RIO GRANDE SILVER, INC.

Division of Reclamation, Mining, and Safety
Room 215, c/o Lucas West
1001 E. 62nd Ave
Denver, CO 80216

May 9, 2022

RE: Bulldog Mine Permit No. M-1977-215
Technical Revision TR-24, Dewater 9360 Level-Water Hauling

Minerals Program,

Rio Grande Silver (RGS) is planning to re-enter the Bulldog Mine in May of 2022 to begin rehabilitation work that will allow safe long-term access to the underground development for further rehabilitation and resource confirmation work to determine if the deposit is economic for future production. The Bulldog Mine has been in Temporary Cessation Status since March 26, 2014. RGS submitted a letter to DRMS on November 29, 2021, requesting a Change of Status to Active for the Bulldog Mine Permit No M-1977-215. The request was accepted, and the Bulldog Mine was changed to Active Status on December 1, 2021.

Existing Conditions:

In order to proceed with rehabilitation, the 9360 Level (Upper Mine Pool) has to be de-watered. Current conditions are such that surface water infiltrates into the tunnel and backs up behind a hydraulic plug installed by Homestake Mining Company near the portal in 1999 during reclamation activities. The water backs up to a location approximately 3,000 feet beyond the 9400/9360 Breakthrough, which corresponds to an elevation of 9,383 feet and the A59 invert survey spad at the 93059 X-Cut where the water drains down the 93059 Stope to the regional mine pool at and elevation of approximately 9240 feet (See FIGURE 5 - 2022 Rehabilitation Plan).

Monitoring well elevation recordings on 10/5/2021 show the elevation of BD-MW at 9379.80 feet and HW-3 at 9378.78. The last underground observation of the water level at the 9400/9360 Breakthrough was 9,383 feet in 2014. A water sample was taken from BD-MW on 2/16/2022 for water quality analysis and the water elevation recorded was 9,378.8 ft (See Exhibit 2–Upper Mine Pool WQ and Exhibit 3-BD-MW_Field Data Sheet). With these recorded water level elevations and data from the temporary dewatering of the 9360 Level in 2013, RGS has developed the following Water Handling Plan. The Water Handling Plan is also detailed in Exhibit 1 - Approved Substitute Water Supply Plan.

The 2/16/2022 analysis of the water in the upper mine pool shows that Manganese is the only parameter of concern being +.55 mg/l above the Domestic Water Supply-Drinking Water Standards and +.38 mg/l above the Agricultural Standards. The pH at the time of sampling was 7.36.

Proposed Action: Water Handling Plan

All water pumped to the surface from the 9360 Level tunnel will be managed with no surface discharge as described. Water may be used for dust control pending USFS approval.

The mining contractor assigned to do the rehabilitation work will pump water from the 9400/9360 Breakthrough to the surface with a 200-gpm submersible pump where it will be stored temporarily in an 8,000-gallon tank and a 150,000-gallon lined holding pond (TP-1). From there a water hauling contractor will transport the water by truck approximately two miles to a lined evaporation pond (TP-2) with a 21-acre/feet holding capacity (See Figure-1 Bulldog Project Area and Figure-3 TP-2 Lined Evaporation Pond).

Water will be gravity fed into water trucks from the 8,000-gal tank and pumped into water trucks from TP-1(See Figure-2 Bulldog Portal Area). Water trucks will then transport the water to the lined evaporation pond TP-2 where it will be gravity fed by an 8-inch schedule 80 hdpe pipe into TP-2 (See Figure-3 TP-2 Lined Evaporation Pond). The design capacity of the evaporation pond is such that it leaves 12 inches of freeboard which has an additional capacity of 3.2-acre/feet of storage capacity before overtopping. With normal evaporation the de-watering is projected to use about 74% of the design capacity which will result in additional freeboard. Average rainfall is factored into the calculations. An average annual snowfall of 38” will result in 4.7 inches of water. There should be sufficient freeboard to handle 3 times that amount. In the event that there is more water placed into TP-2 than planned, the use of accelerated evaporation measures will be evaluated in August to allow time for additional evaporation before freezing temperatures occur in November.

A properly installed totalizing meter will be used to record on a daily basis the amount of water pumped from the upper mine pool. The initial draw down to empty the 9360 Level of approximately 6.6 acre feet is expected to take 14 days at an average rate of 153,530 gallons/day and 106.68 gpm with a 200-gpm pump. This will be accomplished by running two 4,000-gallon minimum capacity water trucks 24 hours per day, seven days a week for the two-week period from the 8,000-gallon storage tank and TP-1 to the TP-2 Lined Evaporation Pond. Once the initial draw is completed, maintenance of the daily infiltration is anticipated to be about 19,530 gallons/day. This will be accomplished by placing a 30-gpm minimum pump in the existing sump at the 9400/9360 Breakthrough and can be managed with one 4,000-gallon water truck until rehabilitation is completed. In addition to water being hauled to TP-2, a 2,000-gallon water truck will haul water to one core drill located in upper Windy Gulch on Bulldog Pad 7 on an as needed basis from the first of June through August (See Figure-4 Core Drill Location).

The rehabilitation work is planned to be completed by December 31, 2022. Once the rehabilitation is completed, a water management system is being considered to keep the 9360 Level dry as long as underground work continues.

List of Figures

List of Exhibits

FIGURE 1

Bulldog Project Area

1- 9400 Portal Pad
2 - TP-1
3- Facilities
4- TP-2

Figure 2

Bulldog Portal Area

1 - 9400 Portal Pad
2 - 8,000 gal Storage Tank
3 - TP-1 Lined Pond

TP-2 Lined Pond

1- 21 ac ft lined holdong pond
2- Access Road
3- Gravity water dump location

FIGURE 3

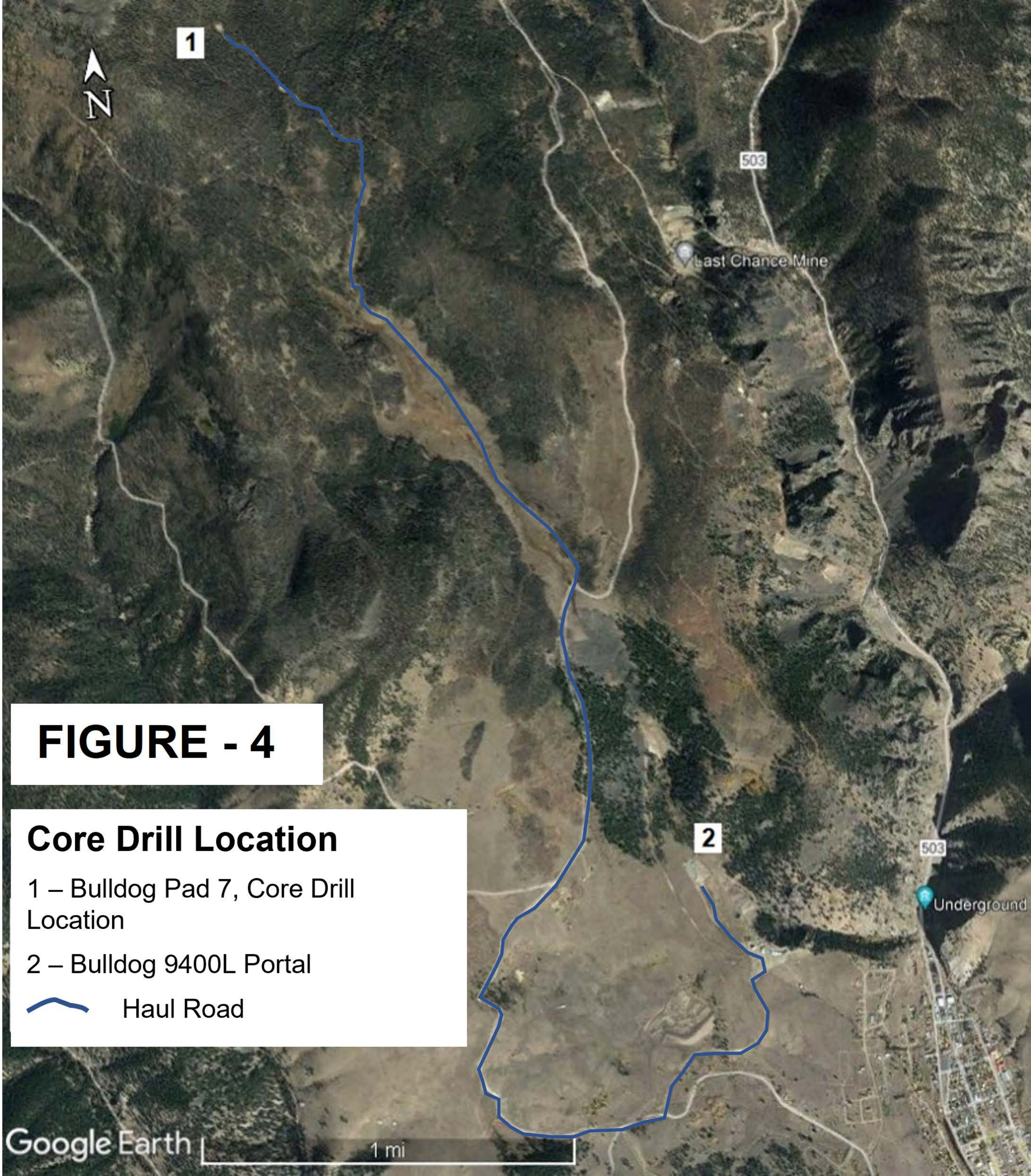


FIGURE - 4

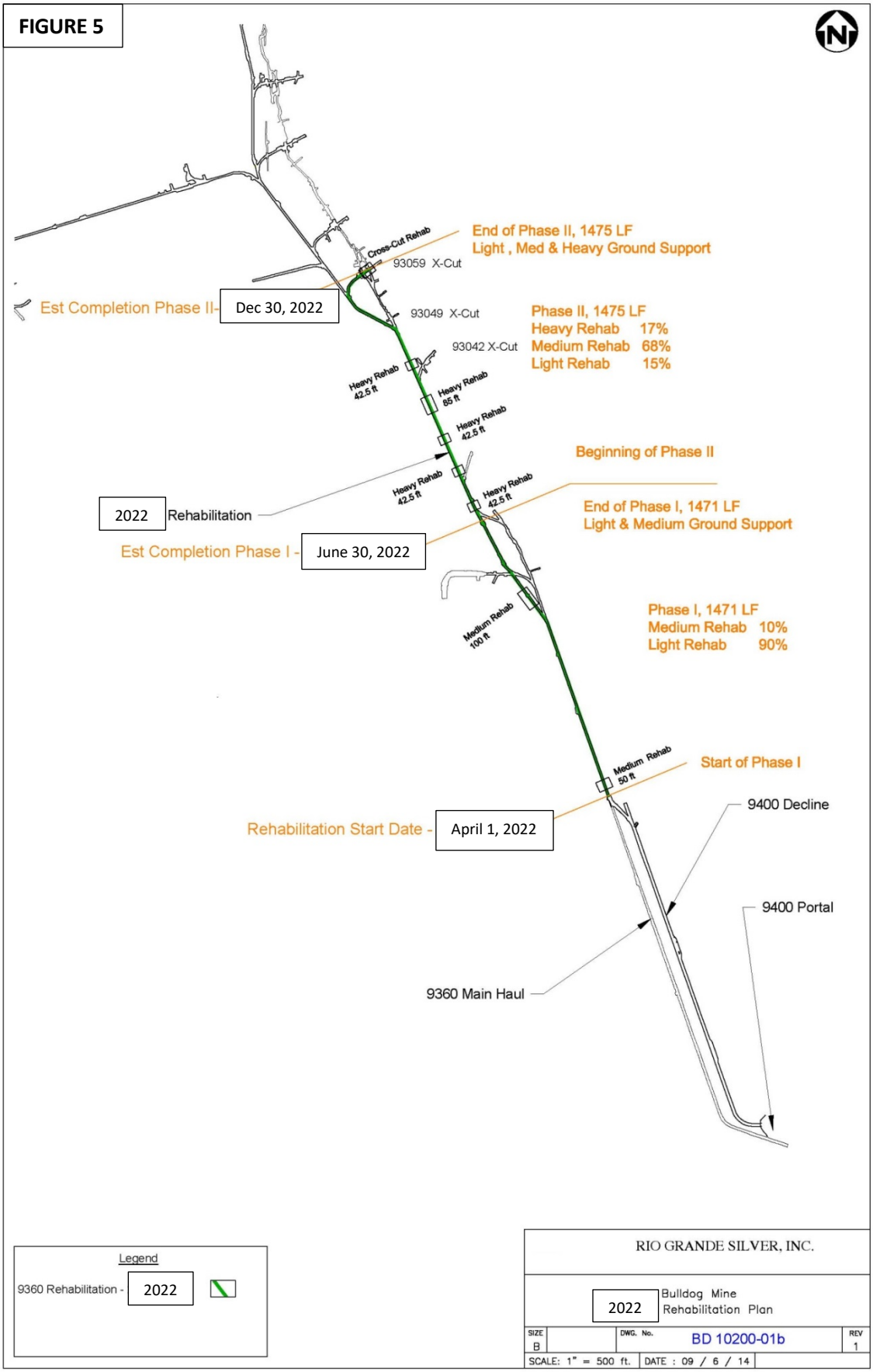
Core Drill Location

1 – Bulldog Pad 7, Core Drill Location

2 – Bulldog 9400L Portal

Haul Road

FIGURE 5


End of Phase II, 1475 LF
Light , Med & Heavy Ground Support
Cross-Cut Rehab
93059 X-Cut
Est Completion Phase II-
Dec 30, 2022
93049 X-Cut
93042 X-Cut
Phase II, 1475 LF
Heavy Rehab 17%
Medium Rehab 68%
Light Rehab 15%
Heavy Rehab 42.5 ft
Heavy Rehab 85 ft
Heavy Rehab 42.5 ft
Heavy Rehab 42.5 ft
Heavy Rehab 42.5 ft
Beginning of Phase II
2022 Rehabilitation
End of Phase I, 1471 LF
Light & Medium Ground Support
Est Completion Phase I -
June 30, 2022
Medium Rehab 100 ft
Phase I, 1471 LF
Medium Rehab 10%
Light Rehab 90%
Medium Rehab 50 ft
Start of Phase I
Rehabilitation Start Date -
April 1, 2022
9400 Decline
9400 Portal
9360 Main Haul
Legend
9360 Rehabilitation -
2022
RIO GRANDE SILVER, INC.
2022
Bulldog Mine
Rehabilitation Plan
SIZE B
DWG. No. BD 10200-01b
REV 1
SCALE: 1" = 500 ft.
DATE : 09 / 6 / 14

COLORADO
Division of Water Resources
Department of Natural Resources

EXHIBIT 1

April 29, 2022

Randy McClure
Rio Grande Silver, Inc
PO Box 610
Creede, CO 81130

Re: Rio Grande Silver Substitute Water Supply Plan
DRMS Permit No. M-1977-215
Sec. 25, Twp. 42N, Rng. 1W, N.M.P.M., Mineral County
Water Division 3, Water District 20
SWSP ID #9332

Approval Period: May 1, 2022 through April 30, 2023
Contact information for Mr. McClure: (970) 317-5355; rmcclure@hecla-mining.com

Dear Mr. McClure:

We have reviewed your letter of December 20, 2021 requesting a substitute water supply plan ("SWSP"), pursuant to §37-92-308(5), C.R.S. for the replacement of evaporative depletions associated with dewatering the Bulldog Mine on behalf of Rio Grande Silver, Inc ("Applicant"). Notice was sent to all parties who have subscribed to the SWSP notification list for Water Division 3 on December 20, 2021. No comments were received during the statutory 35-day comment period. The statutory $300 filing fee has been received under receipt no. 10017583.

An application for approval of a plan for augmentation as proposed by this SWSP has not been filed with the water court and the depletions associated with the proposed water uses will not exceed five years, therefore this request has been submitted pursuant to §37-92-308(5), C.R.S. In accordance with §37-92-308(5), C.R.S., SWSPs may be approved for new water use plans involving out-of-priority diversions or a change of water right, if no application for approval of a plan for augmentation or a change of water right has been filed with the water court and the water use plan or change proposed and the depletions associated with such water use plan or change will be for a limited duration not to exceed five years. **This is the first year of approval for this SWSP.**

SWSP OPERATION

The Bulldog Mine is located in NW 1/4 , Section 25, Township 42 North, Range 1 West, N.M. P.M., Mineral County. The Applicant intends to expand exploration activity of the mining site. During construction and rehabilitation of tunnels at the Bulldog Mine, an estimated volume of 6.6 acre-feet of water will be removed from the Upper Mine Pool over a period expected to last 14 days during April 2022. This water will be pumped to the surface and held in a lined storage pond prior to being hauled to a lined evaporation pond. After the initial drawdown is completed, dewatering will be maintained at a rate of approximately 19,530 gallons/day. Ultimately, it is anticipated that the daily infiltration that is dewatered will be conveyed by pipe to the Lower Mine Pool, where it

will resume historical movement toward Willow Creek and the Rio Grande. At such time, the Applicant will seek approval from the Division Engineer for the cessation of replacement requirements. The exploration activity is expected to last seven months. The Upper Mine Pool drains to the Lower Mine Pool, where it connects to the groundwater table. The groundwater is believed to flow southeasterly towards Willow Creek and then continue southerly to the Rio Grande.

Depletions

The depletions that will be replaced by this SWSP are limited to the volume of water that is pumped from the Upper Mine Pool and the tunnels of the mining site. The water will be evaporated from 3.4 acres of open water surface at the lined evaporation pond or used on site and is presumed to be 100% consumed.

Replacement

The depletions from the initial volume of water removed from the Upper Mine Pool during the first 14 days of operation will be replaced by a one-time purchase of 8.0 acre-feet of water from the San Luis Valley Water Conservation District (SLVWCD). The contract (attached) provides for a 5% transit loss to carry the replacement water from storage in upstream reservoirs downstream to the confluence of Willow Creek and the Rio Grande. Release of SLVWCD water will be coordinated with the Water District 20 Commissioner, reservoir operator, and the SLVWCD to replace depletions in a timely fashion.

The depletions from the ongoing dewatering of the daily infiltration will be replaced using the Applicant's ownership of 0.25 cfs of the Cochran Pioneer Ditch water through an agreement with the City of Creede. The subject water right was acquired by the Homestake Mining Corporation and in 1969, 0.5 cfs of the 1.2 cfs that was acquired by Homestake Mining Corporation was transferred to the "Creede Point of Diversion" in Civil Action No. 3792. The remaining 0.7 cfs was transferred to the "Creede Point of Diversion" in 1981. In 1994 the City of Creede obtained 0.5 cfs of the Cochran Pioneer Ditch water right from Homestake Mining Corporation with the provision that the City of Creede shall either reconvey 0.25 cfs of the Cochran Pioneer Ditch water right to, or make available to, the Grantor and/or its successor and assigns. In 2012, a perpetual water supply agreement between Rio Grande Silver and the City of Creede made the 0.25 cfs available to Rio Grande Silver.

The following water right is the subject of this request:

Water Right	WDID	Water District	Decree	Point of Diversion	Appropriation Date	Diversion Rate (cfs)	Use
Cochran Pioneer Ditch	2000582	20	94CW31, 07CW60,Civil Action No. 3792	SE 1/4, Sec. 25, Twp. 42N, Rng. 1W NMPM	June 9, 1872	0.25	Irrigation, Industrial, Manufacturing, Domestic, Agricultural, All Other Beneficial Purposes

CONDITIONS OF APPROVAL

This SWSP is hereby approved pursuant to §37-92-308(5), C.R.S., subject to the conditions stated below:

1. This SWSP shall be valid for the period of May 1, 2022 through April 30, 2023 unless otherwise revoked. Any request for an additional SWSP is subject to the provisions of §37-92-308(5) (b), C.R.S., and the statutory fee of $300 will be required pursuant to §37-92-308(8), C.R.S. Any request for an additional SWSP must be submitted to this office no later than **February 1, 2023**.

2. In accordance with § 37-92-308(5), C.R.S., this SWSP cannot be renewed or approved for more than five years and the depletions associated with the proposed water uses must not exceed five years. **This is the first year of approval of this SWSP**.

3. For replacement of daily mine inflows that are pumped from the mine, the Applicant's ownership of the Cochran Pioneer Ditch water right must be committed solely to this purpose. The maximum diversion rate of water pursuant to this SWSP shall not exceed 0.25 cfs (112 gpm) and shall only occur when the Cochran Pioneer Ditch water right, with an appropriation date of June 9, 1872 (Priority No. 13 on the Rio Grande), is in priority.

4. The total replacement that must be made to account for evaporative loss from water pumped from the mine and transported to the reclaimed tailings storage reservoir as well as any water pumped from the mine that is used for surface core drilling is limited to 8.0 acre-feet. This replacement amount is a sum of the expected evaporation plus drilling water plus transit loss on SLVWCD water released down the Rio Grande from an upstream reservoir.

5. The Applicant shall install and maintain such measuring devices as required by the Division Engineer for operation of this SWSP. A totalizing flow meter shall be installed to measure the pumped diversions described in this SWSP.

6. The Applicant shall provide accounting on **a monthly basis**. The accounting must be submitted to the Division Engineer via the online submittal tool. **Please contact Kevin Boyle at kevin.boyle@state.co.us to set up an account with the subject line "Rio Grande Silver SWSP".** Accounting must be submitted within 10 days after the end of the month for which the accounting applies. Accounting and reporting procedures are subject to approval and modification by the Division Engineer.

7. Regular communication with the Water Commissioner is required for the operation of this SWSP and may be required on a daily basis depending on river administration.

8. The name, address, and phone number of the contact person who will be responsible for the operation and accounting of this SWSP must be provided with the accounting forms to the Division Engineer and Water Commissioner.

9. The State Engineer may revoke this SWSP or add additional restrictions to its operation if at any time the State Engineer determines that injury to other vested water rights has

occurred or will occur as a result of the operation of this SWSP. Should this SWSP expire without renewal or be revoked prior to adjudication of a permanent plan for augmentation, all use of water under this SWSP must cease immediately.

10. The decision of the State Engineer shall have no precedential or evidentiary force, shall not create any presumptions, shift the burden of proof, or serve as a defense in any pending water court case or any other legal action that may be initiated concerning the SWSP. This decision shall not bind the State Engineer to act in a similar manner in any other applications involving other SWSPs or in any proposed renewal of this SWSP, and shall not imply concurrence with any findings of fact or conclusions of law contained herein, or with the engineering methodologies used by the Applicant. Any appeal of a decision made by the State Engineer concerning an SWSP pursuant to § 37-92-308(5), C.R.S., shall be to the Division 3 Water Judge within thirty days of the date of this decision.

Should you have any questions, please contact Kate Fuller of this office or Pat McDermott, Staff Engineer, in our Division 3 office in Alamosa at (719) 589-6683.

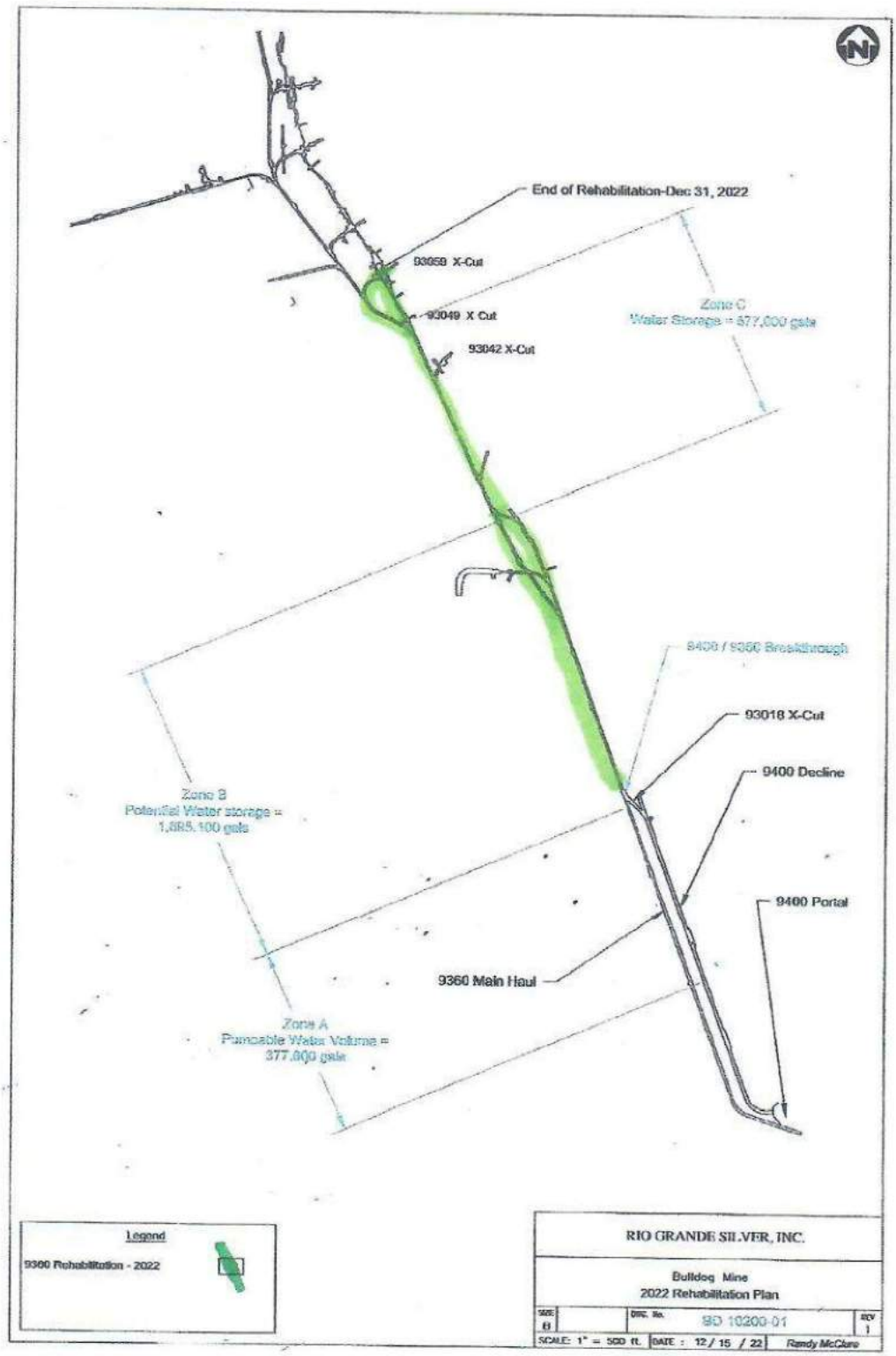
Sincerely,

Jeff Deatherage, P.E.
Chief of Water Supply

Attachments:
Site Map
Letter from LWRC
SLVWCD Contract

cc: Craig Cotten, Division 3 Engineer
Sam Riggenbach, Lead District 20 Water Commissioner
Luis Heredia, District 20 Water Commissioner
Pat McDermott, Division 3

Attachment 2



Attachment 7

Lower Willow Creek Restoration Company
PO Box 518
Creede, CO 81130

December 10, 2021

Mr. Kevin Rein, P.E.
Chief of Water Supply
Division of Water Resources
1313 Sherman Street
Denver, Colorado 80203

Re: Lower Willow Creek Restoration Company Substitute Water Supply Plan
SW 1/4, Sec 25, Twp 42N, R1W, N.M.P.N. Mineral County
Water Division 3, Water District 20

Dear Mr. Rein,
Lower Willow Creek Restoration Company (LWCRCo) requests termination of the Substitute Water Supply Plan – SWSP ID 5937.

Rio Grande Silver has requested the return of the 0.25 cfs water right from the LWCRCO for Rio Grande Silver to use in 2022 and beyond.

Sincerely

Paul Glader
President
Lower Willow Creek Restoration Company

Heather Dutton Dec 14, 2021, 7:26 AM (6 days ago)

to **Matt**, me, RMcClure@hecla-mining.com

Hi Zeke,

We can cover augmentation needs on a year to year basis through one time sales and there is no issue making 8 AF available in April or May of 2022. The cost is $2,000/AF, river losses to Creede are 5%, and the admin fee for one time sales is $100.

8 Af + 5% River Losses (0.4211 AF) = 8.4211 AF x $2,000 = $16,842 + $100 =
$16,942 total cost of a one-time sale.

Let me know if you want to proceed and I can draw up a one time sale.

If so, I need to know the name, address, email, and phone of your contact at the mine.

Thanks!

Heather

Heather Dutton
Manager, San Luis Valley Water Conservancy District
623 Fourth Street
Alamosa, CO 81101
(719) 589-2230 ex 11
www.slvwcd.org

Randy McClure Dec 14, 2021, 10:46 AM (6 days ago)

to **Matt**, **Jonathan**, Heather, me

Hi Heather,
Great news that you can cover our augmentation needs. Thank you for sending the details on costs.
Rio Grande Silver would like to proceed with the one-time sale. This has all transpired very fast and Zeke is hoping to submit the SWSP request by the end of this week. Is it possible to get a document/sale agreement that can be submitted with the SWSP request? How soon do I need to get you the payment? The money for this project is in a 2022 budget. Would it be possible

to delay the payment until January? If not, I will do what is necessary to complete the one-time sale.
My contact information is:

Randy McClure
Consultant, Rio Grande Silver, Inc.
PO Box 610
Creede, CO 81130
Ph: 970-317-5355
Email: rmcclure@hecla-mining.com

Thanks again,

Randy

EXHIBIT 2

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

Analytical Report

March 11, 2022

Report to:
Randy McClure
Rio Grande Silver, Inc.
112 E. 12th St.
Creede, CO 81130

Bill to:
Randy McClure
Rio Grande Silver, Inc.
P.O. Box 610
Creede, CO 81130

Project ID: BO48678
ACZ Project ID: L71505

Randy McClure:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on February 17, 2022. This project has been assigned to ACZ's project number, L71505. 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 L71505. 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 10, 2022. If the samples are determined to be hazardous, additional charges apply for disposal (typically $11/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical raw data reports for ten years.

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

Sue Webber has reviewed and approved this report.

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

Case Narrative

Rio Grande Silver, Inc.

March 11, 2022

Project ID: BO48678
ACZ Project ID: L71505

Sample Receipt

ACZ Laboratories, Inc. (ACZ) received 1 groundwater sample from Rio Grande Silver, Inc. on February 17, 2022. The sample was received in good condition. Upon receipt, the sample custodian removed the sample from the cooler, inspected the contents, and logged the sample into ACZ's computerized Laboratory Information Management System (LIMS). The sample was assigned ACZ LIMS project number L71505. 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

This sample was analyzed for inorganic, organic parameters. The individual methods are referenced on both, the ACZ invoice and the analytical reports. The following required further explanation not provided by the Extended Qualifier Report:

1. TDS (N1) - Oven range is 80 C to 91 C. Over the weekend, the oven had a minor high temperature out of range. When the oven temperature was checked on Monday 2/21/22, the max temp read at 92.0' C. The WG was removed from the oven on 2/21/22 when the oven was back in range. The WG was examined and there was no splattering of samples.

EXHIBIT 2

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

Inorganic Analytical Results

Rio Grande Silver, Inc.
Project ID: BO48678
Sample ID: BD-MW

ACZ Sample ID: ***L71505-01***
Date Sampled: *02/16/22 10:00*
Date Received: *02/17/22*
Sample Matrix: *Groundwater*

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor								02/21/22 15:00	bls
Total Recoverable Digestion	M200.2 ICP-MS								02/25/22 14:15	mfm
Total Recoverable Digestion	M200.2 ICP								03/01/22 19:50	aeh

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	1	<0.05	U		mg/L	0.05	0.25	02/24/22 12:37	jlw
Aluminum, total recoverable	M200.7 ICP	2	2.16		*	mg/L	0.1	0.5	02/25/22 15:53	jlw
Arsenic, dissolved	M200.8 ICP-MS	1	0.00760			mg/L	0.0002	0.001	02/23/22 13:43	mfm
Arsenic, total recoverable	M200.8 ICP-MS	1	0.0147			mg/L	0.0002	0.001	02/28/22 14:31	mfm
Cadmium, dissolved	M200.8 ICP-MS	1	0.00308			mg/L	0.00005	0.00025	02/24/22 15:25	mfm
Cadmium, total recoverable	M200.8 ICP-MS	1	0.00403			mg/L	0.00005	0.00025	02/28/22 14:31	mfm
Calcium, dissolved	M200.7 ICP	1	29.0			mg/L	0.1	0.5	02/24/22 12:37	jlw
Copper, dissolved	M200.8 ICP-MS	1	0.00262			mg/L	0.0008	0.002	02/23/22 13:43	mfm
Copper, total recoverable	M200.8 ICP-MS	1	0.0189			mg/L	0.0008	0.002	02/28/22 14:31	mfm
Iron, dissolved	M200.7 ICP	1	<0.06	U		mg/L	0.06	0.15	02/24/22 12:37	jlw
Iron, total recoverable	M200.7 ICP	1	2.45			mg/L	0.06	0.15	03/03/22 19:30	jlw
Lead, dissolved	M200.8 ICP-MS	1	0.00088			mg/L	0.0001	0.0005	02/24/22 15:25	mfm
Lead, total recoverable	M200.8 ICP-MS	1	0.0248			mg/L	0.0001	0.0005	02/28/22 14:31	mfm
Magnesium, dissolved	M200.7 ICP	1	1.66			mg/L	0.2	1	02/24/22 12:37	jlw
Manganese, dissolved	M200.7 ICP	1	0.294			mg/L	0.01	0.05	02/24/22 12:37	jlw
Manganese, total recoverable	M200.7 ICP	2	0.607			mg/L	0.02	0.1	02/25/22 15:53	jlw
Mercury, total	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	02/21/22 13:24	mlh
Potassium, dissolved	M200.7 ICP	1	2.16			mg/L	0.2	1	02/24/22 12:37	jlw
Silver, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	02/24/22 15:25	mfm
Silver, total recoverable	M200.8 ICP-MS	1	0.00084			mg/L	0.0001	0.0005	02/28/22 14:31	mfm
Sodium, dissolved	M200.7 ICP	1	7.90			mg/L	0.2	1	02/24/22 12:37	jlw
Zinc, dissolved	M200.8 ICP-MS	1	0.0760			mg/L	0.006	0.015	02/23/22 13:43	mfm
Zinc, total recoverable	M200.8 ICP-MS	1	0.187		*	mg/L	0.006	0.015	02/28/22 14:31	mfm

Rio Grande Silver, Inc.
Project ID: BO48678
Sample ID: BD-MW

ACZ Sample ID: ***L71505-01***
Date Sampled: *02/16/22 10:00*
Date Received: *02/17/22*
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	77.6			mg/L	2	20	02/25/22 0:00	jck
Carbonate as CaCO3		1	<2	U		mg/L	2	20	02/25/22 0:00	jck
Hydroxide as CaCO3		1	<2	U		mg/L	2	20	02/25/22 0:00	jck
Total Alkalinity		1	77.6		*	mg/L	2	20	02/25/22 0:00	jck
Carbon, dissolved organic (DOC)	SM5310B	1	3.0	B	*	mg/L	1	5	03/08/22 14:53	krh
Cation-Anion Balance	Calculation									
Cation-Anion Balance			-2.4			%			03/11/22 0:00	calc
Sum of Anions			2.1			meq/L			03/11/22 0:00	calc
Sum of Cations			2.0			meq/L			03/11/22 0:00	calc
Chloride	M300.0 - Ion Chromatography	1	2.20		*	mg/L	0.4	2	02/24/22 22:17	md
Fluoride	SM4500F-C	1	1.09		*	mg/L	0.15	0.35	02/23/22 17:04	eep
Hardness as CaCO3 (dissolved)	SM2340B - Calculation		79			mg/L	0.2	5	03/11/22 0:00	calc
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2		0.167			mg/L	0.02	0.1	03/11/22 0:00	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	0.167			mg/L	0.02	0.1	02/17/22 23:05	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	<0.01	U	*	mg/L	0.01	0.05	02/17/22 23:05	pjb
Nitrogen, ammonia	M350.1 Auto Salicylate w/gas diffusion	1	<0.05	U		mg/L	0.05	0.2	03/01/22 21:07	syw
Nitrogen, organic	M351.2 & M350.1 - TKN minus NH3		1.1			mg/L	0.2	0.5	03/11/22 0:00	calc
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	1	1.06		*	mg/L	0.2	0.5	02/28/22 21:43	syw
pH (lab)	SM4500H+ B									
pH		1	7.7	H		units	0.1	0.1	02/25/22 0:00	jck
pH measured at		1	21.9			C	0.1	0.1	02/25/22 0:00	jck
Residue, Filterable (TDS) @180C	SM2540C	2	136		*	mg/L	40	80	02/18/22 13:58	anc
Sulfate	M300.0 - Ion Chromatography	1	18.4		*	mg/L	0.4	2	02/24/22 22:17	md
Sulfide as S	SM4500S2-D	1	<0.02	U	*	mg/L	0.02	0.1	02/17/22 17:01	jck
TDS (calculated)	Calculation		111			mg/L			03/11/22 0:00	calc
TDS (ratio - measured/calculated)	Calculation		1.23						03/11/22 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

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ACZ Project ID: ***L71505***

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
WG537361													
WG537361PBW1	PBW	02/24/22 18:37				8.3	mg/L		-20	20			
WG537361LCSW3	LCSW	02/24/22 18:55	WC220223-1	820.0001		811.4	mg/L	99	90	110			
WG537361LCSW6	LCSW	02/24/22 22:05	WC220223-1	820.0001		810.8	mg/L	99	90	110			
WG537361PBW2	PBW	02/24/22 22:12				6.8	mg/L		-20	20			
L71517-04DUP	DUP	02/25/22 0:58			U	U	mg/L				0	20	RA
WG537361LCSW9	LCSW	02/25/22 1:15	WC220223-1	820.0001		816.1	mg/L	100	90	110			
WG537361PBW3	PBW	02/25/22 1:21				5	mg/L		-20	20			
WG537361LCSW12	LCSW	02/25/22 4:30	WC220223-1	820.0001		839.4	mg/L	102	90	110			
WG537361PBW4	PBW	02/25/22 4:36				7.3	mg/L		-20	20			
WG537361LCSW15	LCSW	02/25/22 7:25	WC220223-1	820.0001		825.5	mg/L	101	90	110			

Aluminum, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG537224													
WG537224ICV	ICV	02/24/22 10:45	II220215-3	2		1.945	mg/L	97	95	105			
WG537224ICB	ICB	02/24/22 10:52				U	mg/L		-0.15	0.15			
WG537224PQV	PQV	02/24/22 10:55	II220131-4	.2502		.196	mg/L	78	70	130			
WG537224SIC	SIC	02/24/22 10:58	II220208-7	200.4102		206.6	mg/L	103	1	200			
WG537224LFB	LFB	02/24/22 11:05	II220215-2	1.0008		1.045	mg/L	104	85	115			
WG537224CCV1	CCV	02/24/22 11:38	II220208-1	1		.948	mg/L	95	90	110			
WG537224CCB1	CCB	02/24/22 11:41				U	mg/L		-0.15	0.15			
WG537224CCV2	CCV	02/24/22 12:17	II220208-1	1		.961	mg/L	96	90	110			
WG537224CCB2	CCB	02/24/22 12:21				U	mg/L		-0.15	0.15			
L71442-17AS	AS	02/24/22 12:24	II220215-2	1.0008	U	1.046	mg/L	105	85	115			
L71442-17ASD	ASD	02/24/22 12:27	II220215-2	1.0008	U	1.057	mg/L	106	85	115	1	20	
WG537224CCV3	CCV	02/24/22 12:40	II220208-1	1		.924	mg/L	92	90	110			
WG537224CCB3	CCB	02/24/22 12:44				U	mg/L		-0.15	0.15			

Aluminum, total recoverable M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG537398													
WG537398ICV	ICV	02/25/22 14:08	II220215-3	2		1.997	mg/L	100	95	105			
WG537398ICB	ICB	02/25/22 14:15				U	mg/L		-0.15	0.15			
WG537398PQV	PQV	02/25/22 14:18	II220131-4	.2502		.244	mg/L	98	70	130			
WG537398SIC	SIC	02/25/22 14:21	II220208-7	200.4102		202.5	mg/L	101	1	200			
WG537295LRB	LRB	02/25/22 14:28				U	mg/L		-0.11	0.11			
WG537295LFB	LFB	02/25/22 14:31	II220215-2	1.0008		.945	mg/L	94	85	115			
WG537398CCV1	CCV	02/25/22 15:00	II220208-1	1		1.047	mg/L	105	90	110			
WG537398CCB1	CCB	02/25/22 15:03				U	mg/L		-0.15	0.15			
WG537398CCV2	CCV	02/25/22 15:40	II220208-1	1		.965	mg/L	97	90	110			
WG537398CCB2	CCB	02/25/22 15:43				U	mg/L		-0.15	0.15			
L71505-01LFM	LFM	02/25/22 15:56	II2XWATER	2.0038	2.16	5.852	mg/L	184	70	130			M1
L71505-01LFMD	LFMD	02/25/22 15:59	II2XWATER	2.0038	2.16	5.732	mg/L	178	70	130	2	20	M1
WG537398CCV3	CCV	02/25/22 16:06	II220208-1	1		.951	mg/L	95	90	110			
WG537398CCB3	CCB	02/25/22 16:09				U	mg/L		-0.15	0.15			

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ACZ Project ID: ***L71505***

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
WG537229													
WG537229ICV	ICV	02/23/22 13:17	MS220125-1	.05		.04946	mg/L	99	90	110			
WG537229ICB	ICB	02/23/22 13:19				U	mg/L		-0.00044	0.00044			
WG537229LFB	LFB	02/23/22 13:21	MS220126-3	.05005		.04802	mg/L	96	85	115			
L71416-02AS	AS	02/23/22 13:24	MS220126-3	.05005	.00028	.04839	mg/L	96	70	130			
L71416-02ASD	ASD	02/23/22 13:26	MS220126-3	.05005	.00028	.04919	mg/L	98	70	130	2	20	
WG537229CCV1	CCV	02/23/22 13:40	MS220201-4	.1001		.09767	mg/L	98	90	110			
WG537229CCB1	CCB	02/23/22 13:42				U	mg/L		-0.0006	0.0006			
WG537229CCV2	CCV	02/23/22 13:57	MS220201-4	.1001		.09651	mg/L	96	90	110			
WG537229CCB2	CCB	02/23/22 13:59				U	mg/L		-0.0006	0.0006			
WG537229CCV3	CCV	02/23/22 14:16	MS220201-4	.1001		.09686	mg/L	97	90	110			
WG537229CCB3	CCB	02/23/22 14:18				U	mg/L		-0.0006	0.0006			

Arsenic, total recoverable M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG537476													
WG537476ICV	ICV	02/28/22 14:18	MS220125-1	.05		.05142	mg/L	103	90	110			
WG537476ICB	ICB	02/28/22 14:20				U	mg/L		-0.0006	0.0006			
WG537403LRB	LRB	02/28/22 14:21				U	mg/L		-0.00044	0.00044			
WG537403LFB	LFB	02/28/22 14:23	MS220126-3	.05005		.04883	mg/L	98	85	115			
L71562-01LFM	LFM	02/28/22 14:38	MS220126-3	.05005	.00071	.04239	mg/L	83	70	130			
WG537476CCV1	CCV	02/28/22 14:40	MS220228-3	.1001		.10112	mg/L	101	90	110			
WG537476CCB1	CCB	02/28/22 14:42				U	mg/L		-0.0006	0.0006			
L71562-01LFMD	LFMD	02/28/22 14:44	MS220126-3	.05005	.00071	.04191	mg/L	82	70	130	1	20	
WG537476CCV2	CCV	02/28/22 15:03	MS220228-3	.1001		.1041	mg/L	104	90	110			
WG537476CCB2	CCB	02/28/22 15:05				U	mg/L		-0.0006	0.0006			
WG537476CCV3	CCV	02/28/22 15:18	MS220228-3	.1001		.10131	mg/L	101	90	110			
WG537476CCB3	CCB	02/28/22 15:20				U	mg/L		-0.0006	0.0006			

Cadmium, dissolved M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG537341													
WG537341ICV	ICV	02/24/22 15:05	MS220125-1	.05		.051601	mg/L	103	90	110			
WG537341ICB	ICB	02/24/22 15:07				U	mg/L		-0.00011	0.00011			
WG537341LFB	LFB	02/24/22 15:09	MS220126-3	.05005		.048754	mg/L	97	85	115			
L71416-02AS	AS	02/24/22 15:12	MS220126-3	.05005	.000057	.051498	mg/L	103	70	130			
L71416-02ASD	ASD	02/24/22 15:14	MS220126-3	.05005	.000057	.050843	mg/L	101	70	130	1	20	
WG537341CCV1	CCV	02/24/22 15:27	MS220201-4	.1001		.100954	mg/L	101	90	110			
WG537341CCB1	CCB	02/24/22 15:29				U	mg/L		-0.00015	0.00015			
WG537341CCV2	CCV	02/24/22 15:44	MS220201-4	.1001		.099577	mg/L	99	90	110			
WG537341CCB2	CCB	02/24/22 15:46				U	mg/L		-0.00015	0.00015			
WG537341CCV3	CCV	02/24/22 16:03	MS220201-4	.1001		.099093	mg/L	99	90	110			
WG537341CCB3	CCB	02/24/22 16:05				U	mg/L		-0.00015	0.00015			

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ACZ Project ID: ***L71505***

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, total recoverable M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG537476													
WG537476ICV	ICV	02/28/22 14:18	MS220125-1	.05		.051965	mg/L	104	90	110			
WG537476ICB	ICB	02/28/22 14:20				U	mg/L		-0.00015	0.00015			
WG537403LRB	LRB	02/28/22 14:21				U	mg/L		-0.00011	0.00011			
WG537403LFB	LFB	02/28/22 14:23	MS220126-3	.05005		.050316	mg/L	101	85	115			
L71562-01LFM	LFM	02/28/22 14:38	MS220126-3	.05005	.000083	.044741	mg/L	89	70	130			
WG537476CCV1	CCV	02/28/22 14:40	MS220228-3	.1001		.100551	mg/L	100	90	110			
WG537476CCB1	CCB	02/28/22 14:42				U	mg/L		-0.00015	0.00015			
L71562-01LFMD	LFMD	02/28/22 14:44	MS220126-3	.05005	.000083	.04415	mg/L	88	70	130	1	20	
WG537476CCV2	CCV	02/28/22 15:03	MS220228-3	.1001		.10276	mg/L	103	90	110			
WG537476CCB2	CCB	02/28/22 15:05				U	mg/L		-0.00015	0.00015			
WG537476CCV3	CCV	02/28/22 15:18	MS220228-3	.1001		.102743	mg/L	103	90	110			
WG537476CCB3	CCB	02/28/22 15:20				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
WG537224													
WG537224ICV	ICV	02/24/22 10:45	II220215-3	100		99.41	mg/L	99	95	105			
WG537224ICB	ICB	02/24/22 10:52				U	mg/L		-0.3	0.3			
WG537224PQV	PQV	02/24/22 10:55	II220131-4	.5003		.53	mg/L	106	70	130			
WG537224SIC	SIC	02/24/22 10:58	II220208-7	200.62015		198.9	mg/L	99	1	200			
WG537224LFB	LFB	02/24/22 11:05	II220215-2	67.99026		66.67	mg/L	98	85	115			
WG537224CCV1	CCV	02/24/22 11:38	II220208-1	50		49.93	mg/L	100	90	110			
WG537224CCB1	CCB	02/24/22 11:41				U	mg/L		-0.3	0.3			
WG537224CCV2	CCV	02/24/22 12:17	II220208-1	50		50.57	mg/L	101	90	110			
WG537224CCB2	CCB	02/24/22 12:21				U	mg/L		-0.3	0.3			
L71442-17AS	AS	02/24/22 12:24	II220215-2	67.99026	5.14	71.46	mg/L	98	85	115			
L71442-17ASD	ASD	02/24/22 12:27	II220215-2	67.99026	5.14	72.72	mg/L	99	85	115	2	20	
WG537224CCV3	CCV	02/24/22 12:40	II220208-1	50		48.99	mg/L	98	90	110			
WG537224CCB3	CCB	02/24/22 12:44				U	mg/L		-0.3	0.3			

Carbon, dissolved organic (DOC) SM5310B

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG537843													
WG537843CCV2	CCV	03/08/22 14:22	WI220308-2	50		48.4	mg/L	97	90	110			
WG537843CCB2	CCB	03/08/22 14:32				U	mg/L		-3	3			
WG537843CCV3	CCV	03/08/22 16:28	WI220308-2	50		48.3	mg/L	97	90	110			
WG537843CCB3	CCB	03/08/22 16:38				U	mg/L		-3	3			
WG537843CCV4	CCV	03/08/22 17:55	WI220308-2	50		48.8	mg/L	98	90	110			
WG537843CCB4	CCB	03/08/22 18:05				U	mg/L		-3	3			
WG537843CCV5	CCV	03/10/22 12:30	WI220308-2	50		49.8	mg/L	100	90	110			
WG537843CCB5	CCB	03/10/22 12:40				U	mg/L		-3	3			
WG537843PQV2	PQV	03/10/22 12:52	WI220308-3	5		5.3	mg/L	106	70	130			
WG537843LFB	LFB	03/10/22 13:06	WI220308-1	50		48.6	mg/L	97	90	110			
L71411-01DUP	DUP	03/10/22 13:29			5	5.2	mg/L				4	20	RA
L71411-02AS	AS	03/10/22 13:51	WI220308-1	50	6.8	55.3	mg/L	97	90	110			
WG537843CCV6	CCV	03/10/22 14:51	WI220308-2	50		49.7	mg/L	99	90	110			
WG537843CCB6	CCB	03/10/22 15:01				U	mg/L		-3	3			

HECLARIO

ACZ Project ID: ***L71505***

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 M300.0 - Ion Chromatography

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG536286													
WG536286ICV	ICV	02/04/22 22:11	WI220207-4	19.96		20.21	mg/L	101	90	110			
WG536286ICB	ICB	02/04/22 22:29				U	mg/L		-0.4	0.4			
WG537321													
WG537321CCV1	CCV	02/24/22 17:13	WI220222-5	50		49.45	mg/L	99	90	110			
WG537321CCB1	CCB	02/24/22 17:31				U	mg/L		-0.4	0.4			
WG537321PQV	PQV	02/24/22 17:49	WI220222-6	1.996		2.16	mg/L	108	70	130			
WG537321LFB1	LFB	02/24/22 18:06	WI211112-6	30		28.37	mg/L	95	90	110			
L71393-02AS	AS	02/24/22 20:30	WI211112-6	150	7	149.75	mg/L	95	90	110			
WG537321CCV2	CCV	02/24/22 20:48	WI220222-5	50		49.59	mg/L	99	90	110			
WG537321CCB2	CCB	02/24/22 21:06				U	mg/L		-0.4	0.4			
WG537321CCV3	CCV	02/25/22 0:23	WI220222-5	50		49.61	mg/L	99	90	110			
WG537321CCB3	CCB	02/25/22 0:41				U	mg/L		-0.4	0.4			
WG537321LFB2	LFB	02/25/22 2:46	WI211112-6	30		28.24	mg/L	94	90	110			
WG537321CCV4	CCV	02/25/22 3:58	WI220222-5	50		49.64	mg/L	99	90	110			
WG537321CCB4	CCB	02/25/22 4:16				U	mg/L		-0.4	0.4			
WG537321CCV5	CCV	02/25/22 7:15	WI220222-5	50		49.79	mg/L	100	90	110			
WG537321CCB5	CCB	02/25/22 7:33				U	mg/L		-0.4	0.4			
WG537321CCV6	CCV	02/25/22 22:37	WI220222-5	50		49.78	mg/L	100	90	110			
WG537321CCB6	CCB	02/25/22 22:55				U	mg/L		-0.4	0.4			
WG537321PQV1	PQV	02/25/22 23:13	WI220222-6	1.996		2.52	mg/L	126	70	130			
L71393-01DUP	DUP	02/25/22 23:49			U	U	mg/L				0	20	RA
WG537321CCV7	CCV	02/26/22 0:25	WI220222-5	50		50.46	mg/L	101	90	110			
WG537321CCB7	CCB	02/26/22 0:43				U	mg/L		-0.4	0.4			

Copper, dissolved M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG537229													
WG537229ICV	ICV	02/23/22 13:17	MS220125-1	.05		.05125	mg/L	103	90	110			
WG537229ICB	ICB	02/23/22 13:19				U	mg/L		-0.00176	0.00176			
WG537229LFB	LFB	02/23/22 13:21	MS220126-3	.05		.04685	mg/L	94	85	115			
L71416-02AS	AS	02/23/22 13:24	MS220126-3	.05	.00172	.04057	mg/L	78	70	130			
L71416-02ASD	ASD	02/23/22 13:26	MS220126-3	.05	.00172	.04236	mg/L	81	70	130	4	20	
WG537229CCV1	CCV	02/23/22 13:40	MS220201-4	.25		.24151	mg/L	97	90	110			
WG537229CCB1	CCB	02/23/22 13:42				U	mg/L		-0.0024	0.0024			
WG537229CCV2	CCV	02/23/22 13:57	MS220201-4	.25		.2374	mg/L	95	90	110			
WG537229CCB2	CCB	02/23/22 13:59				U	mg/L		-0.0024	0.0024			
WG537229CCV3	CCV	02/23/22 14:16	MS220201-4	.25		.23528	mg/L	94	90	110			
WG537229CCB3	CCB	02/23/22 14:18				U	mg/L		-0.0024	0.0024			

HECLARIO

ACZ Project ID: ***L71505***

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, total recoverable M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG537476													
WG537476ICV	ICV	02/28/22 14:18	MS220125-1	.05		.05281	mg/L	106	90	110			
WG537476ICB	ICB	02/28/22 14:20				U	mg/L		-0.0024	0.0024			
WG537403LRB	LRB	02/28/22 14:21				U	mg/L		-0.00176	0.00176			
WG537403LFB	LFB	02/28/22 14:23	MS220126-3	.05		.04652	mg/L	93	85	115			
L71562-01LFM	LFM	02/28/22 14:38	MS220126-3	.05	U	.03793	mg/L	76	70	130			
WG537476CCV1	CCV	02/28/22 14:40	MS220228-3	.25		.25256	mg/L	101	90	110			
WG537476CCB1	CCB	02/28/22 14:42				U	mg/L		-0.0024	0.0024			
L71562-01LFMD	LFMD	02/28/22 14:44	MS220126-3	.05	U	.03696	mg/L	74	70	130	3	20	
WG537476CCV2	CCV	02/28/22 15:03	MS220228-3	.25		.25256	mg/L	101	90	110			
WG537476CCB2	CCB	02/28/22 15:05				U	mg/L		-0.0024	0.0024			
WG537476CCV3	CCV	02/28/22 15:18	MS220228-3	.25		.24864	mg/L	99	90	110			
WG537476CCB3	CCB	02/28/22 15:20				U	mg/L		-0.0024	0.0024			

Fluoride SM4500F-C

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG537231													
WG537231ICV	ICV	02/23/22 11:31	WC220210-2	2.008		2.16	mg/L	108	90	110			
WG537231ICB	ICB	02/23/22 11:35				U	mg/L		-0.3	0.3			
WG537231PQV	PQV	02/23/22 11:40	WC220104-4	.3514		.41	mg/L	117	70	130			
WG537231LFB1	LFB	02/23/22 11:44	WC220104-2	5.02		5.26	mg/L	105	90	110			
WG537231CCV2	CCV	02/23/22 13:51	WC220210-2	2.008		2.15	mg/L	107	90	110			
WG537231CCB2	CCB	02/23/22 13:59				U	mg/L		-0.3	0.3			
WG537231CCV3	CCV	02/23/22 15:56	WC220210-2	2.008		2.2	mg/L	110	90	110			
WG537231CCB3	CCB	02/23/22 16:04				U	mg/L		-0.3	0.3			
WG537231LFB2	LFB	02/23/22 16:48	WC220104-2	5.02		5.42	mg/L	108	90	110			
WG537231CCV4	CCV	02/23/22 17:24	WC220210-2	2.008		2.14	mg/L	107	90	110			
WG537231CCB4	CCB	02/23/22 17:32				U	mg/L		-0.3	0.3			
L71511-03AS	AS	02/23/22 17:48	WC220104-2	5.02	.72	6.27	mg/L	111	90	110			MA
L71511-03ASD	ASD	02/23/22 17:56	WC220104-2	5.02	.72	6.19	mg/L	109	90	110	1	20	
WG537231CCV5	CCV	02/23/22 18:36	WC220210-2	2.008		2.14	mg/L	107	90	110			
WG537231CCB5	CCB	02/23/22 18:44				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
WG537224													
WG537224ICV	ICV	02/24/22 10:45	II220215-3	2		1.959	mg/L	98	95	105			
WG537224ICB	ICB	02/24/22 10:52				U	mg/L		-0.18	0.18			
WG537224PQV	PQV	02/24/22 10:55	II220131-4	.150015		.131	mg/L	87	70	130			
WG537224SIC	SIC	02/24/22 10:58	II220208-7	200.170015		199.1	mg/L	99	1	200			
WG537224LFB	LFB	02/24/22 11:05	II220215-2	1.0001		1.051	mg/L	105	85	115			
WG537224CCV1	CCV	02/24/22 11:38	II220208-1	1		.983	mg/L	98	90	110			
WG537224CCB1	CCB	02/24/22 11:41				U	mg/L		-0.18	0.18			
WG537224CCV2	CCV	02/24/22 12:17	II220208-1	1		.994	mg/L	99	90	110			
WG537224CCB2	CCB	02/24/22 12:21				U	mg/L		-0.18	0.18			
L71442-17AS	AS	02/24/22 12:24	II220215-2	1.0001	U	1.056	mg/L	106	85	115			
L71442-17ASD	ASD	02/24/22 12:27	II220215-2	1.0001	U	1.068	mg/L	107	85	115	1	20	
WG537224CCV3	CCV	02/24/22 12:40	II220208-1	1		.962	mg/L	96	90	110			
WG537224CCB3	CCB	02/24/22 12:44				U	mg/L		-0.18	0.18			

HECLARIO

ACZ Project ID: ***L71505***

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, total recoverable M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG537675													
WG537675ICV	ICV	03/03/22 17:49	II220215-3	2		1.968	mg/L	98	95	105			
WG537675ICB	ICB	03/03/22 17:55				U	mg/L		-0.18	0.18			
WG537675PQV	PQV	03/03/22 17:59	II220228-2	.150015		.16	mg/L	107	70	130			
WG537675SIC	SIC	03/03/22 18:02	II220228-3	200.170015		192.7	mg/L	96	1	200			
WG537501LRB	LRB	03/03/22 18:08				U	mg/L		-0.132	0.132			
WG537501LFB	LFB	03/03/22 18:12	II220215-2	1.0001		1.031	mg/L	103	85	115			
WG537675CCV1	CCV	03/03/22 18:41	II220228-4	1		1.044	mg/L	104	90	110			
WG537675CCB1	CCB	03/03/22 18:44				U	mg/L		-0.18	0.18			
WG537675CCV2	CCV	03/03/22 19:20	II220228-4	1		1.004	mg/L	100	90	110			
WG537675CCB2	CCB	03/03/22 19:23				U	mg/L		-0.18	0.18			
L71663-01LFM	LFM	03/03/22 19:40	II220215-2	1.0001	U	.998	mg/L	100	70	130			
L71663-01LFMD	LFMD	03/03/22 19:43	II220215-2	1.0001	U	1.019	mg/L	102	70	130	2	20	
WG537675CCV3	CCV	03/03/22 19:46	II220228-4	1		1.004	mg/L	100	90	110			
WG537675CCB3	CCB	03/03/22 19:49				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
WG537341													
WG537341ICV	ICV	02/24/22 15:05	MS220125-1	.05		.05282	mg/L	106	90	110			
WG537341ICB	ICB	02/24/22 15:07				U	mg/L		-0.00022	0.00022			
WG537341LFB	LFB	02/24/22 15:09	MS220126-3	.05005		.05076	mg/L	101	85	115			
L71416-02AS	AS	02/24/22 15:12	MS220126-3	.05005	U	.05495	mg/L	110	70	130			
L71416-02ASD	ASD	02/24/22 15:14	MS220126-3	.05005	U	.0544	mg/L	109	70	130	1	20	
WG537341CCV1	CCV	02/24/22 15:27	MS220201-4	.2505		.25351	mg/L	101	90	110			
WG537341CCB1	CCB	02/24/22 15:29				U	mg/L		-0.0003	0.0003			
WG537341CCV2	CCV	02/24/22 15:44	MS220201-4	.2505		.25355	mg/L	101	90	110			
WG537341CCB2	CCB	02/24/22 15:46				U	mg/L		-0.0003	0.0003			
WG537341CCV3	CCV	02/24/22 16:03	MS220201-4	.2505		.24617	mg/L	98	90	110			
WG537341CCB3	CCB	02/24/22 16:05				U	mg/L		-0.0003	0.0003			

Lead, total recoverable M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG537476													
WG537476ICV	ICV	02/28/22 14:18	MS220125-1	.05		.05304	mg/L	106	90	110			
WG537476ICB	ICB	02/28/22 14:20				U	mg/L		-0.0003	0.0003			
WG537403LRB	LRB	02/28/22 14:21				U	mg/L		-0.00022	0.00022			
WG537403LFB	LFB	02/28/22 14:23	MS220126-3	.05005		.04921	mg/L	98	85	115			
L71562-01LFM	LFM	02/28/22 14:38	MS220126-3	.05005	U	.05342	mg/L	107	70	130			
WG537476CCV1	CCV	02/28/22 14:40	MS220228-3	.2505		.25221	mg/L	101	90	110			
WG537476CCB1	CCB	02/28/22 14:42				U	mg/L		-0.0003	0.0003			
L71562-01LFMD	LFMD	02/28/22 14:44	MS220126-3	.05005	U	.05338	mg/L	107	70	130	0	20	
WG537476CCV2	CCV	02/28/22 15:03	MS220228-3	.2505		.25433	mg/L	102	90	110			
WG537476CCB2	CCB	02/28/22 15:05				U	mg/L		-0.0003	0.0003			
WG537476CCV3	CCV	02/28/22 15:18	MS220228-3	.2505		.25818	mg/L	103	90	110			
WG537476CCB3	CCB	02/28/22 15:20				U	mg/L		-0.0003	0.0003			

HECLARIO

ACZ Project ID: ***L71505***

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
WG537224													
WG537224ICV	ICV	02/24/22 10:45	II220215-3	100		95.36	mg/L	95	95	105			
WG537224ICB	ICB	02/24/22 10:52				U	mg/L		-0.6	0.6			
WG537224PQV	PQV	02/24/22 10:55	II220131-4	1.0001		.97	mg/L	97	70	130			
WG537224SIC	SIC	02/24/22 10:58	II220208-7	201.0201		204.8	mg/L	102	1	200			
WG537224LFB	LFB	02/24/22 11:05	II220215-2	49.99828		50.77	mg/L	102	85	115			
WG537224CCV1	CCV	02/24/22 11:38	II220208-1	50		47.31	mg/L	95	90	110			
WG537224CCB1	CCB	02/24/22 11:41				U	mg/L		-0.6	0.6			
WG537224CCV2	CCV	02/24/22 12:17	II220208-1	50		47.85	mg/L	96	90	110			
WG537224CCB2	CCB	02/24/22 12:21				U	mg/L		-0.6	0.6			
L71442-17AS	AS	02/24/22 12:24	II220215-2	49.99828	.94	51.2	mg/L	101	85	115			
L71442-17ASD	ASD	02/24/22 12:27	II220215-2	49.99828	.94	52.26	mg/L	103	85	115	2	20	
WG537224CCV3	CCV	02/24/22 12:40	II220208-1	50		46.49	mg/L	93	90	110			
WG537224CCB3	CCB	02/24/22 12:44				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
WG537224													
WG537224ICV	ICV	02/24/22 10:45	II220215-3	2		1.955	mg/L	98	95	105			
WG537224ICB	ICB	02/24/22 10:52				U	mg/L		-0.03	0.03			
WG537224PQV	PQV	02/24/22 10:55	II220131-4	.05005		.041	mg/L	82	70	130			
WG537224SIC	SIC	02/24/22 10:58	II220208-7	49.95005		48.51	mg/L	97	1	200			
WG537224LFB	LFB	02/24/22 11:05	II220215-2	.499		.516	mg/L	103	85	115			
WG537224CCV1	CCV	02/24/22 11:38	II220208-1	1		.992	mg/L	99	90	110			
WG537224CCB1	CCB	02/24/22 11:41				U	mg/L		-0.03	0.03			
WG537224CCV2	CCV	02/24/22 12:17	II220208-1	1		1.006	mg/L	101	90	110			
WG537224CCB2	CCB	02/24/22 12:21				U	mg/L		-0.03	0.03			
L71442-17AS	AS	02/24/22 12:24	II220215-2	.499	U	.523	mg/L	105	85	115			
L71442-17ASD	ASD	02/24/22 12:27	II220215-2	.499	U	.527	mg/L	106	85	115	1	20	
WG537224CCV3	CCV	02/24/22 12:40	II220208-1	1		.975	mg/L	98	90	110			
WG537224CCB3	CCB	02/24/22 12:44				U	mg/L		-0.03	0.03			

Manganese, total recoverable M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG537398													
WG537398ICV	ICV	02/25/22 14:08	II220215-3	2		1.967	mg/L	98	95	105			
WG537398ICB	ICB	02/25/22 14:15				U	mg/L		-0.03	0.03			
WG537398PQV	PQV	02/25/22 14:18	II220131-4	.05005		.054	mg/L	108	70	130			
WG537398SIC	SIC	02/25/22 14:21	II220208-7	49.95005		46.41	mg/L	93	1	200			
WG537295LRB	LRB	02/25/22 14:28				U	mg/L		-0.022	0.022			
WG537295LFB	LFB	02/25/22 14:31	II220215-2	.499		.471	mg/L	94	85	115			
WG537398CCV1	CCV	02/25/22 15:00	II220208-1	1		1.05	mg/L	105	90	110			
WG537398CCB1	CCB	02/25/22 15:03				U	mg/L		-0.03	0.03			
WG537398CCV2	CCV	02/25/22 15:40	II220208-1	1		.971	mg/L	97	90	110			
WG537398CCB2	CCB	02/25/22 15:43				U	mg/L		-0.03	0.03			
L71505-01LFM	LFM	02/25/22 15:56	II2XWATER	1	.607	1.535	mg/L	93	70	130			
L71505-01LFMD	LFMD	02/25/22 15:59	II2XWATER	1	.607	1.545	mg/L	94	70	130	1	20	
WG537398CCV3	CCV	02/25/22 16:06	II220208-1	1		.962	mg/L	96	90	110			
WG537398CCB3	CCB	02/25/22 16:09				U	mg/L		-0.03	0.03			

HECLARIO

ACZ Project ID: ***L71505***

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, total M245.1 CVAA

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG537043													
WG537043ICV	ICV	02/21/22 10:19	HG220214-3	.00501		.00523	mg/L	104	95	105			
WG537043ICB	ICB	02/21/22 10:20				U	mg/L		-0.0002	0.0002			
WG537050													
WG537050CCV1	CCV	02/21/22 13:06	HG220214-3	.00501		.00517	mg/L	103	90	110			
WG537050CCB1	CCB	02/21/22 13:07				U	mg/L		-0.0002	0.0002			
WG537050PQV	PQV	02/21/22 13:08	HG220214-5	.001001		.00111	mg/L	111	70	130			
WG537050LRB	LRB	02/21/22 13:09				U	mg/L		-0.00044	0.00044			
WG537050LFB	LFB	02/21/22 13:10	HG220214-6	.002002		.00225	mg/L	112	85	115			
WG537050CCV2	CCV	02/21/22 13:17	HG220214-3	.00501		.0052	mg/L	104	90	110			
WG537050CCB2	CCB	02/21/22 13:19				U	mg/L		-0.0002	0.0002			
L71506-03LFM	LFM	02/21/22 13:28	HG220214-6	.002002	U	.00214	mg/L	107	85	115			
WG537050CCV3	CCV	02/21/22 13:29	HG220214-3	.00501		.00519	mg/L	104	90	110			
WG537050CCB3	CCB	02/21/22 13:30				U	mg/L		-0.0002	0.0002			
L71506-03LFMD	LFMD	02/21/22 13:31	HG220214-6	.002002	U	.0021	mg/L	105	85	115	2	20	
WG537050CCV4	CCV	02/21/22 13:39	HG220214-3	.00501		.00524	mg/L	105	90	110			
WG537050CCB4	CCB	02/21/22 13:40				U	mg/L		-0.0002	0.0002			

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
WG536922													
WG536922ICV	ICV	02/17/22 22:59	WI211205-1	2.4161		2.27	mg/L	94	90	110			
WG536922ICB	ICB	02/17/22 23:00				U	mg/L		-0.02	0.02			
WG536922LFB	LFB	02/17/22 23:04	WI211001-5	2		1.913	mg/L	96	90	110			
L71505-01AS	AS	02/17/22 23:06	WI211001-5	2	.167	2.087	mg/L	96	90	110			
L71506-01DUP	DUP	02/17/22 23:09			.595	.592	mg/L				1	20	
WG536922CCV	CCV	02/17/22 23:16	WI220216-3	2		1.96	mg/L	98	90	110			
WG536922CCB	CCB	02/17/22 23:19				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
WG536922													
WG536922ICV	ICV	02/17/22 22:59	WI211205-1	.6089		.59	mg/L	97	90	110			
WG536922ICB	ICB	02/17/22 23:00				U	mg/L		-0.01	0.01			
WG536922LFB	LFB	02/17/22 23:04	WI211001-5	1		.957	mg/L	96	90	110			
L71505-01AS	AS	02/17/22 23:06	WI211001-5	1	U	.959	mg/L	96	90	110			
L71506-01DUP	DUP	02/17/22 23:09			U	U	mg/L				0	20	RA
WG536922CCV	CCV	02/17/22 23:16	WI220216-3	1		.975	mg/L	98	90	110			
WG536922CCB	CCB	02/17/22 23:19				U	mg/L		-0.01	0.01			

HECLARIO

ACZ Project ID: ***L71505***

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.

Nitrogen, ammonia M350.1 Auto Salicylate w/gas diffusion

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG537089													
WG537089ICV	ICV	03/01/22 17:44	WI211206-3	12.024		12.561	mg/L	104	90	110			
WG537089ICB	ICB	03/01/22 17:45				U	mg/L		-0.05	0.05			
WG537547													
WG537547CCV1	CCV	03/01/22 19:24	WI220301-5	10		9.683	mg/L	97	90	110			
WG537547CCB1	CCB	03/01/22 19:25				U	mg/L		-0.05	0.05			
WG537547LFB1	LFB	03/01/22 19:27	WI220301-3	10		9.184	mg/L	92	90	110			
WG537547CCV2	CCV	03/01/22 19:42	WI220301-5	10		9.773	mg/L	98	90	110			
WG537547CCB2	CCB	03/01/22 19:43				U	mg/L		-0.05	0.05			
WG537547ICV	ICV	03/01/22 20:44	WI220301-4	12.024		11.386	mg/L	95	90	110			
WG537547ICB	ICB	03/01/22 20:45				U	mg/L		-0.05	0.05			
L71472-04AS	AS	03/01/22 20:55	WI220301-3	10	2.52	11.815	mg/L	93	90	110			
L71472-05DUP	DUP	03/01/22 20:58			6.76	6.19	mg/L				9	20	
WG537547CCV3	CCV	03/01/22 21:01	WI220301-5	10		9.874	mg/L	99	90	110			
WG537547CCB3	CCB	03/01/22 21:03				U	mg/L		-0.05	0.05			
WG537547CCV4	CCV	03/01/22 21:19	WI220301-5	10		9.943	mg/L	99	90	110			
WG537547CCB4	CCB	03/01/22 21:20				U	mg/L		-0.05	0.05			
WG537547CCV5	CCV	03/01/22 21:37	WI220301-5	10		9.71	mg/L	97	90	110			
WG537547CCB5	CCB	03/01/22 21:38				U	mg/L		-0.05	0.05			
WG537547CCV6	CCV	03/01/22 22:24	WI220301-5	10		9.973	mg/L	100	90	110			
WG537547CCB6	CCB	03/01/22 22:25				U	mg/L		-0.05	0.05			
WG537547LFB2	LFB	03/01/22 22:27	WI220301-3	10		9.3	mg/L	93	90	110			
WG537547CCV7	CCV	03/01/22 22:34	WI220301-5	10		9.502	mg/L	95	90	110			
WG537547CCB7	CCB	03/01/22 22:36				U	mg/L		-0.05	0.05			

Nitrogen, total Kjeldahl M351.2 - TKN by Block Digester

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG537365													
WG537365ICV	ICV	02/24/22 19:39	WI220214-8	4		4.23	mg/L	106	90	110			
WG537365ICB	ICB	02/24/22 19:40				U	mg/L		-0.2	0.2			
WG537047LRB	LRB	02/24/22 19:41				U	mg/L		-0.2	0.2			
WG537365CCV1	CCV	02/24/22 19:52	WI220214-7	2.5		2.55	mg/L	102	90	110			
WG537365CCB1	CCB	02/24/22 19:54				U	mg/L		-0.2	0.2			
L71350-01LFM	LFM	02/24/22 20:02	WI220211-2	2.5	.85	3.49	mg/L	106	90	110			
L71498-01DUP	DUP	02/24/22 20:04			.27	.51	mg/L				62	20	RA
WG537365CCV2	CCV	02/24/22 20:06	WI220214-7	2.5		2.62	mg/L	105	90	110			
WG537365CCB2	CCB	02/24/22 20:07				U	mg/L		-0.2	0.2			
WG537365ICV1	ICV	02/28/22 21:34	WI220214-8	4		4.16	mg/L	104	90	110			
WG537365ICB1	ICB	02/28/22 21:35				U	mg/L		-0.2	0.2			
WG537047LRB	LRB	02/28/22 21:36				U	mg/L		-0.2	0.2			
WG537047LFB	LFB	02/28/22 21:37	WI220211-2	2.5		2.74	mg/L	110	90	110			
WG537365CCV3	CCV	02/28/22 21:47	WI220214-7	2.5		2.51	mg/L	100	90	110			
WG537365CCB3	CCB	02/28/22 21:49				U	mg/L		-0.2	0.2			
WG537047LRB	LRB	02/28/22 21:50				U	mg/L		-0.2	0.2			
WG537365CCV4	CCV	02/28/22 21:55	WI220214-7	2.5		2.51	mg/L	100	90	110			
WG537365CCB4	CCB	02/28/22 21:56				U	mg/L		-0.2	0.2			

HECLARIO

ACZ Project ID: ***L71505***

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.

pH (lab) SM4500H+ B

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG537361													
WG537361LCSW1	LCSW	02/24/22 18:42	PCN64057	6		6.1	units	102	5.9	6.1			
WG537361LCSW4	LCSW	02/24/22 21:52	PCN64057	6		6.1	units	102	5.9	6.1			
L71517-04DUP	DUP	02/25/22 0:58			3.2	3.2	units				0	20	
WG537361LCSW7	LCSW	02/25/22 1:02	PCN64057	6		6.1	units	102	5.9	6.1			
WG537361LCSW10	LCSW	02/25/22 4:15	PCN64057	6		6.1	units	102	5.9	6.1			
WG537361LCSW13	LCSW	02/25/22 7:12	PCN64057	6		6.1	units	102	5.9	6.1			

Potassium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG537224													
WG537224ICV	ICV	02/24/22 10:45	II220215-3	20		19.7	mg/L	99	95	105			
WG537224ICB	ICB	02/24/22 10:52				U	mg/L		-0.6	0.6			
WG537224PQV	PQV	02/24/22 10:55	II220131-4	.9958		1.01	mg/L	101	70	130			
WG537224SIC	SIC	02/24/22 10:58	II220208-7	.9958		1.05	mg/L	105	80	120			
WG537224LFB	LFB	02/24/22 11:05	II220215-2	99.95169		103.7	mg/L	104	85	115			
WG537224CCV1	CCV	02/24/22 11:38	II220208-1	10		9.94	mg/L	99	90	110			
WG537224CCB1	CCB	02/24/22 11:41				U	mg/L		-0.6	0.6			
WG537224CCV2	CCV	02/24/22 12:17	II220208-1	10		10.02	mg/L	100	90	110			
WG537224CCB2	CCB	02/24/22 12:21				U	mg/L		-0.6	0.6			
L71442-17AS	AS	02/24/22 12:24	II220215-2	99.95169	6.07	109.5	mg/L	103	85	115			
L71442-17ASD	ASD	02/24/22 12:27	II220215-2	99.95169	6.07	111.7	mg/L	106	85	115	2	20	
WG537224CCV3	CCV	02/24/22 12:40	II220208-1	10		9.76	mg/L	98	90	110			
WG537224CCB3	CCB	02/24/22 12:44				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
WG536977													
WG536977PBW	PBW	02/18/22 13:53				U	mg/L		-20	20			
WG536977LCSW	LCSW	02/18/22 13:55	PCN64724	1000		992	mg/L	99	80	120			
L71515-01DUP	DUP	02/18/22 14:24			7380	7350	mg/L				0	10	

Silver, dissolved M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG537341													
WG537341ICV	ICV	02/24/22 15:05	MS220125-1	.02		.02074	mg/L	104	90	110			
WG537341ICB	ICB	02/24/22 15:07				U	mg/L		-0.00022	0.00022			
WG537341LFB	LFB	02/24/22 15:09	MS220126-3	.01		.0085	mg/L	85	85	115			
L71416-02AS	AS	02/24/22 15:12	MS220126-3	.01	U	.0076	mg/L	76	70	130			
L71416-02ASD	ASD	02/24/22 15:14	MS220126-3	.01	U	.00741	mg/L	74	70	130	3	20	
WG537341CCV1	CCV	02/24/22 15:27	MS220201-4	.025		.02499	mg/L	100	90	110			
WG537341CCB1	CCB	02/24/22 15:29				U	mg/L		-0.0003	0.0003			
WG537341CCV2	CCV	02/24/22 15:44	MS220201-4	.025		.02472	mg/L	99	90	110			
WG537341CCB2	CCB	02/24/22 15:46				U	mg/L		-0.0003	0.0003			
WG537341CCV3	CCV	02/24/22 16:03	MS220201-4	.025		.02475	mg/L	99	90	110			
WG537341CCB3	CCB	02/24/22 16:05				U	mg/L		-0.0003	0.0003			

HECLARIO

ACZ Project ID: ***L71505***

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.

Silver, total recoverable M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG537476													
WG537476ICV	ICV	02/28/22 14:18	MS220125-1	.02		.02162	mg/L	108	90	110			
WG537476ICB	ICB	02/28/22 14:20				U	mg/L		-0.0003	0.0003			
WG537403LRB	LRB	02/28/22 14:21				U	mg/L		-0.00022	0.00022			
WG537403LFB	LFB	02/28/22 14:23	MS220126-3	.01		.00847	mg/L	85	85	115			
L71562-01LFM	LFM	02/28/22 14:38	MS220126-3	.01	U	.00736	mg/L	74	70	130			
WG537476CCV1	CCV	02/28/22 14:40	MS220228-3	.025		.02621	mg/L	105	90	110			
WG537476CCB1	CCB	02/28/22 14:42				U	mg/L		-0.0003	0.0003			
L71562-01LFMD	LFMD	02/28/22 14:44	MS220126-3	.01	U	.00737	mg/L	74	70	130	0	20	
WG537476CCV2	CCV	02/28/22 15:03	MS220228-3	.025		.02586	mg/L	103	90	110			
WG537476CCB2	CCB	02/28/22 15:05				U	mg/L		-0.0003	0.0003			
WG537476CCV3	CCV	02/28/22 15:18	MS220228-3	.025		.02617	mg/L	105	90	110			
WG537476CCB3	CCB	02/28/22 15:20				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
WG537224													
WG537224ICV	ICV	02/24/22 10:45	II220215-3	100		98.24	mg/L	98	95	105			
WG537224ICB	ICB	02/24/22 10:52				U	mg/L		-0.6	0.6			
WG537224PQV	PQV	02/24/22 10:55	II220131-4	1.0053		1.01	mg/L	100	70	130			
WG537224SIC	SIC	02/24/22 10:58	II220208-7	1.0053		1.12	mg/L	111	80	120			
WG537224LFB	LFB	02/24/22 11:05	II220215-2	100.0039		103.4	mg/L	103	85	115			
WG537224CCV1	CCV	02/24/22 11:38	II220208-1	50		49.09	mg/L	98	90	110			
WG537224CCB1	CCB	02/24/22 11:41				U	mg/L		-0.6	0.6			
WG537224CCV2	CCV	02/24/22 12:17	II220208-1	50		49.41	mg/L	99	90	110			
WG537224CCB2	CCB	02/24/22 12:21				U	mg/L		-0.6	0.6			
L71442-17AS	AS	02/24/22 12:24	II220215-2	100.0039	170	264.9	mg/L	95	85	115			
L71442-17ASD	ASD	02/24/22 12:27	II220215-2	100.0039	170	271.1	mg/L	101	85	115	2	20	
WG537224CCV3	CCV	02/24/22 12:40	II220208-1	50		47.83	mg/L	96	90	110			
WG537224CCB3	CCB	02/24/22 12:44				U	mg/L		-0.6	0.6			

HECLARIO

ACZ Project ID: ***L71505***

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 M300.0 - Ion Chromatography

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG536286													
WG536286ICV	ICV	02/04/22 22:11	WI220207-4	51.15		48.39	mg/L	95	90	110			
WG536286ICB	ICB	02/04/22 22:29				U	mg/L		-0.4	0.4			
WG537321													
WG537321CCV1	CCV	02/24/22 17:13	WI220222-5	50		51.22	mg/L	102	90	110			
WG537321CCB1	CCB	02/24/22 17:31				U	mg/L		-0.4	0.4			
WG537321LFB1	LFB	02/24/22 18:06	WI211112-6	30		27.77	mg/L	93	90	110			
L71393-02AS	AS	02/24/22 20:30	WI211112-6	150	248	388.02	mg/L	93	90	110			
WG537321CCV2	CCV	02/24/22 20:48	WI220222-5	50		47.94	mg/L	96	90	110			
WG537321CCB2	CCB	02/24/22 21:06				U	mg/L		-0.4	0.4			
WG537321CCV3	CCV	02/25/22 0:23	WI220222-5	50		48.86	mg/L	98	90	110			
WG537321CCB3	CCB	02/25/22 0:41				U	mg/L		-0.4	0.4			
WG537321LFB2	LFB	02/25/22 2:46	WI211112-6	30		27.13	mg/L	90	90	110			
WG537321CCV4	CCV	02/25/22 3:58	WI220222-5	50		48.5	mg/L	97	90	110			
WG537321CCB4	CCB	02/25/22 4:16				U	mg/L		-0.4	0.4			
WG537321CCV5	CCV	02/25/22 7:15	WI220222-5	50		49.44	mg/L	99	90	110			
WG537321CCB5	CCB	02/25/22 7:33				U	mg/L		-0.4	0.4			
WG537321CCV6	CCV	02/25/22 22:37	WI220222-5	50		49.44	mg/L	99	90	110			
WG537321CCB6	CCB	02/25/22 22:55				U	mg/L		-0.4	0.4			
WG537321PQV1	PQV	02/25/22 23:13	WI220222-6	2.046		2.66	mg/L	130	70	130			
L71393-01DUP	DUP	02/25/22 23:49			U	U	mg/L				0	20	RA
WG537321CCV7	CCV	02/26/22 0:25	WI220222-5	50		49.5	mg/L	99	90	110			
WG537321CCB7	CCB	02/26/22 0:43				U	mg/L		-0.4	0.4			

Sulfide as S SM4500S2-D

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG536889													
WG536889ICV	ICV	02/17/22 14:34	WC220217-11	.352		.374	mg/L	106	90	110			
WG536889ICB	ICB	02/17/22 14:38				U	mg/L		-0.05	0.05			
WG536889LFB1	LFB	02/17/22 14:42	WC220217-14	.2088933		.236	mg/L	113	80	120			
WG536889CCV1	CCV	02/17/22 15:26	WC220217-12	.15667		.142	mg/L	91	90	110			
WG536889CCB1	CCB	02/17/22 15:30				U	mg/L		-0.05	0.05			
WG536889CCV2	CCV	02/17/22 16:18	WC220217-12	.15667		.165	mg/L	105	90	110			
WG536889CCB2	CCB	02/17/22 16:22				U	mg/L		-0.05	0.05			
WG536889LFB2	LFB	02/17/22 16:48	WC220217-14	.2088933		.23	mg/L	110	80	120			
L71505-01AS	AS	02/17/22 17:05	WC220217-14	.2088933	U	.095	mg/L	45	75	125			M2
WG536889CCV3	CCV	02/17/22 17:10	WC220217-12	.15667		.161	mg/L	103	90	110			
WG536889CCB3	CCB	02/17/22 17:14				U	mg/L		-0.05	0.05			
L71505-01ASD	ASD	02/17/22 17:18	WC220217-14	.2088933	U	.098	mg/L	47	75	125	3	20	M2
WG536889CCV4	CCV	02/17/22 17:23	WC220217-12	.15667		.161	mg/L	103	90	110			
WG536889CCB4	CCB	02/17/22 17:27				U	mg/L		-0.05	0.05			

HECLARIO

ACZ Project ID: ***L71505***

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 M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG537229													
WG537229ICV	ICV	02/23/22 13:17	MS220125-1	.05		.0537	mg/L	107	90	110			
WG537229ICB	ICB	02/23/22 13:19				U	mg/L		-0.0132	0.0132			
WG537229LFB	LFB	02/23/22 13:21	MS220126-3	.050075		.0479	mg/L	96	85	115			
L71416-02AS	AS	02/23/22 13:24	MS220126-3	.050075	U	.0481	mg/L	96	70	130			
L71416-02ASD	ASD	02/23/22 13:26	MS220126-3	.050075	U	.0487	mg/L	97	70	130	1	20	
WG537229CCV1	CCV	02/23/22 13:40	MS220201-4	.50075		.4811	mg/L	96	90	110			
WG537229CCB1	CCB	02/23/22 13:42				U	mg/L		-0.018	0.018			
WG537229CCV2	CCV	02/23/22 13:57	MS220201-4	.50075		.4797	mg/L	96	90	110			
WG537229CCB2	CCB	02/23/22 13:59				U	mg/L		-0.018	0.018			

Zinc, total recoverable M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG537476													
WG537476ICV	ICV	02/28/22 14:18	MS220125-1	.05		.0505	mg/L	101	90	110			
WG537476ICB	ICB	02/28/22 14:20				U	mg/L		-0.018	0.018			
WG537403LRB	LRB	02/28/22 14:21				U	mg/L		-0.0132	0.0132			
WG537403LFB	LFB	02/28/22 14:23	MS220126-3	.050075		.0525	mg/L	105	85	115			
L71562-01LFM	LFM	02/28/22 14:38	MS220126-3	.050075	.0118	.0409	mg/L	58	70	130			MA
WG537476CCV1	CCV	02/28/22 14:40	MS220228-3	.50075		.5021	mg/L	100	90	110			
WG537476CCB1	CCB	02/28/22 14:42				U	mg/L		-0.018	0.018			
L71562-01LFMD	LFMD	02/28/22 14:44	MS220126-3	.050075	.0118	.0486	mg/L	73	70	130	17	20	
WG537476CCV2	CCV	02/28/22 15:03	MS220228-3	.50075		.5096	mg/L	102	90	110			
WG537476CCB2	CCB	02/28/22 15:05				U	mg/L		-0.018	0.018			
WG537476CCV3	CCV	02/28/22 15:18	MS220228-3	.50075		.512	mg/L	102	90	110			
WG537476CCB3	CCB	02/28/22 15:20				U	mg/L		-0.018	0.018			

Rio Grande Silver, Inc.

ACZ Project ID: ***L71505***

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L71505-01	WG537398	Aluminum, total recoverable	M200.7 ICP	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG537843	Carbon, dissolved organic (DOC)	SM5310B	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).
	WG537321	Chloride	M300.0 - Ion Chromatography	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).
	WG537231	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.
	WG536922	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).
	WG537365	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	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).
	WG536977	Residue, Filterable (TDS) @180C	SM2540C	N1	See Case Narrative.
	WG537321	Sulfate	M300.0 - Ion Chromatography	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).
	WG536889	Sulfide as S	SM4500S2-D	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
			SM4500S2-D	QD	Reported value is the background-corrected concentration, as described by the method.
	WG537361	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).
	WG537476	Zinc, total recoverable	M200.8 ICP-MS	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.

Rio Grande Silver, Inc.
Project ID: BO48678
Sample ID: BD-MW

ACZ Sample ID: ***L71505-01***
Date Sampled: *02/16/22 10:00*
Date Received: *02/17/22*
Sample Matrix: *Groundwater*

Oil & Grease, Total Recoverable

Analysis Method: **1664A/B - Gravimetric**
Extract Method:

Workgroup: WG537135
Analyst: DDB
Extract Date:
Analysis Date: 02/22/22 10:42

Compound	CAS	Result	QUAL	Dilution	XQ	Units	MDL	PQL
Oil and Grease		<2	U	1.02	*	mg/L	2	10.2

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)
LCL	Lower Control Limit
MDL	Method Detection Limit. Same as Minimum Reporting Limit unless omitted or equal to the PQL (see comment #4) 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	Amount of the true value or spike added recovered, 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)
UCL	Upper Control Limit
Sample	Value of the Sample of interest

QC Sample Types

SURR	Surrogate	*LFB*	Laboratory Fortified Blank
INTS	Internal Standard	*LFM*	Laboratory Fortified Matrix
AS	Analytical Spike (Post Digestion)	*LFMD*	Laboratory Fortified Matrix Duplicate
ASD	Analytical Spike (Post Digestion) Duplicate	*LRB*	Laboratory Reagent Blank
DUP	Sample Duplicate	*MS/MSD*	Matrix Spike/Matrix Spike Duplicate
LCSS	Laboratory Control Sample - Soil	*PBS*	Prep Blank - Soil
LCSW	Laboratory Control Sample - Water	*PBW*	Prep Blank - Water

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.

ACZ Qualifiers (Qual)

O	Analyte concentration is estimated due to result exceeding calibration range.
H	Analysis exceeded method hold time. pH is a field test with an immediate hold time.
J	Analyte concentration detected at a value between MDL and PQL. The associated value is an estimated quantity.
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 600/4-90/020. Methods for the Determination of Organic Compounds in Drinking Water (I), July 1990.
(3) EPA 600/R-92/129. Methods for the Determination of Organic Compounds in Drinking Water (II), July 1990.
(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) Excluding Oil & Grease, solid & biological matrices for organic analyses are reported on a wet weight basis.
(3) An asterisk in the "XQ" column indicates there is an extended qualifier and/or certification qualifier associated with the result.
(4) 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

Rio Grande Silver, Inc. ACZ Project ID: ***L71505***

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.

Oil & Grease, Total Recoverable

1664A/B - Gravimetric

WG537135

LCSW **Sample ID: WG537135LCSW** **PCN/SCN: OP220217-2** **Analyzed: 02/22/22 13:42**

Compound	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
OIL AND GREASE	40		36.5	mg/L	91.0	78	114			

LCSWD **Sample ID: WG537135LCSWD** **PCN/SCN: OP220217-2** **Analyzed: 02/22/22 13:55**

Compound	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
OIL AND GREASE	40		32.3	mg/L	81.0	78	114	12	18	

PBW **Sample ID: WG537135PBW** **Analyzed: 02/22/22 10:30**

Compound	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
OIL AND GREASE			U	mg/L						

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

Organic Extended Qualifier Report

ACZ Project ID: ***L71505***

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L71505-01	WG537135	Oil and Grease	1664A/B - Gravimetric	Q5	Sample received with inadequate chemical preservation. Additional preservation performed by the laboratory.
			1664A/B - Gravimetric	Q9	Insufficient sample received to meet method QC requirements.

Certification Qualifiers

Rio Grande Silver, Inc.

ACZ Project ID: ***L71505***

No certification qualifiers associated with this analysis

ACZ Laboratories, Inc.
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Sample Receipt

Rio Grande Silver, Inc.
BO48678

ACZ Project ID: L71505
Date Received: 02/17/2022 11:46
Received By:
Date Printed: 2/18/2022

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?
3725	3.6	<=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.
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Sample Receipt

Rio Grande Silver, Inc.
BO48678

ACZ Project ID: L71505
Date Received: 02/17/2022 11:46
Received By:
Date Printed: 2/18/2022

[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. L71505

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

CHAIN of CUSTODY

Report to:

Name: Randy McClure
Company: Rio Grande Silver, Inc.
E-mail: rmcclure@hecla-mining.com
Address: 625 USFS Road 504. 1A
Creede, CO 81130
Telephone: 719-658-1080

Copy of Report to:

Name: Randy McClure
Company: Rio Grande Silver, Inc.
rmcclure@hecla-mining.com
Telephone: 970-317-5355

Invoice to:

Name: Randy McClure
Company: Rio Grande Silver, Inc.
E-mail: rmcclure@hecla-mining.com
Address: 625 USFS Road 504. 1A
Creede, CO 81130
Telephone: 970-317-5355

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: Randy McClure **Sampler's Site Information** **State** CO **Zip code** 81130 **Time Zone** MST
***Sampler's Signature:** Randy McClure

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

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

Quote #: RIOGRANDE - GW - 2020
PO#: BO48678
Reporting state for compliance testing:
Check box if samples include NRC licensed material? ☐

SAMPLE IDENTIFICATION	DATE:TIME	Matrix	# of Containers								
BD-MW	2/16/22 10:00 am	GW	8	☐	☐	☐	☐	☐	☐	☐	☐

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

REMARKS

GW samples and any listed trip blanks should be included on one report. There may be more than one cooler for this COC. Please send an additional copy of the report to rmcclure@hecla-mining.com

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

RELINQUISHED BY:	DATE:TIME	RECEIVED BY:	DATE:TIME
~~Randy McClure~~	~~2/16/22 11:00 am~~	[signature]	2/17/22 11:16

FRMAD050.03.14.13 White - Return with sample. Yellow - Retain for your records.

L71505 Chain of Custody

RIO GRANDE SILVER
FIELD DATA SHEET

Station Name BD-MW

Source Monitoring Well

Date of Sample 2 / 16 / 2022

Time of Sample 10 : 00 am

Weather/Comments:

Cloudy
Sample temp. skewed by air temp
Water elevation: 9378.8

PARAMETERS:	RESULTS	UNITS
Air Temp	21.33	°C / (°F)
Sample temperature	31.81	°C / °F
Conductivity (corrected for temp)	196	µS/cm[c]
Conductivity	102	µS/cm
TDS	0.127	g/l
TDS (convert)		mg/l
Dissolved Oxygen	43.3	% saturation
Dissolved Oxygen	6.33	mg/l
pH Meter	7.36	units
ORP	186.7	

Other Notes:

Data recorded by RM Date recorded 2/16/22

*mS/cm *1000 = µS/cm (older data sheets may have units for conductivity in mS/cm)