

September 24, 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: No BO# Used leftover bottles

ACZ Project ID: L54545

Randy McClure:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on September 12, 2019. This project has been assigned to ACZ's project number, L54545. 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 L54545. 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 October 24, 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.

Project ID: No BO# Used leftover bottles

Sample ID: HW-2

ACZ Sample ID: **L54545-01**

Date Sampled: 09/10/19 10:30

Date Received: 09/12/19

Sample Matrix: Groundwater

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor								09/17/19 13:36	mss2
Total Recoverable Digestion	M200.2 ICP-MS								09/17/19 14:20	rap
Total Recoverable Digestion	M200.2 ICP								09/16/19 14:13	aeH

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	1		U	*	mg/L	0.05	0.3	09/17/19 21:26	jlw
Aluminum, total recoverable	M200.7 ICP	1	3.12			mg/L	0.05	0.3	09/17/19 14:54	kja/jlw
Arsenic, dissolved	M200.8 ICP-MS	1	0.0074			mg/L	0.0002	0.001	09/18/19 15:23	mfm
Arsenic, total recoverable	M200.8 ICP-MS	1	0.0093			mg/L	0.0002	0.001	09/18/19 13:51	mfm
Cadmium, dissolved	M200.8 ICP-MS	1	0.00419			mg/L	0.00005	0.0003	09/18/19 15:23	mfm
Cadmium, total recoverable	M200.8 ICP-MS	1	0.0044			mg/L	0.00005	0.0003	09/18/19 13:51	mfm
Calcium, dissolved	M200.7 ICP	1	44.2			mg/L	0.1	0.5	09/17/19 21:26	jlw
Copper, dissolved	M200.8 ICP-MS	1	0.0009	B		mg/L	0.0008	0.002	09/18/19 15:23	mfm
Copper, total recoverable	M200.8 ICP-MS	1	0.0024			mg/L	0.0008	0.002	09/18/19 13:51	mfm
Iron, dissolved	M200.7 ICP	1		U		mg/L	0.03	0.08	09/17/19 21:26	jlw
Iron, total recoverable	M200.7 ICP	1	1.83			mg/L	0.03	0.08	09/17/19 14:54	kja/jlw
Lead, dissolved	M200.8 ICP-MS	1	0.0001	B		mg/L	0.0001	0.0005	09/18/19 15:23	mfm
Lead, total recoverable	M200.8 ICP-MS	1	0.0048			mg/L	0.0001	0.0005	09/18/19 13:51	mfm
Magnesium, dissolved	M200.7 ICP	1	4.1			mg/L	0.2	1	09/17/19 21:26	jlw
Manganese, dissolved	M200.7 ICP	1		U		mg/L	0.01	0.05	09/17/19 21:26	jlw
Manganese, total recoverable	M200.7 ICP	1	0.08			mg/L	0.01	0.05	09/17/19 14:54	kja/jlw
Mercury, total	M245.1 CVAA	1		U		mg/L	0.0002	0.001	09/16/19 15:37	slm
Potassium, dissolved	M200.7 ICP	1	3.4			mg/L	0.2	1	09/17/19 21:26	jlw
Silver, dissolved	M200.8 ICP-MS	1		U		mg/L	0.0001	0.0005	09/18/19 15:23	mfm
Silver, total recoverable	M200.8 ICP-MS	1	0.0004	B		mg/L	0.0001	0.0005	09/18/19 13:51	mfm
Sodium, dissolved	M200.7 ICP	1	6.5			mg/L	0.2	1	09/17/19 21:26	jlw
Zinc, dissolved	M200.8 ICP-MS	1	0.948			mg/L	0.004	0.01	09/18/19 15:23	mfm
Zinc, total recoverable	M200.8 ICP-MS	1	0.925		*	mg/L	0.004	0.01	09/18/19 13:51	mfm

Rio Grande Silver, Inc.

Project ID: No BO# Used leftover bottles

Sample ID: HW-2

ACZ Sample ID: **L54545-01**

Date Sampled: 09/10/19 10:30

Date Received: 09/12/19

Sample Matrix: Groundwater

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	32.3			mg/L	2	20	09/19/19 0:00	enb
Carbonate as CaCO ₃		1		U		mg/L	2	20	09/19/19 0:00	enb
Hydroxide as CaCO ₃		1		U		mg/L	2	20	09/19/19 0:00	enb
Total Alkalinity		1	32.3			mg/L	2	20	09/19/19 0:00	enb
Cation-Anion Balance	Calculation									
Cation-Anion Balance			-3.2			%			09/24/19 0:00	calc
Sum of Anions			3.2			meq/L			09/24/19 0:00	calc
Sum of Cations			3			meq/L			09/24/19 0:00	calc
Chloride	M300.0 - Ion Chromatography	2	0.98	B	*	mg/L	0.8	4	09/19/19 21:54	krh
Fluoride	SM4500F-C	1	0.3	B		mg/L	0.1	0.4	09/14/19 15:57	emk
Hardness as CaCO ₃ (dissolved)	SM2340B - Calculation		127			mg/L	0.2	5	09/24/19 0:00	calc
Nitrate as N, dissolved	Calculation: NO ₃ NO ₂ minus NO ₂		0.14	H		mg/L	0.02	0.1	09/24/19 0:00	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	0.14	H	*	mg/L	0.02	0.1	09/12/19 22:46	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1		UH	*	mg/L	0.01	0.05	09/12/19 22:46	pjb
Nitrogen, ammonia	M350.1 Auto Salicylate w/gas diffusion	1		U	*	mg/L	0.05	0.2	09/18/19 12:32	mss2
Nitrogen, organic	M351.2 & M350.1 - TKN minus NH ₃		0.2	B		mg/L	0.1	0.5	09/24/19 0:00	calc
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	1	0.2	B	*	mg/L	0.1	0.5	09/19/19 15:10	mss2
pH (lab)	SM4500H+ B									
pH		1	7.0	H		units	0.1	0.1	09/19/19 0:00	enb
pH measured at		1	20.7			C	0.1	0.1	09/19/19 0:00	enb
Residue, Filterable (TDS) @180C	SM2540C	1	260			mg/L	20	40	09/16/19 10:23	mlh
Sulfate	M300.0 - Ion Chromatography	2	119		*	mg/L	0.8	4	09/19/19 21:54	krh
Sulfide as S	SM4500S2-D	1		U	*	mg/L	0.02	0.1	09/15/19 11:56	emk
TDS (calculated)	Calculation		200			mg/L			09/24/19 0:00	calc
TDS (ratio - measured/calculated)	Calculation		1.30						09/24/19 0:00	calc

Rio Grande Silver, Inc.

Project ID: No BO# Used leftover bottles

Sample ID: GW-1

ACZ Sample ID: **L54545-02**

Date Sampled: 09/10/19 10:45

Date Received: 09/12/19

Sample Matrix: Groundwater

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor								09/17/19 13:48	mss2
Total Recoverable Digestion	M200.2 ICP-MS								09/17/19 14:38	rap
Total Recoverable Digestion	M200.2 ICP								09/16/19 14:37	aeH

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	1		U	*	mg/L	0.05	0.3	09/17/19 21:29	jlw
Aluminum, total recoverable	M200.7 ICP	1	2.59			mg/L	0.05	0.3	09/17/19 14:57	kja/jlw
Arsenic, dissolved	M200.8 ICP-MS	1	0.007			mg/L	0.0002	0.001	09/18/19 15:25	mfm
Arsenic, total recoverable	M200.8 ICP-MS	1	0.0089			mg/L	0.0002	0.001	09/18/19 13:53	mfm
Cadmium, dissolved	M200.8 ICP-MS	1	0.00416			mg/L	0.00005	0.0003	09/18/19 15:25	mfm
Cadmium, total recoverable	M200.8 ICP-MS	1	0.00436			mg/L	0.00005	0.0003	09/18/19 13:53	mfm
Calcium, dissolved	M200.7 ICP	1	43.8			mg/L	0.1	0.5	09/17/19 21:29	jlw
Copper, dissolved	M200.8 ICP-MS	1		U		mg/L	0.0008	0.002	09/18/19 15:25	mfm
Copper, total recoverable	M200.8 ICP-MS	1	0.0021			mg/L	0.0008	0.002	09/18/19 13:53	mfm
Iron, dissolved	M200.7 ICP	1		U		mg/L	0.03	0.08	09/17/19 21:29	jlw
Iron, total recoverable	M200.7 ICP	1	1.49			mg/L	0.03	0.08	09/17/19 14:57	kja/jlw
Lead, dissolved	M200.8 ICP-MS	1	0.0001	B		mg/L	0.0001	0.0005	09/18/19 15:25	mfm
Lead, total recoverable	M200.8 ICP-MS	1	0.0041			mg/L	0.0001	0.0005	09/18/19 13:53	mfm
Magnesium, dissolved	M200.7 ICP	1	4.1			mg/L	0.2	1	09/17/19 21:29	jlw
Manganese, dissolved	M200.7 ICP	1		U		mg/L	0.01	0.05	09/17/19 21:29	jlw
Manganese, total recoverable	M200.7 ICP	1	0.07			mg/L	0.01	0.05	09/17/19 14:57	kja/jlw
Mercury, total	M245.1 CVAA	1		U		mg/L	0.0002	0.001	09/17/19 16:43	slm
Potassium, dissolved	M200.7 ICP	1	3.4			mg/L	0.2	1	09/17/19 21:29	jlw
Silver, dissolved	M200.8 ICP-MS	1		U		mg/L	0.0001	0.0005	09/18/19 15:25	mfm
Silver, total recoverable	M200.8 ICP-MS	1	0.0003	B		mg/L	0.0001	0.0005	09/18/19 13:53	mfm
Sodium, dissolved	M200.7 ICP	1	6.4			mg/L	0.2	1	09/17/19 21:29	jlw
Zinc, dissolved	M200.8 ICP-MS	1	0.936			mg/L	0.004	0.01	09/18/19 15:25	mfm
Zinc, total recoverable	M200.8 ICP-MS	1	0.942		*	mg/L	0.004	0.01	09/18/19 13:53	mfm

Rio Grande Silver, Inc.

Project ID: No BO# Used leftover bottles

Sample ID: GW-1

ACZ Sample ID: **L54545-02**

Date Sampled: 09/10/19 10:45

Date Received: 09/12/19

Sample Matrix: Groundwater

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	28.5			mg/L	2	20	09/19/19 0:00	enb
Carbonate as CaCO ₃		1		U		mg/L	2	20	09/19/19 0:00	enb
Hydroxide as CaCO ₃		1		U		mg/L	2	20	09/19/19 0:00	enb
Total Alkalinity		1	28.5			mg/L	2	20	09/19/19 0:00	enb
Cation-Anion Balance	Calculation									
Cation-Anion Balance			-4.9			%			09/24/19 0:00	calc
Sum of Anions			3.2			meq/L			09/24/19 0:00	calc
Sum of Cations			2.9			meq/L			09/24/19 0:00	calc
Chloride	M300.0 - Ion Chromatography	2	1.08	B	*	mg/L	0.8	4	09/19/19 22:12	krh
Fluoride	SM4500F-C	1	0.2	B		mg/L	0.1	0.4	09/14/19 16:00	emk
Hardness as CaCO ₃ (dissolved)	SM2340B - Calculation		126			mg/L	0.2	5	09/24/19 0:00	calc
Nitrate as N, dissolved	Calculation: NO ₃ NO ₂ minus NO ₂		0.18	H		mg/L	0.02	0.1	09/24/19 0:00	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	0.18	H	*	mg/L	0.02	0.1	09/12/19 22:47	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1		UH	*	mg/L	0.01	0.05	09/12/19 22:47	pjb
Nitrogen, ammonia	M350.1 Auto Salicylate w/gas diffusion	1		U	*	mg/L	0.05	0.2	09/18/19 12:34	mss2
Nitrogen, organic	M351.2 & M350.1 - TKN minus NH ₃			U		mg/L	0.1	0.5	09/24/19 0:00	calc
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	1		U	*	mg/L	0.1	0.5	09/19/19 15:11	mss2
pH (lab)	SM4500H+ B									
pH		1	7.0	H		units	0.1	0.1	09/19/19 0:00	enb
pH measured at		1	20.7			C	0.1	0.1	09/19/19 0:00	enb
Residue, Filterable (TDS) @180C	SM2540C	1	260			mg/L	20	40	09/16/19 10:26	mlh
Sulfate	M300.0 - Ion Chromatography	2	123		*	mg/L	0.8	4	09/19/19 22:12	krh
Sulfide as S	SM4500S2-D	1		U	*	mg/L	0.02	0.1	09/15/19 12:03	emk
TDS (calculated)	Calculation		201			mg/L			09/24/19 0:00	calc
TDS (ratio - measured/calculated)	Calculation		1.29						09/24/19 0:00	calc

Rio Grande Silver, Inc.

Project ID: No BO# Used leftover bottles

Sample ID: DP-5

ACZ Sample ID: **L54545-03**

Date Sampled: 09/10/19 10:00

Date Received: 09/12/19

Sample Matrix: Groundwater

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor								09/17/19 14:00	mss2
Total Recoverable Digestion	M200.2 ICP-MS								09/17/19 14:56	rap
Total Recoverable Digestion	M200.2 ICP								09/16/19 15:00	aeH

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	1		U	*	mg/L	0.05	0.3	09/17/19 21:38	jlw
Aluminum, total recoverable	M200.7 ICP	1	0.79			mg/L	0.05	0.3	09/17/19 15:00	kja/jlw
Arsenic, dissolved	M200.8 ICP-MS	1	0.0105			mg/L	0.0002	0.001	09/18/19 15:26	mfm
Arsenic, total recoverable	M200.8 ICP-MS	1	0.0331			mg/L	0.0002	0.001	09/18/19 13:55	mfm
Cadmium, dissolved	M200.8 ICP-MS	1	0.00156			mg/L	0.00005	0.0003	09/18/19 15:26	mfm
Cadmium, total recoverable	M200.8 ICP-MS	1	0.00383			mg/L	0.00005	0.0003	09/18/19 13:55	mfm
Calcium, dissolved	M200.7 ICP	1	42.8			mg/L	0.1	0.5	09/17/19 21:38	jlw
Copper, dissolved	M200.8 ICP-MS	1	0.0016	B		mg/L	0.0008	0.002	09/18/19 15:26	mfm
Copper, total recoverable	M200.8 ICP-MS	1	0.0055			mg/L	0.0008	0.002	09/18/19 13:55	mfm
Iron, dissolved	M200.7 ICP	1	2.48			mg/L	0.03	0.08	09/17/19 21:38	jlw
Iron, total recoverable	M200.7 ICP	1	9.70			mg/L	0.03	0.08	09/17/19 15:00	kja/jlw
Lead, dissolved	M200.8 ICP-MS	1	0.0114			mg/L	0.0001	0.0005	09/18/19 15:26	mfm
Lead, total recoverable	M200.8 ICP-MS	1	0.0738			mg/L	0.0001	0.0005	09/18/19 13:55	mfm
Magnesium, dissolved	M200.7 ICP	1	4.3			mg/L	0.2	1	09/17/19 21:38	jlw
Manganese, dissolved	M200.7 ICP	1	0.25			mg/L	0.01	0.05	09/17/19 21:38	jlw
Manganese, total recoverable	M200.7 ICP	1	0.29			mg/L	0.01	0.05	09/17/19 15:00	kja/jlw
Mercury, total	M245.1 CVAA	1		U		mg/L	0.0002	0.001	09/17/19 16:44	slm
Potassium, dissolved	M200.7 ICP	1	2.9			mg/L	0.2	1	09/17/19 21:38	jlw
Silver, dissolved	M200.8 ICP-MS	1		U		mg/L	0.0001	0.0005	09/18/19 15:26	mfm
Silver, total recoverable	M200.8 ICP-MS	1		U		mg/L	0.0001	0.0005	09/18/19 13:55	mfm
Sodium, dissolved	M200.7 ICP	1	9.8			mg/L	0.2	1	09/17/19 21:38	jlw
Zinc, dissolved	M200.8 ICP-MS	1	4.58			mg/L	0.004	0.01	09/18/19 15:26	mfm
Zinc, total recoverable	M200.8 ICP-MS	1	6.41		*	mg/L	0.004	0.01	09/18/19 13:55	mfm

Rio Grande Silver, Inc.

Project ID: No BO# Used leftover bottles

Sample ID: DP-5

ACZ Sample ID: **L54545-03**

Date Sampled: 09/10/19 10:00

Date Received: 09/12/19

Sample Matrix: Groundwater

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	67.6			mg/L	2	20	09/19/19 0:00	enb
Carbonate as CaCO ₃		1		U		mg/L	2	20	09/19/19 0:00	enb
Hydroxide as CaCO ₃		1		U		mg/L	2	20	09/19/19 0:00	enb
Total Alkalinity		1	67.6			mg/L	2	20	09/19/19 0:00	enb
Cation-Anion Balance	Calculation									
Cation-Anion Balance			-1.5			%			09/24/19 0:00	calc
Sum of Anions			3.4			meq/L			09/24/19 0:00	calc
Sum of Cations			3.3			meq/L			09/24/19 0:00	calc
Chloride	M300.0 - Ion Chromatography	1	2.71		*	mg/L	0.4	2	09/19/19 22:30	krh
Fluoride	SM4500F-C	1	0.4			mg/L	0.1	0.4	09/14/19 16:03	emk
Hardness as CaCO ₃ (dissolved)	SM2340B - Calculation		125			mg/L	0.2	5	09/24/19 0:00	calc
Nitrate as N, dissolved	Calculation: NO ₃ NO ₂ minus NO ₂		0.65	H		mg/L	0.02	0.1	09/24/19 0:00	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	0.66	H	*	mg/L	0.02	0.1	09/12/19 22:49	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	0.01	BH	*	mg/L	0.01	0.05	09/12/19 22:49	pjb
Nitrogen, ammonia	M350.1 Auto Salicylate w/gas diffusion	1		U	*	mg/L	0.05	0.2	09/18/19 12:35	mss2
Nitrogen, organic	M351.2 & M350.1 - TKN minus NH ₃		0.4	B		mg/L	0.1	0.5	09/24/19 0:00	calc
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	1	0.4	B	*	mg/L	0.1	0.5	09/19/19 15:16	mss2
pH (lab)	SM4500H+ B									
pH		1	7.4	H		units	0.1	0.1	09/19/19 0:00	enb
pH measured at		1	20.3			C	0.1	0.1	09/19/19 0:00	enb
Residue, Filterable (TDS) @180C	SM2540C	1	246			mg/L	20	40	09/16/19 10:30	mlh
Sulfate	M300.0 - Ion Chromatography	1	88.7		*	mg/L	0.4	2	09/19/19 22:30	krh
Sulfide as S	SM4500S2-D	1	0.13		*	mg/L	0.02	0.1	09/15/19 12:10	emk
TDS (calculated)	Calculation		203			mg/L			09/24/19 0:00	calc
TDS (ratio - measured/calculated)	Calculation		1.21						09/24/19 0:00	calc

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)

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

Method References

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

Comments

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

For a complete list of ACZ's Extended Qualifiers, please click:

<https://acz.com/wp-content/uploads/2019/04/Ext-Qual-List.pdf>

Rio Grande Silver, Inc.

ACZ Project ID: **L54545**

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
WG482034													
WG482034PBW1	PBW	09/19/19 16:24				U	mg/L		-20	20			
WG482034LCSW3	LCSW	09/19/19 16:44	WC190916-1	820.0001		852	mg/L	104	90	110			
WG482034PQV2	PQV	09/19/19 16:55	WC190813-2	20		24	mg/L	120	50	150			
L54546-02DUP	DUP	09/19/19 20:15			136	135	mg/L				1	20	
WG482034LCSW6	LCSW	09/19/19 20:34	WC190916-1	820.0001		812	mg/L	99	90	110			
WG482034PBW2	PBW	09/19/19 20:42				5.9	mg/L		-20	20			
WG482034LCSW9	LCSW	09/20/19 11:30	WC190916-1	820.0001		887	mg/L	108	90	110			
WG482034PBW3	PBW	09/20/19 11:37				5.6	mg/L		-20	20			
WG482034LCSW12	LCSW	09/20/19 17:03	WC190916-1	820.0001		858	mg/L	105	90	110			
WG482034PBW4	PBW	09/20/19 17:10				U	mg/L		-20	20			

Aluminum, dissolved

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG481805													
WG481805ICV	ICV	09/17/19 20:55	II190916-3	2		1.998	mg/L	100	95	105			
WG481805ICB	ICB	09/17/19 21:01				U	mg/L		-0.15	0.15			
WG481805PQV	PQV	09/17/19 21:04	II190909-3	.25015		.263	mg/L	105	70	130			
WG481805SIC	SIC	09/17/19 21:07	II190906-2	200.49015		201.9	mg/L	101	1	200			
WG481805LFB	LFB	09/17/19 21:13	II190916-2	1.0012		1.122	mg/L	112	85	115			
L54545-02AS	AS	09/17/19 21:32	II190916-2	1.0012	U	1.169	mg/L	117	85	115			M1
L54545-02ASD	ASD	09/17/19 21:35	II190916-2	1.0012	U	1.233	mg/L	123	85	115	5	20	M1
WG481805CCV1	CCV	09/17/19 21:44	II190911-1	1		.974	mg/L	97	90	110			
WG481805CCB1	CCB	09/17/19 21:47				U	mg/L		-0.15	0.15			
WG481805CCV2	CCV	09/17/19 22:21	II190911-1	1		.969	mg/L	97	90	110			
WG481805CCB2	CCB	09/17/19 22:24				U	mg/L		-0.15	0.15			
WG481805CCV3	CCV	09/17/19 22:43	II190911-1	1		.991	mg/L	99	90	110			
WG481805CCB3	CCB	09/17/19 22:46				U	mg/L		-0.15	0.15			

Aluminum, total recoverable

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG481801													
WG481801ICV	ICV	09/17/19 13:56	II190916-3	2		1.999	mg/L	100	95	105			
WG481801ICB	ICB	09/17/19 14:02				U	mg/L		-0.15	0.15			
WG481801PQV	PQV	09/17/19 14:05	II190909-3	.25015		.266	mg/L	106	70	130			
WG481801SIC	SIC	09/17/19 14:08	II190906-2	200.49015		200.9	mg/L	100	1	200			
WG481661LRB	LRB	09/17/19 14:14				U	mg/L		-0.11	0.11			
WG481661LFB	LFB	09/17/19 14:17	II190827-2	1.0012		1.082	mg/L	108	85	115			
L54508-01LFM	LFM	09/17/19 14:23	II190827-2	1.0012	.17	1.224	mg/L	105	70	130			
L54508-01LFMD	LFMD	09/17/19 14:26	II190827-2	1.0012	.17	1.259	mg/L	109	70	130	3	20	
WG481801CCV1	CCV	09/17/19 14:45	II190911-1	1		.961	mg/L	96	90	110			
WG481801CCB1	CCB	09/17/19 14:48				U	mg/L		-0.15	0.15			
WG481801CCV2	CCV	09/17/19 15:03	II190911-1	1		.978	mg/L	98	90	110			
WG481801CCB2	CCB	09/17/19 15:06				U	mg/L		-0.15	0.15			

Rio Grande Silver, Inc.

ACZ Project ID: **L54545**

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

Arsenic, dissolved

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG481929													
WG481929ICV	ICV	09/18/19 14:54	MS190806-2	.05		.05177	mg/L	104	90	110			
WG481929ICB	ICB	09/18/19 14:56				U	mg/L		-0.00044	0.00044			
WG481929LFB	LFB	09/18/19 14:58	MS190905-3	.05005		.0482	mg/L	96	85	115			
L54528-01AS	AS	09/18/19 15:07	MS190905-3	.05005	.0008	.05002	mg/L	98	70	130			
L54528-01ASD	ASD	09/18/19 15:08	MS190905-3	.05005	.0008	.05057	mg/L	99	70	130	1	20	
WG481929CCV1	CCV	09/18/19 15:16	MS190917-3	.1001		.10238	mg/L	102	90	110			
WG481929CCB1	CCB	09/18/19 15:17				U	mg/L		-0.0006	0.0006			
L54546-04AS	AS	09/18/19 15:35	MS190905-3	.05005	.0004	.05729	mg/L	114	70	130			
WG481929CCV2	CCV	09/18/19 15:37	MS190917-3	.1001		.09916	mg/L	99	90	110			
WG481929CCB2	CCB	09/18/19 15:39				U	mg/L		-0.0006	0.0006			
L54546-04ASD	ASD	09/18/19 15:41	MS190905-3	.05005	.0004	.05691	mg/L	113	70	130	1	20	
WG481929CCV3	CCV	09/18/19 15:50	MS190917-3	.1001		.10084	mg/L	101	90	110			
WG481929CCB3	CCB	09/18/19 15:52				U	mg/L		-0.0006	0.0006			

Arsenic, total recoverable

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG481910													
WG481910ICV	ICV	09/18/19 13:13	MS190806-2	.05		.05215	mg/L	104	90	110			
WG481910ICB	ICB	09/18/19 13:15				U	mg/L		-0.0006	0.0006			
WG481764LRB	LRB	09/18/19 13:17				U	mg/L		-0.00044	0.00044			
WG481764LFB	LFB	09/18/19 13:19	MS190905-3	.05005		.04844	mg/L	97	85	115			
WG481910CCV1	CCV	09/18/19 13:35	MS190917-3	.1001		.10025	mg/L	100	90	110			
WG481910CCB1	CCB	09/18/19 13:37				U	mg/L		-0.0006	0.0006			
WG481910CCV2	CCV	09/18/19 13:56	MS190917-3	.1001		.10234	mg/L	102	90	110			
WG481910CCB2	CCB	09/18/19 13:58				U	mg/L		-0.0006	0.0006			
L54545-03LFM	LFM	09/18/19 14:00	MS190905-3	.05005	.0331	.07989	mg/L	93	70	130			
L54545-03LFMD	LFMD	09/18/19 14:02	MS190905-3	.05005	.0331	.08071	mg/L	95	70	130	1	20	
WG481910CCV3	CCV	09/18/19 14:11	MS190917-3	.1001		.10017	mg/L	100	90	110			
WG481910CCB3	CCB	09/18/19 14:13				U	mg/L		-0.0006	0.0006			

Cadmium, dissolved

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG481929													
WG481929ICV	ICV	09/18/19 14:54	MS190806-2	.05		.051686	mg/L	103	90	110			
WG481929ICB	ICB	09/18/19 14:56				U	mg/L		-0.00011	0.00011			
WG481929LFB	LFB	09/18/19 14:58	MS190905-3	.05005		.047626	mg/L	95	85	115			
L54528-01AS	AS	09/18/19 15:07	MS190905-3	.05005	U	.048315	mg/L	97	70	130			
L54528-01ASD	ASD	09/18/19 15:08	MS190905-3	.05005	U	.048586	mg/L	97	70	130	1	20	
WG481929CCV1	CCV	09/18/19 15:16	MS190917-3	.1001		.099752	mg/L	100	90	110			
WG481929CCB1	CCB	09/18/19 15:17				U	mg/L		-0.00015	0.00015			
L54546-04AS	AS	09/18/19 15:35	MS190905-3	.05005	U	.053734	mg/L	107	70	130			
WG481929CCV2	CCV	09/18/19 15:37	MS190917-3	.1001		.098898	mg/L	99	90	110			
WG481929CCB2	CCB	09/18/19 15:39				U	mg/L		-0.00015	0.00015			
L54546-04ASD	ASD	09/18/19 15:41	MS190905-3	.05005	U	.053495	mg/L	107	70	130	0	20	
WG481929CCV3	CCV	09/18/19 15:50	MS190917-3	.1001		.098818	mg/L	99	90	110			
WG481929CCB3	CCB	09/18/19 15:52				U	mg/L		-0.00015	0.00015			

Rio Grande Silver, Inc.

ACZ Project ID: **L54545**

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

Cadmium, total recoverable

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG481910													
WG481910ICV	ICV	09/18/19 13:13	MS190806-2	.05		.05093	mg/L	102	90	110			
WG481910ICB	ICB	09/18/19 13:15				U	mg/L		-0.00015	0.00015			
WG481764LRB	LRB	09/18/19 13:17				U	mg/L		-0.00011	0.00011			
WG481764LFB	LFB	09/18/19 13:19	MS190905-3	.05005		.047741	mg/L	95	85	115			
WG481910CCV1	CCV	09/18/19 13:35	MS190917-3	.1001		.098142	mg/L	98	90	110			
WG481910CCB1	CCB	09/18/19 13:37				U	mg/L		-0.00015	0.00015			
WG481910CCV2	CCV	09/18/19 13:56	MS190917-3	.1001		.098472	mg/L	98	90	110			
WG481910CCB2	CCB	09/18/19 13:58				U	mg/L		-0.00015	0.00015			
L54545-03LFM	LFM	09/18/19 14:00	MS190905-3	.05005	.00383	.052506	mg/L	97	70	130			
L54545-03LFMD	LFMD	09/18/19 14:02	MS190905-3	.05005	.00383	.052713	mg/L	98	70	130	0	20	
WG481910CCV3	CCV	09/18/19 14:11	MS190917-3	.1001		.100824	mg/L	101	90	110			
WG481910CCB3	CCB	09/18/19 14:13				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
WG481805													
WG481805ICV	ICV	09/17/19 20:55	II190916-3	100		96.89	mg/L	97	95	105			
WG481805ICB	ICB	09/17/19 21:01				U	mg/L		-0.3	0.3			
WG481805PQV	PQV	09/17/19 21:04	II190909-3	.5004		.45	mg/L	90	70	130			
WG481805SIC	SIC	09/17/19 21:07	II190906-2	200.6604		195.4	mg/L	97	1	200			
WG481805LFB	LFB	09/17/19 21:13	II190916-2	68.01207		68.93	mg/L	101	85	115			
L54545-02AS	AS	09/17/19 21:32	II190916-2	68.01207	43.8	109.2	mg/L	96	85	115			
L54545-02ASD	ASD	09/17/19 21:35	II190916-2	68.01207	43.8	114.1	mg/L	103	85	115	4	20	
WG481805CCV1	CCV	09/17/19 21:44	II190911-1	50		46.62	mg/L	93	90	110			
WG481805CCB1	CCB	09/17/19 21:47				U	mg/L		-0.3	0.3			
WG481805CCV2	CCV	09/17/19 22:21	II190911-1	50		46.43	mg/L	93	90	110			
WG481805CCB2	CCB	09/17/19 22:24				U	mg/L		-0.3	0.3			
WG481805CCV3	CCV	09/17/19 22:43	II190911-1	50		48.02	mg/L	96	90	110			
WG481805CCB3	CCB	09/17/19 22:46				U	mg/L		-0.3	0.3			

Rio Grande Silver, Inc.

ACZ Project ID: **L54545**

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Chloride

M300.0 - Ion Chromatography

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG478870													
WG478870ICV	ICV	08/06/19 18:37	WI190530-11	19.94		19.9	mg/L	100	90	110			
WG478870ICB	ICB	08/06/19 18:55				U	mg/L		-0.4	0.4			
WG481912													
WG481912CCV1	CCV	09/18/19 15:29	WI190828-1	50		49.5	mg/L	99	90	110			
WG481912CCB1	CCB	09/18/19 15:47				U	mg/L		-0.4	0.4			
WG481912PQV	PQV	09/18/19 16:05	WI190807-2	1.994		1.77	mg/L	89	70	130			
WG481912LFB1	LFB	09/18/19 16:23	WI190722-1	30		29.7	mg/L	99	90	110			
WG481912CCV2	CCV	09/19/19 13:32	WI190828-1	50		49.6	mg/L	99	90	110			
WG481912CCB2	CCB	09/19/19 13:50				U	mg/L		-0.4	0.4			
WG481912CCV3	CCV	09/19/19 17:07	WI190828-1	50		49.7	mg/L	99	90	110			
WG481912CCB3	CCB	09/19/19 17:25				U	mg/L		-0.4	0.4			
WG481912LFB2	LFB	09/19/19 19:30	WI190722-1	30		29.9	mg/L	100	90	110			
L54529-19DUP	DUP	09/19/19 20:06			3.29	3.26	mg/L				1	20	RA
WG481912CCV4	CCV	09/19/19 20:42	WI190828-1	50		49.7	mg/L	99	90	110			
WG481912CCB4	CCB	09/19/19 21:00				U	mg/L		-0.4	0.4			
L54529-20AS	AS	09/19/19 21:18	WI190722-1	30	6.46	37.3	mg/L	103	90	110			
WG481912CCV5	CCV	09/19/19 23:59	WI190828-1	50		49.7	mg/L	99	90	110			
WG481912CCB5	CCB	09/20/19 0:17				U	mg/L		-0.4	0.4			
WG481912CCV6	CCV	09/20/19 13:46	WI190828-1	50		49.7	mg/L	99	90	110			
WG481912CCB6	CCB	09/20/19 14:04				U	mg/L		-0.4	0.4			
WG481912PQV1	PQV	09/20/19 14:22	WI190807-2	1.994		1.77	mg/L	89	70	130			
WG481912CCV7	CCV	09/20/19 15:34	WI190828-1	50		49.5	mg/L	99	90	110			
WG481912CCB7	CCB	09/20/19 15:51				U	mg/L		-0.4	0.4			

Copper, dissolved

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG481929													
WG481929ICV	ICV	09/18/19 14:54	MS190806-2	.05		.05311	mg/L	106	90	110			
WG481929ICB	ICB	09/18/19 14:56				U	mg/L		-0.00176	0.00176			
WG481929LFB	LFB	09/18/19 14:58	MS190905-3	.0501		.04792	mg/L	96	85	115			
L54528-01AS	AS	09/18/19 15:07	MS190905-3	.0501	U	.04215	mg/L	84	70	130			
L54528-01ASD	ASD	09/18/19 15:08	MS190905-3	.0501	U	.04223	mg/L	84	70	130	0	20	
WG481929CCV1	CCV	09/18/19 15:16	MS190917-3	.2505		.24808	mg/L	99	90	110			
WG481929CCB1	CCB	09/18/19 15:17				U	mg/L		-0.0024	0.0024			
L54546-04AS	AS	09/18/19 15:35	MS190905-3	.0501	.0013	.04963	mg/L	96	70	130			
WG481929CCV2	CCV	09/18/19 15:37	MS190917-3	.2505		.24104	mg/L	96	90	110			
WG481929CCB2	CCB	09/18/19 15:39				U	mg/L		-0.0024	0.0024			
L54546-04ASD	ASD	09/18/19 15:41	MS190905-3	.0501	.0013	.04916	mg/L	96	70	130	1	20	
WG481929CCV3	CCV	09/18/19 15:50	MS190917-3	.2505		.23765	mg/L	95	90	110			
WG481929CCB3	CCB	09/18/19 15:52				U	mg/L		-0.0024	0.0024			

Rio Grande Silver, Inc.

ACZ Project ID: **L54545**

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
WG481910													
WG481910ICV	ICV	09/18/19 13:13	MS190806-2	.05		.05351	mg/L	107	90	110			
WG481910ICB	ICB	09/18/19 13:15				U	mg/L		-0.0024	0.0024			
WG481764LRB	LRB	09/18/19 13:17				U	mg/L		-0.00176	0.00176			
WG481764LFB	LFB	09/18/19 13:19	MS190905-3	.0501		.0478	mg/L	95	85	115			
WG481910CCV1	CCV	09/18/19 13:35	MS190917-3	.2505		.24584	mg/L	98	90	110			
WG481910CCB1	CCB	09/18/19 13:37				U	mg/L		-0.0024	0.0024			
WG481910CCV2	CCV	09/18/19 13:56	MS190917-3	.2505		.24703	mg/L	99	90	110			
WG481910CCB2	CCB	09/18/19 13:58				U	mg/L		-0.0024	0.0024			
L54545-03LFM	LFM	09/18/19 14:00	MS190905-3	.0501	.0055	.05001	mg/L	89	70	130			
L54545-03LFMD	LFMD	09/18/19 14:02	MS190905-3	.0501	.0055	.05018	mg/L	89	70	130	0	20	
WG481910CCV3	CCV	09/18/19 14:11	MS190917-3	.2505		.24072	mg/L	96	90	110			
WG481910CCB3	CCB	09/18/19 14:13				U	mg/L		-0.0024	0.0024			

Fluoride

SM4500F-C

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG481641													
WG481641ICV	ICV	09/14/19 10:46	WC190911-1	2.004		2.03	mg/L	101	90	110			
WG481641ICB	ICB	09/14/19 10:52				U	mg/L		-0.3	0.3			
WG481641PQV	PQV	09/14/19 10:56	WC190913-1	.3507		.34	mg/L	97	70	130			
WG481641LFB1	LFB	09/14/19 10:59	WC190409-6	5.01		4.98	mg/L	99	90	110			
WG481641CCV5	CCV	09/14/19 13:31	WC190911-1	2.004		2.01	mg/L	100	90	110			
WG481641CCB4	CCB	09/14/19 13:35				U	mg/L		-0.3	0.3			
WG481641CCV6	CCV	09/14/19 14:19	WC190911-1	2.004		1.91	mg/L	95	90	110			
WG481641CCV7	CCV	09/14/19 14:22	WC190911-1	2.004		1.91	mg/L	95	90	110			
WG481641CCB5	CCB	09/14/19 14:30				U	mg/L		-0.3	0.3			
WG481641LFB2	LFB	09/14/19 14:33	WC190409-6	5.01		4.7	mg/L	94	90	110			
WG481641CCV8	CCV	09/14/19 14:51	WC190911-1	2.004		1.93	mg/L	96	90	110			
WG481641CCB6	CCB	09/14/19 14:56				U	mg/L		-0.3	0.3			
L54526-04AS	AS	09/14/19 15:39	WC190409-6	5.01	U	4.66	mg/L	93	90	110			
WG481641CCV9	CCV	09/14/19 15:43	WC190911-1	2.004		1.96	mg/L	98	90	110			
WG481641CCB7	CCB	09/14/19 15:49				U	mg/L		-0.3	0.3			
L54526-04ASD	ASD	09/14/19 15:53	WC190409-6	5.01	U	4.57	mg/L	91	90	110	2	20	
WG481641CCV10	CCV	09/14/19 16:29	WC190911-1	2.004		1.89	mg/L	94	90	110			
WG481641CCB7	CCB	09/14/19 16:37				U	mg/L		-0.3	0.3			

Rio Grande Silver, Inc.

ACZ Project ID: **L54545**

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
WG481805													
WG481805ICV	ICV	09/17/19 20:55	II190916-3	2		1.909	mg/L	95	95	105			
WG481805ICB	ICB	09/17/19 21:01				U	mg/L		-0.09	0.09			
WG481805PQV	PQV	09/17/19 21:04	II190909-3	.075135		.072	mg/L	96	70	130			
WG481805SIC	SIC	09/17/19 21:07	II190906-2	200.435135		186.9	mg/L	93	1	200			
WG481805LFB	LFB	09/17/19 21:13	II190916-2	1.0018		1.048	mg/L	105	85	115			
L54545-02AS	AS	09/17/19 21:32	II190916-2	1.0018	U	1.057	mg/L	106	85	115			
L54545-02ASD	ASD	09/17/19 21:35	II190916-2	1.0018	U	1.091	mg/L	109	85	115	3	20	
WG481805CCV1	CCV	09/17/19 21:44	II190911-1	1		.936	mg/L	94	90	110			
WG481805CCB1	CCB	09/17/19 21:47				U	mg/L		-0.09	0.09			
WG481805CCV2	CCV	09/17/19 22:21	II190911-1	1		.929	mg/L	93	90	110			
WG481805CCB2	CCB	09/17/19 22:24				U	mg/L		-0.09	0.09			
WG481805CCV3	CCV	09/17/19 22:43	II190911-1	1		.963	mg/L	96	90	110			
WG481805CCB3	CCB	09/17/19 22:46				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
WG481801													
WG481801ICV	ICV	09/17/19 13:56	II190916-3	2		1.934	mg/L	97	95	105			
WG481801ICB	ICB	09/17/19 14:02				U	mg/L		-0.09	0.09			
WG481801PQV	PQV	09/17/19 14:05	II190909-3	.075135		.078	mg/L	104	70	130			
WG481801SIC	SIC	09/17/19 14:08	II190906-2	200.435135		186.7	mg/L	93	1	200			
WG481661LRB	LRB	09/17/19 14:14				U	mg/L		-0.066	0.066			
WG481661LFB	LFB	09/17/19 14:17	II190827-2	1.0018		1.026	mg/L	102	85	115			
L54508-01LFM	LFM	09/17/19 14:23	II190827-2	1.0018	.58	1.661	mg/L	108	70	130			
L54508-01LFMD	LFMD	09/17/19 14:26	II190827-2	1.0018	.58	1.574	mg/L	99	70	130	5	20	
WG481801CCV1	CCV	09/17/19 14:45	II190911-1	1		.938	mg/L	94	90	110			
WG481801CCB1	CCB	09/17/19 14:48				U	mg/L		-0.09	0.09			
WG481801CCV2	CCV	09/17/19 15:03	II190911-1	1		.935	mg/L	94	90	110			
WG481801CCB2	CCB	09/17/19 15:06				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
WG481929													
WG481929ICV	ICV	09/18/19 14:54	MS190806-2	.05		.05192	mg/L	104	90	110			
WG481929ICB	ICB	09/18/19 14:56				U	mg/L		-0.00022	0.00022			
WG481929LFB	LFB	09/18/19 14:58	MS190905-3	.05005		.04674	mg/L	93	85	115			
L54528-01AS	AS	09/18/19 15:07	MS190905-3	.05005	U	.05197	mg/L	104	70	130			
L54528-01ASD	ASD	09/18/19 15:08	MS190905-3	.05005	U	.05149	mg/L	103	70	130	1	20	
WG481929CCV1	CCV	09/18/19 15:16	MS190917-3	.25025		.24811	mg/L	99	90	110			
WG481929CCB1	CCB	09/18/19 15:17				U	mg/L		-0.0003	0.0003			
L54546-04AS	AS	09/18/19 15:35	MS190905-3	.05005	.0002	.05236	mg/L	104	70	130			
WG481929CCV2	CCV	09/18/19 15:37	MS190917-3	.25025		.24611	mg/L	98	90	110			
WG481929CCB2	CCB	09/18/19 15:39				U	mg/L		-0.0003	0.0003			
L54546-04ASD	ASD	09/18/19 15:41	MS190905-3	.05005	.0002	.05311	mg/L	106	70	130	1	20	
WG481929CCV3	CCV	09/18/19 15:50	MS190917-3	.25025		.2459	mg/L	98	90	110			
WG481929CCB3	CCB	09/18/19 15:52				U	mg/L		-0.0003	0.0003			

Rio Grande Silver, Inc.

ACZ Project ID: **L54545**

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
WG481910													
WG481910ICV	ICV	09/18/19 13:13	MS190806-2	.05		.05324	mg/L	106	90	110			
WG481910ICB	ICB	09/18/19 13:15				U	mg/L		-0.0003	0.0003			
WG481764LRB	LRB	09/18/19 13:17				U	mg/L		-0.00022	0.00022			
WG481764LFB	LFB	09/18/19 13:19	MS190905-3	.05005		.04814	mg/L	96	85	115			
WG481910CCV1	CCV	09/18/19 13:35	MS190917-3	.25025		.25061	mg/L	100	90	110			
WG481910CCB1	CCB	09/18/19 13:37				U	mg/L		-0.0003	0.0003			
WG481910CCV2	CCV	09/18/19 13:56	MS190917-3	.25025		.251	mg/L	100	90	110			
WG481910CCB2	CCB	09/18/19 13:58				U	mg/L		-0.0003	0.0003			
L54545-03LFM	LFM	09/18/19 14:00	MS190905-3	.05005	.0738	.12354	mg/L	99	70	130			
L54545-03LFMD	LFMD	09/18/19 14:02	MS190905-3	.05005	.0738	.12331	mg/L	99	70	130	0	20	
WG481910CCV3	CCV	09/18/19 14:11	MS190917-3	.25025		.24457	mg/L	98	90	110			
WG481910CCB3	CCB	09/18/19 14:13				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
WG481805													
WG481805ICV	ICV	09/17/19 20:55	II190916-3	100		96.48	mg/L	96	95	105			
WG481805ICB	ICB	09/17/19 21:01				U	mg/L		-0.6	0.6			
WG481805PQV	PQV	09/17/19 21:04	II190909-3	1		.97	mg/L	97	70	130			
WG481805SIC	SIC	09/17/19 21:07	II190906-2	201		200.6	mg/L	100	1	200			
WG481805LFB	LFB	09/17/19 21:13	II190916-2	49.99809		49.68	mg/L	99	85	115			
L54545-02AS	AS	09/17/19 21:32	II190916-2	49.99809	4.1	53.55	mg/L	99	85	115			
L54545-02ASD	ASD	09/17/19 21:35	II190916-2	49.99809	4.1	56.13	mg/L	104	85	115	5	20	
WG481805CCV1	CCV	09/17/19 21:44	II190911-1	50		46.48	mg/L	93	90	110			
WG481805CCB1	CCB	09/17/19 21:47				U	mg/L		-0.6	0.6			
WG481805CCV2	CCV	09/17/19 22:21	II190911-1	50		46.23	mg/L	92	90	110			
WG481805CCB2	CCB	09/17/19 22:24				U	mg/L		-0.6	0.6			
WG481805CCV3	CCV	09/17/19 22:43	II190911-1	50		47.41	mg/L	95	90	110			
WG481805CCB3	CCB	09/17/19 22:46				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
WG481805													
WG481805ICV	ICV	09/17/19 20:55	II190916-3	2		1.931	mg/L	97	95	105			
WG481805ICB	ICB	09/17/19 21:01				U	mg/L		-0.03	0.03			
WG481805PQV	PQV	09/17/19 21:04	II190909-3	.0501		.05	mg/L	100	70	130			
WG481805SIC	SIC	09/17/19 21:07	II190906-2	50.2001		46.12	mg/L	92	1	200			
WG481805LFB	LFB	09/17/19 21:13	II190916-2	.5015		.515	mg/L	103	85	115			
L54545-02AS	AS	09/17/19 21:32	II190916-2	.5015	U	.514	mg/L	102	85	115			
L54545-02ASD	ASD	09/17/19 21:35	II190916-2	.5015	U	.527	mg/L	105	85	115	2	20	
WG481805CCV1	CCV	09/17/19 21:44	II190911-1	1		.945	mg/L	95	90	110			
WG481805CCB1	CCB	09/17/19 21:47				U	mg/L		-0.03	0.03			
WG481805CCV2	CCV	09/17/19 22:21	II190911-1	1		.945	mg/L	95	90	110			
WG481805CCB2	CCB	09/17/19 22:24				U	mg/L		-0.03	0.03			
WG481805CCV3	CCV	09/17/19 22:43	II190911-1	1		.968	mg/L	97	90	110			
WG481805CCB3	CCB	09/17/19 22:46				U	mg/L		-0.03	0.03			

Rio Grande Silver, Inc.

ACZ Project ID: **L54545**

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
WG481801													
WG481801ICV	ICV	09/17/19 13:56	II190916-3	2		1.922	mg/L	96	95	105			
WG481801ICB	ICB	09/17/19 14:02				U	mg/L		-0.03	0.03			
WG481801PQV	PQV	09/17/19 14:05	II190909-3	.0501		.053	mg/L	106	70	130			
WG481801SIC	SIC	09/17/19 14:08	II190906-2	50.2001		46.16	mg/L	92	1	200			
WG481661LRB	LRB	09/17/19 14:14				U	mg/L		-0.022	0.022			
WG481661LFB	LFB	09/17/19 14:17	II190827-2	.5015		.506	mg/L	101	85	115			
L54508-01LFM	LFM	09/17/19 14:23	II190827-2	.5015	.02	.508	mg/L	97	70	130			
L54508-01LFMD	LFMD	09/17/19 14:26	II190827-2	.5015	.02	.52	mg/L	100	70	130	2	20	
WG481801CCV1	CCV	09/17/19 14:45	II190911-1	1		.948	mg/L	95	90	110			
WG481801CCB1	CCB	09/17/19 14:48				U	mg/L		-0.03	0.03			
WG481801CCV2	CCV	09/17/19 15:03	II190911-1	1		.959	mg/L	96	90	110			
WG481801CCB2	CCB	09/17/19 15:06				U	mg/L		-0.03	0.03			

Mercury, total

M245.1 CVAA

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG481625													
WG481625ICV	ICV	09/16/19 15:11	HG190911-3	.004995		.00491	mg/L	98	95	105			
WG481625ICB	ICB	09/16/19 15:12				U	mg/L		-0.0002	0.0002			
WG481625PQV	PQV	09/16/19 15:13	HG190911-5	.001001		.00093	mg/L	93	70	130			
WG481625LRB	LRB	09/16/19 15:14				U	mg/L		-0.00044	0.00044			
WG481625LFB	LFB	09/16/19 15:15	HG190911-6	.002002		.00186	mg/L	93	85	115			
WG481625CCV1	CCV	09/16/19 15:22	HG190911-3	.004995		.0049	mg/L	98	90	110			
WG481625CCB1	CCB	09/16/19 15:23				U	mg/L		-0.0002	0.0002			
L54506-01LFM	LFM	09/16/19 15:30	HG190911-6	.002002	U	.00183	mg/L	91	85	115			
L54506-01LFMD	LFMD	09/16/19 15:31	HG190911-6	.002002	U	.00184	mg/L	92	85	115	1	20	
WG481625CCV2	CCV	09/16/19 15:34	HG190911-3	.004995		.00483	mg/L	97	90	110			
WG481625CCB2	CCB	09/16/19 15:35				U	mg/L		-0.0002	0.0002			
WG481625CCV3	CCV	09/16/19 15:42	HG190911-3	.004995		.00487	mg/L	97	90	110			
WG481625CCB3	CCB	09/16/19 15:43				U	mg/L		-0.0002	0.0002			
WG481697													
WG481697ICV	ICV	09/17/19 15:43	HG190911-3	.004995		.00508	mg/L	102	95	105			
WG481697ICB	ICB	09/17/19 15:44				U	mg/L		-0.0002	0.0002			
WG481698													
WG481698CCV1	CCV	09/17/19 16:16	HG190911-3	.004995		.00498	mg/L	100	90	110			
WG481698CCB1	CCB	09/17/19 16:17				U	mg/L		-0.0002	0.0002			
WG481698PQV	PQV	09/17/19 16:18	HG190911-5	.001001		.00096	mg/L	96	70	130			
WG481698LRB	LRB	09/17/19 16:19				U	mg/L		-0.00044	0.00044			
WG481698LFB	LFB	09/17/19 16:20	HG190911-6	.002002		.00192	mg/L	96	85	115			
WG481698CCV2	CCV	09/17/19 16:27	HG190911-3	.004995		.0049	mg/L	98	90	110			
WG481698CCB2	CCB	09/17/19 16:28				U	mg/L		-0.0002	0.0002			
L54520-01LFM	LFM	09/17/19 16:36	HG190911-6	.002002	U	.0019	mg/L	95	85	115			
L54520-01LFMD	LFMD	09/17/19 16:37	HG190911-6	.002002	U	.00194	mg/L	97	85	115	2	20	
WG481698CCV3	CCV	09/17/19 16:39	HG190911-3	.004995		.00481	mg/L	96	90	110			
WG481698CCB3	CCB	09/17/19 16:39				U	mg/L		-0.0002	0.0002			
WG481698CCV4	CCV	09/17/19 16:46	HG190911-3	.004995		.00484	mg/L	97	90	110			
WG481698CCB4	CCB	09/17/19 16:47				U	mg/L		-0.0002	0.0002			

Rio Grande Silver, Inc.

ACZ Project ID: **L54545**

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
WG481563													
WG481563ICV	ICV	09/12/19 22:07	WI190809-1	2.416		2.525	mg/L	105	90	110			
WG481563ICB	ICB	09/12/19 22:09				U	mg/L		-0.02	0.02			
WG481563LFB	LFB	09/12/19 22:12	WI190405-9	2		2.02	mg/L	101	90	110			
WG481563CCV1	CCV	09/12/19 22:22	WI190912-1	2		2.038	mg/L	102	90	110			
WG481563CCB1	CCB	09/12/19 22:25				U	mg/L		-0.02	0.02			
WG481563CCV2	CCV	09/12/19 22:39	WI190912-1	2		2.045	mg/L	102	90	110			
WG481563CCB2	CCB	09/12/19 22:42				U	mg/L		-0.02	0.02			
WG481563CCV3	CCV	09/12/19 22:57	WI190912-1	2		2.035	mg/L	102	90	110			
WG481563CCB3	CCB	09/12/19 23:00				U	mg/L		-0.02	0.02			
L54523-01AS	AS	09/12/19 23:05	WI190405-9	10	8	17.44	mg/L	94	90	110			
L54523-02DUP	DUP	09/12/19 23:07			11.3	11.26	mg/L				0	20	
WG481563CCV4	CCV	09/12/19 23:12	WI190912-1	2		2.032	mg/L	102	90	110			
WG481563CCB4	CCB	09/12/19 23:15				U	mg/L		-0.02	0.02			

Nitrite as N, dissolved

M353.2 - Automated Cadmium Reduction

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG481563													
WG481563ICV	ICV	09/12/19 22:07	WI190809-1	.609		.626	mg/L	103	90	110			
WG481563ICB	ICB	09/12/19 22:09				U	mg/L		-0.01	0.01			
WG481563LFB	LFB	09/12/19 22:12	WI190405-9	1		.999	mg/L	100	90	110			
WG481563CCV1	CCV	09/12/19 22:22	WI190912-1	1		.997	mg/L	100	90	110			
WG481563CCB1	CCB	09/12/19 22:25				U	mg/L		-0.01	0.01			
L54523-01AS	AS	09/12/19 22:34	WI190405-9	1	.02	1.017	mg/L	100	90	110			
L54523-02DUP	DUP	09/12/19 22:37			.05	.05	mg/L				0	20	RA
WG481563CCV2	CCV	09/12/19 22:39	WI190912-1	1		.994	mg/L	99	90	110			
WG481563CCB2	CCB	09/12/19 22:42				U	mg/L		-0.01	0.01			
WG481563CCV3	CCV	09/12/19 22:57	WI190912-1	1		.992	mg/L	99	90	110			
WG481563CCB3	CCB	09/12/19 23:00				U	mg/L		-0.01	0.01			

Rio Grande Silver, Inc.

ACZ Project ID: **L54545**

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

Nitrogen, ammonia

M350.1 Auto Salicylate w/gas diffusion

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG481891													
WG481891ICV	ICV	09/18/19 10:58	WI190904-1	12.012		12.101	mg/L	101	90	110			
WG481891ICB	ICB	09/18/19 11:00				U	mg/L		-0.05	0.05			
WG481898													
WG481898CCV1	CCV	09/18/19 12:21	WI190831-1	10.01		9.652	mg/L	96	90	110			
WG481898CCB1	CCB	09/18/19 12:22				U	mg/L		-0.05	0.05			
WG481898LFB1	LFB	09/18/19 12:24	WI180918-3	10		9.578	mg/L	96	90	110			
L54524-02DUP	DUP	09/18/19 12:27			U	U	mg/L				0	20	RA
L54524-03AS	AS	09/18/19 12:30	WI180918-3	10	U	9.51	mg/L	95	90	110			
WG481898CCV2	CCV	09/18/19 12:38	WI190831-1	10.01		9.459	mg/L	94	90	110			
WG481898CCB2	CCB	09/18/19 12:40				U	mg/L		-0.05	0.05			
WG481898CCV3	CCV	09/18/19 12:56	WI190831-1	10.01		9.232	mg/L	92	90	110			
WG481898CCB3	CCB	09/18/19 12:57				U	mg/L		-0.05	0.05			
WG481898LFB2	LFB	09/18/19 13:06	WI180918-3	10		9.451	mg/L	95	90	110			
WG481898CCV4	CCV	09/18/19 13:13	WI190831-1	10.01		9.272	mg/L	93	90	110			
WG481898CCB4	CCB	09/18/19 13:15				U	mg/L		-0.05	0.05			
WG481898CCV5	CCV	09/18/19 13:34	WI190831-1	10.01		9.219	mg/L	92	90	110			
WG481898CCB5	CCB	09/18/19 13:35				U	mg/L		-0.05	0.05			

Nitrogen, total Kjeldahl

M351.2 - TKN by Block Digester

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG482010													
WG482010ICV	ICV	09/19/19 14:07	WI190903-4	4		4.03	mg/L	101	90	110			
WG482010ICB	ICB	09/19/19 14:08				U	mg/L		-0.1	0.1			
WG482019													
WG482019CCV1	CCV	09/19/19 14:46	WI190903-2	2.5		2.55	mg/L	102	90	110			
WG482019CCB1	CCB	09/19/19 14:47				U	mg/L		-0.1	0.1			
WG481779LRB	LRB	09/19/19 14:48				U	mg/L		-0.1	0.1			
WG482019CCV2	CCV	09/19/19 14:59	WI190903-2	2.5		2.59	mg/L	104	90	110			
WG482019CCB2	CCB	09/19/19 15:00				U	mg/L		-0.1	0.1			
L54529-19DUP	DUP	09/19/19 15:07			.4	.4	mg/L				0	20	RA
L54529-20LFM	LFM	09/19/19 15:09	WI190729-2	2.5	.1	3.28	mg/L	127	90	110			M1
WG482019CCV3	CCV	09/19/19 15:13	WI190903-2	2.5		2.61	mg/L	104	90	110			
WG482019CCB3	CCB	09/19/19 15:14				U	mg/L		-0.1	0.1			
WG481779LFB	LFB	09/19/19 15:15	WI190729-2	2.5		2.71	mg/L	108	90	110			
WG482019CCV4	CCV	09/19/19 15:25	WI190903-2	2.5		2.6	mg/L	104	90	110			
WG482019CCB4	CCB	09/19/19 15:26				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
WG482034													
WG482034LCSW1	LCSW	09/19/19 16:28	PCN58053	6		6	units	100	5.9	6.1			
L54546-02DUP	DUP	09/19/19 20:15			8.3	8.3	units				0	20	
WG482034LCSW4	LCSW	09/19/19 20:19	PCN58053	6		6	units	100	5.9	6.1			
WG482034LCSW7	LCSW	09/20/19 11:14	PCN58053	6		6	units	100	5.9	6.1			
WG482034LCSW10	LCSW	09/20/19 16:47	PCN58053	6		6	units	100	5.9	6.1			
WG482034LCSW13	LCSW	09/20/19 20:17	PCN58053	6		6	units	100	5.9	6.1			

Rio Grande Silver, Inc.

ACZ Project ID: **L54545**

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

Potassium, dissolved

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG481805													
WG481805ICV	ICV	09/17/19 20:55	II190916-3	20		19.45	mg/L	97	95	105			
WG481805ICB	ICB	09/17/19 21:01				U	mg/L		-0.6	0.6			
WG481805PQV	PQV	09/17/19 21:04	II190909-3	1.001		.98	mg/L	98	70	130			
WG481805SIC	SIC	09/17/19 21:07	II190906-2	1.001		.96	mg/L	96	80	120			
WG481805LFB	LFB	09/17/19 21:13	II190916-2	99.95064		99.62	mg/L	100	85	115			
L54545-02AS	AS	09/17/19 21:32	II190916-2	99.95064	3.4	104.3	mg/L	101	85	115			
L54545-02ASD	ASD	09/17/19 21:35	II190916-2	99.95064	3.4	110.1	mg/L	107	85	115	5	20	
WG481805CCV1	CCV	09/17/19 21:44	II190911-1	10		9.35	mg/L	94	90	110			
WG481805CCB1	CCB	09/17/19 21:47				U	mg/L		-0.6	0.6			
WG481805CCV2	CCV	09/17/19 22:21	II190911-1	10		9.32	mg/L	93	90	110			
WG481805CCB2	CCB	09/17/19 22:24				U	mg/L		-0.6	0.6			
WG481805CCV3	CCV	09/17/19 22:43	II190911-1	10		9.56	mg/L	96	90	110			
WG481805CCB3	CCB	09/17/19 22:46				U	mg/L		-0.6	0.6			

Residue, Filterable (TDS) @180C

SM2540C

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG481679													
WG481679PBW	PBW	09/16/19 10:09				U	mg/L		-40	40			
WG481679LCSW	LCSW	09/16/19 10:12	PCN59811	1000		1010	mg/L	101	80	120			
L54570-05DUP	DUP	09/16/19 10:51			23000	23100	mg/L				0	10	

Silver, dissolved

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG481929													
WG481929ICV	ICV	09/18/19 14:54	MS190806-2	.02004		.02103	mg/L	105	90	110			
WG481929ICB	ICB	09/18/19 14:56				U	mg/L		-0.00022	0.00022			
WG481929LFB	LFB	09/18/19 14:58	MS190905-3	.01002		.00976	mg/L	97	85	115			
L54528-01AS	AS	09/18/19 15:07	MS190905-3	.01002	U	.00815	mg/L	81	70	130			
L54528-01ASD	ASD	09/18/19 15:08	MS190905-3	.01002	U	.00809	mg/L	81	70	130	1	20	
WG481929CCV1	CCV	09/18/19 15:16	MS190917-3	.02505		.02369	mg/L	95	90	110			
WG481929CCB1	CCB	09/18/19 15:17				U	mg/L		-0.0003	0.0003			
L54546-04AS	AS	09/18/19 15:35	MS190905-3	.01002	U	.0105	mg/L	105	70	130			
WG481929CCV2	CCV	09/18/19 15:37	MS190917-3	.02505		.02345	mg/L	94	90	110			
WG481929CCB2	CCB	09/18/19 15:39				U	mg/L		-0.0003	0.0003			
L54546-04ASD	ASD	09/18/19 15:41	MS190905-3	.01002	U	.01025	mg/L	102	70	130	2	20	
WG481929CCV3	CCV	09/18/19 15:50	MS190917-3	.02505		.02335	mg/L	93	90	110			
WG481929CCB3	CCB	09/18/19 15:52				U	mg/L		-0.0003	0.0003			

Rio Grande Silver, Inc.

ACZ Project ID: **L54545**

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

Silver, total recoverable

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG481910													
WG481910ICV	ICV	09/18/19 13:13	MS190806-2	.02004		.02138	mg/L	107	90	110			
WG481910ICB	ICB	09/18/19 13:15				U	mg/L		-0.0003	0.0003			
WG481764LRB	LRB	09/18/19 13:17				U	mg/L		-0.00022	0.00022			
WG481764LFB	LFB	09/18/19 13:19	MS190905-3	.01002		.00932	mg/L	93	85	115			
WG481910CCV1	CCV	09/18/19 13:35	MS190917-3	.02505		.02484	mg/L	99	90	110			
WG481910CCB1	CCB	09/18/19 13:37				U	mg/L		-0.0003	0.0003			
WG481910CCV2	CCV	09/18/19 13:56	MS190917-3	.02505		.02434	mg/L	97	90	110			
WG481910CCB2	CCB	09/18/19 13:58				U	mg/L		-0.0003	0.0003			
L54545-03LFM	LFM	09/18/19 14:00	MS190905-3	.01002	U	.00965	mg/L	96	70	130			
L54545-03LFMD	LFMD	09/18/19 14:02	MS190905-3	.01002	U	.00971	mg/L	97	70	130	1	20	
WG481910CCV3	CCV	09/18/19 14:11	MS190917-3	.02505		.02461	mg/L	98	90	110			
WG481910CCB3	CCB	09/18/19 14:13				U	mg/L		-0.0003	0.0003			

Sodium, dissolved

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG481805													
WG481805ICV	ICV	09/17/19 20:55	II190916-3	100		98.39	mg/L	98	95	105			
WG481805ICB	ICB	09/17/19 21:01				U	mg/L		-0.6	0.6			
WG481805PQV	PQV	09/17/19 21:04	II190909-3	.999		.87	mg/L	87	70	130			
WG481805SIC	SIC	09/17/19 21:07	II190906-2	.999		.9	mg/L	90	80	120			
WG481805LFB	LFB	09/17/19 21:13	II190916-2	100.0109		100.7	mg/L	101	85	115			
L54545-02AS	AS	09/17/19 21:32	II190916-2	100.0109	6.4	108.4	mg/L	102	85	115			
L54545-02ASD	ASD	09/17/19 21:35	II190916-2	100.0109	6.4	114.7	mg/L	108	85	115	6	20	
WG481805CCV1	CCV	09/17/19 21:44	II190911-1	50		47.11	mg/L	94	90	110			
WG481805CCB1	CCB	09/17/19 21:47				U	mg/L		-0.6	0.6			
WG481805CCV2	CCV	09/17/19 22:21	II190911-1	50		46.88	mg/L	94	90	110			
WG481805CCB2	CCB	09/17/19 22:24				U	mg/L		-0.6	0.6			
WG481805CCV3	CCV	09/17/19 22:43	II190911-1	50		48.62	mg/L	97	90	110			
WG481805CCB3	CCB	09/17/19 22:46				U	mg/L		-0.6	0.6			

Rio Grande Silver, Inc.

ACZ Project ID: **L54545**

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

Sulfate

M300.0 - Ion Chromatography

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG478870													
WG478870ICV	ICV	08/06/19 18:37	WI190530-11	50		50.1	mg/L	100	90	110			
WG478870ICB	ICB	08/06/19 18:55				U	mg/L		-0.4	0.4			
WG481912													
WG481912CCV1	CCV	09/18/19 15:29	WI190828-1	50		49.2	mg/L	98	90	110			
WG481912CCB1	CCB	09/18/19 15:47				U	mg/L		-0.4	0.4			
WG481912PQV	PQV	09/18/19 16:05	WI190807-2	2		1.89	mg/L	95	70	130			
WG481912LFB1	LFB	09/18/19 16:23	WI190722-1	30		29.7	mg/L	99	90	110			
WG481912CCV2	CCV	09/19/19 13:32	WI190828-1	50		48.6	mg/L	97	90	110			
WG481912CCB2	CCB	09/19/19 13:50				U	mg/L		-0.4	0.4			
WG481912CCV3	CCV	09/19/19 17:07	WI190828-1	50		48.7	mg/L	97	90	110			
WG481912CCB3	CCB	09/19/19 17:25				U	mg/L		-0.4	0.4			
WG481912LFB2	LFB	09/19/19 19:30	WI190722-1	30		29	mg/L	97	90	110			
L54529-19DUP	DUP	09/19/19 20:06			2.92	2.85	mg/L				2	20	RA
WG481912CCV4	CCV	09/19/19 20:42	WI190828-1	50		48.7	mg/L	97	90	110			
WG481912CCB4	CCB	09/19/19 21:00				U	mg/L		-0.4	0.4			
L54529-20AS	AS	09/19/19 21:18	WI190722-1	30	3.93	34.4	mg/L	102	90	110			
WG481912CCV5	CCV	09/19/19 23:59	WI190828-1	50		49	mg/L	98	90	110			
WG481912CCB5	CCB	09/20/19 0:17				U	mg/L		-0.4	0.4			

Rio Grande Silver, Inc.

ACZ Project ID: **L54545**

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
WG481650													
WG481650ICV	ICV	09/15/19 11:30	WC190914-3	.34666		.351	mg/L	101	90	110			
WG481650ICB	ICB	09/15/19 11:32				U	mg/L		-0.06	0.06			
WG481650LFB1	LFB	09/15/19 11:34	WC190914-6	.22844		.252	mg/L	110	80	120			
WG481650CCV1	CCV	09/15/19 11:58	WC190914-4	.17133		.178	mg/L	104	90	110			
WG481650CCB1	CCB	09/15/19 12:00				U	mg/L		-0.06	0.06			
L54545-02AS	AS	09/15/19 12:05	WC190914-6	.22844	U	.075	mg/L	33	75	125			M2
L54545-02DUP	DUP	09/15/19 12:07			U	U	mg/L				0	20	RA
WG481650CCV10	CCV	09/15/19 12:26	WC190914-4	.17133		.177	mg/L	103	90	110			
WG481650CCB10	CCB	09/15/19 12:29				U	mg/L		-0.06	0.06			
L54559-05AS	AS	09/15/19 12:38	WC190914-6	.22844	U	.241	mg/L	105	75	125			
L54559-05DUP	DUP	09/15/19 12:41			U	U	mg/L				0	20	RA
WG481650LFB2	LFB	09/15/19 12:43	WC190914-6	.22844		.248	mg/L	109	80	120			
WG481650CCV2	CCV	09/15/19 12:55	WC190914-4	.17133		.176	mg/L	103	90	110			
WG481650CCB2	CCB	09/15/19 12:57				U	mg/L		-0.06	0.06			
WG481650CCV3	CCV	09/15/19 13:23	WC190914-4	.17133		.175	mg/L	102	90	110			
WG481650CCB3	CCB	09/15/19 13:25				U	mg/L		-0.06	0.06			
WG481650CCV4	CCV	09/15/19 13:52	WC190914-4	.17133		.173	mg/L	101	90	110			
WG481650CCB4	CCB	09/15/19 13:54				U	mg/L		-0.06	0.06			
WG481650LFB3	LFB	09/15/19 13:56	WC190914-6	.22844		.245	mg/L	107	80	120			
WG481650CCV5	CCV	09/15/19 14:20	WC190914-4	.17133		.176	mg/L	103	90	110			
WG481650CCB5	CCB	09/15/19 14:22				U	mg/L		-0.06	0.06			
WG481650CCV6	CCV	09/15/19 14:48	WC190914-4	.17133		.174	mg/L	102	90	110			
WG481650CCB6	CCB	09/15/19 14:51				U	mg/L		-0.06	0.06			
WG481650LFB4	LFB	09/15/19 15:05	WC190914-6	.22844		.246	mg/L	108	80	120			
WG481650CCV7	CCV	09/15/19 15:17	WC190914-4	.17133		.176	mg/L	103	90	110			
WG481650CCB7	CCB	09/15/19 15:19				U	mg/L		-0.06	0.06			
WG481650CCV8	CCV	09/15/19 15:45	WC190914-4	.17133		.175	mg/L	102	90	110			
WG481650CCB8	CCB	09/15/19 15:47				U	mg/L		-0.06	0.06			
WG481650CCV9	CCV	09/15/19 16:02	WC190914-4	.17133		.173	mg/L	101	90	110			
WG481650CCB9	CCB	09/15/19 16:04				U	mg/L		-0.06	0.06			

Zinc, dissolved

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG481929													
WG481929ICV	ICV	09/18/19 14:54	MS190806-2	.05		.053	mg/L	106	90	110			
WG481929ICB	ICB	09/18/19 14:56				U	mg/L		-0.0088	0.0088			
WG481929LFB	LFB	09/18/19 14:58	MS190905-3	.050075		.0507	mg/L	101	85	115			
L54528-01AS	AS	09/18/19 15:07	MS190905-3	.050075	.011	.0571	mg/L	92	70	130			
L54528-01ASD	ASD	09/18/19 15:08	MS190905-3	.050075	.011	.0565	mg/L	91	70	130	1	20	
WG481929CCV1	CCV	09/18/19 15:16	MS190917-3	.50075		.4959	mg/L	99	90	110			
WG481929CCB1	CCB	09/18/19 15:17				U	mg/L		-0.012	0.012			
L54546-04AS	AS	09/18/19 15:35	MS190905-3	.050075	.006	.0607	mg/L	109	70	130			
WG481929CCV2	CCV	09/18/19 15:37	MS190917-3	.50075		.4983	mg/L	100	90	110			
WG481929CCB2	CCB	09/18/19 15:39				U	mg/L		-0.012	0.012			
L54546-04ASD	ASD	09/18/19 15:41	MS190905-3	.050075	.006	.0608	mg/L	109	70	130	0	20	
WG481929CCV3	CCV	09/18/19 15:50	MS190917-3	.50075		.5014	mg/L	100	90	110			
WG481929CCB3	CCB	09/18/19 15:52				U	mg/L		-0.012	0.012			

Rio Grande Silver, Inc.

ACZ Project ID: **L54545**

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, total recoverable

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG481910													
WG481910ICV	ICV	09/18/19 13:13	MS190806-2	.05		.054	mg/L	108	90	110			
WG481910ICB	ICB	09/18/19 13:15				U	mg/L		-0.012	0.012			
WG481764LRB	LRB	09/18/19 13:17				.004	mg/L		-0.0088	0.0088			
WG481764LFB	LFB	09/18/19 13:19	MS190905-3	.050075		.0546	mg/L	109	85	115			
WG481910CCV1	CCV	09/18/19 13:35	MS190917-3	.50075		.4998	mg/L	100	90	110			
WG481910CCB1	CCB	09/18/19 13:37				U	mg/L		-0.012	0.012			
WG481910CCV2	CCV	09/18/19 13:56	MS190917-3	.50075		.5024	mg/L	100	90	110			
WG481910CCB2	CCB	09/18/19 13:58				U	mg/L		-0.012	0.012			
L54545-03LFM	LFM	09/18/19 14:00	MS190905-3	.050075	6.41	6.4885	mg/L	157	70	130			M3
L54545-03LFMD	LFMD	09/18/19 14:02	MS190905-3	.050075	6.41	6.5025	mg/L	185	70	130	0	20	M3
WG481910CCV3	CCV	09/18/19 14:11	MS190917-3	.50075		.5041	mg/L	101	90	110			
WG481910CCB3	CCB	09/18/19 14:13				U	mg/L		-0.012	0.012			

Rio Grande Silver, Inc.

ACZ Project ID: **L54545**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L54545-01	WG481805	Aluminum, dissolved	M200.7 ICP	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG481912	Chloride	M300.0 - Ion Chromatography	DC	Sample required dilution. Non-target analyte exceeded calibration range.
			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).
	WG481563	Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	H3	Sample was received and analyzed past holding time.
			M353.2 - Automated Cadmium Reduction	H3	Sample was received and analyzed past holding time.
		Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG481898	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).
	WG482019	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).
	WG481912	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).
	WG481650	Sulfide as S	SM4500S2-D	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
			SM4500S2-D	QD	Reported value is the background-corrected concentration, as described by the method.
			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).
	WG481910	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: **L54545**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L54545-02	WG481805	Aluminum, dissolved	M200.7 ICP	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG481912	Chloride	M300.0 - Ion Chromatography	DC	Sample required dilution. Non-target analyte exceeded calibration range.
			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).
	WG481563	Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	H3	Sample was received and analyzed past holding time.
			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).
	WG481898	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).
	WG482019	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).
	WG481912	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).
	WG481650	Sulfide as S	SM4500S2-D	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
			SM4500S2-D	QD	Reported value is the background-corrected concentration, as described by the method.
			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).
	WG481910	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.
L54545-03	WG481805	Aluminum, dissolved	M200.7 ICP	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG481912	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).
			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).
	WG481563	Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	H3	Sample was received and analyzed past holding time.
			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).
	WG481898	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).
	WG482019	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).
	WG481912	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).
	WG481650	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).
	WG481910	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: No BO# Used leftover bottles

Sample ID: HW-2

ACZ Sample ID: **L54545-01**

Date Sampled: 09/10/19 10:30

Date Received: 09/12/19

Sample Matrix: Groundwater

Oil & Grease, Total RecoverableAnalysis Method: **1664A - Gravimetric**

Extract Method:

Workgroup: WG482036

Analyst: kfm

Extract Date:

Analysis Date: 09/20/19 14:09

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

Rio Grande Silver, Inc.

Project ID: No BO# Used leftover bottles

Sample ID: GW-1

ACZ Sample ID: **L54545-02**

Date Sampled: 09/10/19 10:45

Date Received: 09/12/19

Sample Matrix: Groundwater

Oil & Grease, Total RecoverableAnalysis Method: **1664A - Gravimetric**

Extract Method:

Workgroup: WG482036

Analyst: kfm

Extract Date:

Analysis Date: 09/20/19 14:11

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

Rio Grande Silver, Inc.

Project ID: No BO# Used leftover bottles

Sample ID: DP-5

ACZ Sample ID: **L54545-03**

Date Sampled: 09/10/19 10:00

Date Received: 09/12/19

Sample Matrix: Groundwater

Oil & Grease, Total RecoverableAnalysis Method: **1664A - Gravimetric**

Extract Method:

Workgroup: WG482036

Analyst: kfm

Extract Date:

Analysis Date: 09/20/19 14:13

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

Rio Grande Silver, Inc.

ACZ Project ID: **L54545**

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

WG482036

MS	Sample ID: L54638-01MS			PCN/SCN: OP190715-2			Analyzed: 09/20/19 14:47			
Compound	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
OIL AND GREASE	40	16	62.1	mg/L	115.0	78	114			M1

LCSW	Sample ID: WG482036LCSW			PCN/SCN: OP190715-2			Analyzed: 09/20/19 14:49			
Compound	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
OIL AND GREASE	40		32.8	mg/L	82.0	78	114			

LCSWD	Sample ID: WG482036LCSWD			PCN/SCN: OP190715-2			Analyzed: 09/20/19 14:51			
Compound	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
OIL AND GREASE	40		35.6	mg/L	89.0	78	114	8	18	

PBW	Sample ID: WG482036PBW						Analyzed: 09/20/19 14:05			
Compound	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
OIL AND GREASE			U	mg/L						

ACZ Project ID: **L54545**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L54545-01	WG482036	Oil and Grease	1664A - Gravimetric	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
L54545-02	WG482036	Oil and Grease	1664A - Gravimetric	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
L54545-03	WG482036	Oil and Grease	1664A - Gravimetric	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.

Rio Grande Silver, Inc.

ACZ Project ID: **L54545**

No certification qualifiers associated with this analysis

Rio Grande Silver, Inc.
*** PO REQUIRED ***

ACZ Project ID: L54545
Date Received: 09/12/2019 12:24
Received By:
Date Printed: 9/13/2019

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.

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?
4382	3	<=6.0	15	Yes

Was ice present in the shipment container(s)?

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

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

Rio Grande Silver, Inc.
*** PO REQUIRED ***

ACZ Project ID: L54545

Date Received: 09/12/2019 12:24

Received By:

Date Printed: 9/13/2019

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

ACZ**Laboratories, Inc.** L54545**CHAIN of CUSTODY**

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

Report to:

Name: Randy McClure

Company: Rio Grande Silver, Inc.

E-mail: rmcclure@hecla-mining.com

Address: 625 USFS Road 504. 1A

Creede, CO 81130

Telephone: 719-658-1080

Copy of Report to:

Name: Janet Shangraw

Company: JNS, Inc.

E-mail: jshangraw@comcast.net

Telephone: 303-972-8596

Invoice to:

Name: Randy McClure

Company: Rio Grande Silver, Inc.

E-mail: rmcclure@hecla-mining.com

Address: 625 USFS Road 504. 1A

Creede, CO 81130

Telephone: 719-658-1080

If sample(s) received past holding time (HT), or if insufficient HT remains to complete analysis before expiration, shall ACZ proceed with requested short HT analyses?

YES ☒NO ☐

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

Are samples for SDWA Compliance Monitoring?

Yes ☐No ☒

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

Sampler's Name: Randy McClure

Sampler's Site Information

State CO

Zip code 81130

Time Zone mst

*Sampler's Signature: *Randy McClure*

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

PROJECT INFORMATION

ANALYSES REQUESTED (attach list or use quote number)

Quote #: Rio Grande - GW - 2019

PO#: No BO# Used leftover bottles

Reporting state for compliance testing:

Check box if samples include NRC licensed material? ☐

SAMPLE IDENTIFICATION

DATE:TIME

Matrix

of Containers

1-) HW-2		GW	7	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
2-) GW-1		GW	7	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
DP-3	Did Not Sample	GW	7	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
DP-4	Did Not Sample	GW	7	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
3-) DP-5		GW	7	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
				☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
				☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
				☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
				☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
				☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

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

REMARKS

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

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

RELINQUISHED BY:

DATE:TIME

RECEIVED BY:

DATE:TIME

*Randy McClure**9/10 12:30pm**JSC**9-12-19 12:24*

FRMAD050.03.14.13

White - Return with sample.

Yellow - Retain for your records.

L54545 Chain of Custody

L54545-1909241614

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