Figure 3

Groundwater sampling analytical results for Windy Gulch – September 04, 2018

Sample Locations:

1) HW-2
2) DP-3 * Not enough water to sample
3) DP-4 * Not enough water to sample
4) DP-5 * Not enough water to sample

Refer to Map G-3, Appendix 4 for sample locations.

* Due to an extremely low snow pack and drought conditions in 2018, RGS was not able to sample Drive Points DP-3, DP-4 and DP-5 because they were dry.

Analytical results for HW-2 are included.

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

Analytical Report

September 21, 2018

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

cc: Janet Shangraw

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

Project ID: BO40519
ACZ Project ID: L46696

Randy McClure:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on September 05, 2018. This project has been assigned to ACZ's project number, L46696. 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 L46696. 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 21, 2018. If the samples are determined to be hazardous, additional charges apply for disposal (typically $11/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical raw data reports for ten years.

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

Sue Webber has reviewed and approved this report.

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

Inorganic Analytical Results

Rio Grande Silver, Inc.
Project ID: BO40519
Sample ID: HW-2

ACZ Sample ID: ***L46696-01***
Date Sampled: *09/04/18 10:15*
Date Received: *09/05/18*
Sample Matrix: *Groundwater*

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor								09/07/18 14:51	ttg
Total Recoverable Digestion	M200.2 ICP-MS								09/14/18 11:56	rap
Total Recoverable Digestion	M200.2 ICP								09/13/18 14:24	dcm

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	1	0.08	B		mg/L	0.03	0.2	09/13/18 13:26	aeh
Aluminum, total recoverable	M200.7 ICP	1	1.47			mg/L	0.03	0.2	09/18/18 0:54	dcm
Arsenic, dissolved	M200.8 ICP-MS	1	0.0076			mg/L	0.0002	0.001	09/15/18 11:19	bsu
Arsenic, total recoverable	M200.8 ICP-MS	1	0.009			mg/L	0.0002	0.001	09/17/18 18:50	mfm
Cadmium, dissolved	M200.8 ICP-MS	1	0.003			mg/L	0.0001	0.0005	09/15/18 11:19	bsu
Cadmium, total recoverable	M200.8 ICP-MS	1	0.003			mg/L	0.0001	0.0005	09/17/18 18:50	mfm
Calcium, dissolved	M200.7 ICP	1	34.8			mg/L	0.1	0.5	09/13/18 13:26	aeh
Copper, dissolved	M200.8 ICP-MS	1		U		mg/L	0.0004	0.002	09/15/18 11:19	bsu
Copper, total recoverable	M200.8 ICP-MS	1	0.0011	B		mg/L	0.0004	0.002	09/17/18 18:50	mfm
Iron, dissolved	M200.7 ICP	1	0.03	B		mg/L	0.02	0.05	09/13/18 13:26	aeh
Iron, total recoverable	M200.7 ICP	1	0.92		*	mg/L	0.02	0.05	09/18/18 0:54	dcm
Lead, dissolved	M200.8 ICP-MS	1	0.0001	B		mg/L	0.0001	0.0005	09/15/18 11:19	bsu
Lead, total recoverable	M200.8 ICP-MS	1	0.0019			mg/L	0.0001	0.0005	09/17/18 18:50	mfm
Magnesium, dissolved	M200.7 ICP	1	3.3			mg/L	0.2	1	09/13/18 13:26	aeh
Manganese, dissolved	M200.7 ICP	1		U	*	mg/L	0.005	0.03	09/17/18 13:44	dcm
Manganese, total recoverable	M200.7 ICP	1	0.049		*	mg/L	0.005	0.03	09/18/18 0:54	dcm
Mercury, total	M245.1 CVAA	1		U	*	mg/L	0.0002	0.001	09/14/18 14:07	che
Potassium, dissolved	M200.7 ICP	1	3.4			mg/L	0.2	1	09/13/18 13:26	aeh
Silver, dissolved	M200.8 ICP-MS	1		U		mg/L	0.00005	0.0003	09/15/18 11:19	bsu
Silver, total recoverable	M200.8 ICP-MS	1	0.00032			mg/L	0.00005	0.0003	09/19/18 13:19	mfm
Sodium, dissolved	M200.7 ICP	1	7.2			mg/L	0.2	1	09/13/18 13:26	aeh
Zinc, dissolved	M200.8 ICP-MS	1	0.587			mg/L	0.002	0.005	09/15/18 11:19	bsu
Zinc, total recoverable	M200.8 ICP-MS	1	0.635			mg/L	0.002	0.005	09/17/18 18:50	mfm

Rio Grande Silver, Inc.
Project ID: BO40519
Sample ID: HW-2

ACZ Sample ID: ***L46696-01***
Date Sampled: *09/04/18 10:15*
Date Received: *09/05/18*
Sample Matrix: *Groundwater*

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration									
Bicarbonate as CaCO3		1	28.7			mg/L	2	20	09/07/18 0:00	enb
Carbonate as CaCO3		1		U		mg/L	2	20	09/07/18 0:00	enb
Hydroxide as CaCO3		1		U		mg/L	2	20	09/07/18 0:00	enb
Total Alkalinity		1	28.7			mg/L	2	20	09/07/18 0:00	enb
Cation-Anion Balance	Calculation									
Cation-Anion Balance			-4.0			%			09/21/18 0:00	calc
Sum of Anions			2.6			meq/L			09/21/18 0:00	calc
Sum of Cations			2.4			meq/L			09/21/18 0:00	calc
Chloride	M300.0 - Ion Chromatography	1	1.70	B	*	mg/L	0.4	2	09/11/18 21:17	mss2
Fluoride	SM4500F-C	1	0.21	B	*	mg/L	0.05	0.3	09/10/18 14:05	emk
Hardness as CaCO3 (dissolved)	SM2340B - Calculation		100			mg/L	0.2	5	09/21/18 0:00	calc
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2		0.34			mg/L	0.02	0.1	09/21/18 0:00	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	0.34		*	mg/L	0.02	0.1	09/05/18 22:49	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1		U	*	mg/L	0.01	0.05	09/05/18 22:49	pjb
Nitrogen, ammonia	M350.1 Auto Salicylate w/gas diffusion	1		U	*	mg/L	0.05	0.2	09/07/18 12:11	mss2
Nitrogen, organic	M351.2 & M350.1 - TKN minus NH3			U		mg/L	0.1	0.5	09/21/18 0:00	calc
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	1		U	*	mg/L	0.1	0.5	09/12/18 1:30	pjb
pH (lab)	SM4500H+ B									
pH		1	7.2	H		units	0.1	0.1	09/07/18 0:00	enb
pH measured at		1	24.7			C	0.1	0.1	09/07/18 0:00	enb
Residue, Filterable (TDS) @180C	SM2540C	1	204			mg/L	10	20	09/06/18 10:50	oah
Sulfate	M300.0 - Ion Chromatography	1	90.5			mg/L	0.4	2	09/19/18 2:20	mss2
Sulfide as S	SM4500S2-D	1		U	*	mg/L	0.02	0.1	09/06/18 13:32	kja
TDS (calculated)	Calculation		161			mg/L			09/21/18 0:00	calc
TDS (ratio - measured/calculated)	Calculation		1.27						09/21/18 0:00	calc

Report Header Explanations

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

QC Sample Types

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

QC Sample Type Explanations

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

ACZ Qualifiers (Qual)

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

Method References

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

Comments

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

For a complete list of ACZ's Extended Qualifiers, please click: http://www.acz.com/public/extquallist.pdf

Rio Grande Silver, Inc.

ACZ Project ID: ***L46696***

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
WG455878													
WG455878PBW1	PBW	09/07/18 16:12				2.3	mg/L		-20	20			
WG455878LCSW3	LCSW	09/07/18 16:28	WC180830-8	820.0001		827	mg/L	101	90	110			
WG455878PQV2	PQV	09/07/18 16:39	WC171227-8	20		21.4	mg/L	107	50	150			
L46701-02DUP	DUP	09/07/18 17:33			71.8	71.6	mg/L				0	20	
WG455878LCSW6	LCSW	09/07/18 19:16	WC180830-8	820.0001		830	mg/L	101	90	110			
WG455878PBW2	PBW	09/07/18 19:23				U	mg/L		-20	20			
WG455878LCSW9	LCSW	09/07/18 21:36	WC180830-8	820.0001		834	mg/L	102	90	110			

Aluminum, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG456162													
WG456162ICV	ICV	09/13/18 11:44	II180824-2	2		1.996	mg/L	100	95	105			
WG456162ICB	ICB	09/13/18 11:50				U	mg/L		-0.09	0.09			
WG456162PQV	PQV	09/13/18 11:53	II180831-2	.150285		.176	mg/L	117	70	130			
WG456162SIC	SIC	09/13/18 11:56	II180821-4	200.270285		200.5	mg/L	100	1	200			
WG456162LFB	LFB	09/13/18 12:02	II180827-2	1.0019		1.085	mg/L	108	85	115			
WG456162CCV1	CCV	09/13/18 12:32	II180831-3	1		1.021	mg/L	102	90	110			
WG456162CCB1	CCB	09/13/18 12:35				U	mg/L		-0.09	0.09			
L45307-08AS	AS	09/13/18 13:05	II180827-2	1.0019	.1	1.207	mg/L	110	85	115			
WG456162CCV2	CCV	09/13/18 13:08	II180831-3	1		1.045	mg/L	105	90	110			
WG456162CCB2	CCB	09/13/18 13:11				U	mg/L		-0.09	0.09			
L45307-08ASD	ASD	09/13/18 13:14	II180827-2	1.0019	.1	1.229	mg/L	113	85	115	2	20	
WG456162CCV3	CCV	09/13/18 13:29	II180831-3	1		1.048	mg/L	105	90	110			
WG456162CCB3	CCB	09/13/18 13:32				U	mg/L		-0.09	0.09			

Aluminum, total recoverable M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG456479													
WG456479ICV	ICV	09/18/18 0:15	II180824-2	2		2.003	mg/L	100	95	105			
WG456479ICB	ICB	09/18/18 0:20				U	mg/L		-0.09	0.09			
WG456479PQV	PQV	09/18/18 0:24	II180831-2	.150285		.168	mg/L	112	70	130			
WG456479SIC	SIC	09/18/18 0:27	II180821-4	200.270285		202.9	mg/L	101	1	200			
WG456302LRB	LRB	09/18/18 0:33				U	mg/L		-0.066	0.066			
WG456302LFB	LFB	09/18/18 0:36	II180827-2	1.0019		1.05	mg/L	105	85	115			
WG456479CCV1	CCV	09/18/18 1:03	II180831-3	1		1.019	mg/L	102	90	110			
WG456479CCB1	CCB	09/18/18 1:06				U	mg/L		-0.09	0.09			
L46725-02LFM	LFM	09/18/18 1:09	II180827-2	1.0019	.09	1.177	mg/L	108	70	130			
L46725-02LFMD	LFMD	09/18/18 1:12	II180827-2	1.0019	.09	1.168	mg/L	108	70	130	1	20	
WG456479CCV2	CCV	09/18/18 1:39	II180831-3	1		.989	mg/L	99	90	110			
WG456479CCB2	CCB	09/18/18 1:42				U	mg/L		-0.09	0.09			
WG456479CCV3	CCV	09/18/18 2:04	II180831-3	1		1.03	mg/L	103	90	110			
WG456479CCB3	CCB	09/18/18 2:07				U	mg/L		-0.09	0.09			

Rio Grande Silver, Inc.

ACZ Project ID: ***L46696***

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
WG456416													
WG456416ICV	ICV	09/15/18 11:14	MS180914-2	.05		.04764	mg/L	95	90	110			
WG456416ICB	ICB	09/15/18 11:16				U	mg/L		-0.00044	0.00044			
WG456416LFB	LFB	09/15/18 11:18	MS180830-2	.0501		.04749	mg/L	95	85	115			
L46714-01AS	AS	09/15/18 11:23	MS180830-2	.0501	.0003	.05059	mg/L	100	70	130			
L46714-01ASD	ASD	09/15/18 11:25	MS180830-2	.0501	.0003	.04966	mg/L	99	70	130	2	20	
WG456416CCV1	CCV	09/15/18 11:32	MS180808-2	.1002		.10552	mg/L	105	90	110			
WG456416CCB1	CCB	09/15/18 11:34				U	mg/L		-0.0006	0.0006			
WG456416CCV2	CCV	09/15/18 11:54	MS180808-2	.1002		.10135	mg/L	101	90	110			
WG456416CCB2	CCB	09/15/18 11:56				U	mg/L		-0.0006	0.0006			
WG456416CCV3	CCV	09/15/18 12:10	MS180808-2	.1002		.10604	mg/L	106	90	110			
WG456416CCB3	CCB	09/15/18 12:12				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
WG456522													
WG456522ICV	ICV	09/17/18 18:07	MS180914-2	.05		.04856	mg/L	97	90	110			
WG456522ICB	ICB	09/17/18 18:10				U	mg/L		-0.0006	0.0006			
WG456358LRB	LRB	09/17/18 18:13				U	mg/L		-0.00044	0.00044			
WG456358LFB	LFB	09/17/18 18:16	MS180830-2	.0501		.04955	mg/L	99	85	115			
L46687-01LFM	LFM	09/17/18 18:29	MS180830-2	.0501	.0011	.05384	mg/L	105	70	130			
L46687-01LFMD	LFMD	09/17/18 18:32	MS180830-2	.0501	.0011	.05289	mg/L	103	70	130	2	20	
WG456522CCV1	CCV	09/17/18 18:41	MS180808-2	.1002		.09866	mg/L	98	90	110			
WG456522CCB1	CCB	09/17/18 18:44				U	mg/L		-0.0006	0.0006			
WG456522CCV2	CCV	09/17/18 19:18	MS180808-2	.1002		.09902	mg/L	99	90	110			
WG456522CCB2	CCB	09/17/18 19:21				U	mg/L		-0.0006	0.0006			
WG456522CCV3	CCV	09/17/18 19:43	MS180808-2	.1002		.09762	mg/L	97	90	110			
WG456522CCB3	CCB	09/17/18 19:46				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
WG456416													
WG456416ICV	ICV	09/15/18 11:14	MS180914-2	.05		.0492	mg/L	98	90	110			
WG456416ICB	ICB	09/15/18 11:16				U	mg/L		-0.00022	0.00022			
WG456416LFB	LFB	09/15/18 11:18	MS180830-2	.05005		.04636	mg/L	93	85	115			
L46714-01AS	AS	09/15/18 11:23	MS180830-2	.05005	U	.04783	mg/L	96	70	130			
L46714-01ASD	ASD	09/15/18 11:25	MS180830-2	.05005	U	.04832	mg/L	97	70	130	1	20	
WG456416CCV1	CCV	09/15/18 11:32	MS180808-2	.1001		.09961	mg/L	100	90	110			
WG456416CCB1	CCB	09/15/18 11:34				U	mg/L		-0.0003	0.0003			
WG456416CCV2	CCV	09/15/18 11:54	MS180808-2	.1001		.09924	mg/L	99	90	110			
WG456416CCB2	CCB	09/15/18 11:56				U	mg/L		-0.0003	0.0003			
WG456416CCV3	CCV	09/15/18 12:10	MS180808-2	.1001		.09931	mg/L	99	90	110			
WG456416CCB3	CCB	09/15/18 12:12				U	mg/L		-0.0003	0.0003			

Rio Grande Silver, Inc.

ACZ Project ID: ***L46696***

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
WG456522													
WG456522ICV	ICV	09/17/18 18:07	MS180914-2	.05		.05032	mg/L	101	90	110			
WG456522ICB	ICB	09/17/18 18:10				U	mg/L		-0.0003	0.0003			
WG456358LRB	LRB	09/17/18 18:13				U	mg/L		-0.00022	0.00022			
WG456358LFB	LFB	09/17/18 18:16	MS180830-2	.05005		.04996	mg/L	100	85	115			
L46687-01LFM	LFM	09/17/18 18:29	MS180830-2	.05005	U	.04716	mg/L	94	70	130			
L46687-01LFMD	LFMD	09/17/18 18:32	MS180830-2	.05005	U	.04632	mg/L	93	70	130	2	20	
WG456522CCV1	CCV	09/17/18 18:41	MS180808-2	.1001		.09956	mg/L	99	90	110			
WG456522CCB1	CCB	09/17/18 18:44				U	mg/L		-0.0003	0.0003			
WG456522CCV2	CCV	09/17/18 19:18	MS180808-2	.1001		.09923	mg/L	99	90	110			
WG456522CCB2	CCB	09/17/18 19:21				U	mg/L		-0.0003	0.0003			
WG456522CCV3	CCV	09/17/18 19:43	MS180808-2	.1001		.09875	mg/L	99	90	110			
WG456522CCB3	CCB	09/17/18 19:46				U	mg/L		-0.0003	0.0003			

Calcium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG456162													
WG456162ICV	ICV	09/13/18 11:44	II180824-2	100		98.09	mg/L	98	95	105			
WG456162ICB	ICB	09/13/18 11:50				U	mg/L		-0.3	0.3			
WG456162PQV	PQV	09/13/18 11:53	II180831-2	.5004		.48	mg/L	96	70	130			
WG456162SIC	SIC	09/13/18 11:56	II180821-4	200.6604		194.6	mg/L	97	1	200			
WG456162LFB	LFB	09/13/18 12:02	II180827-2	68.16145		68.13	mg/L	100	85	115			
WG456162CCV1	CCV	09/13/18 12:32	II180831-3	50		49.87	mg/L	100	90	110			
WG456162CCB1	CCB	09/13/18 12:35				U	mg/L		-0.3	0.3			
L45307-08AS	AS	09/13/18 13:05	II180827-2	68.16145	1	70.82	mg/L	102	85	115			
WG456162CCV2	CCV	09/13/18 13:08	II180831-3	50		49.67	mg/L	99	90	110			
WG456162CCB2	CCB	09/13/18 13:11				U	mg/L		-0.3	0.3			
L45307-08ASD	ASD	09/13/18 13:14	II180827-2	68.16145	1	72.34	mg/L	105	85	115	2	20	
WG456162CCV3	CCV	09/13/18 13:29	II180831-3	50		50.06	mg/L	100	90	110			
WG456162CCB3	CCB	09/13/18 13:32				U	mg/L		-0.3	0.3			

Rio Grande Silver, Inc.

ACZ Project ID: ***L46696***

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
WG455055													
WG455055ICV	ICV	08/21/18 2:18	WI180625-3	19.96		19.8	mg/L	99	90	110			
WG455055ICB	ICB	08/21/18 2:36				U	mg/L		-0.4	0.4			
WG456010													
WG456010CCV1	CCV	09/11/18 12:02	WI180820-3	50		49.8	mg/L	100	90	110			
WG456010CCB1	CCB	09/11/18 12:20				U	mg/L		-0.4	0.4			
WG456010PQV	PQV	09/11/18 12:38	WI180820-5	2		2.09	mg/L	105	70	130			
WG456010LFB1	LFB	09/11/18 12:56	WI180430-12	30		29.9	mg/L	100	90	110			
WG456010CCV2	CCV	09/11/18 15:37	WI180820-3	50		50.1	mg/L	100	90	110			
WG456010CCB2	CCB	09/11/18 15:55				U	mg/L		-0.4	0.4			
L46519-10DUP	DUP	09/11/18 17:42			16.8	16.6	mg/L				1	20	RA
L46544-01AS	AS	09/11/18 18:18	WI180430-12	600	87.8	677	mg/L	98	90	110			
WG456010CCV3	CCV	09/11/18 19:12	WI180820-3	50		50	mg/L	100	90	110			
WG456010CCB3	CCB	09/11/18 19:30				U	mg/L		-0.4	0.4			
WG456010LFB2	LFB	09/11/18 21:35	WI180430-12	30		30	mg/L	100	90	110			
WG456010CCV4	CCV	09/11/18 22:47	WI180820-3	50		50.1	mg/L	100	90	110			
WG456010CCB4	CCB	09/11/18 23:05				U	mg/L		-0.4	0.4			
WG456010CCV5	CCV	09/12/18 2:04	WI180820-3	50		50.1	mg/L	100	90	110			
WG456010CCB5	CCB	09/12/18 2:22				U	mg/L		-0.4	0.4			
WG456010CCV6	CCV	09/12/18 9:23	WI180820-3	50		50.2	mg/L	100	90	110			
WG456010CCB6	CCB	09/12/18 9:40				U	mg/L		-0.4	0.4			
WG456010PQV1	PQV	09/12/18 9:58	WI180820-5	2		2.12	mg/L	106	70	130			
WG456010CCV7	CCV	09/12/18 11:28	WI180820-3	50		50.1	mg/L	100	90	110			
WG456010CCB7	CCB	09/12/18 11:46				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
WG456416													
WG456416ICV	ICV	09/15/18 11:14	MS180914-2	.05		.04987	mg/L	100	90	110			
WG456416ICB	ICB	09/15/18 11:16				U	mg/L		-0.00088	0.00088			
WG456416LFB	LFB	09/15/18 11:18	MS180830-2	.0491		.04661	mg/L	95	85	115			
L46714-01AS	AS	09/15/18 11:23	MS180830-2	.0491	.0013	.05034	mg/L	100	70	130			
L46714-01ASD	ASD	09/15/18 11:25	MS180830-2	.0491	.0013	.05012	mg/L	99	70	130	0	20	
WG456416CCV1	CCV	09/15/18 11:32	MS180808-2	.2455		.25888	mg/L	105	90	110			
WG456416CCB1	CCB	09/15/18 11:34				U	mg/L		-0.0012	0.0012			
WG456416CCV2	CCV	09/15/18 11:54	MS180808-2	.2455		.25476	mg/L	104	90	110			
WG456416CCB2	CCB	09/15/18 11:56				U	mg/L		-0.0012	0.0012			
WG456416CCV3	CCV	09/15/18 12:10	MS180808-2	.2455		.26017	mg/L	106	90	110			
WG456416CCB3	CCB	09/15/18 12:12				U	mg/L		-0.0012	0.0012			

Rio Grande Silver, Inc.

ACZ Project ID: ***L46696***

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
WG456522													
WG456522ICV	ICV	09/17/18 18:07	MS180914-2	.05		.05048	mg/L	101	90	110			
WG456522ICB	ICB	09/17/18 18:10				U	mg/L		-0.0012	0.0012			
WG456358LRB	LRB	09/17/18 18:13				U	mg/L		-0.00088	0.00088			
WG456358LFB	LFB	09/17/18 18:16	MS180830-2	.0491		.05	mg/L	102	85	115			
L46687-01LFM	LFM	09/17/18 18:29	MS180830-2	.0491	.0005	.04534	mg/L	91	70	130			
L46687-01LFMD	LFMD	09/17/18 18:32	MS180830-2	.0491	.0005	.04465	mg/L	90	70	130	2	20	
WG456522CCV1	CCV	09/17/18 18:41	MS180808-2	.2455		.2507	mg/L	102	90	110			
WG456522CCB1	CCB	09/17/18 18:44				U	mg/L		-0.0012	0.0012			
WG456522CCV2	CCV	09/17/18 19:18	MS180808-2	.2455		.2526	mg/L	103	90	110			
WG456522CCB2	CCB	09/17/18 19:21				U	mg/L		-0.0012	0.0012			
WG456522CCV3	CCV	09/17/18 19:43	MS180808-2	.2455		.247	mg/L	101	90	110			
WG456522CCB3	CCB	09/17/18 19:46				U	mg/L		-0.0012	0.0012			

Fluoride SM4500F-C

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG455928													
WG455928ICV	ICV	09/10/18 10:40	WC180830-1	1.996		2	mg/L	100	90	110			
WG455928ICB	ICB	09/10/18 10:44				.051	mg/L		-0.15	0.15			
WG455928PQV	PQV	09/10/18 10:48	WC180829-1	.25075		.209	mg/L	83	70	130			
WG455928LFB1	LFB	09/10/18 10:52	WC180508-10	5.015		5.138	mg/L	102	90	110			
WG455928CCV1	CCV	09/10/18 12:08	WC180830-1	1.996		2.103	mg/L	105	90	110			
WG455928CCB1	CCB	09/10/18 12:14				U	mg/L		-0.15	0.15			
L46647-01AS	AS	09/10/18 13:12	WC180508-10	200.6	633	811.2	mg/L	89	90	110			M2
L46647-01ASD	ASD	09/10/18 13:20	WC180508-10	200.6	633	811.2	mg/L	89	90	110	0	20	M2
WG455928CCV2	CCV	09/10/18 13:53	WC180830-1	1.996		2.036	mg/L	102	90	110			
WG455928CCB2	CCB	09/10/18 13:57				.074	mg/L		-0.15	0.15			
WG455928CCV3	CCV	09/10/18 15:05	WC180830-1	1.996		2.083	mg/L	104	90	110			
WG455928CCB3	CCB	09/10/18 15:09				.09	mg/L		-0.15	0.15			
WG455928LFB2	LFB	09/10/18 15:20	WC180508-10	5.015		4.887	mg/L	97	90	110			
WG455928CCV4	CCV	09/10/18 17:00	WC180830-1	1.996		2.171	mg/L	109	90	110			
WG455928CCB4	CCB	09/10/18 17:05				U	mg/L		-0.15	0.15			
WG455928CCV5	CCV	09/10/18 17:44	WC180830-1	1.996		1.793	mg/L	90	90	110			
WG455928CCB5	CCB	09/10/18 17:48				U	mg/L		-0.15	0.15			

Rio Grande Silver, Inc.

ACZ Project ID: ***L46696***

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
WG456162													
WG456162ICV	ICV	09/13/18 11:44	II180824-2	2		1.943	mg/L	97	95	105			
WG456162ICB	ICB	09/13/18 11:50				U	mg/L		-0.06	0.06			
WG456162PQV	PQV	09/13/18 11:53	II180831-2	.05009		.054	mg/L	108	70	130			
WG456162SIC	SIC	09/13/18 11:56	II180821-4	200.41009		188.8	mg/L	94	1	200			
WG456162LFB	LFB	09/13/18 12:02	II180827-2	1.0018		1.093	mg/L	109	85	115			
WG456162CCV1	CCV	09/13/18 12:32	II180831-3	1		1.004	mg/L	100	90	110			
WG456162CCB1	CCB	09/13/18 12:35				U	mg/L		-0.06	0.06			
L45307-08AS	AS	09/13/18 13:05	II180827-2	1.0018	.22	1.332	mg/L	111	85	115			
WG456162CCV2	CCV	09/13/18 13:08	II180831-3	1		1.005	mg/L	101	90	110			
WG456162CCB2	CCB	09/13/18 13:11				U	mg/L		-0.06	0.06			
L45307-08ASD	ASD	09/13/18 13:14	II180827-2	1.0018	.22	1.357	mg/L	113	85	115	2	20	
WG456162CCV3	CCV	09/13/18 13:29	II180831-3	1		1.021	mg/L	102	90	110			
WG456162CCB3	CCB	09/13/18 13:32				U	mg/L		-0.06	0.06			

Iron, total recoverable M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG456479													
WG456479ICV	ICV	09/18/18 0:15	II180824-2	2		1.946	mg/L	97	95	105			
WG456479ICB	ICB	09/18/18 0:20				U	mg/L		-0.06	0.06			
WG456479PQV	PQV	09/18/18 0:24	II180831-2	.05009		.057	mg/L	114	70	130			
WG456479SIC	SIC	09/18/18 0:27	II180821-4	200.41009		189.7	mg/L	95	1	200			
WG456302LRB	LRB	09/18/18 0:33				U	mg/L		-0.044	0.044			
WG456302LFB	LFB	09/18/18 0:36	II180827-2	1.0018		1.084	mg/L	108	85	115			
WG456479CCV1	CCV	09/18/18 1:03	II180831-3	1		1.017	mg/L	102	90	110			
WG456479CCB1	CCB	09/18/18 1:06				U	mg/L		-0.06	0.06			
L46725-02LFM	LFM	09/18/18 1:09	II180827-2	1.0018	81.1	83.25	mg/L	215	70	130			M3
L46725-02LFMD	LFMD	09/18/18 1:12	II180827-2	1.0018	81.1	83.47	mg/L	237	70	130	0	20	M3
WG456479CCV2	CCV	09/18/18 1:39	II180831-3	1		.969	mg/L	97	90	110			
WG456479CCB2	CCB	09/18/18 1:42				U	mg/L		-0.06	0.06			
WG456479CCV3	CCV	09/18/18 2:04	II180831-3	1		1.008	mg/L	101	90	110			
WG456479CCB3	CCB	09/18/18 2:07				U	mg/L		-0.06	0.06			

Lead, dissolved M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG456416													
WG456416ICV	ICV	09/15/18 11:14	MS180914-2	.05		.04785	mg/L	96	90	110			
WG456416ICB	ICB	09/15/18 11:16				U	mg/L		-0.00022	0.00022			
WG456416LFB	LFB	09/15/18 11:18	MS180830-2	.0496		.04602	mg/L	93	85	115			
L46714-01AS	AS	09/15/18 11:23	MS180830-2	.0496	.0001	.04801	mg/L	97	70	130			
L46714-01ASD	ASD	09/15/18 11:25	MS180830-2	.0496	.0001	.04879	mg/L	98	70	130	2	20	
WG456416CCV1	CCV	09/15/18 11:32	MS180808-2	.248		.25349	mg/L	102	90	110			
WG456416CCB1	CCB	09/15/18 11:34				U	mg/L		-0.0003	0.0003			
WG456416CCV2	CCV	09/15/18 11:54	MS180808-2	.248		.24324	mg/L	98	90	110			
WG456416CCB2	CCB	09/15/18 11:56				U	mg/L		-0.0003	0.0003			
WG456416CCV3	CCV	09/15/18 12:10	MS180808-2	.248		.25147	mg/L	101	90	110			
WG456416CCB3	CCB	09/15/18 12:12				U	mg/L		-0.0003	0.0003			

Rio Grande Silver, Inc.

ACZ Project ID: ***L46696***

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
WG456522													
WG456522ICV	ICV	09/17/18 18:07	MS180914-2	.05		.05015	mg/L	100	90	110			
WG456522ICB	ICB	09/17/18 18:10				U	mg/L		-0.0003	0.0003			
WG456358LRB	LRB	09/17/18 18:13				U	mg/L		-0.00022	0.00022			
WG456358LFB	LFB	09/17/18 18:16	MS180830-2	.0496		.04943	mg/L	100	85	115			
L46687-01LFM	LFM	09/17/18 18:29	MS180830-2	.0496	.0002	.05116	mg/L	103	70	130			
L46687-01LFMD	LFMD	09/17/18 18:32	MS180830-2	.0496	.0002	.05109	mg/L	103	70	130	0	20	
WG456522CCV1	CCV	09/17/18 18:41	MS180808-2	.248		.2544	mg/L	103	90	110			
WG456522CCB1	CCB	09/17/18 18:44				U	mg/L		-0.0003	0.0003			
WG456522CCV2	CCV	09/17/18 19:18	MS180808-2	.248		.2536	mg/L	102	90	110			
WG456522CCB2	CCB	09/17/18 19:21				U	mg/L		-0.0003	0.0003			
WG456522CCV3	CCV	09/17/18 19:43	MS180808-2	.248		.2539	mg/L	102	90	110			
WG456522CCB3	CCB	09/17/18 19:46				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
WG456162													
WG456162ICV	ICV	09/13/18 11:44	II180824-2	100		99.34	mg/L	99	95	105			
WG456162ICB	ICB	09/13/18 11:50				U	mg/L		-0.6	0.6			
WG456162PQV	PQV	09/13/18 11:53	II180831-2	1.0012		.94	mg/L	94	70	130			
WG456162SIC	SIC	09/13/18 11:56	II180821-4	201.2412		199.4	mg/L	99	1	200			
WG456162LFB	LFB	09/13/18 12:02	II180827-2	50.2933		47.93	mg/L	95	85	115			
WG456162CCV1	CCV	09/13/18 12:32	II180831-3	50		50.61	mg/L	101	90	110			
WG456162CCB1	CCB	09/13/18 12:35				U	mg/L		-0.6	0.6			
L45307-08AS	AS	09/13/18 13:05	II180827-2	50.2933	U	49.43	mg/L	98	85	115			
WG456162CCV2	CCV	09/13/18 13:08	II180831-3	50		50.63	mg/L	101	90	110			
WG456162CCB2	CCB	09/13/18 13:11				U	mg/L		-0.6	0.6			
L45307-08ASD	ASD	09/13/18 13:14	II180827-2	50.2933	U	50.39	mg/L	100	85	115	2	20	
WG456162CCV3	CCV	09/13/18 13:29	II180831-3	50		51.11	mg/L	102	90	110			
WG456162CCB3	CCB	09/13/18 13:32				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
WG456389													
WG456389ICV	ICV	09/17/18 11:54	II180824-2	2		1.9185	mg/L	96	95	105			
WG456389ICB	ICB	09/17/18 12:00				U	mg/L		-0.015	0.015			
WG456389PQV	PQV	09/17/18 12:04	II180831-2	.02505		.0253	mg/L	101	70	130			
WG456389SIC	SIC	09/17/18 12:07	II180821-4	50.07505		46.68	mg/L	93	1	200			
WG456389LFB	LFB	09/17/18 12:13	II180913-2	.0501		.0602	mg/L	120	85	115			LA M3
WG456389CCV1	CCV	09/17/18 12:46	II180831-3	1		.9772	mg/L	98	90	110			
WG456389CCB1	CCB	09/17/18 12:49				U	mg/L		-0.015	0.015			
L46601-04AS	AS	09/17/18 13:11	II180913-2	.0501	U	.0595	mg/L	119	85	115			M1
L46601-04ASD	ASD	09/17/18 13:15	II180913-2	.0501	U	.0595	mg/L	119	85	115	0	20	M1
WG456389CCV2	CCV	09/17/18 13:24	II180831-3	1		.9758	mg/L	98	90	110			
WG456389CCB2	CCB	09/17/18 13:27				U	mg/L		-0.015	0.015			
WG456389CCV3	CCV	09/17/18 13:47	II180831-3	1		.9931	mg/L	99	90	110			
WG456389CCB3	CCB	09/17/18 13:50				U	mg/L		-0.015	0.015			

Rio Grande Silver, Inc.

ACZ Project ID: ***L46696***

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
WG456479													
WG456479ICV	ICV	09/18/18 0:15	II180824-2	2		1.9455	mg/L	97	95	105			
WG456479ICB	ICB	09/18/18 0:20				U	mg/L		-0.015	0.015			
WG456479PQV	PQV	09/18/18 0:24	II180831-2	.02505		.0282	mg/L	113	70	130			
WG456479SIC	SIC	09/18/18 0:27	II180821-4	50.07505		45.9	mg/L	92	1	200			
WG456302LRB	LRB	09/18/18 0:33				U	mg/L		-0.011	0.011			
WG456302LFB	LFB	09/18/18 0:36	II180827-2	.5005		.5303	mg/L	106	85	115			
WG456479CCV1	CCV	09/18/18 1:03	II180831-3	1		1.013	mg/L	101	90	110			
WG456479CCB1	CCB	09/18/18 1:06				U	mg/L		-0.015	0.015			
L46725-02LFM	LFM	09/18/18 1:09	II180827-2	.5005	29.7	30.43	mg/L	146	70	130			M3
L46725-02LFMD	LFMD	09/18/18 1:12	II180827-2	.5005	29.7	30.5	mg/L	160	70	130	0	20	M3
WG456479CCV2	CCV	09/18/18 1:39	II180831-3	1		.9726	mg/L	97	90	110			
WG456479CCB2	CCB	09/18/18 1:42				U	mg/L		-0.015	0.015			
WG456479CCV3	CCV	09/18/18 2:04	II180831-3	1		1.008	mg/L	101	90	110			
WG456479CCB3	CCB	09/18/18 2:07				U	mg/L		-0.015	0.015			

Mercury, total M245.1 CVAA

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG456243													
WG456243ICV	ICV	09/14/18 13:13	HG180822-3	.004995		.00499	mg/L	100	95	105			
WG456243ICB	ICB	09/14/18 13:14				U	mg/L		-0.0002	0.0002			
WG456244													
WG456244CCV1	CCV	09/14/18 13:46	HG180822-3	.004995		.00495	mg/L	99	90	110			
WG456244CCB1	CCB	09/14/18 13:47				U	mg/L		-0.0002	0.0002			
WG456244PQV	PQV	09/14/18 13:48	HG180822-5	.001001		.00083	mg/L	83	70	130			
WG456244LRB	LRB	09/14/18 13:49				U	mg/L		-0.00044	0.00044			
WG456244CCV2	CCV	09/14/18 13:58	HG180822-3	.004995		.00485	mg/L	97	90	110			
WG456244CCB2	CCB	09/14/18 13:59				U	mg/L		-0.0002	0.0002			
WG456244CCV3	CCV	09/14/18 14:09	HG180822-3	.004995		.00485	mg/L	97	90	110			
WG456244CCB3	CCB	09/14/18 14:10				U	mg/L		-0.0002	0.0002			
WG456244CCV4	CCV	09/14/18 14:20	HG180822-3	.004995		.00478	mg/L	96	90	110			
WG456244CCB4	CCB	09/14/18 14:21				U	mg/L		-0.0002	0.0002			
L46713-01LFM	LFM	09/14/18 14:22	HG180822-6	.002002	U	.00166	mg/L	83	85	115			M2
L46713-01LFMD	LFMD	09/14/18 14:23	HG180822-6	.002002	U	.00168	mg/L	84	85	115	1	20	M2
WG456244LFB	LFB	09/14/18 14:29	HG180822-6	.002002		.00174	mg/L	87	85	115			
WG456244CCV5	CCV	09/14/18 14:30	HG180822-3	.004995		.00472	mg/L	94	90	110			
WG456244CCB5	CCB	09/14/18 14:31				U	mg/L		-0.0002	0.0002			

Rio Grande Silver, Inc.

ACZ Project ID: ***L46696***

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
WG455691													
WG455691ICV	ICV	09/05/18 22:24	WI180905-11	2.416		2.334	mg/L	97	90	110			
WG455691ICB	ICB	09/05/18 22:26				U	mg/L		-0.02	0.02			
WG455691LFB	LFB	09/05/18 22:29	WI180703-7	2		1.979	mg/L	99	90	110			
L37475-67AS	AS	09/05/18 22:32	WI180703-7	2	.04	2.002	mg/L	98	90	110			
L46633-05DUP	DUP	09/05/18 22:34			U	U	mg/L				0	20	RA
WG455691CCV1	CCV	09/05/18 22:39	WI180830-4	2		1.955	mg/L	98	90	110			
WG455691CCB1	CCB	09/05/18 22:43				U	mg/L		-0.02	0.02			
WG455691CCV2	CCV	09/05/18 22:52	WI180830-4	2		1.944	mg/L	97	90	110			
WG455691CCB2	CCB	09/05/18 22:55				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
WG455691													
WG455691ICV	ICV	09/05/18 22:24	WI180905-11	.609		.603	mg/L	99	90	110			
WG455691ICB	ICB	09/05/18 22:26				U	mg/L		-0.01	0.01			
WG455691LFB	LFB	09/05/18 22:29	WI180703-7	1		1.011	mg/L	101	90	110			
L37475-67AS	AS	09/05/18 22:32	WI180703-7	1	U	.989	mg/L	99	90	110			
L46633-05DUP	DUP	09/05/18 22:34			U	U	mg/L				0	20	RA
WG455691CCV1	CCV	09/05/18 22:39	WI180830-4	1		.98	mg/L	98	90	110			
WG455691CCB1	CCB	09/05/18 22:43				U	mg/L		-0.01	0.01			
WG455691CCV2	CCV	09/05/18 22:52	WI180830-4	1		.987	mg/L	99	90	110			
WG455691CCB2	CCB	09/05/18 22:55				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
WG455841													
WG455841ICV	ICV	09/07/18 11:56	WI180626-2	11.988		11.801	mg/L	98	90	110			
WG455841ICB	ICB	09/07/18 11:58				U	mg/L		-0.05	0.05			
WG455841LFB1	LFB	09/07/18 11:59	WI180905-1	10		9.89	mg/L	99	90	110			
L46625-01DUP	DUP	09/07/18 12:02			.17	.18	mg/L				6	20	RA
L46625-02AS	AS	09/07/18 12:05	WI180905-1	10	U	9.781	mg/L	98	90	110			
WG455841CCV1	CCV	09/07/18 12:14	WI180626-1	10		10.17	mg/L	102	90	110			
WG455841CCB1	CCB	09/07/18 12:15				U	mg/L		-0.05	0.05			
WG455841CCV2	CCV	09/07/18 13:33	WI180626-1	10		9.821	mg/L	98	90	110			
WG455841CCB2	CCB	09/07/18 13:35				U	mg/L		-0.05	0.05			
WG455841CCV3	CCV	09/07/18 13:51	WI180626-1	10		10.376	mg/L	104	90	110			
WG455841CCB3	CCB	09/07/18 13:52				U	mg/L		-0.05	0.05			
WG455841LFB2	LFB	09/07/18 14:01	WI180905-1	10		9.938	mg/L	99	90	110			
WG455841CCV4	CCV	09/07/18 14:08	WI180626-1	10		10.392	mg/L	104	90	110			
WG455841CCB4	CCB	09/07/18 14:10				U	mg/L		-0.05	0.05			

Rio Grande Silver, Inc.

ACZ Project ID: ***L46696***

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
WG456099													
WG456099ICV	ICV	09/12/18 0:58	WI180905-5	4		4.02	mg/L	101	90	110			
WG456099ICB	ICB	09/12/18 1:00				U	mg/L		-0.1	0.1			
WG455814LRB	LRB	09/12/18 1:01				U	mg/L		-0.1	0.1			
WG455814LFB	LFB	09/12/18 1:02	WI180803-10	2.5		2.43	mg/L	97	90	110			
WG456099CCV1	CCV	09/12/18 1:12	WI180905-3	2.5		2.49	mg/L	100	90	110			
WG456099CCB1	CCB	09/12/18 1:13				U	mg/L		-0.1	0.1			
L46634-07LFM	LFM	09/12/18 1:20	WI180803-10	2.5	U	3	mg/L	120	90	110			M1
L46634-08DUP	DUP	09/12/18 1:22			.2	.26	mg/L				26	20	RA
WG456099CCV2	CCV	09/12/18 1:25	WI180905-3	2.5		2.41	mg/L	96	90	110			
WG456099CCB2	CCB	09/12/18 1:27				U	mg/L		-0.1	0.1			
WG456099CCV3	CCV	09/12/18 1:35	WI180905-3	2.5		2.48	mg/L	99	90	110			
WG456099CCB3	CCB	09/12/18 1:36				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
WG455878													
WG455878LCSW1	LCSW	09/07/18 16:15	PCN55475	6.01		6.1	units	101	5.9	6.1			
L46701-02DUP	DUP	09/07/18 17:33			7.1	7.1	units				0	20	
WG455878LCSW4	LCSW	09/07/18 19:02	PCN55475	6.01		6.1	units	101	5.9	6.1			
WG455878LCSW7	LCSW	09/07/18 21:23	PCN55475	6.01		6.1	units	101	5.9	6.1			

Potassium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG456162													
WG456162ICV	ICV	09/13/18 11:44	II180824-2	20		19.82	mg/L	99	95	105			
WG456162ICB	ICB	09/13/18 11:50				U	mg/L		-0.6	0.6			
WG456162PQV	PQV	09/13/18 11:53	II180831-2	1.002		.99	mg/L	99	70	130			
WG456162SIC	SIC	09/13/18 11:56	II180821-4	1.002		.98	mg/L	98	80	120			
WG456162LFB	LFB	09/13/18 12:02	II180827-2	101.3833		101.4	mg/L	100	85	115			
WG456162CCV1	CCV	09/13/18 12:32	II180831-3	10		10.14	mg/L	101	90	110			
WG456162CCB1	CCB	09/13/18 12:35				U	mg/L		-0.6	0.6			
L45307-08AS	AS	09/13/18 13:05	II180827-2	101.3833	1.5	106.8	mg/L	104	85	115			
WG456162CCV2	CCV	09/13/18 13:08	II180831-3	10		10.15	mg/L	102	90	110			
WG456162CCB2	CCB	09/13/18 13:11				U	mg/L		-0.6	0.6			
L45307-08ASD	ASD	09/13/18 13:14	II180827-2	101.3833	1.5	108.9	mg/L	106	85	115	2	20	
WG456162CCV3	CCV	09/13/18 13:29	II180831-3	10		10.29	mg/L	103	90	110			
WG456162CCB3	CCB	09/13/18 13:32				U	mg/L		-0.6	0.6			

Residue, Filterable (TDS) @180C SM2540C

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG455733													
WG455733PBW	PBW	09/06/18 10:30				U	mg/L		-20	20			
WG455733LCSW	LCSW	09/06/18 10:32	PCN56353	260		264	mg/L	102	80	120			
WG455733PQV	PQV	09/06/18 10:35	WC180831-5	20		22	mg/L	110	50	150			
L46713-02DUP	DUP	09/06/18 11:02			346	346	mg/L				0	10	

Rio Grande Silver, Inc.

ACZ Project ID: ***L46696***

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, dissolved M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG456416													
WG456416ICV	ICV	09/15/18 11:14	MS180914-2	.02004		.01848	mg/L	92	90	110			
WG456416ICB	ICB	09/15/18 11:16				U	mg/L		-0.00011	0.00011			
WG456416LFB	LFB	09/15/18 11:18	MS180830-2	.01002		.00853	mg/L	85	85	115			
L46714-01AS	AS	09/15/18 11:23	MS180830-2	.01002	U	.008947	mg/L	89	70	130			
L46714-01ASD	ASD	09/15/18 11:25	MS180830-2	.01002	U	.009045	mg/L	90	70	130	1	20	
WG456416CCV1	CCV	09/15/18 11:32	MS180808-2	.0251		.025695	mg/L	102	90	110			
WG456416CCB1	CCB	09/15/18 11:34				U	mg/L		-0.00015	0.00015			
WG456416CCV2	CCV	09/15/18 11:54	MS180808-2	.0251		.023726	mg/L	95	90	110			
WG456416CCB2	CCB	09/15/18 11:56				.000338	mg/L		-0.00015	0.00015			BE
WG456416CCV3	CCV	09/15/18 12:10	MS180808-2	.0251		.022089	mg/L	88	90	110			
WG456416CCB3	CCB	09/15/18 12:12				.000283	mg/L		-0.00015	0.00015			

Silver, total recoverable M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG456689													
WG456689ICV	ICV	09/19/18 13:03	MS180914-2	.02004		.021279	mg/L	106	90	110			
WG456689ICB	ICB	09/19/18 13:05				U	mg/L		-0.00015	0.00015			
WG456358LRB	LRB	09/19/18 13:07				U	mg/L		-0.00011	0.00011			
WG456358LFB	LFB	09/19/18 13:08	MS180830-2	.01002		.010084	mg/L	101	85	115			
L46687-01LFM	LFM	09/19/18 13:15	MS180830-2	.01002	U	.007289	mg/L	73	70	130			
L46687-01LFMD	LFMD	09/19/18 13:17	MS180830-2	.01002	U	.007362	mg/L	73	70	130	1	20	
WG456689CCV1	CCV	09/19/18 13:24	MS180808-2	.0251		.024922	mg/L	99	90	110			
WG456689CCB1	CCB	09/19/18 13:25				U	mg/L		-0.00015	0.00015			
WG456689CCV2	CCV	09/19/18 13:34	MS180808-2	.0251		.024937	mg/L	99	90	110			
WG456689CCB2	CCB	09/19/18 13:36				U	mg/L		-0.00015	0.00015			

Sodium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG456162													
WG456162ICV	ICV	09/13/18 11:44	II180824-2	100		99.6	mg/L	100	95	105			
WG456162ICB	ICB	09/13/18 11:50				U	mg/L		-0.6	0.6			
WG456162PQV	PQV	09/13/18 11:53	II180831-2	.998		1.04	mg/L	104	70	130			
WG456162SIC	SIC	09/13/18 11:56	II180821-4	.998		1.07	mg/L	107	80	120			
WG456162LFB	LFB	09/13/18 12:02	II180827-2	100.8796		101.7	mg/L	101	85	115			
WG456162CCV1	CCV	09/13/18 12:32	II180831-3	50		51.15	mg/L	102	90	110			
WG456162CCB1	CCB	09/13/18 12:35				U	mg/L		-0.6	0.6			
L45307-08AS	AS	09/13/18 13:05	II180827-2	100.8796	106	206.4	mg/L	100	85	115			
WG456162CCV2	CCV	09/13/18 13:08	II180831-3	50		50.98	mg/L	102	90	110			
WG456162CCB2	CCB	09/13/18 13:11				U	mg/L		-0.6	0.6			
L45307-08ASD	ASD	09/13/18 13:14	II180827-2	100.8796	106	209	mg/L	102	85	115	1	20	
WG456162CCV3	CCV	09/13/18 13:29	II180831-3	50		51.43	mg/L	103	90	110			
WG456162CCB3	CCB	09/13/18 13:32				U	mg/L		-0.6	0.6			

Rio Grande Silver, Inc.

ACZ Project ID: ***L46696***

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
WG456620													
WG456620CCV1	CCV	09/18/18 18:16	WI180918-4	50		48.6	mg/L	97	90	110			
WG456620CCB1	CCB	09/18/18 18:34				U	mg/L		-0.4	0.4			
WG456620PQV	PQV	09/18/18 18:52	WI180820-5	2.006		2.52	mg/L	126	70	130			
WG456620LFB1	LFB	09/18/18 19:10	WI180430-12	30		29.6	mg/L	99	90	110			BA
WG456620CCV2	CCV	09/18/18 21:51	WI180918-4	50		49	mg/L	98	90	110			
WG456620CCB2	CCB	09/18/18 22:09				.43	mg/L		-0.4	0.4			BA
L46577-01DUP	DUP	09/18/18 23:56			709	710	mg/L				0	20	
L46577-02AS	AS	09/19/18 0:32	WI180430-12	300	448	728	mg/L	93	90	110			
WG456620CCV3	CCV	09/19/18 1:26	WI180918-4	50		50.4	mg/L	101	90	110			
WG456620CCB3	CCB	09/19/18 1:44				U	mg/L		-0.4	0.4			
WG456620LFB2	LFB	09/19/18 3:49	WI180430-12	30		29.8	mg/L	99	90	110			
WG456620CCV4	CCV	09/19/18 5:01	WI180918-4	50		48.9	mg/L	98	90	110			
WG456620CCB4	CCB	09/19/18 5:19				U	mg/L		-0.4	0.4			
WG456620CCV5	CCV	09/19/18 8:18	WI180918-4	50		49.3	mg/L	99	90	110			
WG456620CCB5	CCB	09/19/18 8:36				U	mg/L		-0.4	0.4			
WG456620CCV6	CCV	09/19/18 11:31	WI180918-4	50		48.7	mg/L	97	90	110			
WG456620CCB6	CCB	09/19/18 11:49				U	mg/L		-0.4	0.4			
WG456620PQV1	PQV	09/19/18 12:07	WI180820-5	2.006		2.34	mg/L	117	70	130			
WG456620CCV7	CCV	09/19/18 14:30	WI180918-4	50		48.9	mg/L	98	90	110			
WG456620CCB7	CCB	09/19/18 14:48				U	mg/L		-0.4	0.4			

Sulfide as S SM4500S2-D

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG455734													
WG455734ICV	ICV	09/06/18 10:30	WC180906-3	.284		.292	mg/L	103	90	110			
WG455734ICB	ICB	09/06/18 10:37				U	mg/L		-0.06	0.06			
WG455734LFB1	LFB	09/06/18 10:45	WC180906-6	.2053333		.236	mg/L	115	80	120			
WG455734CCV1	CCV	09/06/18 12:05	WC180906-4	.154		.166	mg/L	108	90	110			
WG455734CCB1	CCB	09/06/18 12:13				U	mg/L		-0.06	0.06			
WG455734CCV2	CCV	09/06/18 13:40	WC180906-4	.154		.167	mg/L	108	90	110			
WG455734CCB2	CCB	09/06/18 13:48				U	mg/L		-0.06	0.06			
L46713-03AS	AS	09/06/18 14:20	WC180906-6	.769999875	U	.863	mg/L	112	75	125			
L46713-03DUP	DUP	09/06/18 14:28			U	U	mg/L				0	20	RA
WG455734LFB2	LFB	09/06/18 14:35	WC180906-6	.2053333		.233	mg/L	113	80	120			
WG455734CCV3	CCV	09/06/18 15:15	WC180906-4	.154		.168	mg/L	109	90	110			
WG455734CCB3	CCB	09/06/18 15:23				U	mg/L		-0.06	0.06			
WG455734CCV4	CCV	09/06/18 16:27	WC180906-4	.154		.167	mg/L	108	90	110			
WG455734CCB4	CCB	09/06/18 16:34				U	mg/L		-0.06	0.06			

Rio Grande Silver, Inc.

ACZ Project ID: ***L46696***

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
WG456416													
WG456416ICV	ICV	09/15/18 11:14	MS180914-2	.05		.0494	mg/L	99	90	110			
WG456416ICB	ICB	09/15/18 11:16				U	mg/L		-0.0044	0.0044			
WG456416LFB	LFB	09/15/18 11:18	MS180830-2	.050075		.047	mg/L	94	85	115			
L46714-01AS	AS	09/15/18 11:23	MS180830-2	.050075	.01	.0594	mg/L	99	70	130			
L46714-01ASD	ASD	09/15/18 11:25	MS180830-2	.050075	.01	.0597	mg/L	99	70	130	1	20	
WG456416CCV1	CCV	09/15/18 11:32	MS180808-2	.50075		.4901	mg/L	98	90	110			
WG456416CCB1	CCB	09/15/18 11:34				U	mg/L		-0.006	0.006			
WG456416CCV2	CCV	09/15/18 11:54	MS180808-2	.50075		.4758	mg/L	95	90	110			
WG456416CCB2	CCB	09/15/18 11:56				U	mg/L		-0.006	0.006			
WG456416CCV3	CCV	09/15/18 12:10	MS180808-2	.50075		.5012	mg/L	100	90	110			
WG456416CCB3	CCB	09/15/18 12:12				U	mg/L		-0.006	0.006			

Zinc, total recoverable M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG456522													
WG456522ICV	ICV	09/17/18 18:07	MS180914-2	.05		.0509	mg/L	102	90	110			
WG456522ICB	ICB	09/17/18 18:10				U	mg/L		-0.006	0.006			
WG456358LRB	LRB	09/17/18 18:13				.0024	mg/L		-0.0044	0.0044			
WG456358LFB	LFB	09/17/18 18:16	MS180830-2	.050075		.0513	mg/L	102	85	115			
L46687-01LFM	LFM	09/17/18 18:29	MS180830-2	.050075	.006	.0502	mg/L	88	70	130			
L46687-01LFMD	LFMD	09/17/18 18:32	MS180830-2	.050075	.006	.0498	mg/L	87	70	130	1	20	
WG456522CCV1	CCV	09/17/18 18:41	MS180808-2	.50075		.4973	mg/L	99	90	110			
WG456522CCB1	CCB	09/17/18 18:44				U	mg/L		-0.006	0.006			
WG456522CCV2	CCV	09/17/18 19:18	MS180808-2	.50075		.4931	mg/L	98	90	110			
WG456522CCB2	CCB	09/17/18 19:21				U	mg/L		-0.006	0.006			
WG456522CCV3	CCV	09/17/18 19:43	MS180808-2	.50075		.4947	mg/L	99	90	110			
WG456522CCB3	CCB	09/17/18 19:46				U	mg/L		-0.006	0.006			

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

Inorganic Extended Qualifier Report

Rio Grande Silver, Inc.

ACZ Project ID: ***L46696***

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L46696-01	WG456010	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).
	WG455928	Fluoride	SM4500F-C	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG456479	Iron, total recoverable	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.
	WG456389	Manganese, dissolved	M200.7 ICP	LA	Recovery for target analyte in the control sample (LCS or LFB) exceeded the acceptance criteria. Target analyte was not detected in the sample [< MDL].
			M200.7 ICP	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG456479	Manganese, total recoverable	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.
	WG456244	Mercury, total	M245.1 CVAA	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG455691	Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG455841	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).
	WG456099	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).
	WG455734	Sulfide as S	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).

Rio Grande Silver, Inc.
Project ID: BO40519
Sample ID: HW-2

ACZ Sample ID: ***L46696-01***
Date Sampled: *09/04/18 10:15*
Date Received: *09/05/18*
Sample Matrix: *Groundwater*

Oil & Grease, Total Recoverable

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

Workgroup: WG456057
Analyst: RGT
Extract Date:
Analysis Date: 09/11/18 13:49

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

Report Header Explanations

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

QC Sample Types

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

QC Sample Type Explanations

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

ACZ Qualifiers (Qual)

B	Analyte concentration detected at a value between MDL and PQL. The associated value is an estimated quantity.
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: http://www.acz.com/public/extquallist.pdf

Rio Grande Silver, Inc.

ACZ Project ID: ***L46696***

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

WG456057

MS **Sample ID: L46724-01MS** **PCN/SCN: OP180907-2** **Analyzed: 09/11/18 14:38**

Compound	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
OIL AND GREASE	40	U	29.4	mg/L	74.0	78	114			M2

LCSW **Sample ID: WG456057LCSW** **PCN/SCN: OP180907-2** **Analyzed: 09/11/18 17:06**

Compound	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
OIL AND GREASE	40		37.6	mg/L	94.0	78	114			

LCSWD **Sample ID: WG456057LCSWD** **PCN/SCN: OP180907-2** **Analyzed: 09/11/18 17:30**

Compound	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
OIL AND GREASE	40		37.5	mg/L	94.0	78	114	0	18	

PBW **Sample ID: WG456057PBW** **Analyzed: 09/11/18 13:00**

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

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

Organic Extended Qualifier Report

ACZ Project ID: ***L46696***

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L46696-01	WG456057	Oil and Grease	1664A - Gravimetric	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.

Certification Qualifiers

Rio Grande Silver, Inc.

ACZ Project ID: ***L46696***

No certification qualifiers associated with this analysis

ACZ Laboratories, Inc.
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Sample Receipt

Rio Grande Silver, Inc.
BO40519

ACZ Project ID: L46696
Date Received: 09/05/2018 10:52
Received By:
Date Printed: 9/6/2018

Receipt Verification

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

Samples/Containers

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

NA indicates Not Applicable

Chain of Custody Related Remarks

Client Contact Remarks

Shipping Containers

Cooler Id	Temp(°C)	Temp Criteria(°C)	Rad(µR/Hr)	Custody Seal Intact?
4513	2.1	<=6.0	15	Yes

Was ice present in the shipment container(s)?

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

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

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

Sample Receipt

Rio Grande Silver, Inc.
BO40519

ACZ Project ID:	L46696
Date Received:	09/05/2018 10:52
Received By:	
Date Printed:	9/6/2018

[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. L46696

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

CHAIN of CUSTODY

Report to:

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

Copy of Report to:

Name: Janet Shangraw	E-mail: jshangraw@comcast.net
Company: JNS, Inc.	Telephone: 303-972-8596

Invoice to:

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

*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 - 2018

PO#: BO40519

Reporting state for compliance testing:

Check box if samples include NRC licensed material? ☐

SAMPLE IDENTIFICATION	DATE:TIME	Matrix	# of Containers								
HW-2	9/4/18 10:15 am	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 & conditions located on the reverse side of this COC.

RELINQUISHED BY:	DATE:TIME	RECEIVED BY:	DATE:TIME
Randy McClure	9/4/18 11:00 am	LAS	9/5/18 10:52

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

L46696 Chain of Custod