

September 27, 2017

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: BO-38160

ACZ Project ID: L39555

Randy McClure:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on August 30, 2017. This project has been assigned to ACZ's project number, L39555. 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 L39555. 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 27, 2017. 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.



Scott Habermehl has reviewed
and approved this report.



Rio Grande Silver, Inc.

Project ID: BO-38160

Sample ID: HW-2

ACZ Sample ID: **L39555-01**

Date Sampled: 08/29/17 11:15

Date Received: 08/30/17

Sample Matrix: Ground Water

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor								09/01/17 11:47	wtc
Total Recoverable Digestion	M200.2 ICP-MS								09/13/17 15:49	mfm
Total Recoverable Digestion	M200.2 ICP								09/11/17 12:14	dcm

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	1		U		mg/L	0.03	0.2	09/15/17 22:48	aeh
Aluminum, total recoverable	M200.7 ICP	1	3.09			mg/L	0.03	0.2	09/15/17 4:08	dcm
Arsenic, dissolved	M200.8 ICP-MS	1	0.0073			mg/L	0.0002	0.001	09/20/17 15:03	msh
Arsenic, total recoverable	M200.8 ICP-MS	1	0.0103			mg/L	0.0002	0.001	09/20/17 18:18	mfm
Cadmium, dissolved	M200.8 ICP-MS	1	0.0024			mg/L	0.0001	0.0005	09/20/17 15:03	msh
Cadmium, total recoverable	M200.8 ICP-MS	1	0.0041			mg/L	0.0001	0.0005	09/20/17 18:18	mfm
Calcium, dissolved	M200.7 ICP	1	36.4			mg/L	0.1	0.5	09/15/17 22:48	aeh
Copper, dissolved	M200.8 ICP-MS	1	0.0006	B		mg/L	0.0004	0.002	09/21/17 18:08	msh
Copper, total recoverable	M200.8 ICP-MS	1	0.0032			mg/L	0.0004	0.002	09/20/17 18:18	mfm
Iron, dissolved	M200.7 ICP	1		U		mg/L	0.02	0.05	09/18/17 16:36	aeh
Iron, total recoverable	M200.7 ICP	1	1.93			mg/L	0.02	0.05	09/15/17 4:08	dcm
Lead, dissolved	M200.8 ICP-MS	1		U		mg/L	0.0001	0.0005	09/20/17 15:03	msh
Lead, total recoverable	M200.8 ICP-MS	1	0.0054			mg/L	0.0001	0.0005	09/20/17 18:18	mfm
Magnesium, dissolved	M200.7 ICP	1	3.2			mg/L	0.2	1	09/15/17 22:48	aeh
Manganese, dissolved	M200.7 ICP	1		U		mg/L	0.005	0.03	09/15/17 22:48	aeh
Manganese, total recoverable	M200.7 ICP	1	0.124			mg/L	0.005	0.03	09/15/17 4:08	dcm
Mercury, total	M245.1 CVAA	1		U		mg/L	0.0002	0.001	09/18/17 19:39	sck
Potassium, dissolved	M200.7 ICP	1	3.2			mg/L	0.2	1	09/15/17 22:48	aeh
Silver, dissolved	M200.8 ICP-MS	1		U		mg/L	0.00005	0.0003	09/20/17 15:03	msh
Silver, total recoverable	M200.8 ICP-MS	1	0.00131			mg/L	0.00005	0.0003	09/20/17 18:18	mfm
Sodium, dissolved	M200.7 ICP	1	6.1			mg/L	0.2	1	09/15/17 22:48	aeh
Zinc, dissolved	M200.8 ICP-MS	1	0.731			mg/L	0.002	0.005	09/20/17 15:03	msh
Zinc, total recoverable	M200.8 ICP-MS	1	0.833		*	mg/L	0.002	0.005	09/20/17 18:18	mfm

Rio Grande Silver, Inc.

Project ID: BO-38160

Sample ID: HW-2

ACZ Sample ID: **L39555-01**

Date Sampled: 08/29/17 11:15

Date Received: 08/30/17

Sample Matrix: Ground Water

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	27.2			mg/L	2	20	09/07/17 0:00	emk
Carbonate as CaCO ₃		1		U		mg/L	2	20	09/07/17 0:00	emk
Hydroxide as CaCO ₃		1		U		mg/L	2	20	09/07/17 0:00	emk
Total Alkalinity		1	27.2		*	mg/L	2	20	09/07/17 0:00	emk
Cation-Anion Balance	Calculation									
Cation-Anion Balance			-2.0			%			09/27/17 0:00	calc
Sum of Anions			2.6			meq/L			09/27/17 0:00	calc
Sum of Cations			2.5			meq/L			09/27/17 0:00	calc
Chloride	M300.0 - Ion Chromatography	1	1.20	B	*	mg/L	0.5	2.5	09/20/17 19:44	krh
Fluoride	SM4500F-C	1	0.25	B	*	mg/L	0.05	0.3	09/06/17 15:39	emk
Hardness as CaCO ₃ (dissolved)	SM2340B - Calculation		104			mg/L	0.2	5	09/27/17 0:00	calc
Nitrate as N, dissolved	Calculation: NO ₃ NO ₂ minus NO ₂		0.12			mg/L	0.02	0.1	09/27/17 0:00	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	0.12		*	mg/L	0.02	0.1	08/30/17 20:54	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1		U	*	mg/L	0.01	0.05	08/30/17 20:54	pjb
Nitrogen, ammonia	M350.1 Auto Salicylate w/gas diffusion	1		U	*	mg/L	0.05	0.2	09/06/17 14:22	las
Nitrogen, organic	M351.2 & M350.1 - TKN minus NH ₃		0.4	B		mg/L	0.1	0.5	09/27/17 0:00	calc
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	1	0.4	B	*	mg/L	0.1	0.5	09/07/17 21:58	pjb
pH (lab)	SM4500H+ B									
pH		1	7.2	H		units	0.1	0.1	09/07/17 0:00	emk
pH measured at		1	22.1			C	0.1	0.1	09/07/17 0:00	emk
Residue, Filterable (TDS) @180C	SM2540C	1	210			mg/L	10	20	08/31/17 13:48	ecc
Sulfate	M300.0 - Ion Chromatography	1	96.3			mg/L	0.5	2.5	09/20/17 19:44	krh
Sulfide as S	SM4500S2-D	1		U	*	mg/L	0.02	0.1	08/30/17 18:05	emk
TDS (calculated)	Calculation		165			mg/L			09/27/17 0:00	calc
TDS (ratio - measured/calculated)	Calculation		1.27						09/27/17 0:00	calc

Rio Grande Silver, Inc.

Project ID: BO-38160

Sample ID: GW-1

ACZ Sample ID: **L39555-02**

Date Sampled: 08/29/17 11:15

Date Received: 08/30/17

Sample Matrix: Ground Water

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor								09/01/17 12:10	wtc
Total Recoverable Digestion	M200.2 ICP-MS								09/13/17 16:22	mfm
Total Recoverable Digestion	M200.2 ICP								09/11/17 12:26	dcm

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	1		U		mg/L	0.03	0.2	09/15/17 22:51	aeh
Aluminum, total recoverable	M200.7 ICP	1	2.89		*	mg/L	0.03	0.2	09/15/17 4:11	dcm
Arsenic, dissolved	M200.8 ICP-MS	1	0.0075			mg/L	0.0002	0.001	09/20/17 15:05	msh
Arsenic, total recoverable	M200.8 ICP-MS	1	0.0103			mg/L	0.0002	0.001	09/20/17 18:27	mfm
Cadmium, dissolved	M200.8 ICP-MS	1	0.0027			mg/L	0.0001	0.0005	09/20/17 15:05	msh
Cadmium, total recoverable	M200.8 ICP-MS	1	0.0039			mg/L	0.0001	0.0005	09/20/17 18:27	mfm
Calcium, dissolved	M200.7 ICP	1	36.4			mg/L	0.1	0.5	09/15/17 22:51	aeh
Copper, dissolved	M200.8 ICP-MS	1	0.0007	B		mg/L	0.0004	0.002	09/21/17 18:10	msh
Copper, total recoverable	M200.8 ICP-MS	1	0.0031			mg/L	0.0004	0.002	09/20/17 18:27	mfm
Iron, dissolved	M200.7 ICP	1	0.03	B		mg/L	0.02	0.05	09/18/17 16:39	aeh
Iron, total recoverable	M200.7 ICP	1	1.79		*	mg/L	0.02	0.05	09/15/17 4:11	dcm
Lead, dissolved	M200.8 ICP-MS	1	0.0001	B		mg/L	0.0001	0.0005	09/20/17 15:05	msh
Lead, total recoverable	M200.8 ICP-MS	1	0.0046			mg/L	0.0001	0.0005	09/20/17 18:27	mfm
Magnesium, dissolved	M200.7 ICP	1	3.3			mg/L	0.2	1	09/15/17 22:51	aeh
Manganese, dissolved	M200.7 ICP	1		U		mg/L	0.005	0.03	09/15/17 22:51	aeh
Manganese, total recoverable	M200.7 ICP	1	0.097			mg/L	0.005	0.03	09/15/17 4:11	dcm
Mercury, total	M245.1 CVAA	1		U		mg/L	0.0002	0.001	09/18/17 19:43	sck
Potassium, dissolved	M200.7 ICP	1	3.2			mg/L	0.2	1	09/15/17 22:51	aeh
Silver, dissolved	M200.8 ICP-MS	1		U		mg/L	0.00005	0.0003	09/20/17 15:05	msh
Silver, total recoverable	M200.8 ICP-MS	1	0.00111			mg/L	0.00005	0.0003	09/20/17 18:27	mfm
Sodium, dissolved	M200.7 ICP	1	6.0			mg/L	0.2	1	09/15/17 22:51	aeh
Zinc, dissolved	M200.8 ICP-MS	1	0.766			mg/L	0.002	0.005	09/20/17 15:05	msh
Zinc, total recoverable	M200.8 ICP-MS	1	0.813		*	mg/L	0.002	0.005	09/20/17 18:27	mfm

Rio Grande Silver, Inc.

Project ID: BO-38160

Sample ID: GW-1

ACZ Sample ID: **L39555-02**

Date Sampled: 08/29/17 11:15

Date Received: 08/30/17

Sample Matrix: Ground Water

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	26.7			mg/L	2	20	09/07/17 0:00	emk
Carbonate as CaCO ₃		1		U		mg/L	2	20	09/07/17 0:00	emk
Hydroxide as CaCO ₃		1		U		mg/L	2	20	09/07/17 0:00	emk
Total Alkalinity		1	26.7		*	mg/L	2	20	09/07/17 0:00	emk
Cation-Anion Balance	Calculation									
Cation-Anion Balance			-3.8			%			09/27/17 0:00	calc
Sum of Anions			2.7			meq/L			09/27/17 0:00	calc
Sum of Cations			2.5			meq/L			09/27/17 0:00	calc
Chloride	M300.0 - Ion Chromatography	2	1.37	B	*	mg/L	1	5	09/23/17 0:31	krh
Fluoride	SM4500F-C	1	0.24	B	*	mg/L	0.05	0.3	09/06/17 15:45	emk
Hardness as CaCO ₃ (dissolved)	SM2340B - Calculation		104			mg/L	0.2	5	09/27/17 0:00	calc
Nitrate as N, dissolved	Calculation: NO ₃ NO ₂ minus NO ₂		0.07	B		mg/L	0.02	0.1	09/27/17 0:00	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	0.07	B	*	mg/L	0.02	0.1	08/30/17 20:56	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1		U	*	mg/L	0.01	0.05	08/30/17 20:56	pjb
Nitrogen, ammonia	M350.1 Auto Salicylate w/gas diffusion	1		U	*	mg/L	0.05	0.2	09/06/17 14:23	las
Nitrogen, organic	M351.2 & M350.1 - TKN minus NH ₃		2.5			mg/L	0.1	0.5	09/27/17 0:00	calc
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	1	2.5		*	mg/L	0.1	0.5	09/07/17 22:01	pjb
pH (lab)	SM4500H+ B									
pH		1	7.2	H		units	0.1	0.1	09/07/17 0:00	emk
pH measured at		1	21.9			C	0.1	0.1	09/07/17 0:00	emk
Residue, Filterable (TDS) @180C	SM2540C	1	186			mg/L	10	20	08/31/17 13:54	ecc
Sulfate	M300.0 - Ion Chromatography	2	98.2			mg/L	1	5	09/23/17 0:31	krh
Sulfide as S	SM4500S2-D	1		U	*	mg/L	0.02	0.1	08/30/17 18:12	emk
TDS (calculated)	Calculation		166			mg/L			09/27/17 0:00	calc
TDS (ratio - measured/calculated)	Calculation		1.12						09/27/17 0:00	calc

Rio Grande Silver, Inc.

Project ID: BO-38160

Sample ID: DP-3

ACZ Sample ID: **L39555-03**

Date Sampled: 08/29/17 11:45

Date Received: 08/30/17

Sample Matrix: Ground Water

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor								09/01/17 12:21	wtc
Total Recoverable Digestion	M200.2 ICP-MS								09/13/17 16:33	mfm
Total Recoverable Digestion	M200.2 ICP								09/11/17 12:38	dcm

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	1		U		mg/L	0.03	0.2	09/15/17 22:55	aeh
Aluminum, total recoverable	M200.7 ICP	1	1.69		*	mg/L	0.03	0.2	09/15/17 4:14	dcm
Arsenic, dissolved	M200.8 ICP-MS	1	0.0004	B		mg/L	0.0002	0.001	09/20/17 15:07	msh
Arsenic, total recoverable	M200.8 ICP-MS	1	0.0205			mg/L	0.0002	0.001	09/20/17 18:37	mfm
Cadmium, dissolved	M200.8 ICP-MS	1	0.0016			mg/L	0.0001	0.0005	09/20/17 15:07	msh
Cadmium, total recoverable	M200.8 ICP-MS	1	0.0047			mg/L	0.0001	0.0005	09/20/17 18:37	mfm
Calcium, dissolved	M200.7 ICP	1	28.1			mg/L	0.1	0.5	09/15/17 22:55	aeh
Copper, dissolved	M200.8 ICP-MS	25		U		mg/L	0.01	0.05	09/21/17 18:12	msh
Copper, total recoverable	M200.8 ICP-MS	1	0.011			mg/L	0.0004	0.002	09/20/17 18:37	mfm
Iron, dissolved	M200.7 ICP	1	19.2			mg/L	0.02	0.05	09/18/17 16:42	aeh
Iron, total recoverable	M200.7 ICP	1	36.9		*	mg/L	0.02	0.05	09/15/17 4:14	dcm
Lead, dissolved	M200.8 ICP-MS	1	0.0003	B		mg/L	0.0001	0.0005	09/20/17 15:07	msh
Lead, total recoverable	M200.8 ICP-MS	1	0.0786			mg/L	0.0001	0.0005	09/20/17 18:37	mfm
Magnesium, dissolved	M200.7 ICP	1	3.6			mg/L	0.2	1	09/15/17 22:55	aeh
Manganese, dissolved	M200.7 ICP	1	2.78			mg/L	0.005	0.03	09/15/17 22:55	aeh
Manganese, total recoverable	M200.7 ICP	1	2.87			mg/L	0.005	0.03	09/15/17 4:14	dcm
Mercury, total	M245.1 CVAA	1		U		mg/L	0.0002	0.001	09/18/17 19:44	sck
Potassium, dissolved	M200.7 ICP	1	2.7			mg/L	0.2	1	09/15/17 22:55	aeh
Silver, dissolved	M200.8 ICP-MS	1		U		mg/L	0.00005	0.0003	09/20/17 15:07	msh
Silver, total recoverable	M200.8 ICP-MS	1	0.00023	B		mg/L	0.00005	0.0003	09/20/17 18:37	mfm
Sodium, dissolved	M200.7 ICP	1	5.6			mg/L	0.2	1	09/15/17 22:55	aeh
Zinc, dissolved	M200.8 ICP-MS	25	11.6			mg/L	0.05	0.1	09/21/17 18:12	msh
Zinc, total recoverable	M200.8 ICP-MS	20	14.9			mg/L	0.04	0.1	09/21/17 20:21	bsu/mfm

Rio Grande Silver, Inc.

Project ID: BO-38160

Sample ID: DP-3

ACZ Sample ID: **L39555-03**

Date Sampled: 08/29/17 11:45

Date Received: 08/30/17

Sample Matrix: Ground Water

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	3.6	B		mg/L	2	20	09/07/17 0:00	emk
Carbonate as CaCO ₃		1		U		mg/L	2	20	09/07/17 0:00	emk
Hydroxide as CaCO ₃		1		U		mg/L	2	20	09/07/17 0:00	emk
Total Alkalinity		1	3.6	B	*	mg/L	2	20	09/07/17 0:00	emk
Cation-Anion Balance	Calculation									
Cation-Anion Balance			10.8			%			09/27/17 0:00	calc
Sum of Anions			2.9			meq/L			09/27/17 0:00	calc
Sum of Cations			3.6			meq/L			09/27/17 0:00	calc
Chloride	M300.0 - Ion Chromatography	2	1.89	B	*	mg/L	1	5	09/23/17 1:06	krh
Fluoride	SM4500F-C	1	0.13	B	*	mg/L	0.05	0.3	09/06/17 15:50	emk
Hardness as CaCO ₃ (dissolved)	SM2340B - Calculation		85.0			mg/L	0.2	5	09/27/17 0:00	calc
Nitrate as N, dissolved	Calculation: NO ₃ NO ₂ minus NO ₂		0.05	B		mg/L	0.02	0.1	09/27/17 0:00	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	0.05	B	*	mg/L	0.02	0.1	08/30/17 20:57	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1		U	*	mg/L	0.01	0.05	08/30/17 20:57	pjb
Nitrogen, ammonia	M350.1 Auto Salicylate w/gas diffusion	1		U	*	mg/L	0.05	0.2	09/06/17 14:25	las
Nitrogen, organic	M351.2 & M350.1 - TKN minus NH ₃		1.0			mg/L	0.1	0.5	09/27/17 0:00	calc
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	1	1.0		*	mg/L	0.1	0.5	09/07/17 22:02	pjb
pH (lab)	SM4500H+ B									
pH		1	6.3	H	*	units	0.1	0.1	09/07/17 0:00	emk
pH measured at		1	21.8			C	0.1	0.1	09/07/17 0:00	emk
Residue, Filterable (TDS) @180C	SM2540C	1	218			mg/L	10	20	08/31/17 13:56	ecc
Sulfate	M300.0 - Ion Chromatography	2	133			mg/L	1	5	09/23/17 1:06	krh
Sulfide as S	SM4500S2-D	1		U	*	mg/L	0.02	0.1	08/31/17 14:33	enb
TDS (calculated)	Calculation		211			mg/L			09/27/17 0:00	calc
TDS (ratio - measured/calculated)	Calculation		1.03						09/27/17 0:00	calc

Rio Grande Silver, Inc.

Project ID: BO-38160

Sample ID: DP-4

ACZ Sample ID: **L39555-04**

Date Sampled: 08/29/17 11:30

Date Received: 08/30/17

Sample Matrix: Ground Water

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor								09/01/17 12:33	wtc
Total Recoverable Digestion	M200.2 ICP-MS								09/13/17 16:43	mfm
Total Recoverable Digestion	M200.2 ICP								09/11/17 12:50	dcm

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	1		U		mg/L	0.03	0.2	09/15/17 22:58	aeh
Aluminum, total recoverable	M200.7 ICP	1	1.95		*	mg/L	0.03	0.2	09/15/17 4:17	dcm
Arsenic, dissolved	M200.8 ICP-MS	1		U		mg/L	0.0002	0.001	09/20/17 15:09	msh
Arsenic, total recoverable	M200.8 ICP-MS	1	0.0348			mg/L	0.0002	0.001	09/20/17 18:40	mfm
Cadmium, dissolved	M200.8 ICP-MS	1	0.0159			mg/L	0.0001	0.0005	09/20/17 15:09	msh
Cadmium, total recoverable	M200.8 ICP-MS	1	0.0335			mg/L	0.0001	0.0005	09/20/17 18:40	mfm
Calcium, dissolved	M200.7 ICP	1	65.2			mg/L	0.1	0.5	09/15/17 22:58	aeh
Copper, dissolved	M200.8 ICP-MS	25		U		mg/L	0.01	0.05	09/21/17 18:14	msh
Copper, total recoverable	M200.8 ICP-MS	1	0.037			mg/L	0.0004	0.002	09/20/17 18:40	mfm
Iron, dissolved	M200.7 ICP	1	10.4			mg/L	0.02	0.05	09/18/17 16:45	aeh
Iron, total recoverable	M200.7 ICP	1	56.7		*	mg/L	0.02	0.05	09/15/17 4:17	dcm
Lead, dissolved	M200.8 ICP-MS	1	0.0005			mg/L	0.0001	0.0005	09/20/17 15:09	msh
Lead, total recoverable	M200.8 ICP-MS	1	0.268			mg/L	0.0001	0.0005	09/20/17 18:40	mfm
Magnesium, dissolved	M200.7 ICP	1	6.7			mg/L	0.2	1	09/15/17 22:58	aeh
Manganese, dissolved	M200.7 ICP	1	0.578			mg/L	0.005	0.03	09/15/17 22:58	aeh
Manganese, total recoverable	M200.7 ICP	1	0.638			mg/L	0.005	0.03	09/15/17 4:17	dcm
Mercury, total	M245.1 CVAA	1		U		mg/L	0.0002	0.001	09/18/17 19:45	sck
Potassium, dissolved	M200.7 ICP	1	4.3			mg/L	0.2	1	09/15/17 22:58	aeh
Silver, dissolved	M200.8 ICP-MS	1		U		mg/L	0.00005	0.0003	09/20/17 15:09	msh
Silver, total recoverable	M200.8 ICP-MS	1	0.00052			mg/L	0.00005	0.0003	09/20/17 18:40	mfm
Sodium, dissolved	M200.7 ICP	1	6.2			mg/L	0.2	1	09/15/17 22:58	aeh
Zinc, dissolved	M200.8 ICP-MS	25	20.3			mg/L	0.05	0.1	09/21/17 18:14	msh
Zinc, total recoverable	M200.8 ICP-MS	50	27.5			mg/L	0.1	0.3	09/21/17 20:24	bsu/mfm

Rio Grande Silver, Inc.

Project ID: BO-38160

Sample ID: DP-4

ACZ Sample ID: **L39555-04**

Date Sampled: 08/29/17 11:30

Date Received: 08/30/17

Sample Matrix: Ground Water

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	15.5	B		mg/L	2	20	09/07/17 0:00	emk
Carbonate as CaCO ₃		1		U		mg/L	2	20	09/07/17 0:00	emk
Hydroxide as CaCO ₃		1		U		mg/L	2	20	09/07/17 0:00	emk
Total Alkalinity		1	15.5	B	*	mg/L	2	20	09/07/17 0:00	emk
Cation-Anion Balance	Calculation									
Cation-Anion Balance			3.8			%			09/27/17 0:00	calc
Sum of Anions			5.0			meq/L			09/27/17 0:00	calc
Sum of Cations			5.4			meq/L			09/27/17 0:00	calc
Chloride	M300.0 - Ion Chromatography	5		U	*	mg/L	2.5	12.5	09/23/17 1:24	krh
Fluoride	SM4500F-C	1	0.20	B	*	mg/L	0.05	0.3	09/06/17 15:53	emk
Hardness as CaCO ₃ (dissolved)	SM2340B - Calculation		190			mg/L	0.2	5	09/27/17 0:00	calc
Nitrate as N, dissolved	Calculation: NO ₃ NO ₂ minus NO ₂		1.39			mg/L	0.02	0.1	09/27/17 0:00	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	1.44		*	mg/L	0.02	0.1	08/30/17 20:58	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	0.05		*	mg/L	0.01	0.05	08/30/17 20:58	pjb
Nitrogen, ammonia	M350.1 Auto Salicylate w/gas diffusion	1	0.05	B	*	mg/L	0.05	0.2	09/06/17 14:26	las
Nitrogen, organic	M351.2 & M350.1 - TKN minus NH ₃		1			mg/L	0.1	0.5	09/27/17 0:00	calc
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	1	1.0		*	mg/L	0.1	0.5	09/07/17 22:03	pjb
pH (lab)	SM4500H+ B									
pH		1	6.7	H	*	units	0.1	0.1	09/07/17 0:00	emk
pH measured at		1	21.9			C	0.1	0.1	09/07/17 0:00	emk
Residue, Filterable (TDS) @180C	SM2540C	1	372			mg/L	10	20	08/31/17 13:59	ecc
Sulfate	M300.0 - Ion Chromatography	5	219			mg/L	2.5	12.5	09/23/17 1:24	krh
Sulfide as S	SM4500S2-D	3.75	0.41		*	mg/L	0.08	0.4	08/31/17 14:38	enb
TDS (calculated)	Calculation		349			mg/L			09/27/17 0:00	calc
TDS (ratio - measured/calculated)	Calculation		1.07						09/27/17 0:00	calc

Rio Grande Silver, Inc.

Project ID: BO-38160

Sample ID: DP-5

ACZ Sample ID: **L39555-05**

Date Sampled: 08/29/17 10:00

Date Received: 08/30/17

Sample Matrix: Ground Water

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor								09/01/17 12:44	wtc
Total Recoverable Digestion	M200.2 ICP								09/11/17 13:02	dcm
Total Recoverable Digestion	M200.2 ICP-MS								09/13/17 16:54	mfm

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	1		U		mg/L	0.03	0.2	09/15/17 23:01	aeh
Aluminum, total recoverable	M200.7 ICP	1	0.43		*	mg/L	0.03	0.2	09/15/17 4:20	dcm
Arsenic, dissolved	M200.8 ICP-MS	1	0.0083			mg/L	0.0002	0.001	09/20/17 15:11	msh
Arsenic, total recoverable	M200.8 ICP-MS	1	0.0241			mg/L	0.0002	0.001	09/20/17 18:43	mfm
Cadmium, dissolved	M200.8 ICP-MS	1	0.0013			mg/L	0.0001	0.0005	09/20/17 15:11	msh
Cadmium, total recoverable	M200.8 ICP-MS	1	0.003			mg/L	0.0001	0.0005	09/20/17 18:43	mfm
Calcium, dissolved	M200.7 ICP	1	44.8			mg/L	0.1	0.5	09/15/17 23:01	aeh
Copper, dissolved	M200.8 ICP-MS	1	0.0021			mg/L	0.0004	0.002	09/21/17 18:16	msh
Copper, total recoverable	M200.8 ICP-MS	1	0.0075			mg/L	0.0004	0.002	09/20/17 18:43	mfm
Iron, dissolved	M200.7 ICP	1	1.14			mg/L	0.02	0.05	09/18/17 16:48	aeh
Iron, total recoverable	M200.7 ICP	1	6.70		*	mg/L	0.02	0.05	09/15/17 4:20	dcm
Lead, dissolved	M200.8 ICP-MS	1	0.0005			mg/L	0.0001	0.0005	09/20/17 15:11	msh
Lead, total recoverable	M200.8 ICP-MS	1	0.0532			mg/L	0.0001	0.0005	09/20/17 18:43	mfm
Magnesium, dissolved	M200.7 ICP	1	4.5			mg/L	0.2	1	09/15/17 23:01	aeh
Manganese, dissolved	M200.7 ICP	1	0.216			mg/L	0.005	0.03	09/15/17 23:01	aeh
Manganese, total recoverable	M200.7 ICP	1	0.260			mg/L	0.005	0.03	09/15/17 4:20	dcm
Mercury, total	M245.1 CVAA	1		U		mg/L	0.0002	0.001	09/18/17 19:46	sck
Potassium, dissolved	M200.7 ICP	1	3.1			mg/L	0.2	1	09/15/17 23:01	aeh
Silver, dissolved	M200.8 ICP-MS	1		U		mg/L	0.00005	0.0003	09/20/17 15:11	msh
Silver, total recoverable	M200.8 ICP-MS	1	0.00053			mg/L	0.00005	0.0003	09/20/17 18:43	mfm
Sodium, dissolved	M200.7 ICP	1	10.1			mg/L	0.2	1	09/15/17 23:01	aeh
Zinc, dissolved	M200.8 ICP-MS	1	3.89			mg/L	0.002	0.005	09/20/17 15:11	msh
Zinc, total recoverable	M200.8 ICP-MS	1	5.59		*	mg/L	0.002	0.005	09/20/17 18:43	mfm

Rio Grande Silver, Inc.

Project ID: BO-38160

Sample ID: DP-5

ACZ Sample ID: **L39555-05**

Date Sampled: 08/29/17 10:00

Date Received: 08/30/17

Sample Matrix: Ground Water

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	57.3			mg/L	2	20	09/07/17 0:00	emk
Carbonate as CaCO ₃		1		U		mg/L	2	20	09/07/17 0:00	emk
Hydroxide as CaCO ₃		1		U		mg/L	2	20	09/07/17 0:00	emk
Total Alkalinity		1	57.3			mg/L	2	20	09/07/17 0:00	emk
Cation-Anion Balance	Calculation									
Cation-Anion Balance			-1.5			%			09/27/17 0:00	calc
Sum of Anions			3.4			meq/L			09/27/17 0:00	calc
Sum of Cations			3.3			meq/L			09/27/17 0:00	calc
Chloride	M300.0 - Ion Chromatography	2	2.59	B	*	mg/L	1	5	09/23/17 1:42	krh
Fluoride	SM4500F-C	1	0.42		*	mg/L	0.05	0.3	09/06/17 15:57	emk
Hardness as CaCO ₃ (dissolved)	SM2340B - Calculation		130			mg/L	0.2	5	09/27/17 0:00	calc
Nitrate as N, dissolved	Calculation: NO ₃ NO ₂ minus NO ₂		0.15			mg/L	0.02	0.1	09/27/17 0:00	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	0.15		*	mg/L	0.02	0.1	08/30/17 20:59	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1		U	*	mg/L	0.01	0.05	08/30/17 20:59	pjb
Nitrogen, ammonia	M350.1 Auto Salicylate w/gas diffusion	1		U	*	mg/L	0.05	0.2	09/06/17 14:27	las
Nitrogen, organic	M351.2 & M350.1 - TKN minus NH ₃		0.5			mg/L	0.1	0.5	09/27/17 0:00	calc
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	1	0.5		*	mg/L	0.1	0.5	09/07/17 22:04	pjb
pH (lab)	SM4500H+ B									
pH		1	7.4	H		units	0.1	0.1	09/07/17 0:00	emk
pH measured at		1	22.0			C	0.1	0.1	09/07/17 0:00	emk
Residue, Filterable (TDS) @180C	SM2540C	1	238			mg/L	10	20	08/31/17 14:01	ecc
Sulfate	M300.0 - Ion Chromatography	2	104			mg/L	1	5	09/23/17 1:42	krh
Sulfide as S	SM4500S2-D	1	0.03	B	*	mg/L	0.02	0.1	08/31/17 14:42	enb
TDS (calculated)	Calculation		210			mg/L			09/27/17 0:00	calc
TDS (ratio - measured/calculated)	Calculation		1.13						09/27/17 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:

<http://www.acz.com/public/extquallist.pdf>

Rio Grande Silver, Inc.

ACZ Project ID: **L39555**

Alkalinity as CaCO3

SM2320B - Titration

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG430674													
WG430674PBW1	PBW	09/06/17 15:23				U	mg/L		-20	20			
WG430674LCSW3	LCSW	09/06/17 15:41	WC170906-1	820.0001		793	mg/L	97	90	110			
WG430674PQV2	PQV	09/06/17 15:51	WC170427-8	20		22.2	mg/L	111	50	150			
WG430674LCSW6	LCSW	09/06/17 18:39	WC170906-1	820.0001		800	mg/L	98	90	110			
WG430674PBW2	PBW	09/06/17 18:47				2.2	mg/L		-20	20			
WG430674LCSW9	LCSW	09/06/17 22:00	WC170906-1	820.0001		799	mg/L	97	90	110			
WG430674PBW3	PBW	09/06/17 22:09				2.3	mg/L		-20	20			
WG430674LCSW12	LCSW	09/07/17 1:27	WC170906-1	820.0001		788	mg/L	96	90	110			
WG430674PBW4	PBW	09/07/17 1:35				2.4	mg/L		-20	20			
L39555-03DUP	DUP	09/07/17 3:02			3.6	3.2	mg/L				12	20	RA
L39562-06DUP	DUP	09/07/17 4:10			157	157	mg/L				0	20	
WG430674LCSW15	LCSW	09/07/17 5:00	WC170906-1	820.0001		814	mg/L	99	90	110			

Aluminum, dissolved

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG431377													
WG431377ICV	ICV	09/15/17 21:45	II170915-1	2		1.904	mg/L	95	95	105			
WG431377ICB	ICB	09/15/17 21:51				U	mg/L		-0.09	0.09			
WG431377PQV	PQV	09/15/17 21:55	II170828-2	.150195		.113	mg/L	75	70	130			
WG431377SIC	SIC	09/15/17 21:58	II170828-3	200.410195		193	mg/L	96	1	200			
WG431377LFB	LFB	09/15/17 22:05	II170908-2	1.0013		.937	mg/L	94	85	115			
L39551-02AS	AS	09/15/17 22:21	II170908-2	1.0013	U	.962	mg/L	96	85	115			
L39551-02ASD	ASD	09/15/17 22:25	II170908-2	1.0013	U	.955	mg/L	95	85	115	1	20	
WG431377CCV1	CCV	09/15/17 22:38	II170831-1	1		.943	mg/L	94	90	110			
WG431377CCB1	CCB	09/15/17 22:41				U	mg/L		-0.09	0.09			
L39555-05AS	AS	09/15/17 23:04	II170908-2	1.0013	U	.954	mg/L	95	85	115			
L39555-05ASD	ASD	09/15/17 23:08	II170908-2	1.0013	U	1.009	mg/L	101	85	115	6	20	
WG431377CCV2	CCV	09/15/17 23:18	II170831-1	1		.959	mg/L	96	90	110			
WG431377CCB2	CCB	09/15/17 23:21				U	mg/L		-0.09	0.09			
WG431377CCV3	CCV	09/15/17 23:41	II170831-1	1		.956	mg/L	96	90	110			
WG431377CCB3	CCB	09/15/17 23:44				U	mg/L		-0.09	0.09			

Rio Grande Silver, Inc.

ACZ Project ID: **L39555**

Aluminum, total recoverable

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG431272													
WG431272ICV	ICV	09/15/17 3:05	II170830-1	2		1.953	mg/L	98	95	105			
WG431272ICB	ICB	09/15/17 3:11				U	mg/L		-0.09	0.09			
WG431272PQV	PQV	09/15/17 3:14	II170828-2	.150195		.155	mg/L	103	70	130			
WG431272SIC	SIC	09/15/17 3:17	II170828-3	200.410195		199.3	mg/L	99	1	200			
WG430878LRB	LRB	09/15/17 3:23				U	mg/L		-0.066	0.066			
WG430878LFB	LFB	09/15/17 3:26	II170818-2	1.0013		1.021	mg/L	102	85	115			
L39524-06LFM	LFM	09/15/17 3:48	II170818-2	1.0013	.07	1.099	mg/L	103	70	130			
L39524-06LFMD	LFMD	09/15/17 3:51	II170818-2	1.0013	.07	1.091	mg/L	102	70	130	1	20	
WG431272CCV1	CCV	09/15/17 3:53	II170831-1	1		.991	mg/L	99	90	110			
WG431272CCB1	CCB	09/15/17 3:56				U	mg/L		-0.09	0.09			
WG431272CCV2	CCV	09/15/17 4:29	II170831-1	1		.987	mg/L	99	90	110			
WG431272CCB2	CCB	09/15/17 4:32				U	mg/L		-0.09	0.09			
L39562-03LFM	LFM	09/15/17 4:38	II170818-2	1.0013	3.34	6.72	mg/L	338	70	130			M3
L39562-03LFMD	LFMD	09/15/17 4:41	II170818-2	1.0013	3.34	6.945	mg/L	360	70	130	3	20	M3
WG431272CCV3	CCV	09/15/17 4:54	II170831-1	1		.993	mg/L	99	90	110			
WG431272CCB3	CCB	09/15/17 4:56				U	mg/L		-0.09	0.09			

Arsenic, dissolved

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG431666													
WG431666ICV	ICV	09/20/17 14:11	MS170901-1	.05		.05442	mg/L	109	90	110			
WG431666ICB	ICB	09/20/17 14:13				U	mg/L		-0.0006	0.0006			
WG431666LFB	LFB	09/20/17 14:15	MS170919-2	.0501		.05045	mg/L	101	85	115			
WG431666CCV1	CCV	09/20/17 14:31	MS170919-4	.1002		.09907	mg/L	99	90	110			
WG431666CCB1	CCB	09/20/17 14:33				U	mg/L		-0.0006	0.0006			
L39459-03AS	AS	09/20/17 14:53	MS170919-2	.0501	.0011	.05569	mg/L	109	70	130			
WG431666CCV2	CCV	09/20/17 14:55	MS170919-4	.1002		.1027	mg/L	102	90	110			
WG431666CCB2	CCB	09/20/17 14:57				U	mg/L		-0.0006	0.0006			
L39459-03ASD	ASD	09/20/17 14:59	MS170919-2	.0501	.0011	.05599	mg/L	110	70	130	1	20	
WG431666CCV3	CCV	09/20/17 15:13	MS170919-4	.1002		.10699	mg/L	107	90	110			
WG431666CCB3	CCB	09/20/17 15:15				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
WG431684													
WG431684ICV	ICV	09/20/17 17:53	MS170901-1	.05		.05146	mg/L	103	90	110			
WG431684ICB	ICB	09/20/17 17:57				U	mg/L		-0.0006	0.0006			
WG431147LRB	LRB	09/20/17 18:00				U	mg/L		-0.00044	0.00044			
WG431147LFB	LFB	09/20/17 18:03	MS170912-2	.0501		.05319	mg/L	106	85	115			
L39555-01LFM	LFM	09/20/17 18:21	MS170912-2	.0501	.0103	.06162	mg/L	102	70	130			
L39555-01LFMD	LFMD	09/20/17 18:24	MS170912-2	.0501	.0103	.06207	mg/L	103	70	130	1	20	
WG431684CCV1	CCV	09/20/17 18:31	MS170919-4	.1002		.09912	mg/L	99	90	110			
WG431684CCB1	CCB	09/20/17 18:34				U	mg/L		-0.0006	0.0006			
WG431684CCV2	CCV	09/20/17 19:08	MS170919-4	.1002		.1024	mg/L	102	90	110			
WG431684CCB2	CCB	09/20/17 19:11				U	mg/L		-0.0006	0.0006			
WG431684CCV3	CCV	09/20/17 19:32	MS170919-4	.1002		.1016	mg/L	101	90	110			
WG431684CCB3	CCB	09/20/17 19:35				U	mg/L		-0.0006	0.0006			

Rio Grande Silver, Inc.

ACZ Project ID: **L39555**

Cadmium, dissolved

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG431666													
WG431666ICV	ICV	09/20/17 14:11	MS170901-1	.05		.0511	mg/L	102	90	110			
WG431666ICB	ICB	09/20/17 14:13				U	mg/L		-0.0003	0.0003			
WG431666LFB	LFB	09/20/17 14:15	MS170919-2	.05005		.04852	mg/L	97	85	115			
WG431666CCV1	CCV	09/20/17 14:31	MS170919-4	.1001		.09763	mg/L	98	90	110			
WG431666CCB1	CCB	09/20/17 14:33				U	mg/L		-0.0003	0.0003			
L39459-03AS	AS	09/20/17 14:53	MS170919-2	.05005	U	.05165	mg/L	103	70	130			
WG431666CCV2	CCV	09/20/17 14:55	MS170919-4	.1001		.1003	mg/L	100	90	110			
WG431666CCB2	CCB	09/20/17 14:57				U	mg/L		-0.0003	0.0003			
L39459-03ASD	ASD	09/20/17 14:59	MS170919-2	.05005	U	.0515	mg/L	103	70	130	0	20	
WG431666CCV3	CCV	09/20/17 15:13	MS170919-4	.1001		.10339	mg/L	103	90	110			
WG431666CCB3	CCB	09/20/17 15:15				U	mg/L		-0.0003	0.0003			

Cadmium, total recoverable

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG431684													
WG431684ICV	ICV	09/20/17 17:53	MS170901-1	.05		.05174	mg/L	103	90	110			
WG431684ICB	ICB	09/20/17 17:57				U	mg/L		-0.0003	0.0003			
WG431147LRB	LRB	09/20/17 18:00				U	mg/L		-0.00022	0.00022			
WG431147LFB	LFB	09/20/17 18:03	MS170912-2	.05005		.05026	mg/L	100	85	115			
L39555-01LFM	LFM	09/20/17 18:21	MS170912-2	.05005	.0041	.05295	mg/L	98	70	130			
L39555-01LFMD	LFMD	09/20/17 18:24	MS170912-2	.05005	.0041	.05341	mg/L	99	70	130	1	20	
WG431684CCV1	CCV	09/20/17 18:31	MS170919-4	.1001		.1002	mg/L	100	90	110			
WG431684CCB1	CCB	09/20/17 18:34				U	mg/L		-0.0003	0.0003			
WG431684CCV2	CCV	09/20/17 19:08	MS170919-4	.1001		.1008	mg/L	101	90	110			
WG431684CCB2	CCB	09/20/17 19:11				U	mg/L		-0.0003	0.0003			
WG431684CCV3	CCV	09/20/17 19:32	MS170919-4	.1001		.1019	mg/L	102	90	110			
WG431684CCB3	CCB	09/20/17 19:35				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
WG431377													
WG431377ICV	ICV	09/15/17 21:45	II170915-1	100		98.84	mg/L	99	95	105			
WG431377ICB	ICB	09/15/17 21:51				U	mg/L		-0.3	0.3			
WG431377PQV	PQV	09/15/17 21:55	II170828-2	.5009		.41	mg/L	82	70	130			
WG431377SIC	SIC	09/15/17 21:58	II170828-3	200.8609		194.7	mg/L	97	1	200			
WG431377LFB	LFB	09/15/17 22:05	II170908-2	68.01697		67.56	mg/L	99	85	115			
L39551-02AS	AS	09/15/17 22:21	II170908-2	68.01697	23.1	89.8	mg/L	98	85	115			
L39551-02ASD	ASD	09/15/17 22:25	II170908-2	68.01697	23.1	89.71	mg/L	98	85	115	0	20	
WG431377CCV1	CCV	09/15/17 22:38	II170831-1	50		48.93	mg/L	98	90	110			
WG431377CCB1	CCB	09/15/17 22:41				U	mg/L		-0.3	0.3			
L39555-05AS	AS	09/15/17 23:04	II170908-2	68.01697	44.8	108.9	mg/L	94	85	115			
L39555-05ASD	ASD	09/15/17 23:08	II170908-2	68.01697	44.8	112.7	mg/L	100	85	115	3	20	
WG431377CCV2	CCV	09/15/17 23:18	II170831-1	50		50.52	mg/L	101	90	110			
WG431377CCB2	CCB	09/15/17 23:21				U	mg/L		-0.3	0.3			
WG431377CCV3	CCV	09/15/17 23:41	II170831-1	50		50.19	mg/L	100	90	110			
WG431377CCB3	CCB	09/15/17 23:44				U	mg/L		-0.3	0.3			

Rio Grande Silver, Inc.

ACZ Project ID: **L39555**

Chloride M300.0 - Ion Chromatography													
ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG430666													
WG430666ICV	ICV	09/06/17 17:19	WI170906-9	20.06		20.1	mg/L	100	90	110			
WG430666ICB	ICB	09/06/17 17:36				U	mg/L		-0.5	0.5			
WG431698													
WG431698CCV1	CCV	09/20/17 16:45	WI170906-8	50.05		50.3	mg/L	100	90	110			
WG431698CCB1	CCB	09/20/17 17:03				U	mg/L		-0.5	0.5			
WG431698PQV	PQV	09/20/17 17:21	WI170703-1	2.5075		2.66	mg/L	106	70	130			
WG431698LFB	LFB	09/20/17 17:38	WI170906-10	30		30.8	mg/L	103	90	110			
L39555-01DUP	DUP	09/20/17 20:02			1.2	1.21	mg/L				1	20	RA
WG431698CCV2	CCV	09/20/17 20:20	WI170906-8	50.05		50.1	mg/L	100	90	110			
WG431698CCB2	CCB	09/20/17 20:38				U	mg/L		-0.5	0.5			
WG431698CCV3	CCV	09/22/17 23:37	WI170906-8	50.05		50.3	mg/L	100	90	110			
WG431698CCB3	CCB	09/22/17 23:55				U	mg/L		-0.5	0.5			
WG431698PQV1	PQV	09/23/17 0:13	WI170703-1	2.5075		2.65	mg/L	106	70	130			
L39555-02AS	AS	09/23/17 0:49	WI170906-10	60	1.37	63	mg/L	103	90	110			
L39555-05DUP	DUP	09/23/17 2:00			2.59	2.58	mg/L				0	20	RA
L39583-02AS	AS	09/23/17 2:36	WI170906-10	30	1.02	32	mg/L	103	90	110			
WG431698CCV4	CCV	09/23/17 3:12	WI170906-8	50.05		50.3	mg/L	100	90	110			
WG431698CCB4	CCB	09/23/17 3:30				U	mg/L		-0.5	0.5			
WG431698CCV5	CCV	09/23/17 5:53	WI170906-8	50.05		50.3	mg/L	100	90	110			
WG431698CCB5	CCB	09/23/17 6:11				U	mg/L		-0.5	0.5			
Copper, dissolved M200.8 ICP-MS													
ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG431762													
WG431762ICV	ICV	09/21/17 17:17	MS170901-1	.05		.0504	mg/L	101	90	110			
WG431762ICB	ICB	09/21/17 17:19				U	mg/L		-0.0012	0.0012			
WG431762LFB	LFB	09/21/17 17:21	MS170919-2	.0491		.04813	mg/L	98	85	115			
WG431762CCV1	CCV	09/21/17 17:37	MS170919-4	.2455		.26011	mg/L	106	90	110			
WG431762CCB1	CCB	09/21/17 17:39				U	mg/L		-0.0012	0.0012			
L39459-03AS	AS	09/21/17 17:58	MS170919-2	.0491	U	.04956	mg/L	101	70	130			
WG431762CCV2	CCV	09/21/17 18:00	MS170919-4	.2455		.2634	mg/L	107	90	110			
WG431762CCB2	CCB	09/21/17 18:02				U	mg/L		-0.0012	0.0012			
L39459-03ASD	ASD	09/21/17 18:04	MS170919-2	.0491	U	.04993	mg/L	102	70	130	1	20	
WG431762CCV3	CCV	09/21/17 18:18	MS170919-4	.2455		.26164	mg/L	107	90	110			
WG431762CCB3	CCB	09/21/17 18:20				U	mg/L		-0.0012	0.0012			

Rio Grande Silver, Inc.

ACZ Project ID: **L39555**

Copper, total recoverable

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG431684													
WG431684ICV	ICV	09/20/17 17:53	MS170901-1	.05		.05175	mg/L	104	90	110			
WG431684ICB	ICB	09/20/17 17:57				U	mg/L		-0.0012	0.0012			
WG431147LRB	LRB	09/20/17 18:00				U	mg/L		-0.00088	0.00088			
WG431147LFB	LFB	09/20/17 18:03	MS170912-2	.0491		.04956	mg/L	101	85	115			
L39555-01LFM	LFM	09/20/17 18:21	MS170912-2	.0491	.0032	.05155	mg/L	98	70	130			
L39555-01LFMD	LFMD	09/20/17 18:24	MS170912-2	.0491	.0032	.05088	mg/L	97	70	130	1	20	
WG431684CCV1	CCV	09/20/17 18:31	MS170919-4	.2455		.2467	mg/L	100	90	110			
WG431684CCB1	CCB	09/20/17 18:34				U	mg/L		-0.0012	0.0012			
WG431684CCV2	CCV	09/20/17 19:08	MS170919-4	.2455		.2468	mg/L	101	90	110			
WG431684CCB2	CCB	09/20/17 19:11				U	mg/L		-0.0012	0.0012			
WG431684CCV3	CCV	09/20/17 19:32	MS170919-4	.2455		.2508	mg/L	102	90	110			
WG431684CCB3	CCB	09/20/17 19:35				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
WG430623													
WG430623ICV	ICV	09/06/17 10:25	WC170830-1	2.006		1.929	mg/L	96	95	105			
WG430623ICB	ICB	09/06/17 10:32				U	mg/L		-0.15	0.15			
WG430624													
WG430624ICV	ICV	09/06/17 11:30	WC170830-1	2.006		1.895	mg/L	94	95	105			
WG430624ICB	ICB	09/06/17 11:38				U	mg/L		-0.15	0.15			
WG430624PQV	PQV	09/06/17 11:42	WC170905-1	.25075		.237	mg/L	95	70	130			
WG430624LFB1	LFB	09/06/17 11:45	WC170811-7	5.015		4.613	mg/L	92	90	110			
WG430624CCV1	CCV	09/06/17 12:45	WC170830-1	2.006		1.853	mg/L	92	90	110			
WG430624CCB1	CCB	09/06/17 12:52				U	mg/L		-0.15	0.15			
WG430624CCV2	CCV	09/06/17 13:36	WC170830-1	2.006		1.921	mg/L	96	90	110			
WG430624CCB2	CCB	09/06/17 13:44				U	mg/L		-0.15	0.15			
WG430624LFB2	LFB	09/06/17 14:07	WC170811-7	5.015		4.593	mg/L	92	90	110			
WG430624CCV3	CCV	09/06/17 14:23	WC170830-1	2.006		1.895	mg/L	94	90	110			
WG430624CCB3	CCB	09/06/17 14:29				U	mg/L		-0.15	0.15			
WG430624CCV4	CCV	09/06/17 15:09	WC170830-1	2.006		1.964	mg/L	98	90	110			
WG430624CCB4	CCB	09/06/17 15:17				U	mg/L		-0.15	0.15			
L39552-07AS	AS	09/06/17 15:25	WC170811-7	5.015	.18	4.717	mg/L	90	90	110			
L39552-07DUP	DUP	09/06/17 15:28			.18	.202	mg/L				12	20	RA
WG430624CCV5	CCV	09/06/17 16:00	WC170830-1	2.006		1.903	mg/L	95	90	110			
WG430624CCB5	CCB	09/06/17 16:08				U	mg/L		-0.15	0.15			
WG430624CCV6	CCV	09/06/17 16:20	WC170830-1	2.006		1.956	mg/L	98	90	110			
WG430624CCB6	CCB	09/06/17 16:27				U	mg/L		-0.15	0.15			

Rio Grande Silver, Inc.

ACZ Project ID: **L39555**

Iron, dissolved

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG431466													
WG431466ICV	ICV	09/18/17 15:39	II170830-1	2		1.914	mg/L	96	95	105			
WG431466ICB	ICB	09/18/17 15:45				U	mg/L		-0.06	0.06			
WG431466PQV	PQV	09/18/17 15:48	II170828-2	.050055		.053	mg/L	106	70	130			
WG431466SIC	SIC	09/18/17 15:51	II170828-3	200.270055		182.5	mg/L	91	1	200			
WG431466LFB	LFB	09/18/17 15:57	II170908-2	1.0011		1.057	mg/L	106	85	115			
L39551-02AS	AS	09/18/17 16:12	II170908-2	1.0011	U	1.058	mg/L	106	85	115			
L39551-02ASD	ASD	09/18/17 16:15	II170908-2	1.0011	U	1.051	mg/L	105	85	115	1	20	
WG431466CCV1	CCV	09/18/17 16:27	II170831-1	1		.983	mg/L	98	90	110			
WG431466CCB1	CCB	09/18/17 16:30				U	mg/L		-0.06	0.06			
L39555-05AS	AS	09/18/17 16:51	II170908-2	1.0011	1.14	2.081	mg/L	94	85	115			
L39555-05ASD	ASD	09/18/17 16:54	II170908-2	1.0011	1.14	2.11	mg/L	97	85	115	1	20	
WG431466CCV2	CCV	09/18/17 17:03	II170831-1	1		.959	mg/L	96	90	110			
WG431466CCB2	CCB	09/18/17 17:06				U	mg/L		-0.06	0.06			
WG431466CCV3	CCV	09/18/17 17:21	II170831-1	1		.949	mg/L	95	90	110			
WG431466CCB3	CCB	09/18/17 17:24				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
WG431272													
WG431272ICV	ICV	09/15/17 3:05	II170830-1	2		1.943	mg/L	97	95	105			
WG431272ICB	ICB	09/15/17 3:11				U	mg/L		-0.06	0.06			
WG431272PQV	PQV	09/15/17 3:14	II170828-2	.050055		.058	mg/L	116	70	130			
WG431272SIC	SIC	09/15/17 3:17	II170828-3	200.270055		181.6	mg/L	91	1	200			
WG430878LRB	LRB	09/15/17 3:23				.021	mg/L		-0.044	0.044			
WG430878LFB	LFB	09/15/17 3:26	II170818-2	1.0011		1.027	mg/L	103	85	115			
L39524-06LFM	LFM	09/15/17 3:48	II170818-2	1.0011	.37	1.411	mg/L	105	70	130			
L39524-06LFMD	LFMD	09/15/17 3:51	II170818-2	1.0011	.37	1.397	mg/L	104	70	130	1	20	
WG431272CCV1	CCV	09/15/17 3:53	II170831-1	1		.991	mg/L	99	90	110			
WG431272CCB1	CCB	09/15/17 3:56				U	mg/L		-0.06	0.06			
WG431272CCV2	CCV	09/15/17 4:29	II170831-1	1		.997	mg/L	100	90	110			
WG431272CCB2	CCB	09/15/17 4:32				U	mg/L		-0.06	0.06			
L39562-03LFM	LFM	09/15/17 4:38	II170818-2	1.0011	2.45	3.698	mg/L	125	70	130			
L39562-03LFMD	LFMD	09/15/17 4:41	II170818-2	1.0011	2.45	3.797	mg/L	135	70	130	3	20	MA
WG431272CCV3	CCV	09/15/17 4:54	II170831-1	1		.991	mg/L	99	90	110			
WG431272CCB3	CCB	09/15/17 4:56				U	mg/L		-0.06	0.06			

Rio Grande Silver, Inc.

ACZ Project ID: **L39555**

Lead, dissolved

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG431666													
WG431666ICV	ICV	09/20/17 14:11	MS170901-1	.05		.05312	mg/L	106	90	110			
WG431666ICB	ICB	09/20/17 14:13				U	mg/L		-0.0003	0.0003			
WG431666LFB	LFB	09/20/17 14:15	MS170919-2	.0501		.0494	mg/L	99	85	115			
WG431666CCV1	CCV	09/20/17 14:31	MS170919-4	.248		.24205	mg/L	98	90	110			
WG431666CCB1	CCB	09/20/17 14:33				.00012	mg/L		-0.0003	0.0003			
L39459-03AS	AS	09/20/17 14:53	MS170919-2	.0501	U	.05309	mg/L	106	70	130			
WG431666CCV2	CCV	09/20/17 14:55	MS170919-4	.248		.25402	mg/L	102	90	110			
WG431666CCB2	CCB	09/20/17 14:57				.00013	mg/L		-0.0003	0.0003			
L39459-03ASD	ASD	09/20/17 14:59	MS170919-2	.0501	U	.05347	mg/L	107	70	130	1	20	
WG431666CCV3	CCV	09/20/17 15:13	MS170919-4	.248		.26464	mg/L	107	90	110			
WG431666CCB3	CCB	09/20/17 15:15				.00016	mg/L		-0.0003	0.0003			

Lead, total recoverable

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG431684													
WG431684ICV	ICV	09/20/17 17:53	MS170901-1	.05		.05137	mg/L	103	90	110			
WG431684ICB	ICB	09/20/17 17:57				U	mg/L		-0.0003	0.0003			
WG431147LRB	LRB	09/20/17 18:00				U	mg/L		-0.00022	0.00022			
WG431147LFB	LFB	09/20/17 18:03	MS170912-2	.0501		.04925	mg/L	98	85	115			
L39555-01LFM	LFM	09/20/17 18:21	MS170912-2	.0501	.0054	.05298	mg/L	95	70	130			
L39555-01LFMD	LFMD	09/20/17 18:24	MS170912-2	.0501	.0054	.0538	mg/L	97	70	130	2	20	
WG431684CCV1	CCV	09/20/17 18:31	MS170919-4	.248		.2551	mg/L	103	90	110			
WG431684CCB1	CCB	09/20/17 18:34				U	mg/L		-0.0003	0.0003			
WG431684CCV2	CCV	09/20/17 19:08	MS170919-4	.248		.2545	mg/L	103	90	110			
WG431684CCB2	CCB	09/20/17 19:11				U	mg/L		-0.0003	0.0003			
WG431684CCV3	CCV	09/20/17 19:32	MS170919-4	.248		.2597	mg/L	105	90	110			
WG431684CCB3	CCB	09/20/17 19:35				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
WG431377													
WG431377ICV	ICV	09/15/17 21:45	II170915-1	100		99.14	mg/L	99	95	105			
WG431377ICB	ICB	09/15/17 21:51				U	mg/L		-0.6	0.6			
WG431377PQV	PQV	09/15/17 21:55	II170828-2	1.0012		.94	mg/L	94	70	130			
WG431377SIC	SIC	09/15/17 21:58	II170828-3	201.2412		197.8	mg/L	98	1	200			
WG431377LFB	LFB	09/15/17 22:05	II170908-2	50.01363		46.19	mg/L	92	85	115			
L39551-02AS	AS	09/15/17 22:21	II170908-2	50.01363	8.9	54.89	mg/L	92	85	115			
L39551-02ASD	ASD	09/15/17 22:25	II170908-2	50.01363	8.9	54.89	mg/L	92	85	115	0	20	
WG431377CCV1	CCV	09/15/17 22:38	II170831-1	50		48.95	mg/L	98	90	110			
WG431377CCB1	CCB	09/15/17 22:41				U	mg/L		-0.6	0.6			
L39555-05AS	AS	09/15/17 23:04	II170908-2	50.01363	4.5	50.27	mg/L	92	85	115			
L39555-05ASD	ASD	09/15/17 23:08	II170908-2	50.01363	4.5	51.98	mg/L	95	85	115	3	20	
WG431377CCV2	CCV	09/15/17 23:18	II170831-1	50		50.4	mg/L	101	90	110			
WG431377CCB2	CCB	09/15/17 23:21				U	mg/L		-0.6	0.6			
WG431377CCV3	CCV	09/15/17 23:41	II170831-1	50		50.08	mg/L	100	90	110			
WG431377CCB3	CCB	09/15/17 23:44				U	mg/L		-0.6	0.6			

Rio Grande Silver, Inc.

ACZ Project ID: **L39555**

Manganese, dissolved

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG431377													
WG431377ICV	ICV	09/15/17 21:45	II170915-1	2		1.9445	mg/L	97	95	105			
WG431377ICB	ICB	09/15/17 21:51				U	mg/L		-0.015	0.015			
WG431377PQV	PQV	09/15/17 21:55	II170828-2	.02505		.0192	mg/L	77	70	130			
WG431377SIC	SIC	09/15/17 21:58	II170828-3	50.02505		45.55	mg/L	91	1	200			
WG431377LFB	LFB	09/15/17 22:05	II170908-2	.5		.4805	mg/L	96	85	115			
L39551-02AS	AS	09/15/17 22:21	II170908-2	.5	.006	.5003	mg/L	99	85	115			
L39551-02ASD	ASD	09/15/17 22:25	II170908-2	.5	.006	.5011	mg/L	99	85	115	0	20	
WG431377CCV1	CCV	09/15/17 22:38	II170831-1	1		.9705	mg/L	97	90	110			
WG431377CCB1	CCB	09/15/17 22:41				U	mg/L		-0.015	0.015			
L39555-05AS	AS	09/15/17 23:04	II170908-2	.5	.216	.688	mg/L	94	85	115			
L39555-05ASD	ASD	09/15/17 23:08	II170908-2	.5	.216	.7182	mg/L	100	85	115	4	20	
WG431377CCV2	CCV	09/15/17 23:18	II170831-1	1		1	mg/L	100	90	110			
WG431377CCB2	CCB	09/15/17 23:21				U	mg/L		-0.015	0.015			
WG431377CCV3	CCV	09/15/17 23:41	II170831-1	1		.9939	mg/L	99	90	110			
WG431377CCB3	CCB	09/15/17 23:44				U	mg/L		-0.015	0.015			

Manganese, total recoverable

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG431272													
WG431272ICV	ICV	09/15/17 3:05	II170830-1	2		1.9648	mg/L	98	95	105			
WG431272ICB	ICB	09/15/17 3:11				U	mg/L		-0.015	0.015			
WG431272PQV	PQV	09/15/17 3:14	II170828-2	.02505		.0272	mg/L	109	70	130			
WG431272SIC	SIC	09/15/17 3:17	II170828-3	50.02505		45.95	mg/L	92	1	200			
WG430878LRB	LRB	09/15/17 3:23				U	mg/L		-0.011	0.011			
WG430878LFB	LFB	09/15/17 3:26	II170818-2	.5		.5099	mg/L	102	85	115			
L39524-06LFM	LFM	09/15/17 3:48	II170818-2	.5	.096	.6085	mg/L	103	70	130			
L39524-06LFMD	LFMD	09/15/17 3:51	II170818-2	.5	.096	.6071	mg/L	102	70	130	0	20	
WG431272CCV1	CCV	09/15/17 3:53	II170831-1	1		.9998	mg/L	100	90	110			
WG431272CCB1	CCB	09/15/17 3:56				U	mg/L		-0.015	0.015			
WG431272CCV2	CCV	09/15/17 4:29	II170831-1	1		1.001	mg/L	100	90	110			
WG431272CCB2	CCB	09/15/17 4:32				U	mg/L		-0.015	0.015			
L39562-03LFM	LFM	09/15/17 4:38	II170818-2	.5	.073	.5815	mg/L	102	70	130			
L39562-03LFMD	LFMD	09/15/17 4:41	II170818-2	.5	.073	.5883	mg/L	103	70	130	1	20	
WG431272CCV3	CCV	09/15/17 4:54	II170831-1	1		.9975	mg/L	100	90	110			
WG431272CCB3	CCB	09/15/17 4:56				U	mg/L		-0.015	0.015			

Rio Grande Silver, Inc.

ACZ Project ID: **L39555**

Mercury, total

M245.1 CVAA

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG431415													
WG431415ICV	ICV	09/18/17 18:44	HG170731-2	.005005		.00502	mg/L	100	95	105			
WG431415ICB	ICB	09/18/17 18:45				U	mg/L		-0.0002	0.0002			
WG431416													
WG431416CCV1	CCV	09/18/17 19:17	HG170731-2	.005005		.00506	mg/L	101	90	110			
WG431416CCB1	CCB	09/18/17 19:18				U	mg/L		-0.0002	0.0002			
WG431416PQV	PQV	09/18/17 19:19	HG170913-2	.001001		.00097	mg/L	97	70	130			
WG431416LRB	LRB	09/18/17 19:20				U	mg/L		-0.00044	0.00044			
WG431416LFB	LFB	09/18/17 19:21	HG170913-3	.002002		.00196	mg/L	98	85	115			
WG431416CCV2	CCV	09/18/17 19:28	HG170731-2	.005005		.00505	mg/L	101	90	110			
WG431416CCB2	CCB	09/18/17 19:29				U	mg/L		-0.0002	0.0002			
WG431416CCV3	CCV	09/18/17 19:39	HG170731-2	.005005		.00495	mg/L	99	90	110			
WG431416CCB3	CCB	09/18/17 19:40				U	mg/L		-0.0002	0.0002			
L39555-01LFM	LFM	09/18/17 19:41	HG170913-3	.002002	U	.00204	mg/L	102	85	115			
L39555-01LFMD	LFMD	09/18/17 19:42	HG170913-3	.002002	U	.00207	mg/L	103	85	115	1	20	
WG431416CCV4	CCV	09/18/17 19:48	HG170731-2	.005005		.0049	mg/L	98	90	110			
WG431416CCB4	CCB	09/18/17 19:49				U	mg/L		-0.0002	0.0002			

Nitrate/Nitrite as N, dissolved

M353.2 - Automated Cadmium Reduction

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG430282													
WG430282ICV	ICV	08/30/17 20:16	WI170613-1	2.416		2.318	mg/L	96	90	110			
WG430282ICB	ICB	08/30/17 20:17				U	mg/L		-0.02	0.02			
WG430282PQV	PQV	08/30/17 20:21	WI170705-6	.1		.099	mg/L	99	70	130			
WG430282LFB1	LFB	08/30/17 20:22	WI170705-5	2		1.945	mg/L	97	90	110			
WG430282CCV1	CCV	08/30/17 20:31	WI170824-3	2		2.001	mg/L	100	90	110			
WG430282CCB1	CCB	08/30/17 20:34				U	mg/L		-0.02	0.02			
L37476-14AS	AS	08/30/17 20:44	WI170705-5	2	U	1.869	mg/L	93	90	110			
L37478-14DUP	DUP	08/30/17 20:47			U	U	mg/L				0	20	RA
WG430282CCV2	CCV	08/30/17 20:48	WI170824-3	2		1.992	mg/L	100	90	110			
WG430282CCB2	CCB	08/30/17 20:51				U	mg/L		-0.02	0.02			
WG430282LFB2	LFB	08/30/17 21:02	WI170705-5	2		2	mg/L	100	90	110			
WG430282CCV3	CCV	08/30/17 21:04	WI170824-3	2		1.982	mg/L	99	90	110			
WG430282CCB3	CCB	08/30/17 21:07				U	mg/L		-0.02	0.02			
WG430282CCV4	CCV	08/30/17 21:23	WI170824-3	2		1.983	mg/L	99	90	110			
WG430282CCB4	CCB	08/30/17 21:26				U	mg/L		-0.02	0.02			

Rio Grande Silver, Inc.

ACZ Project ID: **L39555**

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
WG430282													
WG430282ICV	ICV	08/30/17 20:16	WI170613-1	.609		.562	mg/L	92	90	110			
WG430282ICB	ICB	08/30/17 20:17				U	mg/L		-0.01	0.01			
WG430282PQV	PQV	08/30/17 20:21	WI170705-6	.05		.057	mg/L	114	70	130			
WG430282LFB1	LFB	08/30/17 20:22	WI170705-5	1		.992	mg/L	99	90	110			
WG430282CCV1	CCV	08/30/17 20:31	WI170824-3	1		1.003	mg/L	100	90	110			
WG430282CCB1	CCB	08/30/17 20:34				U	mg/L		-0.01	0.01			
L37476-14AS	AS	08/30/17 20:44	WI170705-5	1	U	.948	mg/L	95	90	110			
L37478-14DUP	DUP	08/30/17 20:47			U	U	mg/L				0	20	RA
WG430282CCV2	CCV	08/30/17 20:48	WI170824-3	1		.986	mg/L	99	90	110			
WG430282CCB2	CCB	08/30/17 20:51				U	mg/L		-0.01	0.01			
WG430282LFB2	LFB	08/30/17 21:02	WI170705-5	1		.996	mg/L	100	90	110			
WG430282CCV3	CCV	08/30/17 21:04	WI170824-3	1		.988	mg/L	99	90	110			
WG430282CCB3	CCB	08/30/17 21:07				U	mg/L		-0.01	0.01			
WG430282CCV4	CCV	08/30/17 21:23	WI170824-3	1		1.002	mg/L	100	90	110			
WG430282CCB4	CCB	08/30/17 21:26				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
WG430667													
WG430667ICV	ICV	09/06/17 14:11	WI170706-6	11.988		11.622	mg/L	97	90	110			
WG430667ICB	ICB	09/06/17 14:13				U	mg/L		-0.05	0.05			
WG430667LFB1	LFB	09/06/17 14:14	WI170420-10	10		9.358	mg/L	94	90	110			
L39445-01AS	AS	09/06/17 14:17	WI170420-10	10	U	9.617	mg/L	96	90	110			
L39445-02DUP	DUP	09/06/17 14:20			U	U	mg/L				0	20	RA
WG430667CCV1	CCV	09/06/17 14:29	WI170706-9	10		9.634	mg/L	96	90	110			
WG430667CCB1	CCB	09/06/17 14:30				U	mg/L		-0.05	0.05			
WG430667CCV2	CCV	09/06/17 14:46	WI170706-9	10		9.703	mg/L	97	90	110			
WG430667CCB2	CCB	09/06/17 14:48				U	mg/L		-0.05	0.05			
WG430667LFB2	LFB	09/06/17 14:57	WI170420-10	10		9.191	mg/L	92	90	110			
WG430667CCV3	CCV	09/06/17 15:04	WI170706-9	10		9.847	mg/L	98	90	110			
WG430667CCB3	CCB	09/06/17 15:05				U	mg/L		-0.05	0.05			
WG430667CCV4	CCV	09/06/17 15:27	WI170706-9	10		9.712	mg/L	97	90	110			
WG430667CCB4	CCB	09/06/17 15:29				.055	mg/L		-0.05	0.05			
WG430667CCV5	CCV	09/06/17 15:45	WI170706-9	10		9.887	mg/L	99	90	110			
WG430667CCB5	CCB	09/06/17 15:47				U	mg/L		-0.05	0.05			

Rio Grande Silver, Inc.

ACZ Project ID: **L39555**

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
WG430783													
WG430783ICV	ICV	09/07/17 21:28	WI170906-2	4		4.07	mg/L	102	90	110			
WG430783ICB	ICB	09/07/17 21:29				U	mg/L		-0.1	0.1			
WG430295LRB	LRB	09/07/17 21:30				U	mg/L		-0.1	0.1			
WG430295LFB	LFB	09/07/17 21:31	WI170815-9	2.5		2.51	mg/L	100	90	110			
WG430783CCV1	CCV	09/07/17 21:42	WI170906-3	2.5		2.43	mg/L	97	90	110			
WG430783CCB1	CCB	09/07/17 21:43				U	mg/L		-0.1	0.1			
WG430417LRB	LRB	09/07/17 21:44				U	mg/L		-0.1	0.1			
WG430417LFB	LFB	09/07/17 21:45	WI170815-9	2.5		2.4	mg/L	96	90	110			
WG430783CCV2	CCV	09/07/17 21:55	WI170906-3	2.5		2.53	mg/L	101	90	110			
WG430783CCB2	CCB	09/07/17 21:56				U	mg/L		-0.1	0.1			
L39549-01DUP	DUP	09/07/17 21:57			78	71.3	mg/L				9	20	
L39555-01LFM	LFM	09/07/17 22:00	WI170815-9	2.5	.4	3.44	mg/L	122	90	110			M1
WG430783CCV3	CCV	09/07/17 22:09	WI170906-3	2.5		2.53	mg/L	101	90	110			
WG430783CCB3	CCB	09/07/17 22:10				U	mg/L		-0.1	0.1			
WG430783CCV4	CCV	09/07/17 22:17	WI170906-3	2.5		2.56	mg/L	102	90	110			
WG430783CCB4	CCB	09/07/17 22:18				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
WG430674													
WG430674LCSW1	LCSW	09/06/17 15:27	PCN52664	6		6	units	100	5.9	6.1			
WG430674LCSW4	LCSW	09/06/17 18:24	PCN52664	6		6	units	100	5.9	6.1			
WG430674LCSW7	LCSW	09/06/17 21:46	PCN52664	6		6	units	100	5.9	6.1			
WG430674LCSW10	LCSW	09/07/17 1:13	PCN52664	6		6	units	100	5.9	6.1			
L39555-03DUP	DUP	09/07/17 3:02			6.3	6.3	units				0	20	
L39562-06DUP	DUP	09/07/17 4:10			8.6	8.6	units				0	20	
WG430674LCSW13	LCSW	09/07/17 4:46	PCN52664	6		6	units	100	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
WG431377													
WG431377ICV	ICV	09/15/17 21:45	II170915-1	20		20.02	mg/L	100	95	105			
WG431377ICB	ICB	09/15/17 21:51				U	mg/L		-0.6	0.6			
WG431377PQV	PQV	09/15/17 21:55	II170828-2	1.002		1.02	mg/L	102	70	130			
WG431377SIC	SIC	09/15/17 21:58	II170828-3	1.002		.96	mg/L	96	80	120			
WG431377LFB	LFB	09/15/17 22:05	II170908-2	100.002		99.61	mg/L	100	85	115			
L39551-02AS	AS	09/15/17 22:21	II170908-2	100.002	.5	100.9	mg/L	100	85	115			
L39551-02ASD	ASD	09/15/17 22:25	II170908-2	100.002	.5	100.9	mg/L	100	85	115	0	20	
WG431377CCV1	CCV	09/15/17 22:38	II170831-1	10		9.92	mg/L	99	90	110			
WG431377CCB1	CCB	09/15/17 22:41				U	mg/L		-0.6	0.6			
L39555-05AS	AS	09/15/17 23:04	II170908-2	100.002	3.1	102.5	mg/L	99	85	115			
L39555-05ASD	ASD	09/15/17 23:08	II170908-2	100.002	3.1	105.9	mg/L	103	85	115	3	20	
WG431377CCV2	CCV	09/15/17 23:18	II170831-1	10		10.24	mg/L	102	90	110			
WG431377CCB2	CCB	09/15/17 23:21				U	mg/L		-0.6	0.6			
WG431377CCV3	CCV	09/15/17 23:41	II170831-1	10		10.19	mg/L	102	90	110			
WG431377CCB3	CCB	09/15/17 23:44				U	mg/L		-0.6	0.6			

Rio Grande Silver, Inc.

ACZ Project ID: **L39555**

Residue, Filterable (TDS) @180C

SM2540C

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG430359													
WG430359PBW	PBW	08/31/17 13:20				U	mg/L		-20	20			
WG430359LCSW	LCSW	08/31/17 13:22	PCN54008	260		260	mg/L	100	80	120			
L39555-01DUP	DUP	08/31/17 13:51			210	222	mg/L				6	10	
L39562-06DUP	DUP	08/31/17 14:17			220	224	mg/L				2	10	

Silver, dissolved

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG431666													
WG431666ICV	ICV	09/20/17 14:11	MS170901-1	.02004		.020788	mg/L	104	90	110			
WG431666ICB	ICB	09/20/17 14:13				U	mg/L		-0.00015	0.00015			
WG431666LFB	LFB	09/20/17 14:15	MS170919-2	.01001		.009803	mg/L	98	85	115			
WG431666CCV1	CCV	09/20/17 14:31	MS170919-4	.025025		.024292	mg/L	97	90	110			
WG431666CCB1	CCB	09/20/17 14:33				U	mg/L		-0.00015	0.00015			
L39459-03AS	AS	09/20/17 14:53	MS170919-2	.01001	U	.010301	mg/L	103	70	130			
WG431666CCV2	CCV	09/20/17 14:55	MS170919-4	.025025		.025247	mg/L	101	90	110			
WG431666CCB2	CCB	09/20/17 14:57				U	mg/L		-0.00015	0.00015			
L39459-03ASD	ASD	09/20/17 14:59	MS170919-2	.01001	U	.010231	mg/L	102	70	130	1	20	
WG431666CCV3	CCV	09/20/17 15:13	MS170919-4	.025025		.025933	mg/L	104	90	110			
WG431666CCB3	CCB	09/20/17 15:15				U	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
WG431684													
WG431684ICV	ICV	09/20/17 17:53	MS170901-1	.02004		.02144	mg/L	107	90	110			
WG431684ICB	ICB	09/20/17 17:57				U	mg/L		-0.00015	0.00015			
WG431147LRB	LRB	09/20/17 18:00				U	mg/L		-0.00011	0.00011			
WG431147LFB	LFB	09/20/17 18:03	MS170912-2	.01001		.01023	mg/L	102	85	115			
L39555-01LFM	LFM	09/20/17 18:21	MS170912-2	.01001	.00131	.01081	mg/L	95	70	130			
L39555-01LFMD	LFMD	09/20/17 18:24	MS170912-2	.01001	.00131	.01105	mg/L	97	70	130	2	20	
WG431684CCV1	CCV	09/20/17 18:31	MS170919-4	.025025		.02516	mg/L	101	90	110			
WG431684CCB1	CCB	09/20/17 18:34				U	mg/L		-0.00015	0.00015			
WG431684CCV2	CCV	09/20/17 19:08	MS170919-4	.025025		.02532	mg/L	101	90	110			
WG431684CCB2	CCB	09/20/17 19:11				U	mg/L		-0.00015	0.00015			
WG431684CCV3	CCV	09/20/17 19:32	MS170919-4	.025025		.02552	mg/L	102	90	110			
WG431684CCB3	CCB	09/20/17 19:35				U	mg/L		-0.00015	0.00015			

Rio Grande Silver, Inc.

ACZ Project ID: **L39555**

Sodium, dissolved

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG431377													
WG431377ICV	ICV	09/15/17 21:45	II170915-1	100		99.99	mg/L	100	95	105			
WG431377ICB	ICB	09/15/17 21:51				U	mg/L		-0.6	0.6			
WG431377PQV	PQV	09/15/17 21:55	II170828-2	1		1.03	mg/L	103	70	130			
WG431377SIC	SIC	09/15/17 21:58	II170828-3	1		1.04	mg/L	104	80	120			
WG431377LFB	LFB	09/15/17 22:05	II170908-2	100.0031		99.16	mg/L	99	85	115			
L39551-02AS	AS	09/15/17 22:21	II170908-2	100.0031	7.8	107.6	mg/L	100	85	115			
L39551-02ASD	ASD	09/15/17 22:25	II170908-2	100.0031	7.8	107.5	mg/L	100	85	115	0	20	
WG431377CCV1	CCV	09/15/17 22:38	II170831-1	50		49.35	mg/L	99	90	110			
WG431377CCB1	CCB	09/15/17 22:41				U	mg/L		-0.6	0.6			
L39555-05AS	AS	09/15/17 23:04	II170908-2	100.0031	10.1	108.6	mg/L	98	85	115			
L39555-05ASD	ASD	09/15/17 23:08	II170908-2	100.0031	10.1	112.6	mg/L	102	85	115	4	20	
WG431377CCV2	CCV	09/15/17 23:18	II170831-1	50		50.81	mg/L	102	90	110			
WG431377CCB2	CCB	09/15/17 23:21				U	mg/L		-0.6	0.6			
WG431377CCV3	CCV	09/15/17 23:41	II170831-1	50		50.53	mg/L	101	90	110			
WG431377CCB3	CCB	09/15/17 23:44				U	mg/L		-0.6	0.6			

Sulfate

M300.0 - Ion Chromatography

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG430666													
WG430666ICV	ICV	09/06/17 17:19	WI170906-9	50		49.5	mg/L	99	90	110			
WG430666ICB	ICB	09/06/17 17:36				U	mg/L		-0.5	0.5			
WG431698													
WG431698CCV1	CCV	09/20/17 16:45	WI170906-8	50.05		50.4	mg/L	101	90	110			
WG431698CCB1	CCB	09/20/17 17:03				U	mg/L		-0.5	0.5			
WG431698PQV	PQV	09/20/17 17:21	WI170703-1	2.5		2.58	mg/L	103	70	130			
WG431698LFB	LFB	09/20/17 17:38	WI170906-10	30		30.6	mg/L	102	90	110			
L39555-01DUP	DUP	09/20/17 20:02			96.3	96.1	mg/L				0	20	
WG431698CCV2	CCV	09/20/17 20:20	WI170906-8	50.05		49.9	mg/L	100	90	110			
WG431698CCB2	CCB	09/20/17 20:38				U	mg/L		-0.5	0.5			
WG431698CCV3	CCV	09/22/17 23:37	WI170906-8	50.05		50.3	mg/L	100	90	110			
WG431698CCB3	CCB	09/22/17 23:55				U	mg/L		-0.5	0.5			
WG431698PQV1	PQV	09/23/17 0:13	WI170703-1	2.5		2.55	mg/L	102	70	130			
L39555-02AS	AS	09/23/17 0:49	WI170906-10	60	98.2	159	mg/L	101	90	110			
L39555-05DUP	DUP	09/23/17 2:00			104	105	mg/L				1	20	
L39583-02AS	AS	09/23/17 2:36	WI170906-10	30	U	30.7	mg/L	102	90	110			
WG431698CCV4	CCV	09/23/17 3:12	WI170906-8	50.05		50.1	mg/L	100	90	110			
WG431698CCB4	CCB	09/23/17 3:30				U	mg/L		-0.5	0.5			
WG431698CCV5	CCV	09/23/17 5:53	WI170906-8	50.05		50.2	mg/L	100	90	110			
WG431698CCB5	CCB	09/23/17 6:11				U	mg/L		-0.5	0.5			

Rio Grande Silver, Inc.

ACZ Project ID: **L39555**

Sulfide as S

SM4500S2-D

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG430259													
WG430259ICV	ICV	08/30/17 15:00	WC170830-4	.328		.355	mg/L	108	90	110			
WG430259ICB	ICB	08/30/17 15:06				U	mg/L		-0.06	0.06			
WG430261													
WG430261ICV	ICV	08/30/17 15:00	WC170830-4	.328		.351	mg/L	107	90	110			
WG430261ICB	ICB	08/30/17 15:06				U	mg/L		-0.06	0.06			
WG430261LFB	LFB	08/30/17 15:13	WC170830-7	.2426667		.219	mg/L	90	80	120			
WG430261CCV1	CCV	08/30/17 16:22	WC170830-5	.182		.176	mg/L	97	90	110			
WG430261CCB1	CCB	08/30/17 16:29				U	mg/L		-0.06	0.06			
WG430261CCV2	CCV	08/30/17 17:44	WC170830-5	.182		.177	mg/L	97	90	110			
WG430261CCB2	CCB	08/30/17 17:51				U	mg/L		-0.06	0.06			
L39555-02AS	AS	08/30/17 18:19	WC170830-7	.2426667	U	.044	mg/L	18	75	125			M2
L39555-02DUP	DUP	08/30/17 18:26			U	U	mg/L				0	20	RA
WG430261CCV3	CCV	08/30/17 18:32	WC170830-5	.182		.176	mg/L	97	90	110			
WG430261CCB3	CCB	08/30/17 18:39				U	mg/L		-0.06	0.06			
WG430330													
WG430330ICV	ICV	08/31/17 13:10	WC170830-4	.328		.336	mg/L	102	90	110			
WG430330ICB	ICB	08/31/17 13:11				U	mg/L		-0.06	0.06			
WG430367													
WG430367ICV	ICV	08/31/17 13:55	WC170830-4	.328		.328	mg/L	100	90	110			
WG430367ICB	ICB	08/31/17 13:59				U	mg/L		-0.06	0.06			
WG430367LFB	LFB	08/31/17 14:03	WC170830-7	.2426667		.211	mg/L	87	80	120			
WG430367CCV1	CCV	08/31/17 14:46	WC170830-5	.182		.177	mg/L	97	90	110			
WG430367CCB1	CCB	08/31/17 14:51				U	mg/L		-0.06	0.06			
L39565-01AS	AS	08/31/17 14:59	WC170830-7	.2426667	U	.169	mg/L	70	75	125			M2
L39565-01DUP	DUP	08/31/17 15:04			U	U	mg/L				0	20	RA
WG430367CCV2	CCV	08/31/17 15:25	WC170830-5	.182		.177	mg/L	97	90	110			
WG430367CCB2	CCB	08/31/17 15:29				U	mg/L		-0.06	0.06			

Rio Grande Silver, Inc.

ACZ Project ID: **L39555**

Zinc, dissolved

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG431666													
WG431666ICV	ICV	09/20/17 14:11	MS170901-1	.05		.0514	mg/L	103	90	110			
WG431666ICB	ICB	09/20/17 14:13				U	mg/L		-0.006	0.006			
WG431666LFB	LFB	09/20/17 14:15	MS170919-2	.05002		.0479	mg/L	96	85	115			
WG431666CCV1	CCV	09/20/17 14:31	MS170919-4	.5002		.4883	mg/L	98	90	110			
WG431666CCB1	CCB	09/20/17 14:33				U	mg/L		-0.006	0.006			
L39459-03AS	AS	09/20/17 14:53	MS170919-2	.05002	U	.0537	mg/L	107	70	130			
WG431666CCV2	CCV	09/20/17 14:55	MS170919-4	.5002		.5004	mg/L	100	90	110			
WG431666CCB2	CCB	09/20/17 14:57				U	mg/L		-0.006	0.006			
L39459-03ASD	ASD	09/20/17 14:59	MS170919-2	.05002	U	.0534	mg/L	107	70	130	1	20	
WG431666CCV3	CCV	09/20/17 15:13	MS170919-4	.5002		.5226	mg/L	104	90	110			
WG431666CCB3	CCB	09/20/17 15:15				U	mg/L		-0.006	0.006			

WG431762

WG431762ICV	ICV	09/21/17 17:17	MS170901-1	.05		.0482	mg/L	96	90	110			
WG431762ICB	ICB	09/21/17 17:19				U	mg/L		-0.006	0.006			
WG431762LFB	LFB	09/21/17 17:21	MS170919-2	.05002		.0467	mg/L	93	85	115			
WG431762CCV1	CCV	09/21/17 17:37	MS170919-4	.5002		.5011	mg/L	100	90	110			
WG431762CCB1	CCB	09/21/17 17:39				U	mg/L		-0.006	0.006			
L39459-03AS	AS	09/21/17 17:58	MS170919-2	.05002	U	.049	mg/L	98	70	130			
WG431762CCV2	CCV	09/21/17 18:00	MS170919-4	.5002		.5227	mg/L	104	90	110			
WG431762CCB2	CCB	09/21/17 18:02				U	mg/L		-0.006	0.006			
L39459-03ASD	ASD	09/21/17 18:04	MS170919-2	.05002	U	.0494	mg/L	99	70	130	1	20	
WG431762CCV3	CCV	09/21/17 18:18	MS170919-4	.5002		.5098	mg/L	102	90	110			
WG431762CCB3	CCB	09/21/17 18:20				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
WG431684													
WG431684ICV	ICV	09/20/17 17:53	MS170901-1	.05		.0506	mg/L	101	90	110			
WG431684ICB	ICB	09/20/17 17:57				U	mg/L		-0.006	0.006			
WG431147LRB	LRB	09/20/17 18:00				U	mg/L		-0.0044	0.0044			
WG431147LFB	LFB	09/20/17 18:03	MS170912-2	.05002		.0489	mg/L	98	85	115			
L39555-01LFM	LFM	09/20/17 18:21	MS170912-2	.05002	.833	.8579	mg/L	50	70	130			M3
L39555-01LFMD	LFMD	09/20/17 18:24	MS170912-2	.05002	.833	.8672	mg/L	68	70	130	1	20	M3
WG431684CCV1	CCV	09/20/17 18:31	MS170919-4	.5002		.4861	mg/L	97	90	110			
WG431684CCB1	CCB	09/20/17 18:34				U	mg/L		-0.006	0.006			
WG431684CCV2	CCV	09/20/17 19:08	MS170919-4	.5002		.5286	mg/L	106	90	110			
WG431684CCB2	CCB	09/20/17 19:11				.0115	mg/L		-0.006	0.006			BB

WG431832

WG431832ICV	ICV	09/21/17 19:56	MS170901-1	.05		.049	mg/L	98	90	110			
WG431832ICB	ICB	09/21/17 19:59				U	mg/L		-0.006	0.006			
WG431147LRB	LRB	09/21/17 20:02				U	mg/L		-0.0044	0.0044			
WG431147LFB	LFB	09/21/17 20:05	MS170912-2	.05002		.0487	mg/L	97	85	115			
L39555-01LFM	LFM	09/21/17 20:15	MS170912-2	.05002	.814	.86	mg/L	92	70	130			
L39555-01LFMD	LFMD	09/21/17 20:18	MS170912-2	.05002	.814	.8636	mg/L	99	70	130	0	20	
WG431832CCV1	CCV	09/21/17 20:30	MS170919-4	.5002		.4994	mg/L	100	90	110			
WG431832CCB1	CCB	09/21/17 20:33				U	mg/L		-0.006	0.006			
WG431832CCV2	CCV	09/21/17 20:49	MS170919-4	.5002		.505	mg/L	101	90	110			
WG431832CCB2	CCB	09/21/17 20:52				.0031	mg/L		-0.006	0.006			

Rio Grande Silver, Inc.ACZ Project ID: **L39555**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L39555-01	WG431698	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).
	WG430624	Fluoride	SM4500F-C	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).
	WG430282	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).
	WG430667	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).
	WG430783	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.
	WG430261	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).
	WG430674	Total Alkalinity	SM2320B - Titration	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG431684	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: **L39555**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L39555-02	WG431272	Aluminum, 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.
	WG431698	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).
	WG430624	Fluoride	SM4500F-C	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).
	WG431272	Iron, total recoverable	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
	WG430282	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).
	WG430667	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).
	WG430783	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.
	WG430261	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).
	WG430674	Total Alkalinity	SM2320B - Titration	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG431684	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: **L39555**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L39555-03	WG431272	Aluminum, 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.
	WG431698	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).
	WG430624	Fluoride	SM4500F-C	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).
	WG431272	Iron, total recoverable	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
	WG430282	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).
	WG430667	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).
	WG430783	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.
	WG430674	pH	SM4500H+ B	ZW	Method deviation. The sample was centrifuged prior to analysis due to high solid content.
	WG430367	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).
	WG430674	Total Alkalinity	SM2320B - Titration	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
			SM2320B - Titration	ZW	Method deviation. The sample was centrifuged prior to analysis due to high solid content.

Rio Grande Silver, Inc.

ACZ Project ID: **L39555**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L39555-04	WG431272	Aluminum, 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.
	WG431698	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).
	WG430624	Fluoride	SM4500F-C	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).
	WG431272	Iron, total recoverable	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
	WG430282	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).
	WG430667	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).
	WG430783	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.
	WG430674	pH	SM4500H+ B	ZW	Method deviation. The sample was centrifuged prior to analysis due to high solid content.
	WG430367	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	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).
	WG430674	Total Alkalinity	SM2320B - Titration	ZW	Method deviation. The sample was centrifuged prior to analysis due to high solid content.

Rio Grande Silver, Inc.

ACZ Project ID: **L39555**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L39555-05	WG431272	Aluminum, 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.
	WG431698	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).
	WG430624	Fluoride	SM4500F-C	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).
	WG431272	Iron, total recoverable	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
	WG430282	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).
	WG430667	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).
	WG430783	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.
	WG430367	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).
	WG431684	Zinc, total recoverable	M200.8 ICP-MS	BB	Target analyte detected in calibration blank at or above acceptance limit. Sample value was > 10X the concentration in the calibration blank.
			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: BO-38160

Sample ID: HW-2

ACZ Sample ID: **L39555-01**

Date Sampled: 08/29/17 11:15

Date Received: 08/30/17

Sample Matrix: Ground Water

Oil & Grease, Total Recoverable

Analysis Method: **1664A - Gravimetric**

Extract Method:

Workgroup: **WG430402**

Analyst: jmm

Extract Date:

Analysis Date: 09/01/17 11:00

Compound	CAS	Result	QUAL	Dilution	XQ	Units	MDL	PQL
Oil and Grease			U	0.99		mg/L	2	9.9

Rio Grande Silver, Inc.

Project ID: BO-38160

Sample ID: GW-1

ACZ Sample ID: **L39555-02**

Date Sampled: 08/29/17 11:15

Date Received: 08/30/17

Sample Matrix: Ground Water

Oil & Grease, Total Recoverable

Analysis Method: **1664A - Gravimetric**

Extract Method:

Workgroup: **WG430402**

Analyst: jmm

Extract Date:

Analysis Date: 09/01/17 11:06

Compound	CAS	Result	QUAL	Dilution	XQ	Units	MDL	PQL
Oil and Grease			U	0.99		mg/L	2	9.9

Rio Grande Silver, Inc.

Project ID: BO-38160

Sample ID: DP-5

ACZ Sample ID: **L39555-05**

Date Sampled: 08/29/17 10:00

Date Received: 08/30/17

Sample Matrix: Ground Water

Oil & Grease, Total Recoverable

Analysis Method: **1664A - Gravimetric**

Extract Method:

Workgroup: **WG430402**

Analyst: jmm

Extract Date:

Analysis Date: 09/01/17 11:12

Compound	CAS	Result	QUAL	Dilution	XQ	Units	MDL	PQL
Oil and Grease			U	0.99		mg/L	2	9.9


Report Header Explanations

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

QC Sample Types

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

QC Sample Type Explanations

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

ACZ Qualifiers (Qual)

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: **L39555**

Oil & Grease, Total Recoverable

1664A - Gravimetric

WG430402

MS	Sample ID: L39531-01MS			PCN/SCN: OP170814-2			Analyzed: 09/01/17 10:48			
Compound	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
OIL AND GREASE	40	U	37.6	mg/L	94.0	78	114			

LCSW		Sample ID: WG430402LCSW		PCN/SCN: OP170814-2			Analyzed: 09/01/17 11:24			
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: WG430402LCSWD			PCN/SCN: OP170814-2			Analyzed: 09/01/17 11:30			
Compound	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
OIL AND GREASE	40		33.9	mg/L	85.0	78	114	10	18	

PBW		Sample ID: WG430402PBW						Analyzed:		09/01/17 9:30	
Compound	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual	
OIL AND GREASE			U	mg/L							

ACZ Project ID: **L39555**

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

Rio Grande Silver, Inc.

ACZ Project ID: **L39555**

No certification qualifiers associated with this analysis

Rio Grande Silver, Inc.
BO-38160

ACZ Project ID: L39555
Date Received: 08/30/2017 10:33
Received By:
Date Printed: 8/30/2017

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?	☐	☒	☐
L39555-03 : A Orange container not received and the associated analysis could not be run.			
L39555-04 : A Orange container not received and the associated analysis could not be run.			
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?	☒	☐	☐

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?
4631	5.2	<=6.0	11	Yes

Was ice present in the shipment container(s)?

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

Rio Grande Silver, Inc.
BO-38160

ACZ Project ID: L39555

Date Received: 08/30/2017 10:33

Received By:

Date Printed: 8/30/2017

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

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

ACZ**Laboratories, Inc.**

L39555

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: rmccclure@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: rmccclure@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: _____

*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 - 2017

PO#: BO-38160

Reporting state for compliance testing:

Check box if samples include NRC licensed material? ☐

SAMPLE IDENTIFICATION			DATE:TIME	Matrix	# of Containers												
HW-2			8-29-17 11:15am	GW	7	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
GW-1			8-29-17 11:15am	GW	7	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
DP-3			8-29-17 11:45am	GW	7	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
DP-4			8-29-17 11:30am	GW	7	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
DP-5			8-29-17 10:00am	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 rmccclure@hecla-mining.com

Not enough water in DP-3 and DP-4. Did NOT fill oil and grease bottle.

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

8/29 1:45pm

ES

8/29/17 1033

FRMAD050.03.14.13

White - Return with sample.

Yellow - Retain for your records.