 | | | |
| WG548812CCB2 | CCB | 08/18/22 17:20 | | | | U | mg/L | | -0.0003 | 0.0003 | | | |
| WG548812CCV3 | CCV | 08/18/22 17:31 | MS220721-6 | .2505 | | .24388 | mg/L | 97 | 90 | 110 | | | |
| WG548812CCB3 | CCB | 08/18/22 17:33 | | | | U | mg/L | | -0.0003 | 0.0003 | | | |
| **WG548913** | | | | | | | | | | | | | |
| WG548913ICV | ICV | 08/22/22 10:20 | MS220701-3 | .05 | | .05155 | mg/L | 103 | 90 | 110 | | | |
| WG548913ICB | ICB | 08/22/22 10:22 | | | | U | mg/L | | -0.00022 | 0.00022 | | | |
| WG548913LFB | LFB | 08/22/22 10:26 | MS220722-2 | .0501 | | .04737 | mg/L | 95 | 85 | 115 | | | |
| L75142-01AS | AS | 08/22/22 10:30 | MS220722-2 | .0501 | .00437 | .05386 | mg/L | 99 | 70 | 130 | | | |
| L75142-01ASD | ASD | 08/22/22 10:31 | MS220722-2 | .0501 | .00437 | .05326 | mg/L | 98 | 70 | 130 | 1 | 20 | |
| WG548913CCV1 | CCV | 08/22/22 10:45 | MS220721-6 | .2505 | | .25214 | mg/L | 101 | 90 | 110 | | | |
| WG548913CCB1 | CCB | 08/22/22 10:47 | | | | U | mg/L | | -0.0003 | 0.0003 | | | |
| L75198-07AS | AS | 08/22/22 11:00 | MS220722-2 | .1002 | U | .08434 | mg/L | 84 | 70 | 130 | | | |
| L75198-07ASD | ASD | 08/22/22 11:02 | MS220722-2 | .1002 | U | .08782 | mg/L | 88 | 70 | 130 | 4 | 20 | |
| WG548913CCV2 | CCV | 08/22/22 11:07 | MS220721-6 | .2505 | | .25238 | mg/L | 101 | 90 | 110 | | | |
| WG548913CCB2 | CCB | 08/22/22 11:09 | | | | U | mg/L | | -0.0003 | 0.0003 | | | |
| WG548913CCV3 | CCV | 08/22/22 11:20 | MS220721-6 | .2505 | | .2286 | mg/L | 91 | 90 | 110 | | | |
| WG548913CCB3 | CCB | 08/22/22 11:22 | | | | U | mg/L | | -0.0003 | 0.0003 | | | |

**GCC**

ACZ Project ID: ***L75198***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG549521** | | | | | | | | | | | | | |
| WG549521ICV | ICV | 08/31/22 10:21 | II220815-2 | 2 | | 1.989 | mg/L | 99 | 95 | 105 | | | |
| WG549521ICB | ICB | 08/31/22 10:27 | | | | U | mg/L | | -0.024 | 0.024 | | | |
| WG549521PQV | PQV | 08/31/22 10:30 | II220802-1 | .03992 | | .0399 | mg/L | 100 | 70 | 130 | | | |
| WG549521SIC | SIC | 08/31/22 10:33 | II220801-1 | .0998 | | .1054 | mg/L | 106 | 80 | 120 | | | |
| WG549521LFB | LFB | 08/31/22 10:39 | II220827-3 | .998 | | .9967 | mg/L | 100 | 85 | 115 | | | |
| WG549521CCV1 | CCV | 08/31/22 11:10 | II220815-1 | 1 | | 1.009 | mg/L | 101 | 90 | 110 | | | |
| WG549521CCB1 | CCB | 08/31/22 11:13 | | | | U | mg/L | | -0.024 | 0.024 | | | |
| L75198-08AS | AS | 08/31/22 11:23 | II220827-3 | .998 | .163 | 1.155 | mg/L | 99 | 85 | 115 | | | |
| L75198-08ASD | ASD | 08/31/22 11:26 | II220827-3 | .998 | .163 | 1.147 | mg/L | 99 | 85 | 115 | 1 | 20 | |
| WG549521CCV2 | CCV | 08/31/22 11:48 | II220815-1 | 1 | | .9885 | mg/L | 99 | 90 | 110 | | | |
| WG549521CCB2 | CCB | 08/31/22 11:51 | | | | U | mg/L | | -0.024 | 0.024 | | | |
| L75213-01AS | AS | 08/31/22 11:57 | II220827-3 | .998 | .008 | .99 | mg/L | 98 | 85 | 115 | | | |
| L75213-01ASD | ASD | 08/31/22 12:00 | II220827-3 | .998 | .008 | 1 | mg/L | 99 | 85 | 115 | 1 | 20 | |
| WG549521CCV3 | CCV | 08/31/22 12:09 | II220815-1 | 1 | | .9852 | mg/L | 99 | 90 | 110 | | | |
| WG549521CCB3 | CCB | 08/31/22 12:12 | | | | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG549521** | | | | | | | | | | | | | |
| WG549521ICV | ICV | 08/31/22 10:21 | II220815-2 | 100 | | 96.84 | mg/L | 97 | 95 | 105 | | | |
| WG549521ICB | ICB | 08/31/22 10:27 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| WG549521PQV | PQV | 08/31/22 10:30 | II220802-1 | 1.0001 | | 1.1 | mg/L | 110 | 70 | 130 | | | |
| WG549521SIC | SIC | 08/31/22 10:33 | II220801-1 | 201.0201 | | 209.8 | mg/L | 104 | 1 | 200 | | | |
| WG549521LFB | LFB | 08/31/22 10:39 | II220827-3 | 49.99809 | | 47.01 | mg/L | 94 | 85 | 115 | | | |
| WG549521CCV1 | CCV | 08/31/22 11:10 | II220815-1 | 50 | | 47.04 | mg/L | 94 | 90 | 110 | | | |
| WG549521CCB1 | CCB | 08/31/22 11:13 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| L75198-08AS | AS | 08/31/22 11:23 | II220827-3 | 49.99809 | 26.3 | 70.4 | mg/L | 88 | 85 | 115 | | | |
| L75198-08ASD | ASD | 08/31/22 11:26 | II220827-3 | 49.99809 | 26.3 | 71.28 | mg/L | 90 | 85 | 115 | 1 | 20 | |
| WG549521CCV2 | CCV | 08/31/22 11:48 | II220815-1 | 50 | | 45.39 | mg/L | 91 | 90 | 110 | | | |
| WG549521CCB2 | CCB | 08/31/22 11:51 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| L75213-01AS | AS | 08/31/22 11:57 | II220827-3 | 49.99809 | 2.78 | 48.98 | mg/L | 92 | 85 | 115 | | | |
| L75213-01ASD | ASD | 08/31/22 12:00 | II220827-3 | 49.99809 | 2.78 | 52.11 | mg/L | 99 | 85 | 115 | 6 | 20 | |
| WG549521CCV3 | CCV | 08/31/22 12:09 | II220815-1 | 50 | | 46.53 | mg/L | 93 | 90 | 110 | | | |
| WG549521CCB3 | CCB | 08/31/22 12:12 | | | | U | mg/L | | -0.6 | 0.6 | | | |

**GCC**

ACZ Project ID: ***L75198***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG549521** | | | | | | | | | | | | | |
| WG549521ICV | ICV | 08/31/22 10:21 | II220815-2 | 2 | | 1.951 | mg/L | 98 | 95 | 105 | | | |
| WG549521ICB | ICB | 08/31/22 10:27 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| WG549521PQV | PQV | 08/31/22 10:30 | II220802-1 | .0498 | | .049 | mg/L | 98 | 70 | 130 | | | |
| WG549521SIC | SIC | 08/31/22 10:33 | II220801-1 | 49.9498 | | 48.47 | mg/L | 97 | 1 | 200 | | | |
| WG549521LFB | LFB | 08/31/22 10:39 | II220827-3 | .499 | | .47 | mg/L | 94 | 85 | 115 | | | |
| WG549521CCV1 | CCV | 08/31/22 11:10 | II220815-1 | 1 | | .982 | mg/L | 98 | 90 | 110 | | | |
| WG549521CCB1 | CCB | 08/31/22 11:13 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| L75198-08AS | AS | 08/31/22 11:23 | II220827-3 | .499 | U | .479 | mg/L | 96 | 85 | 115 | | | |
| L75198-08ASD | ASD | 08/31/22 11:26 | II220827-3 | .499 | U | .485 | mg/L | 97 | 85 | 115 | 1 | 20 | |
| WG549521CCV2 | CCV | 08/31/22 11:48 | II220815-1 | 1 | | .954 | mg/L | 95 | 90 | 110 | | | |
| WG549521CCB2 | CCB | 08/31/22 11:51 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| L75213-01AS | AS | 08/31/22 11:57 | II220827-3 | .499 | .024 | .508 | mg/L | 97 | 85 | 115 | | | |
| L75213-01ASD | ASD | 08/31/22 12:00 | II220827-3 | .499 | .024 | .513 | mg/L | 98 | 85 | 115 | 1 | 20 | |
| WG549521CCV3 | CCV | 08/31/22 12:09 | II220815-1 | 1 | | .966 | mg/L | 97 | 90 | 110 | | | |
| WG549521CCB3 | CCB | 08/31/22 12:12 | | | | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG548734** | | | | | | | | | | | | | |
| WG548734ICV | ICV | 08/18/22 14:42 | HG220815-3 | .005005 | | .00499 | mg/L | 100 | 95 | 105 | | | |
| WG548734ICB | ICB | 08/18/22 14:43 | | | | U | mg/L | | -0.0002 | 0.0002 | | | |
| WG548734PQV | PQV | 08/18/22 14:44 | HG220815-5 | .001001 | | .00101 | mg/L | 101 | 70 | 130 | | | |
| WG548734LRB | LRB | 08/18/22 14:45 | | | | U | mg/L | | -0.00044 | 0.00044 | | | |
| WG548734LFB | LFB | 08/18/22 14:46 | HG220815-6 | .002002 | | .00207 | mg/L | 103 | 85 | 115 | | | |
| L75198-01LFM | LFM | 08/18/22 14:51 | HG220815-6 | .002002 | U | .00082 | mg/L | 41 | 85 | 115 | | | M2 |
| L75198-01LFMD | LFMD | 08/18/22 14:52 | HG220815-6 | .002002 | U | .00081 | mg/L | 40 | 85 | 115 | 1 | 20 | M2 |
| WG548734CCV1 | CCV | 08/18/22 14:53 | HG220815-3 | .005005 | | .00493 | mg/L | 99 | 90 | 110 | | | |
| WG548734CCB1 | CCB | 08/18/22 14:54 | | | | U | mg/L | | -0.0002 | 0.0002 | | | |
| WG548734CCV2 | CCV | 08/18/22 15:04 | HG220815-3 | .005005 | | .00509 | mg/L | 102 | 90 | 110 | | | |
| WG548734CCB2 | CCB | 08/18/22 15:05 | | | | U | mg/L | | -0.0002 | 0.0002 | | | |
| L75200-01LFM | LFM | 08/18/22 15:06 | HG220815-6 | .002002 | U | .00208 | mg/L | 104 | 85 | 115 | | | |
| L75200-01LFMD | LFMD | 08/18/22 15:07 | HG220815-6 | .002002 | U | .00209 | mg/L | 104 | 85 | 115 | 0 | 20 | |
| WG548734CCV3 | CCV | 08/18/22 15:12 | HG220815-3 | .005005 | | .00501 | mg/L | 100 | 90 | 110 | | | |
| WG548734CCB3 | CCB | 08/18/22 15:13 | | | | U | mg/L | | -0.0002 | 0.0002 | | | |

**GCC**

ACZ Project ID: ***L75198***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG549521** | | | | | | | | | | | | | |
| WG549521ICV | ICV | 08/31/22 10:21 | II220815-2 | 2 | | 1.975 | mg/L | 99 | 95 | 105 | | | |
| WG549521ICB | ICB | 08/31/22 10:27 | | | | U | mg/L | | -0.024 | 0.024 | | | |
| WG549521PQV | PQV | 08/31/22 10:30 | II220802-1 | .04004 | | .0401 | mg/L | 100 | 70 | 130 | | | |
| WG549521SIC | SIC | 08/31/22 10:33 | II220801-1 | .1001 | | .1026 | mg/L | 102 | 80 | 120 | | | |
| WG549521LFB | LFB | 08/31/22 10:39 | II220827-3 | .502 | | .4701 | mg/L | 94 | 85 | 115 | | | |
| WG549521CCV1 | CCV | 08/31/22 11:10 | II220815-1 | 1 | | .9844 | mg/L | 98 | 90 | 110 | | | |
| WG549521CCB1 | CCB | 08/31/22 11:13 | | | | U | mg/L | | -0.024 | 0.024 | | | |
| L75198-08AS | AS | 08/31/22 11:23 | II220827-3 | .502 | U | .4621 | mg/L | 92 | 85 | 115 | | | |
| L75198-08ASD | ASD | 08/31/22 11:26 | II220827-3 | .502 | U | .472 | mg/L | 94 | 85 | 115 | 2 | 20 | |
| WG549521CCV2 | CCV | 08/31/22 11:48 | II220815-1 | 1 | | .9582 | mg/L | 96 | 90 | 110 | | | |
| WG549521CCB2 | CCB | 08/31/22 11:51 | | | | U | mg/L | | -0.024 | 0.024 | | | |
| L75213-01AS | AS | 08/31/22 11:57 | II220827-3 | .502 | U | .4746 | mg/L | 95 | 85 | 115 | | | |
| L75213-01ASD | ASD | 08/31/22 12:00 | II220827-3 | .502 | U | .4778 | mg/L | 95 | 85 | 115 | 1 | 20 | |
| WG549521CCV3 | CCV | 08/31/22 12:09 | II220815-1 | 1 | | .9708 | mg/L | 97 | 90 | 110 | | | |
| WG549521CCB3 | CCB | 08/31/22 12:12 | | | | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG548633** | | | | | | | | | | | | | |
| WG548633ICV | ICV | 08/16/22 23:03 | WI220602-3 | 2.4161 | | 2.397 | mg/L | 99 | 90 | 110 | | | |
| WG548633ICB | ICB | 08/16/22 23:05 | | | | U | mg/L | | -0.02 | 0.02 | | | |
| WG548633PQV | PQV | 08/16/22 23:08 | WI220630-8 | .1 | | .083 | mg/L | 83 | 70 | 130 | | | |
| WG548633LFB | LFB | 08/16/22 23:10 | WI220630-7 | 2 | | 2.032 | mg/L | 102 | 90 | 110 | | | |
| L75175-02DUP | DUP | 08/16/22 23:15 | | | 2.54 | 2.529 | mg/L | | | | 0 | 20 | |
| WG548633CCV1 | CCV | 08/16/22 23:18 | WI220810-20 | 2 | | 2.025 | mg/L | 101 | 90 | 110 | | | |
| WG548633CCB1 | CCB | 08/16/22 23:22 | | | | U | mg/L | | -0.02 | 0.02 | | | |
| L75198-06AS | AS | 08/16/22 23:32 | WI220630-7 | 2 | U | 2.062 | mg/L | 103 | 90 | 110 | | | |
| WG548633CCV2 | CCV | 08/16/22 23:35 | WI220810-20 | 2 | | 2.003 | mg/L | 100 | 90 | 110 | | | |
| WG548633CCB2 | CCB | 08/16/22 23:39 | | | | U | mg/L | | -0.02 | 0.02 | | | |
| L75198-07DUP | DUP | 08/16/22 23:49 | | | 9.4 | 9.403 | mg/L | | | | 0 | 20 | |
| WG548633CCV3 | CCV | 08/16/22 23:55 | WI220810-20 | 2 | | 1.994 | mg/L | 100 | 90 | 110 | | | |
| WG548633CCB3 | CCB | 08/16/22 23:58 | | | | U | mg/L | | -0.02 | 0.02 | | | |
| L75175-01AS | AS | 08/16/22 23:59 | WI220630-7 | 6 | 4.22 | 10.13 | mg/L | 99 | 90 | 110 | | | |
| WG548633CCV4 | CCV | 08/17/22 0:02 | WI220810-20 | 2 | | 1.979 | mg/L | 99 | 90 | 110 | | | |
| WG548633CCB4 | CCB | 08/17/22 0:06 | | | | U | mg/L | | -0.02 | 0.02 | | | |

**GCC**

ACZ Project ID: ***L75198***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG548633** | | | | | | | | | | | | | |
| WG548633ICV | ICV | 08/16/22 23:03 | WI220602-3 | .6089 | | .61 | mg/L | 100 | 90 | 110 | | | |
| WG548633ICB | ICB | 08/16/22 23:05 | | | | U | mg/L | | -0.01 | 0.01 | | | |
| WG548633PQV | PQV | 08/16/22 23:08 | WI220630-8 | .05 | | .051 | mg/L | 102 | 70 | 130 | | | |
| WG548633LFB | LFB | 08/16/22 23:10 | WI220630-7 | 1 | | .966 | mg/L | 97 | 90 | 110 | | | |
| L75175-01AS | AS | 08/16/22 23:12 | WI220630-7 | 1 | U | .972 | mg/L | 97 | 90 | 110 | | | |
| L75175-02DUP | DUP | 08/16/22 23:15 | | | U | U | mg/L | | | | 0 | 20 | RA |
| WG548633CCV1 | CCV | 08/16/22 23:18 | WI220810-20 | 1 | | .984 | mg/L | 98 | 90 | 110 | | | |
| WG548633CCB1 | CCB | 08/16/22 23:22 | | | | U | mg/L | | -0.01 | 0.01 | | | |
| L75198-06AS | AS | 08/16/22 23:32 | WI220630-7 | 1 | U | .997 | mg/L | 100 | 90 | 110 | | | |
| L75198-07DUP | DUP | 08/16/22 23:34 | | | .511 | .512 | mg/L | | | | 0 | 20 | |
| WG548633CCV2 | CCV | 08/16/22 23:35 | WI220810-20 | 1 | | .985 | mg/L | 99 | 90 | 110 | | | |
| WG548633CCB2 | CCB | 08/16/22 23:39 | | | | U | mg/L | | -0.01 | 0.01 | | | |
| WG548633CCV3 | CCV | 08/16/22 23:55 | WI220810-20 | 1 | | .979 | mg/L | 98 | 90 | 110 | | | |
| WG548633CCB3 | CCB | 08/16/22 23:58 | | | | U | mg/L | | -0.01 | 0.01 | | | |
| WG548633CCV4 | CCV | 08/17/22 0:02 | WI220810-20 | 1 | | .975 | mg/L | 98 | 90 | 110 | | | |
| WG548633CCB4 | CCB | 08/17/22 0:06 | | | | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG549521** | | | | | | | | | | | | | |
| WG549521ICV | ICV | 08/31/22 10:21 | II220815-2 | 20 | | 19.56 | mg/L | 98 | 95 | 105 | | | |
| WG549521ICB | ICB | 08/31/22 10:27 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| WG549521PQV | PQV | 08/31/22 10:30 | II220802-1 | 1.005 | | 1.14 | mg/L | 113 | 70 | 130 | | | |
| WG549521SIC | SIC | 08/31/22 10:33 | II220801-1 | 1.005 | | 1.05 | mg/L | 104 | 80 | 120 | | | |
| WG549521LFB | LFB | 08/31/22 10:39 | II220827-3 | 99.95798 | | 95.41 | mg/L | 95 | 85 | 115 | | | |
| WG549521CCV1 | CCV | 08/31/22 11:10 | II220815-1 | 10 | | 9.82 | mg/L | 98 | 90 | 110 | | | |
| WG549521CCB1 | CCB | 08/31/22 11:13 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| L75198-08AS | AS | 08/31/22 11:23 | II220827-3 | 99.95798 | 3.54 | 100.4 | mg/L | 97 | 85 | 115 | | | |
| L75198-08ASD | ASD | 08/31/22 11:26 | II220827-3 | 99.95798 | 3.54 | 100.8 | mg/L | 97 | 85 | 115 | 0 | 20 | |
| WG549521CCV2 | CCV | 08/31/22 11:48 | II220815-1 | 10 | | 9.57 | mg/L | 96 | 90 | 110 | | | |
| WG549521CCB2 | CCB | 08/31/22 11:51 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| L75213-01AS | AS | 08/31/22 11:57 | II220827-3 | 99.95798 | .68 | 96.87 | mg/L | 96 | 85 | 115 | | | |
| L75213-01ASD | ASD | 08/31/22 12:00 | II220827-3 | 99.95798 | .68 | 102.9 | mg/L | 102 | 85 | 115 | 6 | 20 | |
| WG549521CCV3 | CCV | 08/31/22 12:09 | II220815-1 | 10 | | 9.56 | mg/L | 96 | 90 | 110 | | | |
| WG549521CCB3 | CCB | 08/31/22 12:12 | | | | U | mg/L | | -0.6 | 0.6 | | | |

**GCC**

ACZ Project ID: ***L75198***

*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.*

**Residue, Filterable (TDS) @180C** SM2540C

| ACZ ID | Type | Analyzed | PCN/SCN | QC | Sample | Found | Units | Rec% | Lower | Upper | RPD | Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG548850** | | | | | | | | | | | | | |
| WG548850PBW | PBW | 08/19/22 10:30 | | | | 24 | mg/L | | -20 | 20 | | | B7 |
| WG548850LCSW | LCSW | 08/19/22 10:32 | PCN66040 | 1000 | | 982 | mg/L | 98 | 80 | 120 | | | |
| L75263-02DUP | DUP | 08/19/22 11:01 | | | 2760 | 2754 | mg/L | | | | 0 | 10 | B7 |
| **WG548858** | | | | | | | | | | | | | |
| WG548858PBW | PBW | 08/19/22 12:30 | | | | U | mg/L | | -20 | 20 | | | |
| WG548858LCSW | LCSW | 08/19/22 12:32 | PCN66040 | 1000 | | 984 | mg/L | 98 | 80 | 120 | | | |
| L75189-01DUP2 | DUP | 08/19/22 12:43 | | | 356 | 342 | mg/L | | | | 4 | 10 | |
| **WG548962** | | | | | | | | | | | | | |
| WG548962PBW | PBW | 08/22/22 16:30 | | | | U | mg/L | | -20 | 20 | | | |
| WG548962LCSW | LCSW | 08/22/22 16:32 | PCN66040 | 1000 | | 964 | mg/L | 96 | 80 | 120 | | | |
| L75207-02DUP | DUP | 08/22/22 17:01 | | | 11000 | 11090 | mg/L | | | | 1 | 10 | |

**GCC**

ACZ Project ID: ***L75198***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG548913** | | | | | | | | | | | | | |
| WG548913ICV | ICV | 08/22/22 10:20 | MS220701-3 | .05 | | .05164 | mg/L | 103 | 90 | 110 | | | |
| WG548913ICB | ICB | 08/22/22 10:22 | | | | U | mg/L | | -0.00022 | 0.00022 | | | |
| WG548913LFB | LFB | 08/22/22 10:26 | MS220722-2 | .05 | | .0476 | mg/L | 95 | 85 | 115 | | | |
| L75142-01AS | AS | 08/22/22 10:30 | MS220722-2 | .05 | .00049 | .05328 | mg/L | 106 | 70 | 130 | | | |
| L75142-01ASD | ASD | 08/22/22 10:31 | MS220722-2 | .05 | .00049 | .05372 | mg/L | 106 | 70 | 130 | 1 | 20 | |
| WG548913CCV1 | CCV | 08/22/22 10:45 | MS220721-6 | .25 | | .25849 | mg/L | 103 | 90 | 110 | | | |
| WG548913CCB1 | CCB | 08/22/22 10:47 | | | | .00015 | mg/L | | -0.0003 | 0.0003 | | | |
| L75198-07AS | AS | 08/22/22 11:00 | MS220722-2 | .1 | | .0932 | mg/L | 93 | 70 | 130 | | | |
| L75198-07ASD | ASD | 08/22/22 11:02 | MS220722-2 | .1 | | .09801 | mg/L | 98 | 70 | 130 | 5 | 20 | |
| WG548913CCV2 | CCV | 08/22/22 11:07 | MS220721-6 | .25 | | .25861 | mg/L | 103 | 90 | 110 | | | |
| WG548913CCB2 | CCB | 08/22/22 11:09 | | | | .0083 | mg/L | | -0.0003 | 0.0003 | | | BB BE |
| **WG549040** | | | | | | | | | | | | | |
| WG549040ICV | ICV | 08/23/22 15:00 | MS220701-3 | .05 | | .0497 | mg/L | 99 | 90 | 110 | | | |
| WG549040ICB | ICB | 08/23/22 15:02 | | | | U | mg/L | | -0.00022 | 0.00022 | | | |
| WG549040LFB | LFB | 08/23/22 15:04 | MS220822-2 | .05 | | .04984 | mg/L | 100 | 85 | 115 | | | |
| L75198-05AS | AS | 08/23/22 15:10 | MS220822-2 | .05 | .00075 | .05518 | mg/L | 109 | 70 | 130 | | | |
| L75198-05ASD | ASD | 08/23/22 15:11 | MS220822-2 | .05 | .00075 | .05401 | mg/L | 107 | 70 | 130 | 2 | 20 | |
| WG549040CCV1 | CCV | 08/23/22 15:17 | MS220721-6 | .25 | | .25234 | mg/L | 101 | 90 | 110 | | | |
| WG549040CCB1 | CCB | 08/23/22 15:19 | | | | .00015 | mg/L | | -0.0003 | 0.0003 | | | |
| WG549040CCV2 | CCV | 08/23/22 15:28 | MS220721-6 | .25 | | .24059 | mg/L | 96 | 90 | 110 | | | |
| WG549040CCB2 | CCB | 08/23/22 15:30 | | | | .00015 | mg/L | | -0.0003 | 0.0003 | | | |
| WG549040CCV3 | CCV | 08/23/22 15:49 | MS220721-6 | .25 | | .25061 | mg/L | 100 | 90 | 110 | | | |
| WG549040CCB3 | CCB | 08/23/22 15:51 | | | | .00017 | mg/L | | -0.0003 | 0.0003 | | | |
| WG549040CCV4 | CCV | 08/23/22 16:02 | MS220721-6 | .25 | | .24738 | mg/L | 99 | 90 | 110 | | | |
| WG549040CCB4 | CCB | 08/23/22 16:04 | | | | .00019 | mg/L | | -0.0003 | 0.0003 | | | |
| **WG549182** | | | | | | | | | | | | | |
| WG549182ICV | ICV | 08/24/22 15:57 | MS220701-3 | .05 | | .05181 | mg/L | 104 | 90 | 110 | | | |
| WG549182ICB | ICB | 08/24/22 15:59 | | | | U | mg/L | | -0.00022 | 0.00022 | | | |
| WG549182LFB | LFB | 08/24/22 16:01 | MS220822-2 | .05 | | .04728 | mg/L | 95 | 85 | 115 | | | |
| L75115-01AS | AS | 08/24/22 16:05 | MS220822-2 | .05 | .00069 | .051 | mg/L | 101 | 70 | 130 | | | |
| L75115-01ASD | ASD | 08/24/22 16:07 | MS220822-2 | .05 | .00069 | .05205 | mg/L | 103 | 70 | 130 | 2 | 20 | |
| WG549182CCV1 | CCV | 08/24/22 16:20 | MS220721-6 | .25 | | .27308 | mg/L | 109 | 90 | 110 | | | |
| WG549182CCB1 | CCB | 08/24/22 16:22 | | | | U | mg/L | | -0.0003 | 0.0003 | | | |
| WG549182CCV2 | CCV | 08/24/22 16:43 | MS220721-6 | .25 | | .24747 | mg/L | 99 | 90 | 110 | | | |
| WG549182CCB2 | CCB | 08/24/22 16:45 | | | | .00015 | mg/L | | -0.0003 | 0.0003 | | | |
| WG549182CCV3 | CCV | 08/24/22 16:56 | MS220721-6 | .25 | | .25278 | mg/L | 101 | 90 | 110 | | | |
| WG549182CCB3 | CCB | 08/24/22 16:58 | | | | .00011 | mg/L | | -0.0003 | 0.0003 | | | |

**GCC**

ACZ Project ID: ***L75198***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG549521** | | | | | | | | | | | | | |
| WG549521ICV | ICV | 08/31/22 10:21 | II220815-2 | 100 | | 98.66 | mg/L | 99 | 95 | 105 | | | |
| WG549521ICB | ICB | 08/31/22 10:27 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| WG549521PQV | PQV | 08/31/22 10:30 | II220802-1 | 1.002 | | 1.06 | mg/L | 106 | 70 | 130 | | | |
| WG549521SIC | SIC | 08/31/22 10:33 | II220801-1 | 1.002 | | 1.11 | mg/L | 111 | 80 | 120 | | | |
| WG549521LFB | LFB | 08/31/22 10:39 | II220827-3 | 100.0023 | | 95.11 | mg/L | 95 | 85 | 115 | | | |
| WG549521CCV1 | CCV | 08/31/22 11:10 | II220815-1 | 50 | | 49.6 | mg/L | 99 | 90 | 110 | | | |
| WG549521CCB1 | CCB | 08/31/22 11:13 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| L75198-08AS | AS | 08/31/22 11:23 | II220827-3 | 100.0023 | 477 | 542.7 | mg/L | 66 | 85 | 115 | | | M3 |
| L75198-08ASD | ASD | 08/31/22 11:26 | II220827-3 | 100.0023 | 477 | 547.2 | mg/L | 70 | 85 | 115 | 1 | 20 | M3 |
| WG549521CCV2 | CCV | 08/31/22 11:48 | II220815-1 | 50 | | 48.49 | mg/L | 97 | 90 | 110 | | | |
| WG549521CCB2 | CCB | 08/31/22 11:51 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| L75213-01AS | AS | 08/31/22 11:57 | II220827-3 | 100.0023 | 2.82 | 99.3 | mg/L | 96 | 85 | 115 | | | |
| L75213-01ASD | ASD | 08/31/22 12:00 | II220827-3 | 100.0023 | 2.82 | 106 | mg/L | 103 | 85 | 115 | 7 | 20 | |
| WG549521CCV3 | CCV | 08/31/22 12:09 | II220815-1 | 50 | | 48.71 | mg/L | 97 | 90 | 110 | | | |
| WG549521CCB3 | CCB | 08/31/22 12:12 | | | | U | mg/L | | -0.6 | 0.6 | | | |

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

| ACZ ID | Type | Analyzed | PCN/SCN | QC | Sample | Found | Units | Rec% | Lower | Upper | RPD | Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG549045** | | | | | | | | | | | | | |
| WG549045ICV | ICV | 08/23/22 9:16 | WI220815-2 | 19.54 | | 20.5 | mg/L | 105 | 90 | 110 | | | |
| WG549045CCV1 | CCV | 08/23/22 14:45 | WI220815-3 | 25 | | 25.8 | mg/L | 103 | 90 | 110 | | | |
| WG549045CCB1 | CCB | 08/23/22 14:45 | | | | U | mg/L | | -3 | 3 | | | |
| WG549045LFB1 | LFB | 08/23/22 14:45 | WI220415-3 | 9.95 | | 9.9 | mg/L | 99 | 90 | 110 | | | |
| L75175-01DUP | DUP | 08/23/22 14:45 | | | 13.4 | 13.3 | mg/L | | | | 1 | 20 | |
| L75175-02AS | AS | 08/23/22 14:45 | WI220415-3 | 9.95 | 16.8 | 27.8 | mg/L | 111 | 90 | 110 | | | M1 |
| WG549045CCV2 | CCV | 08/23/22 14:47 | WI220815-3 | 25 | | 25.7 | mg/L | 103 | 90 | 110 | | | |
| WG549045CCB2 | CCB | 08/23/22 14:47 | | | | U | mg/L | | -3 | 3 | | | |
| WG549045CCV3 | CCV | 08/23/22 14:49 | WI220815-3 | 25 | | 25.7 | mg/L | 103 | 90 | 110 | | | |
| WG549045CCB3 | CCB | 08/23/22 14:49 | | | | U | mg/L | | -3 | 3 | | | |
| WG549045CCV4 | CCV | 08/23/22 14:51 | WI220815-3 | 25 | | 26.3 | mg/L | 105 | 90 | 110 | | | |
| WG549045CCB4 | CCB | 08/23/22 14:51 | | | | U | mg/L | | -3 | 3 | | | |
| WG549045CCV7 | CCV | 08/23/22 16:43 | WI220815-3 | 25 | | 25.8 | mg/L | 103 | 90 | 110 | | | |
| WG549045CCB7 | CCB | 08/23/22 16:43 | | | | U | mg/L | | -3 | 3 | | | |
| WG549045LFB2 | LFB | 08/23/22 16:44 | WI220415-3 | 9.95 | | 10.1 | mg/L | 102 | 90 | 110 | | | |
| WG549045CCV8 | CCV | 08/23/22 16:46 | WI220815-3 | 25 | | 25.8 | mg/L | 103 | 90 | 110 | | | |
| WG549045CCB8 | CCB | 08/23/22 16:46 | | | | U | mg/L | | -3 | 3 | | | |
| L75198-07DUP | DUP | 08/23/22 16:46 | | | 204 | 201.6 | mg/L | | | | 1 | 20 | |
| L75198-08AS | AS | 08/23/22 16:49 | SO4TURB25X | 10 | 401 | 412.4 | mg/L | 114 | 90 | 110 | | | M3 |
| WG549045CCV9 | CCV | 08/23/22 16:49 | WI220815-3 | 25 | | 25.7 | mg/L | 103 | 90 | 110 | | | |
| WG549045CCB9 | CCB | 08/23/22 16:49 | | | | U | mg/L | | -3 | 3 | | | |
| WG549045CCV10 | CCV | 08/23/22 16:53 | WI220815-3 | 25 | | 25.7 | mg/L | 103 | 90 | 110 | | | |
| WG549045CCB10 | CCB | 08/23/22 16:53 | | | | U | mg/L | | -3 | 3 | | | |
| WG549045CCV11 | CCV | 08/23/22 16:55 | WI220815-3 | 25 | | 25.8 | mg/L | 103 | 90 | 110 | | | |
| WG549045CCB11 | CCB | 08/23/22 16:55 | | | | U | mg/L | | -3 | 3 | | | |
| WG549045CCV12 | CCV | 08/23/22 17:15 | WI220815-3 | 25 | | 25.9 | mg/L | 104 | 90 | 110 | | | |
| WG549045CCB12 | CCB | 08/23/22 17:15 | | | | U | mg/L | | -3 | 3 | | | |
| WG549045CCV13 | CCV | 08/23/22 17:16 | WI220815-3 | 25 | | 25.7 | mg/L | 103 | 90 | 110 | | | |
| WG549045CCB13 | CCB | 08/23/22 17:16 | | | | U | mg/L | | -3 | 3 | | | |

**GCC**

ACZ Project ID: ***L75198***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG549521** | | | | | | | | | | | | | |
| WG549521ICV | ICV | 08/31/22 10:21 | II220815-2 | 2 | | 2.034 | mg/L | 102 | 95 | 105 | | | |
| WG549521ICB | ICB | 08/31/22 10:27 | | | | U | mg/L | | -0.015 | 0.015 | | | |
| WG549521PQV | PQV | 08/31/22 10:30 | II220802-1 | .025025 | | .025 | mg/L | 100 | 70 | 130 | | | |
| WG549521SIC | SIC | 08/31/22 10:33 | II220801-1 | .1001 | | .101 | mg/L | 101 | 80 | 120 | | | |
| WG549521LFB | LFB | 08/31/22 10:39 | II220827-3 | .5005 | | .5029 | mg/L | 100 | 85 | 115 | | | |
| WG549521CCV1 | CCV | 08/31/22 11:10 | II220815-1 | 1 | | 1.014 | mg/L | 101 | 90 | 110 | | | |
| WG549521CCB1 | CCB | 08/31/22 11:13 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| L75198-08AS | AS | 08/31/22 11:23 | II220827-3 | .5005 | U | .5085 | mg/L | 102 | 85 | 115 | | | |
| L75198-08ASD | ASD | 08/31/22 11:26 | II220827-3 | .5005 | U | .514 | mg/L | 103 | 85 | 115 | 1 | 20 | |
| WG549521CCV2 | CCV | 08/31/22 11:48 | II220815-1 | 1 | | .992 | mg/L | 99 | 90 | 110 | | | |
| WG549521CCB2 | CCB | 08/31/22 11:51 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| L75213-01AS | AS | 08/31/22 11:57 | II220827-3 | .5005 | U | .5071 | mg/L | 101 | 85 | 115 | | | |
| L75213-01ASD | ASD | 08/31/22 12:00 | II220827-3 | .5005 | U | .54 | mg/L | 108 | 85 | 115 | 6 | 20 | |
| WG549521CCV3 | CCV | 08/31/22 12:09 | II220815-1 | 1 | | 1.001 | mg/L | 100 | 90 | 110 | | | |
| WG549521CCB3 | CCB | 08/31/22 12:12 | | | | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG549521** | | | | | | | | | | | | | |
| WG549521ICV | ICV | 08/31/22 10:21 | II220815-2 | 2 | | 1.949 | mg/L | 97 | 95 | 105 | | | |
| WG549521ICB | ICB | 08/31/22 10:27 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| WG549521PQV | PQV | 08/31/22 10:30 | II220802-1 | .0501 | | .047 | mg/L | 94 | 70 | 130 | | | |
| WG549521SIC | SIC | 08/31/22 10:33 | II220801-1 | .1002 | | .089 | mg/L | 89 | 80 | 120 | | | |
| WG549521LFB | LFB | 08/31/22 10:39 | II220827-3 | .50045 | | .493 | mg/L | 99 | 85 | 115 | | | |
| WG549521CCV1 | CCV | 08/31/22 11:10 | II220815-1 | 1 | | .953 | mg/L | 95 | 90 | 110 | | | |
| WG549521CCB1 | CCB | 08/31/22 11:13 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| L75198-08AS | AS | 08/31/22 11:23 | II220827-3 | .50045 | U | .479 | mg/L | 96 | 85 | 115 | | | |
| L75198-08ASD | ASD | 08/31/22 11:26 | II220827-3 | .50045 | U | .48 | mg/L | 96 | 85 | 115 | 0 | 20 | |
| WG549521CCV2 | CCV | 08/31/22 11:48 | II220815-1 | 1 | | .934 | mg/L | 93 | 90 | 110 | | | |
| WG549521CCB2 | CCB | 08/31/22 11:51 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| L75213-01AS | AS | 08/31/22 11:57 | II220827-3 | .50045 | .418 | .891 | mg/L | 95 | 85 | 115 | | | |
| L75213-01ASD | ASD | 08/31/22 12:00 | II220827-3 | .50045 | .418 | .93 | mg/L | 102 | 85 | 115 | 4 | 20 | |
| WG549521CCV3 | CCV | 08/31/22 12:09 | II220815-1 | 1 | | .962 | mg/L | 96 | 90 | 110 | | | |
| WG549521CCB3 | CCB | 08/31/22 12:12 | | | | U | mg/L | | -0.06 | 0.06 | | | |

**GCC Rio Grande** ACZ Project ID: ***L75198***

| ACZ ID | WORKNUM | PARAMETER | METHOD | QUAL | DESCRIPTION |
|---|---|---|---|---|---|
| **L75198-01** | WG549099 | 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. |
| | WG549521 | Copper, dissolved | M200.7 ICP | M2 | Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable. |
| | WG549132 | Fluoride | SM4500F-C | MA | Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits. |
| | WG548913 | Lead, dissolved | M200.8 ICP-MS | DB | Sample required dilution due to low bias result. |
| | WG548734 | Mercury, dissolved | M245.1 CVAA | M2 | Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable. |
| | WG548633 | 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). |
| | WG548913 | Selenium, dissolved | M200.8 ICP-MS | DB | Sample required dilution due to low bias result. |
| | | | M200.8 ICP-MS | EA | Concentration estimated. Analytical result was less than the negative MDL due to matrix interferences. |
| | WG549521 | 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. |
| | WG549045 | Sulfate | D516-02/-07/-11 - TURBIDIMETRIC | M1 | Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable. |
| **L75198-02** | WG549099 | 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. |
| | WG549521 | Copper, dissolved | M200.7 ICP | M2 | Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable. |
| | WG549132 | Fluoride | SM4500F-C | MA | Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits. |
| | WG548812 | Lead, dissolved | M200.8 ICP-MS | VC | CCV recovery was above the acceptance limits. Target analyte was not detected in the sample [< MDL]. |
| | WG548734 | Mercury, dissolved | M245.1 CVAA | M2 | Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable. |
| | WG548633 | 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). |
| | WG548850 | Residue, Filterable (TDS) @180C | SM2540C | B7 | Target analyte detected in prep / method blank at or above acceptance limit. Sample value is > 10X the concentration in the method blank. |
| | WG548913 | 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]. |
| | | | M200.8 ICP-MS | DB | Sample required dilution due to low bias result. |
| | | | M200.8 ICP-MS | EA | Concentration estimated. Analytical result was less than the negative MDL due to matrix interferences. |
| | WG549521 | 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. |
| | WG549045 | Sulfate | D516-02/-07/-11 - TURBIDIMETRIC | M1 | Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable. |

**GCC Rio Grande** ACZ Project ID: ***L75198***

| ACZ ID | WORKNUM | PARAMETER | METHOD | QUAL | DESCRIPTION |
|---|---|---|---|---|---|
| **L75198-03** | WG549099 | 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. |
| | WG549521 | Copper, dissolved | M200.7 ICP | M2 | Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable. |
| | WG548812 | Lead, dissolved | M200.8 ICP-MS | VC | CCV recovery was above the acceptance limits. Target analyte was not detected in the sample [< MDL]. |
| | WG548734 | Mercury, dissolved | M245.1 CVAA | M2 | Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable. |
| | WG548633 | 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). |
| | WG549521 | 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. |
| | WG549045 | Sulfate | D516-02/-07/-11 - TURBIDIMETRIC | M1 | Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable. |
| **L75198-04** | WG549099 | 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. |
| | WG549521 | Copper, dissolved | M200.7 ICP | M2 | Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable. |
| | WG548812 | Lead, dissolved | M200.8 ICP-MS | VC | CCV recovery was above the acceptance limits. Target analyte was not detected in the sample [< MDL]. |
| | WG548734 | Mercury, dissolved | M245.1 CVAA | M2 | Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable. |
| | WG548633 | 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). |
| | WG548850 | Residue, Filterable (TDS) @180C | SM2540C | B7 | Target analyte detected in prep / method blank at or above acceptance limit. Sample value is > 10X the concentration in the method blank. |
| | WG548913 | 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]. |
| | | | M200.8 ICP-MS | DB | Sample required dilution due to low bias result. |
| | | | M200.8 ICP-MS | EA | Concentration estimated. Analytical result was less than the negative MDL due to matrix interferences. |
| | WG549521 | 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. |
| | WG549045 | Sulfate | D516-02/-07/-11 - TURBIDIMETRIC | M1 | Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable. |

**GCC Rio Grande** ACZ Project ID: ***L75198***

| ACZ ID | WORKNUM | PARAMETER | METHOD | QUAL | DESCRIPTION |
|---|---|---|---|---|---|
| **L75198-05** | WG549099 | 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. |
| | WG549521 | Copper, dissolved | M200.7 ICP | M2 | Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable. |
| | WG548812 | Lead, dissolved | M200.8 ICP-MS | VC | CCV recovery was above the acceptance limits. Target analyte was not detected in the sample [< MDL]. |
| | WG548734 | Mercury, dissolved | M245.1 CVAA | M2 | Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable. |
| | WG548633 | 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). |
| | WG549521 | 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. |
| | WG549045 | Sulfate | D516-02/-07/-11 - TURBIDIMETRIC | M1 | Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable. |
| **L75198-06** | WG549099 | 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. |
| | WG549521 | Copper, dissolved | M200.7 ICP | M2 | Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable. |
| | WG548812 | Lead, dissolved | M200.8 ICP-MS | VC | CCV recovery was above the acceptance limits. Target analyte was not detected in the sample [< MDL]. |
| | WG548734 | Mercury, dissolved | M245.1 CVAA | M2 | Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable. |
| | WG548850 | Residue, Filterable (TDS) @180C | SM2540C | B7 | Target analyte detected in prep / method blank at or above acceptance limit. Sample value is > 10X the concentration in the method blank. |
| | WG548913 | 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]. |
| | | | M200.8 ICP-MS | DB | Sample required dilution due to low bias result. |
| | | | M200.8 ICP-MS | EA | Concentration estimated. Analytical result was less than the negative MDL due to matrix interferences. |
| | WG549521 | 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. |
| | WG549045 | 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. |
| **L75198-07** | WG549099 | 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. |
| | WG548913 | Lead, dissolved | M200.8 ICP-MS | DB | Sample required dilution due to low bias result. |
| | | 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]. |
| | | | M200.8 ICP-MS | DB | Sample required dilution due to low bias result. |
| | | | M200.8 ICP-MS | EA | Concentration estimated. Analytical result was less than the negative MDL due to matrix interferences. |
| | WG549045 | 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: ***L75198***

| ACZ ID | WORKNUM | PARAMETER | METHOD | QUAL | DESCRIPTION |
|---|---|---|---|---|---|
| **L75198-08** | WG549099 | 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. |
| | WG549521 | Copper, dissolved | M200.7 ICP | M2 | Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable. |
| | WG548812 | Lead, dissolved | M200.8 ICP-MS | VC | CCV recovery was above the acceptance limits. Target analyte was not detected in the sample [< MDL]. |
| | WG548633 | Nitrate/Nitrite as N, dissolved | M353.2 - Automated Cadmium Reduction | DB | Sample required dilution due to low bias result. |
| | WG548913 | 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. |
| | WG549521 | 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. |
| | WG549045 | 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. |
| **L75198-09** | WG549099 | 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. |
| | WG549182 | Selenium, dissolved | M200.8 ICP-MS | DB | Sample required dilution due to low bias result. |
| | | | M200.8 ICP-MS | EA | Concentration estimated. Analytical result was less than the negative MDL due to matrix interferences. |
| | WG549045 | 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. |
| **L75198-10** | WG549099 | 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. |
| | WG549045 | 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. |

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
105495

ACZ Project ID: L75198
Date Received: 08/16/2022 11:59
Received By:
Date Printed: 8/17/2022

## 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? |
|---|---|---|---|---|
| 6685 | 3 | <=6.0 | 15 | Yes |

Was ice present in the shipment container(s)?

Yes - Wet ice was present in the shipment container(s) but was thawed by receipt at ACZ.

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
105495

ACZ Project ID: L75198
Date Received: 08/16/2022 11:59
Received By:
Date Printed: 8/17/2022

[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 | Accredited Environmental Testing | 2773 Downhill Drive, Steamboat Springs, CO 80487, (970) 879-6590 | L75198

# CHAIN of CUSTODY

**Report to:**

Name: Amy Veek
Company: GCC Rio Grande Inc
E-mail: aveek@gcc.com
Address: 3372 Lime Road
Pueblo CO 81004
Telephone: 719-647-6861

**Copy of Report to:**

Name: Landon Beck
Company: Resource Hydrogeologic
E-mail: lbeck@resourcehydrogeologic.com
Telephone: (970) 459-4865

**Invoice to:**

Name: Amy Veek
Company: GCC Rio Grande Inc
E-mail: aveek@gcc.com
Address: 3372 Lime Road
Pueblo CO 81004
Telephone: 719-647-6861

**Copy of Invoice to:**

Name:
Company:
E-mail:
Address:
Telephone:

**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:** Amy Veek **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
PO#: 105495
Reporting state for compliance testing:
Check box if samples include NRC licensed material?

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

| SAMPLE IDENTIFICATION | DATE:TIME | Matrix | # of Containers | GW-COmpliance | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| MW-14 | 8/15/2022 10:03 | GW | 3 | ✓ | | | | | | | |
| MW-13 | 8/15/2022 10:57 | GW | 3 | ✓ | | | | | | | |
| MW-6 | 8/15/2022 11:51 | GW | 3 | ✓ | | | | | | | |
| MW-2B | 8/15/2022 12:00 | GW | 3 | ✓ | | | | | | | |
| MW-7 | 8/15/2022 12:21 | GW | 3 | ✓ | | | | | | | |
| MW-8 | 8/15/2022 12:41 | GW | 3 | ✓ | | | | | | | |
| MW-12 | 8/15/2022 14:15 | GW | 3 | ✓ | | | | | | | |
| MW-11 | 8/15/2022 14:33 | GW | 3 | ✓ | | | | | | | |
| MW-10 | 8/15/2022 15:23 | GW | 3 | ✓ | | | | | | | |
| MW-9 | 8/15/2022 15:37 | 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 |
|---|---|---|---|
| | 8/15/22 16:17 | | 8/16/22 12:34 |
| | | | |

Qualtrax ID: 1984 Revision #: 2 White - Return with sample. Yellow - Retain for your records.

L75198 Chain of Custod

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

# Analytical Report

December 05, 2022

Report to:
Amy Veek
GCC Rio Grande
3372 Lime Road
Pueblo, CO 81004

cc: Landon Beck

Bill to:
Amy Veek
GCC Rio Grande
3372 Lime Road
Pueblo, CO 81004

Project ID: 105495
ACZ Project ID: L77107

Amy Veek:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on November 08, 2022. This project has been assigned to ACZ's project number, L77107. 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 L77107. 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 05, 2023. 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.

Sue Webber has reviewed and approved this report.

**GCC Rio Grande**
Project ID: 105495
Sample ID: MW-6

ACZ Sample ID: ***L77107-01***
Date Sampled: *11/07/22 10:42*
Date Received: *11/08/22*
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 | 11/18/22 22:03 | keh1 |
| Arsenic, dissolved | M200.8 ICP-MS | 5 | <0.001 | U | | mg/L | 0.001 | 0.005 | 11/15/22 19:19 | mfm |
| Beryllium, dissolved | M200.7 ICP | 5 | <0.05 | U | | mg/L | 0.05 | 0.25 | 11/18/22 22:03 | keh1 |
| Boron, dissolved | M200.7 ICP | 5 | 0.278 | B | | mg/L | 0.15 | 0.5 | 11/18/22 22:03 | keh1 |
| Cadmium, dissolved | M200.8 ICP-MS | 5 | <0.00025 | U | | mg/L | 0.00025 | 0.00125 | 11/15/22 19:19 | mfm |
| Calcium, dissolved | M200.7 ICP | 5 | 414 | | | mg/L | 0.5 | 2.5 | 11/18/22 22:03 | keh1 |
| Chromium, dissolved | M200.7 ICP | 5 | <0.1 | U | | mg/L | 0.1 | 0.25 | 11/18/22 22:03 | keh1 |
| Cobalt, dissolved | M200.8 ICP-MS | 5 | 0.0608 | | | mg/L | 0.00025 | 0.00125 | 11/15/22 19:19 | mfm |
| Copper, dissolved | M200.7 ICP | 5 | <0.05 | U | * | mg/L | 0.05 | 0.25 | 11/18/22 22:03 | keh1 |
| Iron, dissolved | M200.7 ICP | 5 | 0.319 | B | | mg/L | 0.3 | 0.75 | 11/18/22 22:03 | keh1 |
| Lead, dissolved | M200.8 ICP-MS | 5 | <0.0005 | U | | mg/L | 0.0005 | 0.0025 | 11/15/22 19:19 | mfm |
| Lithium, dissolved | M200.7 ICP | 5 | 0.429 | | | mg/L | 0.04 | 0.2 | 11/18/22 22:03 | keh1 |
| Magnesium, dissolved | M200.7 ICP | 5 | 411 | | | mg/L | 1 | 5 | 11/18/22 22:03 | keh1 |
| Manganese, dissolved | M200.7 ICP | 5 | 0.606 | | | mg/L | 0.05 | 0.25 | 11/18/22 22:03 | keh1 |
| Mercury, dissolved | M245.1 CVAA | 1 | <0.0002 | U | | mg/L | 0.0002 | 0.001 | 11/14/22 16:09 | mlh |
| Nickel, dissolved | M200.7 ICP | 5 | 0.320 | | | mg/L | 0.04 | 0.2 | 11/18/22 22:03 | keh1 |
| Potassium, dissolved | M200.7 ICP | 5 | 10.3 | | | mg/L | 1 | 5 | 11/18/22 22:03 | keh1 |
| Selenium, dissolved | M200.8 ICP-MS | 5 | <0.0005 | U | | mg/L | 0.0005 | 0.00125 | 11/15/22 19:19 | mfm |
| Sodium, dissolved | M200.7 ICP | 5 | 473 | | | mg/L | 1 | 5 | 11/18/22 22:03 | keh1 |
| Vanadium, dissolved | M200.7 ICP | 5 | <0.05 | U | | mg/L | 0.05 | 0.125 | 11/18/22 22:03 | keh1 |
| Zinc, dissolved | M200.7 ICP | 5 | <0.1 | U | | mg/L | 0.1 | 0.25 | 11/18/22 22:03 | keh1 |

**GCC Rio Grande**
Project ID: 105495
Sample ID: MW-6

ACZ Sample ID: ***L77107-01***
Date Sampled: *11/07/22 10:42*
Date Received: *11/08/22*
Sample Matrix: *Groundwater*

Wet Chemistry

| Parameter | EPA Method | Dilution | Result | Qual | XQ | Units | MDL | PQL | Date | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Alkalinity as CaCO3 | SM2320B - Titration | | | | | | | | | |
| Bicarbonate as CaCO3 | | 1 | 445 | | * | mg/L | 2 | 20 | 11/21/22 0:00 | emk |
| Carbonate as CaCO3 | | 1 | <2 | U | * | mg/L | 2 | 20 | 11/21/22 0:00 | emk |
| Hydroxide as CaCO3 | | 1 | <2 | U | * | mg/L | 2 | 20 | 11/21/22 0:00 | emk |
| Total Alkalinity | | 1 | 445 | | * | mg/L | 2 | 20 | 11/21/22 0:00 | emk |
| Cation-Anion Balance | Calculation | | | | | | | | | |
| Cation-Anion Balance | | | -1.3 | | | % | | | 12/05/22 0:00 | calc |
| Sum of Anions | | | 78 | | | meq/L | | | 12/05/22 0:00 | calc |
| Sum of Cations | | | 76 | | | meq/L | | | 12/05/22 0:00 | calc |
| Chloride | SM4500Cl-E | 5 | 77.0 | | * | mg/L | 5 | 10 | 11/16/22 11:46 | bls |
| Fluoride | SM4500F-C | 1 | 0.79 | | * | mg/L | 0.15 | 0.35 | 12/01/22 12:54 | emk |
| Hardness as CaCO3 (dissolved) | SM2340B - Calculation | | 2730 | | | mg/L | 1 | 30 | 12/05/22 0:00 | calc |
| Nitrate as N, dissolved | Calculation: NO3NO2 minus NO2 | | <0.02 | U | | mg/L | 0.02 | 0.1 | 12/05/22 0:00 | calc |
| Nitrate/Nitrite as N, dissolved | M353.2 - Automated Cadmium Reduction | 1 | <0.02 | U | * | mg/L | 0.02 | 0.1 | 11/08/22 23:36 | pjb |
| Nitrite as N, dissolved | M353.2 - Automated Cadmium Reduction | 1 | <0.01 | U | * | mg/L | 0.01 | 0.05 | 11/08/22 23:36 | pjb |
| Residue, Filterable (TDS) @180C | SM2540C | 2 | 5200 | | * | mg/L | 40 | 80 | 11/10/22 13:02 | anc |
| Sulfate | D516-02/-07/-11 - TURBIDIMETRIC | 120 | 3180 | | * | mg/L | 120 | 600 | 11/18/22 17:26 | gkk |
| TDS (calculated) | Calculation | | 4840 | | | mg/L | | | 12/05/22 0:00 | calc |
| TDS (ratio - measured/calculated) | Calculation | | 1.07 | | | | | | 12/05/22 0:00 | calc |

**GCC Rio Grande**
Project ID: 105495
Sample ID: MW-7

ACZ Sample ID: ***L77107-02***
Date Sampled: *11/07/22 13:44*
Date Received: *11/08/22*
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 | 11/18/22 22:06 | keh1 |
| Arsenic, dissolved | M200.8 ICP-MS | 5 | <0.001 | U | | mg/L | 0.001 | 0.005 | 11/15/22 19:21 | mfm |
| Beryllium, dissolved | M200.7 ICP | 5 | <0.05 | U | | mg/L | 0.05 | 0.25 | 11/18/22 22:06 | keh1 |
| Boron, dissolved | M200.7 ICP | 5 | 0.160 | B | | mg/L | 0.15 | 0.5 | 11/18/22 22:06 | keh1 |
| Cadmium, dissolved | M200.8 ICP-MS | 5 | <0.00025 | U | | mg/L | 0.00025 | 0.00125 | 11/15/22 19:21 | mfm |
| Calcium, dissolved | M200.7 ICP | 5 | 454 | | | mg/L | 0.5 | 2.5 | 11/18/22 22:06 | keh1 |
| Chromium, dissolved | M200.7 ICP | 5 | <0.1 | U | | mg/L | 0.1 | 0.25 | 11/18/22 22:06 | keh1 |
| Cobalt, dissolved | M200.8 ICP-MS | 5 | 0.00176 | | | mg/L | 0.00025 | 0.00125 | 11/15/22 19:21 | mfm |
| Copper, dissolved | M200.7 ICP | 5 | <0.05 | U | * | mg/L | 0.05 | 0.25 | 11/18/22 22:06 | keh1 |
| Iron, dissolved | M200.7 ICP | 5 | <0.3 | U | | mg/L | 0.3 | 0.75 | 11/18/22 22:06 | keh1 |
| Lead, dissolved | M200.8 ICP-MS | 5 | <0.0005 | U | | mg/L | 0.0005 | 0.0025 | 11/15/22 19:21 | mfm |
| Lithium, dissolved | M200.7 ICP | 5 | 0.335 | | | mg/L | 0.04 | 0.2 | 11/18/22 22:06 | keh1 |
| Magnesium, dissolved | M200.7 ICP | 5 | 365 | | | mg/L | 1 | 5 | 11/18/22 22:06 | keh1 |
| Manganese, dissolved | M200.7 ICP | 5 | <0.05 | U | | mg/L | 0.05 | 0.25 | 11/18/22 22:06 | keh1 |
| Mercury, dissolved | M245.1 CVAA | 1 | <0.0002 | U | | mg/L | 0.0002 | 0.001 | 11/14/22 16:10 | mlh |
| Nickel, dissolved | M200.7 ICP | 5 | <0.04 | U | | mg/L | 0.04 | 0.2 | 11/18/22 22:06 | keh1 |
| Potassium, dissolved | M200.7 ICP | 5 | 11.3 | | | mg/L | 1 | 5 | 11/18/22 22:06 | keh1 |
| Selenium, dissolved | M200.8 ICP-MS | 5 | 0.0371 | | | mg/L | 0.0005 | 0.00125 | 11/15/22 19:21 | mfm |
| Sodium, dissolved | M200.7 ICP | 5 | 306 | | | mg/L | 1 | 5 | 11/18/22 22:06 | keh1 |
| Vanadium, dissolved | M200.7 ICP | 5 | <0.05 | U | | mg/L | 0.05 | 0.125 | 11/18/22 22:06 | keh1 |
| Zinc, dissolved | M200.7 ICP | 5 | <0.1 | U | | mg/L | 0.1 | 0.25 | 11/18/22 22:06 | keh1 |

**GCC Rio Grande**
Project ID: 105495
Sample ID: MW-7

ACZ Sample ID: ***L77107-02***
Date Sampled: *11/07/22 13:44*
Date Received: *11/08/22*
Sample Matrix: *Groundwater*

Wet Chemistry

| Parameter | EPA Method | Dilution | Result | Qual | XQ | Units | MDL | PQL | Date | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Alkalinity as CaCO3 | SM2320B - Titration | | | | | | | | | |
| Bicarbonate as CaCO3 | | 1 | 250 | | * | mg/L | 2 | 20 | 11/21/22 0:00 | emk |
| Carbonate as CaCO3 | | 1 | <2 | U | * | mg/L | 2 | 20 | 11/21/22 0:00 | emk |
| Hydroxide as CaCO3 | | 1 | <2 | U | * | mg/L | 2 | 20 | 11/21/22 0:00 | emk |
| Total Alkalinity | | 1 | 250 | | * | mg/L | 2 | 20 | 11/21/22 0:00 | emk |
| Cation-Anion Balance | Calculation | | | | | | | | | |
| Cation-Anion Balance | | | -2.9 | | | % | | | 12/05/22 0:00 | calc |
| Sum of Anions | | | 70 | | | meq/L | | | 12/05/22 0:00 | calc |
| Sum of Cations | | | 66 | | | meq/L | | | 12/05/22 0:00 | calc |
| Chloride | SM4500Cl-E | 1 | 41.0 | | * | mg/L | 1 | 2 | 11/16/22 10:34 | bls |
| Fluoride | SM4500F-C | 1 | 0.37 | | * | mg/L | 0.15 | 0.35 | 12/01/22 13:09 | emk |
| Hardness as CaCO3 (dissolved) | SM2340B - Calculation | | 2640 | | | mg/L | 1 | 30 | 12/05/22 0:00 | calc |
| Nitrate as N, dissolved | Calculation: NO3NO2 minus NO2 | | 4.65 | | | mg/L | 0.06 | 0.3 | 12/05/22 0:00 | calc |
| Nitrate/Nitrite as N, dissolved | M353.2 - Automated Cadmium Reduction | 3 | 4.65 | | * | mg/L | 0.06 | 0.3 | 11/09/22 0:01 | pjb |
| Nitrite as N, dissolved | M353.2 - Automated Cadmium Reduction | 1 | <0.01 | U | * | mg/L | 0.01 | 0.05 | 11/08/22 23:37 | pjb |
| Residue, Filterable (TDS) @180C | SM2540C | 2 | 4690 | | * | mg/L | 40 | 80 | 11/10/22 13:05 | anc |
| Sulfate | D516-02/-07/-11 - TURBIDIMETRIC | 120 | 3000 | | * | mg/L | 120 | 600 | 11/18/22 17:26 | gkk |
| TDS (calculated) | Calculation | | 4350 | | | mg/L | | | 12/05/22 0:00 | calc |
| TDS (ratio - measured/calculated) | Calculation | | 1.08 | | | | | | 12/05/22 0:00 | calc |

**GCC Rio Grande**
Project ID: 105495
Sample ID: MW-2B

ACZ Sample ID: ***L77107-03***
Date Sampled: *11/07/22 12:00*
Date Received: *11/08/22*
Sample Matrix: *Groundwater*

Metals Analysis

| Parameter | EPA Method | Dilution | Result | Qual | XQ | Units | MDL | PQL | Date | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum, dissolved | M200.7 ICP | 2 | <0.1 | U | | mg/L | 0.1 | 0.5 | 11/18/22 22:09 | keh1 |
| Arsenic, dissolved | M200.8 ICP-MS | 2 | 0.00533 | | | mg/L | 0.0004 | 0.002 | 11/15/22 19:23 | mfm |
| Beryllium, dissolved | M200.7 ICP | 2 | <0.02 | U | | mg/L | 0.02 | 0.1 | 11/18/22 22:09 | keh1 |
| Boron, dissolved | M200.7 ICP | 2 | 0.872 | | | mg/L | 0.06 | 0.2 | 11/18/22 22:09 | keh1 |
| Cadmium, dissolved | M200.8 ICP-MS | 2 | <0.0001 | U | | mg/L | 0.0001 | 0.0005 | 11/15/22 19:23 | mfm |
| Calcium, dissolved | M200.7 ICP | 2 | 69.6 | | | mg/L | 0.2 | 1 | 11/18/22 22:09 | keh1 |
| Chromium, dissolved | M200.7 ICP | 2 | <0.04 | U | | mg/L | 0.04 | 0.1 | 11/18/22 22:09 | keh1 |
| Cobalt, dissolved | M200.8 ICP-MS | 2 | 0.000517 | | | mg/L | 0.0001 | 0.0005 | 11/15/22 19:23 | mfm |
| Copper, dissolved | M200.7 ICP | 2 | <0.02 | U | * | mg/L | 0.02 | 0.1 | 11/18/22 22:09 | keh1 |
| Iron, dissolved | M200.7 ICP | 2 | 0.858 | | | mg/L | 0.12 | 0.3 | 11/18/22 22:09 | keh1 |
| Lead, dissolved | M200.8 ICP-MS | 2 | <0.0002 | U | | mg/L | 0.0002 | 0.001 | 11/15/22 19:23 | mfm |
| Lithium, dissolved | M200.7 ICP | 2 | 0.372 | | | mg/L | 0.016 | 0.08 | 11/18/22 22:09 | keh1 |
| Magnesium, dissolved | M200.7 ICP | 2 | 27.6 | | | mg/L | 0.4 | 2 | 11/18/22 22:09 | keh1 |
| Manganese, dissolved | M200.7 ICP | 2 | 0.245 | | | mg/L | 0.02 | 0.1 | 11/18/22 22:09 | keh1 |
| Mercury, dissolved | M245.1 CVAA | 1 | <0.0002 | U | | mg/L | 0.0002 | 0.001 | 11/14/22 16:11 | mlh |
| Nickel, dissolved | M200.7 ICP | 2 | <0.016 | U | | mg/L | 0.016 | 0.08 | 11/18/22 22:09 | keh1 |
| Potassium, dissolved | M200.7 ICP | 2 | 5.65 | | | mg/L | 0.4 | 2 | 11/18/22 22:09 | keh1 |
| Selenium, dissolved | M200.8 ICP-MS | 5 | <0.0005 | U | * | mg/L | 0.0005 | 0.00125 | 11/17/22 20:15 | mfm |
| Sodium, dissolved | M200.7 ICP | 2 | 1160 | | | mg/L | 0.4 | 2 | 11/18/22 22:09 | keh1 |
| Vanadium, dissolved | M200.7 ICP | 2 | <0.02 | U | | mg/L | 0.02 | 0.05 | 11/18/22 22:09 | keh1 |
| Zinc, dissolved | M200.7 ICP | 2 | <0.04 | U | | mg/L | 0.04 | 0.1 | 11/18/22 22:09 | keh1 |

**GCC Rio Grande**
Project ID: 105495
Sample ID: MW-2B

ACZ Sample ID: ***L77107-03***
Date Sampled: *11/07/22 12:00*
Date Received: *11/08/22*
Sample Matrix: *Groundwater*

Wet Chemistry

| Parameter | EPA Method | Dilution | Result | Qual | XQ | Units | MDL | PQL | Date | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Alkalinity as CaCO3 | SM2320B - Titration | | | | | | | | | |
| Bicarbonate as CaCO3 | | 1 | 1110 | | * | mg/L | 2 | 20 | 11/21/22 0:00 | emk |
| Carbonate as CaCO3 | | 1 | <2 | U | * | mg/L | 2 | 20 | 11/21/22 0:00 | emk |
| Hydroxide as CaCO3 | | 1 | <2 | U | * | mg/L | 2 | 20 | 11/21/22 0:00 | emk |
| Total Alkalinity | | 1 | 1110 | | * | mg/L | 2 | 20 | 11/21/22 0:00 | emk |
| Cation-Anion Balance | Calculation | | | | | | | | | |
| Cation-Anion Balance | | | -3.4 | | | % | | | 12/05/22 0:00 | calc |
| Sum of Anions | | | 61.0 | | | meq/L | | | 12/05/22 0:00 | calc |
| Sum of Cations | | | 57.0 | | | meq/L | | | 12/05/22 0:00 | calc |
| Chloride | SM4500Cl-E | 5 | 289 | | * | mg/L | 5 | 10 | 11/16/22 11:47 | bls |
| Fluoride | SM4500F-C | 1 | 0.93 | | * | mg/L | 0.15 | 0.35 | 12/01/22 13:17 | emk |
| Hardness as CaCO3 (dissolved) | SM2340B - Calculation | | 287 | | | mg/L | 0.5 | 10 | 12/05/22 0:00 | calc |
| Nitrate as N, dissolved | Calculation: NO3NO2 minus NO2 | | 0.263 | | | mg/L | 0.02 | 0.1 | 12/05/22 0:00 | calc |
| Nitrate/Nitrite as N, dissolved | M353.2 - Automated Cadmium Reduction | 1 | 0.263 | | * | mg/L | 0.02 | 0.1 | 11/08/22 23:39 | pjb |
| Nitrite as N, dissolved | M353.2 - Automated Cadmium Reduction | 1 | <0.01 | U | * | mg/L | 0.01 | 0.05 | 11/08/22 23:39 | pjb |
| Residue, Filterable (TDS) @180C | SM2540C | 5 | 3770 | | * | mg/L | 100 | 200 | 11/10/22 13:08 | anc |
| Sulfate | D516-02/-07/-11 - TURBIDIMETRIC | 50 | 1460 | | * | mg/L | 50 | 250 | 11/18/22 17:13 | gkk |
| TDS (calculated) | Calculation | | 3690 | | | mg/L | | | 12/05/22 0:00 | calc |
| TDS (ratio - measured/calculated) | Calculation | | 1.02 | | | | | | 12/05/22 0:00 | calc |

**GCC Rio Grande**
Project ID: 105495
Sample ID: MW-8

ACZ Sample ID: ***L77107-04***
Date Sampled: *11/07/22 13:19*
Date Received: *11/08/22*
Sample Matrix: *Groundwater*

Metals Analysis

| Parameter | EPA Method | Dilution | Result | Qual | XQ | Units | MDL | PQL | Date | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum, dissolved | M200.7 ICP | 2 | <0.1 | U | | mg/L | 0.1 | 0.5 | 11/18/22 22:12 | keh1 |
| Arsenic, dissolved | M200.8 ICP-MS | 2 | 0.00542 | | | mg/L | 0.0004 | 0.002 | 11/15/22 19:32 | mfm |
| Beryllium, dissolved | M200.7 ICP | 2 | <0.02 | U | | mg/L | 0.02 | 0.1 | 11/18/22 22:12 | keh1 |
| Boron, dissolved | M200.7 ICP | 2 | 0.853 | | | mg/L | 0.06 | 0.2 | 11/18/22 22:12 | keh1 |
| Cadmium, dissolved | M200.8 ICP-MS | 2 | <0.0001 | U | | mg/L | 0.0001 | 0.0005 | 11/15/22 19:32 | mfm |
| Calcium, dissolved | M200.7 ICP | 2 | 68.1 | | | mg/L | 0.2 | 1 | 11/18/22 22:12 | keh1 |
| Chromium, dissolved | M200.7 ICP | 2 | <0.04 | U | | mg/L | 0.04 | 0.1 | 11/18/22 22:12 | keh1 |
| Cobalt, dissolved | M200.8 ICP-MS | 2 | 0.000505 | | | mg/L | 0.0001 | 0.0005 | 11/15/22 19:32 | mfm |
| Copper, dissolved | M200.7 ICP | 2 | <0.02 | U | * | mg/L | 0.02 | 0.1 | 11/18/22 22:12 | keh1 |
| Iron, dissolved | M200.7 ICP | 2 | 0.886 | | | mg/L | 0.12 | 0.3 | 11/18/22 22:12 | keh1 |
| Lead, dissolved | M200.8 ICP-MS | 2 | <0.0002 | U | | mg/L | 0.0002 | 0.001 | 11/15/22 19:32 | mfm |
| Lithium, dissolved | M200.7 ICP | 2 | 0.368 | | | mg/L | 0.016 | 0.08 | 11/18/22 22:12 | keh1 |
| Magnesium, dissolved | M200.7 ICP | 2 | 27.1 | | | mg/L | 0.4 | 2 | 11/18/22 22:12 | keh1 |
| Manganese, dissolved | M200.7 ICP | 2 | 0.236 | | | mg/L | 0.02 | 0.1 | 11/18/22 22:12 | keh1 |
| Mercury, dissolved | M245.1 CVAA | 1 | <0.0002 | U | | mg/L | 0.0002 | 0.001 | 11/14/22 16:14 | mlh |
| Nickel, dissolved | M200.7 ICP | 2 | <0.016 | U | | mg/L | 0.016 | 0.08 | 11/18/22 22:12 | keh1 |
| Potassium, dissolved | M200.7 ICP | 2 | 5.35 | | | mg/L | 0.4 | 2 | 11/18/22 22:12 | keh1 |
| Selenium, dissolved | M200.8 ICP-MS | 5 | <0.0005 | U | * | mg/L | 0.0005 | 0.00125 | 11/17/22 20:17 | mfm |
| Sodium, dissolved | M200.7 ICP | 2 | 1160 | | | mg/L | 0.4 | 2 | 11/18/22 22:12 | keh1 |
| Vanadium, dissolved | M200.7 ICP | 2 | <0.02 | U | | mg/L | 0.02 | 0.05 | 11/18/22 22:12 | keh1 |
| Zinc, dissolved | M200.7 ICP | 2 | <0.04 | U | | mg/L | 0.04 | 0.1 | 11/18/22 22:12 | keh1 |

**GCC Rio Grande**
Project ID: 105495
Sample ID: MW-8

ACZ Sample ID: ***L77107-04***
Date Sampled: *11/07/22 13:19*
Date Received: *11/08/22*
Sample Matrix: *Groundwater*

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 | 11/21/22 0:00 | emk |
| Carbonate as CaCO3 | | 1 | <2 | U | * | mg/L | 2 | 20 | 11/21/22 0:00 | emk |
| Hydroxide as CaCO3 | | 1 | <2 | U | * | mg/L | 2 | 20 | 11/21/22 0:00 | emk |
| Total Alkalinity | | 1 | 1130 | | * | mg/L | 2 | 20 | 11/21/22 0:00 | emk |
| Cation-Anion Balance | Calculation | | | | | | | | | |
| Cation-Anion Balance | | | -3.4 | | | % | | | 12/05/22 0:00 | calc |
| Sum of Anions | | | 61 | | | meq/L | | | 12/05/22 0:00 | calc |
| Sum of Cations | | | 57 | | | meq/L | | | 12/05/22 0:00 | calc |
| Chloride | SM4500Cl-E | 5 | 297 | | * | mg/L | 5 | 10 | 11/16/22 11:47 | bls |
| Fluoride | SM4500F-C | 1 | 0.90 | | * | mg/L | 0.15 | 0.35 | 12/01/22 13:21 | emk |
| Hardness as CaCO3 (dissolved) | SM2340B - Calculation | | 282 | | | mg/L | 0.5 | 10 | 12/05/22 0:00 | calc |
| Nitrate as N, dissolved | Calculation: NO3NO2 minus NO2 | | <0.02 | U | | mg/L | 0.02 | 0.1 | 12/05/22 0:00 | calc |
| Nitrate/Nitrite as N, dissolved | M353.2 - Automated Cadmium Reduction | 1 | <0.02 | U | * | mg/L | 0.02 | 0.1 | 11/08/22 23:40 | pjb |
| Nitrite as N, dissolved | M353.2 - Automated Cadmium Reduction | 1 | <0.01 | U | * | mg/L | 0.01 | 0.05 | 11/08/22 23:40 | pjb |
| Residue, Filterable (TDS) @180C | SM2540C | 10 | 3840 | | * | mg/L | 200 | 400 | 11/10/22 13:10 | anc |
| Sulfate | D516-02/-07/-11 - TURBIDIMETRIC | 50 | 1450 | | * | mg/L | 50 | 250 | 11/18/22 17:15 | gkk |
| TDS (calculated) | Calculation | | 3700 | | | mg/L | | | 12/05/22 0:00 | calc |
| TDS (ratio - measured/calculated) | Calculation | | 1.04 | | | | | | 12/05/22 0:00 | calc |

**GCC Rio Grande**
Project ID: 105495
Sample ID: MW-9

ACZ Sample ID: ***L77107-05***
Date Sampled: *11/07/22 15:25*
Date Received: *11/08/22*
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 | 11/18/22 22:15 | keh1 |
| Arsenic, dissolved | M200.8 ICP-MS | 1 | 0.00070 | B | | mg/L | 0.0002 | 0.001 | 11/15/22 19:34 | mfm |
| Beryllium, dissolved | M200.7 ICP | 5 | <0.05 | U | | mg/L | 0.05 | 0.25 | 11/18/22 22:15 | keh1 |
| Boron, dissolved | M200.7 ICP | 5 | 1.26 | | | mg/L | 0.15 | 0.5 | 11/18/22 22:15 | keh1 |
| Cadmium, dissolved | M200.8 ICP-MS | 5 | <0.00025 | U | | mg/L | 0.00025 | 0.00125 | 11/17/22 20:19 | mfm |
| Calcium, dissolved | M200.7 ICP | 5 | 418 | | | mg/L | 0.5 | 2.5 | 11/18/22 22:15 | keh1 |
| Chromium, dissolved | M200.7 ICP | 5 | <0.1 | U | | mg/L | 0.1 | 0.25 | 11/18/22 22:15 | keh1 |
| Cobalt, dissolved | M200.8 ICP-MS | 1 | 0.00628 | | | mg/L | 0.00005 | 0.00025 | 11/15/22 19:34 | mfm |
| Copper, dissolved | M200.7 ICP | 5 | 0.051 | B | * | mg/L | 0.05 | 0.25 | 11/18/22 22:15 | keh1 |
| Iron, dissolved | M200.7 ICP | 5 | 0.513 | B | | mg/L | 0.3 | 0.75 | 11/18/22 22:15 | keh1 |
| Lead, dissolved | M200.8 ICP-MS | 5 | <0.0005 | U | | mg/L | 0.0005 | 0.0025 | 11/17/22 20:19 | mfm |
| Lithium, dissolved | M200.7 ICP | 5 | 0.375 | | | mg/L | 0.04 | 0.2 | 11/18/22 22:15 | keh1 |
| Magnesium, dissolved | M200.7 ICP | 5 | 158 | | | mg/L | 1 | 5 | 11/18/22 22:15 | keh1 |
| Manganese, dissolved | M200.7 ICP | 5 | 0.552 | | | mg/L | 0.05 | 0.25 | 11/18/22 22:15 | keh1 |
| Mercury, dissolved | M245.1 CVAA | 1 | <0.0002 | U | | mg/L | 0.0002 | 0.001 | 11/14/22 16:15 | mlh |
| Nickel, dissolved | M200.7 ICP | 5 | <0.04 | U | | mg/L | 0.04 | 0.2 | 11/18/22 22:15 | keh1 |
| Potassium, dissolved | M200.7 ICP | 5 | 8.95 | | | mg/L | 1 | 5 | 11/18/22 22:15 | keh1 |
| Selenium, dissolved | M200.8 ICP-MS | 1 | <0.0001 | U | * | mg/L | 0.0001 | 0.00025 | 11/15/22 19:34 | mfm |
| Sodium, dissolved | M200.7 ICP | 5 | 741 | | | mg/L | 1 | 5 | 11/18/22 22:15 | keh1 |
| Vanadium, dissolved | M200.7 ICP | 5 | <0.05 | U | | mg/L | 0.05 | 0.125 | 11/18/22 22:15 | keh1 |
| Zinc, dissolved | M200.7 ICP | 5 | <0.1 | U | | mg/L | 0.1 | 0.25 | 11/18/22 22:15 | keh1 |

**GCC Rio Grande**
Project ID: 105495
Sample ID: MW-9

ACZ Sample ID: ***L77107-05***
Date Sampled: *11/07/22 15:25*
Date Received: *11/08/22*
Sample Matrix: *Groundwater*

Wet Chemistry

| Parameter | EPA Method | Dilution | Result | Qual | XQ | Units | MDL | PQL | Date | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Alkalinity as CaCO3 | SM2320B - Titration | | | | | | | | | |
| Bicarbonate as CaCO3 | | 1 | 347 | | * | mg/L | 2 | 20 | 11/21/22 0:00 | emk |
| Carbonate as CaCO3 | | 1 | <2 | U | * | mg/L | 2 | 20 | 11/21/22 0:00 | emk |
| Hydroxide as CaCO3 | | 1 | <2 | U | * | mg/L | 2 | 20 | 11/21/22 0:00 | emk |
| Total Alkalinity | | 1 | 347 | | * | mg/L | 2 | 20 | 11/21/22 0:00 | emk |
| Cation-Anion Balance | Calculation | | | | | | | | | |
| Cation-Anion Balance | | | -2.9 | | | % | | | 12/05/22 0:00 | calc |
| Sum of Anions | | | 71 | | | meq/L | | | 12/05/22 0:00 | calc |
| Sum of Cations | | | 67 | | | meq/L | | | 12/05/22 0:00 | calc |
| Chloride | SM4500Cl-E | 1 | 45.9 | | * | mg/L | 1 | 2 | 11/16/22 10:36 | bls |
| Fluoride | SM4500F-C | 1 | 0.27 | B | * | mg/L | 0.15 | 0.35 | 12/01/22 13:26 | emk |
| Hardness as CaCO3 (dissolved) | SM2340B - Calculation | | 1690 | | | mg/L | 1 | 30 | 12/05/22 0:00 | calc |
| Nitrate as N, dissolved | Calculation: NO3NO2 minus NO2 | | <0.02 | U | | mg/L | 0.02 | 0.1 | 12/05/22 0:00 | calc |
| Nitrate/Nitrite as N, dissolved | M353.2 - Automated Cadmium Reduction | 1 | <0.02 | U | * | mg/L | 0.02 | 0.1 | 11/08/22 23:41 | pjb |
| Nitrite as N, dissolved | M353.2 - Automated Cadmium Reduction | 1 | <0.01 | U | * | mg/L | 0.01 | 0.05 | 11/08/22 23:41 | pjb |
| Residue, Filterable (TDS) @180C | SM2540C | 2 | 4590 | | * | mg/L | 40 | 80 | 11/14/22 13:09 | svm |
| Sulfate | D516-02/-07/-11 - TURBIDIMETRIC | 120 | 2970 | | * | mg/L | 120 | 600 | 11/18/22 17:26 | gkk |
| TDS (calculated) | Calculation | | 4550 | | | mg/L | | | 12/05/22 0:00 | calc |
| TDS (ratio - measured/calculated) | Calculation | | 1.01 | | | | | | 12/05/22 0:00 | calc |

**GCC Rio Grande**
Project ID: 105495
Sample ID: MW-10

ACZ Sample ID: ***L77107-06***
Date Sampled: *11/07/22 15:08*
Date Received: *11/08/22*
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 | 11/18/22 22:18 | keh1 |
| Arsenic, dissolved | M200.8 ICP-MS | 5 | 0.00264 | B | | mg/L | 0.001 | 0.005 | 11/15/22 19:36 | mfm |
| Beryllium, dissolved | M200.7 ICP | 5 | <0.05 | U | | mg/L | 0.05 | 0.25 | 11/18/22 22:18 | keh1 |
| Boron, dissolved | M200.7 ICP | 5 | 1.40 | | | mg/L | 0.15 | 0.5 | 11/18/22 22:18 | keh1 |
| Cadmium, dissolved | M200.8 ICP-MS | 5 | <0.00025 | U | | mg/L | 0.00025 | 0.00125 | 11/15/22 19:36 | mfm |
| Calcium, dissolved | M200.7 ICP | 5 | 46.2 | | | mg/L | 0.5 | 2.5 | 11/18/22 22:18 | keh1 |
| Chromium, dissolved | M200.7 ICP | 5 | <0.1 | U | | mg/L | 0.1 | 0.25 | 11/18/22 22:18 | keh1 |
| Cobalt, dissolved | M200.8 ICP-MS | 5 | <0.00025 | U | | mg/L | 0.00025 | 0.00125 | 11/15/22 19:36 | mfm |
| Copper, dissolved | M200.7 ICP | 5 | 0.060 | B | * | mg/L | 0.05 | 0.25 | 11/18/22 22:18 | keh1 |
| Iron, dissolved | M200.7 ICP | 5 | 0.529 | B | | mg/L | 0.3 | 0.75 | 11/18/22 22:18 | keh1 |
| Lead, dissolved | M200.8 ICP-MS | 5 | <0.0005 | U | | mg/L | 0.0005 | 0.0025 | 11/15/22 19:36 | mfm |
| Lithium, dissolved | M200.7 ICP | 5 | 0.315 | | | mg/L | 0.04 | 0.2 | 11/18/22 22:18 | keh1 |
| Magnesium, dissolved | M200.7 ICP | 5 | 14.7 | | | mg/L | 1 | 5 | 11/18/22 22:18 | keh1 |
| Manganese, dissolved | M200.7 ICP | 5 | <0.05 | U | | mg/L | 0.05 | 0.25 | 11/18/22 22:18 | keh1 |
| Mercury, dissolved | M245.1 CVAA | 1 | <0.0002 | U | | mg/L | 0.0002 | 0.001 | 11/14/22 16:16 | mlh |
| Nickel, dissolved | M200.7 ICP | 5 | <0.04 | U | | mg/L | 0.04 | 0.2 | 11/18/22 22:18 | keh1 |
| Potassium, dissolved | M200.7 ICP | 5 | 6.29 | | | mg/L | 1 | 5 | 11/18/22 22:18 | keh1 |
| Selenium, dissolved | M200.8 ICP-MS | 5 | <0.0005 | U | * | mg/L | 0.0005 | 0.00125 | 11/15/22 19:36 | mfm |
| Sodium, dissolved | M200.7 ICP | 5 | 1240 | | | mg/L | 1 | 5 | 11/18/22 22:18 | keh1 |
| Vanadium, dissolved | M200.7 ICP | 5 | <0.05 | U | | mg/L | 0.05 | 0.125 | 11/18/22 22:18 | keh1 |
| Zinc, dissolved | M200.7 ICP | 5 | <0.1 | U | | mg/L | 0.1 | 0.25 | 11/18/22 22:18 | keh1 |

**GCC Rio Grande**
Project ID: 105495
Sample ID: MW-10

ACZ Sample ID: ***L77107-06***
Date Sampled: *11/07/22 15:08*
Date Received: *11/08/22*
Sample Matrix: *Groundwater*

Wet Chemistry

| Parameter | EPA Method | Dilution | Result | Qual | XQ | Units | MDL | PQL | Date | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Alkalinity as CaCO3 | SM2320B - Titration | | | | | | | | | |
| Bicarbonate as CaCO3 | | 1 | 656 | | * | mg/L | 2 | 20 | 11/21/22 0:00 | emk |
| Carbonate as CaCO3 | | 1 | <2 | U | * | mg/L | 2 | 20 | 11/21/22 0:00 | emk |
| Hydroxide as CaCO3 | | 1 | <2 | U | * | mg/L | 2 | 20 | 11/21/22 0:00 | emk |
| Total Alkalinity | | 1 | 656 | | * | mg/L | 2 | 20 | 11/21/22 0:00 | emk |
| Cation-Anion Balance | Calculation | | | | | | | | | |
| Cation-Anion Balance | | | -4.9 | | | % | | | 12/05/22 0:00 | calc |
| Sum of Anions | | | 64 | | | meq/L | | | 12/05/22 0:00 | calc |
| Sum of Cations | | | 58 | | | meq/L | | | 12/05/22 0:00 | calc |
| Chloride | SM4500Cl-E | 5 | 376 | | * | mg/L | 5 | 10 | 11/16/22 11:48 | bls |
| Fluoride | SM4500F-C | 1 | 1.02 | | * | mg/L | 0.15 | 0.35 | 12/01/22 17:50 | emk |
| Hardness as CaCO3 (dissolved) | SM2340B - Calculation | | 176 | | | mg/L | 1 | 30 | 12/05/22 0:00 | calc |
| Nitrate as N, dissolved | Calculation: NO3NO2 minus NO2 | | <0.02 | U | | mg/L | 0.02 | 0.1 | 12/05/22 0:00 | calc |
| Nitrate/Nitrite as N, dissolved | M353.2 - Automated Cadmium Reduction | 1 | <0.02 | U | * | mg/L | 0.02 | 0.1 | 11/08/22 23:44 | pjb |
| Nitrite as N, dissolved | M353.2 - Automated Cadmium Reduction | 1 | <0.01 | U | * | mg/L | 0.01 | 0.05 | 11/08/22 23:44 | pjb |
| Residue, Filterable (TDS) @180C | SM2540C | 2 | 4030 | | * | mg/L | 40 | 80 | 11/10/22 13:18 | anc |
| Sulfate | D516-02/-07/-11 - TURBIDIMETRIC | 50 | 1900 | | * | mg/L | 50 | 250 | 11/18/22 17:15 | gkk |
| TDS (calculated) | Calculation | | 3980 | | | mg/L | | | 12/05/22 0:00 | calc |
| TDS (ratio - measured/calculated) | Calculation | | 1.01 | | | | | | 12/05/22 0:00 | calc |

**GCC Rio Grande**
Project ID: 105495
Sample ID: MW-11

ACZ Sample ID: ***L77107-07***
Date Sampled: *11/07/22 14:27*
Date Received: *11/08/22*
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 | 11/18/22 22:21 | keh1 |
| Arsenic, dissolved | M200.8 ICP-MS | 1 | 0.00029 | B | | mg/L | 0.0002 | 0.001 | 11/15/22 19:38 | mfm |
| Beryllium, dissolved | M200.7 ICP | 1 | <0.01 | U | | mg/L | 0.01 | 0.05 | 11/18/22 22:21 | keh1 |
| Boron, dissolved | M200.7 ICP | 1 | 0.432 | | | mg/L | 0.03 | 0.1 | 11/18/22 22:21 | keh1 |
| Cadmium, dissolved | M200.8 ICP-MS | 1 | <0.00005 | U | | mg/L | 0.00005 | 0.00025 | 11/15/22 19:38 | mfm |
| Calcium, dissolved | M200.7 ICP | 1 | 68.3 | | | mg/L | 0.1 | 0.5 | 11/18/22 22:21 | keh1 |
| Chromium, dissolved | M200.7 ICP | 1 | <0.02 | U | | mg/L | 0.02 | 0.05 | 11/18/22 22:21 | keh1 |
| Cobalt, dissolved | M200.8 ICP-MS | 1 | 0.00232 | | | mg/L | 0.00005 | 0.00025 | 11/15/22 19:38 | mfm |
| Copper, dissolved | M200.7 ICP | 1 | <0.01 | U | * | mg/L | 0.01 | 0.05 | 11/18/22 22:21 | keh1 |
| Iron, dissolved | M200.7 ICP | 1 | <0.06 | U | | mg/L | 0.06 | 0.15 | 11/18/22 22:21 | keh1 |
| Lead, dissolved | M200.8 ICP-MS | 1 | <0.0001 | U | | mg/L | 0.0001 | 0.0005 | 11/15/22 19:38 | mfm |
| Lithium, dissolved | M200.7 ICP | 1 | 0.147 | | | mg/L | 0.008 | 0.04 | 11/18/22 22:21 | keh1 |
| Magnesium, dissolved | M200.7 ICP | 1 | 33.9 | | | mg/L | 0.2 | 1 | 11/18/22 22:21 | keh1 |
| Manganese, dissolved | M200.7 ICP | 1 | 0.017 | B | | mg/L | 0.01 | 0.05 | 11/18/22 22:21 | keh1 |
| Mercury, dissolved | M245.1 CVAA | 1 | <0.0002 | U | | mg/L | 0.0002 | 0.001 | 11/14/22 16:17 | mlh |
| Nickel, dissolved | M200.7 ICP | 1 | 0.0110 | B | | mg/L | 0.008 | 0.04 | 11/18/22 22:21 | keh1 |
| Potassium, dissolved | M200.7 ICP | 1 | 3.65 | | | mg/L | 0.2 | 1 | 11/18/22 22:21 | keh1 |
| Selenium, dissolved | M200.8 ICP-MS | 1 | 0.162 | | * | mg/L | 0.0001 | 0.00025 | 11/15/22 19:38 | mfm |
| Sodium, dissolved | M200.7 ICP | 1 | 412 | | | mg/L | 0.2 | 1 | 11/18/22 22:21 | keh1 |
| Vanadium, dissolved | M200.7 ICP | 1 | <0.01 | U | | mg/L | 0.01 | 0.025 | 11/18/22 22:21 | keh1 |
| Zinc, dissolved | M200.7 ICP | 1 | <0.02 | U | | mg/L | 0.02 | 0.05 | 11/18/22 22:21 | keh1 |

**GCC Rio Grande**
Project ID: 105495
Sample ID: MW-11

ACZ Sample ID: ***L77107-07***
Date Sampled: *11/07/22 14:27*
Date Received: *11/08/22*
Sample Matrix: *Groundwater*

Wet Chemistry

| Parameter | EPA Method | Dilution | Result | Qual | XQ | Units | MDL | PQL | Date | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Alkalinity as CaCO3 | SM2320B - Titration | | | | | | | | | |
| Bicarbonate as CaCO3 | | 1 | 839 | | * | mg/L | 2 | 20 | 11/21/22 0:00 | emk |
| Carbonate as CaCO3 | | 1 | <2 | U | * | mg/L | 2 | 20 | 11/21/22 0:00 | emk |
| Hydroxide as CaCO3 | | 1 | <2 | U | * | mg/L | 2 | 20 | 11/21/22 0:00 | emk |
| Total Alkalinity | | 1 | 839 | | * | mg/L | 2 | 20 | 11/21/22 0:00 | emk |
| Cation-Anion Balance | Calculation | | | | | | | | | |
| Cation-Anion Balance | | | -7.7 | | | % | | | 12/05/22 0:00 | calc |
| Sum of Anions | | | 28 | | | meq/L | | | 12/05/22 0:00 | calc |
| Sum of Cations | | | 24 | | | meq/L | | | 12/05/22 0:00 | calc |
| Chloride | SM4500Cl-E | 5 | 125 | | * | mg/L | 5 | 10 | 11/16/22 11:49 | bls |
| Fluoride | SM4500F-C | 1 | 0.76 | | * | mg/L | 0.15 | 0.35 | 12/01/22 18:08 | emk |
| Hardness as CaCO3 (dissolved) | SM2340B - Calculation | | 310 | | | mg/L | 0.2 | 5 | 12/05/22 0:00 | calc |
| Nitrate as N, dissolved | Calculation: NO3NO2 minus NO2 | | <0.02 | U | | mg/L | 0.02 | 0.1 | 12/05/22 0:00 | calc |
| Nitrate/Nitrite as N, dissolved | M353.2 - Automated Cadmium Reduction | 1 | <0.02 | U | * | mg/L | 0.02 | 0.1 | 11/08/22 23:46 | pjb |
| Nitrite as N, dissolved | M353.2 - Automated Cadmium Reduction | 1 | <0.01 | U | * | mg/L | 0.01 | 0.05 | 11/08/22 23:46 | pjb |
| Residue, Filterable (TDS) @180C | SM2540C | 1 | 1590 | | * | mg/L | 20 | 40 | 11/10/22 13:21 | anc |
| Sulfate | D516-02/-07/-11 - TURBIDIMETRIC | 50 | 359 | | * | mg/L | 50 | 250 | 11/18/22 17:15 | gkk |
| TDS (calculated) | Calculation | | 1510 | | | mg/L | | | 12/05/22 0:00 | calc |
| TDS (ratio - measured/calculated) | Calculation | | 1.05 | | | | | | 12/05/22 0:00 | calc |

**GCC Rio Grande**
Project ID: 105495
Sample ID: MW-12

ACZ Sample ID: ***L77107-08***
Date Sampled: *11/07/22 14:09*
Date Received: *11/08/22*
Sample Matrix: *Groundwater*

Metals Analysis

| Parameter | EPA Method | Dilution | Result | Qual | XQ | Units | MDL | PQL | Date | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum, dissolved | M200.7 ICP | 2 | <0.1 | U | | mg/L | 0.1 | 0.5 | 11/23/22 1:18 | wtc |
| Arsenic, dissolved | M200.8 ICP-MS | 2 | 0.00081 | B | | mg/L | 0.0004 | 0.002 | 11/15/22 19:40 | mfm |
| Beryllium, dissolved | M200.7 ICP | 2 | <0.02 | U | | mg/L | 0.02 | 0.1 | 11/23/22 1:18 | wtc |
| Boron, dissolved | M200.7 ICP | 2 | 0.835 | | | mg/L | 0.06 | 0.2 | 11/23/22 21:02 | wtc |
| Cadmium, dissolved | M200.8 ICP-MS | 2 | <0.0001 | U | | mg/L | 0.0001 | 0.0005 | 11/15/22 19:40 | mfm |
| Calcium, dissolved | M200.7 ICP | 2 | 26.2 | | | mg/L | 0.2 | 1 | 11/23/22 1:18 | wtc |
| Chromium, dissolved | M200.7 ICP | 2 | <0.04 | U | | mg/L | 0.04 | 0.1 | 11/23/22 1:18 | wtc |
| Cobalt, dissolved | M200.8 ICP-MS | 2 | 0.00174 | | | mg/L | 0.0001 | 0.0005 | 11/15/22 19:40 | mfm |
| Copper, dissolved | M200.7 ICP | 2 | <0.02 | U | | mg/L | 0.02 | 0.1 | 11/23/22 1:18 | wtc |
| Iron, dissolved | M200.7 ICP | 2 | <0.12 | U | | mg/L | 0.12 | 0.3 | 11/23/22 1:18 | wtc |
| Lead, dissolved | M200.8 ICP-MS | 2 | <0.0002 | U | | mg/L | 0.0002 | 0.001 | 11/15/22 19:40 | mfm |
| Lithium, dissolved | M200.7 ICP | 2 | 0.204 | | | mg/L | 0.016 | 0.08 | 11/23/22 1:18 | wtc |
| Magnesium, dissolved | M200.7 ICP | 2 | 7.38 | | | mg/L | 0.4 | 2 | 11/23/22 1:18 | wtc |
| Manganese, dissolved | M200.7 ICP | 2 | 0.066 | B | | mg/L | 0.02 | 0.1 | 11/23/22 1:18 | wtc |
| Mercury, dissolved | M245.1 CVAA | 1 | <0.0002 | U | | mg/L | 0.0002 | 0.001 | 11/14/22 16:18 | mlh |
| Nickel, dissolved | M200.7 ICP | 2 | 0.0992 | | | mg/L | 0.016 | 0.08 | 11/23/22 1:18 | wtc |
| Potassium, dissolved | M200.7 ICP | 2 | 4.10 | | | mg/L | 0.4 | 2 | 11/23/22 1:18 | wtc |
| Selenium, dissolved | M200.8 ICP-MS | 5 | 0.00084 | B | * | mg/L | 0.0005 | 0.00125 | 11/22/22 12:18 | kja |
| Sodium, dissolved | M200.7 ICP | 2 | 861 | | | mg/L | 0.4 | 2 | 11/23/22 1:18 | wtc |
| Vanadium, dissolved | M200.7 ICP | 2 | <0.02 | U | | mg/L | 0.02 | 0.05 | 11/23/22 1:18 | wtc |
| Zinc, dissolved | M200.7 ICP | 2 | <0.04 | U | | mg/L | 0.04 | 0.1 | 11/23/22 1:18 | wtc |

**GCC Rio Grande**
Project ID: 105495
Sample ID: MW-12

ACZ Sample ID: ***L77107-08***
Date Sampled: *11/07/22 14:09*
Date Received: *11/08/22*
Sample Matrix: *Groundwater*

Wet Chemistry

| Parameter | EPA Method | Dilution | Result | Qual | XQ | Units | MDL | PQL | Date | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Alkalinity as CaCO3 | SM2320B - Titration | | | | | | | | | |
| Bicarbonate as CaCO3 | | 1 | 553 | | * | mg/L | 2 | 20 | 11/21/22 0:00 | emk |
| Carbonate as CaCO3 | | 1 | <2 | U | * | mg/L | 2 | 20 | 11/21/22 0:00 | emk |
| Hydroxide as CaCO3 | | 1 | <2 | U | * | mg/L | 2 | 20 | 11/21/22 0:00 | emk |
| Total Alkalinity | | 1 | 553 | | * | mg/L | 2 | 20 | 11/21/22 0:00 | emk |
| Cation-Anion Balance | Calculation | | | | | | | | | |
| Cation-Anion Balance | | | -4.8 | | | % | | | 12/05/22 0:00 | calc |
| Sum of Anions | | | 44 | | | meq/L | | | 12/05/22 0:00 | calc |
| Sum of Cations | | | 40 | | | meq/L | | | 12/05/22 0:00 | calc |
| Chloride | SM4500Cl-E | 25 | 1000 | | * | mg/L | 25 | 50 | 11/16/22 11:49 | bls |
| Fluoride | SM4500F-C | 1 | 1.65 | | * | mg/L | 0.15 | 0.35 | 12/01/22 18:13 | emk |
| Hardness as CaCO3 (dissolved) | SM2340B - Calculation | | 96 | | | mg/L | 0.5 | 10 | 12/05/22 0:00 | calc |
| Nitrate as N, dissolved | Calculation: NO3NO2 minus NO2 | | 4.18 | | | mg/L | 0.06 | 0.3 | 12/05/22 0:00 | calc |
| Nitrate/Nitrite as N, dissolved | M353.2 - Automated Cadmium Reduction | 3 | 5.73 | | * | mg/L | 0.06 | 0.3 | 11/09/22 0:03 | pjb |
| Nitrite as N, dissolved | M353.2 - Automated Cadmium Reduction | 1 | 1.55 | | * | mg/L | 0.01 | 0.05 | 11/08/22 23:52 | pjb |
| Residue, Filterable (TDS) @180C | SM2540C | 2 | 2450 | | * | mg/L | 40 | 80 | 11/10/22 13:23 | anc |
| Sulfate | D516-02/-07/-11 - TURBIDIMETRIC | 5 | 195 | | * | mg/L | 5 | 25 | 11/18/22 16:49 | gkk |
| TDS (calculated) | Calculation | | 2460 | | | mg/L | | | 12/05/22 0:00 | calc |
| TDS (ratio - measured/calculated) | Calculation | | 1.00 | | | | | | 12/05/22 0:00 | calc |

## 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: ***L77107***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG555373** | | | | | | | | | | | | | |
| WG555373PBW | PBW | 11/21/22 15:06 | | | | 10.4 | mg/L | | -20 | 20 | | | |
| WG555373LCSW3 | LCSW | 11/21/22 15:25 | WC221109-1 | 820 | | 762.3 | mg/L | 93 | 90 | 110 | | | |
| L77107-01DUP | DUP | 11/21/22 15:48 | | | 445 | 429.9 | mg/L | | | | 3 | 20 | |
| WG555373LCSW6 | LCSW | 11/21/22 19:51 | WC221109-1 | 820 | | 767.4 | mg/L | 94 | 90 | 110 | | | |

**Aluminum, dissolved** M200.7 ICP

| ACZ ID | Type | Analyzed | PCN/SCN | QC | Sample | Found | Units | Rec% | Lower | Upper | RPD | Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG555198** | | | | | | | | | | | | | |
| WG555198ICV | ICV | 11/18/22 21:42 | II221116-1 | 2 | | 1.996 | mg/L | 100 | 95 | 105 | | | |
| WG555198ICB | ICB | 11/18/22 21:47 | | | | U | mg/L | | -0.15 | 0.15 | | | |
| WG555198PQV | PQV | 11/18/22 21:51 | II221109-2 | .2502 | | .253 | mg/L | 101 | 70 | 130 | | | |
| WG555198SIC | SIC | 11/18/22 21:54 | II221102-3 | 200.4102 | | 203.3 | mg/L | 101 | 1 | 200 | | | |
| WG555198LFB | LFB | 11/18/22 22:00 | II221104-3 | 1.0008 | | 1.004 | mg/L | 100 | 85 | 115 | | | |
| L77107-07AS | AS | 11/18/22 22:24 | II221104-3 | 1.0008 | U | 1.03 | mg/L | 103 | 85 | 115 | | | |
| L77107-07ASD | ASD | 11/18/22 22:27 | II221104-3 | 1.0008 | U | 1.063 | mg/L | 106 | 85 | 115 | 3 | 20 | |
| WG555198CCV1 | CCV | 11/18/22 22:30 | II221110-1 | 1 | | 1.012 | mg/L | 101 | 90 | 110 | | | |
| WG555198CCB1 | CCB | 11/18/22 22:33 | | | | U | mg/L | | -0.15 | 0.15 | | | |
| WG555198CCV2 | CCV | 11/18/22 23:07 | II221110-1 | 1 | | 1.008 | mg/L | 101 | 90 | 110 | | | |
| WG555198CCB2 | CCB | 11/18/22 23:10 | | | | U | mg/L | | -0.15 | 0.15 | | | |
| WG555198CCV3 | CCV | 11/18/22 23:28 | II221110-1 | 1 | | 1.014 | mg/L | 101 | 90 | 110 | | | |
| WG555198CCB3 | CCB | 11/18/22 23:31 | | | | U | mg/L | | -0.15 | 0.15 | | | |
| **WG555438** | | | | | | | | | | | | | |
| WG555438ICV | ICV | 11/22/22 23:42 | II221116-1 | 2 | | 2.012 | mg/L | 101 | 95 | 105 | | | |
| WG555438ICB | ICB | 11/22/22 23:47 | | | | U | mg/L | | -0.15 | 0.15 | | | |
| WG555438PQV | PQV | 11/22/22 23:50 | II221109-2 | .2502 | | .25 | mg/L | 100 | 70 | 130 | | | |
| WG555438SIC | SIC | 11/22/22 23:53 | II221102-3 | 200.4102 | | 208.4 | mg/L | 104 | 1 | 200 | | | |
| WG555438LFB | LFB | 11/23/22 0:00 | II221104-3 | 1.0008 | | .976 | mg/L | 98 | 85 | 115 | | | |
| WG555438CCV1 | CCV | 11/23/22 0:30 | II221110-1 | 1 | | .996 | mg/L | 100 | 90 | 110 | | | |
| WG555438CCB1 | CCB | 11/23/22 0:33 | | | | U | mg/L | | -0.15 | 0.15 | | | |
| L76621-05AS | AS | 11/23/22 1:00 | II221104-3 | 1.0008 | U | 1.008 | mg/L | 101 | 85 | 115 | | | |
| L76621-05ASD | ASD | 11/23/22 1:03 | II221104-3 | 1.0008 | U | 1.003 | mg/L | 100 | 85 | 115 | 0 | 20 | |
| WG555438CCV2 | CCV | 11/23/22 1:06 | II221110-1 | 1 | | .996 | mg/L | 100 | 90 | 110 | | | |
| WG555438CCB2 | CCB | 11/23/22 1:09 | | | | U | mg/L | | -0.15 | 0.15 | | | |
| WG555438CCV3 | CCV | 11/23/22 1:27 | II221110-1 | 1 | | .997 | mg/L | 100 | 90 | 110 | | | |
| WG555438CCB3 | CCB | 11/23/22 1:30 | | | | U | mg/L | | -0.15 | 0.15 | | | |

**GCC**

ACZ Project ID: ***L77107***

*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.*

**Arsenic, dissolved** M200.8 ICP-MS

| ACZ ID | Type | Analyzed | PCN/SCN | QC | Sample | Found | Units | Rec% | Lower | Upper | RPD | Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG555029** | | | | | | | | | | | | | |
| WG555029ICV | ICV | 11/15/22 18:43 | MS220930-3 | .05 | | .04873 | mg/L | 97 | 90 | 110 | | | |
| WG555029ICB | ICB | 11/15/22 18:45 | | | | U | mg/L | | -0.00044 | 0.00044 | | | |
| WG555029LFB | LFB | 11/15/22 18:47 | MS221101-6 | .05005 | | .04948 | mg/L | 99 | 85 | 115 | | | |
| WG555029CCV1 | CCV | 11/15/22 19:06 | MS221025-2 | .1001 | | .09754 | mg/L | 97 | 90 | 110 | | | |
| WG555029CCB1 | CCB | 11/15/22 19:08 | | | | U | mg/L | | -0.0006 | 0.0006 | | | |
| L77107-03AS | AS | 11/15/22 19:25 | MS221101-6 | .1001 | .00533 | .09662 | mg/L | 91 | 70 | 130 | | | |
| L77107-03ASD | ASD | 11/15/22 19:27 | MS221101-6 | .1001 | .00533 | .10091 | mg/L | 95 | 70 | 130 | 4 | 20 | |
| WG555029CCV2 | CCV | 11/15/22 19:28 | MS221025-2 | .1001 | | .09997 | mg/L | 100 | 90 | 110 | | | |
| WG555029CCB2 | CCB | 11/15/22 19:30 | | | | U | mg/L | | -0.0006 | 0.0006 | | | |
| WG555029CCV3 | CCV | 11/15/22 19:42 | MS221025-2 | .1001 | | .09773 | mg/L | 98 | 90 | 110 | | | |
| WG555029CCB3 | CCB | 11/15/22 19:44 | | | | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG555198** | | | | | | | | | | | | | |
| WG555198ICV | ICV | 11/18/22 21:42 | II221116-1 | 2 | | 1.962 | mg/L | 98 | 95 | 105 | | | |
| WG555198ICB | ICB | 11/18/22 21:47 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| WG555198PQV | PQV | 11/18/22 21:51 | II221109-2 | .0501 | | .055 | mg/L | 110 | 70 | 130 | | | |
| WG555198SIC | SIC | 11/18/22 21:54 | II221102-3 | .1002 | | .102 | mg/L | 102 | 80 | 120 | | | |
| WG555198LFB | LFB | 11/18/22 22:00 | II221104-3 | .5005 | | .496 | mg/L | 99 | 85 | 115 | | | |
| L77107-07AS | AS | 11/18/22 22:24 | II221104-3 | .5005 | U | .461 | mg/L | 92 | 85 | 115 | | | |
| L77107-07ASD | ASD | 11/18/22 22:27 | II221104-3 | .5005 | U | .497 | mg/L | 99 | 85 | 115 | 8 | 20 | |
| WG555198CCV1 | CCV | 11/18/22 22:30 | II221110-1 | 1 | | .993 | mg/L | 99 | 90 | 110 | | | |
| WG555198CCB1 | CCB | 11/18/22 22:33 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| WG555198CCV2 | CCV | 11/18/22 23:07 | II221110-1 | 1 | | .996 | mg/L | 100 | 90 | 110 | | | |
| WG555198CCB2 | CCB | 11/18/22 23:10 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| WG555198CCV3 | CCV | 11/18/22 23:28 | II221110-1 | 1 | | .996 | mg/L | 100 | 90 | 110 | | | |
| WG555198CCB3 | CCB | 11/18/22 23:31 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| **WG555438** | | | | | | | | | | | | | |
| WG555438ICV | ICV | 11/22/22 23:42 | II221116-1 | 2 | | 1.986 | mg/L | 99 | 95 | 105 | | | |
| WG555438ICB | ICB | 11/22/22 23:47 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| WG555438PQV | PQV | 11/22/22 23:50 | II221109-2 | .0501 | | .055 | mg/L | 110 | 70 | 130 | | | |
| WG555438SIC | SIC | 11/22/22 23:53 | II221102-3 | .1002 | | .1 | mg/L | 100 | 80 | 120 | | | |
| WG555438LFB | LFB | 11/23/22 0:00 | II221104-3 | .5005 | | .5 | mg/L | 100 | 85 | 115 | | | |
| WG555438CCV1 | CCV | 11/23/22 0:30 | II221110-1 | 1 | | .991 | mg/L | 99 | 90 | 110 | | | |
| WG555438CCB1 | CCB | 11/23/22 0:33 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| L76621-05AS | AS | 11/23/22 1:00 | II221104-3 | .5005 | U | .533 | mg/L | 106 | 85 | 115 | | | |
| L76621-05ASD | ASD | 11/23/22 1:03 | II221104-3 | .5005 | U | .507 | mg/L | 101 | 85 | 115 | 5 | 20 | |
| WG555438CCV2 | CCV | 11/23/22 1:06 | II221110-1 | 1 | | .997 | mg/L | 100 | 90 | 110 | | | |
| WG555438CCB2 | CCB | 11/23/22 1:09 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| WG555438CCV3 | CCV | 11/23/22 1:27 | II221110-1 | 1 | | .998 | mg/L | 100 | 90 | 110 | | | |
| WG555438CCB3 | CCB | 11/23/22 1:30 | | | | U | mg/L | | -0.03 | 0.03 | | | |

**GCC**

ACZ Project ID: ***L77107***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG555198** | | | | | | | | | | | | | |
| WG555198ICV | ICV | 11/18/22 21:42 | II221116-1 | 2 | | 2.008 | mg/L | 100 | 95 | 105 | | | |
| WG555198ICB | ICB | 11/18/22 21:47 | | | | U | mg/L | | -0.09 | 0.09 | | | |
| WG555198PQV | PQV | 11/18/22 21:51 | II221109-2 | .1001 | | .1 | mg/L | 100 | 70 | 130 | | | |
| WG555198SIC | SIC | 11/18/22 21:54 | II221102-3 | .1001 | | .096 | mg/L | 96 | 80 | 120 | | | |
| WG555198LFB | LFB | 11/18/22 22:00 | II221104-3 | .5005 | | .494 | mg/L | 99 | 85 | 115 | | | |
| L77107-07AS | AS | 11/18/22 22:24 | II221104-3 | .5005 | .432 | .92 | mg/L | 98 | 85 | 115 | | | |
| L77107-07ASD | ASD | 11/18/22 22:27 | II221104-3 | .5005 | .432 | .954 | mg/L | 104 | 85 | 115 | 4 | 20 | |
| WG555198CCV1 | CCV | 11/18/22 22:30 | II221110-1 | 1 | | 1.006 | mg/L | 101 | 90 | 110 | | | |
| WG555198CCB1 | CCB | 11/18/22 22:33 | | | | U | mg/L | | -0.09 | 0.09 | | | |
| WG555198CCV2 | CCV | 11/18/22 23:07 | II221110-1 | 1 | | 1.015 | mg/L | 102 | 90 | 110 | | | |
| WG555198CCB2 | CCB | 11/18/22 23:10 | | | | U | mg/L | | -0.09 | 0.09 | | | |
| WG555198CCV3 | CCV | 11/18/22 23:28 | II221110-1 | 1 | | 1.014 | mg/L | 101 | 90 | 110 | | | |
| WG555198CCB3 | CCB | 11/18/22 23:31 | | | | U | mg/L | | -0.09 | 0.09 | | | |
| **WG555506** | | | | | | | | | | | | | |
| WG555506ICV | ICV | 11/23/22 19:47 | II221116-1 | 2 | | 1.96 | mg/L | 98 | 95 | 105 | | | |
| WG555506ICB | ICB | 11/23/22 19:53 | | | | U | mg/L | | -0.09 | 0.09 | | | |
| WG555506PQV | PQV | 11/23/22 19:56 | II221109-2 | .1001 | | .104 | mg/L | 104 | 70 | 130 | | | |
| WG555506SIC | SIC | 11/23/22 19:59 | II221102-3 | .1001 | | .105 | mg/L | 105 | 80 | 120 | | | |
| WG555506LFB | LFB | 11/23/22 20:05 | II221104-3 | .5005 | | .506 | mg/L | 101 | 85 | 115 | | | |
| WG555506CCV1 | CCV | 11/23/22 20:35 | II221110-1 | 1 | | 1.021 | mg/L | 102 | 90 | 110 | | | |
| WG555506CCB1 | CCB | 11/23/22 20:38 | | | | U | mg/L | | -0.09 | 0.09 | | | |
| L76621-05AS | AS | 11/23/22 20:50 | II221104-3 | .5005 | .096 | .663 | mg/L | 113 | 85 | 115 | | | |
| L76621-05ASD | ASD | 11/23/22 20:53 | II221104-3 | .5005 | .096 | .634 | mg/L | 107 | 85 | 115 | 4 | 20 | |
| WG555506CCV2 | CCV | 11/23/22 21:11 | II221110-1 | 1 | | .995 | mg/L | 100 | 90 | 110 | | | |
| WG555506CCB2 | CCB | 11/23/22 21:14 | | | | U | mg/L | | -0.09 | 0.09 | | | |
| WG555506CCV3 | CCV | 11/23/22 21:17 | II221110-1 | 1 | | 1.014 | mg/L | 101 | 90 | 110 | | | |
| WG555506CCB3 | CCB | 11/23/22 21:20 | | | | U | mg/L | | -0.09 | 0.09 | | | |

**GCC**

ACZ Project ID: ***L77107***

*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.*

**Cadmium, dissolved** M200.8 ICP-MS

| ACZ ID | Type | Analyzed | PCN/SCN | QC | Sample | Found | Units | Rec% | Lower | Upper | RPD | Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG555029** | | | | | | | | | | | | | |
| WG555029ICV | ICV | 11/15/22 18:43 | MS220930-3 | .05 | | .05111 | mg/L | 102 | 90 | 110 | | | |
| WG555029ICB | ICB | 11/15/22 18:45 | | | | U | mg/L | | -0.00011 | 0.00011 | | | |
| WG555029LFB | LFB | 11/15/22 18:47 | MS221101-6 | .05005 | | .049561 | mg/L | 99 | 85 | 115 | | | |
| WG555029CCV1 | CCV | 11/15/22 19:06 | MS221025-2 | .1001 | | .101873 | mg/L | 102 | 90 | 110 | | | |
| WG555029CCB1 | CCB | 11/15/22 19:08 | | | | U | mg/L | | -0.00015 | 0.00015 | | | |
| L77107-03AS | AS | 11/15/22 19:25 | MS221101-6 | .1001 | U | .096355 | mg/L | 96 | 70 | 130 | | | |
| L77107-03ASD | ASD | 11/15/22 19:27 | MS221101-6 | .1001 | U | .100168 | mg/L | 100 | 70 | 130 | 4 | 20 | |
| WG555029CCV2 | CCV | 11/15/22 19:28 | MS221025-2 | .1001 | | .102038 | mg/L | 102 | 90 | 110 | | | |
| WG555029CCB2 | CCB | 11/15/22 19:30 | | | | .000111 | mg/L | | -0.00015 | 0.00015 | | | |
| WG555029CCV3 | CCV | 11/15/22 19:42 | MS221025-2 | .1001 | | .100564 | mg/L | 100 | 90 | 110 | | | |
| WG555029CCB3 | CCB | 11/15/22 19:44 | | | | U | mg/L | | -0.00015 | 0.00015 | | | |
| **WG555232** | | | | | | | | | | | | | |
| WG555232ICV | ICV | 11/17/22 19:44 | MS220930-3 | .05 | | .051636 | mg/L | 103 | 90 | 110 | | | |
| WG555232ICB | ICB | 11/17/22 19:45 | | | | U | mg/L | | -0.00011 | 0.00011 | | | |
| WG555232LFB | LFB | 11/17/22 19:47 | MS221101-6 | .05005 | | .050408 | mg/L | 101 | 85 | 115 | | | |
| WG555232CCV1 | CCV | 11/17/22 20:06 | MS221025-2 | .1001 | | .10168 | mg/L | 102 | 90 | 110 | | | |
| WG555232CCB1 | CCB | 11/17/22 20:08 | | | | U | mg/L | | -0.00015 | 0.00015 | | | |
| L77110-01AS | AS | 11/17/22 20:25 | MS221101-6 | .1001 | U | .098917 | mg/L | 99 | 70 | 130 | | | |
| L77110-01ASD | ASD | 11/17/22 20:27 | MS221101-6 | .1001 | U | .097148 | mg/L | 97 | 70 | 130 | 2 | 20 | |
| WG555232CCV2 | CCV | 11/17/22 20:28 | MS221025-2 | .1001 | | .102813 | mg/L | 103 | 90 | 110 | | | |
| WG555232CCB2 | CCB | 11/17/22 20:30 | | | | U | mg/L | | -0.00015 | 0.00015 | | | |
| WG555232CCV3 | CCV | 11/17/22 20:41 | MS221025-2 | .1001 | | .101728 | mg/L | 102 | 90 | 110 | | | |
| WG555232CCB3 | CCB | 11/17/22 20:43 | | | | U | mg/L | | -0.00015 | 0.00015 | | | |

**GCC**

ACZ Project ID: ***L77107***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG555198** | | | | | | | | | | | | | |
| WG555198ICV | ICV | 11/18/22 21:42 | II221116-1 | 100 | | 97.35 | mg/L | 97 | 95 | 105 | | | |
| WG555198ICB | ICB | 11/18/22 21:47 | | | | U | mg/L | | -0.3 | 0.3 | | | |
| WG555198PQV | PQV | 11/18/22 21:51 | II221109-2 | .50055 | | .48 | mg/L | 96 | 70 | 130 | | | |
| WG555198SIC | SIC | 11/18/22 21:54 | II221102-3 | 200.72055 | | 194.7 | mg/L | 97 | 1 | 200 | | | |
| WG555198LFB | LFB | 11/18/22 22:00 | II221104-3 | 67.99353 | | 66.81 | mg/L | 98 | 85 | 115 | | | |
| L77107-07AS | AS | 11/18/22 22:24 | II221104-3 | 67.99353 | 68.3 | 131 | mg/L | 92 | 85 | 115 | | | |
| L77107-07ASD | ASD | 11/18/22 22:27 | II221104-3 | 67.99353 | 68.3 | 131.9 | mg/L | 94 | 85 | 115 | 1 | 20 | |
| WG555198CCV1 | CCV | 11/18/22 22:30 | II221110-1 | 50 | | 48.78 | mg/L | 98 | 90 | 110 | | | |
| WG555198CCB1 | CCB | 11/18/22 22:33 | | | | U | mg/L | | -0.3 | 0.3 | | | |
| WG555198CCV2 | CCV | 11/18/22 23:07 | II221110-1 | 50 | | 48.81 | mg/L | 98 | 90 | 110 | | | |
| WG555198CCB2 | CCB | 11/18/22 23:10 | | | | U | mg/L | | -0.3 | 0.3 | | | |
| WG555198CCV3 | CCV | 11/18/22 23:28 | II221110-1 | 50 | | 48.97 | mg/L | 98 | 90 | 110 | | | |
| WG555198CCB3 | CCB | 11/18/22 23:31 | | | | U | mg/L | | -0.3 | 0.3 | | | |
| **WG555438** | | | | | | | | | | | | | |
| WG555438ICV | ICV | 11/22/22 23:42 | II221116-1 | 100 | | 98.32 | mg/L | 98 | 95 | 105 | | | |
| WG555438ICB | ICB | 11/22/22 23:47 | | | | U | mg/L | | -0.3 | 0.3 | | | |
| WG555438PQV | PQV | 11/22/22 23:50 | II221109-2 | .50055 | | .57 | mg/L | 114 | 70 | 130 | | | |
| WG555438SIC | SIC | 11/22/22 23:53 | II221102-3 | 200.72055 | | 197.6 | mg/L | 98 | 1 | 200 | | | |
| WG555438LFB | LFB | 11/23/22 0:00 | II221104-3 | 67.99353 | | 67.22 | mg/L | 99 | 85 | 115 | | | |
| WG555438CCV1 | CCV | 11/23/22 0:30 | II221110-1 | 50 | | 49.22 | mg/L | 98 | 90 | 110 | | | |
| WG555438CCB1 | CCB | 11/23/22 0:33 | | | | U | mg/L | | -0.3 | 0.3 | | | |
| L76621-05AS | AS | 11/23/22 1:00 | II221104-3 | 67.99353 | 59 | 122.1 | mg/L | 93 | 85 | 115 | | | |
| L76621-05ASD | ASD | 11/23/22 1:03 | II221104-3 | 67.99353 | 59 | 121 | mg/L | 91 | 85 | 115 | 1 | 20 | |
| WG555438CCV2 | CCV | 11/23/22 1:06 | II221110-1 | 50 | | 48.93 | mg/L | 98 | 90 | 110 | | | |
| WG555438CCB2 | CCB | 11/23/22 1:09 | | | | U | mg/L | | -0.3 | 0.3 | | | |
| WG555438CCV3 | CCV | 11/23/22 1:27 | II221110-1 | 50 | | 49.01 | mg/L | 98 | 90 | 110 | | | |
| WG555438CCB3 | CCB | 11/23/22 1:30 | | | | U | mg/L | | -0.3 | 0.3 | | | |

**GCC**

ACZ Project ID: ***L77107***

*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.*

**Chloride** SM4500Cl-E

| ACZ ID | Type | Analyzed | PCN/SCN | QC | Sample | Found | Units | Rec% | Lower | Upper | RPD | Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG555050** | | | | | | | | | | | | | |
| WG555050ICV | ICV | 11/16/22 10:27 | WI220502-12 | 54.945 | | 54.62 | mg/L | 99 | 90 | 110 | | | |
| WG555050ICB | ICB | 11/16/22 10:27 | | | | U | mg/L | | -3 | 3 | | | |
| WG555050LFB1 | LFB | 11/16/22 10:28 | WI221025-9 | 30.03 | | 28.32 | mg/L | 94 | 90 | 110 | | | |
| WG555050CCV1 | CCV | 11/16/22 10:33 | WI221021-5 | 49.95 | | 50.3 | mg/L | 101 | 90 | 110 | | | |
| WG555050CCB1 | CCB | 11/16/22 10:33 | | | | U | mg/L | | -3 | 3 | | | |
| L77107-02DUP | DUP | 11/16/22 10:34 | | | 41 | 40.78 | mg/L | | | | 1 | 20 | |
| L77107-05AS | AS | 11/16/22 10:36 | WI221025-9 | 30.03 | 45.9 | 72.91 | mg/L | 90 | 90 | 110 | | | |
| WG555050LFB2 | LFB | 11/16/22 10:43 | WI221025-9 | 30.03 | | 30.21 | mg/L | 101 | 90 | 110 | | | |
| WG555050CCV3 | CCV | 11/16/22 10:45 | WI221021-5 | 49.95 | | 53.3 | mg/L | 107 | 90 | 110 | | | |
| WG555050CCB3 | CCB | 11/16/22 10:45 | | | | U | mg/L | | -3 | 3 | | | |
| WG555050CCV4 | CCV | 11/16/22 10:50 | WI221021-5 | 49.95 | | 50.93 | mg/L | 102 | 90 | 110 | | | |
| WG555050CCB4 | CCB | 11/16/22 10:50 | | | | U | mg/L | | -3 | 3 | | | |
| WG555050CCV10 | CCV | 11/16/22 11:45 | WI221021-5 | 49.95 | | 49.56 | mg/L | 99 | 90 | 110 | | | |
| WG555050CCB10 | CCB | 11/16/22 11:45 | | | | U | mg/L | | -3 | 3 | | | |
| L77107-06DUP | DUP | 11/16/22 11:48 | | | 376 | 385.07 | mg/L | | | | 2 | 20 | |
| WG555050CCV2 | CCV | 11/16/22 11:50 | WI221021-5 | 49.95 | | 49.66 | mg/L | 99 | 90 | 110 | | | |
| WG555050CCB2 | CCB | 11/16/22 11:50 | | | | U | mg/L | | -3 | 3 | | | |
| WG555050CCV11 | CCV | 11/16/22 11:55 | WI221021-5 | 49.95 | | 50.57 | mg/L | 101 | 90 | 110 | | | |
| WG555050CCB11 | CCB | 11/16/22 11:55 | | | | U | mg/L | | -3 | 3 | | | |
| WG555050CCV12 | CCV | 11/16/22 12:13 | WI221021-5 | 49.95 | | 51.02 | mg/L | 102 | 90 | 110 | | | |
| WG555050CCB12 | CCB | 11/16/22 12:14 | | | | U | mg/L | | -3 | 3 | | | |
| L77107-01AS | AS | 11/16/22 12:14 | 5XCL | 30 | 77 | 104.52 | mg/L | 92 | 90 | 110 | | | |
| WG555050CCV13 | CCV | 11/16/22 12:15 | WI221021-5 | 49.95 | | 50.2 | mg/L | 101 | 90 | 110 | | | |
| WG555050CCB13 | CCB | 11/16/22 12:15 | | | | U | mg/L | | -3 | 3 | | | |

**GCC**

ACZ Project ID: ***L77107***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG555198** | | | | | | | | | | | | | |
| WG555198ICV | ICV | 11/18/22 21:42 | II221116-1 | 2 | | 1.999 | mg/L | 100 | 95 | 105 | | | |
| WG555198ICB | ICB | 11/18/22 21:47 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| WG555198PQV | PQV | 11/18/22 21:51 | II221109-2 | .0501 | | .037 | mg/L | 74 | 70 | 130 | | | |
| WG555198SIC | SIC | 11/18/22 21:54 | II221102-3 | .1002 | | .083 | mg/L | 83 | 80 | 120 | | | |
| WG555198LFB | LFB | 11/18/22 22:00 | II221104-3 | .501 | | .489 | mg/L | 98 | 85 | 115 | | | |
| L77107-07AS | AS | 11/18/22 22:24 | II221104-3 | .501 | U | .444 | mg/L | 89 | 85 | 115 | | | |
| L77107-07ASD | ASD | 11/18/22 22:27 | II221104-3 | .501 | U | .494 | mg/L | 99 | 85 | 115 | 11 | 20 | |
| WG555198CCV1 | CCV | 11/18/22 22:30 | II221110-1 | 1 | | .992 | mg/L | 99 | 90 | 110 | | | |
| WG555198CCB1 | CCB | 11/18/22 22:33 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| WG555198CCV2 | CCV | 11/18/22 23:07 | II221110-1 | 1 | | 1.01 | mg/L | 101 | 90 | 110 | | | |
| WG555198CCB2 | CCB | 11/18/22 23:10 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| WG555198CCV3 | CCV | 11/18/22 23:28 | II221110-1 | 1 | | 1.006 | mg/L | 101 | 90 | 110 | | | |
| WG555198CCB3 | CCB | 11/18/22 23:31 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| **WG555438** | | | | | | | | | | | | | |
| WG555438ICV | ICV | 11/22/22 23:42 | II221116-1 | 2 | | 1.929 | mg/L | 96 | 95 | 105 | | | |
| WG555438ICB | ICB | 11/22/22 23:47 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| WG555438PQV | PQV | 11/22/22 23:50 | II221109-2 | .0501 | | .058 | mg/L | 116 | 70 | 130 | | | |
| WG555438SIC | SIC | 11/22/22 23:53 | II221102-3 | .1002 | | .099 | mg/L | 99 | 80 | 120 | | | |
| WG555438LFB | LFB | 11/23/22 0:00 | II221104-3 | .501 | | .486 | mg/L | 97 | 85 | 115 | | | |
| WG555438CCV1 | CCV | 11/23/22 0:30 | II221110-1 | 1 | | .978 | mg/L | 98 | 90 | 110 | | | |
| WG555438CCB1 | CCB | 11/23/22 0:33 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| L76621-05AS | AS | 11/23/22 1:00 | II221104-3 | .501 | U | .516 | mg/L | 103 | 85 | 115 | | | |
| L76621-05ASD | ASD | 11/23/22 1:03 | II221104-3 | .501 | U | .492 | mg/L | 98 | 85 | 115 | 5 | 20 | |
| WG555438CCV2 | CCV | 11/23/22 1:06 | II221110-1 | 1 | | .953 | mg/L | 95 | 90 | 110 | | | |
| WG555438CCB2 | CCB | 11/23/22 1:09 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| WG555438CCV3 | CCV | 11/23/22 1:27 | II221110-1 | 1 | | .96 | mg/L | 96 | 90 | 110 | | | |
| WG555438CCB3 | CCB | 11/23/22 1:30 | | | | U | mg/L | | -0.06 | 0.06 | | | |

**Cobalt, dissolved** M200.8 ICP-MS

| ACZ ID | Type | Analyzed | PCN/SCN | QC | Sample | Found | Units | Rec% | Lower | Upper | RPD | Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG555029** | | | | | | | | | | | | | |
| WG555029ICV | ICV | 11/15/22 18:43 | MS220930-3 | .05 | | .052278 | mg/L | 105 | 90 | 110 | | | |
| WG555029ICB | ICB | 11/15/22 18:45 | | | | U | mg/L | | -0.00011 | 0.00011 | | | |
| WG555029LFB | LFB | 11/15/22 18:47 | MS221101-6 | .05005 | | .05089 | mg/L | 102 | 85 | 115 | | | |
| WG555029CCV1 | CCV | 11/15/22 19:06 | MS221025-2 | .1001 | | .101985 | mg/L | 102 | 90 | 110 | | | |
| WG555029CCB1 | CCB | 11/15/22 19:08 | | | | U | mg/L | | -0.00015 | 0.00015 | | | |
| L77107-03AS | AS | 11/15/22 19:25 | MS221101-6 | .1001 | .000517 | .101843 | mg/L | 101 | 70 | 130 | | | |
| L77107-03ASD | ASD | 11/15/22 19:27 | MS221101-6 | .1001 | .000517 | .107256 | mg/L | 107 | 70 | 130 | 5 | 20 | |
| WG555029CCV2 | CCV | 11/15/22 19:28 | MS221025-2 | .1001 | | .104379 | mg/L | 104 | 90 | 110 | | | |
| WG555029CCB2 | CCB | 11/15/22 19:30 | | | | .000113 | mg/L | | -0.00015 | 0.00015 | | | |
| WG555029CCV3 | CCV | 11/15/22 19:42 | MS221025-2 | .1001 | | .104158 | mg/L | 104 | 90 | 110 | | | |
| WG555029CCB3 | CCB | 11/15/22 19:44 | | | | U | mg/L | | -0.00015 | 0.00015 | | | |

**GCC**

ACZ Project ID: ***L77107***

*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.*

**Copper, dissolved** M200.7 ICP

| ACZ ID | Type | Analyzed | PCN/SCN | QC | Sample | Found | Units | Rec% | Lower | Upper | RPD | Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG555198** | | | | | | | | | | | | | |
| WG555198ICV | ICV | 11/18/22 21:42 | II221116-1 | 2 | | 1.947 | mg/L | 97 | 95 | 105 | | | |
| WG555198ICB | ICB | 11/18/22 21:47 | | | | .014 | mg/L | | -0.03 | 0.03 | | | |
| WG555198PQV | PQV | 11/18/22 21:51 | II221109-2 | .05005 | | .059 | mg/L | 118 | 70 | 130 | | | |
| WG555198SIC | SIC | 11/18/22 21:54 | II221102-3 | .1001 | | .096 | mg/L | 96 | 80 | 120 | | | |
| WG555198LFB | LFB | 11/18/22 22:00 | II221104-3 | .5005 | | .496 | mg/L | 99 | 85 | 115 | | | |
| L77107-07AS | AS | 11/18/22 22:24 | II221104-3 | .5005 | U | .39 | mg/L | 78 | 85 | 115 | | | MA |
| L77107-07ASD | ASD | 11/18/22 22:27 | II221104-3 | .5005 | U | .429 | mg/L | 86 | 85 | 115 | 10 | 20 | |
| WG555198CCV1 | CCV | 11/18/22 22:30 | II221110-1 | 1 | | .987 | mg/L | 99 | 90 | 110 | | | |
| WG555198CCB1 | CCB | 11/18/22 22:33 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| WG555198CCV2 | CCV | 11/18/22 23:07 | II221110-1 | 1 | | .999 | mg/L | 100 | 90 | 110 | | | |
| WG555198CCB2 | CCB | 11/18/22 23:10 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| WG555198CCV3 | CCV | 11/18/22 23:28 | II221110-1 | 1 | | 1 | mg/L | 100 | 90 | 110 | | | |
| WG555198CCB3 | CCB | 11/18/22 23:31 | | | | .01 | mg/L | | -0.03 | 0.03 | | | |
| **WG555438** | | | | | | | | | | | | | |
| WG555438ICV | ICV | 11/22/22 23:42 | II221116-1 | 2 | | 1.967 | mg/L | 98 | 95 | 105 | | | |
| WG555438ICB | ICB | 11/22/22 23:47 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| WG555438PQV | PQV | 11/22/22 23:50 | II221109-2 | .05005 | | .054 | mg/L | 108 | 70 | 130 | | | |
| WG555438SIC | SIC | 11/22/22 23:53 | II221102-3 | .1001 | | .088 | mg/L | 88 | 80 | 120 | | | |
| WG555438LFB | LFB | 11/23/22 0:00 | II221104-3 | .5005 | | .483 | mg/L | 97 | 85 | 115 | | | |
| WG555438CCV1 | CCV | 11/23/22 0:30 | II221110-1 | 1 | | .986 | mg/L | 99 | 90 | 110 | | | |
| WG555438CCB1 | CCB | 11/23/22 0:33 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| L76621-05AS | AS | 11/23/22 1:00 | II221104-3 | .5005 | U | .528 | mg/L | 105 | 85 | 115 | | | |
| L76621-05ASD | ASD | 11/23/22 1:03 | II221104-3 | .5005 | U | .506 | mg/L | 101 | 85 | 115 | 4 | 20 | |
| WG555438CCV2 | CCV | 11/23/22 1:06 | II221110-1 | 1 | | 1.008 | mg/L | 101 | 90 | 110 | | | |
| WG555438CCB2 | CCB | 11/23/22 1:09 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| WG555438CCV3 | CCV | 11/23/22 1:27 | II221110-1 | 1 | | .974 | mg/L | 97 | 90 | 110 | | | |
| WG555438CCB3 | CCB | 11/23/22 1:30 | | | | U | mg/L | | -0.03 | 0.03 | | | |

**GCC**

ACZ Project ID: ***L77107***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG555874** | | | | | | | | | | | | | |
| WG555874ICV | ICV | 12/01/22 12:33 | WC221118-10 | 2.008 | | 1.94 | mg/L | 97 | 90 | 110 | | | |
| WG555874ICB | ICB | 12/01/22 12:38 | | | | U | mg/L | | -0.3 | 0.3 | | | |
| WG555874LFB | LFB | 12/01/22 12:47 | WC221011-2 | 5.02 | | 5 | mg/L | 100 | 90 | 110 | | | |
| L77107-01AS | AS | 12/01/22 13:00 | WC221011-2 | 5.02 | .79 | 5.25 | mg/L | 89 | 90 | 110 | | | M2 |
| L77107-01ASD | ASD | 12/01/22 13:05 | WC221011-2 | 5.02 | .79 | 5.27 | mg/L | 89 | 90 | 110 | 0 | 20 | M2 |
| WG555874CCV1 | CCV | 12/01/22 13:39 | WC221118-10 | 2.008 | | 2.028 | mg/L | 101 | 90 | 110 | | | |
| WG555874CCB1 | CCB | 12/01/22 13:47 | | | | U | mg/L | | -0.3 | 0.3 | | | |
| WG555874CCV2 | CCV | 12/01/22 14:59 | WC221118-10 | 2.008 | | 2.111 | mg/L | 105 | 90 | 110 | | | |
| WG555874CCB2 | CCB | 12/01/22 15:07 | | | | U | mg/L | | -0.3 | 0.3 | | | |
| WG555874CCV3 | CCV | 12/01/22 15:43 | WC221118-10 | 2.008 | | 2.09 | mg/L | 104 | 90 | 110 | | | |
| WG555874CCB3 | CCB | 12/01/22 15:50 | | | | U | mg/L | | -0.3 | 0.3 | | | |
| **WG555911** | | | | | | | | | | | | | |
| WG555911ICV | ICV | 12/01/22 17:27 | WC221201-1 | 2.008 | | 2.01 | mg/L | 100 | 90 | 110 | | | |
| WG555911ICB | ICB | 12/01/22 17:35 | | | | U | mg/L | | -0.3 | 0.3 | | | |
| WG555911LFB1 | LFB | 12/01/22 17:45 | WC221011-2 | 5.02 | | 5.3 | mg/L | 106 | 90 | 110 | | | |
| L77107-06AS | AS | 12/01/22 17:56 | WC221011-2 | 5.02 | 1.02 | 6.24 | mg/L | 104 | 90 | 110 | | | |
| L77107-06ASD | ASD | 12/01/22 18:00 | WC221011-2 | 5.02 | 1.02 | 6.24 | mg/L | 104 | 90 | 110 | 0 | 20 | |
| WG555911CCV1 | CCV | 12/01/22 18:39 | WC221201-1 | 2.008 | | 1.988 | mg/L | 99 | 90 | 110 | | | |
| WG555911CCB1 | CCB | 12/01/22 18:47 | | | | U | mg/L | | -0.3 | 0.3 | | | |
| WG555911CCV2 | CCV | 12/01/22 19:43 | WC221201-1 | 2.008 | | 2.1 | mg/L | 105 | 90 | 110 | | | |
| WG555911CCB2 | CCB | 12/01/22 19:51 | | | | U | mg/L | | -0.3 | 0.3 | | | |
| WG555911LFB2 | LFB | 12/01/22 20:21 | WC221011-2 | 5.02 | | 5.22 | mg/L | 104 | 90 | 110 | | | |
| WG555911CCV3 | CCV | 12/01/22 20:48 | WC221201-1 | 2.008 | | 2.059 | mg/L | 103 | 90 | 110 | | | |
| WG555911CCB3 | CCB | 12/01/22 20:56 | | | | U | mg/L | | -0.3 | 0.3 | | | |
| WG555911CCV4 | CCV | 12/01/22 21:54 | WC221201-1 | 2.008 | | 2.069 | mg/L | 103 | 90 | 110 | | | |
| WG555911CCB4 | CCB | 12/01/22 22:02 | | | | U | mg/L | | -0.3 | 0.3 | | | |
| WG555911CCV5 | CCV | 12/01/22 23:08 | WC221201-1 | 2.008 | | 2.059 | mg/L | 103 | 90 | 110 | | | |
| WG555911CCB5 | CCB | 12/01/22 23:16 | | | | U | mg/L | | -0.3 | 0.3 | | | |

**GCC**

ACZ Project ID: ***L77107***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG555198** | | | | | | | | | | | | | |
| WG555198ICV | ICV | 11/18/22 21:42 | II221116-1 | 2 | | 2.033 | mg/L | 102 | 95 | 105 | | | |
| WG555198ICB | ICB | 11/18/22 21:47 | | | | U | mg/L | | -0.18 | 0.18 | | | |
| WG555198PQV | PQV | 11/18/22 21:51 | II221109-2 | .150195 | | .124 | mg/L | 83 | 70 | 130 | | | |
| WG555198SIC | SIC | 11/18/22 21:54 | II221102-3 | 200.410195 | | 196.8 | mg/L | 98 | 1 | 200 | | | |
| WG555198LFB | LFB | 11/18/22 22:00 | II221104-3 | 1.0013 | | .984 | mg/L | 98 | 85 | 115 | | | |
| L77107-07AS | AS | 11/18/22 22:24 | II221104-3 | 1.0013 | U | .892 | mg/L | 89 | 85 | 115 | | | |
| L77107-07ASD | ASD | 11/18/22 22:27 | II221104-3 | 1.0013 | U | .988 | mg/L | 99 | 85 | 115 | 10 | 20 | |
| WG555198CCV1 | CCV | 11/18/22 22:30 | II221110-1 | 1 | | 1.001 | mg/L | 100 | 90 | 110 | | | |
| WG555198CCB1 | CCB | 11/18/22 22:33 | | | | U | mg/L | | -0.18 | 0.18 | | | |
| WG555198CCV2 | CCV | 11/18/22 23:07 | II221110-1 | 1 | | 1.003 | mg/L | 100 | 90 | 110 | | | |
| WG555198CCB2 | CCB | 11/18/22 23:10 | | | | U | mg/L | | -0.18 | 0.18 | | | |
| WG555198CCV3 | CCV | 11/18/22 23:28 | II221110-1 | 1 | | 1.013 | mg/L | 101 | 90 | 110 | | | |
| WG555198CCB3 | CCB | 11/18/22 23:31 | | | | U | mg/L | | -0.18 | 0.18 | | | |
| **WG555438** | | | | | | | | | | | | | |
| WG555438ICV | ICV | 11/22/22 23:42 | II221116-1 | 2 | | 1.899 | mg/L | 95 | 95 | 105 | | | |
| WG555438ICB | ICB | 11/22/22 23:47 | | | | U | mg/L | | -0.18 | 0.18 | | | |
| WG555438PQV | PQV | 11/22/22 23:50 | II221109-2 | .150195 | | .162 | mg/L | 108 | 70 | 130 | | | |
| WG555438SIC | SIC | 11/22/22 23:53 | II221102-3 | 200.410195 | | 188.3 | mg/L | 94 | 1 | 200 | | | |
| WG555438LFB | LFB | 11/23/22 0:00 | II221104-3 | 1.0013 | | .939 | mg/L | 94 | 85 | 115 | | | |
| WG555438CCV1 | CCV | 11/23/22 0:30 | II221110-1 | 1 | | .956 | mg/L | 96 | 90 | 110 | | | |
| WG555438CCB1 | CCB | 11/23/22 0:33 | | | | U | mg/L | | -0.18 | 0.18 | | | |
| L76621-05AS | AS | 11/23/22 1:00 | II221104-3 | 1.0013 | U | .996 | mg/L | 99 | 85 | 115 | | | |
| L76621-05ASD | ASD | 11/23/22 1:03 | II221104-3 | 1.0013 | U | .956 | mg/L | 95 | 85 | 115 | 4 | 20 | |
| WG555438CCV2 | CCV | 11/23/22 1:06 | II221110-1 | 1 | | .943 | mg/L | 94 | 90 | 110 | | | |
| WG555438CCB2 | CCB | 11/23/22 1:09 | | | | U | mg/L | | -0.18 | 0.18 | | | |
| WG555438CCV3 | CCV | 11/23/22 1:27 | II221110-1 | 1 | | .932 | mg/L | 93 | 90 | 110 | | | |
| WG555438CCB3 | CCB | 11/23/22 1:30 | | | | U | mg/L | | -0.18 | 0.18 | | | |

**GCC**

ACZ Project ID: ***L77107***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG555029** | | | | | | | | | | | | | |
| WG555029ICV | ICV | 11/15/22 18:43 | MS220930-3 | .05 | | .05319 | mg/L | 106 | 90 | 110 | | | |
| WG555029ICB | ICB | 11/15/22 18:45 | | | | U | mg/L | | -0.00022 | 0.00022 | | | |
| WG555029LFB | LFB | 11/15/22 18:47 | MS221101-6 | .0501 | | .05136 | mg/L | 103 | 85 | 115 | | | |
| WG555029CCV1 | CCV | 11/15/22 19:06 | MS221025-2 | .2505 | | .25229 | mg/L | 101 | 90 | 110 | | | |
| WG555029CCB1 | CCB | 11/15/22 19:08 | | | | U | mg/L | | -0.0003 | 0.0003 | | | |
| L77107-03AS | AS | 11/15/22 19:25 | MS221101-6 | .1002 | U | .11448 | mg/L | 114 | 70 | 130 | | | |
| L77107-03ASD | ASD | 11/15/22 19:27 | MS221101-6 | .1002 | U | .1196 | mg/L | 119 | 70 | 130 | 4 | 20 | |
| WG555029CCV2 | CCV | 11/15/22 19:28 | MS221025-2 | .2505 | | .25527 | mg/L | 102 | 90 | 110 | | | |
| WG555029CCB2 | CCB | 11/15/22 19:30 | | | | .00028 | mg/L | | -0.0003 | 0.0003 | | | |
| WG555029CCV3 | CCV | 11/15/22 19:42 | MS221025-2 | .2505 | | .2564 | mg/L | 102 | 90 | 110 | | | |
| WG555029CCB3 | CCB | 11/15/22 19:44 | | | | U | mg/L | | -0.0003 | 0.0003 | | | |
| **WG555232** | | | | | | | | | | | | | |
| WG555232ICV | ICV | 11/17/22 19:44 | MS220930-3 | .05 | | .05131 | mg/L | 103 | 90 | 110 | | | |
| WG555232ICB | ICB | 11/17/22 19:45 | | | | U | mg/L | | -0.00022 | 0.00022 | | | |
| WG555232LFB | LFB | 11/17/22 19:47 | MS221101-6 | .0501 | | .04997 | mg/L | 100 | 85 | 115 | | | |
| WG555232CCV1 | CCV | 11/17/22 20:06 | MS221025-2 | .2505 | | .25401 | mg/L | 101 | 90 | 110 | | | |
| WG555232CCB1 | CCB | 11/17/22 20:08 | | | | U | mg/L | | -0.0003 | 0.0003 | | | |
| L77110-01AS | AS | 11/17/22 20:25 | MS221101-6 | .1002 | U | .10644 | mg/L | 106 | 70 | 130 | | | |
| L77110-01ASD | ASD | 11/17/22 20:27 | MS221101-6 | .1002 | U | .10479 | mg/L | 105 | 70 | 130 | 2 | 20 | |
| WG555232CCV2 | CCV | 11/17/22 20:28 | MS221025-2 | .2505 | | .26012 | mg/L | 104 | 90 | 110 | | | |
| WG555232CCB2 | CCB | 11/17/22 20:30 | | | | U | mg/L | | -0.0003 | 0.0003 | | | |
| WG555232CCV3 | CCV | 11/17/22 20:41 | MS221025-2 | .2505 | | .25652 | mg/L | 102 | 90 | 110 | | | |
| WG555232CCB3 | CCB | 11/17/22 20:43 | | | | U | mg/L | | -0.0003 | 0.0003 | | | |

**GCC**

ACZ Project ID: ***L77107***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG555198** | | | | | | | | | | | | | |
| WG555198ICV | ICV | 11/18/22 21:42 | II221116-1 | 2 | | 1.939 | mg/L | 97 | 95 | 105 | | | |
| WG555198ICB | ICB | 11/18/22 21:47 | | | | U | mg/L | | -0.024 | 0.024 | | | |
| WG555198PQV | PQV | 11/18/22 21:51 | II221109-2 | .03992 | | .0424 | mg/L | 106 | 70 | 130 | | | |
| WG555198SIC | SIC | 11/18/22 21:54 | II221102-3 | .0998 | | .1034 | mg/L | 104 | 80 | 120 | | | |
| WG555198LFB | LFB | 11/18/22 22:00 | II221104-3 | .998 | | .9837 | mg/L | 99 | 85 | 115 | | | |
| L77107-07AS | AS | 11/18/22 22:24 | II221104-3 | .998 | .147 | 1.211 | mg/L | 107 | 85 | 115 | | | |
| L77107-07ASD | ASD | 11/18/22 22:27 | II221104-3 | .998 | .147 | 1.143 | mg/L | 100 | 85 | 115 | 6 | 20 | |
| WG555198CCV1 | CCV | 11/18/22 22:30 | II221110-1 | 1 | | .9823 | mg/L | 98 | 90 | 110 | | | |
| WG555198CCB1 | CCB | 11/18/22 22:33 | | | | U | mg/L | | -0.024 | 0.024 | | | |
| WG555198CCV2 | CCV | 11/18/22 23:07 | II221110-1 | 1 | | .9808 | mg/L | 98 | 90 | 110 | | | |
| WG555198CCB2 | CCB | 11/18/22 23:10 | | | | U | mg/L | | -0.024 | 0.024 | | | |
| WG555198CCV3 | CCV | 11/18/22 23:28 | II221110-1 | 1 | | .9837 | mg/L | 98 | 90 | 110 | | | |
| WG555198CCB3 | CCB | 11/18/22 23:31 | | | | U | mg/L | | -0.024 | 0.024 | | | |
| **WG555438** | | | | | | | | | | | | | |
| WG555438ICV | ICV | 11/22/22 23:42 | II221116-1 | 2 | | 1.9918 | mg/L | 100 | 95 | 105 | | | |
| WG555438ICB | ICB | 11/22/22 23:47 | | | | U | mg/L | | -0.024 | 0.024 | | | |
| WG555438PQV | PQV | 11/22/22 23:50 | II221109-2 | .03992 | | .0429 | mg/L | 107 | 70 | 130 | | | |
| WG555438SIC | SIC | 11/22/22 23:53 | II221102-3 | .0998 | | .1053 | mg/L | 106 | 80 | 120 | | | |
| WG555438LFB | LFB | 11/23/22 0:00 | II221104-3 | .998 | | 1.003 | mg/L | 101 | 85 | 115 | | | |
| WG555438CCV1 | CCV | 11/23/22 0:30 | II221110-1 | 1 | | .9835 | mg/L | 98 | 90 | 110 | | | |
| WG555438CCB1 | CCB | 11/23/22 0:33 | | | | U | mg/L | | -0.024 | 0.024 | | | |
| L76621-05AS | AS | 11/23/22 1:00 | II221104-3 | .998 | .0157 | 1.044 | mg/L | 103 | 85 | 115 | | | |
| L76621-05ASD | ASD | 11/23/22 1:03 | II221104-3 | .998 | .0157 | .9902 | mg/L | 98 | 85 | 115 | 5 | 20 | |
| WG555438CCV2 | CCV | 11/23/22 1:06 | II221110-1 | 1 | | .9951 | mg/L | 100 | 90 | 110 | | | |
| WG555438CCB2 | CCB | 11/23/22 1:09 | | | | U | mg/L | | -0.024 | 0.024 | | | |
| WG555438CCV3 | CCV | 11/23/22 1:27 | II221110-1 | 1 | | .9908 | mg/L | 99 | 90 | 110 | | | |
| WG555438CCB3 | CCB | 11/23/22 1:30 | | | | U | mg/L | | -0.024 | 0.024 | | | |

**GCC**

ACZ Project ID: ***L77107***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG555198** | | | | | | | | | | | | | |
| WG555198ICV | ICV | 11/18/22 21:42 | II221116-1 | 100 | | 95.93 | mg/L | 96 | 95 | 105 | | | |
| WG555198ICB | ICB | 11/18/22 21:47 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| WG555198PQV | PQV | 11/18/22 21:51 | II221109-2 | 1.001 | | 1.09 | mg/L | 109 | 70 | 130 | | | |
| WG555198SIC | SIC | 11/18/22 21:54 | II221102-3 | 201.201 | | 197.4 | mg/L | 98 | 1 | 200 | | | |
| WG555198LFB | LFB | 11/18/22 22:00 | II221104-3 | 49.99676 | | 48.24 | mg/L | 96 | 85 | 115 | | | |
| L77107-07AS | AS | 11/18/22 22:24 | II221104-3 | 49.99676 | 33.9 | 80.21 | mg/L | 93 | 85 | 115 | | | |
| L77107-07ASD | ASD | 11/18/22 22:27 | II221104-3 | 49.99676 | 33.9 | 80.3 | mg/L | 93 | 85 | 115 | 0 | 20 | |
| WG555198CCV1 | CCV | 11/18/22 22:30 | II221110-1 | 50 | | 47.97 | mg/L | 96 | 90 | 110 | | | |
| WG555198CCB1 | CCB | 11/18/22 22:33 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| WG555198CCV2 | CCV | 11/18/22 23:07 | II221110-1 | 50 | | 48.28 | mg/L | 97 | 90 | 110 | | | |
| WG555198CCB2 | CCB | 11/18/22 23:10 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| WG555198CCV3 | CCV | 11/18/22 23:28 | II221110-1 | 50 | | 48.2 | mg/L | 96 | 90 | 110 | | | |
| WG555198CCB3 | CCB | 11/18/22 23:31 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| **WG555438** | | | | | | | | | | | | | |
| WG555438ICV | ICV | 11/22/22 23:42 | II221116-1 | 100 | | 97.42 | mg/L | 97 | 95 | 105 | | | |
| WG555438ICB | ICB | 11/22/22 23:47 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| WG555438PQV | PQV | 11/22/22 23:50 | II221109-2 | 1.001 | | 1.14 | mg/L | 114 | 70 | 130 | | | |
| WG555438SIC | SIC | 11/22/22 23:53 | II221102-3 | 201.201 | | 201.8 | mg/L | 100 | 1 | 200 | | | |
| WG555438LFB | LFB | 11/23/22 0:00 | II221104-3 | 49.99676 | | 48.42 | mg/L | 97 | 85 | 115 | | | |
| WG555438CCV1 | CCV | 11/23/22 0:30 | II221110-1 | 50 | | 48.44 | mg/L | 97 | 90 | 110 | | | |
| WG555438CCB1 | CCB | 11/23/22 0:33 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| L76621-05AS | AS | 11/23/22 1:00 | II221104-3 | 49.99676 | 10.4 | 57.73 | mg/L | 95 | 85 | 115 | | | |
| L76621-05ASD | ASD | 11/23/22 1:03 | II221104-3 | 49.99676 | 10.4 | 57.26 | mg/L | 94 | 85 | 115 | 1 | 20 | |
| WG555438CCV2 | CCV | 11/23/22 1:06 | II221110-1 | 50 | | 48.26 | mg/L | 97 | 90 | 110 | | | |
| WG555438CCB2 | CCB | 11/23/22 1:09 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| WG555438CCV3 | CCV | 11/23/22 1:27 | II221110-1 | 50 | | 48.18 | mg/L | 96 | 90 | 110 | | | |
| WG555438CCB3 | CCB | 11/23/22 1:30 | | | | U | mg/L | | -0.6 | 0.6 | | | |

**GCC**

ACZ Project ID: ***L77107***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG555198** | | | | | | | | | | | | | |
| WG555198ICV | ICV | 11/18/22 21:42 | II221116-1 | 2 | | 1.937 | mg/L | 97 | 95 | 105 | | | |
| WG555198ICB | ICB | 11/18/22 21:47 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| WG555198PQV | PQV | 11/18/22 21:51 | II221109-2 | .0498 | | .05 | mg/L | 100 | 70 | 130 | | | |
| WG555198SIC | SIC | 11/18/22 21:54 | II221102-3 | 49.9498 | | 47.17 | mg/L | 94 | 1 | 200 | | | |
| WG555198LFB | LFB | 11/18/22 22:00 | II221104-3 | .499 | | .5 | mg/L | 100 | 85 | 115 | | | |
| L77107-07AS | AS | 11/18/22 22:24 | II221104-3 | .499 | .017 | .48 | mg/L | 93 | 85 | 115 | | | |
| L77107-07ASD | ASD | 11/18/22 22:27 | II221104-3 | .499 | .017 | .517 | mg/L | 100 | 85 | 115 | 7 | 20 | |
| WG555198CCV1 | CCV | 11/18/22 22:30 | II221110-1 | 1 | | .979 | mg/L | 98 | 90 | 110 | | | |
| WG555198CCB1 | CCB | 11/18/22 22:33 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| WG555198CCV2 | CCV | 11/18/22 23:07 | II221110-1 | 1 | | .985 | mg/L | 99 | 90 | 110 | | | |
| WG555198CCB2 | CCB | 11/18/22 23:10 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| WG555198CCV3 | CCV | 11/18/22 23:28 | II221110-1 | 1 | | .983 | mg/L | 98 | 90 | 110 | | | |
| WG555198CCB3 | CCB | 11/18/22 23:31 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| **WG555438** | | | | | | | | | | | | | |
| WG555438ICV | ICV | 11/22/22 23:42 | II221116-1 | 2 | | 1.938 | mg/L | 97 | 95 | 105 | | | |
| WG555438ICB | ICB | 11/22/22 23:47 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| WG555438PQV | PQV | 11/22/22 23:50 | II221109-2 | .0498 | | .052 | mg/L | 104 | 70 | 130 | | | |
| WG555438SIC | SIC | 11/22/22 23:53 | II221102-3 | 49.9498 | | 47.23 | mg/L | 95 | 1 | 200 | | | |
| WG555438LFB | LFB | 11/23/22 0:00 | II221104-3 | .499 | | .501 | mg/L | 100 | 85 | 115 | | | |
| WG555438CCV1 | CCV | 11/23/22 0:30 | II221110-1 | 1 | | .975 | mg/L | 98 | 90 | 110 | | | |
| WG555438CCB1 | CCB | 11/23/22 0:33 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| L76621-05AS | AS | 11/23/22 1:00 | II221104-3 | .499 | .319 | .829 | mg/L | 102 | 85 | 115 | | | |
| L76621-05ASD | ASD | 11/23/22 1:03 | II221104-3 | .499 | .319 | .807 | mg/L | 98 | 85 | 115 | 3 | 20 | |
| WG555438CCV2 | CCV | 11/23/22 1:06 | II221110-1 | 1 | | .977 | mg/L | 98 | 90 | 110 | | | |
| WG555438CCB2 | CCB | 11/23/22 1:09 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| WG555438CCV3 | CCV | 11/23/22 1:27 | II221110-1 | 1 | | .981 | mg/L | 98 | 90 | 110 | | | |
| WG555438CCB3 | CCB | 11/23/22 1:30 | | | | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG554864** | | | | | | | | | | | | | |
| WG554864ICV | ICV | 11/14/22 16:01 | HG221114-3 | .005005 | | .00524 | mg/L | 105 | 95 | 105 | | | |
| WG554864ICB | ICB | 11/14/22 16:02 | | | | U | mg/L | | -0.0002 | 0.0002 | | | |
| WG554864PQV | PQV | 11/14/22 16:03 | HG221114-5 | .001001 | | .00099 | mg/L | 99 | 70 | 130 | | | |
| WG554864LRB | LRB | 11/14/22 16:04 | | | | U | mg/L | | -0.00044 | 0.00044 | | | |
| WG554864LFB | LFB | 11/14/22 16:05 | HG221114-6 | .002002 | | .00196 | mg/L | 98 | 85 | 115 | | | |
| L76999-01LFM | LFM | 11/14/22 16:08 | HG221114-6 | .002002 | U | .00215 | mg/L | 107 | 85 | 115 | | | |
| L76999-01LFMD | LFMD | 11/14/22 16:09 | HG221114-6 | .002002 | U | .00209 | mg/L | 104 | 85 | 115 | 3 | 20 | |
| WG554864CCV1 | CCV | 11/14/22 16:12 | HG221114-3 | .005005 | | .00528 | mg/L | 105 | 90 | 110 | | | |
| WG554864CCB1 | CCB | 11/14/22 16:13 | | | | U | mg/L | | -0.0002 | 0.0002 | | | |
| WG554864CCV2 | CCV | 11/14/22 16:24 | HG221114-3 | .005005 | | .00519 | mg/L | 104 | 90 | 110 | | | |
| WG554864CCB2 | CCB | 11/14/22 16:25 | | | | U | mg/L | | -0.0002 | 0.0002 | | | |
| WG554864CCV3 | CCV | 11/14/22 16:32 | HG221114-3 | .005005 | | .00528 | mg/L | 105 | 90 | 110 | | | |
| WG554864CCB3 | CCB | 11/14/22 16:33 | | | | U | mg/L | | -0.0002 | 0.0002 | | | |

**GCC**

ACZ Project ID: ***L77107***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG555198** | | | | | | | | | | | | | |
| WG555198ICV | ICV | 11/18/22 21:42 | II221116-1 | 2 | | 1.9185 | mg/L | 96 | 95 | 105 | | | |
| WG555198ICB | ICB | 11/18/22 21:47 | | | | U | mg/L | | -0.024 | 0.024 | | | |
| WG555198PQV | PQV | 11/18/22 21:51 | II221109-2 | .04016 | | .0424 | mg/L | 106 | 70 | 130 | | | |
| WG555198SIC | SIC | 11/18/22 21:54 | II221102-3 | .1004 | | .1003 | mg/L | 100 | 80 | 120 | | | |
| WG555198LFB | LFB | 11/18/22 22:00 | II221104-3 | .502 | | .4913 | mg/L | 98 | 85 | 115 | | | |
| L77107-07AS | AS | 11/18/22 22:24 | II221104-3 | .502 | .011 | .4635 | mg/L | 90 | 85 | 115 | | | |
| L77107-07ASD | ASD | 11/18/22 22:27 | II221104-3 | .502 | .011 | .4912 | mg/L | 96 | 85 | 115 | 6 | 20 | |
| WG555198CCV1 | CCV | 11/18/22 22:30 | II221110-1 | 1 | | .9669 | mg/L | 97 | 90 | 110 | | | |
| WG555198CCB1 | CCB | 11/18/22 22:33 | | | | U | mg/L | | -0.024 | 0.024 | | | |
| WG555198CCV2 | CCV | 11/18/22 23:07 | II221110-1 | 1 | | .9768 | mg/L | 98 | 90 | 110 | | | |
| WG555198CCB2 | CCB | 11/18/22 23:10 | | | | U | mg/L | | -0.024 | 0.024 | | | |
| WG555198CCV3 | CCV | 11/18/22 23:28 | II221110-1 | 1 | | .9782 | mg/L | 98 | 90 | 110 | | | |
| WG555198CCB3 | CCB | 11/18/22 23:31 | | | | U | mg/L | | -0.024 | 0.024 | | | |
| **WG555438** | | | | | | | | | | | | | |
| WG555438ICV | ICV | 11/22/22 23:42 | II221116-1 | 2 | | 1.9658 | mg/L | 98 | 95 | 105 | | | |
| WG555438ICB | ICB | 11/22/22 23:47 | | | | U | mg/L | | -0.024 | 0.024 | | | |
| WG555438PQV | PQV | 11/22/22 23:50 | II221109-2 | .04016 | | .0455 | mg/L | 113 | 70 | 130 | | | |
| WG555438SIC | SIC | 11/22/22 23:53 | II221102-3 | .1004 | | .0992 | mg/L | 99 | 80 | 120 | | | |
| WG555438LFB | LFB | 11/23/22 0:00 | II221104-3 | .502 | | .5023 | mg/L | 100 | 85 | 115 | | | |
| WG555438CCV1 | CCV | 11/23/22 0:30 | II221110-1 | 1 | | .9886 | mg/L | 99 | 90 | 110 | | | |
| WG555438CCB1 | CCB | 11/23/22 0:33 | | | | U | mg/L | | -0.024 | 0.024 | | | |
| L76621-05AS | AS | 11/23/22 1:00 | II221104-3 | .502 | U | .531 | mg/L | 106 | 85 | 115 | | | |
| L76621-05ASD | ASD | 11/23/22 1:03 | II221104-3 | .502 | U | .5067 | mg/L | 101 | 85 | 115 | 5 | 20 | |
| WG555438CCV2 | CCV | 11/23/22 1:06 | II221110-1 | 1 | | .9811 | mg/L | 98 | 90 | 110 | | | |
| WG555438CCB2 | CCB | 11/23/22 1:09 | | | | U | mg/L | | -0.024 | 0.024 | | | |
| WG555438CCV3 | CCV | 11/23/22 1:27 | II221110-1 | 1 | | .9868 | mg/L | 99 | 90 | 110 | | | |
| WG555438CCB3 | CCB | 11/23/22 1:30 | | | | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG554509** | | | | | | | | | | | | | |
| WG554509ICV | ICV | 11/08/22 23:15 | WI220903-1 | 2.416 | | 2.38 | mg/L | 99 | 90 | 110 | | | |
| WG554509ICB | ICB | 11/08/22 23:17 | | | | U | mg/L | | -0.02 | 0.02 | | | |
| WG554509LFB | LFB | 11/08/22 23:20 | WI220826-7 | 2 | | 2.074 | mg/L | 104 | 90 | 110 | | | |
| L77104-01AS | AS | 11/08/22 23:23 | WI220826-7 | 2 | .37 | 2.457 | mg/L | 104 | 90 | 110 | | | |
| L77105-01DUP | DUP | 11/08/22 23:25 | | | .103 | .101 | mg/L | | | | 2 | 20 | RA |
| WG554509CCV1 | CCV | 11/08/22 23:30 | WI221104-3 | 2 | | 2.024 | mg/L | 101 | 90 | 110 | | | |
| WG554509CCB1 | CCB | 11/08/22 23:34 | | | | U | mg/L | | -0.02 | 0.02 | | | |
| L77107-05AS | AS | 11/08/22 23:42 | WI220826-7 | 2 | U | 2.05 | mg/L | 103 | 90 | 110 | | | |
| L77107-06DUP | DUP | 11/08/22 23:45 | | | U | U | mg/L | | | | 0 | 20 | RA |
| WG554509CCV2 | CCV | 11/08/22 23:47 | WI221104-3 | 2 | | 2.018 | mg/L | 101 | 90 | 110 | | | |
| WG554509CCB2 | CCB | 11/08/22 23:51 | | | | U | mg/L | | -0.02 | 0.02 | | | |
| WG554509CCV3 | CCV | 11/09/22 0:05 | WI221104-3 | 2 | | 2.013 | mg/L | 101 | 90 | 110 | | | |
| WG554509CCB3 | CCB | 11/09/22 0:08 | | | | U | mg/L | | -0.02 | 0.02 | | | |
| WG554509CCV4 | CCV | 11/09/22 0:18 | WI221104-3 | 2 | | 2.012 | mg/L | 101 | 90 | 110 | | | |
| WG554509CCB4 | CCB | 11/09/22 0:21 | | | | U | mg/L | | -0.02 | 0.02 | | | |

**GCC**

ACZ Project ID: ***L77107***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG554509** | | | | | | | | | | | | | |
| WG554509ICV | ICV | 11/08/22 23:15 | WI220903-1 | .608 | | .589 | mg/L | 97 | 90 | 110 | | | |
| WG554509ICB | ICB | 11/08/22 23:17 | | | | U | mg/L | | -0.01 | 0.01 | | | |
| WG554509LFB | LFB | 11/08/22 23:20 | WI220826-7 | 1 | | 1.04 | mg/L | 104 | 90 | 110 | | | |
| L77104-01AS | AS | 11/08/22 23:23 | WI220826-7 | 1 | .02 | 1.066 | mg/L | 105 | 90 | 110 | | | |
| L77105-01DUP | DUP | 11/08/22 23:25 | | | U | U | mg/L | | | | 0 | 20 | RA |
| WG554509CCV1 | CCV | 11/08/22 23:30 | WI221104-3 | 1 | | .994 | mg/L | 99 | 90 | 110 | | | |
| WG554509CCB1 | CCB | 11/08/22 23:34 | | | | U | mg/L | | -0.01 | 0.01 | | | |
| L77107-05AS | AS | 11/08/22 23:42 | WI220826-7 | 1 | U | 1.037 | mg/L | 104 | 90 | 110 | | | |
| L77107-06DUP | DUP | 11/08/22 23:45 | | | U | U | mg/L | | | | 0 | 20 | RA |
| WG554509CCV2 | CCV | 11/08/22 23:47 | WI221104-3 | 1 | | 1.006 | mg/L | 101 | 90 | 110 | | | |
| WG554509CCB2 | CCB | 11/08/22 23:51 | | | | U | mg/L | | -0.01 | 0.01 | | | |
| WG554509CCV3 | CCV | 11/09/22 0:05 | WI221104-3 | 1 | | 1.006 | mg/L | 101 | 90 | 110 | | | |
| WG554509CCB3 | CCB | 11/09/22 0:08 | | | | U | mg/L | | -0.01 | 0.01 | | | |
| WG554509CCV4 | CCV | 11/09/22 0:18 | WI221104-3 | 1 | | 1.002 | mg/L | 100 | 90 | 110 | | | |
| WG554509CCB4 | CCB | 11/09/22 0:21 | | | | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG555198** | | | | | | | | | | | | | |
| WG555198ICV | ICV | 11/18/22 21:42 | II221116-1 | 20 | | 19.06 | mg/L | 95 | 95 | 105 | | | |
| WG555198ICB | ICB | 11/18/22 21:47 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| WG555198PQV | PQV | 11/18/22 21:51 | II221109-2 | 1.005 | | 1.09 | mg/L | 108 | 70 | 130 | | | |
| WG555198SIC | SIC | 11/18/22 21:54 | II221102-3 | 1.005 | | .95 | mg/L | 95 | 80 | 120 | | | |
| WG555198LFB | LFB | 11/18/22 22:00 | II221104-3 | 99.95798 | | 95.87 | mg/L | 96 | 85 | 115 | | | |
| L77107-07AS | AS | 11/18/22 22:24 | II221104-3 | 99.95798 | 3.65 | 97.77 | mg/L | 94 | 85 | 115 | | | |
| L77107-07ASD | ASD | 11/18/22 22:27 | II221104-3 | 99.95798 | 3.65 | 100.2 | mg/L | 97 | 85 | 115 | 2 | 20 | |
| WG555198CCV1 | CCV | 11/18/22 22:30 | II221110-1 | 10 | | 9.66 | mg/L | 97 | 90 | 110 | | | |
| WG555198CCB1 | CCB | 11/18/22 22:33 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| WG555198CCV2 | CCV | 11/18/22 23:07 | II221110-1 | 10 | | 9.67 | mg/L | 97 | 90 | 110 | | | |
| WG555198CCB2 | CCB | 11/18/22 23:10 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| WG555198CCV3 | CCV | 11/18/22 23:28 | II221110-1 | 10 | | 9.68 | mg/L | 97 | 90 | 110 | | | |
| WG555198CCB3 | CCB | 11/18/22 23:31 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| **WG555438** | | | | | | | | | | | | | |
| WG555438ICV | ICV | 11/22/22 23:42 | II221116-1 | 20 | | 19.37 | mg/L | 97 | 95 | 105 | | | |
| WG555438ICB | ICB | 11/22/22 23:47 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| WG555438PQV | PQV | 11/22/22 23:50 | II221109-2 | 1.005 | | 1.22 | mg/L | 121 | 70 | 130 | | | |
| WG555438SIC | SIC | 11/22/22 23:53 | II221102-3 | 1.005 | | 1 | mg/L | 100 | 80 | 120 | | | |
| WG555438LFB | LFB | 11/23/22 0:00 | II221104-3 | 99.95798 | | 96.78 | mg/L | 97 | 85 | 115 | | | |
| WG555438CCV1 | CCV | 11/23/22 0:30 | II221110-1 | 10 | | 9.77 | mg/L | 98 | 90 | 110 | | | |
| WG555438CCB1 | CCB | 11/23/22 0:33 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| L76621-05AS | AS | 11/23/22 1:00 | II221104-3 | 99.95798 | 9.08 | 105.5 | mg/L | 96 | 85 | 115 | | | |
| L76621-05ASD | ASD | 11/23/22 1:03 | II221104-3 | 99.95798 | 9.08 | 104.2 | mg/L | 95 | 85 | 115 | 1 | 20 | |
| WG555438CCV2 | CCV | 11/23/22 1:06 | II221110-1 | 10 | | 9.63 | mg/L | 96 | 90 | 110 | | | |
| WG555438CCB2 | CCB | 11/23/22 1:09 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| WG555438CCV3 | CCV | 11/23/22 1:27 | II221110-1 | 10 | | 9.77 | mg/L | 98 | 90 | 110 | | | |
| WG555438CCB3 | CCB | 11/23/22 1:30 | | | | .2 | mg/L | | -0.6 | 0.6 | | | |

**GCC**

ACZ Project ID: ***L77107***

*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.*

**Residue, Filterable (TDS) @180C** SM2540C

| ACZ ID | Type | Analyzed | PCN/SCN | QC | Sample | Found | Units | Rec% | Lower | Upper | RPD | Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG554698** | | | | | | | | | | | | | |
| WG554698PBW | PBW | 11/10/22 12:42 | | | | U | mg/L | | -20 | 20 | | | |
| WG554698LCSW | LCSW | 11/10/22 12:44 | PCN623306 | 1000 | | 978 | mg/L | 98 | 80 | 120 | | | |
| L77107-04DUP | DUP | 11/10/22 13:13 | | | 3840 | 3880 | mg/L | | | | 1 | 10 | |
| L77110-06DUP | DUP | 11/10/22 13:42 | | | 4500 | 4412 | mg/L | | | | 2 | 10 | |
| **WG554896** | | | | | | | | | | | | | |
| WG554896PBW | PBW | 11/14/22 13:04 | | | | U | mg/L | | -20 | 20 | | | |
| WG554896LCSW | LCSW | 11/14/22 13:06 | PCN623306 | 1000 | | 974 | mg/L | 97 | 80 | 120 | | | |
| L77179-01DUP | DUP | 11/14/22 13:27 | | | 346 | 330 | mg/L | | | | 5 | 10 | |

**Selenium, dissolved** M200.8 ICP-MS

| ACZ ID | Type | Analyzed | PCN/SCN | QC | Sample | Found | Units | Rec% | Lower | Upper | RPD | Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG555029** | | | | | | | | | | | | | |
| WG555029ICV | ICV | 11/15/22 18:43 | MS220930-3 | .05 | | .05212 | mg/L | 104 | 90 | 110 | | | |
| WG555029ICB | ICB | 11/15/22 18:45 | | | | U | mg/L | | -0.00022 | 0.00022 | | | |
| WG555029LFB | LFB | 11/15/22 18:47 | MS221101-6 | .05005 | | .05134 | mg/L | 103 | 85 | 115 | | | |
| WG555029CCV1 | CCV | 11/15/22 19:06 | MS221025-2 | .1001 | | .10014 | mg/L | 100 | 90 | 110 | | | |
| WG555029CCB1 | CCB | 11/15/22 19:08 | | | | U | mg/L | | -0.0003 | 0.0003 | | | |
| L77107-03AS | AS | 11/15/22 19:25 | MS221101-6 | .1001 | | .09765 | mg/L | 98 | 70 | 130 | | | |
| L77107-03ASD | ASD | 11/15/22 19:27 | MS221101-6 | .1001 | | .10283 | mg/L | 103 | 70 | 130 | 5 | 20 | |
| WG555029CCV2 | CCV | 11/15/22 19:28 | MS221025-2 | .1001 | | .10343 | mg/L | 103 | 90 | 110 | | | |
| WG555029CCB2 | CCB | 11/15/22 19:30 | | | | .00023 | mg/L | | -0.0003 | 0.0003 | | | |
| WG555029CCV3 | CCV | 11/15/22 19:42 | MS221025-2 | .1001 | | .10773 | mg/L | 108 | 90 | 110 | | | |
| WG555029CCB3 | CCB | 11/15/22 19:44 | | | | .00457 | mg/L | | -0.0003 | 0.0003 | | | BB BE |
| **WG555232** | | | | | | | | | | | | | |
| WG555232ICV | ICV | 11/17/22 19:44 | MS220930-3 | .05 | | .05246 | mg/L | 105 | 90 | 110 | | | |
| WG555232ICB | ICB | 11/17/22 19:45 | | | | U | mg/L | | -0.00022 | 0.00022 | | | |
| WG555232LFB | LFB | 11/17/22 19:47 | MS221101-6 | .05005 | | .05144 | mg/L | 103 | 85 | 115 | | | |
| WG555232CCV1 | CCV | 11/17/22 20:06 | MS221025-2 | .1001 | | .10103 | mg/L | 101 | 90 | 110 | | | |
| WG555232CCB1 | CCB | 11/17/22 20:08 | | | | U | mg/L | | -0.0003 | 0.0003 | | | |
| L77110-01AS | AS | 11/17/22 20:25 | MS221101-6 | .1001 | .004 | .10878 | mg/L | 105 | 70 | 130 | | | |
| L77110-01ASD | ASD | 11/17/22 20:27 | MS221101-6 | .1001 | .004 | .10815 | mg/L | 104 | 70 | 130 | 1 | 20 | |
| WG555232CCV2 | CCV | 11/17/22 20:28 | MS221025-2 | .1001 | | .10509 | mg/L | 105 | 90 | 110 | | | |
| WG555232CCB2 | CCB | 11/17/22 20:30 | | | | U | mg/L | | -0.0003 | 0.0003 | | | |
| WG555232CCV3 | CCV | 11/17/22 20:41 | MS221025-2 | .1001 | | .1022 | mg/L | 102 | 90 | 110 | | | |
| WG555232CCB3 | CCB | 11/17/22 20:43 | | | | U | mg/L | | -0.0003 | 0.0003 | | | |
| **WG555421** | | | | | | | | | | | | | |
| WG555421ICV | ICV | 11/22/22 11:45 | MS220930-3 | .05 | | .05061 | mg/L | 101 | 90 | 110 | | | |
| WG555421ICB | ICB | 11/22/22 11:47 | | | | U | mg/L | | -0.00022 | 0.00022 | | | |
| WG555421LFB | LFB | 11/22/22 11:49 | MS221101-6 | .05005 | | .04956 | mg/L | 99 | 85 | 115 | | | |
| WG555421CCV1 | CCV | 11/22/22 12:03 | MS221025-2 | .1001 | | .10016 | mg/L | 100 | 90 | 110 | | | |
| WG555421CCB1 | CCB | 11/22/22 12:05 | | | | U | mg/L | | -0.0003 | 0.0003 | | | |
| WG555421CCV2 | CCV | 11/22/22 12:25 | MS221025-2 | .1001 | | .09909 | mg/L | 99 | 90 | 110 | | | |
| WG555421CCB2 | CCB | 11/22/22 12:27 | | | | U | mg/L | | -0.0003 | 0.0003 | | | |
| L77132-04AS | AS | 11/22/22 12:29 | MS221101-6 | .05005 | U | .05352 | mg/L | 107 | 70 | 130 | | | |
| L77132-04ASD | ASD | 11/22/22 12:30 | MS221101-6 | .05005 | U | .053 | mg/L | 106 | 70 | 130 | 1 | 20 | |
| WG555421CCV3 | CCV | 11/22/22 12:41 | MS221025-2 | .1001 | | .09873 | mg/L | 99 | 90 | 110 | | | |
| WG555421CCB3 | CCB | 11/22/22 12:43 | | | | U | mg/L | | -0.0003 | 0.0003 | | | |

**GCC**

ACZ Project ID: ***L77107***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG555198** | | | | | | | | | | | | | |
| WG555198ICV | ICV | 11/18/22 21:42 | II221116-1 | 100 | | 96 | mg/L | 96 | 95 | 105 | | | |
| WG555198ICB | ICB | 11/18/22 21:47 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| WG555198PQV | PQV | 11/18/22 21:51 | II221109-2 | 1.002 | | 1.01 | mg/L | 101 | 70 | 130 | | | |
| WG555198SIC | SIC | 11/18/22 21:54 | II221102-3 | 1.002 | | 1.02 | mg/L | 102 | 80 | 120 | | | |
| WG555198LFB | LFB | 11/18/22 22:00 | II221104-3 | 100.0023 | | 95.12 | mg/L | 95 | 85 | 115 | | | |
| L77107-07AS | AS | 11/18/22 22:24 | II221104-3 | 100.0023 | 412 | 503.9 | mg/L | 92 | 85 | 115 | | | |
| L77107-07ASD | ASD | 11/18/22 22:27 | II221104-3 | 100.0023 | 412 | 499.2 | mg/L | 87 | 85 | 115 | 1 | 20 | |
| WG555198CCV1 | CCV | 11/18/22 22:30 | II221110-1 | 50 | | 48.53 | mg/L | 97 | 90 | 110 | | | |
| WG555198CCB1 | CCB | 11/18/22 22:33 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| WG555198CCV2 | CCV | 11/18/22 23:07 | II221110-1 | 50 | | 48.71 | mg/L | 97 | 90 | 110 | | | |
| WG555198CCB2 | CCB | 11/18/22 23:10 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| WG555198CCV3 | CCV | 11/18/22 23:28 | II221110-1 | 50 | | 48.59 | mg/L | 97 | 90 | 110 | | | |
| WG555198CCB3 | CCB | 11/18/22 23:31 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| **WG555438** | | | | | | | | | | | | | |
| WG555438ICV | ICV | 11/22/22 23:42 | II221116-1 | 100 | | 97.93 | mg/L | 98 | 95 | 105 | | | |
| WG555438ICB | ICB | 11/22/22 23:47 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| WG555438PQV | PQV | 11/22/22 23:50 | II221109-2 | 1.002 | | 1.11 | mg/L | 111 | 70 | 130 | | | |
| WG555438SIC | SIC | 11/22/22 23:53 | II221102-3 | 1.002 | | 1.08 | mg/L | 108 | 80 | 120 | | | |
| WG555438LFB | LFB | 11/23/22 0:00 | II221104-3 | 100.0023 | | 96.74 | mg/L | 97 | 85 | 115 | | | |
| WG555438CCV1 | CCV | 11/23/22 0:30 | II221110-1 | 50 | | 48.7 | mg/L | 97 | 90 | 110 | | | |
| WG555438CCB1 | CCB | 11/23/22 0:33 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| L76621-05AS | AS | 11/23/22 1:00 | II221104-3 | 100.0023 | 26.9 | 120.9 | mg/L | 94 | 85 | 115 | | | |
| L76621-05ASD | ASD | 11/23/22 1:03 | II221104-3 | 100.0023 | 26.9 | 120.9 | mg/L | 94 | 85 | 115 | 0 | 20 | |
| WG555438CCV2 | CCV | 11/23/22 1:06 | II221110-1 | 50 | | 48.78 | mg/L | 98 | 90 | 110 | | | |
| WG555438CCB2 | CCB | 11/23/22 1:09 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| WG555438CCV3 | CCV | 11/23/22 1:27 | II221110-1 | 50 | | 48.74 | mg/L | 97 | 90 | 110 | | | |
| WG555438CCB3 | CCB | 11/23/22 1:30 | | | | U | mg/L | | -0.6 | 0.6 | | | |

**GCC**

ACZ Project ID: ***L77107***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG555297** | | | | | | | | | | | | | |
| WG555297ICB | ICB | 11/18/22 9:37 | | | | U | mg/L | | -3 | 3 | | | |
| WG555297ICV | ICV | 11/18/22 9:37 | WI221116-8 | 20 | | 19.4 | mg/L | 97 | 90 | 110 | | | |
| WG555297CCV1 | CCV | 11/18/22 15:53 | WI221116-9 | 24.425 | | 24.9 | mg/L | 102 | 90 | 110 | | | |
| WG555297CCB1 | CCB | 11/18/22 15:53 | | | | U | mg/L | | -3 | 3 | | | |
| WG555297LFB | LFB | 11/18/22 15:53 | WI220830-3 | 10 | | 9.3 | mg/L | 93 | 90 | 110 | | | |
| WG555297CCV2 | CCV | 11/18/22 15:55 | WI221116-9 | 24.425 | | 24.8 | mg/L | 102 | 90 | 110 | | | |
| WG555297CCB2 | CCB | 11/18/22 15:55 | | | | U | mg/L | | -3 | 3 | | | |
| WG555297CCV3 | CCV | 11/18/22 16:49 | WI221116-9 | 24.425 | | 24.8 | mg/L | 102 | 90 | 110 | | | |
| WG555297CCB3 | CCB | 11/18/22 16:49 | | | | 1 | mg/L | | -3 | 3 | | | |
| WG555297CCV4 | CCV | 11/18/22 16:51 | WI221116-9 | 24.425 | | 24.7 | mg/L | 101 | 90 | 110 | | | |
| WG555297CCB4 | CCB | 11/18/22 16:51 | | | | U | mg/L | | -3 | 3 | | | |
| WG555297CCV5 | CCV | 11/18/22 17:13 | WI221116-9 | 24.425 | | 24.7 | mg/L | 101 | 90 | 110 | | | |
| WG555297CCB5 | CCB | 11/18/22 17:13 | | | | U | mg/L | | -3 | 3 | | | |
| L77007-01DUP | DUP | 11/18/22 17:13 | | | 787 | 782.1 | mg/L | | | | 1 | 20 | |
| WG555297CCV6 | CCV | 11/18/22 17:15 | WI221116-9 | 24.425 | | 24.7 | mg/L | 101 | 90 | 110 | | | |
| WG555297CCB6 | CCB | 11/18/22 17:15 | | | | U | mg/L | | -3 | 3 | | | |
| WG555297CCV7 | CCV | 11/18/22 17:18 | WI221116-9 | 24.425 | | 24.6 | mg/L | 101 | 90 | 110 | | | |
| WG555297CCB7 | CCB | 11/18/22 17:18 | | | | U | mg/L | | -3 | 3 | | | |
| WG555297CCV8 | CCV | 11/18/22 17:21 | WI221116-9 | 24.425 | | 24.7 | mg/L | 101 | 90 | 110 | | | |
| WG555297CCB8 | CCB | 11/18/22 17:21 | | | | U | mg/L | | -3 | 3 | | | |
| L77107-01AS | AS | 11/18/22 17:26 | SO4TURB | 10.0000008 | 3180 | 3324.6 | mg/L | 1446 | 90 | 110 | | | M3 |
| WG555297CCV9 | CCV | 11/18/22 17:26 | WI221116-9 | 24.425 | | 24.4 | mg/L | 100 | 90 | 110 | | | |
| WG555297CCB9 | CCB | 11/18/22 17:26 | | | | U | mg/L | | -3 | 3 | | | |
| WG555297CCV10 | CCV | 11/18/22 17:28 | WI221116-9 | 24.425 | | 24.5 | mg/L | 100 | 90 | 110 | | | |
| WG555297CCB10 | CCB | 11/18/22 17:28 | | | | U | mg/L | | -3 | 3 | | | |
| WG555297CCV11 | CCV | 11/18/22 17:33 | WI221116-9 | 24.425 | | 24.6 | mg/L | 101 | 90 | 110 | | | |
| WG555297CCB11 | CCB | 11/18/22 17:33 | | | | U | mg/L | | -3 | 3 | | | |
| WG555297CCV12 | CCV | 11/18/22 18:03 | WI221116-9 | 24.425 | | 24.6 | mg/L | 101 | 90 | 110 | | | |
| WG555297CCB12 | CCB | 11/18/22 18:03 | | | | U | mg/L | | -3 | 3 | | | |
| WG555297CCV13 | CCV | 11/18/22 18:10 | WI221116-9 | 24.425 | | 24.7 | mg/L | 101 | 90 | 110 | | | |
| WG555297CCB13 | CCB | 11/18/22 18:10 | | | | U | mg/L | | -3 | 3 | | | |

**GCC**

ACZ Project ID: ***L77107***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG555198** | | | | | | | | | | | | | |
| WG555198ICV | ICV | 11/18/22 21:42 | II221116-1 | 2 | | 2.001 | mg/L | 100 | 95 | 105 | | | |
| WG555198ICB | ICB | 11/18/22 21:47 | | | | U | mg/L | | -0.015 | 0.015 | | | |
| WG555198PQV | PQV | 11/18/22 21:51 | II221109-2 | .025025 | | .024 | mg/L | 96 | 70 | 130 | | | |
| WG555198SIC | SIC | 11/18/22 21:54 | II221102-3 | .1001 | | .101 | mg/L | 101 | 80 | 120 | | | |
| WG555198LFB | LFB | 11/18/22 22:00 | II221104-3 | .5005 | | .4995 | mg/L | 100 | 85 | 115 | | | |
| L77107-07AS | AS | 11/18/22 22:24 | II221104-3 | .5005 | U | .4965 | mg/L | 99 | 85 | 115 | | | |
| L77107-07ASD | ASD | 11/18/22 22:27 | II221104-3 | .5005 | U | .505 | mg/L | 101 | 85 | 115 | 2 | 20 | |
| WG555198CCV1 | CCV | 11/18/22 22:30 | II221110-1 | 1 | | 1.005 | mg/L | 101 | 90 | 110 | | | |
| WG555198CCB1 | CCB | 11/18/22 22:33 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| WG555198CCV2 | CCV | 11/18/22 23:07 | II221110-1 | 1 | | 1.013 | mg/L | 101 | 90 | 110 | | | |
| WG555198CCB2 | CCB | 11/18/22 23:10 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| WG555198CCV3 | CCV | 11/18/22 23:28 | II221110-1 | 1 | | 1.015 | mg/L | 102 | 90 | 110 | | | |
| WG555198CCB3 | CCB | 11/18/22 23:31 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| **WG555438** | | | | | | | | | | | | | |
| WG555438ICV | ICV | 11/22/22 23:42 | II221116-1 | 2 | | 2.007 | mg/L | 100 | 95 | 105 | | | |
| WG555438ICB | ICB | 11/22/22 23:47 | | | | U | mg/L | | -0.015 | 0.015 | | | |
| WG555438PQV | PQV | 11/22/22 23:50 | II221109-2 | .025025 | | .023 | mg/L | 92 | 70 | 130 | | | |
| WG555438SIC | SIC | 11/22/22 23:53 | II221102-3 | .1001 | | .096 | mg/L | 96 | 80 | 120 | | | |
| WG555438LFB | LFB | 11/23/22 0:00 | II221104-3 | .5005 | | .5001 | mg/L | 100 | 85 | 115 | | | |
| WG555438CCV1 | CCV | 11/23/22 0:30 | II221110-1 | 1 | | 1.001 | mg/L | 100 | 90 | 110 | | | |
| WG555438CCB1 | CCB | 11/23/22 0:33 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| L76621-05AS | AS | 11/23/22 1:00 | II221104-3 | .5005 | U | .498 | mg/L | 100 | 85 | 115 | | | |
| L76621-05ASD | ASD | 11/23/22 1:03 | II221104-3 | .5005 | U | .492 | mg/L | 98 | 85 | 115 | 1 | 20 | |
| WG555438CCV2 | CCV | 11/23/22 1:06 | II221110-1 | 1 | | .997 | mg/L | 100 | 90 | 110 | | | |
| WG555438CCB2 | CCB | 11/23/22 1:09 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| WG555438CCV3 | CCV | 11/23/22 1:27 | II221110-1 | 1 | | .999 | mg/L | 100 | 90 | 110 | | | |
| WG555438CCB3 | CCB | 11/23/22 1:30 | | | | U | mg/L | | -0.03 | 0.03 | | | |

**GCC**

ACZ Project ID: ***L77107***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG555198** | | | | | | | | | | | | | |
| WG555198ICV | ICV | 11/18/22 21:42 | II221116-1 | 2 | | 1.942 | mg/L | 97 | 95 | 105 | | | |
| WG555198ICB | ICB | 11/18/22 21:47 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| WG555198PQV | PQV | 11/18/22 21:51 | II221109-2 | .0501 | | .046 | mg/L | 92 | 70 | 130 | | | |
| WG555198SIC | SIC | 11/18/22 21:54 | II221102-3 | .1002 | | .098 | mg/L | 98 | 80 | 120 | | | |
| WG555198LFB | LFB | 11/18/22 22:00 | II221104-3 | .50045 | | .504 | mg/L | 101 | 85 | 115 | | | |
| L77107-07AS | AS | 11/18/22 22:24 | II221104-3 | .50045 | U | .483 | mg/L | 97 | 85 | 115 | | | |
| L77107-07ASD | ASD | 11/18/22 22:27 | II221104-3 | .50045 | U | .493 | mg/L | 99 | 85 | 115 | 2 | 20 | |
| WG555198CCV1 | CCV | 11/18/22 22:30 | II221110-1 | 1 | | .971 | mg/L | 97 | 90 | 110 | | | |
| WG555198CCB1 | CCB | 11/18/22 22:33 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| WG555198CCV2 | CCV | 11/18/22 23:07 | II221110-1 | 1 | | .983 | mg/L | 98 | 90 | 110 | | | |
| WG555198CCB2 | CCB | 11/18/22 23:10 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| WG555198CCV3 | CCV | 11/18/22 23:28 | II221110-1 | 1 | | .984 | mg/L | 98 | 90 | 110 | | | |
| WG555198CCB3 | CCB | 11/18/22 23:31 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| **WG555438** | | | | | | | | | | | | | |
| WG555438ICV | ICV | 11/22/22 23:42 | II221116-1 | 2 | | 1.893 | mg/L | 95 | 95 | 105 | | | |
| WG555438ICB | ICB | 11/22/22 23:47 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| WG555438PQV | PQV | 11/22/22 23:50 | II221109-2 | .0501 | | .06 | mg/L | 120 | 70 | 130 | | | |
| WG555438SIC | SIC | 11/22/22 23:53 | II221102-3 | .1002 | | .113 | mg/L | 113 | 80 | 120 | | | |
| WG555438LFB | LFB | 11/23/22 0:00 | II221104-3 | .50045 | | .489 | mg/L | 98 | 85 | 115 | | | |
| WG555438CCV1 | CCV | 11/23/22 0:30 | II221110-1 | 1 | | .954 | mg/L | 95 | 90 | 110 | | | |
| WG555438CCB1 | CCB | 11/23/22 0:33 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| L76621-05AS | AS | 11/23/22 1:00 | II221104-3 | .50045 | U | .486 | mg/L | 97 | 85 | 115 | | | |
| L76621-05ASD | ASD | 11/23/22 1:03 | II221104-3 | .50045 | U | .483 | mg/L | 97 | 85 | 115 | 1 | 20 | |
| WG555438CCV2 | CCV | 11/23/22 1:06 | II221110-1 | 1 | | .93 | mg/L | 93 | 90 | 110 | | | |
| WG555438CCB2 | CCB | 11/23/22 1:09 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| WG555438CCV3 | CCV | 11/23/22 1:27 | II221110-1 | 1 | | .927 | mg/L | 93 | 90 | 110 | | | |
| WG555438CCB3 | CCB | 11/23/22 1:30 | | | | U | mg/L | | -0.06 | 0.06 | | | |

**GCC Rio Grande** ACZ Project ID: ***L77107***

| ACZ ID | WORKNUM | PARAMETER | METHOD | QUAL | DESCRIPTION |
|---|---|---|---|---|---|
| **L77107-01** | WG555373 | Bicarbonate as CaCO3 | SM2320B - Titration | Q6 | Sample was received above recommended temperature. |
| | | Carbonate as CaCO3 | SM2320B - Titration | Q6 | Sample was received above recommended temperature. |
| | WG555050 | Chloride | SM4500Cl-E | Q6 | Sample was received above recommended temperature. |
| | WG555198 | Copper, dissolved | M200.7 ICP | MA | Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits. |
| | WG555874 | Fluoride | SM4500F-C | M2 | Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable. |
| | | | SM4500F-C | Q6 | Sample was received above recommended temperature. |
| | WG555373 | Hydroxide as CaCO3 | SM2320B - Titration | Q6 | Sample was received above recommended temperature. |
| | WG554509 | Nitrate/Nitrite as N, dissolved | M353.2 - Automated Cadmium Reduction | Q6 | Sample was received above recommended temperature. |
| | | | 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 | Q6 | Sample was received above recommended temperature. |
| | | | 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). |
| | WG554698 | Residue, Filterable (TDS) @180C | SM2540C | Q6 | Sample was received above recommended temperature. |
| | WG555297 | 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. |
| | | | D516-02/-07/-11 - TURBIDIMETRIC | Q6 | Sample was received above recommended temperature. |
| | WG555373 | Total Alkalinity | SM2320B - Titration | Q6 | Sample was received above recommended temperature. |
| **L77107-02** | WG555373 | Bicarbonate as CaCO3 | SM2320B - Titration | Q6 | Sample was received above recommended temperature. |
| | | Carbonate as CaCO3 | SM2320B - Titration | Q6 | Sample was received above recommended temperature. |
| | WG555050 | Chloride | SM4500Cl-E | Q6 | Sample was received above recommended temperature. |
| | WG555198 | Copper, dissolved | M200.7 ICP | MA | Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits. |
| | WG555874 | Fluoride | SM4500F-C | M2 | Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable. |
| | | | SM4500F-C | Q6 | Sample was received above recommended temperature. |
| | WG555373 | Hydroxide as CaCO3 | SM2320B - Titration | Q6 | Sample was received above recommended temperature. |
| | WG554509 | Nitrate/Nitrite as N, dissolved | M353.2 - Automated Cadmium Reduction | Q6 | Sample was received above recommended temperature. |
| | | | 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 | Q6 | Sample was received above recommended temperature. |
| | | | 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). |
| | WG554698 | Residue, Filterable (TDS) @180C | SM2540C | Q6 | Sample was received above recommended temperature. |
| | WG555297 | 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. |
| | | | D516-02/-07/-11 - TURBIDIMETRIC | Q6 | Sample was received above recommended temperature. |
| | WG555373 | Total Alkalinity | SM2320B - Titration | Q6 | Sample was received above recommended temperature. |

**GCC Rio Grande** ACZ Project ID: ***L77107***

| ACZ ID | WORKNUM | PARAMETER | METHOD | QUAL | DESCRIPTION |
|---|---|---|---|---|---|
| **L77107-03** | WG555373 | Bicarbonate as CaCO3 | SM2320B - Titration | Q6 | Sample was received above recommended temperature. |
| | | Carbonate as CaCO3 | SM2320B - Titration | Q6 | Sample was received above recommended temperature. |
| | WG555050 | Chloride | SM4500Cl-E | Q6 | Sample was received above recommended temperature. |
| | WG555198 | Copper, dissolved | M200.7 ICP | MA | Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits. |
| | WG555874 | Fluoride | SM4500F-C | M2 | Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable. |
| | | | SM4500F-C | Q6 | Sample was received above recommended temperature. |
| | WG555373 | Hydroxide as CaCO3 | SM2320B - Titration | Q6 | Sample was received above recommended temperature. |
| | WG554509 | Nitrate/Nitrite as N, dissolved | M353.2 - Automated Cadmium Reduction | Q6 | Sample was received above recommended temperature. |
| | | | 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 | Q6 | Sample was received above recommended temperature. |
| | | | 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). |
| | WG554698 | Residue, Filterable (TDS) @180C | SM2540C | Q6 | Sample was received above recommended temperature. |
| | WG555232 | Selenium, dissolved | M200.8 ICP-MS | DB | Sample required dilution due to low bias result. |
| | WG555297 | 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. |
| | | | D516-02/-07/-11 - TURBIDIMETRIC | Q6 | Sample was received above recommended temperature. |
| | WG555373 | Total Alkalinity | SM2320B - Titration | Q6 | Sample was received above recommended temperature. |
| **L77107-04** | WG555373 | Bicarbonate as CaCO3 | SM2320B - Titration | Q6 | Sample was received above recommended temperature. |
| | | Carbonate as CaCO3 | SM2320B - Titration | Q6 | Sample was received above recommended temperature. |
| | WG555050 | Chloride | SM4500Cl-E | Q6 | Sample was received above recommended temperature. |
| | WG555198 | Copper, dissolved | M200.7 ICP | MA | Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits. |
| | WG555874 | Fluoride | SM4500F-C | M2 | Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable. |
| | | | SM4500F-C | Q6 | Sample was received above recommended temperature. |
| | WG555373 | Hydroxide as CaCO3 | SM2320B - Titration | Q6 | Sample was received above recommended temperature. |
| | WG554509 | Nitrate/Nitrite as N, dissolved | M353.2 - Automated Cadmium Reduction | Q6 | Sample was received above recommended temperature. |
| | | | 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 | Q6 | Sample was received above recommended temperature. |
| | | | 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). |
| | WG554698 | Residue, Filterable (TDS) @180C | SM2540C | Q6 | Sample was received above recommended temperature. |
| | WG555232 | Selenium, dissolved | M200.8 ICP-MS | DB | Sample required dilution due to low bias result. |
| | WG555297 | 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. |
| | | | D516-02/-07/-11 - TURBIDIMETRIC | Q6 | Sample was received above recommended temperature. |
| | WG555373 | Total Alkalinity | SM2320B - Titration | Q6 | Sample was received above recommended temperature. |

**GCC Rio Grande** ACZ Project ID: ***L77107***

| ACZ ID | WORKNUM | PARAMETER | METHOD | QUAL | DESCRIPTION |
|---|---|---|---|---|---|
| **L77107-05** | WG555373 | Bicarbonate as CaCO3 | SM2320B - Titration | Q6 | Sample was received above recommended temperature. |
| | | Carbonate as CaCO3 | SM2320B - Titration | Q6 | Sample was received above recommended temperature. |
| | WG555050 | Chloride | SM4500Cl-E | Q6 | Sample was received above recommended temperature. |
| | WG555198 | Copper, dissolved | M200.7 ICP | MA | Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits. |
| | WG555874 | Fluoride | SM4500F-C | M2 | Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable. |
| | | | SM4500F-C | Q6 | Sample was received above recommended temperature. |
| | WG555373 | Hydroxide as CaCO3 | SM2320B - Titration | Q6 | Sample was received above recommended temperature. |
| | WG554509 | Nitrate/Nitrite as N, dissolved | M353.2 - Automated Cadmium Reduction | Q6 | Sample was received above recommended temperature. |
| | | | 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 | Q6 | Sample was received above recommended temperature. |
| | | | 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). |
| | WG554896 | Residue, Filterable (TDS) @180C | SM2540C | Q6 | Sample was received above recommended temperature. |
| | WG555029 | 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]. |
| | WG555297 | 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. |
| | | | D516-02/-07/-11 - TURBIDIMETRIC | Q6 | Sample was received above recommended temperature. |
| | WG555373 | Total Alkalinity | SM2320B - Titration | Q6 | Sample was received above recommended temperature. |
| **L77107-06** | WG555373 | Bicarbonate as CaCO3 | SM2320B - Titration | Q6 | Sample was received above recommended temperature. |
| | | Carbonate as CaCO3 | SM2320B - Titration | Q6 | Sample was received above recommended temperature. |
| | WG555050 | Chloride | SM4500Cl-E | Q6 | Sample was received above recommended temperature. |
| | WG555198 | Copper, dissolved | M200.7 ICP | MA | Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits. |
| | WG555911 | Fluoride | SM4500F-C | Q6 | Sample was received above recommended temperature. |
| | WG555373 | Hydroxide as CaCO3 | SM2320B - Titration | Q6 | Sample was received above recommended temperature. |
| | WG554509 | Nitrate/Nitrite as N, dissolved | M353.2 - Automated Cadmium Reduction | Q6 | Sample was received above recommended temperature. |
| | | | 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 | Q6 | Sample was received above recommended temperature. |
| | | | 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). |
| | WG554698 | Residue, Filterable (TDS) @180C | SM2540C | Q6 | Sample was received above recommended temperature. |
| | WG555029 | 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]. |
| | WG555297 | 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. |
| | | | D516-02/-07/-11 - TURBIDIMETRIC | Q6 | Sample was received above recommended temperature. |
| | WG555373 | Total Alkalinity | SM2320B - Titration | Q6 | Sample was received above recommended temperature. |

**GCC Rio Grande** ACZ Project ID: ***L77107***

| ACZ ID | WORKNUM | PARAMETER | METHOD | QUAL | DESCRIPTION |
|---|---|---|---|---|---|
| **L77107-07** | WG555373 | Bicarbonate as CaCO3 | SM2320B - Titration | Q6 | Sample was received above recommended temperature. |
| | | Carbonate as CaCO3 | SM2320B - Titration | Q6 | Sample was received above recommended temperature. |
| | WG555050 | Chloride | SM4500Cl-E | Q6 | Sample was received above recommended temperature. |
| | WG555198 | Copper, dissolved | M200.7 ICP | MA | Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits. |
| | WG555911 | Fluoride | SM4500F-C | Q6 | Sample was received above recommended temperature. |
| | WG555373 | Hydroxide as CaCO3 | SM2320B - Titration | Q6 | Sample was received above recommended temperature. |
| | WG554509 | Nitrate/Nitrite as N, dissolved | M353.2 - Automated Cadmium Reduction | Q6 | Sample was received above recommended temperature. |
| | | | 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 | Q6 | Sample was received above recommended temperature. |
| | | | 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). |
| | WG554698 | Residue, Filterable (TDS) @180C | SM2540C | Q6 | Sample was received above recommended temperature. |
| | WG555029 | 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. |
| | WG555297 | 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. |
| | | | D516-02/-07/-11 - TURBIDIMETRIC | Q6 | Sample was received above recommended temperature. |
| | WG555373 | Total Alkalinity | SM2320B - Titration | Q6 | Sample was received above recommended temperature. |
| **L77107-08** | WG555373 | Bicarbonate as CaCO3 | SM2320B - Titration | Q6 | Sample was received above recommended temperature. |
| | | Carbonate as CaCO3 | SM2320B - Titration | Q6 | Sample was received above recommended temperature. |
| | WG555050 | Chloride | SM4500Cl-E | Q6 | Sample was received above recommended temperature. |
| | WG555911 | Fluoride | SM4500F-C | Q6 | Sample was received above recommended temperature. |
| | WG555373 | Hydroxide as CaCO3 | SM2320B - Titration | Q6 | Sample was received above recommended temperature. |
| | WG554509 | Nitrate/Nitrite as N, dissolved | M353.2 - Automated Cadmium Reduction | Q6 | Sample was received above recommended temperature. |
| | | | 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 | Q6 | Sample was received above recommended temperature. |
| | | | 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). |
| | WG554698 | Residue, Filterable (TDS) @180C | SM2540C | Q6 | Sample was received above recommended temperature. |
| | WG555421 | Selenium, dissolved | M200.8 ICP-MS | DB | Sample required dilution due to low bias result. |
| | | | M200.8 ICP-MS | EA | Concentration estimated. Analytical result was less than the negative MDL due to matrix interferences. |
| | WG555297 | 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. |
| | | | D516-02/-07/-11 - TURBIDIMETRIC | Q6 | Sample was received above recommended temperature. |
| | WG555373 | Total Alkalinity | SM2320B - Titration | Q6 | Sample was received above recommended temperature. |

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
105495

ACZ Project ID: L77107
Date Received: 11/08/2022 09:54
Received By:
Date Printed: 11/9/2022

## 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? |
|---|---|---|---|---|
| 7070 | 9.9 | <=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
105495

ACZ Project ID: L77107
Date Received: 11/08/2022 09:54
Received By:
Date Printed: 11/9/2022

[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 | Accredited Environmental Testing | 2773 Downhill Drive, Steamboat Springs, CO 80487, (970) 879-6590 | L77107

# CHAIN of CUSTODY

**Report to:**

Name: Amy Veek
Company: GCC Rio Grande Inc
E-mail: aveek@gcc.com
Address: 3372 Lime Road, Pueblo CO 81004
Telephone: 719-647-6861

**Copy of Report to:**

Name: Landon Beck
Company: Resource Hydrogeologic
E-mail: lbeck@resourcehydrogeologic.com
Telephone: (970) 459-4865

**Invoice to:**

Name: Amy Veek
Company: GCC Rio Grande Inc
E-mail: aveek@gcc.com
Address: 3372 Lime Road, Pueblo CO 81004
Telephone: 719-647-6861

**Copy of Invoice to:**

Name:
Company:
E-mail:
Address:
Telephone:

**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:** Amy Veek **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
PO#: 105495
Reporting state for compliance testing:
Check box if samples include NRC licensed material?

ANALYSES REQUESTED (attach list or use quote number)

| SAMPLE IDENTIFICATION | DATE:TIME | Matrix | # of Containers | GW-COmpliance |
|---|---|---|---|---|
| MW-6 | 11/7/2022 10:42 | GW | 3 | ✓ |
| MW-7 | 11/7/2022 13:44 | GW | 3 | ✓ |
| MW-2B | 11/7/2022 12:00 | GW | 3 | ✓ |
| MW-8 | 11/7/2022 13:19 | GW | 3 | ✓ |
| MW-9 | 11/7/2022 15:25 | GW | 3 | ✓ |
| MW-10 | 11/7/2022 15:08 | GW | 3 | ✓ |
| MW-11 | 11/7/2022 14:27 | GW | 3 | ✓ |
| MW-12 | 11/7/2022 14:09 | 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] | 11/7/22 16:00 | [signature] | 11/8/22 9:54 |
| | | | |
| | | | |

Qualtrax ID: 1984 Revision #: 2 White - Return with sample. Yellow - Retain for your records.

L77107 Chain of Custod

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

# Analytical Report

December 02, 2022

Report to:
Amy Veek
GCC Rio Grande
3372 Lime Road
Pueblo, CO 81004

cc: Landon Beck

Bill to:
Amy Veek
GCC Rio Grande
3372 Lime Road
Pueblo, CO 81004

Project ID: 105495
ACZ Project ID: L77134

Amy Veek:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on November 09, 2022. This project has been assigned to ACZ's project number, L77134. 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 L77134. 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 02, 2023. 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.

Sue Webber has reviewed and approved this report.

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

**Inorganic Analytical Results**

**GCC Rio Grande**
Project ID: 105495
Sample ID: MW-14

ACZ Sample ID: ***L77134-01***
Date Sampled: *11/08/22 10:09*
Date Received: *11/09/22*
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 | 11/17/22 18:09 | wtc |
| Arsenic, dissolved | M200.8 ICP-MS | 10 | 0.00448 | B | | mg/L | 0.002 | 0.01 | 11/16/22 16:20 | gjl/scp |
| Beryllium, dissolved | M200.7 ICP | 5 | <0.05 | U | | mg/L | 0.05 | 0.25 | 11/17/22 18:09 | wtc |
| Boron, dissolved | M200.7 ICP | 5 | 1.24 | | | mg/L | 0.15 | 0.5 | 11/17/22 18:09 | wtc |
| Cadmium, dissolved | M200.8 ICP-MS | 10 | <0.0005 | U | | mg/L | 0.0005 | 0.0025 | 11/16/22 16:20 | gjl/scp |
| Calcium, dissolved | M200.7 ICP | 5 | 18.0 | | | mg/L | 0.5 | 2.5 | 11/17/22 18:09 | wtc |
| Chromium, dissolved | M200.7 ICP | 5 | <0.1 | U | | mg/L | 0.1 | 0.25 | 11/17/22 18:09 | wtc |
| Cobalt, dissolved | M200.8 ICP-MS | 10 | 0.000864 | B | | mg/L | 0.0005 | 0.0025 | 11/16/22 16:20 | gjl/scp |
| Copper, dissolved | M200.7 ICP | 5 | <0.05 | U | | mg/L | 0.05 | 0.25 | 11/17/22 18:09 | wtc |
| Iron, dissolved | M200.7 ICP | 5 | 0.356 | B | | mg/L | 0.3 | 0.75 | 11/17/22 18:09 | wtc |
| Lead, dissolved | M200.8 ICP-MS | 10 | <0.001 | U | | mg/L | 0.001 | 0.005 | 11/22/22 12:34 | kja |
| Lithium, dissolved | M200.7 ICP | 5 | 0.358 | | | mg/L | 0.04 | 0.2 | 11/17/22 18:09 | wtc |
| Magnesium, dissolved | M200.7 ICP | 5 | 4.99 | B | | mg/L | 1 | 5 | 11/17/22 18:09 | wtc |
| Manganese, dissolved | M200.7 ICP | 5 | <0.05 | U | | mg/L | 0.05 | 0.25 | 11/17/22 18:09 | wtc |
| Mercury, dissolved | M245.1 CVAA | 1 | <0.0002 | U | | mg/L | 0.0002 | 0.001 | 11/14/22 16:28 | mlh |
| Nickel, dissolved | M200.7 ICP | 5 | <0.04 | U | | mg/L | 0.04 | 0.2 | 11/17/22 18:09 | wtc |
| Potassium, dissolved | M200.7 ICP | 5 | 5.67 | | | mg/L | 1 | 5 | 11/17/22 18:09 | wtc |
| Selenium, dissolved | M200.8 ICP-MS | 10 | <0.001 | U | * | mg/L | 0.001 | 0.0025 | 11/22/22 12:34 | kja |
| Sodium, dissolved | M200.7 ICP | 5 | 1610 | | | mg/L | 1 | 5 | 11/17/22 18:09 | wtc |
| Vanadium, dissolved | M200.7 ICP | 5 | <0.05 | U | | mg/L | 0.05 | 0.125 | 11/17/22 18:09 | wtc |
| Zinc, dissolved | M200.7 ICP | 5 | <0.1 | U | | mg/L | 0.1 | 0.25 | 11/17/22 18:09 | wtc |

**GCC Rio Grande**
Project ID: 105495
Sample ID: MW-14

ACZ Sample ID: ***L77134-01***
Date Sampled: *11/08/22 10:09*
Date Received: *11/09/22*
Sample Matrix: *Groundwater*

Wet Chemistry

| Parameter | EPA Method | Dilution | Result | Qual | XQ | Units | MDL | PQL | Date | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Alkalinity as CaCO3 | SM2320B - Titration | | | | | | | | | |
| Bicarbonate as CaCO3 | | 1 | 1320 | | | mg/L | 2 | 20 | 11/22/22 0:00 | jck |
| Carbonate as CaCO3 | | 1 | <2 | U | | mg/L | 2 | 20 | 11/22/22 0:00 | jck |
| Hydroxide as CaCO3 | | 1 | <2 | U | | mg/L | 2 | 20 | 11/22/22 0:00 | jck |
| Total Alkalinity | | 1 | 1320 | | | mg/L | 2 | 20 | 11/22/22 0:00 | jck |
| Cation-Anion Balance | Calculation | | | | | | | | | |
| Cation-Anion Balance | | | -5.9 | | | % | | | 12/02/22 0:00 | calc |
| Sum of Anions | | | 81 | | | meq/L | | | 12/02/22 0:00 | calc |
| Sum of Cations | | | 72 | | | meq/L | | | 12/02/22 0:00 | calc |
| Chloride | SM4500Cl-E | 25 | 1660 | | | mg/L | 25 | 50 | 11/16/22 11:54 | bls |
| Fluoride | SM4500F-C | 1 | 2.87 | | * | mg/L | 0.15 | 0.35 | 12/01/22 13:30 | emk |
| Hardness as CaCO3 (dissolved) | SM2340B - Calculation | | 66 | | | mg/L | 1 | 30 | 12/02/22 0:00 | calc |
| Nitrate as N, dissolved | Calculation: NO3NO2 minus NO2 | | <0.02 | U | | mg/L | 0.02 | 0.1 | 12/02/22 0:00 | calc |
| Nitrate/Nitrite as N, dissolved | M353.2 - Automated Cadmium Reduction | 1 | <0.02 | U | * | mg/L | 0.02 | 0.1 | 11/10/22 0:18 | pjb |
| Nitrite as N, dissolved | M353.2 - Automated Cadmium Reduction | 1 | <0.01 | U | * | mg/L | 0.01 | 0.05 | 11/10/22 0:18 | pjb |
| Residue, Filterable (TDS) @180C | SM2540C | 5 | 4410 | | * | mg/L | 100 | 200 | 11/11/22 13:53 | svm |
| Sulfate | D516-02/-07/-11 - TURBIDIMETRIC | 50 | 393 | | * | mg/L | 50 | 250 | 11/16/22 14:12 | gkk |
| TDS (calculated) | Calculation | | 4500 | | | mg/L | | | 12/02/22 0:00 | calc |
| TDS (ratio - measured/calculated) | Calculation | | 0.98 | | | | | | 12/02/22 0:00 | calc |

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

**Inorganic Analytical Results**

**GCC Rio Grande**
Project ID: 105495
Sample ID: MW-13

ACZ Sample ID: ***L77134-02***
Date Sampled: *11/08/22 10:57*
Date Received: *11/09/22*
Sample Matrix: *Groundwater*

Metals Analysis

| Parameter | EPA Method | Dilution | Result | Qual | XQ | Units | MDL | PQL | Date | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum, dissolved | M200.7 ICP | 2 | <0.1 | U | | mg/L | 0.1 | 0.5 | 11/17/22 18:12 | wtc |
| Arsenic, dissolved | M200.8 ICP-MS | 5 | 0.00102 | B | | mg/L | 0.001 | 0.005 | 11/16/22 16:23 | gjl/scp |
| Beryllium, dissolved | M200.7 ICP | 2 | <0.02 | U | | mg/L | 0.02 | 0.1 | 11/17/22 18:12 | wtc |
| Boron, dissolved | M200.7 ICP | 2 | 1.03 | | | mg/L | 0.06 | 0.2 | 11/17/22 18:12 | wtc |
| Cadmium, dissolved | M200.8 ICP-MS | 5 | <0.00025 | U | | mg/L | 0.00025 | 0.00125 | 11/16/22 16:23 | gjl/scp |
| Calcium, dissolved | M200.7 ICP | 2 | 6.65 | | | mg/L | 0.2 | 1 | 11/17/22 18:12 | wtc |
| Chromium, dissolved | M200.7 ICP | 2 | <0.04 | U | | mg/L | 0.04 | 0.1 | 11/17/22 18:12 | wtc |
| Cobalt, dissolved | M200.8 ICP-MS | 5 | <0.00025 | U | | mg/L | 0.00025 | 0.00125 | 11/16/22 16:23 | gjl/scp |
| Copper, dissolved | M200.7 ICP | 2 | <0.02 | U | | mg/L | 0.02 | 0.1 | 11/17/22 18:12 | wtc |
| Iron, dissolved | M200.7 ICP | 2 | <0.12 | U | | mg/L | 0.12 | 0.3 | 11/17/22 18:12 | wtc |
| Lead, dissolved | M200.8 ICP-MS | 2 | <0.0002 | U | | mg/L | 0.0002 | 0.001 | 11/22/22 12:36 | kja |
| Lithium, dissolved | M200.7 ICP | 2 | 0.227 | | | mg/L | 0.016 | 0.08 | 11/17/22 18:12 | wtc |
| Magnesium, dissolved | M200.7 ICP | 2 | 1.67 | B | | mg/L | 0.4 | 2 | 11/17/22 18:12 | wtc |
| Manganese, dissolved | M200.7 ICP | 2 | <0.02 | U | | mg/L | 0.02 | 0.1 | 11/17/22 18:12 | wtc |
| Mercury, dissolved | M245.1 CVAA | 1 | <0.0002 | U | | mg/L | 0.0002 | 0.001 | 11/14/22 16:29 | mlh |
| Nickel, dissolved | M200.7 ICP | 2 | <0.016 | U | | mg/L | 0.016 | 0.08 | 11/17/22 18:12 | wtc |
| Potassium, dissolved | M200.7 ICP | 2 | 3.14 | | | mg/L | 0.4 | 2 | 11/17/22 18:12 | wtc |
| Selenium, dissolved | M200.8 ICP-MS | 2 | <0.0002 | U | | mg/L | 0.0002 | 0.0005 | 11/22/22 12:36 | kja |
| Sodium, dissolved | M200.7 ICP | 2 | 977 | | | mg/L | 0.4 | 2 | 11/17/22 18:12 | wtc |
| Vanadium, dissolved | M200.7 ICP | 2 | <0.02 | U | | mg/L | 0.02 | 0.05 | 11/17/22 18:12 | wtc |
| Zinc, dissolved | M200.7 ICP | 2 | <0.04 | U | | mg/L | 0.04 | 0.1 | 11/17/22 18:12 | wtc |

**GCC Rio Grande**
Project ID: 105495
Sample ID: MW-13

ACZ Sample ID: ***L77134-02***
Date Sampled: *11/08/22 10:57*
Date Received: *11/09/22*
Sample Matrix: *Groundwater*

Wet Chemistry

| Parameter | EPA Method | Dilution | Result | Qual | XQ | Units | MDL | PQL | Date | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Alkalinity as CaCO3 | SM2320B - Titration | | | | | | | | | |
| Bicarbonate as CaCO3 | | 1 | 1230 | | | mg/L | 2 | 20 | 11/22/22 0:00 | jck |
| Carbonate as CaCO3 | | 1 | 52.5 | | | mg/L | 2 | 20 | 11/22/22 0:00 | jck |
| Hydroxide as CaCO3 | | 1 | <2 | U | | mg/L | 2 | 20 | 11/22/22 0:00 | jck |
| Total Alkalinity | | 1 | 1280 | | | mg/L | 2 | 20 | 11/22/22 0:00 | jck |
| Cation-Anion Balance | Calculation | | | | | | | | | |
| Cation-Anion Balance | | | -3.3 | | | % | | | 12/02/22 0:00 | calc |
| Sum of Anions | | | 47 | | | meq/L | | | 12/02/22 0:00 | calc |
| Sum of Cations | | | 44 | | | meq/L | | | 12/02/22 0:00 | calc |
| Chloride | SM4500Cl-E | 25 | 643 | | | mg/L | 25 | 50 | 11/16/22 11:54 | bls |
| Fluoride | SM4500F-C | 1 | 6.51 | | * | mg/L | 0.15 | 0.35 | 12/01/22 13:34 | emk |
| Hardness as CaCO3 (dissolved) | SM2340B - Calculation | | 24 | | | mg/L | 0.5 | 10 | 12/02/22 0:00 | calc |
| Nitrate as N, dissolved | Calculation: NO3NO2 minus NO2 | | 0.040 | B | | mg/L | 0.02 | 0.1 | 12/02/22 0:00 | calc |
| Nitrate/Nitrite as N, dissolved | M353.2 - Automated Cadmium Reduction | 1 | 0.064 | B | * | mg/L | 0.02 | 0.1 | 11/10/22 0:20 | pjb |
| Nitrite as N, dissolved | M353.2 - Automated Cadmium Reduction | 1 | 0.024 | B | * | mg/L | 0.01 | 0.05 | 11/10/22 0:20 | pjb |
| Residue, Filterable (TDS) @180C | SM2540C | 2 | 2540 | | * | mg/L | 40 | 80 | 11/11/22 13:56 | svm |
| Sulfate | D516-02/-07/-11 - TURBIDIMETRIC | 5 | 122 | | * | mg/L | 5 | 25 | 11/16/22 13:43 | gkk |
| TDS (calculated) | Calculation | | 2540 | | | mg/L | | | 12/02/22 0:00 | calc |
| TDS (ratio - measured/calculated) | Calculation | | 1.00 | | | | | | 12/02/22 0:00 | calc |

## 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: ***L77134***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG555395** | | | | | | | | | | | | | |
| WG555395PBW1 | PBW | 11/21/22 20:46 | | | | 3.4 | mg/L | | -20 | 20 | | | |
| WG555395LCSW3 | LCSW | 11/21/22 21:07 | WC221109-1 | 820 | | 774.4 | mg/L | 94 | 90 | 110 | | | |
| WG555395LCSW6 | LCSW | 11/21/22 23:32 | WC221109-1 | 820 | | 772.2 | mg/L | 94 | 90 | 110 | | | |
| WG555395PBW2 | PBW | 11/21/22 23:40 | | | | 4.6 | mg/L | | -20 | 20 | | | |
| WG555395LCSW9 | LCSW | 11/22/22 2:20 | WC221109-1 | 820 | | 779.8 | mg/L | 95 | 90 | 110 | | | |
| WG555395PBW3 | PBW | 11/22/22 2:28 | | | | 5.6 | mg/L | | -20 | 20 | | | |
| WG555395LCSW12 | LCSW | 11/22/22 5:06 | WC221109-1 | 820 | | 779.2 | mg/L | 95 | 90 | 110 | | | |
| WG555395PBW4 | PBW | 11/22/22 5:14 | | | | 5.7 | mg/L | | -20 | 20 | | | |
| L77157-04DUP | DUP | 11/22/22 7:28 | | | 526 | 513.7 | mg/L | | | | 2 | 20 | |
| WG555395LCSW15 | LCSW | 11/22/22 9:21 | WC221109-1 | 820 | | 784.8 | mg/L | 96 | 90 | 110 | | | |
| WG555395PBW5 | PBW | 11/22/22 9:29 | | | | 5.8 | mg/L | | -20 | 20 | | | |
| WG555395LCSW18 | LCSW | 11/22/22 11:10 | WC221109-1 | 820 | | 777.5 | mg/L | 95 | 90 | 110 | | | |

**Aluminum, dissolved** M200.7 ICP

| ACZ ID | Type | Analyzed | PCN/SCN | QC | Sample | Found | Units | Rec% | Lower | Upper | RPD | Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG555206** | | | | | | | | | | | | | |
| WG555206ICV | ICV | 11/17/22 17:12 | II221116-1 | 2 | | 1.988 | mg/L | 99 | 95 | 105 | | | |
| WG555206ICB | ICB | 11/17/22 17:18 | | | | U | mg/L | | -0.15 | 0.15 | | | |
| WG555206PQV | PQV | 11/17/22 17:21 | II221109-2 | .2502 | | .241 | mg/L | 96 | 70 | 130 | | | |
| WG555206SIC | SIC | 11/17/22 17:24 | II221102-3 | 200.4102 | | 209 | mg/L | 104 | 1 | 200 | | | |
| WG555206LFB | LFB | 11/17/22 17:30 | II221104-3 | 1.0008 | | .966 | mg/L | 97 | 85 | 115 | | | |
| L77131-02AS | AS | 11/17/22 17:42 | II221104-3 | 1.0008 | U | .98 | mg/L | 98 | 85 | 115 | | | |
| L77131-02ASD | ASD | 11/17/22 17:45 | II221104-3 | 1.0008 | U | 1.012 | mg/L | 101 | 85 | 115 | 3 | 20 | |
| WG555206CCV1 | CCV | 11/17/22 18:00 | II221110-1 | 1 | | .987 | mg/L | 99 | 90 | 110 | | | |
| WG555206CCB1 | CCB | 11/17/22 18:03 | | | | U | mg/L | | -0.15 | 0.15 | | | |
| WG555206CCV2 | CCV | 11/17/22 18:37 | II221110-1 | 1 | | .984 | mg/L | 98 | 90 | 110 | | | |
| WG555206CCB2 | CCB | 11/17/22 18:40 | | | | U | mg/L | | -0.15 | 0.15 | | | |
| WG555206CCV3 | CCV | 11/17/22 18:58 | II221110-1 | 1 | | .998 | mg/L | 100 | 90 | 110 | | | |
| WG555206CCB3 | CCB | 11/17/22 19:01 | | | | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG555075** | | | | | | | | | | | | | |
| WG555075ICV | ICV | 11/16/22 15:15 | MS220930-3 | .05 | | .05011 | mg/L | 100 | 90 | 110 | | | |
| WG555075ICB | ICB | 11/16/22 15:17 | | | | U | mg/L | | -0.00044 | 0.00044 | | | |
| WG555075LFB | LFB | 11/16/22 15:19 | MS221101-6 | .05005 | | .05021 | mg/L | 100 | 85 | 115 | | | |
| WG555075CCV1 | CCV | 11/16/22 15:43 | MS221025-2 | .1001 | | .10228 | mg/L | 102 | 90 | 110 | | | |
| WG555075CCB1 | CCB | 11/16/22 15:45 | | | | .00024 | mg/L | | -0.0006 | 0.0006 | | | |
| L77132-03AS | AS | 11/16/22 16:06 | MS221101-6 | .05005 | .0019 | .04774 | mg/L | 92 | 70 | 130 | | | |
| L77132-03ASD | ASD | 11/16/22 16:09 | MS221101-6 | .05005 | .0019 | .05397 | mg/L | 104 | 70 | 130 | 12 | 20 | |
| WG555075CCV2 | CCV | 11/16/22 16:11 | MS221025-2 | .1001 | | .10036 | mg/L | 100 | 90 | 110 | | | |
| WG555075CCB2 | CCB | 11/16/22 16:13 | | | | .00026 | mg/L | | -0.0006 | 0.0006 | | | |
| WG555075CCV3 | CCV | 11/16/22 16:27 | MS221025-2 | .1001 | | .10672 | mg/L | 107 | 90 | 110 | | | |
| WG555075CCB3 | CCB | 11/16/22 16:30 | | | | .00024 | mg/L | | -0.0006 | 0.0006 | | | |

**GCC**

ACZ Project ID: ***L77134***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG555206** | | | | | | | | | | | | | |
| WG555206ICV | ICV | 11/17/22 17:12 | II221116-1 | 2 | | 1.989 | mg/L | 99 | 95 | 105 | | | |
| WG555206ICB | ICB | 11/17/22 17:18 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| WG555206PQV | PQV | 11/17/22 17:21 | II221109-2 | .0501 | | .05 | mg/L | 100 | 70 | 130 | | | |
| WG555206SIC | SIC | 11/17/22 17:24 | II221102-3 | .1002 | | .1 | mg/L | 100 | 80 | 120 | | | |
| WG555206LFB | LFB | 11/17/22 17:30 | II221104-3 | .5005 | | .493 | mg/L | 99 | 85 | 115 | | | |
| L77131-02AS | AS | 11/17/22 17:42 | II221104-3 | .5005 | U | .494 | mg/L | 99 | 85 | 115 | | | |
| L77131-02ASD | ASD | 11/17/22 17:45 | II221104-3 | .5005 | U | .511 | mg/L | 102 | 85 | 115 | 3 | 20 | |
| WG555206CCV1 | CCV | 11/17/22 18:00 | II221110-1 | 1 | | 1 | mg/L | 100 | 90 | 110 | | | |
| WG555206CCB1 | CCB | 11/17/22 18:03 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| WG555206CCV2 | CCV | 11/17/22 18:37 | II221110-1 | 1 | | .987 | mg/L | 99 | 90 | 110 | | | |
| WG555206CCB2 | CCB | 11/17/22 18:40 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| WG555206CCV3 | CCV | 11/17/22 18:58 | II221110-1 | 1 | | .983 | mg/L | 98 | 90 | 110 | | | |
| WG555206CCB3 | CCB | 11/17/22 19:01 | | | | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG555206** | | | | | | | | | | | | | |
| WG555206ICV | ICV | 11/17/22 17:12 | II221116-1 | 2 | | 2.015 | mg/L | 101 | 95 | 105 | | | |
| WG555206ICB | ICB | 11/17/22 17:18 | | | | U | mg/L | | -0.09 | 0.09 | | | |
| WG555206PQV | PQV | 11/17/22 17:21 | II221109-2 | .1001 | | .092 | mg/L | 92 | 70 | 130 | | | |
| WG555206SIC | SIC | 11/17/22 17:24 | II221102-3 | .1001 | | .092 | mg/L | 92 | 80 | 120 | | | |
| WG555206LFB | LFB | 11/17/22 17:30 | II221104-3 | .5005 | | .498 | mg/L | 100 | 85 | 115 | | | |
| L77131-02AS | AS | 11/17/22 17:42 | II221104-3 | .5005 | U | .51 | mg/L | 102 | 85 | 115 | | | |
| L77131-02ASD | ASD | 11/17/22 17:45 | II221104-3 | .5005 | U | .539 | mg/L | 108 | 85 | 115 | 6 | 20 | |
| WG555206CCV1 | CCV | 11/17/22 18:00 | II221110-1 | 1 | | 1.009 | mg/L | 101 | 90 | 110 | | | |
| WG555206CCB1 | CCB | 11/17/22 18:03 | | | | U | mg/L | | -0.09 | 0.09 | | | |
| WG555206CCV2 | CCV | 11/17/22 18:37 | II221110-1 | 1 | | 1.008 | mg/L | 101 | 90 | 110 | | | |
| WG555206CCB2 | CCB | 11/17/22 18:40 | | | | U | mg/L | | -0.09 | 0.09 | | | |
| WG555206CCV3 | CCV | 11/17/22 18:58 | II221110-1 | 1 | | .997 | mg/L | 100 | 90 | 110 | | | |
| WG555206CCB3 | CCB | 11/17/22 19:01 | | | | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG555075** | | | | | | | | | | | | | |
| WG555075ICV | ICV | 11/16/22 15:15 | MS220930-3 | .05 | | .050119 | mg/L | 100 | 90 | 110 | | | |
| WG555075ICB | ICB | 11/16/22 15:17 | | | | U | mg/L | | -0.00011 | 0.00011 | | | |
| WG555075LFB | LFB | 11/16/22 15:19 | MS221101-6 | .05005 | | .048068 | mg/L | 96 | 85 | 115 | | | |
| WG555075CCV1 | CCV | 11/16/22 15:43 | MS221025-2 | .1001 | | .101216 | mg/L | 101 | 90 | 110 | | | |
| WG555075CCB1 | CCB | 11/16/22 15:45 | | | | U | mg/L | | -0.00015 | 0.00015 | | | |
| L77132-03AS | AS | 11/16/22 16:06 | MS221101-6 | .05005 | U | .04441 | mg/L | 89 | 70 | 130 | | | |
| L77132-03ASD | ASD | 11/16/22 16:09 | MS221101-6 | .05005 | U | .050574 | mg/L | 101 | 70 | 130 | 13 | 20 | |
| WG555075CCV2 | CCV | 11/16/22 16:11 | MS221025-2 | .1001 | | .09968 | mg/L | 100 | 90 | 110 | | | |
| WG555075CCB2 | CCB | 11/16/22 16:13 | | | | U | mg/L | | -0.00015 | 0.00015 | | | |
| WG555075CCV3 | CCV | 11/16/22 16:27 | MS221025-2 | .1001 | | .109794 | mg/L | 110 | 90 | 110 | | | |
| WG555075CCB3 | CCB | 11/16/22 16:30 | | | | U | mg/L | | -0.00015 | 0.00015 | | | |

**GCC**

ACZ Project ID: ***L77134***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG555206** | | | | | | | | | | | | | |
| WG555206ICV | ICV | 11/17/22 17:12 | II221116-1 | 100 | | 99.24 | mg/L | 99 | 95 | 105 | | | |
| WG555206ICB | ICB | 11/17/22 17:18 | | | | U | mg/L | | -0.3 | 0.3 | | | |
| WG555206PQV | PQV | 11/17/22 17:21 | II221109-2 | .50055 | | .48 | mg/L | 96 | 70 | 130 | | | |
| WG555206SIC | SIC | 11/17/22 17:24 | II221102-3 | 200.72055 | | 199.3 | mg/L | 99 | 1 | 200 | | | |
| WG555206LFB | LFB | 11/17/22 17:30 | II221104-3 | 67.99353 | | 67.27 | mg/L | 99 | 85 | 115 | | | |
| L77131-02AS | AS | 11/17/22 17:42 | II221104-3 | 67.99353 | 24.6 | 90.76 | mg/L | 97 | 85 | 115 | | | |
| L77131-02ASD | ASD | 11/17/22 17:45 | II221104-3 | 67.99353 | 24.6 | 94.67 | mg/L | 103 | 85 | 115 | 4 | 20 | |
| WG555206CCV1 | CCV | 11/17/22 18:00 | II221110-1 | 50 | | 49.78 | mg/L | 100 | 90 | 110 | | | |
| WG555206CCB1 | CCB | 11/17/22 18:03 | | | | U | mg/L | | -0.3 | 0.3 | | | |
| WG555206CCV2 | CCV | 11/17/22 18:37 | II221110-1 | 50 | | 49.45 | mg/L | 99 | 90 | 110 | | | |
| WG555206CCB2 | CCB | 11/17/22 18:40 | | | | U | mg/L | | -0.3 | 0.3 | | | |
| WG555206CCV3 | CCV | 11/17/22 18:58 | II221110-1 | 50 | | 49.27 | mg/L | 99 | 90 | 110 | | | |
| WG555206CCB3 | CCB | 11/17/22 19:01 | | | | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG555050** | | | | | | | | | | | | | |
| WG555050ICV | ICV | 11/16/22 10:27 | WI220502-12 | 54.945 | | 54.62 | mg/L | 99 | 90 | 110 | | | |
| WG555050ICB | ICB | 11/16/22 10:27 | | | | U | mg/L | | -3 | 3 | | | |
| WG555050LFB1 | LFB | 11/16/22 10:28 | WI221025-9 | 30.03 | | 28.32 | mg/L | 94 | 90 | 110 | | | |
| WG555050CCV1 | CCV | 11/16/22 10:33 | WI221021-5 | 49.95 | | 50.3 | mg/L | 101 | 90 | 110 | | | |
| WG555050CCB1 | CCB | 11/16/22 10:33 | | | | U | mg/L | | -3 | 3 | | | |
| WG555050LFB2 | LFB | 11/16/22 10:43 | WI221025-9 | 30.03 | | 30.21 | mg/L | 101 | 90 | 110 | | | |
| WG555050CCV3 | CCV | 11/16/22 10:45 | WI221021-5 | 49.95 | | 53.3 | mg/L | 107 | 90 | 110 | | | |
| WG555050CCB3 | CCB | 11/16/22 10:45 | | | | U | mg/L | | -3 | 3 | | | |
| L77138-01AS | AS | 11/16/22 10:46 | WI221025-9 | 30.03 | 63.6 | 95.56 | mg/L | 106 | 90 | 110 | | | |
| L77139-01DUP | DUP | 11/16/22 10:47 | | | 53.5 | 54.97 | mg/L | | | | 3 | 20 | |
| WG555050CCV4 | CCV | 11/16/22 10:50 | WI221021-5 | 49.95 | | 50.93 | mg/L | 102 | 90 | 110 | | | |
| WG555050CCB4 | CCB | 11/16/22 10:50 | | | | U | mg/L | | -3 | 3 | | | |
| WG555050CCV10 | CCV | 11/16/22 11:45 | WI221021-5 | 49.95 | | 49.56 | mg/L | 99 | 90 | 110 | | | |
| WG555050CCB10 | CCB | 11/16/22 11:45 | | | | U | mg/L | | -3 | 3 | | | |
| WG555050CCV2 | CCV | 11/16/22 11:50 | WI221021-5 | 49.95 | | 49.66 | mg/L | 99 | 90 | 110 | | | |
| WG555050CCB2 | CCB | 11/16/22 11:50 | | | | U | mg/L | | -3 | 3 | | | |
| WG555050CCV11 | CCV | 11/16/22 11:55 | WI221021-5 | 49.95 | | 50.57 | mg/L | 101 | 90 | 110 | | | |
| WG555050CCB11 | CCB | 11/16/22 11:55 | | | | U | mg/L | | -3 | 3 | | | |
| WG555050CCV12 | CCV | 11/16/22 12:13 | WI221021-5 | 49.95 | | 51.02 | mg/L | 102 | 90 | 110 | | | |
| WG555050CCB12 | CCB | 11/16/22 12:14 | | | | U | mg/L | | -3 | 3 | | | |
| WG555050CCV13 | CCV | 11/16/22 12:15 | WI221021-5 | 49.95 | | 50.2 | mg/L | 101 | 90 | 110 | | | |
| WG555050CCB13 | CCB | 11/16/22 12:15 | | | | U | mg/L | | -3 | 3 | | | |

**GCC**

ACZ Project ID: ***L77134***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG555206** | | | | | | | | | | | | | |
| WG555206ICV | ICV | 11/17/22 17:12 | II221116-1 | 2 | | 1.96 | mg/L | 98 | 95 | 105 | | | |
| WG555206ICB | ICB | 11/17/22 17:18 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| WG555206PQV | PQV | 11/17/22 17:21 | II221109-2 | .0501 | | .046 | mg/L | 92 | 70 | 130 | | | |
| WG555206SIC | SIC | 11/17/22 17:24 | II221102-3 | .1002 | | .095 | mg/L | 95 | 80 | 120 | | | |
| WG555206LFB | LFB | 11/17/22 17:30 | II221104-3 | .501 | | .49 | mg/L | 98 | 85 | 115 | | | |
| L77131-02AS | AS | 11/17/22 17:42 | II221104-3 | .501 | U | .487 | mg/L | 97 | 85 | 115 | | | |
| L77131-02ASD | ASD | 11/17/22 17:45 | II221104-3 | .501 | U | .517 | mg/L | 103 | 85 | 115 | 6 | 20 | |
| WG555206CCV1 | CCV | 11/17/22 18:00 | II221110-1 | 1 | | .991 | mg/L | 99 | 90 | 110 | | | |
| WG555206CCB1 | CCB | 11/17/22 18:03 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| WG555206CCV2 | CCV | 11/17/22 18:37 | II221110-1 | 1 | | .976 | mg/L | 98 | 90 | 110 | | | |
| WG555206CCB2 | CCB | 11/17/22 18:40 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| WG555206CCV3 | CCV | 11/17/22 18:58 | II221110-1 | 1 | | .984 | mg/L | 98 | 90 | 110 | | | |
| WG555206CCB3 | CCB | 11/17/22 19:01 | | | | U | mg/L | | -0.06 | 0.06 | | | |

**Cobalt, dissolved** M200.8 ICP-MS

| ACZ ID | Type | Analyzed | PCN/SCN | QC | Sample | Found | Units | Rec% | Lower | Upper | RPD | Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG555075** | | | | | | | | | | | | | |
| WG555075ICV | ICV | 11/16/22 15:15 | MS220930-3 | .05 | | .052472 | mg/L | 105 | 90 | 110 | | | |
| WG555075ICB | ICB | 11/16/22 15:17 | | | | U | mg/L | | -0.00011 | 0.00011 | | | |
| WG555075LFB | LFB | 11/16/22 15:19 | MS221101-6 | .05005 | | .050527 | mg/L | 101 | 85 | 115 | | | |
| WG555075CCV1 | CCV | 11/16/22 15:43 | MS221025-2 | .1001 | | .097864 | mg/L | 98 | 90 | 110 | | | |
| WG555075CCB1 | CCB | 11/16/22 15:45 | | | | U | mg/L | | -0.00015 | 0.00015 | | | |
| L77132-03AS | AS | 11/16/22 16:06 | MS221101-6 | .05005 | .000131 | .041131 | mg/L | 82 | 70 | 130 | | | |
| L77132-03ASD | ASD | 11/16/22 16:09 | MS221101-6 | .05005 | .000131 | .046655 | mg/L | 93 | 70 | 130 | 13 | 20 | |
| WG555075CCV2 | CCV | 11/16/22 16:11 | MS221025-2 | .1001 | | .095529 | mg/L | 95 | 90 | 110 | | | |
| WG555075CCB2 | CCB | 11/16/22 16:13 | | | | U | mg/L | | -0.00015 | 0.00015 | | | |
| WG555075CCV3 | CCV | 11/16/22 16:27 | MS221025-2 | .1001 | | .103732 | mg/L | 104 | 90 | 110 | | | |
| WG555075CCB3 | CCB | 11/16/22 16:30 | | | | U | mg/L | | -0.00015 | 0.00015 | | | |

**Copper, dissolved** M200.7 ICP

| ACZ ID | Type | Analyzed | PCN/SCN | QC | Sample | Found | Units | Rec% | Lower | Upper | RPD | Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG555206** | | | | | | | | | | | | | |
| WG555206ICV | ICV | 11/17/22 17:12 | II221116-1 | 2 | | 1.963 | mg/L | 98 | 95 | 105 | | | |
| WG555206ICB | ICB | 11/17/22 17:18 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| WG555206PQV | PQV | 11/17/22 17:21 | II221109-2 | .05005 | | .043 | mg/L | 86 | 70 | 130 | | | |
| WG555206SIC | SIC | 11/17/22 17:24 | II221102-3 | .1001 | | .08 | mg/L | 80 | 80 | 120 | | | |
| WG555206LFB | LFB | 11/17/22 17:30 | II221104-3 | .5005 | | .485 | mg/L | 97 | 85 | 115 | | | |
| L77131-02AS | AS | 11/17/22 17:42 | II221104-3 | .5005 | U | .488 | mg/L | 98 | 85 | 115 | | | |
| L77131-02ASD | ASD | 11/17/22 17:45 | II221104-3 | .5005 | U | .506 | mg/L | 101 | 85 | 115 | 4 | 20 | |
| WG555206CCV1 | CCV | 11/17/22 18:00 | II221110-1 | 1 | | .958 | mg/L | 96 | 90 | 110 | | | |
| WG555206CCB1 | CCB | 11/17/22 18:03 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| WG555206CCV2 | CCV | 11/17/22 18:37 | II221110-1 | 1 | | .972 | mg/L | 97 | 90 | 110 | | | |
| WG555206CCB2 | CCB | 11/17/22 18:40 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| WG555206CCV3 | CCV | 11/17/22 18:58 | II221110-1 | 1 | | .97 | mg/L | 97 | 90 | 110 | | | |
| WG555206CCB3 | CCB | 11/17/22 19:01 | | | | U | mg/L | | -0.03 | 0.03 | | | |

**GCC**

ACZ Project ID: ***L77134***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG555874** | | | | | | | | | | | | | |
| WG555874ICV | ICV | 12/01/22 12:33 | WC221118-10 | 2.008 | | 1.94 | mg/L | 97 | 90 | 110 | | | |
| WG555874ICB | ICB | 12/01/22 12:38 | | | | U | mg/L | | -0.3 | 0.3 | | | |
| WG555874LFB | LFB | 12/01/22 12:47 | WC221011-2 | 5.02 | | 5 | mg/L | 100 | 90 | 110 | | | |
| L77107-01AS | AS | 12/01/22 13:00 | WC221011-2 | 5.02 | .79 | 5.25 | mg/L | 89 | 90 | 110 | | | M2 |
| L77107-01ASD | ASD | 12/01/22 13:05 | WC221011-2 | 5.02 | .79 | 5.27 | mg/L | 89 | 90 | 110 | 0 | 20 | M2 |
| WG555874CCV1 | CCV | 12/01/22 13:39 | WC221118-10 | 2.008 | | 2.028 | mg/L | 101 | 90 | 110 | | | |
| WG555874CCB1 | CCB | 12/01/22 13:47 | | | | U | mg/L | | -0.3 | 0.3 | | | |
| WG555874CCV2 | CCV | 12/01/22 14:59 | WC221118-10 | 2.008 | | 2.111 | mg/L | 105 | 90 | 110 | | | |
| WG555874CCB2 | CCB | 12/01/22 15:07 | | | | U | mg/L | | -0.3 | 0.3 | | | |
| WG555874CCV3 | CCV | 12/01/22 15:43 | WC221118-10 | 2.008 | | 2.09 | mg/L | 104 | 90 | 110 | | | |
| WG555874CCB3 | CCB | 12/01/22 15:50 | | | | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG555206** | | | | | | | | | | | | | |
| WG555206ICV | ICV | 11/17/22 17:12 | II221116-1 | 2 | | 1.974 | mg/L | 99 | 95 | 105 | | | |
| WG555206ICB | ICB | 11/17/22 17:18 | | | | U | mg/L | | -0.18 | 0.18 | | | |
| WG555206PQV | PQV | 11/17/22 17:21 | II221109-2 | .150195 | | .13 | mg/L | 87 | 70 | 130 | | | |
| WG555206SIC | SIC | 11/17/22 17:24 | II221102-3 | 200.410195 | | 189.8 | mg/L | 95 | 1 | 200 | | | |
| WG555206LFB | LFB | 11/17/22 17:30 | II221104-3 | 1.0013 | | .958 | mg/L | 96 | 85 | 115 | | | |
| L77131-02AS | AS | 11/17/22 17:42 | II221104-3 | 1.0013 | .074 | 1.065 | mg/L | 99 | 85 | 115 | | | |
| L77131-02ASD | ASD | 11/17/22 17:45 | II221104-3 | 1.0013 | .074 | 1.094 | mg/L | 102 | 85 | 115 | 3 | 20 | |
| WG555206CCV1 | CCV | 11/17/22 18:00 | II221110-1 | 1 | | .988 | mg/L | 99 | 90 | 110 | | | |
| WG555206CCB1 | CCB | 11/17/22 18:03 | | | | U | mg/L | | -0.18 | 0.18 | | | |
| WG555206CCV2 | CCV | 11/17/22 18:37 | II221110-1 | 1 | | .98 | mg/L | 98 | 90 | 110 | | | |
| WG555206CCB2 | CCB | 11/17/22 18:40 | | | | U | mg/L | | -0.18 | 0.18 | | | |
| WG555206CCV3 | CCV | 11/17/22 18:58 | II221110-1 | 1 | | .973 | mg/L | 97 | 90 | 110 | | | |
| WG555206CCB3 | CCB | 11/17/22 19:01 | | | | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG555421** | | | | | | | | | | | | | |
| WG555421ICV | ICV | 11/22/22 11:45 | MS220930-3 | .05 | | .05011 | mg/L | 100 | 90 | 110 | | | |
| WG555421ICB | ICB | 11/22/22 11:47 | | | | U | mg/L | | -0.00022 | 0.00022 | | | |
| WG555421LFB | LFB | 11/22/22 11:49 | MS221101-6 | .0501 | | .04939 | mg/L | 99 | 85 | 115 | | | |
| WG555421CCV1 | CCV | 11/22/22 12:03 | MS221025-2 | .2505 | | .24822 | mg/L | 99 | 90 | 110 | | | |
| WG555421CCB1 | CCB | 11/22/22 12:05 | | | | U | mg/L | | -0.0003 | 0.0003 | | | |
| WG555421CCV2 | CCV | 11/22/22 12:25 | MS221025-2 | .2505 | | .24692 | mg/L | 99 | 90 | 110 | | | |
| WG555421CCB2 | CCB | 11/22/22 12:27 | | | | U | mg/L | | -0.0003 | 0.0003 | | | |
| L77132-04AS | AS | 11/22/22 12:29 | MS221101-6 | .0501 | U | .05066 | mg/L | 101 | 70 | 130 | | | |
| L77132-04ASD | ASD | 11/22/22 12:30 | MS221101-6 | .0501 | U | .05027 | mg/L | 100 | 70 | 130 | 1 | 20 | |
| WG555421CCV3 | CCV | 11/22/22 12:41 | MS221025-2 | .2505 | | .24626 | mg/L | 98 | 90 | 110 | | | |
| WG555421CCB3 | CCB | 11/22/22 12:43 | | | | U | mg/L | | -0.0003 | 0.0003 | | | |

**GCC**

ACZ Project ID: ***L77134***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG555206** | | | | | | | | | | | | | |
| WG555206ICV | ICV | 11/17/22 17:12 | II221116-1 | 2 | | 1.9725 | mg/L | 99 | 95 | 105 | | | |
| WG555206ICB | ICB | 11/17/22 17:18 | | | | U | mg/L | | -0.024 | 0.024 | | | |
| WG555206PQV | PQV | 11/17/22 17:21 | II221109-2 | .03992 | | .0366 | mg/L | 92 | 70 | 130 | | | |
| WG555206SIC | SIC | 11/17/22 17:24 | II221102-3 | .0998 | | .1043 | mg/L | 105 | 80 | 120 | | | |
| WG555206LFB | LFB | 11/17/22 17:30 | II221104-3 | .998 | | .9836 | mg/L | 99 | 85 | 115 | | | |
| L77131-02AS | AS | 11/17/22 17:42 | II221104-3 | .998 | U | .965 | mg/L | 97 | 85 | 115 | | | |
| L77131-02ASD | ASD | 11/17/22 17:45 | II221104-3 | .998 | U | .9736 | mg/L | 98 | 85 | 115 | 1 | 20 | |
| WG555206CCV1 | CCV | 11/17/22 18:00 | II221110-1 | 1 | | .9878 | mg/L | 99 | 90 | 110 | | | |
| WG555206CCB1 | CCB | 11/17/22 18:03 | | | | U | mg/L | | -0.024 | 0.024 | | | |
| WG555206CCV2 | CCV | 11/17/22 18:37 | II221110-1 | 1 | | .9783 | mg/L | 98 | 90 | 110 | | | |
| WG555206CCB2 | CCB | 11/17/22 18:40 | | | | U | mg/L | | -0.024 | 0.024 | | | |
| WG555206CCV3 | CCV | 11/17/22 18:58 | II221110-1 | 1 | | .965 | mg/L | 97 | 90 | 110 | | | |
| WG555206CCB3 | CCB | 11/17/22 19:01 | | | | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG555206** | | | | | | | | | | | | | |
| WG555206ICV | ICV | 11/17/22 17:12 | II221116-1 | 100 | | 97.87 | mg/L | 98 | 95 | 105 | | | |
| WG555206ICB | ICB | 11/17/22 17:18 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| WG555206PQV | PQV | 11/17/22 17:21 | II221109-2 | 1.001 | | .96 | mg/L | 96 | 70 | 130 | | | |
| WG555206SIC | SIC | 11/17/22 17:24 | II221102-3 | 201.201 | | 202.9 | mg/L | 101 | 1 | 200 | | | |
| WG555206LFB | LFB | 11/17/22 17:30 | II221104-3 | 49.99676 | | 48.66 | mg/L | 97 | 85 | 115 | | | |
| L77131-02AS | AS | 11/17/22 17:42 | II221104-3 | 49.99676 | 5.93 | 53.93 | mg/L | 96 | 85 | 115 | | | |
| L77131-02ASD | ASD | 11/17/22 17:45 | II221104-3 | 49.99676 | 5.93 | 56.54 | mg/L | 101 | 85 | 115 | 5 | 20 | |
| WG555206CCV1 | CCV | 11/17/22 18:00 | II221110-1 | 50 | | 49.15 | mg/L | 98 | 90 | 110 | | | |
| WG555206CCB1 | CCB | 11/17/22 18:03 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| WG555206CCV2 | CCV | 11/17/22 18:37 | II221110-1 | 50 | | 49.08 | mg/L | 98 | 90 | 110 | | | |
| WG555206CCB2 | CCB | 11/17/22 18:40 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| WG555206CCV3 | CCV | 11/17/22 18:58 | II221110-1 | 50 | | 48.7 | mg/L | 97 | 90 | 110 | | | |
| WG555206CCB3 | CCB | 11/17/22 19:01 | | | | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG555206** | | | | | | | | | | | | | |
| WG555206ICV | ICV | 11/17/22 17:12 | II221116-1 | 2 | | 1.948 | mg/L | 97 | 95 | 105 | | | |
| WG555206ICB | ICB | 11/17/22 17:18 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| WG555206PQV | PQV | 11/17/22 17:21 | II221109-2 | .0498 | | .046 | mg/L | 92 | 70 | 130 | | | |
| WG555206SIC | SIC | 11/17/22 17:24 | II221102-3 | 49.9498 | | 47.86 | mg/L | 96 | 1 | 200 | | | |
| WG555206LFB | LFB | 11/17/22 17:30 | II221104-3 | .499 | | .496 | mg/L | 99 | 85 | 115 | | | |
| L77131-02AS | AS | 11/17/22 17:42 | II221104-3 | .499 | U | .499 | mg/L | 100 | 85 | 115 | | | |
| L77131-02ASD | ASD | 11/17/22 17:45 | II221104-3 | .499 | U | .517 | mg/L | 104 | 85 | 115 | 4 | 20 | |
| WG555206CCV1 | CCV | 11/17/22 18:00 | II221110-1 | 1 | | .982 | mg/L | 98 | 90 | 110 | | | |
| WG555206CCB1 | CCB | 11/17/22 18:03 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| WG555206CCV2 | CCV | 11/17/22 18:37 | II221110-1 | 1 | | .976 | mg/L | 98 | 90 | 110 | | | |
| WG555206CCB2 | CCB | 11/17/22 18:40 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| WG555206CCV3 | CCV | 11/17/22 18:58 | II221110-1 | 1 | | .971 | mg/L | 97 | 90 | 110 | | | |
| WG555206CCB3 | CCB | 11/17/22 19:01 | | | | U | mg/L | | -0.03 | 0.03 | | | |

**GCC**

ACZ Project ID: ***L77134***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG554864** | | | | | | | | | | | | | |
| WG554864ICV | ICV | 11/14/22 16:01 | HG221114-3 | .005005 | | .00524 | mg/L | 105 | 95 | 105 | | | |
| WG554864ICB | ICB | 11/14/22 16:02 | | | | U | mg/L | | -0.0002 | 0.0002 | | | |
| WG554864PQV | PQV | 11/14/22 16:03 | HG221114-5 | .001001 | | .00099 | mg/L | 99 | 70 | 130 | | | |
| WG554864LRB | LRB | 11/14/22 16:04 | | | | U | mg/L | | -0.00044 | 0.00044 | | | |
| WG554864LFB | LFB | 11/14/22 16:05 | HG221114-6 | .002002 | | .00196 | mg/L | 98 | 85 | 115 | | | |
| WG554864CCV1 | CCV | 11/14/22 16:12 | HG221114-3 | .005005 | | .00528 | mg/L | 105 | 90 | 110 | | | |
| WG554864CCB1 | CCB | 11/14/22 16:13 | | | | U | mg/L | | -0.0002 | 0.0002 | | | |
| L77110-03LFM | LFM | 11/14/22 16:22 | HG221114-6 | .002002 | U | .0019 | mg/L | 95 | 85 | 115 | | | |
| L77110-03LFMD | LFMD | 11/14/22 16:23 | HG221114-6 | .002002 | U | .00181 | mg/L | 90 | 85 | 115 | 5 | 20 | |
| WG554864CCV2 | CCV | 11/14/22 16:24 | HG221114-3 | .005005 | | .00519 | mg/L | 104 | 90 | 110 | | | |
| WG554864CCB2 | CCB | 11/14/22 16:25 | | | | U | mg/L | | -0.0002 | 0.0002 | | | |
| WG554864CCV3 | CCV | 11/14/22 16:32 | HG221114-3 | .005005 | | .00528 | mg/L | 105 | 90 | 110 | | | |
| WG554864CCB3 | CCB | 11/14/22 16:33 | | | | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG555206** | | | | | | | | | | | | | |
| WG555206ICV | ICV | 11/17/22 17:12 | II221116-1 | 2 | | 1.991 | mg/L | 100 | 95 | 105 | | | |
| WG555206ICB | ICB | 11/17/22 17:18 | | | | U | mg/L | | -0.024 | 0.024 | | | |
| WG555206PQV | PQV | 11/17/22 17:21 | II221109-2 | .04016 | | .0368 | mg/L | 92 | 70 | 130 | | | |
| WG555206SIC | SIC | 11/17/22 17:24 | II221102-3 | .1004 | | .101 | mg/L | 101 | 80 | 120 | | | |
| WG555206LFB | LFB | 11/17/22 17:30 | II221104-3 | .502 | | .5007 | mg/L | 100 | 85 | 115 | | | |
| L77131-02AS | AS | 11/17/22 17:42 | II221104-3 | .502 | U | .4984 | mg/L | 99 | 85 | 115 | | | |
| L77131-02ASD | ASD | 11/17/22 17:45 | II221104-3 | .502 | U | .53 | mg/L | 106 | 85 | 115 | 6 | 20 | |
| WG555206CCV1 | CCV | 11/17/22 18:00 | II221110-1 | 1 | | .9968 | mg/L | 100 | 90 | 110 | | | |
| WG555206CCB1 | CCB | 11/17/22 18:03 | | | | U | mg/L | | -0.024 | 0.024 | | | |
| WG555206CCV2 | CCV | 11/17/22 18:37 | II221110-1 | 1 | | .9946 | mg/L | 99 | 90 | 110 | | | |
| WG555206CCB2 | CCB | 11/17/22 18:40 | | | | U | mg/L | | -0.024 | 0.024 | | | |
| WG555206CCV3 | CCV | 11/17/22 18:58 | II221110-1 | 1 | | .9893 | mg/L | 99 | 90 | 110 | | | |
| WG555206CCB3 | CCB | 11/17/22 19:01 | | | | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG554619** | | | | | | | | | | | | | |
| WG554619ICV | ICV | 11/09/22 23:49 | WI220903-1 | 2.416 | | 2.314 | mg/L | 96 | 90 | 110 | | | |
| WG554619ICB | ICB | 11/09/22 23:51 | | | | U | mg/L | | -0.02 | 0.02 | | | |
| WG554619LFB | LFB | 11/09/22 23:54 | WI220826-7 | 2 | | 2.004 | mg/L | 100 | 90 | 110 | | | |
| WG554619CCV1 | CCV | 11/10/22 0:04 | WI221104-3 | 2 | | 1.989 | mg/L | 99 | 90 | 110 | | | |
| WG554619CCB1 | CCB | 11/10/22 0:08 | | | | U | mg/L | | -0.02 | 0.02 | | | |
| L77134-01DUP | DUP | 11/10/22 0:19 | | | U | U | mg/L | | | | 0 | 20 | RA |
| WG554619CCV2 | CCV | 11/10/22 0:21 | WI221104-3 | 2 | | 1.986 | mg/L | 99 | 90 | 110 | | | |
| WG554619CCB2 | CCB | 11/10/22 0:25 | | | | U | mg/L | | -0.02 | 0.02 | | | |
| L77133-01AS | AS | 11/10/22 0:34 | WI220826-7 | 6 | 2.94 | 8.849 | mg/L | 98 | 90 | 110 | | | |
| WG554619CCV3 | CCV | 11/10/22 0:37 | WI221104-3 | 2 | | 1.986 | mg/L | 99 | 90 | 110 | | | |
| WG554619CCB3 | CCB | 11/10/22 0:40 | | | | U | mg/L | | -0.02 | 0.02 | | | |

**GCC**

ACZ Project ID: ***L77134***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG554619** | | | | | | | | | | | | | |
| WG554619ICV | ICV | 11/09/22 23:49 | WI220903-1 | .608 | | .589 | mg/L | 97 | 90 | 110 | | | |
| WG554619ICB | ICB | 11/09/22 23:51 | | | | U | mg/L | | -0.01 | 0.01 | | | |
| WG554619LFB | LFB | 11/09/22 23:54 | WI220826-7 | 1 | | 1.006 | mg/L | 101 | 90 | 110 | | | |
| WG554619CCV1 | CCV | 11/10/22 0:04 | WI221104-3 | 1 | | .994 | mg/L | 99 | 90 | 110 | | | |
| WG554619CCB1 | CCB | 11/10/22 0:08 | | | | U | mg/L | | -0.01 | 0.01 | | | |
| L77133-01AS | AS | 11/10/22 0:16 | WI220826-7 | 1 | U | .983 | mg/L | 98 | 90 | 110 | | | |
| L77134-01DUP | DUP | 11/10/22 0:19 | | | U | U | mg/L | | | | 0 | 20 | RA |
| WG554619CCV2 | CCV | 11/10/22 0:21 | WI221104-3 | 1 | | .998 | mg/L | 100 | 90 | 110 | | | |
| WG554619CCB2 | CCB | 11/10/22 0:25 | | | | U | mg/L | | -0.01 | 0.01 | | | |
| WG554619CCV3 | CCV | 11/10/22 0:37 | WI221104-3 | 1 | | .995 | mg/L | 100 | 90 | 110 | | | |
| WG554619CCB3 | CCB | 11/10/22 0:40 | | | | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG555206** | | | | | | | | | | | | | |
| WG555206ICV | ICV | 11/17/22 17:12 | II221116-1 | 20 | | 19.51 | mg/L | 98 | 95 | 105 | | | |
| WG555206ICB | ICB | 11/17/22 17:18 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| WG555206PQV | PQV | 11/17/22 17:21 | II221109-2 | 1.005 | | 1.04 | mg/L | 103 | 70 | 130 | | | |
| WG555206SIC | SIC | 11/17/22 17:24 | II221102-3 | 1.005 | | 1.05 | mg/L | 104 | 80 | 120 | | | |
| WG555206LFB | LFB | 11/17/22 17:30 | II221104-3 | 99.95798 | | 96.58 | mg/L | 97 | 85 | 115 | | | |
| L77131-02AS | AS | 11/17/22 17:42 | II221104-3 | 99.95798 | 1.6 | 97.54 | mg/L | 96 | 85 | 115 | | | |
| L77131-02ASD | ASD | 11/17/22 17:45 | II221104-3 | 99.95798 | 1.6 | 103.2 | mg/L | 102 | 85 | 115 | 6 | 20 | |
| WG555206CCV1 | CCV | 11/17/22 18:00 | II221110-1 | 10 | | 9.84 | mg/L | 98 | 90 | 110 | | | |
| WG555206CCB1 | CCB | 11/17/22 18:03 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| WG555206CCV2 | CCV | 11/17/22 18:37 | II221110-1 | 10 | | 9.92 | mg/L | 99 | 90 | 110 | | | |
| WG555206CCB2 | CCB | 11/17/22 18:40 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| WG555206CCV3 | CCV | 11/17/22 18:58 | II221110-1 | 10 | | 9.72 | mg/L | 97 | 90 | 110 | | | |
| WG555206CCB3 | CCB | 11/17/22 19:01 | | | | .2 | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG554801** | | | | | | | | | | | | | |
| WG554801PBW | PBW | 11/11/22 13:33 | | | | U | mg/L | | -20 | 20 | | | |
| WG554801LCSW | LCSW | 11/11/22 13:35 | PCN623306 | 1000 | | 980 | mg/L | 98 | 80 | 120 | | | |
| L77174-02DUP | DUP | 11/11/22 14:04 | | | 836 | 852 | mg/L | | | | 2 | 10 | |

**GCC**

ACZ Project ID: ***L77134***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG555421** | | | | | | | | | | | | | |
| WG555421ICV | ICV | 11/22/22 11:45 | MS220930-3 | .05 | | .05061 | mg/L | 101 | 90 | 110 | | | |
| WG555421ICB | ICB | 11/22/22 11:47 | | | | U | mg/L | | -0.00022 | 0.00022 | | | |
| WG555421LFB | LFB | 11/22/22 11:49 | MS221101-6 | .05005 | | .04956 | mg/L | 99 | 85 | 115 | | | |
| WG555421CCV1 | CCV | 11/22/22 12:03 | MS221025-2 | .1001 | | .10016 | mg/L | 100 | 90 | 110 | | | |
| WG555421CCB1 | CCB | 11/22/22 12:05 | | | | U | mg/L | | -0.0003 | 0.0003 | | | |
| WG555421CCV2 | CCV | 11/22/22 12:25 | MS221025-2 | .1001 | | .09909 | mg/L | 99 | 90 | 110 | | | |
| WG555421CCB2 | CCB | 11/22/22 12:27 | | | | U | mg/L | | -0.0003 | 0.0003 | | | |
| L77132-04AS | AS | 11/22/22 12:29 | MS221101-6 | .05005 | U | .05352 | mg/L | 107 | 70 | 130 | | | |
| L77132-04ASD | ASD | 11/22/22 12:30 | MS221101-6 | .05005 | U | .053 | mg/L | 106 | 70 | 130 | 1 | 20 | |
| WG555421CCV3 | CCV | 11/22/22 12:41 | MS221025-2 | .1001 | | .09873 | mg/L | 99 | 90 | 110 | | | |
| WG555421CCB3 | CCB | 11/22/22 12:43 | | | | U | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG555206** | | | | | | | | | | | | | |
| WG555206ICV | ICV | 11/17/22 17:12 | II221116-1 | 100 | | 98.18 | mg/L | 98 | 95 | 105 | | | |
| WG555206ICB | ICB | 11/17/22 17:18 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| WG555206PQV | PQV | 11/17/22 17:21 | II221109-2 | 1.002 | | 1.01 | mg/L | 101 | 70 | 130 | | | |
| WG555206SIC | SIC | 11/17/22 17:24 | II221102-3 | 1.002 | | 1.08 | mg/L | 108 | 80 | 120 | | | |
| WG555206LFB | LFB | 11/17/22 17:30 | II221104-3 | 100.0023 | | 96.13 | mg/L | 96 | 85 | 115 | | | |
| L77131-02AS | AS | 11/17/22 17:42 | II221104-3 | 100.0023 | 10.6 | 106.1 | mg/L | 95 | 85 | 115 | | | |
| L77131-02ASD | ASD | 11/17/22 17:45 | II221104-3 | 100.0023 | 10.6 | 110.8 | mg/L | 100 | 85 | 115 | 4 | 20 | |
| WG555206CCV1 | CCV | 11/17/22 18:00 | II221110-1 | 50 | | 49.24 | mg/L | 98 | 90 | 110 | | | |
| WG555206CCB1 | CCB | 11/17/22 18:03 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| WG555206CCV2 | CCV | 11/17/22 18:37 | II221110-1 | 50 | | 48.9 | mg/L | 98 | 90 | 110 | | | |
| WG555206CCB2 | CCB | 11/17/22 18:40 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| WG555206CCV3 | CCV | 11/17/22 18:58 | II221110-1 | 50 | | 48.7 | mg/L | 97 | 90 | 110 | | | |
| WG555206CCB3 | CCB | 11/17/22 19:01 | | | | U | mg/L | | -0.6 | 0.6 | | | |

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

| ACZ ID | Type | Analyzed | PCN/SCN | QC | Sample | Found | Units | Rec% | Lower | Upper | RPD | Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG555081** | | | | | | | | | | | | | |
| WG555081ICB | ICB | 11/16/22 11:07 | | | | U | mg/L | | -3 | 3 | | | |
| WG555081CCB1 | CCB | 11/16/22 13:15 | | | | U | mg/L | | -3 | 3 | | | |
| WG555081CCB2 | CCB | 11/16/22 13:18 | | | | U | mg/L | | -3 | 3 | | | |
| WG555081CCB3 | CCB | 11/16/22 13:40 | | | | U | mg/L | | -3 | 3 | | | |
| WG555081LFB1 | LFB | 11/16/22 13:40 | WI220830-3 | 10 | | 10 | mg/L | 100 | 90 | 110 | | | |
| WG555081CCB4 | CCB | 11/16/22 13:41 | | | | U | mg/L | | -3 | 3 | | | |
| WG555081LFB2 | LFB | 11/16/22 13:41 | WI220830-3 | 10 | | 9.3 | mg/L | 93 | 90 | 110 | | | |
| L77134-02AS | AS | 11/16/22 13:43 | SO4TURB5X | 10 | 122 | 112.7 | mg/L | -93 | 90 | 110 | | | M3 |
| WG555081CCB5 | CCB | 11/16/22 13:43 | | | | U | mg/L | | -3 | 3 | | | |
| WG555081CCB6 | CCB | 11/16/22 13:46 | | | | U | mg/L | | -3 | 3 | | | |
| WG555081CCB7 | CCB | 11/16/22 14:08 | | | | U | mg/L | | -3 | 3 | | | |
| WG555081CCB8 | CCB | 11/16/22 14:12 | | | | U | mg/L | | -3 | 3 | | | |
| WG555081CCB9 | CCB | 11/16/22 14:36 | | | | U | mg/L | | -3 | 3 | | | |
| L77134-01DUP | DUP | 11/16/22 14:36 | | | 393 | 396.6 | mg/L | | | | 1 | 20 | M3 RA |
| WG555081CCB10 | CCB | 11/16/22 14:38 | | | | U | mg/L | | -3 | 3 | | | |

**GCC**

ACZ Project ID: ***L77134***

*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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG555206** | | | | | | | | | | | | | |
| WG555206ICV | ICV | 11/17/22 17:12 | II221116-1 | 2 | | 2.011 | mg/L | 101 | 95 | 105 | | | |
| WG555206ICB | ICB | 11/17/22 17:18 | | | | U | mg/L | | -0.015 | 0.015 | | | |
| WG555206PQV | PQV | 11/17/22 17:21 | II221109-2 | .025025 | | .025 | mg/L | 100 | 70 | 130 | | | |
| WG555206SIC | SIC | 11/17/22 17:24 | II221102-3 | .1001 | | .103 | mg/L | 103 | 80 | 120 | | | |
| WG555206LFB | LFB | 11/17/22 17:30 | II221104-3 | .5005 | | .503 | mg/L | 100 | 85 | 115 | | | |
| L77131-02AS | AS | 11/17/22 17:42 | II221104-3 | .5005 | U | .4962 | mg/L | 99 | 85 | 115 | | | |
| L77131-02ASD | ASD | 11/17/22 17:45 | II221104-3 | .5005 | U | .527 | mg/L | 105 | 85 | 115 | 6 | 20 | |
| WG555206CCV1 | CCV | 11/17/22 18:00 | II221110-1 | 1 | | 1.022 | mg/L | 102 | 90 | 110 | | | |
| WG555206CCB1 | CCB | 11/17/22 18:03 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| WG555206CCV2 | CCV | 11/17/22 18:37 | II221110-1 | 1 | | 1 | mg/L | 100 | 90 | 110 | | | |
| WG555206CCB2 | CCB | 11/17/22 18:40 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| WG555206CCV3 | CCV | 11/17/22 18:58 | II221110-1 | 1 | | 1.004 | mg/L | 100 | 90 | 110 | | | |
| WG555206CCB3 | CCB | 11/17/22 19:01 | | | | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WG555206** | | | | | | | | | | | | | |
| WG555206ICV | ICV | 11/17/22 17:12 | II221116-1 | 2 | | 1.906 | mg/L | 95 | 95 | 105 | | | |
| WG555206ICB | ICB | 11/17/22 17:18 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| WG555206PQV | PQV | 11/17/22 17:21 | II221109-2 | .0501 | | .046 | mg/L | 92 | 70 | 130 | | | |
| WG555206PQV | PQV | 11/17/22 17:21 | II221109-2 | .0501 | | .051 | mg/L | | 70 | 130 | | | |
| WG555206SIC | SIC | 11/17/22 17:24 | II221102-3 | .1002 | | .1 | mg/L | 100 | 80 | 120 | | | |
| WG555206LFB | LFB | 11/17/22 17:30 | II221104-3 | .50045 | | .494 | mg/L | 99 | 85 | 115 | | | |
| L77131-02AS | AS | 11/17/22 17:42 | II221104-3 | .50045 | U | .489 | mg/L | 98 | 85 | 115 | | | |
| L77131-02ASD | ASD | 11/17/22 17:45 | II221104-3 | .50045 | U | .522 | mg/L | 104 | 85 | 115 | 7 | 20 | |
| WG555206CCV1 | CCV | 11/17/22 18:00 | II221110-1 | 1 | | .973 | mg/L | 97 | 90 | 110 | | | |
| WG555206CCB1 | CCB | 11/17/22 18:03 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| WG555206CCV2 | CCV | 11/17/22 18:37 | II221110-1 | 1 | | .965 | mg/L | 97 | 90 | 110 | | | |
| WG555206CCB2 | CCB | 11/17/22 18:40 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| WG555206CCV3 | CCV | 11/17/22 18:58 | II221110-1 | 1 | | .965 | mg/L | 97 | 90 | 110 | | | |
| WG555206CCB3 | CCB | 11/17/22 19:01 | | | | U | mg/L | | -0.06 | 0.06 | | | |

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

# Inorganic Extended Qualifier Report

**GCC Rio Grande** ACZ Project ID: ***L77134***

| ACZ ID | WORKNUM | PARAMETER | METHOD | QUAL | DESCRIPTION |
|---|---|---|---|---|---|
| **L77134-01** | WG555874 | Fluoride | SM4500F-C | M2 | Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable. |
| | WG554619 | 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). |
| | WG554801 | Residue, Filterable (TDS) @180C | SM2540C | Z5 | Oven temperature observed out of range. Sample and Quality Control attained a consistent weight and all Quality controls were within limits. Reanalyze at client request |
| | WG555421 | Selenium, dissolved | M200.8 ICP-MS | DB | Sample required dilution due to low bias result. |
| | | | M200.8 ICP-MS | EA | Concentration estimated. Analytical result was less than the negative MDL due to matrix interferences. |
| | WG555081 | 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. |
| | | | D516-02/-07/-11 - TURBIDIMETRIC | 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). |
| **L77134-02** | WG555874 | Fluoride | SM4500F-C | M2 | Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable. |
| | WG554619 | 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). |
| | WG554801 | Residue, Filterable (TDS) @180C | SM2540C | Z5 | Oven temperature observed out of range. Sample and Quality Control attained a consistent weight and all Quality controls were within limits. Reanalyze at client request |
| | WG555081 | 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. |
| | | | D516-02/-07/-11 - TURBIDIMETRIC | 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: ***L77134***

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
105495

ACZ Project ID: L77134
Date Received: 11/09/2022 11:51
Received By:
Date Printed: 11/10/2022

## 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? |
|---|---|---|---|---|
| NA38895 | 3.7 | <=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
105495

ACZ Project ID: L77134
Date Received: 11/09/2022 11:51
Received By:
Date Printed: 11/10/2022

[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 | Accredited Environmental Testing | 2773 Downhill Drive, Steamboat Springs, CO 80487, (970) 879-6590 | L77134

# CHAIN of CUSTODY

**Report to:**

| | |
|---|---|
| Name: Amy Veek | Address: 3372 Lime Road |
| Company: GCC Rio Grande Inc | Pueblo CO 81004 |
| E-mail: aveek@gcc.com | Telephone: 719-647-6861 |

**Copy of Report to:**

| | |
|---|---|
| Name: Landon Beck | E-mail: lbeck@resourcehydrogeologic.com |
| Company: Resource Hydrogeologic | Telephone: (970) 459-4865 |

**Invoice to:**

| | |
|---|---|
| Name: Amy Veek | Address: 3372 Lime Road |
| Company: GCC Rio Grande Inc | Pueblo CO 81004 |
| E-mail: aveek@gcc.com | Telephone: 719-647-6861 |

**Copy of Invoice to:**

| | |
|---|---|
| Name: | Address: |
| Company: | |
| E-mail: | Telephone: |

**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:** Amy Veek **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

PO#: 105495

Reporting state for compliance testing:

Check box if samples include NRC licensed material?

ANALYSES REQUESTED (attach list or use quote number)

| SAMPLE IDENTIFICATION | DATE:TIME | Matrix | # of Containers | GW-COMpliance |
|---|---|---|---|---|
| MW-14 | 11/8/2022 10:09 | GW | 3 | ✓ |
| MW-13 | 11/8/2022 10:57 | 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] | 11/8/2022 14:15 | [signature] | 11/9/22 11:51 |
| | | | |
| | | | |

Qualtrax ID: 1984 Revision #: 2 White - Return with sample. Yellow - Retain for your records.

L77134 Chain of Custod

# 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 | L72128, L72232, L73169, L73303, L75198, L77107, L77134 | | |
| PROJECT | GCC Rio Grande – First through Fourth Quarter 2022, Resource Hydrogeologic Services and GCC | | |
| LABORATORY | ACZ Laboratories, Steamboat Springs, CO | | |
| SAMPLE MATRIX | Water | SAMPLING DATE: | 3/22, 3/28, 5/10, 5/17, 8/15, 11/7, 11/8/2022 |
| 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-7, MW-2B, MW-13, MW-6, MW-8, MW-9, MW-10, MW-11, MW-12, MW-14 | | |

DATA REVIEWER: John Huntington

QA REVIEWER: Diane Short & Associates, Inc. INITIALS/DATE: ___DLS___12/16/2022

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.

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 4x the hold time is rejected. Qualified results not rejected. 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 L73169. 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.

In addition, two samples in SDG L73169 and one sample in SDG L73303 were out of hold for TDS. The original analysis in both cases was within hold time, but a reanalysis was required to dilute the samples to be within method requirements.

Qualifiers added are shown within the body of this report and in the qualified EDD. There are no qualifiers required for 3rd and 4th Quarter data.

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

Yes X No _____ N/A _____

The temperature of the cooler associated with SDG L77107 was 9.9° C on receipt. This is not of concern for the metals analyses, but for the samples not preserved with acid this is a deviation from the 40CFR temperature limits, which specify and upper temperature limit of 6° C for samples. Validation guidance allows results to remain unqualified if the cooler temperature is less than 10° C, so no qualifiers added. This is the allowed temperature for microbiological samples, and since many of the analyte loss pathways are biological in nature it is reasonable.

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 _____ No X

All CCVs were within criteria except for one lead result in SDG L75198, which had an elevated recovery of 112%. There are associated sample results, but they all show no detections for lead. Since this elevated recovery indicates a possible high bias, no qualifiers are added. In addition, the next CCV is in control.

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 _____ No X

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.

In SDG L75198, one TDS blank had a detected level above the reporting limit, at 24 mg/L. The associated sample results are much greater than 10x this level, so 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 _____ No X 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.

In the first quarter data, CCB detections include arsenic, calcium, chloride, cobalt selenium and sodium. However, these are all associated with non-detects in samples or else with sample results > 10x the CCB level. No qualifiers are required.

In the second quarter data, selenium is detected in one CCB and cobalt in another. However, the selenium CCB is associated with non-detects in samples or analytical runs not associated with the samples. The samples associated with the cobalt outlier are non-detect for cobalt. No qualifiers are added.

In the third quarter data, several CCB detections are observed for selenium. This impacts 3 samples with detections. Two of those have detections > 10x the CCB and are not qualified. One, sample MW-7, is qualified as UCB# where # is the level of the associated CCB.
One ICB has a detection of arsenic in SDG L75198. Subsequent CCBs have no detections of arsenic. There is one sample run after the ICB but prior to the first CCB, and it has an arsenic result > 10x the ICB. Therefore, no qualifiers are required for it, and since the CCBs are in control for the other samples run no qualifiers are added for them.

In the fourth quarter data, one CCB detection of arsenic is observed in SDG L77134. The arsenic result for MW-13 is qualified as UCB# where # is the level of the associated CCB.
In SDG L77107, one ICB has a detection of copper. There are two samples with detections of copper that are impacted by this ICB. The detections observed in these samples are qualified as UCB#, where # is the level in the associated ICB.

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 X No _____
Matrix spikes, duplicates, and matrix spike duplicates were present. 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.

| Spiked Sample - L72128 | Methods |
|---|---|
| MW-7 | M200.7 ICP |
| Spiked Sample – L72232 | |
| MW-8 | M200.8 ICP-MS, SM4500F-C |
| MW-12 | M200.7 ICP |
| Spiked Sample - SDG L73303 | |
| MW-14 | M200.8 ICP-MS |
| MW-12 | M200.7 ICP |
| MW-11 | M200.7 ICP |
| MW-6 | M200.8 ICP-MS |
| MW-9 | M353.2 - Automated Cadmium Reduction, M200.8 ICP-MS |
| MW-10 | D516-02/-07/-11 - TURBIDIMETRIC |
| MW-8 | M200.8 ICP-MS |
| Spiked Sample – SDG L73169 | |
| MW-2B | SM4500Cl-E |
| Spiked Sample – SDG L75198 | |
| MW-11 | M200.7 ICP, SM4500F-C -Fluoride, D516-02/-07/-11 – TURBIDIMETRIC |

| | |
|---|---|
| MW-12 | M200.8 ICPMS |
| MW-7 | M200.8 ICPMS – Se |
| MW-14 | SM4500Cl-E – Cl, M245.1 CVAA |
| MW-08 | M353.2 - Automated Cadmium Reduction |
| Spiked Sample – SDG L77107 | |
| MW-11 | M200.7 ICP |
| MW-2B | M200.8 ICPMS |
| MW-09 | SM4500Cl-E – Cl, M245.1 CVAA |
| MW-06 | SM4500Cl-E – Cl, SM4500F-C, D516-02/-07/-11 – TURBIDIMETRIC |
| MW-19 | SM4500F-C |
| Spiked Sample – SDG L77134 | |
| MW-13 | D516-02/-07/-11 – TURBIDIMETRIC |

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

Yes _____ No __X__ 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.

In SDG L75198, the recovery of copper in the spike of MW-11 was 16% in the MS and 15% in the MSD. Validation guidance specifies that for recoveries below 30% a post-digestion spike should be analyzed. However, these are direct-injection analyses and no post-digestion spike is possible. Since the sample result is a non-detection for copper, the guidance specifies that the data be qualified as "R", unusable. The copper result in sample MW-11 is qualified as RMS11. All other MS/MSD recoveries for ICP and ICP-MS metals in this SDG are acceptable. The laboratory should have re-spiked and reanalyzed this sample for copper.

The validator reviewed the raw data for this run to determine if there was a calculational or run error. No such error could be identified. Standard deviations of run replicates did not suggest excessive instrument variability and the raw results match the reported results. CCVs were acceptable, and a matrix spike from a separate project in the same run showed normal recoveries.

In SDG L75198, the recovery of mercury in the spike of MW-14 was 41% in the MS and 40% in the MSD. The result is qualified as JMS40, indicating a possible low bias.

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

Yes _____ No _____ N/A __X__

Not required in this case since samples are not digested.

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 _____

Lab duplicates are present for Nitrate, nitrite, chloride, alkalinity, TDS, and sulfate.

| Parent Sample SDG L72128 | Methods |
|---|---|
| MW-2B | SM2320B - alkalinity |
| Parent Sample SDG L72232 | |
| MW-8 | SM2540C – TDS |
| MW-14 | SM4500Cl-E |
| Parent Sample SDG L73169 | |
| MW-13 | M353.2 - Automated Cadmium Reduction |
| MW-7 | SM4500Cl-E |
| Parent Sample SDG L73303 | |
| MW-11 | SM2320B - alkalinity |
| MW-9 | SM2320B - alkalinity |
| MW-10 | M353.2 - Automated Cadmium Reduction, SM4500Cl-E |
| MW-12 | M353.2 - Automated Cadmium Reduction |
| MW-6 | SM2540C - TDS |
| MW-14 | D516-02/-07/-11 – TURBIDIMETRIC |
| Parent Sample SDG L75198 | |
| MW-8 | SM2320B – alkalinity, M353.2 - Automated Cadmium Reduction |
| MW-13 | SM4500Cl-E |
| MW-12 | M353.2 - Automated Cadmium Reduction |
| Parent Sample SDG L77107 | |
| MW-6 | SM2320B – alkalinity |
| MW-7 | SM4500Cl-E |
| MW-10 | SM4500Cl-E, M353.2 - Automated Cadmium Reduction |
| MW-14 | M353.2 - Automated Cadmium Reduction |
| MW-8 | SM2540C - TDS |

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 both first and second quarter data.
Sample MW-2B is a blind duplicate of sample MW-8 in both third and fourth quarter data.

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 laboratory 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 4x the hold time is rejected. Qualified results not rejected. 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 L73169. 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.

In addition, two samples in SDG L73169 and one sample in SDG L73303 were out of hold for TDS. The original analysis in both cases was within hold time, but a reanalysis was required to dilute the samples to be within method requirements.

Qualifiers added are shown within the body of this report and in the qualified EDD. There are no qualifiers required for 3rd and 4th Quarter data.

Method Blanks

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.

In SDG L75198, one TDS blank had a detected level above the reporting limit, at 24 mg/L. The associated sample results are much greater than 10x this level, so no qualifiers are required.

Initial and 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 analyse are qualified.

In the first quarter data, CCB detections include arsenic, calcium, chloride, cobalt selenium and sodium. However, these are all associated with non-detects in samples or else with sample results > 10x the CCB level. No qualifiers are required.

In the second quarter data, selenium is detected in one CCB and cobalt in another. However, the selenium CCB is associated with non-detects in samples or analytical runs not associated with the samples. The samples associated with the cobalt outlier are non-detect for cobalt. No qualifiers are added.

In the third quarter data, several CCB detections are observed for selenium. This impacts 3 samples with detections. Two of those have detections > 10x the CCB and are not qualified. One, sample MW-7, is qualified as UCB# where # is the level of the associated CCB.
One ICB has a detection of arsenic in SDG L75198. Subsequent CCBs have no detections of arsenic. There is one sample run after the ICB but prior to the first CCB, and it has an arsenic result > 10x the ICB. Therefore, no qualifiers are required for it, and since the CCBs are in control for the other samples run no qualifiers are added for them.

In the fourth quarter data, one CCB detection of arsenic is observed in SDG L77134. The arsenic result for MW-13 is qualified as UCB# where # is the level of the associated CCB.
In SDG L77107, one ICB has a detection of copper. There are two samples with detections of copper that are impacted by this ICB. The detections observed in these samples are qualified as UCB#, where # is the level in the associated ICB.

Matrix Spikes, Matrix Spike Duplicates, and Matrix Duplicates

Matrix spikes, duplicates, and matrix spike duplicates were present. 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 within the body of this report. 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.

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.

In SDG L75198, the recovery of copper in the spike of MW-11 was 16% in the MS and 15% in the MSD. Validation guidance specifies that for recoveries below 30% a post-digestion spike should be analyzed. However, these are direct-injection analyses and no post-digestion spike is possible. Since the sample result is a non-detection for copper, the guidance specifies that the data be qualified as "R", unusable. The copper result in

sample MW-11 is qualified as RMS11. All other MS/MSD recoveries for ICP and ICP-MS metals in this SDG are acceptable. The laboratory should have re-spiked and reanalyzed this sample for copper.
The validator reviewed the raw data for this run to determine if there was a calculational or run error. No such error could be identified. Standard deviations of run replicates did not suggest excessive instrument variability and the raw results match the reported results. CCVs were acceptable, and a matrix spike from a separate project in the same run showed normal recoveries.

In SDG L75198, the recovery of mercury in the spike of MW-14 was 41% in the MS and 40% in the MSD. The result is qualified as JMS40, indicating a possible low bias.

Lab duplicates are present for Nitrate, nitrite, chloride, alkalinity, TDS, and sulfate. RPDS are acceptable for lab duplicates and for matrix spike duplicates. No qualifiers are added.

Field QC

Sample MW-2B is a blind duplicate of sample MW-7 in both first and second quarter data.

Sample MW-2B is a blind duplicate of sample MW-8 in both third and fourth quarter data.

Results are within criteria and no qualifiers are added.

TABLE OF QUALIFIED DATA

| CLIENTID | LABID | ANALYTE | RESULT | Lab Flag | UNITS | MDL | PQL | DSA | EPA |
|---|---|---|---|---|---|---|---|---|---|
| MW-13 | L77134-02 | Arsenic, dissolved | 0.00102 | B | mg/L | 0.001 | 0.005 | UCB0.00026 | UB |
| MW-11 | L75198-08 | Copper, dissolved | | U | mg/L | 0.01 | 0.05 | RMS15 | R |
| MW-9 | L77107-05 | Copper, dissolved | 0.051 | B | mg/L | 0.05 | 0.25 | UCB0.014 | UB |
| MW-10 | L77107-06 | Copper, dissolved | 0.060 | B | mg/L | 0.05 | 0.25 | UCB0.014 | UB |
| MW-13 | L73169-01 | Nitrate as N, dissolved | 0.109 | H | mg/L | 0.02 | 0.1 | JHT0.5 | J- |
| MW-2B | L73169-02 | Nitrate as N, dissolved | 0.2 | H | mg/L | 0.02 | 0.1 | JHT0.5 | J- |
| MW-7 | L73169-03 | Nitrate as N, dissolved | 0.186 | H | mg/L | 0.02 | 0.1 | JHT0.5 | J- |
| MW-13 | L73169-01 | Nitrate/Nitrite as N, dissolved | 0.109 | H | mg/L | 0.02 | 0.1 | JHT0.5 | J- |
| MW-2B | L73169-02 | Nitrate/Nitrite as N, dissolved | 0.2 | H | mg/L | 0.02 | 0.1 | JHT0.5 | J- |
| MW-7 | L73169-03 | Nitrate/Nitrite as N, dissolved | 0.186 | H | mg/L | 0.02 | 0.1 | JHT0.5 | J- |
| MW-13 | L73169-01 | Nitrite as N, dissolved | | UH | mg/L | 0.01 | 0.05 | UJHT0.5 | UJ- |
| MW-2B | L73169-02 | Nitrite as N, dissolved | | UH | mg/L | 0.01 | 0.05 | UJHT0.5 | UJ- |
| MW-7 | L73169-03 | Nitrite as N, dissolved | | UH | mg/L | 0.01 | 0.05 | UJHT0.5 | UJ- |
| MW-2B | L73169-02 | Residue, Filterable (TDS) @180C | 5660 | H | mg/L | 40 | 80 | JHT3 | J- |
| MW-7 | L73169-03 | Residue, Filterable (TDS) @180C | 5660 | H | mg/L | 40 | 80 | JHT3 | J- |
| MW-9 | L73303-03 | Residue, Filterable (TDS) @180C | 4390 | H | mg/L | 100 | 200 | JHT4 | J- |
| MW-7 | L75198-05 | Selenium, dissolved | 0.00075 | | mg/L | 0.0001 | 0.00025 | UCB0.00015 | UB |
| MW-14 | L75198-01 | Mercury, dissolved | | U | mg/L | 0.0002 | 0.001 | UJMS40 | UJ |