

June 17, 2019

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

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

cc: Janet Shangraw

Project ID: BO42135
ACZ Project ID: L51684

Randy McClure:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on May 10, 2019. This project has been assigned to ACZ's project number, L51684. 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 L51684. 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 July 17, 2019. 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.



Rio Grande Silver, Inc.

June 17, 2019

Project ID: BO42135

ACZ Project ID: L51684

Sample Receipt

ACZ Laboratories, Inc. (ACZ) received 5 miscellaneous samples from Rio Grande Silver, Inc. on May 10, 2019. 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 L51684. 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 except for parameters flagged with an "H3", received after the hold time had expired.

Sample Analysis

These samples were 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:

This project was revised on 06/17/19 to change the sample ID for L51684-05. No other changes were made.

1. TSS (N1) - The oven range is 103 C to 105 C. The oven had a minor exceedance in oven temperature. When workgroup was removed from the oven on Wednesday 5/15/19, the max temp read at 106.0 C.
2. Mercury for L51684-05 (N1) - Sample is labeled as a trip blank but has a result above the blank limit of 0.5ng/L. Result confirmed by reanalysis. Sample does have some sediment.

Rio Grande Silver, Inc.

Project ID: BO42135

Sample ID: WG-L

ACZ Sample ID: **L51684-01**

Date Sampled: 05/08/19 10:00

Date Received: 05/10/19

Sample Matrix: Surface Water

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor								05/17/19 12:08	rbt
Phosphorus, total	M365.1 - Auto Ascorbic Acid Digestion								05/14/19 14:24	rbt
Total Recoverable Digestion	M200.2 ICP-MS								05/15/19 12:45	rap
Total Recoverable Digestion	M200.2 ICP								05/14/19 13:57	dcm

Rio Grande Silver, Inc.

Project ID: BO42135

Sample ID: WG-L

ACZ Sample ID: **L51684-01**

Date Sampled: 05/08/19 10:00

Date Received: 05/10/19

Sample Matrix: Surface Water

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	1	0.59			mg/L	0.05	0.3	05/15/19 18:47	dcm
Aluminum, total recoverable	M200.7 ICP	1	1.07		*	mg/L	0.05	0.3	05/16/19 15:27	dcm
Arsenic, dissolved	M200.8 ICP-MS	1	0.0138			mg/L	0.0002	0.001	05/14/19 14:30	bsu
Arsenic, total recoverable	M200.8 ICP-MS	1	0.0214			mg/L	0.0002	0.001	05/16/19 14:11	bsu
Boron, dissolved	M200.7 ICP	1		U		mg/L	0.02	0.1	05/15/19 18:47	dcm
Boron, total recoverable	M200.7 ICP	1		U		mg/L	0.02	0.1	05/16/19 15:27	dcm
Cadmium, dissolved	M200.8 ICP-MS	1	0.0149			mg/L	0.00005	0.0003	05/14/19 14:30	bsu
Cadmium, total recoverable	M200.8 ICP-MS	1	0.0157			mg/L	0.00005	0.0003	05/16/19 14:11	bsu
Calcium, dissolved	M200.7 ICP	1	30.2			mg/L	0.1	0.5	05/15/19 18:47	dcm
Chromium, total recoverable	M200.8 ICP-MS	1	0.0005	B		mg/L	0.0005	0.002	05/16/19 14:11	bsu
Cobalt, dissolved	M200.7 ICP	1		U		mg/L	0.01	0.05	05/15/19 18:47	dcm
Cobalt, total recoverable	M200.7 ICP	1		U		mg/L	0.01	0.05	05/16/19 15:27	dcm
Copper, dissolved	M200.8 ICP-MS	1	0.0059			mg/L	0.0008	0.002	05/14/19 14:30	bsu
Copper, total recoverable	M200.8 ICP-MS	1	0.008			mg/L	0.0008	0.002	05/16/19 14:11	bsu
Iron, dissolved	M200.7 ICP	1	0.28			mg/L	0.03	0.08	05/15/19 18:47	dcm
Iron, total recoverable	M200.7 ICP	1	0.64			mg/L	0.03	0.08	05/16/19 15:27	dcm
Lead, dissolved	M200.8 ICP-MS	1	0.0008			mg/L	0.0001	0.0005	05/14/19 14:30	bsu
Lead, total recoverable	M200.8 ICP-MS	1	0.0028			mg/L	0.0001	0.0005	05/16/19 14:11	bsu
Magnesium, dissolved	M200.7 ICP	1	3.0			mg/L	0.2	1	05/15/19 18:47	dcm
Manganese, dissolved	M200.7 ICP	1	0.63		*	mg/L	0.01	0.05	05/15/19 18:47	dcm
Manganese, total recoverable	M200.7 ICP	1	0.65			mg/L	0.01	0.05	05/16/19 15:27	dcm
Mercury, total	M1631, Atomic Fluorescence	1	9.0			ng/L	0.2	0.5	05/16/19 10:38	mfm
Nickel, dissolved	M200.7 ICP	1		U		mg/L	0.008	0.04	05/15/19 18:47	dcm
Nickel, total recoverable	M200.7 ICP	1		U		mg/L	0.008	0.04	05/16/19 15:27	dcm
Potassium, dissolved	M200.7 ICP	1	2.7			mg/L	0.2	1	05/15/19 18:47	dcm
Selenium, dissolved	M200.8 ICP-MS	1	0.0002	B		mg/L	0.0001	0.0003	05/14/19 14:30	bsu
Selenium, total recoverable	M200.8 ICP-MS	1	0.0002	B		mg/L	0.0001	0.0003	05/16/19 14:11	bsu
Silica, dissolved	M200.7 ICP	1	26.1			mg/L	0.2	1	05/15/19 18:47	dcm
Silica, total recoverable	M200.7 ICP	1	24.1		*	mg/L	0.2	1	05/16/19 15:27	dcm
Silver, dissolved	M200.8 ICP-MS	1		U		mg/L	0.0001	0.0005	05/14/19 14:30	bsu
Silver, total recoverable	M200.8 ICP-MS	1	0.0001	B		mg/L	0.0001	0.0005	05/16/19 14:11	bsu
Sodium, dissolved	M200.7 ICP	1	3.6			mg/L	0.2	1	05/15/19 18:47	dcm
Uranium, dissolved	M200.8 ICP-MS	1		U		mg/L	0.0001	0.0005	05/14/19 14:30	bsu
Uranium, total recoverable	M200.8 ICP-MS	1		U		mg/L	0.0001	0.0005	05/16/19 14:11	bsu
Zinc, dissolved	M200.8 ICP-MS	1	2.6		*	mg/L	0.004	0.01	05/14/19 14:30	bsu

Rio Grande Silver, Inc.

Project ID: BO42135

Sample ID: WG-L

ACZ Sample ID: **L51684-01**

Date Sampled: 05/08/19 10:00

Date Received: 05/10/19

Sample Matrix: Surface Water

Zinc, total recoverable	M200.8 ICP-MS	1	2.62		mg/L	0.004	0.01	05/16/19 14:11	bsu
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Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration									
Bicarbonate as CaCO3		1	11.8	B		mg/L	10	20	05/11/19 0:00	nmc
Carbonate as CaCO3		1		U		mg/L	10	20	05/11/19 0:00	nmc
Hydroxide as CaCO3		1		U		mg/L	10	20	05/11/19 0:00	nmc
Total Alkalinity		1	11.8	B	*	mg/L	10	20	05/11/19 0:00	nmc
Carbon, dissolved organic (DOC)	SM5310B	1	7.6		*	mg/L	1	5	05/14/19 15:39	rht
Cation-Anion Balance	Calculation									
Cation-Anion Balance			-2.2			%			05/22/19 0:00	calc
Sum of Anions			2.3			meq/L			05/22/19 0:00	calc
Sum of Cations			2.2			meq/L			05/22/19 0:00	calc
Chemical Oxygen Demand	M410.4	1	11	B	*	mg/L	10	20	05/17/19 10:29	mh
Chloride	M300.0 - Ion Chromatography	1	1.51	B		mg/L	0.4	2	05/14/19 20:57	krh
Fluoride	SM4500F-C	1	0.2	B		mg/L	0.1	0.4	05/15/19 19:59	emk
Hardness as CaCO3 (dissolved)	SM2340B - Calculation		88			mg/L	0.2	5	05/22/19 0:00	calc
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2		0.78	H		mg/L	0.02	0.1	05/22/19 0:00	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	0.78	H	*	mg/L	0.02	0.1	05/11/19 0:35	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1		UH	*	mg/L	0.01	0.05	05/11/19 0:35	pjb
Nitrogen, ammonia	M350.1 Auto Salicylate w/gas diffusion	1		U	*	mg/L	0.05	0.2	05/17/19 14:04	mss2
Nitrogen, organic	M351.2 & M350.1 - TKN minus NH3		0.3	B		mg/L	0.1	0.5	05/22/19 0:00	calc
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	1	0.3	B	*	mg/L	0.1	0.5	05/17/19 23:10	pjb
pH (lab)	SM4500H+ B									
pH		1	7.4	H		units	0.1	0.1	05/11/19 0:00	nmc
pH measured at		1	21.3			C	0.1	0.1	05/11/19 0:00	nmc
Phosphorus, total	M365.1 - Auto Ascorbic Acid (digest)	1	0.08		*	mg/L	0.01	0.05	05/15/19 13:14	ttg
Residue, Filterable (TDS) @180C	SM2540C	1	210			mg/L	20	40	05/14/19 12:20	enb
Residue, Non-Filterable (TSS) @105C	SM2540D	1		U	*	mg/L	5	20	05/14/19 17:26	emk
Sulfate	M300.0 - Ion Chromatography	1	90.7			mg/L	0.4	2	05/14/19 20:57	krh
Sulfide as S	SM4500S2-D	1		U	*	mg/L	0.02	0.1	05/13/19 14:23	mh

Rio Grande Silver, Inc.

Project ID: BO42135

Sample ID: WG-9360-B

ACZ Sample ID: **L51684-02**

Date Sampled: 05/08/19 10:30

Date Received: 05/10/19

Sample Matrix: Surface Water

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor								05/17/19 12:21	rbt
Phosphorus, total	M365.1 - Auto Ascorbic Acid Digestion								05/14/19 14:31	rbt
Total Recoverable Digestion	M200.2 ICP-MS								05/15/19 13:01	rap
Total Recoverable Digestion	M200.2 ICP								05/14/19 14:09	dcm

Rio Grande Silver, Inc.

Project ID: BO42135

Sample ID: WG-9360-B

ACZ Sample ID: **L51684-02**

Date Sampled: 05/08/19 10:30

Date Received: 05/10/19

Sample Matrix: Surface Water

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	1	0.56			mg/L	0.05	0.3	05/15/19 18:50	dcm
Aluminum, total recoverable	M200.7 ICP	1	1.93		*	mg/L	0.05	0.3	05/16/19 15:30	dcm
Arsenic, dissolved	M200.8 ICP-MS	1	0.011			mg/L	0.0002	0.001	05/14/19 14:32	bsu
Arsenic, total recoverable	M200.8 ICP-MS	1	0.0328			mg/L	0.0002	0.001	05/16/19 14:12	bsu
Boron, dissolved	M200.7 ICP	1		U		mg/L	0.02	0.1	05/15/19 18:50	dcm
Boron, total recoverable	M200.7 ICP	1		U		mg/L	0.02	0.1	05/16/19 15:30	dcm
Cadmium, dissolved	M200.8 ICP-MS	1	0.0246			mg/L	0.00005	0.0003	05/14/19 14:32	bsu
Cadmium, total recoverable	M200.8 ICP-MS	1	0.0264			mg/L	0.00005	0.0003	05/16/19 14:12	bsu
Calcium, dissolved	M200.7 ICP	1	26.8			mg/L	0.1	0.5	05/15/19 18:50	dcm
Chromium, total recoverable	M200.8 ICP-MS	1	0.0007	B		mg/L	0.0005	0.002	05/16/19 14:12	bsu
Cobalt, dissolved	M200.7 ICP	1		U		mg/L	0.01	0.05	05/15/19 18:50	dcm
Cobalt, total recoverable	M200.7 ICP	1		U		mg/L	0.01	0.05	05/16/19 15:30	dcm
Copper, dissolved	M200.8 ICP-MS	1	0.0102			mg/L	0.0008	0.002	05/14/19 14:32	bsu
Copper, total recoverable	M200.8 ICP-MS	1	0.0166			mg/L	0.0008	0.002	05/16/19 14:12	bsu
Iron, dissolved	M200.7 ICP	1	0.26			mg/L	0.03	0.08	05/15/19 18:50	dcm
Iron, total recoverable	M200.7 ICP	1	1.24			mg/L	0.03	0.08	05/16/19 15:30	dcm
Lead, dissolved	M200.8 ICP-MS	1	0.0007			mg/L	0.0001	0.0005	05/14/19 14:32	bsu
Lead, total recoverable	M200.8 ICP-MS	1	0.0072			mg/L	0.0001	0.0005	05/16/19 14:12	bsu
Magnesium, dissolved	M200.7 ICP	1	2.6			mg/L	0.2	1	05/15/19 18:50	dcm
Manganese, dissolved	M200.7 ICP	1	2.03		*	mg/L	0.01	0.05	05/15/19 18:50	dcm
Manganese, total recoverable	M200.7 ICP	1	2.10			mg/L	0.01	0.05	05/16/19 15:30	dcm
Mercury, total	M1631, Atomic Fluorescence	1	13.9			ng/L	0.2	0.5	05/16/19 10:53	mfm
Nickel, dissolved	M200.7 ICP	1		U		mg/L	0.008	0.04	05/15/19 18:50	dcm
Nickel, total recoverable	M200.7 ICP	1		U		mg/L	0.008	0.04	05/16/19 15:30	dcm
Potassium, dissolved	M200.7 ICP	1	2.5			mg/L	0.2	1	05/15/19 18:50	dcm
Selenium, dissolved	M200.8 ICP-MS	1	0.0002	B		mg/L	0.0001	0.0003	05/14/19 14:32	bsu
Selenium, total recoverable	M200.8 ICP-MS	1	0.0001	B		mg/L	0.0001	0.0003	05/16/19 14:12	bsu
Silica, dissolved	M200.7 ICP	1	26.0			mg/L	0.2	1	05/15/19 18:50	dcm
Silica, total recoverable	M200.7 ICP	1	28.8		*	mg/L	0.2	1	05/16/19 15:30	dcm
Silver, dissolved	M200.8 ICP-MS	1		U		mg/L	0.0001	0.0005	05/14/19 14:32	bsu
Silver, total recoverable	M200.8 ICP-MS	1	0.0002	B		mg/L	0.0001	0.0005	05/16/19 14:12	bsu
Sodium, dissolved	M200.7 ICP	1	3.3			mg/L	0.2	1	05/15/19 18:50	dcm
Uranium, dissolved	M200.8 ICP-MS	1		U		mg/L	0.0001	0.0005	05/14/19 14:32	bsu
Uranium, total recoverable	M200.8 ICP-MS	1	0.0002	B		mg/L	0.0001	0.0005	05/16/19 14:12	bsu
Zinc, dissolved	M200.8 ICP-MS	1	3.14		*	mg/L	0.004	0.01	05/14/19 14:32	bsu

Rio Grande Silver, Inc.

Project ID: BO42135

Sample ID: WG-9360-B

ACZ Sample ID: **L51684-02**

Date Sampled: 05/08/19 10:30

Date Received: 05/10/19

Sample Matrix: Surface Water

Zinc, total recoverable	M200.8 ICP-MS	1	3.13		*	mg/L	0.004	0.01	05/16/19 14:12	bsu
Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration									
Bicarbonate as CaCO3		1	11.7	B		mg/L	10	20	05/11/19 0:00	nmc
Carbonate as CaCO3		1		U		mg/L	10	20	05/11/19 0:00	nmc
Hydroxide as CaCO3		1		U		mg/L	10	20	05/11/19 0:00	nmc
Total Alkalinity		1	11.7	B	*	mg/L	10	20	05/11/19 0:00	nmc
Carbon, dissolved organic (DOC)	SM5310B	1	8.2		*	mg/L	1	5	05/14/19 15:39	rbt
Cation-Anion Balance	Calculation									
Cation-Anion Balance			2.4			%			05/22/19 0:00	calc
Sum of Anions			2.0			meq/L			05/22/19 0:00	calc
Sum of Cations			2.1			meq/L			05/22/19 0:00	calc
Chemical Oxygen Demand	M410.4	1	16	B	*	mg/L	10	20	05/17/19 10:38	mh
Chloride	M300.0 - Ion Chromatography	1	1.48	B		mg/L	0.4	2	05/14/19 21:15	krh
Fluoride	SM4500F-C	1	0.2	B		mg/L	0.1	0.4	05/15/19 20:07	emk
Hardness as CaCO3 (dissolved)	SM2340B - Calculation		78			mg/L	0.2	5	05/22/19 0:00	calc
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2		0.65	H		mg/L	0.02	0.1	05/22/19 0:00	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	0.65	H	*	mg/L	0.02	0.1	05/11/19 0:07	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1		UH	*	mg/L	0.01	0.05	05/11/19 0:07	pjb
Nitrogen, ammonia	M350.1 Auto Salicylate w/gas diffusion	1		U	*	mg/L	0.05	0.2	05/17/19 14:05	mss2
Nitrogen, organic	M351.2 & M350.1 - TKN minus NH3		0.3	B		mg/L	0.1	0.5	05/22/19 0:00	calc
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	1	0.3	B	*	mg/L	0.1	0.5	05/17/19 23:11	pjb
pH (lab)	SM4500H+ B									
pH		1	7.5	H		units	0.1	0.1	05/11/19 0:00	nmc
pH measured at		1	21.5			C	0.1	0.1	05/11/19 0:00	nmc
Phosphorus, total	M365.1 - Auto Ascorbic Acid (digest)	1	0.12		*	mg/L	0.01	0.05	05/15/19 13:15	ttg
Residue, Filterable (TDS) @180C	SM2540C	1	202			mg/L	20	40	05/14/19 12:22	enb
Residue, Non-Filterable (TSS) @105C	SM2540D	1	10.0	B	*	mg/L	5	20	05/14/19 17:28	emk
Sulfate	M300.0 - Ion Chromatography	1	79.7			mg/L	0.4	2	05/14/19 21:15	krh
Sulfide as S	SM4500S2-D	1		U	*	ma/L	0.02	0.1	05/13/19 14:29	mh

Rio Grande Silver, Inc.

Project ID: BO42135

Sample ID: WG-9700 W

ACZ Sample ID: **L51684-03**

Date Sampled: 05/08/19 11:15

Date Received: 05/10/19

Sample Matrix: Surface Water

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor								05/17/19 12:34	rbt
Phosphorus, total	M365.1 - Auto Ascorbic Acid Digestion								05/14/19 14:38	rbt
Total Recoverable Digestion	M200.2 ICP-MS								05/15/19 13:18	rap
Total Recoverable Digestion	M200.2 ICP								05/14/19 14:21	dcm

Rio Grande Silver, Inc.

Project ID: BO42135

Sample ID: WG-9700 W

ACZ Sample ID: **L51684-03**

Date Sampled: 05/08/19 11:15

Date Received: 05/10/19

Sample Matrix: Surface Water

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	1	2.12			mg/L	0.05	0.3	05/15/19 19:05	dcm
Aluminum, total recoverable	M200.7 ICP	1	3.11		*	mg/L	0.05	0.3	05/16/19 15:33	dcm
Arsenic, dissolved	M200.8 ICP-MS	1	0.031			mg/L	0.0002	0.001	05/14/19 14:38	bsu
Arsenic, total recoverable	M200.8 ICP-MS	1	0.0491			mg/L	0.0002	0.001	05/16/19 14:14	bsu
Boron, dissolved	M200.7 ICP	1		U		mg/L	0.02	0.1	05/15/19 19:05	dcm
Boron, total recoverable	M200.7 ICP	1		U		mg/L	0.02	0.1	05/16/19 15:33	dcm
Cadmium, dissolved	M200.8 ICP-MS	1	0.00169			mg/L	0.00005	0.0003	05/14/19 14:38	bsu
Cadmium, total recoverable	M200.8 ICP-MS	1	0.00207			mg/L	0.00005	0.0003	05/16/19 14:14	bsu
Calcium, dissolved	M200.7 ICP	1	8.6			mg/L	0.1	0.5	05/15/19 19:05	dcm
Chromium, total recoverable	M200.8 ICP-MS	1	0.001	B		mg/L	0.0005	0.002	05/16/19 14:14	bsu
Cobalt, dissolved	M200.7 ICP	1		U		mg/L	0.01	0.05	05/15/19 19:05	dcm
Cobalt, total recoverable	M200.7 ICP	1		U		mg/L	0.01	0.05	05/16/19 15:33	dcm
Copper, dissolved	M200.8 ICP-MS	1	0.012			mg/L	0.0008	0.002	05/14/19 14:38	bsu
Copper, total recoverable	M200.8 ICP-MS	1	0.0167			mg/L	0.0008	0.002	05/16/19 14:14	bsu
Iron, dissolved	M200.7 ICP	1	1.14			mg/L	0.03	0.08	05/15/19 19:05	dcm
Iron, total recoverable	M200.7 ICP	1	2.11			mg/L	0.03	0.08	05/16/19 15:33	dcm
Lead, dissolved	M200.8 ICP-MS	1	0.0014			mg/L	0.0001	0.0005	05/14/19 14:38	bsu
Lead, total recoverable	M200.8 ICP-MS	1	0.0053			mg/L	0.0001	0.0005	05/16/19 14:14	bsu
Magnesium, dissolved	M200.7 ICP	1	1.4			mg/L	0.2	1	05/15/19 19:05	dcm
Manganese, dissolved	M200.7 ICP	1	0.13		*	mg/L	0.01	0.05	05/15/19 19:05	dcm
Manganese, total recoverable	M200.7 ICP	1	0.19			mg/L	0.01	0.05	05/16/19 15:33	dcm
Mercury, total	M1631, Atomic Fluorescence	1	23.7			ng/L	0.2	0.5	05/16/19 10:58	mfm
Nickel, dissolved	M200.7 ICP	1		U		mg/L	0.008	0.04	05/15/19 19:05	dcm
Nickel, total recoverable	M200.7 ICP	1		U		mg/L	0.008	0.04	05/16/19 15:33	dcm
Potassium, dissolved	M200.7 ICP	1	1.9			mg/L	0.2	1	05/15/19 19:05	dcm
Selenium, dissolved	M200.8 ICP-MS	1	0.0001	B		mg/L	0.0001	0.0003	05/14/19 14:38	bsu
Selenium, total recoverable	M200.8 ICP-MS	1	0.0001	B		mg/L	0.0001	0.0003	05/16/19 14:14	bsu
Silica, dissolved	M200.7 ICP	1	31.5			mg/L	0.2	1	05/15/19 19:05	dcm
Silica, total recoverable	M200.7 ICP	1	32.9		*	mg/L	0.2	1	05/16/19 15:33	dcm
Silver, dissolved	M200.8 ICP-MS	1		U		mg/L	0.0001	0.0005	05/14/19 14:38	bsu
Silver, total recoverable	M200.8 ICP-MS	1	0.0001	B		mg/L	0.0001	0.0005	05/16/19 14:14	bsu
Sodium, dissolved	M200.7 ICP	1	2.5			mg/L	0.2	1	05/15/19 19:05	dcm
Uranium, dissolved	M200.8 ICP-MS	1	0.0002	B		mg/L	0.0001	0.0005	05/14/19 14:38	bsu
Uranium, total recoverable	M200.8 ICP-MS	1	0.0003	B		mg/L	0.0001	0.0005	05/16/19 14:14	bsu
Zinc, dissolved	M200.8 ICP-MS	1	0.158		*	mg/L	0.004	0.01	05/14/19 14:38	bsu

Rio Grande Silver, Inc.

Project ID: BO42135

Sample ID: WG-9700 W

ACZ Sample ID: **L51684-03**

Date Sampled: 05/08/19 11:15

Date Received: 05/10/19

Sample Matrix: Surface Water

Zinc, total recoverable	M200.8 ICP-MS	1	0.182		*	mg/L	0.004	0.01	05/16/19 14:14	bsu
Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration									
Bicarbonate as CaCO3		1	20.8			mg/L	10	20	05/11/19 0:00	nmc
Carbonate as CaCO3		1		U		mg/L	10	20	05/11/19 0:00	nmc
Hydroxide as CaCO3		1		U		mg/L	10	20	05/11/19 0:00	nmc
Total Alkalinity		1	20.8		*	mg/L	10	20	05/11/19 0:00	nmc
Carbon, dissolved organic (DOC)	SM5310B	1	11.6		*	mg/L	1	5	05/14/19 15:39	rbt
Cation-Anion Balance	Calculation									
Cation-Anion Balance			17.7			%			05/22/19 0:00	calc
Sum of Anions			0.699			meq/L			05/22/19 0:00	calc
Sum of Cations			1.0			meq/L			05/22/19 0:00	calc
Chemical Oxygen Demand	M410.4	1	21		*	mg/L	10	20	05/17/19 10:47	mh
Chloride	M300.0 - Ion Chromatography	1	1.39	B		mg/L	0.4	2	05/14/19 21:33	krh
Fluoride	SM4500F-C	3		U	*	mg/L	0.3	1	05/17/19 16:13	mh
Hardness as CaCO3 (dissolved)	SM2340B - Calculation		27			mg/L	0.2	5	05/22/19 0:00	calc
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2		0.19	H		mg/L	0.02	0.1	05/22/19 0:00	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	0.19	H	*	mg/L	0.02	0.1	05/11/19 0:12	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1		UH	*	mg/L	0.01	0.05	05/11/19 0:12	pjb
Nitrogen, ammonia	M350.1 Auto Salicylate w/gas diffusion	1		U	*	mg/L	0.05	0.2	05/17/19 14:10	mss2
Nitrogen, organic	M351.2 & M350.1 - TKN minus NH3			U		mg/L	0.1	0.5	05/22/19 0:00	calc
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	1		U	*	mg/L	0.1	0.5	05/17/19 23:12	pjb
pH (lab)	SM4500H+ B									
pH		1	7.7	H		units	0.1	0.1	05/11/19 0:00	nmc
pH measured at		1	21.6			C	0.1	0.1	05/11/19 0:00	nmc
Phosphorus, total	M365.1 - Auto Ascorbic Acid (digest)	1	0.16		*	mg/L	0.01	0.05	05/15/19 13:16	ttg
Residue, Filterable (TDS) @180C	SM2540C	1	114			mg/L	20	40	05/14/19 12:25	enb
Residue, Non-Filterable (TSS) @105C	SM2540D	1	15.0	B	*	mg/L	5	20	05/14/19 17:29	emk
Sulfate	M300.0 - Ion Chromatography	1	11.0			mg/L	0.4	2	05/14/19 21:33	krh
Sulfide as S	SM4500S2-D	1		U	*	ma/L	0.02	0.1	05/13/19 14:36	mh

Rio Grande Silver, Inc.

Project ID: BO42135

Sample ID: WG-U

ACZ Sample ID: **L51684-04**

Date Sampled: 05/08/19 11:40

Date Received: 05/10/19

Sample Matrix: Surface Water

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor								05/17/19 13:01	rbt
Phosphorus, total	M365.1 - Auto Ascorbic Acid Digestion								05/14/19 14:45	rbt
Total Recoverable Digestion	M200.2 ICP-MS								05/15/19 13:35	rap
Total Recoverable Digestion	M200.2 ICP								05/14/19 14:33	dcm

Rio Grande Silver, Inc.

Project ID: BO42135

Sample ID: WG-U

ACZ Sample ID: **L51684-04**

Date Sampled: 05/08/19 11:40

Date Received: 05/10/19

Sample Matrix: Surface Water

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	1	1.78			mg/L	0.05	0.3	05/15/19 19:08	dcm
Aluminum, total recoverable	M200.7 ICP	1	2.29		*	mg/L	0.05	0.3	05/16/19 15:37	dcm
Arsenic, dissolved	M200.8 ICP-MS	1	0.002			mg/L	0.0002	0.001	05/14/19 14:40	bsu
Arsenic, total recoverable	M200.8 ICP-MS	1	0.0021			mg/L	0.0002	0.001	05/16/19 14:16	bsu
Boron, dissolved	M200.7 ICP	1		U		mg/L	0.02	0.1	05/15/19 19:08	dcm
Boron, total recoverable	M200.7 ICP	1		U		mg/L	0.02	0.1	05/16/19 15:37	dcm
Cadmium, dissolved	M200.8 ICP-MS	1		U		mg/L	0.00005	0.0003	05/14/19 14:40	bsu
Cadmium, total recoverable	M200.8 ICP-MS	1		U		mg/L	0.00005	0.0003	05/16/19 14:16	bsu
Calcium, dissolved	M200.7 ICP	1	7.0			mg/L	0.1	0.5	05/15/19 19:08	dcm
Chromium, total recoverable	M200.8 ICP-MS	1	0.0009	B		mg/L	0.0005	0.002	05/16/19 14:16	bsu
Cobalt, dissolved	M200.7 ICP	1		U		mg/L	0.01	0.05	05/15/19 19:08	dcm
Cobalt, total recoverable	M200.7 ICP	1		U		mg/L	0.01	0.05	05/16/19 15:37	dcm
Copper, dissolved	M200.8 ICP-MS	1	0.0011	B		mg/L	0.0008	0.002	05/14/19 14:40	bsu
Copper, total recoverable	M200.8 ICP-MS	1	0.0014	B		mg/L	0.0008	0.002	05/16/19 14:16	bsu
Iron, dissolved	M200.7 ICP	1	0.83			mg/L	0.03	0.08	05/15/19 19:08	dcm
Iron, total recoverable	M200.7 ICP	1	1.21			mg/L	0.03	0.08	05/16/19 15:37	dcm
Lead, dissolved	M200.8 ICP-MS	1	0.0004	B		mg/L	0.0001	0.0005	05/14/19 14:40	bsu
Lead, total recoverable	M200.8 ICP-MS	1	0.0006			mg/L	0.0001	0.0005	05/16/19 14:16	bsu
Magnesium, dissolved	M200.7 ICP	1	1.2			mg/L	0.2	1	05/15/19 19:08	dcm
Manganese, dissolved	M200.7 ICP	1	0.01	B	*	mg/L	0.01	0.05	05/15/19 19:08	dcm
Manganese, total recoverable	M200.7 ICP	1	0.02	B		mg/L	0.01	0.05	05/16/19 15:37	dcm
Mercury, total	M1631, Atomic Fluorescence	1	6.6			ng/L	0.2	0.5	05/16/19 11:03	mfm
Nickel, dissolved	M200.7 ICP	1		U		mg/L	0.008	0.04	05/15/19 19:08	dcm
Nickel, total recoverable	M200.7 ICP	1		U		mg/L	0.008	0.04	05/16/19 15:37	dcm
Potassium, dissolved	M200.7 ICP	1	2.1			mg/L	0.2	1	05/15/19 19:08	dcm
Selenium, dissolved	M200.8 ICP-MS	1	0.0001	B		mg/L	0.0001	0.0003	05/14/19 14:40	bsu
Selenium, total recoverable	M200.8 ICP-MS	1	0.0001	B		mg/L	0.0001	0.0003	05/16/19 14:16	bsu
Silica, dissolved	M200.7 ICP	1	32.0			mg/L	0.2	1	05/15/19 19:08	dcm
Silica, total recoverable	M200.7 ICP	1	35.0		*	mg/L	0.2	1	05/16/19 15:37	dcm
Silver, dissolved	M200.8 ICP-MS	1		U		mg/L	0.0001	0.0005	05/14/19 14:40	bsu
Silver, total recoverable	M200.8 ICP-MS	1		U		mg/L	0.0001	0.0005	05/16/19 14:16	bsu
Sodium, dissolved	M200.7 ICP	1	2.5			mg/L	0.2	1	05/15/19 19:08	dcm
Uranium, dissolved	M200.8 ICP-MS	1		U		mg/L	0.0001	0.0005	05/14/19 14:40	bsu
Uranium, total recoverable	M200.8 ICP-MS	1		U		mg/L	0.0001	0.0005	05/16/19 14:16	bsu
Zinc, dissolved	M200.8 ICP-MS	1		U	*	mg/L	0.004	0.01	05/14/19 14:40	bsu

Rio Grande Silver, Inc.

Project ID: BO42135

Sample ID: WG-U

ACZ Sample ID: **L51684-04**

Date Sampled: 05/08/19 11:40

Date Received: 05/10/19

Sample Matrix: Surface Water

Zinc, total recoverable	M200.8 ICP-MS	1	0.015		*	mg/L	0.004	0.01	05/16/19 14:16	bsu
Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration									
Bicarbonate as CaCO3		1	23.5			mg/L	10	20	05/11/19 0:00	nmc
Carbonate as CaCO3		1		U		mg/L	10	20	05/11/19 0:00	nmc
Hydroxide as CaCO3		1		U		mg/L	10	20	05/11/19 0:00	nmc
Total Alkalinity		1	23.5		*	mg/L	10	20	05/11/19 0:00	nmc
Carbon, dissolved organic (DOC)	SM5310B	1	13.2		*	mg/L	1	5	05/14/19 15:39	rbt
Cation-Anion Balance	Calculation									
Cation-Anion Balance			19.7			%			05/22/19 0:00	calc
Sum of Anions			0.574			meq/L			05/22/19 0:00	calc
Sum of Cations			0.855			meq/L			05/22/19 0:00	calc
Chemical Oxygen Demand	M410.4	1	22		*	mg/L	10	20	05/17/19 10:56	mh
Chloride	M300.0 - Ion Chromatography	1	1.28	B	*	mg/L	0.4	2	05/14/19 21:51	krh
Fluoride	SM4500F-C	1		U		mg/L	0.1	0.4	05/15/19 20:19	emk
Hardness as CaCO3 (dissolved)	SM2340B - Calculation		22			mg/L	0.2	5	05/22/19 0:00	calc
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2		0.03	BH		mg/L	0.02	0.1	05/22/19 0:00	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	0.03	BH	*	mg/L	0.02	0.1	05/11/19 0:14	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1		UH	*	mg/L	0.01	0.05	05/11/19 0:14	pjb
Nitrogen, ammonia	M350.1 Auto Salicylate w/gas diffusion	1		U	*	mg/L	0.05	0.2	05/17/19 14:11	mss2
Nitrogen, organic	M351.2 & M350.1 - TKN minus NH3		0.4	B		mg/L	0.1	0.5	05/22/19 0:00	calc
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	1	0.4	B	*	mg/L	0.1	0.5	05/17/19 23:15	pjb
pH (lab)	SM4500H+ B									
pH		1	7.8	H		units	0.1	0.1	05/11/19 0:00	nmc
pH measured at		1	21.8			C	0.1	0.1	05/11/19 0:00	nmc
Phosphorus, total	M365.1 - Auto Ascorbic Acid (digest)	1	0.12		*	mg/L	0.01	0.05	05/15/19 13:18	ttg
Residue, Filterable (TDS) @180C	SM2540C	1	108			mg/L	20	40	05/14/19 12:28	enb
Residue, Non-Filterable (TSS) @105C	SM2540D	1	5.0	B	*	mg/L	5	20	05/14/19 17:31	emk
Sulfate	M300.0 - Ion Chromatography	1	3.15		*	mg/L	0.4	2	05/14/19 21:51	krh
Sulfide as S	SM4500S2-D	1		U	*	ma/L	0.02	0.1	05/13/19 14:42	mh

Rio Grande Silver, Inc.

Project ID: BO42135

Sample ID: DUPLICATE SAMPLE

ACZ Sample ID: **L51684-05**

Date Sampled: 05/08/19 10:00

Date Received: 05/10/19

Sample Matrix: Surface Water

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor								05/17/19 13:27	rbt
Phosphorus, total	M365.1 - Auto Ascorbic Acid Digestion								05/14/19 14:52	rbt
Total Recoverable Digestion	M200.2 ICP-MS								05/15/19 13:51	rap
Total Recoverable Digestion	M200.2 ICP								05/14/19 15:09	dcm

Rio Grande Silver, Inc.

Project ID: BO42135

Sample ID: DUPLICATE SAMPLE

ACZ Sample ID: **L51684-05**

Date Sampled: 05/08/19 10:00

Date Received: 05/10/19

Sample Matrix: Surface Water

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	1	0.52			mg/L	0.05	0.3	05/15/19 19:11	dcm
Aluminum, total recoverable	M200.7 ICP	1	1.16		*	mg/L	0.05	0.3	05/16/19 15:53	dcm
Arsenic, dissolved	M200.8 ICP-MS	1	0.0134			mg/L	0.0002	0.001	05/14/19 14:41	bsu
Arsenic, total recoverable	M200.8 ICP-MS	1	0.0225			mg/L	0.0002	0.001	05/16/19 14:18	bsu
Boron, dissolved	M200.7 ICP	1		U		mg/L	0.02	0.1	05/15/19 19:11	dcm
Boron, total recoverable	M200.7 ICP	1		U		mg/L	0.02	0.1	05/16/19 15:53	dcm
Cadmium, dissolved	M200.8 ICP-MS	1	0.0148			mg/L	0.00005	0.0003	05/14/19 14:41	bsu
Cadmium, total recoverable	M200.8 ICP-MS	1	0.0156			mg/L	0.00005	0.0003	05/16/19 14:18	bsu
Calcium, dissolved	M200.7 ICP	1	31.0			mg/L	0.1	0.5	05/15/19 19:11	dcm
Chromium, total recoverable	M200.8 ICP-MS	1	0.0005	B		mg/L	0.0005	0.002	05/16/19 14:18	bsu
Cobalt, dissolved	M200.7 ICP	1		U		mg/L	0.01	0.05	05/15/19 19:11	dcm
Cobalt, total recoverable	M200.7 ICP	1		U		mg/L	0.01	0.05	05/16/19 15:53	dcm
Copper, dissolved	M200.8 ICP-MS	1	0.0058			mg/L	0.0008	0.002	05/14/19 14:41	bsu
Copper, total recoverable	M200.8 ICP-MS	1	0.0085			mg/L	0.0008	0.002	05/16/19 14:18	bsu
Iron, dissolved	M200.7 ICP	1	0.24			mg/L	0.03	0.08	05/15/19 19:11	dcm
Iron, total recoverable	M200.7 ICP	1	0.69			mg/L	0.03	0.08	05/16/19 15:53	dcm
Lead, dissolved	M200.8 ICP-MS	1	0.0007			mg/L	0.0001	0.0005	05/14/19 14:41	bsu
Lead, total recoverable	M200.8 ICP-MS	1	0.0037			mg/L	0.0001	0.0005	05/16/19 14:18	bsu
Magnesium, dissolved	M200.7 ICP	1	3.1			mg/L	0.2	1	05/15/19 19:11	dcm
Manganese, dissolved	M200.7 ICP	1	0.64		*	mg/L	0.01	0.05	05/15/19 19:11	dcm
Manganese, total recoverable	M200.7 ICP	1	0.66			mg/L	0.01	0.05	05/16/19 15:53	dcm
Mercury, total	M1631, Atomic Fluorescence	1	9.1		*	ng/L	0.2	0.5	05/20/19 11:26	mfm
Nickel, dissolved	M200.7 ICP	1		U		mg/L	0.008	0.04	05/15/19 19:11	dcm
Nickel, total recoverable	M200.7 ICP	1		U		mg/L	0.008	0.04	05/16/19 15:53	dcm
Potassium, dissolved	M200.7 ICP	1	2.8			mg/L	0.2	1	05/15/19 19:11	dcm
Selenium, dissolved	M200.8 ICP-MS	1	0.0002	B		mg/L	0.0001	0.0003	05/14/19 14:41	bsu
Selenium, total recoverable	M200.8 ICP-MS	1	0.0002	B		mg/L	0.0001	0.0003	05/16/19 14:18	bsu
Silica, dissolved	M200.7 ICP	1	26.3			mg/L	0.2	1	05/15/19 19:11	dcm
Silica, total recoverable	M200.7 ICP	1	29.1		*	mg/L	0.2	1	05/16/19 15:53	dcm
Silver, dissolved	M200.8 ICP-MS	1		U		mg/L	0.0001	0.0005	05/14/19 14:41	bsu
Silver, total recoverable	M200.8 ICP-MS	1	0.0002	B		mg/L	0.0001	0.0005	05/16/19 14:18	bsu
Sodium, dissolved	M200.7 ICP	1	3.7			mg/L	0.2	1	05/15/19 19:11	dcm
Uranium, dissolved	M200.8 ICP-MS	1		U		mg/L	0.0001	0.0005	05/14/19 14:41	bsu
Uranium, total recoverable	M200.8 ICP-MS	1		U		mg/L	0.0001	0.0005	05/16/19 14:18	bsu
Zinc, dissolved	M200.8 ICP-MS	1	2.65		*	mg/L	0.004	0.01	05/14/19 14:41	bsu

Rio Grande Silver, Inc.

Project ID: BO42135

Sample ID: DUPLICATE SAMPLE

ACZ Sample ID: **L51684-05**

Date Sampled: 05/08/19 10:00

Date Received: 05/10/19

Sample Matrix: Surface Water

Zinc, total recoverable	M200.8 ICP-MS	1	2.61	*	mg/L	0.004	0.01	05/16/19 14:18	bsu
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Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO ₃	SM2320B - Titration									
Bicarbonate as CaCO ₃		1		U		mg/L	10	20	05/17/19 0:00	nmc
Carbonate as CaCO ₃		1		U		mg/L	10	20	05/17/19 0:00	nmc
Hydroxide as CaCO ₃		1		U		mg/L	10	20	05/17/19 0:00	nmc
Total Alkalinity		1		U		mg/L	10	20	05/17/19 0:00	nmc
Carbon, dissolved organic (DOC)	SM5310B	1	8.2		*	mg/L	1	5	05/14/19 15:39	rht
Cation-Anion Balance	Calculation									
Cation-Anion Balance			4.8			%			06/17/19 0:00	calc
Sum of Anions			2.0			meq/L			06/17/19 0:00	calc
Sum of Cations			2.2			meq/L			06/17/19 0:00	calc
Chemical Oxygen Demand	M410.4	1	15	B	*	mg/L	10	20	05/17/19 11:05	mh
Chloride	M300.0 - Ion Chromatography	1	1.52	B	*	mg/L	0.4	2	05/14/19 22:27	krh
Fluoride	SM4500F-C	1	0.2	B		mg/L	0.1	0.4	05/15/19 20:27	emk
Hardness as CaCO ₃ (dissolved)	SM2340B - Calculation		90			mg/L	0.2	5	06/17/19 0:00	calc
Nitrate as N, dissolved	Calculation: NO ₃ NO ₂ minus NO ₂		0.81	H		mg/L	0.02	0.1	06/17/19 0:00	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	0.81	H	*	mg/L	0.02	0.1	05/14/19 22:12	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1		UH	*	mg/L	0.01	0.05	05/14/19 22:12	pjb
Nitrogen, ammonia	M350.1 Auto Salicylate w/gas diffusion	1		U	*	mg/L	0.05	0.2	05/17/19 14:13	mss2
Nitrogen, organic	M351.2 & M350.1 - TKN minus NH ₃		0.3	B		mg/L	0.1	0.5	06/17/19 0:00	calc
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	1	0.3	B	*	mg/L	0.1	0.5	05/17/19 23:17	pjb
pH (lab)	SM4500H+ B	1	7.3	H		units	0.1	0.1	05/17/19 19:16	nmc
Phosphorus, total	M365.1 - Auto Ascorbic Acid (digest)	1	0.08		*	mg/L	0.01	0.05	05/15/19 13:19	ttg
Residue, Filterable (TDS) @180C	SM2540C	1	210			mg/L	20	40	05/14/19 12:30	enb
Residue, Non-Filterable (TSS) @105C	SM2540D	1		U	*	mg/L	5	20	05/14/19 17:33	emk
Sulfate	M300.0 - Ion Chromatography	2	89.8		*	mg/L	0.8	4	05/15/19 18:18	krh
Sulfide as S	SM4500S2-D	1		U	*	mg/L	0.02	0.1	05/13/19 14:48	mh


Report Header Explanations

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

QC Sample Types

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

<i>B</i>	Analyte concentration detected at a value between MDL and PQL. The associated value is an estimated quantity.
<i>H</i>	Analysis exceeded method hold time. pH is a field test with an immediate hold time.
<i>L</i>	Target analyte response was below the laboratory defined negative threshold.
<i>U</i>	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://aczk.com/wp-content/uploads/2019/04/Ext-Qual-List.pdf>

Rio Grande Silver, Inc.

ACZ Project ID: **L51684**

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
WG472072													
WG472072PBW1	PBW	05/11/19 12:26				13.5	mg/L		-20	20			
WG472072LCSW3	LCSW	05/11/19 12:43	WC190502-3	820.0001		793	mg/L	97	90	110			
WG472072LCSW6	LCSW	05/11/19 15:33	WC190502-3	820.0001		800	mg/L	98	90	110			
WG472072PBW2	PBW	05/11/19 15:40				U	mg/L		-20	20			
WG472072LCSW9	LCSW	05/11/19 18:43	WC190502-3	820.0001		773	mg/L	94	90	110			
WG472072PBW3	PBW	05/11/19 18:49				U	mg/L		-20	20			
L51684-02DUP	DUP	05/11/19 20:33			11.7	12.8	mg/L				9	20	RA
L51684-04DUP	DUP	05/11/19 20:57			23.5	23.1	mg/L				2	20	RA
WG472072LCSW12	LCSW	05/11/19 23:26	WC190502-3	820.0001		788	mg/L	96	90	110			
WG472072PBW4	PBW	05/11/19 23:32				U	mg/L		-20	20			
WG472072LCSW15	LCSW	05/12/19 2:40	WC190502-3	820.0001		792	mg/L	97	90	110			
WG472616													
WG472616PBW1	PBW	05/17/19 18:29				U	mg/L		-20	20			
WG472616LCSW3	LCSW	05/17/19 18:46	WC190517-1	820.0001		800	mg/L	98	90	110			
L51705-05DUP	DUP	05/17/19 20:00			336	321	mg/L				5	20	
WG472616LCSW6	LCSW	05/17/19 21:44	WC190517-1	820.0001		787	mg/L	96	90	110			
WG472616PBW2	PBW	05/17/19 21:51				U	mg/L		-20	20			
WG472616LCSW9	LCSW	05/18/19 1:59	WC190517-1	820.0001		805	mg/L	98	90	110			
WG472616PBW3	PBW	05/18/19 2:06				U	mg/L		-20	20			
WG472616LCSW12	LCSW	05/18/19 5:48	WC190517-1	820.0001		807	mg/L	98	90	110			
WG472616PBW4	PBW	05/18/19 5:54				U	mg/L		-20	20			
WG472616LCSW15	LCSW	05/18/19 9:38	WC190517-1	820.0001		812	mg/L	99	90	110			

Aluminum, dissolved

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG472400													
WG472400ICV	ICV	05/15/19 17:27	II190503-1	2		1.985	mg/L	99	95	105			
WG472400ICB	ICB	05/15/19 17:33				U	mg/L		-0.15	0.15			
WG472400PQV	PQV	05/15/19 17:36	II190509-2	.25015		.264	mg/L	106	70	130			
WG472400SIC	SIC	05/15/19 17:40	II190415-5	200.37015		201.6	mg/L	101	1	200			
WG472400LFB	LFB	05/15/19 17:46	II190509-6	1.0006		1.054	mg/L	105	85	115			
WG472400CCV1	CCV	05/15/19 18:16	II190422-1	1		.963	mg/L	96	90	110			
WG472400CCB1	CCB	05/15/19 18:19				U	mg/L		-0.15	0.15			
WG472400CCV2	CCV	05/15/19 18:53	II190422-1	1		.995	mg/L	100	90	110			
WG472400CCB2	CCB	05/15/19 18:56				U	mg/L		-0.15	0.15			
L51684-02AS	AS	05/15/19 18:59	II190509-6	1.0006	.56	1.599	mg/L	104	85	115			
L51684-02ASD	ASD	05/15/19 19:02	II190509-6	1.0006	.56	1.57	mg/L	101	85	115	2	20	
WG472400CCV3	CCV	05/15/19 19:14	II190422-1	1		1.027	mg/L	103	90	110			
WG472400CCB3	CCB	05/15/19 19:17				U	mg/L		-0.15	0.15			

Rio Grande Silver, Inc.

ACZ Project ID: **L51684**

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

Aluminum, total recoverable

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG472363													
WG472363ICV	ICV	05/16/19 14:08	II190503-1	2		1.983	mg/L	99	95	105			
WG472363ICB	ICB	05/16/19 14:14				U	mg/L		-0.15	0.15			
WG472363PQV	PQV	05/16/19 14:18	II190509-2	.25015		.257	mg/L	103	70	130			
WG472363SIC	SIC	05/16/19 14:21	II190415-5	200.37015		201.6	mg/L	101	1	200			
WG472186LRB	LRB	05/16/19 14:28				U	mg/L		-0.11	0.11			
WG472186LFB	LFB	05/16/19 14:31	II190509-6	1.0006		1.009	mg/L	101	85	115			
WG472363CCV1	CCV	05/16/19 15:00	II190422-1	1		.986	mg/L	99	90	110			
WG472363CCB1	CCB	05/16/19 15:04				U	mg/L		-0.15	0.15			
WG472363CCV2	CCV	05/16/19 15:40	II190422-1	1		.993	mg/L	99	90	110			
WG472363CCB2	CCB	05/16/19 15:43				U	mg/L		-0.15	0.15			
L51684-04LFM	LFM	05/16/19 15:46	II190509-6	1.0006	2.29	3.753	mg/L	146	70	130			M1
L51684-04LFMD	LFMD	05/16/19 15:50	II190509-6	1.0006	2.29	3.714	mg/L	142	70	130	1	20	M1
WG472363CCV3	CCV	05/16/19 16:06	II190422-1	1		1	mg/L	100	90	110			
WG472363CCB3	CCB	05/16/19 16:09				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
WG472240													
WG472240ICV	ICV	05/14/19 14:25	MS190513-2	.05		.0488	mg/L	98	90	110			
WG472240ICB	ICB	05/14/19 14:27				U	mg/L		-0.00044	0.00044			
WG472240LFB	LFB	05/14/19 14:29	MS190507-2	.05005		.04863	mg/L	97	85	115			
L51684-02AS	AS	05/14/19 14:34	MS190507-2	.05005	.011	.05897	mg/L	96	70	130			
L51684-02ASD	ASD	05/14/19 14:36	MS190507-2	.05005	.011	.06078	mg/L	99	70	130	3	20	
WG472240CCV1	CCV	05/14/19 14:43	MS190430-4	.1001		.10145	mg/L	101	90	110			
WG472240CCB1	CCB	05/14/19 14:45				U	mg/L		-0.0006	0.0006			
WG472240CCV2	CCV	05/14/19 15:05	MS190430-4	.1001		.09903	mg/L	99	90	110			
WG472240CCB2	CCB	05/14/19 15:07				U	mg/L		-0.0006	0.0006			
WG472240CCV3	CCV	05/14/19 15:21	MS190430-4	.1001		.10075	mg/L	101	90	110			
WG472240CCB3	CCB	05/14/19 15:23				U	mg/L		-0.0006	0.0006			

Rio Grande Silver, Inc.

ACZ Project ID: **L51684**

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, total recoverable

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG472490													
WG472490ICV	ICV	05/16/19 13:35	MS190513-2	.05		.04973	mg/L	99	90	110			
WG472490ICB	ICB	05/16/19 13:36				U	mg/L		-0.0006	0.0006			
WG472313LRB	LRB	05/16/19 13:38				U	mg/L		-0.00044	0.00044			
WG472313LFB	LFB	05/16/19 13:40	MS190507-2	.05005		.04967	mg/L	99	85	115			
WG472490CCV1	CCV	05/16/19 13:42	MS190430-4	.1001		.10128	mg/L	101	90	110			
WG472490CCB1	CCB	05/16/19 13:44				U	mg/L		-0.0006	0.0006			
L51677-03LFB	LFB	05/16/19 13:56	MS190507-2	.05005	.0002	.04787	mg/L	95	70	130			
L51677-03LFMD	LFMD	05/16/19 13:58	MS190507-2	.05005	.0002	.04903	mg/L	98	70	130	2	20	
WG472490CCV2	CCV	05/16/19 14:03	MS190430-4	.1001		.09943	mg/L	99	90	110			
WG472490CCB2	CCB	05/16/19 14:05				U	mg/L		-0.0006	0.0006			
L51684-05LFB	LFB	05/16/19 14:20	MS190507-2	.05005	.0225	.06907	mg/L	93	70	130			
L51684-05LFMD	LFMD	05/16/19 14:22	MS190507-2	.05005	.0225	.07126	mg/L	97	70	130	3	20	
WG472490CCV3	CCV	05/16/19 14:25	MS190430-4	.1001		.10104	mg/L	101	90	110			
WG472490CCB3	CCB	05/16/19 14:27				U	mg/L		-0.0006	0.0006			
WG472490CCV4	CCV	05/16/19 14:36	MS190430-4	.1001		.09885	mg/L	99	90	110			
WG472490CCB4	CCB	05/16/19 14:38				U	mg/L		-0.0006	0.0006			

Boron, dissolved

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG472400													
WG472400ICV	ICV	05/15/19 17:27	II190503-1	2		2.022	mg/L	101	95	105			
WG472400ICB	ICB	05/15/19 17:33				U	mg/L		-0.06	0.06			
WG472400PQV	PQV	05/15/19 17:36	II190509-2	.1001		.109	mg/L	109	70	130			
WG472400SIC	SIC	05/15/19 17:40	II190415-5	.1001		.099	mg/L	99	80	120			
WG472400LFB	LFB	05/15/19 17:46	II190509-6	.5005		.497	mg/L	99	85	115			
WG472400CCV1	CCV	05/15/19 18:16	II190422-1	1		.983	mg/L	98	90	110			
WG472400CCB1	CCB	05/15/19 18:19				U	mg/L		-0.06	0.06			
WG472400CCV2	CCV	05/15/19 18:53	II190422-1	1		1.006	mg/L	101	90	110			
WG472400CCB2	CCB	05/15/19 18:56				U	mg/L		-0.06	0.06			
L51684-02AS	AS	05/15/19 18:59	II190509-6	.5005	U	.501	mg/L	100	85	115			
L51684-02ASD	ASD	05/15/19 19:02	II190509-6	.5005	U	.504	mg/L	101	85	115	1	20	
WG472400CCV3	CCV	05/15/19 19:14	II190422-1	1		1.035	mg/L	104	90	110			
WG472400CCB3	CCB	05/15/19 19:17				U	mg/L		-0.06	0.06			

Rio Grande Silver, Inc.

ACZ Project ID: **L51684**

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Boron, total recoverable

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG472363													
WG472363ICV	ICV	05/16/19 14:08	II190503-1	2		2.055	mg/L	103	95	105			
WG472363ICB	ICB	05/16/19 14:14				U	mg/L		-0.06	0.06			
WG472363PQV	PQV	05/16/19 14:18	II190509-2	.1001		.102	mg/L	102	70	130			
WG472363SIC	SIC	05/16/19 14:21	II190415-5	.1001		.098	mg/L	98	80	120			
WG472186LRB	LRB	05/16/19 14:28				U	mg/L		-0.044	0.044			
WG472186LFB	LFB	05/16/19 14:31	II190509-6	.5005		.505	mg/L	101	85	115			
WG472363CCV1	CCV	05/16/19 15:00	II190422-1	1		1.036	mg/L	104	90	110			
WG472363CCB1	CCB	05/16/19 15:04				U	mg/L		-0.06	0.06			
WG472363CCV2	CCV	05/16/19 15:40	II190422-1	1		1.04	mg/L	104	90	110			
WG472363CCB2	CCB	05/16/19 15:43				U	mg/L		-0.06	0.06			
L51684-04LFM	LFM	05/16/19 15:46	II190509-6	.5005	U	.518	mg/L	103	70	130			
L51684-04LFMD	LFMD	05/16/19 15:50	II190509-6	.5005	U	.515	mg/L	103	70	130	1	20	
WG472363CCV3	CCV	05/16/19 16:06	II190422-1	1		1.055	mg/L	106	90	110			
WG472363CCB3	CCB	05/16/19 16:09				U	mg/L		-0.06	0.06			

Cadmium, dissolved

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG472240													
WG472240ICV	ICV	05/14/19 14:25	MS190513-2	.05		.04845	mg/L	97	90	110			
WG472240ICB	ICB	05/14/19 14:27				U	mg/L		-0.00011	0.00011			
WG472240LFB	LFB	05/14/19 14:29	MS190507-2	.05005		.047602	mg/L	95	85	115			
L51684-02AS	AS	05/14/19 14:34	MS190507-2	.05005	.02455	.07157	mg/L	94	70	130			
L51684-02ASD	ASD	05/14/19 14:36	MS190507-2	.05005	.02455	.073011	mg/L	97	70	130	2	20	
WG472240CCV1	CCV	05/14/19 14:43	MS190430-4	.1001		.099947	mg/L	100	90	110			
WG472240CCB1	CCB	05/14/19 14:45				U	mg/L		-0.00015	0.00015			
WG472240CCV2	CCV	05/14/19 15:05	MS190430-4	.1001		.098064	mg/L	98	90	110			
WG472240CCB2	CCB	05/14/19 15:07				U	mg/L		-0.00015	0.00015			
WG472240CCV3	CCV	05/14/19 15:21	MS190430-4	.1001		.098847	mg/L	99	90	110			
WG472240CCB3	CCB	05/14/19 15:23				U	mg/L		-0.00015	0.00015			

Rio Grande Silver, Inc.

ACZ Project ID: **L51684**

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Cadmium, total recoverable

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG472490													
WG472490ICV	ICV	05/16/19 13:35	MS190513-2	.05		.050399	mg/L	101	90	110			
WG472490ICB	ICB	05/16/19 13:36				U	mg/L		-0.00015	0.00015			
WG472313LRB	LRB	05/16/19 13:38				U	mg/L		-0.00011	0.00011			
WG472313LFB	LFB	05/16/19 13:40	MS190507-2	.05005		.04951	mg/L	99	85	115			
WG472490CCV1	CCV	05/16/19 13:42	MS190430-4	.1001		.100601	mg/L	101	90	110			
WG472490CCB1	CCB	05/16/19 13:44				U	mg/L		-0.00015	0.00015			
L51677-03LFM	LFM	05/16/19 13:56	MS190507-2	.05005	.00061	.049255	mg/L	97	70	130			
L51677-03LFMD	LFMD	05/16/19 13:58	MS190507-2	.05005	.00061	.049448	mg/L	98	70	130	0	20	
WG472490CCV2	CCV	05/16/19 14:03	MS190430-4	.1001		.100705	mg/L	101	90	110			
WG472490CCB2	CCB	05/16/19 14:05				U	mg/L		-0.00015	0.00015			
L51684-05LFM	LFM	05/16/19 14:20	MS190507-2	.05005	.01555	.064408	mg/L	98	70	130			
L51684-05LFMD	LFMD	05/16/19 14:22	MS190507-2	.05005	.01555	.064638	mg/L	98	70	130	0	20	
WG472490CCV3	CCV	05/16/19 14:25	MS190430-4	.1001		.098395	mg/L	98	90	110			
WG472490CCB3	CCB	05/16/19 14:27				U	mg/L		-0.00015	0.00015			
WG472490CCV4	CCV	05/16/19 14:36	MS190430-4	.1001		.099204	mg/L	99	90	110			
WG472490CCB4	CCB	05/16/19 14:38				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
WG472400													
WG472400ICV	ICV	05/15/19 17:27	II190503-1	100		96.8	mg/L	97	95	105			
WG472400ICB	ICB	05/15/19 17:33				U	mg/L		-0.3	0.3			
WG472400PQV	PQV	05/15/19 17:36	II190509-2	.5004		.49	mg/L	98	70	130			
WG472400SIC	SIC	05/15/19 17:40	II190415-5	200.6604		192.4	mg/L	96	1	200			
WG472400LFB	LFB	05/15/19 17:46	II190509-6	68.01315		68.65	mg/L	101	85	115			
WG472400CCV1	CCV	05/15/19 18:16	II190422-1	50		47.75	mg/L	96	90	110			
WG472400CCB1	CCB	05/15/19 18:19				U	mg/L		-0.3	0.3			
WG472400CCV2	CCV	05/15/19 18:53	II190422-1	50		49.01	mg/L	98	90	110			
WG472400CCB2	CCB	05/15/19 18:56				U	mg/L		-0.3	0.3			
L51684-02AS	AS	05/15/19 18:59	II190509-6	68.01315	26.8	93.3	mg/L	98	85	115			
L51684-02ASD	ASD	05/15/19 19:02	II190509-6	68.01315	26.8	92.13	mg/L	96	85	115	1	20	
WG472400CCV3	CCV	05/15/19 19:14	II190422-1	50		49.72	mg/L	99	90	110			
WG472400CCB3	CCB	05/15/19 19:17				U	mg/L		-0.3	0.3			

Rio Grande Silver, Inc.

ACZ Project ID: **L51684**

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.

Carbon, dissolved organic (DOC) SM5310B

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG470810													
WG470810ICV	ICV	04/29/19 9:44	WI190401-20	100		95.8	mg/L	96	90	110			
WG470810ICB	ICB	04/29/19 9:44				U	mg/L		-3	3			
WG472226													
WG472226CCV1	CCV	05/14/19 15:39	WI190401-21	50		47.6	mg/L	95	90	110			
WG472226CCB1	CCB	05/14/19 15:39				U	mg/L		-3	3			
WG472226PQV	PQV	05/14/19 15:39	WI190401-19	5		4.7	mg/L	94	70	130			
WG472226LFB	LFB	05/14/19 15:39	WI190401-22	50		52.3	mg/L	105	90	110			
WG472226CCV2	CCV	05/14/19 15:39	WI190401-21	50		47.8	mg/L	96	90	110			
WG472226CCB2	CCB	05/14/19 15:39				U	mg/L		-3	3			
L51658-02AS	AS	05/14/19 15:39	WI190401-22	50	3.3	53	mg/L	99	90	110			
L51658-03DUP	DUP	05/14/19 15:39			3.9	3.4	mg/L				14	20	RA
WG472226CCV3	CCV	05/14/19 15:39	WI190401-21	50		48	mg/L	96	90	110			
WG472226CCB3	CCB	05/14/19 15:39				U	mg/L		-3	3			
WG472226CCV4	CCV	05/14/19 15:39	WI190401-21	50		48.7	mg/L	97	90	110			
WG472226CCB4	CCB	05/14/19 15:39				U	mg/L		-3	3			

Chemical Oxygen Demand M410.4

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG472578													
WG472578ICV	ICV	05/17/19 9:54	WC181022-12	200		205	mg/L	103	90	110			
WG472578ICB	ICB	05/17/19 10:02				U	mg/L		-10	10			
WG472578LRB	LRB	05/17/19 10:11				U	mg/L		-10	10			
WG472578LFB	LFB	05/17/19 10:20	WC190322-3	50		51	mg/L	102	90	110			
WG472578CCV1	CCV	05/17/19 11:41	WC190322-2	400		399	mg/L	100	90	110			
WG472578CCB1	CCB	05/17/19 11:50				U	mg/L		-10	10			
L51686-06DUP	DUP	05/17/19 12:17			23	24	mg/L				4	20	RA
L51686-06AS	AS	05/17/19 12:26	WC190322-3	50	23	73	mg/L	100	90	110			
WG472578CCV2	CCV	05/17/19 13:29	WC190322-2	400		398	mg/L	100	90	110			
WG472578CCB2	CCB	05/17/19 13:38				U	mg/L		-10	10			
WG472578CCV3	CCV	05/17/19 14:40	WC190322-2	400		399	mg/L	100	90	110			
WG472578CCB3	CCB	05/17/19 14:49				U	mg/L		-10	10			

Rio Grande Silver, Inc.

ACZ Project ID: **L51684**

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
WG469765													
WG469765ICV	ICV	04/03/19 17:17	WI190404-1	19.96		20	mg/L	100	90	110			
WG469765ICB	ICB	04/03/19 17:34				U	mg/L		-0.4	0.4			
WG472234													
WG472234CCV1	CCV	05/14/19 16:28	WI190404-3	50		52.6	mg/L	105	90	110			
WG472234CCB1	CCB	05/14/19 16:46				U	mg/L		-0.4	0.4			
WG472234PQV	PQV	05/14/19 17:04	WI190502-1	1.994		2.12	mg/L	106	70	130			
WG472234LFB1	LFB	05/14/19 17:22	WI181011-3	30		30.6	mg/L	102	90	110			
L51605-01DUP	DUP	05/14/19 17:58			96.2	96.2	mg/L				0	20	
L51673-01AS	AS	05/14/19 18:34	WI181011-3	30	2.26	32.9	mg/L	102	90	110			
WG472234CCV2	CCV	05/14/19 20:03	WI190404-3	50		52.5	mg/L	105	90	110			
WG472234CCB2	CCB	05/14/19 20:21				U	mg/L		-0.4	0.4			
L51684-04DUP	DUP	05/14/19 22:09			1.28	1.28	mg/L				0	20	RA
L51684-05AS	AS	05/14/19 22:44	WI181011-3	30	1.52	32.6	mg/L	104	90	110			
WG472234CCV3	CCV	05/14/19 23:38	WI190404-3	50		52.7	mg/L	105	90	110			
WG472234CCB3	CCB	05/14/19 23:56				U	mg/L		-0.4	0.4			
WG472234LFB2	LFB	05/15/19 2:02	WI181011-3	30		30.6	mg/L	102	90	110			
WG472234CCV4	CCV	05/15/19 3:13	WI190404-3	50		52.7	mg/L	105	90	110			
WG472234CCB4	CCB	05/15/19 3:31				U	mg/L		-0.4	0.4			
WG472234CCV5	CCV	05/15/19 4:07	WI190404-3	50		52.9	mg/L	106	90	110			
WG472234CCB5	CCB	05/15/19 4:25				U	mg/L		-0.4	0.4			
WG472234CCV6	CCV	05/15/19 16:30	WI190404-3	50		52.9	mg/L	106	90	110			
WG472234CCB6	CCB	05/15/19 16:48				U	mg/L		-0.4	0.4			
WG472234PQV1	PQV	05/15/19 17:06	WI190502-1	1.994		2.09	mg/L	105	70	130			
WG472234CCV7	CCV	05/15/19 20:05	WI190404-3	50		52.7	mg/L	105	90	110			
WG472234CCB7	CCB	05/15/19 20:23				U	mg/L		-0.4	0.4			

Chromium, total recoverable

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG472490													
WG472490ICV	ICV	05/16/19 13:35	MS190513-2	.05		.05217	mg/L	104	90	110			
WG472490ICB	ICB	05/16/19 13:36				U	mg/L		-0.0015	0.0015			
WG472313LRB	LRB	05/16/19 13:38				U	mg/L		-0.0011	0.0011			
WG472313LFB	LFB	05/16/19 13:40	MS190507-2	.05005		.04915	mg/L	98	85	115			
WG472490CCV1	CCV	05/16/19 13:42	MS190430-4	.1001		.10331	mg/L	103	90	110			
WG472490CCB1	CCB	05/16/19 13:44				U	mg/L		-0.0015	0.0015			
L51677-03LFM	LFM	05/16/19 13:56	MS190507-2	.05005	U	.04771	mg/L	95	70	130			
L51677-03LFMD	LFMD	05/16/19 13:58	MS190507-2	.05005	U	.04917	mg/L	98	70	130	3	20	
WG472490CCV2	CCV	05/16/19 14:03	MS190430-4	.1001		.10193	mg/L	102	90	110			
WG472490CCB2	CCB	05/16/19 14:05				U	mg/L		-0.0015	0.0015			
L51684-05LFM	LFM	05/16/19 14:20	MS190507-2	.05005	.0005	.0478	mg/L	95	70	130			
L51684-05LFMD	LFMD	05/16/19 14:22	MS190507-2	.05005	.0005	.04863	mg/L	96	70	130	2	20	
WG472490CCV3	CCV	05/16/19 14:25	MS190430-4	.1001		.10151	mg/L	101	90	110			
WG472490CCB3	CCB	05/16/19 14:27				U	mg/L		-0.0015	0.0015			

Rio Grande Silver, Inc.

ACZ Project ID: **L51684**

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
WG472400													
WG472400ICV	ICV	05/15/19 17:27	II190503-1	2.004		1.981	mg/L	99	95	105			
WG472400ICB	ICB	05/15/19 17:33				U	mg/L		-0.03	0.03			
WG472400PQV	PQV	05/15/19 17:36	II190509-2	.05		.055	mg/L	110	70	130			
WG472400SIC	SIC	05/15/19 17:40	II190415-5	.1		.093	mg/L	93	80	120			
WG472400LFB	LFB	05/15/19 17:46	II190509-6	.5005		.472	mg/L	94	85	115			
WG472400CCV1	CCV	05/15/19 18:16	II190422-1	1.002		.962	mg/L	96	90	110			
WG472400CCB1	CCB	05/15/19 18:19				U	mg/L		-0.03	0.03			
WG472400CCV2	CCV	05/15/19 18:53	II190422-1	1.002		.992	mg/L	99	90	110			
WG472400CCB2	CCB	05/15/19 18:56				U	mg/L		-0.03	0.03			
L51684-02AS	AS	05/15/19 18:59	II190509-6	.5005	U	.466	mg/L	93	85	115			
L51684-02ASD	ASD	05/15/19 19:02	II190509-6	.5005	U	.461	mg/L	92	85	115	1	20	
WG472400CCV3	CCV	05/15/19 19:14	II190422-1	1.002		1.004	mg/L	100	90	110			
WG472400CCB3	CCB	05/15/19 19:17				U	mg/L		-0.03	0.03			

Cobalt, total recoverable

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG472363													
WG472363ICV	ICV	05/16/19 14:08	II190503-1	2.004		1.977	mg/L	99	95	105			
WG472363ICB	ICB	05/16/19 14:14				U	mg/L		-0.03	0.03			
WG472363PQV	PQV	05/16/19 14:18	II190509-2	.05		.046	mg/L	92	70	130			
WG472363SIC	SIC	05/16/19 14:21	II190415-5	.1		.089	mg/L	89	80	120			
WG472186LRB	LRB	05/16/19 14:28				U	mg/L		-0.022	0.022			
WG472186LFB	LFB	05/16/19 14:31	II190509-6	.5005		.49	mg/L	98	85	115			
WG472363CCV1	CCV	05/16/19 15:00	II190422-1	1.002		1	mg/L	100	90	110			
WG472363CCB1	CCB	05/16/19 15:04				U	mg/L		-0.03	0.03			
WG472363CCV2	CCV	05/16/19 15:40	II190422-1	1.002		1	mg/L	100	90	110			
WG472363CCB2	CCB	05/16/19 15:43				U	mg/L		-0.03	0.03			
L51684-04LFM	LFM	05/16/19 15:46	II190509-6	.5005	U	.499	mg/L	100	70	130			
L51684-04LFMD	LFMD	05/16/19 15:50	II190509-6	.5005	U	.493	mg/L	99	70	130	1	20	
WG472363CCV3	CCV	05/16/19 16:06	II190422-1	1.002		.993	mg/L	99	90	110			
WG472363CCB3	CCB	05/16/19 16:09				U	mg/L		-0.03	0.03			

Copper, dissolved

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG472240													
WG472240ICV	ICV	05/14/19 14:25	MS190513-2	.05		.04961	mg/L	99	90	110			
WG472240ICB	ICB	05/14/19 14:27				U	mg/L		-0.00176	0.00176			
WG472240LFB	LFB	05/14/19 14:29	MS190507-2	.0501		.0481	mg/L	96	85	115			
L51684-02AS	AS	05/14/19 14:34	MS190507-2	.0501	.0102	.05716	mg/L	94	70	130			
L51684-02ASD	ASD	05/14/19 14:36	MS190507-2	.0501	.0102	.05923	mg/L	98	70	130	4	20	
WG472240CCV1	CCV	05/14/19 14:43	MS190430-4	.2505		.2532	mg/L	101	90	110			
WG472240CCB1	CCB	05/14/19 14:45				U	mg/L		-0.0024	0.0024			
WG472240CCV2	CCV	05/14/19 15:05	MS190430-4	.2505		.24739	mg/L	99	90	110			
WG472240CCB2	CCB	05/14/19 15:07				U	mg/L		-0.0024	0.0024			
WG472240CCV3	CCV	05/14/19 15:21	MS190430-4	.2505		.25073	mg/L	100	90	110			
WG472240CCB3	CCB	05/14/19 15:23				U	mg/L		-0.0024	0.0024			

Rio Grande Silver, Inc.

ACZ Project ID: **L51684**

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
WG472490													
WG472490ICV	ICV	05/16/19 13:35	MS190513-2	.05		.05193	mg/L	104	90	110			
WG472490ICB	ICB	05/16/19 13:36				U	mg/L		-0.0024	0.0024			
WG472313LRB	LRB	05/16/19 13:38				U	mg/L		-0.00176	0.00176			
WG472313LFB	LFB	05/16/19 13:40	MS190507-2	.0501		.05151	mg/L	103	85	115			
WG472490CCV1	CCV	05/16/19 13:42	MS190430-4	.2505		.25448	mg/L	102	90	110			
WG472490CCB1	CCB	05/16/19 13:44				U	mg/L		-0.0024	0.0024			
L51677-03LFM	LFM	05/16/19 13:56	MS190507-2	.0501	.0011	.04943	mg/L	96	70	130			
L51677-03LFMD	LFMD	05/16/19 13:58	MS190507-2	.0501	.0011	.05045	mg/L	99	70	130	2	20	
WG472490CCV2	CCV	05/16/19 14:03	MS190430-4	.2505		.25357	mg/L	101	90	110			
WG472490CCB2	CCB	05/16/19 14:05				U	mg/L		-0.0024	0.0024			
L51684-05LFM	LFM	05/16/19 14:20	MS190507-2	.0501	.0085	.05605	mg/L	95	70	130			
L51684-05LFMD	LFMD	05/16/19 14:22	MS190507-2	.0501	.0085	.05806	mg/L	99	70	130	4	20	
WG472490CCV3	CCV	05/16/19 14:25	MS190430-4	.2505		.2566	mg/L	102	90	110			
WG472490CCB3	CCB	05/16/19 14:27				U	mg/L		-0.0024	0.0024			

Rio Grande Silver, Inc.

ACZ Project ID: **L51684**

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
WG472314													
WG472314ICV	ICV	05/15/19 9:50	WC190513-1	2.004		1.94	mg/L	97	90	110			
WG472314ICB	ICB	05/15/19 9:55				U	mg/L		-0.3	0.3			
WG472360													
WG472360ICV	ICV	05/15/19 13:45	WC190513-1	2.004		2.02	mg/L	101	90	110			
WG472360ICB	ICB	05/15/19 13:53				U	mg/L		-0.3	0.3			
WG472360PQV	PQV	05/15/19 13:58	WC190415-1	.35105		.36	mg/L	103	70	130			
WG472360LFB1	LFB	05/15/19 14:06	WC190409-6	5.01		5	mg/L	100	90	110			
WG472360CCV1	CCV	05/15/19 15:13	WC190513-1	2.004		2.02	mg/L	101	90	110			
WG472360CCB1	CCB	05/15/19 15:20				U	mg/L		-0.3	0.3			
WG472360CCV2	CCV	05/15/19 16:30	WC190513-1	2.004		2.06	mg/L	103	90	110			
WG472360CCB2	CCB	05/15/19 16:38				U	mg/L		-0.3	0.3			
WG472360LFB2	LFB	05/15/19 17:09	WC190409-6	5.01		4.98	mg/L	99	90	110			
WG472360CCV3	CCV	05/15/19 17:41	WC190513-1	2.004		2.03	mg/L	101	90	110			
WG472360CCB3	CCB	05/15/19 17:47				U	mg/L		-0.3	0.3			
L51635-02AS	AS	05/15/19 19:03	WC190409-6	5.01	1	5.85	mg/L	97	90	110			
L51635-02ASD	ASD	05/15/19 19:11	WC190409-6	5.01	1	5.91	mg/L	98	90	110	1	20	
WG472360CCV4	CCV	05/15/19 19:15	WC190513-1	2.004		2.11	mg/L	105	90	110			
WG472360CCB4	CCB	05/15/19 19:21				U	mg/L		-0.3	0.3			
WG472360CCV5	CCV	05/15/19 20:31	WC190513-1	2.004		1.98	mg/L	99	90	110			
WG472360CCB5	CCB	05/15/19 20:37				U	mg/L		-0.3	0.3			
WG472574													
WG472574ICV	ICV	05/17/19 10:15	WC190513-1	2.004		1.93	mg/L	96	90	110			
WG472574ICB	ICB	05/17/19 10:20				U	mg/L		-0.3	0.3			
WG472587													
WG472587ICV	ICV	05/17/19 14:34	WC190513-1	2.004		1.99	mg/L	99	90	110			
WG472587ICB	ICB	05/17/19 14:40				U	mg/L		-0.3	0.3			
WG472587PQV	PQV	05/17/19 14:43	WC190415-1	.35105		.34	mg/L	97	70	130			
WG472587LFB1	LFB	05/17/19 14:47	WC190409-6	5.01		4.82	mg/L	96	90	110			
L45966-42AS	AS	05/17/19 15:03	WC190409-6	5.01	U	4.26	mg/L	85	90	110			M2
L45966-42ASD	ASD	05/17/19 15:11	WC190409-6	5.01	U	4.31	mg/L	86	90	110	1	20	M2
WG472587CCV1	CCV	05/17/19 15:49	WC190513-1	2.004		1.98	mg/L	99	90	110			
WG472587CCB1	CCB	05/17/19 15:57				U	mg/L		-0.3	0.3			
WG472587CCV2	CCV	05/17/19 17:49	WC190513-1	2.004		1.96	mg/L	98	90	110			
WG472587CCB2	CCB	05/17/19 17:57				U	mg/L		-0.3	0.3			
WG472587LFB2	LFB	05/17/19 19:15	WC190409-6	5.01		4.86	mg/L	97	90	110			
WG472587CCV3	CCV	05/17/19 19:36	WC190513-1	2.004		2.03	mg/L	101	90	110			
WG472587CCB3	CCB	05/17/19 19:42				U	mg/L		-0.3	0.3			
WG472587CCV4	CCV	05/17/19 21:02	WC190513-1	2.004		2.16	mg/L	108	90	110			
WG472587CCB4	CCB	05/17/19 21:07				U	mg/L		-0.3	0.3			
WG472587CCV5	CCV	05/17/19 22:29	WC190513-1	2.004		2.06	mg/L	103	90	110			
WG472587CCB5	CCB	05/17/19 22:36				U	mg/L		-0.3	0.3			

Rio Grande Silver, Inc.

ACZ Project ID: **L51684**

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
WG472400													
WG472400ICV	ICV	05/15/19 17:27	II190503-1	2		1.926	mg/L	96	95	105			
WG472400ICB	ICB	05/15/19 17:33				U	mg/L		-0.09	0.09			
WG472400PQV	PQV	05/15/19 17:36	II190509-2	.075135		.073	mg/L	97	70	130			
WG472400SIC	SIC	05/15/19 17:40	II190415-5	200.435135		184.9	mg/L	92	1	200			
WG472400LFB	LFB	05/15/19 17:46	II190509-6	1.0018		.977	mg/L	98	85	115			
WG472400CCV1	CCV	05/15/19 18:16	II190422-1	1		.941	mg/L	94	90	110			
WG472400CCB1	CCB	05/15/19 18:19				U	mg/L		-0.09	0.09			
WG472400CCV2	CCV	05/15/19 18:53	II190422-1	1		.971	mg/L	97	90	110			
WG472400CCB2	CCB	05/15/19 18:56				U	mg/L		-0.09	0.09			
L51684-02AS	AS	05/15/19 18:59	II190509-6	1.0018	.26	1.229	mg/L	97	85	115			
L51684-02ASD	ASD	05/15/19 19:02	II190509-6	1.0018	.26	1.222	mg/L	96	85	115	1	20	
WG472400CCV3	CCV	05/15/19 19:14	II190422-1	1		.982	mg/L	98	90	110			
WG472400CCB3	CCB	05/15/19 19:17				U	mg/L		-0.09	0.09			

Iron, total recoverable

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG472363													
WG472363ICV	ICV	05/16/19 14:08	II190503-1	2		1.946	mg/L	97	95	105			
WG472363ICB	ICB	05/16/19 14:14				U	mg/L		-0.09	0.09			
WG472363PQV	PQV	05/16/19 14:18	II190509-2	.075135		.069	mg/L	92	70	130			
WG472363SIC	SIC	05/16/19 14:21	II190415-5	200.435135		191.5	mg/L	96	1	200			
WG472186LRB	LRB	05/16/19 14:28				U	mg/L		-0.066	0.066			
WG472186LFB	LFB	05/16/19 14:31	II190509-6	1.0018		.998	mg/L	100	85	115			
WG472363CCV1	CCV	05/16/19 15:00	II190422-1	1		.985	mg/L	99	90	110			
WG472363CCB1	CCB	05/16/19 15:04				U	mg/L		-0.09	0.09			
WG472363CCV2	CCV	05/16/19 15:40	II190422-1	1		.984	mg/L	98	90	110			
WG472363CCB2	CCB	05/16/19 15:43				U	mg/L		-0.09	0.09			
L51684-04LFM	LFM	05/16/19 15:46	II190509-6	1.0018	1.21	2.274	mg/L	106	70	130			
L51684-04LFMD	LFMD	05/16/19 15:50	II190509-6	1.0018	1.21	2.244	mg/L	103	70	130	1	20	
WG472363CCV3	CCV	05/16/19 16:06	II190422-1	1		.995	mg/L	100	90	110			
WG472363CCB3	CCB	05/16/19 16:09				U	mg/L		-0.09	0.09			

Lead, dissolved

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG472240													
WG472240ICV	ICV	05/14/19 14:25	MS190513-2	.05		.05053	mg/L	101	90	110			
WG472240ICB	ICB	05/14/19 14:27				U	mg/L		-0.00022	0.00022			
WG472240LFB	LFB	05/14/19 14:29	MS190507-2	.05005		.04757	mg/L	95	85	115			
L51684-02AS	AS	05/14/19 14:34	MS190507-2	.05005	.0007	.04674	mg/L	92	70	130			
L51684-02ASD	ASD	05/14/19 14:36	MS190507-2	.05005	.0007	.04953	mg/L	98	70	130	6	20	
WG472240CCV1	CCV	05/14/19 14:43	MS190430-4	.25025		.2496	mg/L	100	90	110			
WG472240CCB1	CCB	05/14/19 14:45				U	mg/L		-0.0003	0.0003			
WG472240CCV2	CCV	05/14/19 15:05	MS190430-4	.25025		.24763	mg/L	99	90	110			
WG472240CCB2	CCB	05/14/19 15:07				U	mg/L		-0.0003	0.0003			
WG472240CCV3	CCV	05/14/19 15:21	MS190430-4	.25025		.24871	mg/L	99	90	110			
WG472240CCB3	CCB	05/14/19 15:23				U	mg/L		-0.0003	0.0003			

Rio Grande Silver, Inc.

ACZ Project ID: **L51684**

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, total recoverable

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG472490													
WG472490ICV	ICV	05/16/19 13:35	MS190513-2	.05		.05198	mg/L	104	90	110			
WG472490ICB	ICB	05/16/19 13:36				U	mg/L		-0.0003	0.0003			
WG472313LRB	LRB	05/16/19 13:38				U	mg/L		-0.00022	0.00022			
WG472313LFB	LFB	05/16/19 13:40	MS190507-2	.05005		.0494	mg/L	99	85	115			
WG472490CCV1	CCV	05/16/19 13:42	MS190430-4	.25025		.2527	mg/L	101	90	110			
WG472490CCB1	CCB	05/16/19 13:44				U	mg/L		-0.0003	0.0003			
L51677-03LFM	LFM	05/16/19 13:56	MS190507-2	.05005	.0006	.05008	mg/L	99	70	130			
L51677-03LFMD	LFMD	05/16/19 13:58	MS190507-2	.05005	.0006	.05036	mg/L	99	70	130	1	20	
WG472490CCV2	CCV	05/16/19 14:03	MS190430-4	.25025		.2547	mg/L	102	90	110			
WG472490CCB2	CCB	05/16/19 14:05				U	mg/L		-0.0003	0.0003			
L51684-05LFM	LFM	05/16/19 14:20	MS190507-2	.05005	.0037	.05322	mg/L	99	70	130			
L51684-05LFMD	LFMD	05/16/19 14:22	MS190507-2	.05005	.0037	.05399	mg/L	100	70	130	1	20	
WG472490CCV3	CCV	05/16/19 14:25	MS190430-4	.25025		.25365	mg/L	101	90	110			
WG472490CCB3	CCB	05/16/19 14:27				U	mg/L		-0.0003	0.0003			

Magnesium, dissolved

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG472400													
WG472400ICV	ICV	05/15/19 17:27	II190503-1	100		95.55	mg/L	96	95	105			
WG472400ICB	ICB	05/15/19 17:33				U	mg/L		-0.6	0.6			
WG472400PQV	PQV	05/15/19 17:36	II190509-2	1		1.04	mg/L	104	70	130			
WG472400SIC	SIC	05/15/19 17:40	II190415-5	201		196.5	mg/L	98	1	200			
WG472400LFB	LFB	05/15/19 17:46	II190509-6	50.00434		49.42	mg/L	99	85	115			
WG472400CCV1	CCV	05/15/19 18:16	II190422-1	50		46.78	mg/L	94	90	110			
WG472400CCB1	CCB	05/15/19 18:19				U	mg/L		-0.6	0.6			
WG472400CCV2	CCV	05/15/19 18:53	II190422-1	50		47.88	mg/L	96	90	110			
WG472400CCB2	CCB	05/15/19 18:56				U	mg/L		-0.6	0.6			
L51684-02AS	AS	05/15/19 18:59	II190509-6	50.00434	2.6	51.59	mg/L	98	85	115			
L51684-02ASD	ASD	05/15/19 19:02	II190509-6	50.00434	2.6	51.1	mg/L	97	85	115	1	20	
WG472400CCV3	CCV	05/15/19 19:14	II190422-1	50		48.9	mg/L	98	90	110			
WG472400CCB3	CCB	05/15/19 19:17				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
WG472400													
WG472400ICV	ICV	05/15/19 17:27	II190503-1	2		1.954	mg/L	98	95	105			
WG472400ICB	ICB	05/15/19 17:33				U	mg/L		-0.03	0.03			
WG472400PQV	PQV	05/15/19 17:36	II190509-2	.05		.052	mg/L	104	70	130			
WG472400SIC	SIC	05/15/19 17:40	II190415-5	50		46.13	mg/L	92	1	200			
WG472400LFB	LFB	05/15/19 17:46	II190509-6	.4995		.494	mg/L	99	85	115			
WG472400CCV1	CCV	05/15/19 18:16	II190422-1	1		.962	mg/L	96	90	110			
WG472400CCB1	CCB	05/15/19 18:19				U	mg/L		-0.03	0.03			
WG472400CCV2	CCV	05/15/19 18:53	II190422-1	1		.989	mg/L	99	90	110			
WG472400CCB2	CCB	05/15/19 18:56				U	mg/L		-0.03	0.03			
L51684-02AS	AS	05/15/19 18:59	II190509-6	.4995	2.03	2.327	mg/L	59	85	115			M3
L51684-02ASD	ASD	05/15/19 19:02	II190509-6	.4995	2.03	2.31	mg/L	56	85	115	1	20	M3
WG472400CCV3	CCV	05/15/19 19:14	II190422-1	1		1.008	mg/L	101	90	110			
WG472400CCB3	CCB	05/15/19 19:17				U	mg/L		-0.03	0.03			

Rio Grande Silver, Inc.

ACZ Project ID: **L51684**

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, total recoverable

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG472363													
WG472363ICV	ICV	05/16/19 14:08	II190503-1	2		1.953	mg/L	98	95	105			
WG472363ICB	ICB	05/16/19 14:14				U	mg/L		-0.03	0.03			
WG472363PQV	PQV	05/16/19 14:18	II190509-2	.05		.046	mg/L	92	70	130			
WG472363SIC	SIC	05/16/19 14:21	II190415-5	50		47.09	mg/L	94	1	200			
WG472186LRB	LRB	05/16/19 14:28				U	mg/L		-0.022	0.022			
WG472186LFB	LFB	05/16/19 14:31	II190509-6	.4995		.497	mg/L	99	85	115			
WG472363CCV1	CCV	05/16/19 15:00	II190422-1	1		1	mg/L	100	90	110			
WG472363CCB1	CCB	05/16/19 15:04				U	mg/L		-0.03	0.03			
WG472363CCV2	CCV	05/16/19 15:40	II190422-1	1		.998	mg/L	100	90	110			
WG472363CCB2	CCB	05/16/19 15:43				U	mg/L		-0.03	0.03			
L51684-04LFM	LFM	05/16/19 15:46	II190509-6	.4995	.02	.526	mg/L	101	70	130			
L51684-04LFMD	LFMD	05/16/19 15:50	II190509-6	.4995	.02	.525	mg/L	101	70	130	0	20	
WG472363CCV3	CCV	05/16/19 16:06	II190422-1	1		.999	mg/L	100	90	110			
WG472363CCB3	CCB	05/16/19 16:09				U	mg/L		-0.03	0.03			

Mercury, total

M1631, Atomic Fluorescence

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG470390													
WG470390ICV	ICV	04/17/19 9:49	HG190311-4	10		10.4	ng/L	104	79	121			
WG470390ICB	ICB	04/17/19 9:54				U	ng/L		-0.5	0.5			
WG472405													
WG472405CCV1	CCV	05/16/19 9:54	HG190311-4	10		9.53	ng/L	95	76.5	123.4			
WG472405CCB1	CCB	05/16/19 9:59				U	ng/L		-0.5	0.5			
WG472405PQV	PQV	05/16/19 10:04	HG190311-6	.5		.37	ng/L	74	70	130			
WG472405LFB	LFB	05/16/19 10:08	HG190311-5	2		1.66	ng/L	83	71	125			
L51684-01MS	MS	05/16/19 10:43	HG190311-5	2	9	10.9	ng/L	95	71	125			
L51684-01MSD	MSD	05/16/19 10:48	HG190311-5	2	9	10.8	ng/L	90	71	125	1	24	
WG472405CCV2	CCV	05/16/19 11:08	HG190311-4	10		9.1	ng/L	91	76.5	123.4			
WG472405CCB2	CCB	05/16/19 11:13				U	ng/L		-0.5	0.5			
WG472405CCV3	CCV	05/16/19 11:46	HG190311-4	10		9.31	ng/L	93	76.5	123.4			
WG472405CCB3	CCB	05/16/19 11:51				U	ng/L		-0.5	0.5			
WG472405CCV4	CCV	05/16/19 12:06	HG190311-4	10		9.17	ng/L	92	76.5	123.4			
WG472405CCB4	CCB	05/16/19 12:11				U	ng/L		-0.5	0.5			
WG472633													
WG472633CCV1	CCV	05/20/19 9:36	HG190311-4	10		9.48	ng/L	95	76.5	123.4			
WG472633CCB1	CCB	05/20/19 9:41				U	ng/L		-0.5	0.5			
WG472633PQV	PQV	05/20/19 9:46	HG190311-6	.5		.35	ng/L	70	70	130			
WG472633LFB	LFB	05/20/19 9:51	HG190311-5	2		1.62	ng/L	81	71	125			
L49990-14MS	MS	05/20/19 10:37	HG16315X	50	8	15.9	ng/L	79	71	125			
L49990-14MSD	MSD	05/20/19 10:42	HG16315X	50	8	16.4	ng/L	84	71	125	3	24	
WG472633CCV2	CCV	05/20/19 11:06	HG190311-4	10		9.14	ng/L	91	76.5	123.4			
WG472633CCB2	CCB	05/20/19 11:11				U	ng/L		-0.5	0.5			
WG472633CCV3	CCV	05/20/19 12:04	HG190311-4	10		8.44	ng/L	84	76.5	123.4			
WG472633CCB3	CCB	05/20/19 12:09				U	ng/L		-0.5	0.5			
WG472633CCV4	CCV	05/20/19 12:38	HG190311-4	10		8.38	ng/L	84	76.5	123.4			
WG472633CCB4	CCB	05/20/19 12:43				U	ng/L		-0.5	0.5			

Rio Grande Silver, Inc.

ACZ Project ID: **L51684**

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
WG472400													
WG472400ICV	ICV	05/15/19 17:27	II190503-1	2.004		1.9458	mg/L	97	95	105			
WG472400ICB	ICB	05/15/19 17:33				U	mg/L		-0.024	0.024			
WG472400PQV	PQV	05/15/19 17:36	II190509-2	.04		.0395	mg/L	99	70	130			
WG472400SIC	SIC	05/15/19 17:40	II190415-5	.1		.0929	mg/L	93	80	120			
WG472400LFB	LFB	05/15/19 17:46	II190509-6	.5		.4916	mg/L	98	85	115			
WG472400CCV1	CCV	05/15/19 18:16	II190422-1	1.002		.9541	mg/L	95	90	110			
WG472400CCB1	CCB	05/15/19 18:19				U	mg/L		-0.024	0.024			
WG472400CCV2	CCV	05/15/19 18:53	II190422-1	1.002		.9848	mg/L	98	90	110			
WG472400CCB2	CCB	05/15/19 18:56				U	mg/L		-0.024	0.024			
L51684-02AS	AS	05/15/19 18:59	II190509-6	.5	U	.4902	mg/L	98	85	115			
L51684-02ASD	ASD	05/15/19 19:02	II190509-6	.5	U	.4901	mg/L	98	85	115	0	20	
WG472400CCV3	CCV	05/15/19 19:14	II190422-1	1.002		1.004	mg/L	100	90	110			
WG472400CCB3	CCB	05/15/19 19:17				U	mg/L		-0.024	0.024			

Nickel, total recoverable

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG472363													
WG472363ICV	ICV	05/16/19 14:08	II190503-1	2.004		1.959	mg/L	98	95	105			
WG472363ICB	ICB	05/16/19 14:14				U	mg/L		-0.024	0.024			
WG472363PQV	PQV	05/16/19 14:18	II190509-2	.04		.0415	mg/L	104	70	130			
WG472363SIC	SIC	05/16/19 14:21	II190415-5	.1		.1036	mg/L	104	80	120			
WG472186LRB	LRB	05/16/19 14:28				U	mg/L		-0.0176	0.0176			
WG472186LFB	LFB	05/16/19 14:31	II190509-6	.5		.503	mg/L	101	85	115			
WG472363CCV1	CCV	05/16/19 15:00	II190422-1	1.002		1.003	mg/L	100	90	110			
WG472363CCB1	CCB	05/16/19 15:04				U	mg/L		-0.024	0.024			
WG472363CCV2	CCV	05/16/19 15:40	II190422-1	1.002		1.007	mg/L	100	90	110			
WG472363CCB2	CCB	05/16/19 15:43				U	mg/L		-0.024	0.024			
L51684-04LFM	LFM	05/16/19 15:46	II190509-6	.5	U	.5087	mg/L	102	70	130			
L51684-04LFMD	LFMD	05/16/19 15:50	II190509-6	.5	U	.5066	mg/L	101	70	130	0	20	
WG472363CCV3	CCV	05/16/19 16:06	II190422-1	1.002		1.007	mg/L	100	90	110			
WG472363CCB3	CCB	05/16/19 16:09				U	mg/L		-0.024	0.024			

Rio Grande Silver, Inc.

ACZ Project ID: **L51684**

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
WG472064													
WG472064ICV	ICV	05/10/19 23:36	WI190508-3	2.416		2.443	mg/L	101	90	110			
WG472064ICB	ICB	05/10/19 23:37				U	mg/L		-0.02	0.02			
WG472064CCV1	CCV	05/10/19 23:51	WI190509-7	2		1.995	mg/L	100	90	110			
WG472064CCB1	CCB	05/10/19 23:54				U	mg/L		-0.02	0.02			
L51683-09AS	AS	05/11/19 0:03	WI190405-9	2	.23	2.312	mg/L	104	90	110			
WG472064CCV2	CCV	05/11/19 0:08	WI190509-7	2		2.008	mg/L	100	90	110			
WG472064CCB2	CCB	05/11/19 0:11				U	mg/L		-0.02	0.02			
WG472064LFB2	LFB	05/11/19 0:21	WI190405-9	2		2.049	mg/L	102	90	110			
WG472064CCV3	CCV	05/11/19 0:25	WI190509-7	2		1.988	mg/L	99	90	110			
WG472064CCB3	CCB	05/11/19 0:28				U	mg/L		-0.02	0.02			
WG472064LFB1	LFB	05/11/19 0:32	WI190405-9	2		2.02	mg/L	101	90	110			
L51684-01DUP	DUP	05/11/19 0:37			.78	.785	mg/L				1	20	
WG472064CCV4	CCV	05/11/19 0:40	WI190509-7	2		1.991	mg/L	100	90	110			
WG472064CCB4	CCB	05/11/19 0:43				U	mg/L		-0.02	0.02			
WG472288													
WG472288ICV	ICV	05/14/19 22:06	WI190508-3	2.416		2.497	mg/L	103	90	110			
WG472288ICB	ICB	05/14/19 22:07				U	mg/L		-0.02	0.02			
WG472288LFB1	LFB	05/14/19 22:11	WI190405-9	2		2.04	mg/L	102	90	110			
L51684-05AS	AS	05/14/19 22:14	WI190405-9	2	.81	2.819	mg/L	100	90	110			
L51709-01DUP	DUP	05/14/19 22:16			.07	.075	mg/L				7	20	RA
WG472288CCV1	CCV	05/14/19 22:21	WI190509-7	2		2.035	mg/L	102	90	110			
WG472288CCB1	CCB	05/14/19 22:24				U	mg/L		-0.02	0.02			
WG472288CCV2	CCV	05/14/19 22:38	WI190509-7	2		2.032	mg/L	102	90	110			
WG472288CCB2	CCB	05/14/19 22:41				U	mg/L		-0.02	0.02			
WG472288LFB2	LFB	05/14/19 22:51	WI190405-9	2		2.05	mg/L	103	90	110			
WG472288CCV3	CCV	05/14/19 22:55	WI190509-7	2		2.029	mg/L	101	90	110			
WG472288CCB3	CCB	05/14/19 22:58				U	mg/L		-0.02	0.02			
WG472288CCV4	CCV	05/14/19 23:06	WI190509-7	2		2.026	mg/L	101	90	110			
WG472288CCB4	CCB	05/14/19 23:09				U	mg/L		-0.02	0.02			

Rio Grande Silver, Inc.

ACZ Project ID: **L51684**

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
WG472064													
WG472064ICV	ICV	05/10/19 23:36	WI190508-3	.609		.633	mg/L	104	90	110			
WG472064ICB	ICB	05/10/19 23:37				U	mg/L		-0.01	0.01			
WG472064CCV1	CCV	05/10/19 23:51	WI190509-7	1		1.02	mg/L	102	90	110			
WG472064CCB1	CCB	05/10/19 23:54				U	mg/L		-0.01	0.01			
L51683-09AS	AS	05/11/19 0:03	WI190405-9	1	U	1.067	mg/L	107	90	110			
WG472064CCV2	CCV	05/11/19 0:08	WI190509-7	1		1.017	mg/L	102	90	110			
WG472064CCB2	CCB	05/11/19 0:11				U	mg/L		-0.01	0.01			
WG472064LFB2	LFB	05/11/19 0:21	WI190405-9	1		1.037	mg/L	104	90	110			
WG472064CCV3	CCV	05/11/19 0:25	WI190509-7	1		1.013	mg/L	101	90	110			
WG472064CCB3	CCB	05/11/19 0:28				U	mg/L		-0.01	0.01			
WG472064LFB1	LFB	05/11/19 0:32	WI190405-9	1		1.025	mg/L	103	90	110			
L51684-01DUP	DUP	05/11/19 0:37			U	U	mg/L				0	20	RA
WG472064CCV4	CCV	05/11/19 0:40	WI190509-7	1		1.016	mg/L	102	90	110			
WG472064CCB4	CCB	05/11/19 0:43				U	mg/L		-0.01	0.01			
WG472288													
WG472288ICV	ICV	05/14/19 22:06	WI190508-3	.609		.624	mg/L	102	90	110			
WG472288ICB	ICB	05/14/19 22:07				U	mg/L		-0.01	0.01			
WG472288LFB1	LFB	05/14/19 22:11	WI190405-9	1		1.005	mg/L	101	90	110			
L51684-05AS	AS	05/14/19 22:14	WI190405-9	1	U	.998	mg/L	100	90	110			
L51709-01DUP	DUP	05/14/19 22:16			U	U	mg/L				0	20	RA
WG472288CCV1	CCV	05/14/19 22:21	WI190509-7	1		.999	mg/L	100	90	110			
WG472288CCB1	CCB	05/14/19 22:24				U	mg/L		-0.01	0.01			
WG472288CCV2	CCV	05/14/19 22:38	WI190509-7	1		1.003	mg/L	100	90	110			
WG472288CCB2	CCB	05/14/19 22:41				U	mg/L		-0.01	0.01			
WG472288LFB2	LFB	05/14/19 22:51	WI190405-9	1		1	mg/L	100	90	110			
WG472288CCV3	CCV	05/14/19 22:55	WI190509-7	1		1.005	mg/L	101	90	110			
WG472288CCB3	CCB	05/14/19 22:58				U	mg/L		-0.01	0.01			
WG472288CCV4	CCV	05/14/19 23:06	WI190509-7	1		1.001	mg/L	100	90	110			
WG472288CCB4	CCB	05/14/19 23:09				U	mg/L		-0.01	0.01			

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
WG472583													
WG472583ICV	ICV	05/17/19 13:32	WI190510-1	12		12.19	mg/L	102	90	110			
WG472583ICB	ICB	05/17/19 13:33				U	mg/L		-0.05	0.05			
WG472583LFB	LFB	05/17/19 13:35	WI180918-3	10		9.709	mg/L	97	90	110			
WG472583CCV1	CCV	05/17/19 13:49	WI190510-2	10		9.874	mg/L	99	90	110			
WG472583CCB1	CCB	05/17/19 13:51				U	mg/L		-0.05	0.05			
L51683-07DUP	DUP	05/17/19 13:58			U	U	mg/L				0	20	RA
L51683-08AS	AS	05/17/19 14:01	WI180918-3	10	U	9.729	mg/L	97	90	110			
WG472583CCV2	CCV	05/17/19 14:07	WI190510-2	10		9.931	mg/L	99	90	110			
WG472583CCB2	CCB	05/17/19 14:08				U	mg/L		-0.05	0.05			
WG472583CCV3	CCV	05/17/19 14:20	WI190510-2	10		9.878	mg/L	99	90	110			
WG472583CCB3	CCB	05/17/19 14:22				U	mg/L		-0.05	0.05			

Rio Grande Silver, Inc.

ACZ Project ID: **L51684**

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, total Kjeldahl

M351.2 - TKN by Block Digester

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG472619													
WG472619ICV	ICV	05/17/19 22:30	WI190506-4	4		4.1	mg/L	103	90	110			
WG472619ICB	ICB	05/17/19 22:31				U	mg/L		-0.1	0.1			
WG472572LRB	LRB	05/17/19 22:32				U	mg/L		-0.1	0.1			
WG472572LFB	LFB	05/17/19 22:34	WI190506-6	2.5		2.66	mg/L	106	90	110			
L51673-01LFM	LFM	05/17/19 22:36	WI190506-6	2.5	.3	3.22	mg/L	117	90	110			M1
L51673-02DUP	DUP	05/17/19 22:38			.4	.43	mg/L				7	20	RA
WG472619CCV1	CCV	05/17/19 22:44	WI190506-8	2.5		2.56	mg/L	102	90	110			
WG472619CCB1	CCB	05/17/19 22:45				U	mg/L		-0.1	0.1			
WG472619CCV3	CCV	05/17/19 23:06	WI190506-8	2.5		2.6	mg/L	104	90	110			
WG472619CCB3	CCB	05/17/19 23:07				U	mg/L		-0.1	0.1			
L51684-03LFM	LFM	05/17/19 23:13	WI190506-6	2.5	U	3.56	mg/L	142	90	110			M1
L51684-04DUP	DUP	05/17/19 23:16			.4	.41	mg/L				2	20	RA
WG472619CCV4	CCV	05/17/19 23:19	WI190506-8	2.5		2.68	mg/L	107	90	110			
WG472619CCB4	CCB	05/17/19 23:20				U	mg/L		-0.1	0.1			
WG472619CCV5	CCV	05/17/19 23:33	WI190506-8	2.5		2.64	mg/L	106	90	110			
WG472619CCB5	CCB	05/17/19 23:34				U	mg/L		-0.1	0.1			

pH (lab)

SM4500H+ B

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG472072													
WG472072LCSW1	LCSW	05/11/19 12:29	PCN56769	6		6	units	100	5.9	6.1			
WG472072LCSW4	LCSW	05/11/19 15:19	PCN56769	6		6	units	100	5.9	6.1			
WG472072LCSW7	LCSW	05/11/19 18:28	PCN56769	6		6	units	100	5.9	6.1			
L51684-02DUP	DUP	05/11/19 20:33			7.5	7.5	units				0	20	
L51684-04DUP	DUP	05/11/19 20:57			7.8	7.8	units				0	20	
WG472072LCSW10	LCSW	05/11/19 23:11	PCN56769	6		6	units	100	5.9	6.1			
WG472072LCSW13	LCSW	05/12/19 2:26	PCN56769	6		6	units	100	5.9	6.1			
WG472616													
WG472616LCSW1	LCSW	05/17/19 18:33	PCN56769	6		6	units	100	5.9	6.1			
L51705-05DUP	DUP	05/17/19 20:00			8	8	units				0	20	
WG472616LCSW4	LCSW	05/17/19 21:30	PCN56769	6		6	units	100	5.9	6.1			
WG472616LCSW7	LCSW	05/18/19 1:44	PCN56769	6		6	units	100	5.9	6.1			
WG472616LCSW10	LCSW	05/18/19 5:33	PCN56769	6		6	units	100	5.9	6.1			
WG472616LCSW13	LCSW	05/18/19 9:23	PCN56769	6		6	units	100	5.9	6.1			

Rio Grande Silver, Inc.

ACZ Project ID: **L51684**

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.

Phosphorus, total

M365.1 - Auto Ascorbic Acid (digest)

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG472356													
WG472356ICV	ICV	05/15/19 12:43	WI190510-6	.65228		.685	mg/L	105	90	110			
WG472356ICB	ICB	05/15/19 12:46				U	mg/L		-0.01	0.01			
WG472236LRB	LRB	05/15/19 12:47				U	mg/L		-0.01	0.01			
WG472236LFB	LFB	05/15/19 12:48	WI190507-2	.5		.51	mg/L	102	90	110			
WG472356CCV1	CCV	05/15/19 12:58	WI190510-4	.5		.508	mg/L	102	90	110			
WG472356CCB1	CCB	05/15/19 12:59				U	mg/L		-0.01	0.01			
L51683-07DUP	DUP	05/15/19 13:08			.03	.036	mg/L				18	20	RA
WG472356CCV2	CCV	05/15/19 13:12	WI190510-4	.5		.508	mg/L	102	90	110			
WG472356CCB2	CCB	05/15/19 13:13				U	mg/L		-0.01	0.01			
WG472356CCV3	CCV	05/15/19 13:22	WI190510-4	.5		.512	mg/L	102	90	110			
WG472356CCB3	CCB	05/15/19 13:23				U	mg/L		-0.01	0.01			
WG472356CCV4	CCV	05/15/19 13:36	WI190510-4	.5		.511	mg/L	102	90	110			
WG472356CCB4	CCB	05/15/19 13:38				U	mg/L		-0.01	0.01			
L51683-06LFM	LFM	05/15/19 13:45	WI190507-2	.5	.94	1.498	mg/L	112	90	110			M1
WG472356CCV5	CCV	05/15/19 13:49	WI190510-4	.5		.511	mg/L	102	90	110			
WG472356CCB5	CCB	05/15/19 13:50				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
WG472400													
WG472400ICV	ICV	05/15/19 17:27	II190503-1	20		19.84	mg/L	99	95	105			
WG472400ICB	ICB	05/15/19 17:33				U	mg/L		-0.6	0.6			
WG472400PQV	PQV	05/15/19 17:36	II190509-2	1.001		1.19	mg/L	119	70	130			
WG472400SIC	SIC	05/15/19 17:40	II190415-5	1.001		1.17	mg/L	117	80	120			
WG472400LFB	LFB	05/15/19 17:46	II190509-6	101.8741		100.7	mg/L	99	85	115			
WG472400CCV1	CCV	05/15/19 18:16	II190422-1	10		9.57	mg/L	96	90	110			
WG472400CCB1	CCB	05/15/19 18:19				.21	mg/L		-0.6	0.6			
WG472400CCV2	CCV	05/15/19 18:53	II190422-1	10		9.81	mg/L	98	90	110			
WG472400CCB2	CCB	05/15/19 18:56				U	mg/L		-0.6	0.6			
L51684-02AS	AS	05/15/19 18:59	II190509-6	101.8741	2.5	102.1	mg/L	98	85	115			
L51684-02ASD	ASD	05/15/19 19:02	II190509-6	101.8741	2.5	101.2	mg/L	97	85	115	1	20	
WG472400CCV3	CCV	05/15/19 19:14	II190422-1	10		10	mg/L	100	90	110			
WG472400CCB3	CCB	05/15/19 19:17				.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
WG472219													
WG472219PBW	PBW	05/14/19 12:15				20	mg/L		-40	40			
WG472219LCSW	LCSW	05/14/19 12:17	PCN58851	1000		1000	mg/L	100	80	120			
L51705-05DUP	DUP	05/14/19 12:46			4880	4850	mg/L				1	10	

Residue, Non-Filterable (TSS) @105C

SM2540D

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG472282													
WG472282PBW	PBW	05/14/19 17:15				U	mg/L		-15	15			
WG472282LCSW	LCSW	05/14/19 17:16	PCN58851	100		94	mg/L	94	80	120			
L51684-03DUP	DUP	05/14/19 17:30			15	18	mg/L				18	10	RA
L51755-06DUP	DUP	05/14/19 17:44			14	13	mg/L				7	10	RA

Rio Grande Silver, Inc.

ACZ Project ID: **L51684**

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
WG472240													
WG472240ICV	ICV	05/14/19 14:25	MS190513-2	.05		.0473	mg/L	95	90	110			
WG472240ICB	ICB	05/14/19 14:27				.00012	mg/L		-0.00022	0.00022			
WG472240LFB	LFB	05/14/19 14:29	MS190507-2	.05005		.04647	mg/L	93	85	115			
L51684-02AS	AS	05/14/19 14:34	MS190507-2	.05005	.0002	.04763	mg/L	95	70	130			
L51684-02ASD	ASD	05/14/19 14:36	MS190507-2	.05005	.0002	.05061	mg/L	101	70	130	6	20	
WG472240CCV1	CCV	05/14/19 14:43	MS190430-4	.25025		.25239	mg/L	101	90	110			
WG472240CCB1	CCB	05/14/19 14:45				.00011	mg/L		-0.0003	0.0003			
WG472240CCV2	CCV	05/14/19 15:05	MS190430-4	.25025		.2474	mg/L	99	90	110			
WG472240CCB2	CCB	05/14/19 15:07				U	mg/L		-0.0003	0.0003			
WG472240CCV3	CCV	05/14/19 15:21	MS190430-4	.25025		.24816	mg/L	99	90	110			
WG472240CCB3	CCB	05/14/19 15:23				U	mg/L		-0.0003	0.0003			

Selenium, total recoverable

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG472490													
WG472490ICV	ICV	05/16/19 13:35	MS190513-2	.05		.04784	mg/L	96	90	110			
WG472490ICB	ICB	05/16/19 13:36				U	mg/L		-0.0003	0.0003			
WG472313LRB	LRB	05/16/19 13:38				U	mg/L		-0.00022	0.00022			
WG472313LFB	LFB	05/16/19 13:40	MS190507-2	.05005		.04582	mg/L	92	85	115			
WG472490CCV1	CCV	05/16/19 13:42	MS190430-4	.25025		.23938	mg/L	96	90	110			
WG472490CCB1	CCB	05/16/19 13:44				U	mg/L		-0.0003	0.0003			
L51677-03LFM	LFM	05/16/19 13:56	MS190507-2	.05005	U	.04434	mg/L	89	70	130			
L51677-03LFMD	LFMD	05/16/19 13:58	MS190507-2	.05005	U	.04487	mg/L	90	70	130	1	20	
WG472490CCV2	CCV	05/16/19 14:03	MS190430-4	.25025		.27358	mg/L	109	90	110			
WG472490CCB2	CCB	05/16/19 14:05				U	mg/L		-0.0003	0.0003			
L51684-05LFM	LFM	05/16/19 14:20	MS190507-2	.05005	.0002	.04381	mg/L	87	70	130			
L51684-05LFMD	LFMD	05/16/19 14:22	MS190507-2	.05005	.0002	.04541	mg/L	90	70	130	4	20	
WG472490CCV3	CCV	05/16/19 14:25	MS190430-4	.25025		.24452	mg/L	98	90	110			
WG472490CCB3	CCB	05/16/19 14:27				U	mg/L		-0.0003	0.0003			

Silica, dissolved

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG472400													
WG472400ICV	ICV	05/15/19 17:27	II190503-1	42.8		43.8	mg/L	102	95	105			
WG472400ICB	ICB	05/15/19 17:33				U	mg/L		-0.6	0.6			
WG472400PQV	PQV	05/15/19 17:36	II190509-2	1.07075		1.12	mg/L	105	70	130			
WG472400SIC	SIC	05/15/19 17:40	II190415-5	1.07075		1.07	mg/L	100	80	120			
WG472400LFB	LFB	05/15/19 17:46	II190509-6	21.415		22.03	mg/L	103	85	115			
WG472400CCV1	CCV	05/15/19 18:16	II190422-1	21.4		21.55	mg/L	101	90	110			
WG472400CCB1	CCB	05/15/19 18:19				U	mg/L		-0.6	0.6			
WG472400CCV2	CCV	05/15/19 18:53	II190422-1	21.4		22.07	mg/L	103	90	110			
WG472400CCB2	CCB	05/15/19 18:56				U	mg/L		-0.6	0.6			
L51684-02AS	AS	05/15/19 18:59	II190509-6	21.415	26	46.48	mg/L	96	85	115			
L51684-02ASD	ASD	05/15/19 19:02	II190509-6	21.415	26	46.13	mg/L	94	85	115	1	20	
WG472400CCV3	CCV	05/15/19 19:14	II190422-1	21.4		22.58	mg/L	106	90	110			
WG472400CCB3	CCB	05/15/19 19:17				U	mg/L		-0.6	0.6			

Rio Grande Silver, Inc.

ACZ Project ID: **L51684**

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.

Silica, total recoverable

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG472363													
WG472363ICV	ICV	05/16/19 14:08	II190503-1	42.8		43.58	mg/L	102	95	105			
WG472363ICB	ICB	05/16/19 14:14				U	mg/L		-0.6	0.6			
WG472363PQV	PQV	05/16/19 14:18	II190509-2	1.07075		1.13	mg/L	106	70	130			
WG472363SIC	SIC	05/16/19 14:21	II190415-5	1.07075		1.14	mg/L	106	80	120			
WG472186LRB	LRB	05/16/19 14:28				U	mg/L		-0.44	0.44			
WG472186LFB	LFB	05/16/19 14:31	II190509-6	21.415		22.37	mg/L	104	85	115			
WG472363CCV1	CCV	05/16/19 15:00	II190422-1	21.4		22.5	mg/L	105	90	110			
WG472363CCB1	CCB	05/16/19 15:04				U	mg/L		-0.6	0.6			
WG472363CCV2	CCV	05/16/19 15:40	II190422-1	21.4		22.43	mg/L	105	90	110			
WG472363CCB2	CCB	05/16/19 15:43				U	mg/L		-0.6	0.6			
L51684-04LFM	LFM	05/16/19 15:46	II190509-6	21.415	35	55.41	mg/L	95	70	130			
L51684-04LFMD	LFMD	05/16/19 15:50	II190509-6	21.415	35	58.75	mg/L	111	70	130	6	20	
WG472363CCV3	CCV	05/16/19 16:06	II190422-1	21.4		22.46	mg/L	105	90	110			
WG472363CCB3	CCB	05/16/19 16:09				U	mg/L		-0.6	0.6			

Silver, dissolved

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG472240													
WG472240ICV	ICV	05/14/19 14:25	MS190513-2	.02004		.02047	mg/L	102	90	110			
WG472240ICB	ICB	05/14/19 14:27				U	mg/L		-0.00022	0.00022			
WG472240LFB	LFB	05/14/19 14:29	MS190507-2	.01002		.00974	mg/L	97	85	115			
L51684-02AS	AS	05/14/19 14:34	MS190507-2	.01002	U	.00824	mg/L	82	70	130			
L51684-02ASD	ASD	05/14/19 14:36	MS190507-2	.01002	U	.00966	mg/L	96	70	130	16	20	
WG472240CCV1	CCV	05/14/19 14:43	MS190430-4	.02505		.02473	mg/L	99	90	110			
WG472240CCB1	CCB	05/14/19 14:45				U	mg/L		-0.0003	0.0003			
WG472240CCV2	CCV	05/14/19 15:05	MS190430-4	.02505		.02431	mg/L	97	90	110			
WG472240CCB2	CCB	05/14/19 15:07				U	mg/L		-0.0003	0.0003			
WG472240CCV3	CCV	05/14/19 15:21	MS190430-4	.02505		.02451	mg/L	98	90	110			
WG472240CCB3	CCB	05/14/19 15:23				U	mg/L		-0.0003	0.0003			

Silver, total recoverable

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG472490													
WG472490ICV	ICV	05/16/19 13:35	MS190513-2	.02004		.02102	mg/L	105	90	110			
WG472490ICB	ICB	05/16/19 13:36				U	mg/L		-0.0003	0.0003			
WG472313LRB	LRB	05/16/19 13:38				U	mg/L		-0.00022	0.00022			
WG472313LFB	LFB	05/16/19 13:40	MS190507-2	.01002		.01036	mg/L	103	85	115			
WG472490CCV1	CCV	05/16/19 13:42	MS190430-4	.02505		.02536	mg/L	101	90	110			
WG472490CCB1	CCB	05/16/19 13:44				U	mg/L		-0.0003	0.0003			
L51677-03LFM	LFM	05/16/19 13:56	MS190507-2	.01002	U	.01023	mg/L	102	70	130			
L51677-03LFMD	LFMD	05/16/19 13:58	MS190507-2	.01002	U	.01021	mg/L	102	70	130	0	20	
WG472490CCV2	CCV	05/16/19 14:03	MS190430-4	.02505		.02536	mg/L	101	90	110			
WG472490CCB2	CCB	05/16/19 14:05				U	mg/L		-0.0003	0.0003			
L51684-05LFM	LFM	05/16/19 14:20	MS190507-2	.01002	.0002	.01023	mg/L	100	70	130			
L51684-05LFMD	LFMD	05/16/19 14:22	MS190507-2	.01002	.0002	.01025	mg/L	100	70	130	0	20	
WG472490CCV3	CCV	05/16/19 14:25	MS190430-4	.02505		.02449	mg/L	98	90	110			
WG472490CCB3	CCB	05/16/19 14:27				U	mg/L		-0.0003	0.0003			

Rio Grande Silver, Inc.

ACZ Project ID: **L51684**

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
WG472400													
WG472400ICV	ICV	05/15/19 17:27	II190503-1	100		96.72	mg/L	97	95	105			
WG472400ICB	ICB	05/15/19 17:33				U	mg/L		-0.6	0.6			
WG472400PQV	PQV	05/15/19 17:36	II190509-2	.998		1.02	mg/L	102	70	130			
WG472400SIC	SIC	05/15/19 17:40	II190415-5	.998		1.12	mg/L	112	80	120			
WG472400LFB	LFB	05/15/19 17:46	II190509-6	98.14307		97.2	mg/L	99	85	115			
WG472400CCV1	CCV	05/15/19 18:16	II190422-1	50		45.68	mg/L	91	90	110			
WG472400CCB1	CCB	05/15/19 18:19				U	mg/L		-0.6	0.6			
WG472400CCV2	CCV	05/15/19 18:53	II190422-1	50		46.99	mg/L	94	90	110			
WG472400CCB2	CCB	05/15/19 18:56				U	mg/L		-0.6	0.6			
L51684-02AS	AS	05/15/19 18:59	II190509-6	98.14307	3.3	99.39	mg/L	98	85	115			
L51684-02ASD	ASD	05/15/19 19:02	II190509-6	98.14307	3.3	98.32	mg/L	97	85	115	1	20	
WG472400CCV3	CCV	05/15/19 19:14	II190422-1	50		47.9	mg/L	96	90	110			
WG472400CCB3	CCB	05/15/19 19:17				U	mg/L		-0.6	0.6			

Sulfate

M300.0 - Ion Chromatography

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG469765													
WG469765ICV	ICV	04/03/19 17:17	WI190404-1	50		51.3	mg/L	103	90	110			
WG469765ICB	ICB	04/03/19 17:34				U	mg/L		-0.4	0.4			
WG472234													
WG472234CCV1	CCV	05/14/19 16:28	WI190404-3	50		52.5	mg/L	105	90	110			
WG472234CCB1	CCB	05/14/19 16:46				U	mg/L		-0.4	0.4			
WG472234PQV	PQV	05/14/19 17:04	WI190502-1	2		2.07	mg/L	104	70	130			
WG472234LFB1	LFB	05/14/19 17:22	WI181011-3	30		30.1	mg/L	100	90	110			
L51673-01AS	AS	05/14/19 18:34	WI181011-3	30	7.15	36.9	mg/L	99	90	110			
WG472234CCV2	CCV	05/14/19 20:03	WI190404-3	50		52.3	mg/L	105	90	110			
WG472234CCB2	CCB	05/14/19 20:21				U	mg/L		-0.4	0.4			
L51684-04DUP	DUP	05/14/19 22:09			3.15	3.14	mg/L				0	20	RA
WG472234CCV3	CCV	05/14/19 23:38	WI190404-3	50		52.5	mg/L	105	90	110			
WG472234CCB3	CCB	05/14/19 23:56				U	mg/L		-0.4	0.4			
WG472234LFB2	LFB	05/15/19 2:02	WI181011-3	30		30	mg/L	100	90	110			
WG472234CCV4	CCV	05/15/19 3:13	WI190404-3	50		52.6	mg/L	105	90	110			
WG472234CCB4	CCB	05/15/19 3:31				U	mg/L		-0.4	0.4			
WG472234CCV5	CCV	05/15/19 4:07	WI190404-3	50		52.6	mg/L	105	90	110			
WG472234CCB5	CCB	05/15/19 4:25				U	mg/L		-0.4	0.4			
WG472234CCV6	CCV	05/15/19 16:30	WI190404-3	50		52.8	mg/L	106	90	110			
WG472234CCB6	CCB	05/15/19 16:48				U	mg/L		-0.4	0.4			
WG472234PQV1	PQV	05/15/19 17:06	WI190502-1	2		2.02	mg/L	101	70	130			
L51605-01DUP	DUP	05/15/19 17:42			518	519	mg/L				0	20	
L51684-05AS	AS	05/15/19 18:36	WI181011-3	60	89.8	151	mg/L	102	90	110			
WG472234CCV7	CCV	05/15/19 20:05	WI190404-3	50		52.5	mg/L	105	90	110			
WG472234CCB7	CCB	05/15/19 20:23				U	mg/L		-0.4	0.4			

Rio Grande Silver, Inc.

ACZ Project ID: **L51684**

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.

Sulfide as S

SM4500S2-D

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG472152													
WG472152ICV1	ICV	05/13/19 13:58	WC190513-4	.344		.371	mg/L	108	90	110			
WG472152ICB1	ICB	05/13/19 14:04				U	mg/L		-0.06	0.06			
WG472152LFB	LFB	05/13/19 14:10	WC190513-7	.23556		.275	mg/L	117	80	120			
WG472152CCV1	CCV	05/13/19 15:14	WC190513-5	.17667		.181	mg/L	102	90	110			
WG472152CCB1	CCB	05/13/19 15:20				U	mg/L		-0.06	0.06			
L51686-05AS	AS	05/13/19 15:33	WC190513-7	8.8335	4.8	14.78	mg/L	113	75	125			
L51686-05DUP	DUP	05/13/19 15:39			4.8	4.28	mg/L				11	20	RA
WG472152CCV2	CCV	05/13/19 16:30	WC190513-5	.17667		.183	mg/L	104	90	110			
WG472152CCB2	CCB	05/13/19 16:36				U	mg/L		-0.06	0.06			
WG472152CCV3	CCV	05/13/19 17:08	WC190513-5	.17667		.182	mg/L	103	90	110			
WG472152CCB3	CCB	05/13/19 17:14				U	mg/L		-0.06	0.06			

Uranium, dissolved

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG472240													
WG472240ICV	ICV	05/14/19 14:25	MS190513-2	.05		.05151	mg/L	103	90	110			
WG472240ICB	ICB	05/14/19 14:27				U	mg/L		-0.00022	0.00022			
WG472240LFB	LFB	05/14/19 14:29	MS190507-2	.05		.04851	mg/L	97	85	115			
L51684-02AS	AS	05/14/19 14:34	MS190507-2	.05	U	.04629	mg/L	93	70	130			
L51684-02ASD	ASD	05/14/19 14:36	MS190507-2	.05	U	.04912	mg/L	98	70	130	6	20	
WG472240CCV1	CCV	05/14/19 14:43	MS190430-4	.1		.1002	mg/L	100	90	110			
WG472240CCB1	CCB	05/14/19 14:45				U	mg/L		-0.0003	0.0003			
WG472240CCV2	CCV	05/14/19 15:05	MS190430-4	.1		.09846	mg/L	98	90	110			
WG472240CCB2	CCB	05/14/19 15:07				U	mg/L		-0.0003	0.0003			

Uranium, total recoverable

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG472490													
WG472490ICV	ICV	05/16/19 13:35	MS190513-2	.05		.05255	mg/L	105	90	110			
WG472490ICB	ICB	05/16/19 13:36				U	mg/L		-0.0003	0.0003			
WG472313LRB	LRB	05/16/19 13:38				U	mg/L		-0.00022	0.00022			
WG472313LFB	LFB	05/16/19 13:40	MS190507-2	.05		.05033	mg/L	101	85	115			
WG472490CCV1	CCV	05/16/19 13:42	MS190430-4	.1		.10099	mg/L	101	90	110			
WG472490CCB1	CCB	05/16/19 13:44				U	mg/L		-0.0003	0.0003			
L51677-03LFM	LFM	05/16/19 13:56	MS190507-2	.05	U	.05154	mg/L	103	70	130			
L51677-03LFMD	LFMD	05/16/19 13:58	MS190507-2	.05	U	.05176	mg/L	104	70	130	0	20	
WG472490CCV2	CCV	05/16/19 14:03	MS190430-4	.1		.10203	mg/L	102	90	110			
WG472490CCB2	CCB	05/16/19 14:05				U	mg/L		-0.0003	0.0003			
L51684-05LFM	LFM	05/16/19 14:20	MS190507-2	.05	U	.05152	mg/L	103	70	130			
L51684-05LFMD	LFMD	05/16/19 14:22	MS190507-2	.05	U	.05262	mg/L	105	70	130	2	20	
WG472490CCV3	CCV	05/16/19 14:25	MS190430-4	.1		.10157	mg/L	102	90	110			
WG472490CCB3	CCB	05/16/19 14:27				U	mg/L		-0.0003	0.0003			

Rio Grande Silver, Inc.

ACZ Project ID: **L51684**

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
WG472240													
WG472240ICV	ICV	05/14/19 14:25	MS190513-2	.05		.0479	mg/L	96	90	110			
WG472240ICB	ICB	05/14/19 14:27				U	mg/L		-0.0088	0.0088			
WG472240LFB	LFB	05/14/19 14:29	MS190507-2	.050075		.0499	mg/L	100	85	115			
L51684-02AS	AS	05/14/19 14:34	MS190507-2	.050075	3.14	3.1547	mg/L	29	70	130			M3
L51684-02ASD	ASD	05/14/19 14:36	MS190507-2	.050075	3.14	3.106	mg/L	-68	70	130	2	20	M3
WG472240CCV1	CCV	05/14/19 14:43	MS190430-4	.50075		.5176	mg/L	103	90	110			
WG472240CCB1	CCB	05/14/19 14:45				U	mg/L		-0.012	0.012			
WG472240CCV2	CCV	05/14/19 15:05	MS190430-4	.50075		.5073	mg/L	101	90	110			
WG472240CCB2	CCB	05/14/19 15:07				U	mg/L		-0.012	0.012			
WG472240CCV3	CCV	05/14/19 15:21	MS190430-4	.50075		.5119	mg/L	102	90	110			
WG472240CCB3	CCB	05/14/19 15:23				U	mg/L		-0.012	0.012			

Zinc, total recoverable

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG472490													
WG472490ICV	ICV	05/16/19 13:35	MS190513-2	.05		.0513	mg/L	103	90	110			
WG472490ICB	ICB	05/16/19 13:36				U	mg/L		-0.012	0.012			
WG472313LRB	LRB	05/16/19 13:38				U	mg/L		-0.0088	0.0088			
WG472313LFB	LFB	05/16/19 13:40	MS190507-2	.050075		.0514	mg/L	103	85	115			
WG472490CCV1	CCV	05/16/19 13:42	MS190430-4	.50075		.504	mg/L	101	90	110			
WG472490CCB1	CCB	05/16/19 13:44				U	mg/L		-0.012	0.012			
L51677-03LFM	LFM	05/16/19 13:56	MS190507-2	.050075	.402	.4487	mg/L	93	70	130			
L51677-03LFMD	LFMD	05/16/19 13:58	MS190507-2	.050075	.402	.4491	mg/L	94	70	130	0	20	
WG472490CCV2	CCV	05/16/19 14:03	MS190430-4	.50075		.5017	mg/L	100	90	110			
WG472490CCB2	CCB	05/16/19 14:05				U	mg/L		-0.012	0.012			
L51684-05LFM	LFM	05/16/19 14:20	MS190507-2	.050075	2.61	2.6427	mg/L	65	70	130			M3
L51684-05LFMD	LFMD	05/16/19 14:22	MS190507-2	.050075	2.61	2.635	mg/L	50	70	130	0	20	M3
WG472490CCV3	CCV	05/16/19 14:25	MS190430-4	.50075		.5037	mg/L	101	90	110			
WG472490CCB3	CCB	05/16/19 14:27				U	mg/L		-0.012	0.012			

Rio Grande Silver, Inc.

ACZ Project ID: **L51684**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L51684-01	WG472363	Aluminum, total recoverable	M200.7 ICP	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG472226	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).
	WG472578	Chemical Oxygen Demand	M410.4	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).
	WG472400	Manganese, dissolved	M200.7 ICP	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG472064	Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	H3	Sample was received and analyzed past holding time.
		Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	H3	Sample was received and analyzed past holding time.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG472583	Nitrogen, ammonia	M350.1 Auto Salicylate w/gas diffusion	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).
	WG472619	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
			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).
	WG472356	Phosphorus, total	M365.1 - Auto Ascorbic Acid (digest)	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
			M365.1 - Auto Ascorbic Acid (digest)	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).
	WG472282	Residue, Non-Filterable (TSS) @105C	SM2540D	N1	See Case Narrative.
			SM2540D	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).
			SM2540D	Z3	Sample volume yielded a residue less than 2.5 mg
	WG472363	Silica, total recoverable	M200.7 ICP	ZS	Digestion procedures have the potential to trigger silica polymerization and precipitation, leading to low biased results. Silica chemistry is complex and polymerization kinetics are unpredictable. Dissolved and/or acid soluble silica analyses may provide more accurate measurements.
	WG472152	Sulfide as S	SM4500S2-D	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).
	WG472072	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).
	WG472240	Zinc, dissolved	M200.8 ICP-MS	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.

Rio Grande Silver, Inc.

ACZ Project ID: **L51684**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L51684-02	WG472363	Aluminum, total recoverable	M200.7 ICP	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG472226	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).
	WG472578	Chemical Oxygen Demand	M410.4	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).
	WG472400	Manganese, dissolved	M200.7 ICP	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG472064	Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	H3	Sample was received and analyzed past holding time.
		Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	H3	Sample was received and analyzed past holding time.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG472583	Nitrogen, ammonia	M350.1 Auto Salicylate w/gas diffusion	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).
	WG472619	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
			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).
	WG472356	Phosphorus, total	M365.1 - Auto Ascorbic Acid (digest)	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
			M365.1 - Auto Ascorbic Acid (digest)	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).
	WG472282	Residue, Non-Filterable (TSS) @105C	SM2540D	N1	See Case Narrative.
			SM2540D	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).
			SM2540D	Z3	Sample volume yielded a residue less than 2.5 mg
	WG472363	Silica, total recoverable	M200.7 ICP	ZS	Digestion procedures have the potential to trigger silica polymerization and precipitation, leading to low biased results. Silica chemistry is complex and polymerization kinetics are unpredictable. Dissolved and/or acid soluble silica analyses may provide more accurate measurements.
	WG472152	Sulfide as S	SM4500S2-D	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).
	WG472072	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).
	WG472240	Zinc, dissolved	M200.8 ICP-MS	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.
	WG472490	Zinc, total recoverable	M200.8 ICP-MS	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.

Rio Grande Silver, Inc.

ACZ Project ID: **L51684**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L51684-03	WG472363	Aluminum, total recoverable	M200.7 ICP	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG472226	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).
	WG472578	Chemical Oxygen Demand	M410.4	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).
	WG472587	Fluoride	SM4500F-C	DL	Sample required dilution due to high AL and/or FE value.
			SM4500F-C	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG472400	Manganese, dissolved	M200.7 ICP	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG472064	Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	H3	Sample was received and analyzed past holding time.
		Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	H3	Sample was received and analyzed past holding time.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG472583	Nitrogen, ammonia	M350.1 Auto Salicylate w/gas diffusion	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).
	WG472619	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
			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).
	WG472356	Phosphorus, total	M365.1 - Auto Ascorbic Acid (digest)	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
			M365.1 - Auto Ascorbic Acid (digest)	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).
	WG472282	Residue, Non-Filterable (TSS) @105C	SM2540D	N1	See Case Narrative.
			SM2540D	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).
			SM2540D	Z3	Sample volume yielded a residue less than 2.5 mg
	WG472363	Silica, total recoverable	M200.7 ICP	ZS	Digestion procedures have the potential to trigger silica polymerization and precipitation, leading to low biased results. Silica chemistry is complex and polymerization kinetics are unpredictable. Dissolved and/or acid soluble silica analyses may provide more accurate measurements.
	WG472152	Sulfide as S	SM4500S2-D	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).
	WG472072	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).
	WG472240	Zinc, dissolved	M200.8 ICP-MS	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.
	WG472490	Zinc, total recoverable	M200.8 ICP-MS	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.

Rio Grande Silver, Inc.

ACZ Project ID: **L51684**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L51684-04	WG472363	Aluminum, total recoverable	M200.7 ICP	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG472226	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).
	WG472578	Chemical Oxygen Demand	M410.4	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).
	WG472234	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).
	WG472400	Manganese, dissolved	M200.7 ICP	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG472064	Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	H3	Sample was received and analyzed past holding time.
		Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	H3	Sample was received and analyzed past holding time.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG472583	Nitrogen, ammonia	M350.1 Auto Salicylate w/gas diffusion	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).
	WG472619	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
			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).
	WG472356	Phosphorus, total	M365.1 - Auto Ascorbic Acid (digest)	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
			M365.1 - Auto Ascorbic Acid (digest)	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).
	WG472282	Residue, Non-Filterable (TSS) @105C	SM2540D	N1	See Case Narrative.
			SM2540D	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).
			SM2540D	Z3	Sample volume yielded a residue less than 2.5 mg
	WG472363	Silica, total recoverable	M200.7 ICP	ZS	Digestion procedures have the potential to trigger silica polymerization and precipitation, leading to low biased results. Silica chemistry is complex and polymerization kinetics are unpredictable. Dissolved and/or acid soluble silica analyses may provide more accurate measurements.
	WG472234	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).
	WG472152	Sulfide as S	SM4500S2-D	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).
	WG472072	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).
	WG472240	Zinc, dissolved	M200.8 ICP-MS	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.
	WG472490	Zinc, total recoverable	M200.8 ICP-MS	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.

Rio Grande Silver, Inc.

ACZ Project ID: **L51684**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L51684-05	WG472363	Aluminum, total recoverable	M200.7 ICP	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG472226	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).
	WG472578	Chemical Oxygen Demand	M410.4	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).
	WG472234	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).
	WG472400	Manganese, dissolved	M200.7 ICP	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG472633	Mercury, total	M1631, Atomic Fluorescence	N1	See Case Narrative.
	WG472288	Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	H3	Sample was received and analyzed past holding time.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
			M353.2 - Automated Cadmium Reduction	H3	Sample was received and analyzed past holding time.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG472583	Nitrogen, ammonia	M350.1 Auto Salicylate w/gas diffusion	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).
	WG472619	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
			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).
	WG472356	Phosphorus, total	M365.1 - Auto Ascorbic Acid (digest)	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
			M365.1 - Auto Ascorbic Acid (digest)	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).
	WG472282	Residue, Non-Filterable (TSS) @105C	SM2540D	N1	See Case Narrative.
			SM2540D	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).
			SM2540D	Z3	Sample volume yielded a residue less than 2.5 mg
	WG472363	Silica, total recoverable	M200.7 ICP	ZS	Digestion procedures have the potential to trigger silica polymerization and precipitation, leading to low biased results. Silica chemistry is complex and polymerization kinetics are unpredictable. Dissolved and/or acid soluble silica analyses may provide more accurate measurements.
	WG472234	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).
	WG472152	Sulfide as S	SM4500S2-D	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).
	WG472240	Zinc, dissolved	M200.8 ICP-MS	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.
	WG472490	Zinc, total recoverable	M200.8 ICP-MS	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.

Rio Grande Silver, Inc.

Project ID: BO42135

Sample ID: WG-L

ACZ Sample ID: **L51684-01**

Date Sampled: 05/08/19 10:00

Date Received: 05/10/19

Sample Matrix: Surface Water

Oil & Grease, Total Recoverable

Analysis Method: **1664A - Gravimetric**

Extract Method:

Workgroup: WG472382

Analyst: kfm

Extract Date:

Analysis Date: 05/16/19 16:06

Compound	CAS	Result	QUAL	Dilution	XQ	Units	MDL	PQL
Oil and Grease			U	1		mg/L	2	10

Rio Grande Silver, Inc.

Project ID: BO42135
Sample ID: WG-9360-B

ACZ Sample ID: **L51684-02**
Date Sampled: 05/08/19 10:30
Date Received: 05/10/19
Sample Matrix: Surface Water

Oil & Grease, Total Recoverable

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

Workgroup: WG472382

Analyst: kfm

Extract Date:

Analysis Date: 05/16/19 16:07

Compound	CAS	Result	QUAL	Dilution	XQ	Units	MDL	PQL
Oil and Grease			U	1		mg/L	2	10

Rio Grande Silver, Inc.

Project ID: BO42135

Sample ID: WG-9700 W

ACZ Sample ID: **L51684-03**

Date Sampled: 05/08/19 11:15

Date Received: 05/10/19

Sample Matrix: Surface Water

Oil & Grease, Total Recoverable

Analysis Method: **1664A - Gravimetric**

Extract Method:

Workgroup: WG472382

Analyst: kfm

Extract Date:

Analysis Date: 05/16/19 16:08

Compound	CAS	Result	QUAL	Dilution	XQ	Units	MDL	PQL
Oil and Grease			U	1		mg/L	2	10

Rio Grande Silver, Inc.
Project ID: BO42135
Sample ID: WG-U

ACZ Sample ID: **L51684-04**
Date Sampled: 05/08/19 11:40
Date Received: 05/10/19
Sample Matrix: Surface Water

Oil & Grease, Total Recoverable

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

Workgroup: WG472382

Analyst: kfm

Extract Date:

Analysis Date: 05/16/19 16:10

Compound	CAS	Result	QUAL	Dilution	XQ	Units	MDL	PQL
Oil and Grease			U	1		mg/L	2	10

Rio Grande Silver, Inc.

Project ID: BO42135

Sample ID: DUPLICATE SAMPLE

ACZ Sample ID: **L51684-05**

Date Sampled: 05/08/19 10:00

Date Received: 05/10/19

Sample Matrix: Surface Water

Oil & Grease, Total Recoverable

Analysis Method: **1664A - Gravimetric**

Extract Method:

Workgroup: WG472382

Analyst: kfm

Extract Date:

Analysis Date: 05/16/19 16:11

Compound	CAS	Result	QUAL	Dilution	XQ	Units	MDL	PQL
Oil and Grease			U	1		mg/L	2	10

Report Header Explanations

<i>Batch</i>	A distinct set of samples analyzed at a specific time
<i>Found</i>	Value of the QC Type of interest
<i>Limit</i>	Upper limit for RPD, in %.
<i>Lower</i>	Lower Recovery Limit, in % (except for LCSS, mg/Kg)
<i>LCL</i>	Lower Control Limit
<i>MDL</i>	Method Detection Limit. Same as Minimum Reporting Limit unless omitted or equal to the PQL (see comment #4) Allows for instrument and annual fluctuations.
<i>PCN/SCN</i>	A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis
<i>PQL</i>	Practical Quantitation Limit. Synonymous with the EPA term "minimum level".
<i>QC</i>	True Value of the Control Sample or the amount added to the Spike
<i>Rec</i>	Amount of the true value or spike added recovered, in % (except for LCSS, mg/Kg)
<i>RPD</i>	Relative Percent Difference, calculation used for Duplicate QC Types
<i>Upper</i>	Upper Recovery Limit, in % (except for LCSS, mg/Kg)
<i>UCL</i>	Upper Control Limit
<i>Sample</i>	Value of the Sample of interest

QC Sample Types

<i>SURR</i>	Surrogate	<i>LFB</i>	Laboratory Fortified Blank
<i>INTS</i>	Internal Standard	<i>LFM</i>	Laboratory Fortified Matrix
<i>AS</i>	Analytical Spike (Post Digestion)	<i>LFMD</i>	Laboratory Fortified Matrix Duplicate
<i>ASD</i>	Analytical Spike (Post Digestion) Duplicate	<i>LRB</i>	Laboratory Reagent Blank
<i>DUP</i>	Sample Duplicate	<i>MS/MSD</i>	Matrix Spike/Matrix Spike Duplicate
<i>LCSS</i>	Laboratory Control Sample - Soil	<i>PBS</i>	Prep Blank - Soil
<i>LCSW</i>	Laboratory Control Sample - Water	<i>PBW</i>	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: **L51684**

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 - Gravimetric

WG472382

MS	Sample ID: L51739-01MS			PCN/SCN: OP190503-2			Analyzed: 05/16/19 16:18			
Compound	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
OIL AND GREASE	40	U	32.5	mg/L	81.0	78	114			

LCSW	Sample ID: WG472382LCSW			PCN/SCN: OP190503-2			Analyzed: 05/16/19 16:21			
Compound	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
OIL AND GREASE	40		39.8	mg/L	100.0	78	114			

LCSWD	Sample ID: WG472382LCSWD			PCN/SCN: OP190503-2			Analyzed: 05/16/19 16:22			
Compound	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
OIL AND GREASE	40		38.8	mg/L	97.0	78	114	3	18	

PBW	Sample ID: WG472382PBW							Analyzed: 05/16/19 15:51			
Compound	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual	
OIL AND GREASE			U	mg/L							

ACZ Project ID: **L51684**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
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No extended qualifiers associated with this analysis

Rio Grande Silver, Inc.

ACZ Project ID: **L51684**

No certification qualifiers associated with this analysis

Rio Grande Silver, Inc.
BO42135

ACZ Project ID: L51684
Date Received: 05/10/2019 11:44
Received By:
Date Printed: 5/13/2019

Receipt Verification

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

Samples/Containers

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

Some parameters were received past hold time.

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?
6138	0.3	<=6.0	14	Yes
6157	1.3	<=6.0	15	Yes

Was ice present in the shipment container(s)?

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

Rio Grande Silver, Inc.
BO42135

ACZ Project ID: L51684

Date Received: 05/10/2019 11:44

Received By:

Date Printed: 5/13/2019

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

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

