Rio Algom Mining LLC

July 26, 2013

CERTIFIED MAIL

Mr. David Mayerson
Groundwater Quality Section
New Mexico Environment Department
P.O. Box 26110
Santa Fe, NM 87502

Re: **Discharge Permit – 71 (DP-71)**
Report for Second Quarter 2013

Dear Mr. Mayerson,

Attached is the 2013 Second Quarter Report summarizing activities and groundwater monitoring for Rio Algom Mining LLC. (RAML), Section 4 lined evaporation ponds located at the Ambrosia Lake mill facility.

Also transmitted via e-mail (NMED copy only) is a Copy of the Summary Spreadsheet in PDF format for the 2nd quarter groundwater monitoring report, Section 4 lined evaporation ponds. This Copy meets the requirements of Condition 15B of DP-71.

If you have any questions or need additional information, please call me at 505-236-1821.

Sincerely,

Billy Ray
Site Manager

Attachments: As stated

cc: NRC (Mr. Tom McLaughlin)
NRC (document control)
K. Black
D. Murray

P.O. Box 218, Grants, NM USA 87020 - Tel: 505.287.8851 - Fax: 505.285.5550

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RIO ALGOM MINING LLC – AMBROSIA LAKE FACILITY
DISCHARGE PERMIT – 71 (DP-71)
SECOND QUARTER REPORT 2013

This report presents the activities and results of the monitoring and sampling requirements associated with DP-71 for the 2nd quarter of 2013. DP-71 permit renewal was approved on December 1, 2003 and monitoring requirements were expanded from previous monitoring commitments listed in the permit. This expansion has resulted in acquiring data that was not obtained in past monitoring programs. In 2012, RAML submitted an updated application for DP-362 permit renewal that would include the DP-71 monitoring activities to New Mexico Environment Department, which is currently under review.

Section 15A:
Activities that included the remediation of the Section 4 lined evaporation ponds were conducted from 2005 through 2009. There were no operations or soil removal activities conducted at the Section 4 pond area during the 2nd quarter of 2013.

Water was present in MW-32 and a sample was collected for analysis. Water was detected in MW-22 and MW-23, but a sample was un-attainable due to insufficient depth of the water column. The remaining wells associated with the permit were dry or contained insufficient water for sample.

Exhibit 1 presents the time versus concentration plots and hydrographs for MW-22, MW-23, and MW-32. Because of the deficiency of alluvial water in the Section 4 pond area, development of a potentiometric map for the alluvium is not practical.

Snow flurries occurred April 9th and 10th, and light rain May 6th and June 16th.

Section 15B:
Exhibit 2 presents a table titled Section 4 Monitoring Wells, Analytical Results and Water Level Measurements for this reporting period. Exhibit 3 provides a table titled Section 4 Active Monitoring Wells, Analytical Results and Water Level Measurements for a cumulative period since 2005.

Section 15C:
Exhibit 4 provides a copy of the signed laboratory analyses for this reporting period.

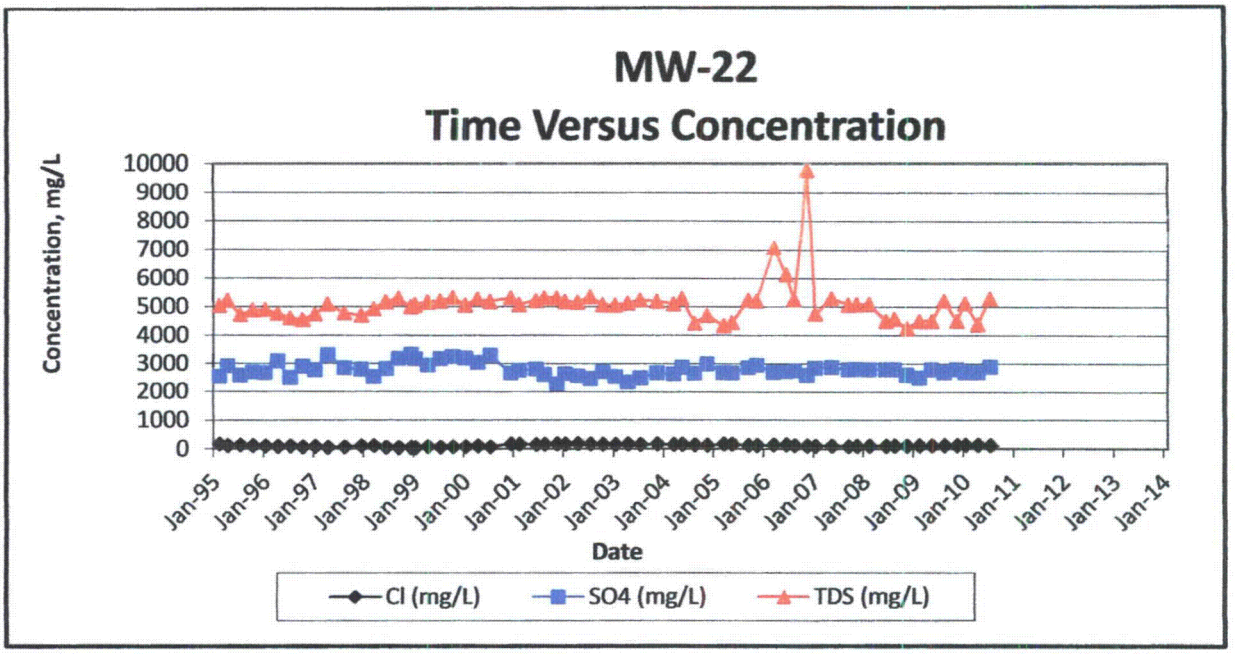
Section 15D:
Exhibit 1 presents the time versus concentration plots and hydrographs for MW-22, MW-23, and MW-32 since approximately 1995.

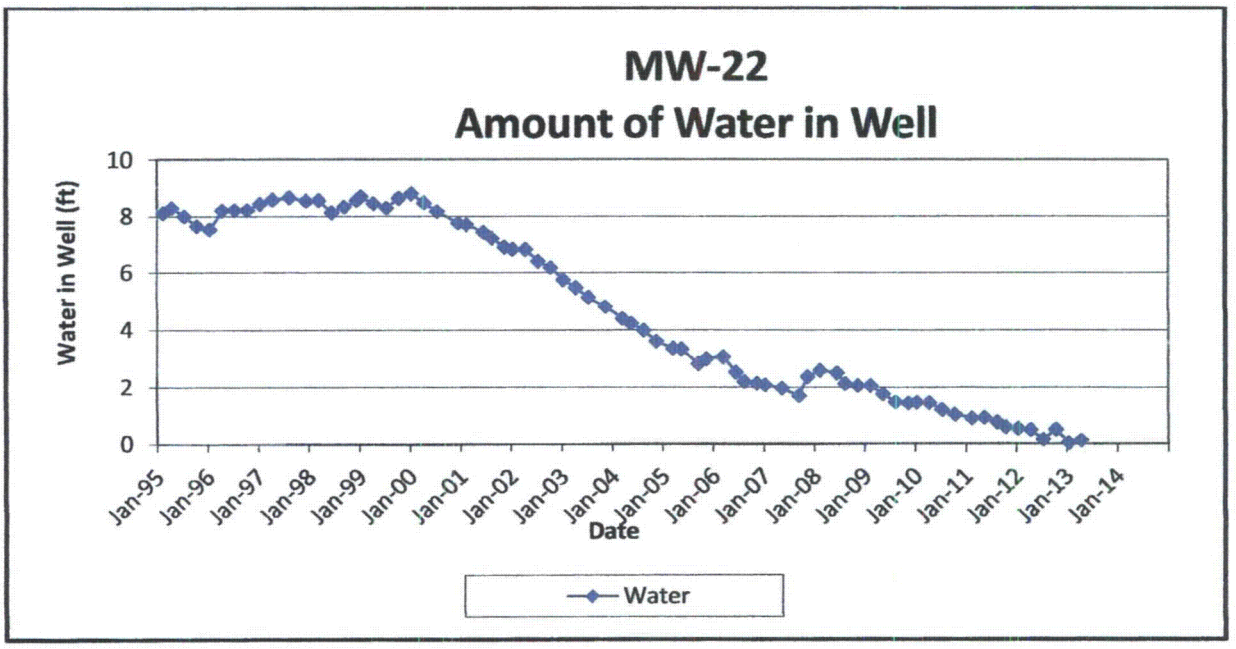
Section 15E:
Because of insufficient alluvial water in the Section 4 pond area and since many of the monitoring wells are dry, the development of a potentiometric map for the alluvium was not undertaken.

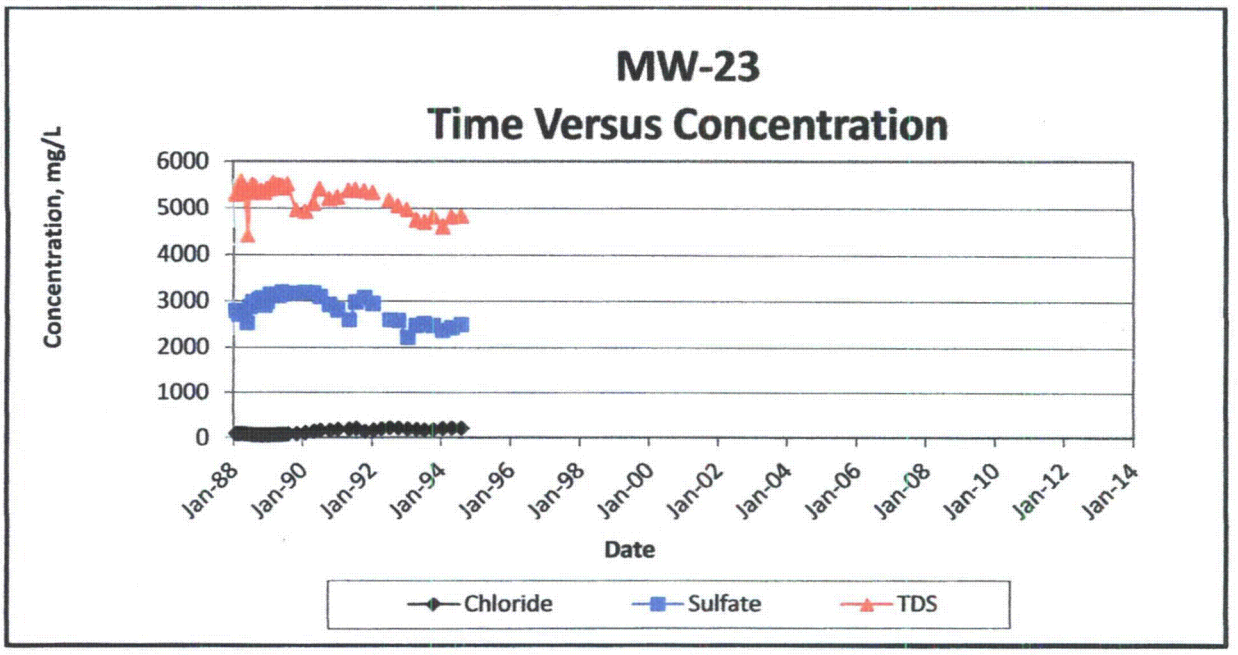
Exhibit 1

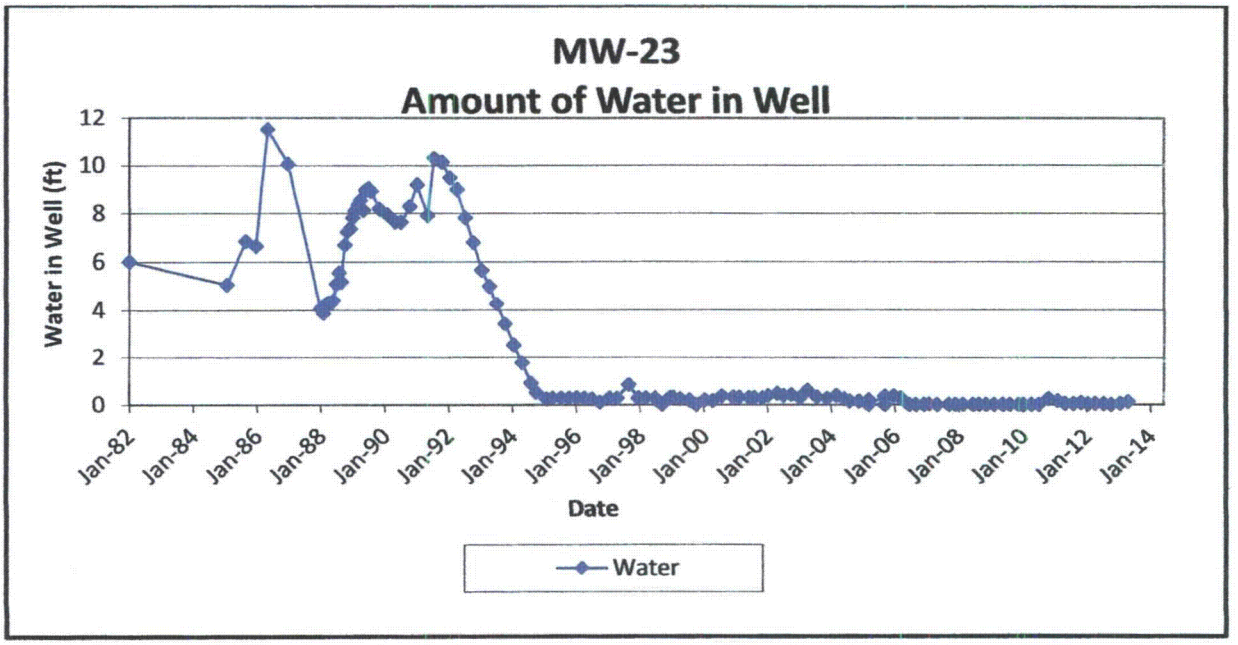
DP-71 Time vs. Concentration Plots and Hydrographs

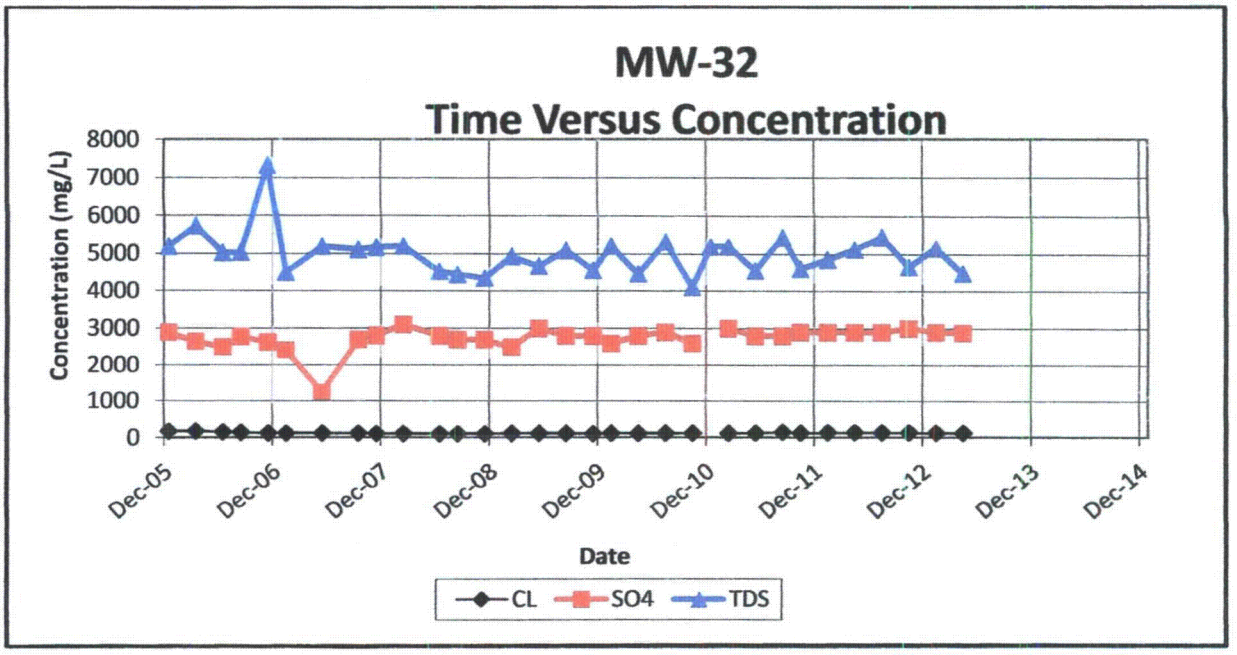
MW-22, MW-23 and MW-32


MW-22
Time Versus Concentration
Concentration, mg/L
10000
9000
8000
7000
6000
5000
4000
3000
2000
1000
0
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Date
Cl (mg/L)
SO4 (mg/L)
TDS (mg/L)


MW-22
Amount of Water in Well
Water in Well (ft)
10
8
6
4
2
0
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Date
Water


MW-23
Time Versus Concentration
Concentration, mg/L
6000
5000
4000
3000
2000
1000
0
Jan-88
Jan-90
Jan-92
Jan-94
Jan-96
Jan-98
Jan-00
Jan-02
Jan-04
Jan-06
Jan-08
Jan-10
Jan-12
Jan-14
Date
Chloride
Sulfate
TDS


MW-23
Amount of Water in Well
Water in Well (ft)
12
10
8
6
4
2
0
Jan-82
Jan-84
Jan-86
Jan-88
Jan-90
Jan-92
Jan-94
Jan-96
Jan-98
Jan-00
Jan-02
Jan-04
Jan-06
Jan-08
Jan-10
Jan-12
Jan-14
Date
Water


MW-32
Time Versus Concentration
Concentration (mg/L)
8000
7000
6000
5000
4000
3000
2000
1000
0
Dec-05
Dec-06
Dec-07
Dec-08
Dec-09
Dec-10
Dec-11
Dec-12
Dec-13
Dec-14
Date
CL
SO4
TDS

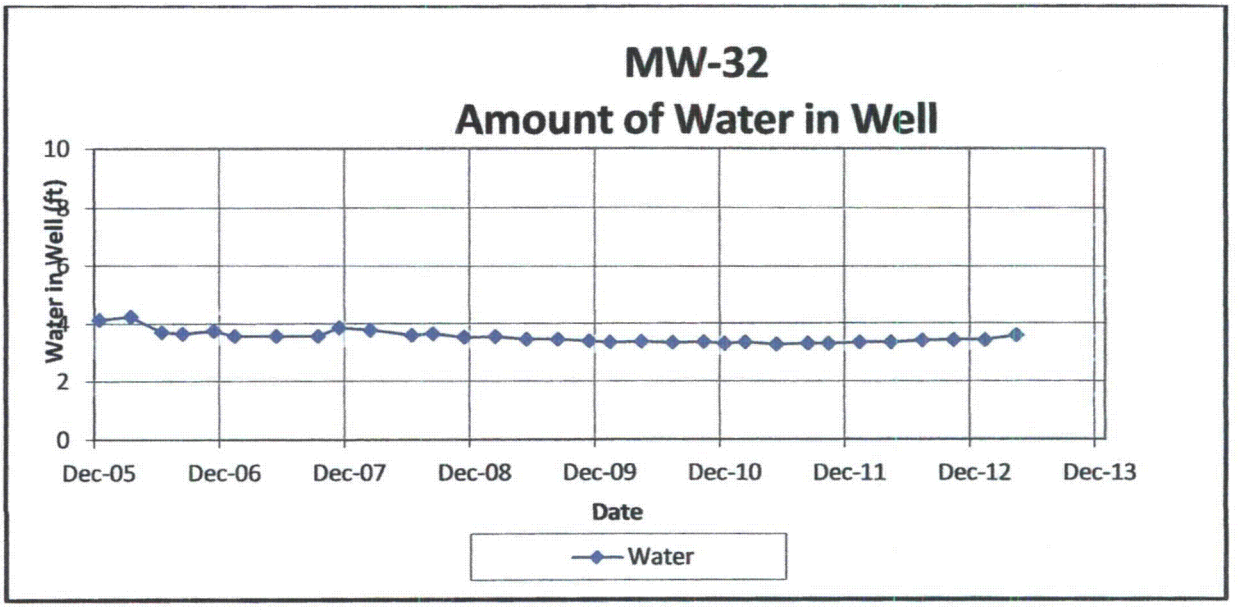

MW-32
Amount of Water in Well
Water in Well (ft)
10
8
6
4
2
0
Dec-05
Dec-06
Dec-07
Dec-08
Dec-09
Dec-10
Dec-11
Dec-12
Dec-13
Date
Water

Exhibit 2

Section 4 Monitoring Wells, Analytical Results & Water Level Measurements

DISCHARGE PERMIT - DP-71

MONITORING RESULTS - **SEMI-ANNUAL REPORT 2013** - (2nd HALF)

Date	Location	Depth to Water (ft)	Total Depth (ft)	Water Level (ft)	Well Status	Spec. Cond. (uS)	Temp. (C)	pH (s.u.)	Al (mg/L)	As (mg/L)	Cd (mg/L)	Ca (mg/L)	Cr (mg/L)	Co (mg/L)	Cu (mg/L)	Fe (mg/L)	Pb (mg/L)	Mg (mg/L)	Mn (mg/L)
4/22/2013	MW-12		12.88	0	NS														
4/22/2013	MW-13		29.29	0	NS														
4/22/2013	MW-22	37.08	37.21	0.13	NS														
4/22/2013	MW-23	41.81	41.94	0.13	NS														
4/22/2013	MW-24		50.15	0	NS														
4/22/2013	MW-25		29.62	0	NS														
4/22/2013	MW-26		35.23	0	NS														
4/22/2013	MW-27		27.88	0	NS														
4/22/2013	MW-28		32.51	0	NS														
4/22/2013	MW-29		28.34	0	NS														
4/22/2013	MW-30		41.01	0	NS														
4/22/2013	MW-31		50.51	0	NS														
4/22/2013	MW-32	68.27	71.86	3.59		5080	14.4	6.99	<0.2	<0.001	<0.03	519	<0.05	<0.05	<0.05	<0.1	<0.0005	356	<0.03
4/22/2013	MW-33		59.31	0	NS														

MONITORING RESULTS - **SEMI-ANNUAL REPORT 2013** - (Continued)

Date	Location	Mo (mg/L)	Ni (mg/L)	K (mg/L)	Se (mg/L)	Ag (mg/L)	Na (mg/L)	U (mg/L)	Zn (mg/L)	CO3 (mg/L)	HCO3 (mg/L)	Cl (mg/L)	F (mg/L)	NO_3(N) (mg/L)	TKN (mg/L)	SO_4 (mg/L)	TDS (mg/L)	Ra-226 (pCi/L)	Ra-228 (pCi/L)
4/22/2013	MW-12																		
4/22/2013	MW-13																		
4/22/2013	MW-22																		
4/22/2013	MW-23																		
4/22/2013	MW-24																		
4/22/2013	MW-25																		
4/22/2013	MW-26																		
4/22/2013	MW-27																		
4/22/2013	MW-28																		
4/22/2013	MW-29																		
4/22/2013	MW-30																		
4/22/2013	MW-31																		
4/22/2013	MW-32	<0.01	<0.05	6	0.4529	<0.05	447	0.0537	<0.05	<2	256	130.00	1.00	54	0.2	2880	4490	0.5	2.5
4/22/2013	MW-33																		

Notes:

Well status listed as "NS" indicates the well was either dry or contained insufficient water for sample collection

Monitoring Wells MW-1 through MW-11, MW-14 through MW-21 were plugged during the Section 4 reclamation project

< Indicates "U" qualifier, analyte concentration not detected above MDL

Exhibit 3

Section 4 Active Monitoring Wells
Cumulative Analytical Results & Water Level Measurements

Monitoring Well-22 Analytical Data

Monitoring Well	Date	Well Status	Depth to Water (ft)	Total Depth (ft)	Water in Well (ft)	Sp. Cond.	Temp. (C)	pH	Ca (mg/L)	Cl (mg/L)	F (mg/L)	$NO_3(N)$ (mg/L)	SO_4 (mg/L)	TDS (mg/L)	HCO_3 (mg/L)	CO_3 (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)
MW-22	15-Nov-05		34	36.99	2.99	6110	11.6	7.73	480	130	0.4	108	2950	5200	209	< 2	257	656	8
MW-22	07-Mar-06		33.94	37	3.06	5850	13.1	7.13		148		23.5	2700	7090					
MW-22	06-Jun-06		34.22	36.75	2.53	5910	15.9	7.01	556	151		1.2	2730	6140	947	<2	274	673	9
MW-22	29-Aug-06		34.60	36.80	2.2	5640	14.7	6.53		124		18	2760	5240					
MW-22	27-Nov-06		34.61	36.75	2.14	5650	10.6	6.32	439	110	0.5	0.49	2690	9790	718	<2	216	558	8
MW-22	29-Jan-07		34.71	36.79	2.08	5600	10.9	6.53	540	105	0.8	26.4	2650	4740	485		264	660	9.1
MW-22	01-May-07		34.79	36.76	1.97	5750	15.5	6.98	553	110	0.6	6.6	2660	5300	671	< 2	276	670	8
MW-22	10-Sep-07		35.10	36.80	1.7	5480	14.1	7.62		95		0.09	2600	5070					
MW-22	26-Nov-07		34.46	36.83	2.37	5480	10.1	7.9	498	98		0.78	2810	5080	581	< 2	268	655	7
MW-22	18-Feb-08		34.19	36.78	2.59	5960	11.1	7.36	475	109	0.5	27.5	2800	5090	370	23	268	670	8.1
MW-22	17-Jun-08		34.3	36.8	2.5	5620	15.2	7.36	485	110	0.5	67	2800	4490	242	< 2	249	705	10
MW-22	18-Aug-08		34.65	36.78	2.13	5870	15.2	7.14	531	110	0.6	52.2	2800	4570	248	< 2	294	681	8
MW-22	10-Nov-08		34.66	36.72	2.06	5530	12.7	7.2	464	110	0.6	34.8	2600	4230	236	< 2	255	685	8
MW-22	09-Feb-09		34.74	36.80	2.06	5400	12.7	7.16		120		50.7	2500	4490					
MW-22	18-May-09		35.04	36.8	1.76	5110	17.2	7.35	485	120	0.6	46.6	2800	4490	230	8	259	677	5
MW-22	08-Aug-09		35.35	36.82	1.47	5720	14.9	7.26		130		31.8	2700	5210					
MW-22	16-Nov-09		35.40	36.84	1.44	5250	11.5	7.16	554	130	0.6	17.1	2800	4500	251		381	475	7
MW-22	12-Jan-10		35.39	36.85	1.46	5130	12.4	7.23		140		14.4	2700	5120					
MW-22	12-Apr-10		35.42	36.87	1.45	5190	15.5	7.27	473	140	0.7	19	2700	4380	231	<2	257	667	5
MW-22	05-Jul-10		35.88	36.89	1.21	5550	14.4	7.05		130		21.9	2900	5290					
MW-22	26-Oct-10	NS	35.85	36.89	1.04														
MW-22	08-Feb-11	NS	35.98	36.89	0.91														
MW-22	02-May-11	NS	36.05	36.98	0.93														
MW-22	09-Aug-11	NS	36.21	36.98	0.77														
MW-22	31-Oct-11	NS	36.37	36.98	0.61														
MW-22	17-Jan-12	NS	36.43	36.98	0.55														
MW-22	10-Apr-12	NS	36.49	37.00	0.51														
MW-22	17-Jul-12	NS	36.85	37.01	0.16														
MW-22	09-Oct-12	NS	36.41	36.93	0.52														
MW-22	21-Jan-13	NS	36.98	37.02	0.04														
MW-22	22-Apr-13	NS	36.98	37.02	0.04														

Monitoring Well	Date	Al (mg/L)	Cd (mg/L)	Cr (mg/L)	Co (mg/L)	Cu (mg/L)	As (mg/L)	Se (mg/L)	U (mg/L)	Fe (mg/L)	Pb (mg/L)	Mn (mg/L)	Mo (mg/L)	Ni (mg/L)	TKN (mg/L)	Ag (mg/L)	Zn (mg/L)	Ra-226 (pCi/L)	Ra-228 (pCi/L)
MW-22	15-Nov-05	0.2	< 0.08	< 0.05	< 0.05	< 0.05	< 0.003	0.483	0.0392	< 0.1	< 0.003	0.04	< 0.05	< 0.05	< 0.2	< 0.05	< 0.05	1.32	1.32
MW-22	07-Mar-06						<0.0011	0.718	0.0211										
MW-22	06-Jun-06	2.4	<0.03	<0.05	0.06	<0.05	0.003	0.133	0.0817	24	<0.0002	136	<0.05	<0.05	7.4	<0.05	0.08	13.6	13.6
MW-22	29-Aug-06						0.011	0.135	0.0276										
MW-22	27-Nov-06	<0.2	<0.03	<0.05	0.06	<0.05	0.0091	0.00548	0.0141	17.8	0.0003	31.4	<0.05	<0.05	4.8	<0.05	<0.05	9.9	9.9
MW-22	29-Jan-07	< 0.03	< 0.005	< 0.01	0.02	< 0.01	0.0075	0.104	0.0302	3.56	< 0.0001	17.1	< 0.01	< 0.01	9.4	< 0.01	< 0.01		
MW-22	01-May-07	< 0.2	< 0.03	< 0.05	< 0.05	< 0.05	0.01	0.0304	0.0327	5.6	< 0.0005	17.3	< 0.05	< 0.05	8.6	< 0.05	< 0.05	1.7	3.6
MW-22	10-Sep-07						0.0206	0.0247	0.0413										
MW-22	26-Nov-07	< 2	< 0.03	< 0.05	< 0.05	< 0.05	0.0056	0.0427	0.0454	0.8	0.0001	5.52	< 0.05	< 0.05	2.8	0.15	< 0.05	1.1	2.4
MW-22	18-Feb-08	0.04	< 0.0005	0.04	< 0.01	< 0.01	0.009	0.129	0.037	0.05	< 0.0005	1.64	< 0.01	< 0.05	1	< 0.01	0.02		
MW-22	17-Jun-08	0.4	<0.03	< 0.05	< 0.05	< 0.05	0.011	0.309	0.0283	0.1	< 0.0005	0.42	< 0.05	< 0.05	0.3	< 0.05	< 0.05	1.75	1.75
MW-22	18-Aug-08	< 0.2	< 0.03	< 0.05	< 0.05	0.45	0.017	0.251	0.0405	< 0.1	< 0.0005	0.04	< 0.05	< 0.05	< 0.1	< 0.05	< 0.05		
MW-22	10-Nov-08	< 0.2	< 0.03	< 0.05	< 0.05	< 0.05	0.006	0.212	0.0276	< 0.1	< 0.0005	< 0.03	0.08	< 0.05	0.2	0.05	< 0.05	0.14	0.6
MW-22	09-Feb-09						0.0107	0.288	0.0321										
MW-22	18-May-09	< 0.2	< 0.03	< 0.05	< 0.05	< 0.05	0.009	0.264	0.0255	< 0.1	0.0011	0.39	< 0.05	0.13	0.3	< 0.05	< 0.05	0.21	1.4
MW-22	08-Aug-09						0.005	0.175	0.0571										
MW-22	16-Nov-09	<0.2	<0.03	< 0.05	< 0.05	< 0.05	0.004	0.119	0.0326	<0.1	<0.0005	0.49	< 0.05	< 0.05	1.9	<0.05	0.10	0.42	0.47
MW-22	12-Jan-10						0.004	0.105	0.0387										
MW-22	12-Apr-10	<0.2	<0.03	< 0.05	0.05	< 0.05	0.008	0.1300	0.0358	0.3	<0.0005	0.84	< 0.05	< 0.05	1.2	< 0.05	< 0.05	0.42	0.3
MW-22	05-Jul-10						0.006	0.1350	0.0309										
MW-22	26-Oct-10																		
MW-22	08-Feb-11																		
MW-22	02-May-11																		
MW-22	09-Aug-11																		
MW-22	31-Oct-11																		
MW-22	17-Jan-12																		
MW-22	10-Apr-12																		
MW-22	17-Jul-12																		
MW-22	09-Oct-12																		
MW-22	21-Jan-13																		
MW-22	22-Apr-13																		

Note: Well status listed as "NS" indicates the well was either dry or contained insufficient water for sample collection.

Monitoring Well-23 Analytical Data

Monitoring Well	Date	Well Status	Depth to Water	Total Depth	Water in Well	Sp. Cond.	Temp. (C)	pH	Ca (mg/L)	Cl (mg/L)	F (mg/L)	NO3(N) (mg/L)	SO4 (mg/L)	TDS (mg/L)
MW-23	08-Mar-05		41.8	42	0.2									
MW-23	08-Mar-05			49.76	0									
MW-23	09-Sep-05		41.65	42	0.35									
MW-23	09-Sep-05			54.54	0									
MW-23	20-Dec-05	NS	41.63	42.00	0.37									
MW-23	07-Mar-06	NS	41.72	42.00	0.28									
MW-23	13-Jun-06	NS		41.65	0									
MW-23	29-Aug-06	NS		41.71	0									
MW-23	27-Nov-06	NS		41.71	0									
MW-23	26-Jan-07	NS	41.75	41.77	0.02									
MW-23	30-Apr-07	NS		41.71	0									
MW-23	10-Sep-07	NS		41.72	0									
MW-23	26-Nov-07	NS		41.80	0									
MW-23	18-Feb-08	NS		41.8	0									
MW-23	12-Jun-08	NS		41.73	0									
MW-23	18-Aug-08	NS		41.8	0									
MW-23	10-Nov-08	NS		4462	0									
MW-23	09-Feb-09	NS		41.67	0									
MW-23	18-May-09	NS		41.67	0									
MW-23	08-Aug-09	NS		41.72	0									
MW-23	17-Nov-09	NS		41.73	0									
MW-23	12-Jan-10	NS		41.73	0									
MW-23	12-Apr-10	NS		41.73	0									
MW-23	05-Jul-10	NS		41.73	0									
MW-23	26-Oct-10	NS	41.48	41.73	0.25									
MW-23	08-Feb-11	NS	41.54	41.71	0.17									
MW-23	02-May-11	NS	41.71	41.76	0.05									
MW-23	09-Aug-11	NS	41.72	41.76	0.04									
MW-23	31-Oct-11	NS	41.71	41.79	0.08									
MW-23	17-Jan-12	NS	41.73	41.76	0.03									
MW-23	10-Apr-12	NS	41.71	41.76	0.05									
MW-23	17-Jul-12	NS	41.73	41.77	0.04									
MW-23	09-Oct-12	NS		41.77	0									
MW-23	21-Jan-13	NS	41.75	41.8	0.05									
MW-23	22-Apr-13	NS	41.75	41.8	0.05									

Note: Well status listed as "NS" indicates the well was either dry or contained insufficient water for sample collection.

Monitoring Well-32 Analytical Data

Monitoring Well	Date	Well Status	Depth to Water (ft)	Total Depth (ft)	Water in Well (ft)	Sp. Cond.	Temp. (C)	pH	Ca (mg/L)	Cl (mg/L)	F (mg/L)	NO_3(N) (mg/L)	SO_4 (mg/L)	TDS (mg/L)	HCO_3 (mg/L)	CO_3 (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)
MW-32	20-Dec-05		67.97	72.10	4.13	6010	12	7.54	547	179	1	91	2890	5190	353	< 2	324	486	9
MW-32	07-Mar-06		67.56	71.8	4.24	5620	13.5	6.91		183		0.74	2650	5740					
MW-32	12-Jun-06		67.92	71.63	3.71	5470	14	7.3	537	160	1	1.98	2500	5030	939	<2	333	487	7
MW-32	29-Aug-06		67.98	71.63	3.65	5290	15	6.89		149		9.7	2780	5040					
MW-32	27-Nov-06		68.00	71.75	3.75	5070	12.7	6.34	525	130	0.9	2.01	2630	7340	805	<2	336	476	7
MW-32	29-Jan-07		68.05	71.62	3.57	5340	11.3	6.51	566	126	1.2	1.44	2420	4500	881		363	485	7.3
MW-32	01-May-07		68.07	71.64	3.57	5400	13.5	7.21	579	130	0.8	6.6	1250	5200	1060	< 2	359	499	7
MW-32	10-Sep-07		68.08	71.65	3.57	5510	15.2	7.28		124		2.1	2700	5120					
MW-32	26-Nov-07		67.86	71.72	3.86	5310	11.9	7.34	579	117		16.9	2810	5180	743	< 2	366	515	8
MW-32	18-Feb-08		67.91	71.69	3.78	5870	11.9	7.6	510	115	0.9	22.3	3100	5210	625	14	341	447	7.3
MW-32	17-Jun-08		68.01	71.61	3.6	5280	14.5	7.2	518	110	1	49.5	2800	4530	400	< 2	348	502	11
MW-32	26-Aug-08		68.01	71.66	3.65	5380	15.9	7.12	584	110	1	43.3	2700	4450	370	< 2	343	485	6
MW-32	10-Nov-08		67.96	71.49	3.53	5210	12.3	7.1	521	110	0.9	37	2700	4350	356	< 2	344	452	6
MW-32	09-Feb-09		68.05	71.60	3.55	5270	12.1	7.08		120		48	2500	4940					
MW-32	18-May-09		68.15	71.6	3.45	5180	14.8	7.19	525	120	0.9	37.2	3000	4680	339	10	352	460	5
MW-32	08-Aug-09		68.16	71.61	3.45	5710	15.3	7.01		120		53.9	2800	5100					
MW-32	16-Nov-09		68.23	71.62	3.39	5150	12.8	7.13	483	110	0.9	50.7	2800	4570	355	<2	270	687	8
MW-32	12-Jan-10		68.26	71.61	3.35	5080	13.0	7.21		120		46.6	2600	5220					
MW-32	12-Apr-10		68.25	71.62	3.37	5250	14.7	7.29	542	120	1.0	60	2800	4470	308	<2	365	455	6
MW-32	05-Jul-10		68.28	71.62	3.34	5380	15.8	7.03		120		69.4	2900	5330					
MW-32	26-Oct-10		68.26	71.62	3.36	4810	13.3	7.13	543	120	1.0	55	2600	4100			384	464	6
MW-32	27-Dec-10		68.31	71.61	3.30	4540	11.9	7.18						5200	268	<2			
MW-32	08-Feb-11		68.27	71.62	3.35	3470	12.2	7.25		120		63	3000	5200					
MW-32	02-May-11		68.36	71.63	3.27	1732	14.2	7.05	583	130	1.0	57	2800	4560	271	<2	399	474	7
MW-32	09-Aug-11		68.32	71.63	3.31	5330	14.5	7.09		151		59.4	2800	5450					
MW-32	31-Oct-11		68.31	71.61	3.30	4590	13.5	7.06	558	130	1.0	56	2900	4610	271	<2	403	445	6
MW-32	16-Jan-12		68.26	71.61	3.35	4160	12.4	7.19		140		57.4	2900	4860					
MW-32	10-Apr-12		68.27	71.62	3.35	4310	14.1	7.15	537	140	1.0	62.8	2900	5130	269	<2	364	455	6
MW-32	17-Jul-12		68.23	71.64	3.41	4470	14.6	7.29		140		62	2900	5460					
MW-32	09-Oct-12		68.2	71.63	3.43	4170	13.8	7.31	532	141	0.9	71	3000	4860	277	<2	360	452	6
MW-32	21-Jan-13		68.23	71.66	3.43	5190	12.8	7.18		132		65.7	2900	5170					
MW-32	22-Apr-13		68.27	71.86	3.59	5080	14.4	6.99	519	130	1.0	54	2880	4490	255	<2	356	447	6

Monitoring Well-32 Analytical Data (Continued)

Monitoring Well	Date	Al (mg/L)	Cd (mg/L)	Cr (mg/L)	Co (mg/L)	Cu (mg/L)	As (mg/L)	Se (mg/L)	U (mg/L)	Fe (mg/L)	Pb (mg/L)	Mn (mg/L)	Mo (mg/L)	Ni (mg/L)	TKN (mg/L)	Ag (mg/L)	Zn (mg/L)	Ra-226 (pCi/L)	Ra-228 (pCi/L)
MW-32	20-Dec-05	< 0.2	< 0.03	< 0.05	< 0.05	< 0.05	< 0.003	0.357	0.0693	< 0.1	0.0009	0.61	< 0.05	< 0.05	1.3	< 0.05	< 0.05	0.13	0.13
MW-32	07-Mar-06						0.0078	0.035	0.0667										
MW-32	12-Jun-06	<0.2	<0.03	<0.05	<0.05	<0.05	0.022	0.0175	0.0604	0.1	<0.0002	1.76	<0.05	<0.05	6.3	<0.05	<0.05	1.2	1.2
MW-32	29-Aug-06						0.005	0.0287	0.0912										
MW-32	27-Nov-06	<0.2	<0.03	<0.05	<0.05	<0.05	0.0139	0.0196	0.0592	2.8	0.0001	1.41	<0.05	<0.05	2.3	<0.05	<0.05	2.5	2.5
MW-32	29-Jan-07	< 0.03	< 0.005	< 0.01	< 0.01	< 0.01	0.0152	0.0258	0.0404	0.89	< 0.0001	1.8	< 0.01	0.03	2.5	< 0.01	< 0.01		
MW-32	01-May-07	< 0.2	< 0.03	< 0.05	< 0.05	< 0.05	0.021	0.0218	0.0604	0.7	< 0.0005	1.62	0.06	< 0.05	6.6	< 0.05	< 0.05	0.33	1.6
MW-32	10-Sep-07						0.0129	0.0191	0.0736										
MW-32	26-Nov-07	< 2	< 0.03	<0.05	<0.05	<0.05	0.004	0.0256	0.0326	0.3	<0.0005	1.07	< 0.05	< 0.05	6.9	0.08	0.19	0.38	3.7
MW-32	18-Feb-08	0.04	< 0.005	0.04	< 0.01	< 0.01	0.014	0.0753	0.0842	0.28	< 0.0005	0.815	< 0.02	< 0.05	2.9	< 0.02	< 0.01		
MW-32	17-Jun-08	0.5	<0.03	<0.05	<0.05	<0.05	0.009	0.141	0.0646	2	<0.0005	0.81	0.06	< 0.05	0.3	< 0.05	< 0.05	3.25	3.25
MW-32	26-Aug-08	< .2	< 0.03		<0.05	<0.05	0.018	0.16	0.137	< 0.1	<0.0005	0.63	< 0.05	< 0.05	< 0.1	0.11	< 0.05		
MW-32	10-Nov-08	< 0.2	< 0.03	< 0.05	< 0.05	< 0.05	0.004	0.164	0.0655	< 0.1	< 0.0005	0.48	0.07	< 0.05	0.1	< 0.05	0.06	0.3	0.38
MW-32	09-Feb-09						0.0084	0.188	0.0691										
MW-32	18-May-09	< 0.2	< 0.03	< 0.05	< 0.05	< 0.05	0.007	0.148	0.0592	< 0.1	0.0009	0.43	< 0.05	< 0.05	0.3	< 0.05	< 0.05	0.29	1.8
MW-32	08-Aug-09						0.005	0.174	0.0641										
MW-32	16-Nov-09	< 0.2	< 0.03	< 0.05	< 0.05	< 0.05	0.009	0.178	0.0744	< 0.1	< 0.0005	0.94	< 0.05	< 0.05	0.1	0.1	<0.05	0.57	0.73
MW-32	12-Jan-10						0.008	0.243	0.0738										
MW-32	12-Apr-10	< 0.2	< 0.03	< 0.05	< 0.05	< 0.05	0.012	0.225	0.0710	< 0.1	0.0005	0.51	< 0.05	< 0.05	0.4	< 0.05	< 0.05	0.26	0.62
MW-32	05-Jul-10						0.007	0.336	0.0556										
MW-32	26-Oct-10	<0.2	<0.03	<0.05	<0.05	<0.05	0.011	0.2356	0.0620	<0.1	0.0018	0.50	<0.05	<0.05	0.5	<0.05	<0.05	0.34	1.2
MW-32	27-Dec-10																		
MW-32	08-Feb-11						0.014	0.3775	0.0634										
MW-32	02-May-11	<0.2	<0.03	<0.05	<0.05	<0.05	<0.05	0.3463	0.0674	<0.1	<0.0005	0.1	0.07	0.06	0.1	<0.05	<0.05	0.25	0.5
MW-32	09-Aug-11						0.013	0.3533	0.0583										
MW-32	31-Oct-11	<0.2	<0.005	<0.01	<0.01	<0.02	<0.003	0.3562	0.0627	<0.02	0.0006	0.047	<0.01	<0.05	0.1	<0.01	<0.01	4.2	<0.15
MW-32	16-Jan-12						<0.003	0.4151	0.0628										
MW-32	10-Apr-12	<0.2	<0.03	<0.05	<0.05	<0.05	<0.003	0.3786	0.1007	<0.1	<0.0005	0.07	<0.05	<0.05	0.2	<0.05	<0.05	0.37	0.83
MW-32	17-Jul-12						<0.003	0.4110	0.0694										
MW-32	09-Oct-12	<0.2	<0.03	<0.05	<0.05	<0.05	0.001	0.0026	0.0033	<0.1	<0.0005	<0.03	<0.05	<0.05	< 0.1	<0.05	<0.05	0.26	0.93
MW-32	21-Jan-13						0.001	0.4203	0.0584										
MW-32	22-Apr-13	<0.2	<0.03	<0.05	<0.05	<0.05	<0.001	0.4529	0.0537	<0.1	<0.0005	<0.03	<0.01	<0.05	0.2	<0.05	<0.05	0.5	2.5

Note: Well status listed as "NS" indicates the well was either dry or contained insufficient water for sample collection.

Exhibit 4

DP-71 Analytical Report

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

Analytical Report

May 15, 2013

Report to:
Doug Murray
Rio Algom Mining Company
P.O. Box 218
Grants, NM 87020

Bill to:
Accounts Payable
Rio Algom Mining Company
P.O. Box 218
Grants, NM 87020

Project ID: 58481/BS01072229
ACZ Project ID: L11720

Doug Murray:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on April 24, 2013. This project has been assigned to ACZ's project number, L11720. 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 L11720. 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 June 14, 2013. If the samples are determined to be hazardous, additional charges apply for disposal (typically $11/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical raw data reports for ten years.

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

Sue Webber has reviewed and approved this report.

Rio Algom Mining Company

May 15, 2013

Project ID: 58481/BS01072229
ACZ Project ID: L11720

Sample Receipt

ACZ Laboratories, Inc. (ACZ) received 1 ground water sample from Rio Algom Mining Company on April 24, 2013. The sample was received in good condition. Upon receipt, the sample custodian removed the sample from the cooler, inspected the contents, and logged the sample into ACZ's computerized Laboratory Information Management System (LIMS). The sample was assigned ACZ LIMS project number L11720. The custodian verified the sample information entered into the computer against the chain of custody (COC) forms and sample bottle labels.

Holding Times

All analyses were performed within EPA recommended holding times.

Sample Analysis

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

1. For the Total Kjeldahl Nitrogen value flagged with an "N1", the LFM had no recovery. The samples were re-digested and re-spiked to confirm the original data with no significant change.

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

Inorganic Analytical Results

Rio Algom Mining Company
Project ID: 58481/BS01072229
Sample ID: MW-32

ACZ Sample ID: ***L11720-01***
Date Sampled: *04/22/13 10:14*
Date Received: *04/24/13*
Sample Matrix: *Ground Water*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							05/08/13 10:21	mpb

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP		U		mg/L	0.2	0.8	05/01/13 19:00	aeb
Arsenic, dissolved	M200.8 ICP-MS		U		mg/L	0.001	0.005	05/07/13 18:41	msh
Cadmium, dissolved	M200.7 ICP		U		mg/L	0.03	0.08	05/01/13 19:00	aeb
Calcium, dissolved	M200.7 ICP	519			mg/L	1	5	05/01/13 19:00	aeb
Chromium, dissolved	M200.7 ICP		U		mg/L	0.05	0.3	05/01/13 19:00	aeb
Cobalt, dissolved	M200.7 ICP		U		mg/L	0.05	0.3	05/01/13 19:00	aeb
Copper, dissolved	M200.7 ICP		U		mg/L	0.05	0.3	05/01/13 19:00	aeb
Iron, dissolved	M200.7 ICP		U		mg/L	0.1	0.3	05/01/13 19:00	aeb
Lead, dissolved	M200.8 ICP-MS		U		mg/L	0.0005	0.003	05/07/13 18:41	msh
Magnesium, dissolved	M200.7 ICP	356			mg/L	1	5	05/01/13 19:00	aeb
Manganese, dissolved	M200.7 ICP	0.03	B	*	mg/L	0.03	0.1	05/01/13 19:00	aeb
Molybdenum, dissolved	M200.7 ICP		U		mg/L	0.1	0.5	05/01/13 19:00	aeb
Nickel, dissolved	M200.7 ICP		U		mg/L	0.05	0.3	05/01/13 19:00	aeb
Potassium, dissolved	M200.7 ICP	6	B		mg/L	2	8	05/01/13 19:00	aeb
Selenium, dissolved	M200.8 ICP-MS	0.4529			mg/L	0.0005	0.001	05/07/13 18:41	msh
Silver, dissolved	M200.7 ICP		U	*	mg/L	0.05	0.1	05/01/13 19:00	aeb
Sodium, dissolved	M200.7 ICP	447			mg/L	2	8	05/01/13 19:00	aeb
Uranium, dissolved	M200.8 ICP-MS	0.0537			mg/L	0.0005	0.003	05/07/13 18:41	msh
Zinc, dissolved	M200.7 ICP		U		mg/L	0.05	0.3	05/01/13 19:00	aeb

** Please refer to Qualifier Reports for details.*

Rio Algom Mining Company
Project ID: 58481/BS01072229
Sample ID: MW-32

ACZ Sample ID: ***L11720-01***
Date Sampled: *04/22/13 10:14*
Date Received: *04/24/13*
Sample Matrix: *Ground Water*

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration								
Bicarbonate as CaCO3		255			mg/L	2	20	04/29/13 0:00	abm
Carbonate as CaCO3			U		mg/L	2	20	04/29/13 0:00	abm
Hydroxide as CaCO3			U		mg/L	2	20	04/29/13 0:00	abm
Total Alkalinity		255		*	mg/L	2	20	04/29/13 0:00	abm
Cation-Anion Balance	Calculation								
Cation-Anion Balance		4.0			%			05/13/13 0:00	calc
Sum of Anions		69.3			meq/L	0.1	0.5	05/13/13 0:00	calc
Sum of Cations		75.0			meq/L	0.1	0.5	05/13/13 0:00	calc
Chloride	SM4500Cl-E	130			mg/L	10	50	05/09/13 9:20	bsu
Fluoride	SM4500F-C	1.0		*	mg/L	0.1	0.5	05/04/13 16:56	ljr
Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	54			mg/L	1	5	05/10/13 0:54	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.2	B	*	mg/L	0.1	0.5	05/08/13 22:33	pjb
Residue, Filterable (TDS) @180C	SM2540C	5160		*	mg/L	10	20	04/24/13 14:08	mss3
Sulfate	D516-02 - Turbidimetric	2880		*	mg/L	80	400	05/07/13 14:41	lhb
TDS (calculated)	Calculation	4490			mg/L	10	50	05/13/13 0:00	calc
TDS (ratio - measured/calculated)	Calculation	1.15						05/13/13 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. 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, typically 5 times the MDL.
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 Algom Mining Company

ACZ Project ID: ***L11720***

Alkalinity as CaCO3 SM2320B - Titration

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG342850													
WG342850PBW1	PBW	04/29/13 16:21				U	mg/L		-20	20			
WG342850LCSW2	LCSW	04/29/13 16:35	WC130423-	820.0001		759.4	mg/L	92.6	90	110			
L11734-03DUP	DUP	04/29/13 19:32			253	238.8	mg/L				5.8	20	
WG342850LCSW5	LCSW	04/29/13 19:45	WC130423-	820.0001		767.9	mg/L	93.6	90	110			
WG342850PBW2	PBW	04/29/13 19:55				U	mg/L		-20	20			
WG342850LCSW8	LCSW	04/29/13 23:19	WC130423-	820.0001		788	mg/L	96.1	90	110			
WG342850PBW3	PBW	04/29/13 23:28				3.5	mg/L		-20	20			
WG342850LCSW11	LCSW	04/30/13 2:47	WC130423-	820.0001		775.4	mg/L	94.6	90	110			
WG342850PBW4	PBW	04/30/13 2:56				3	mg/L		-20	20			
WG342850LCSW14	LCSW	04/30/13 6:01	WC130423-	820.0001		775.7	mg/L	94.6	90	110			

Aluminum, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG343021													
WG343021ICV	ICV	05/01/13 18:29	II130114-3	2		2.061	mg/L	103.1	95	105			
WG343021ICB	ICB	05/01/13 18:35				U	mg/L		-0.09	0.09			
WG343021LFB	LFB	05/01/13 18:47	II130426-4	1		1.113	mg/L	111.3	85	115			
L11719-01AS	AS	05/01/13 18:54	II130426-4	1	U	1.134	mg/L	113.4	85	115			
L11719-01ASD	ASD	05/01/13 18:57	II130426-4	1	U	1.143	mg/L	114.3	85	115	0.79	20	

Arsenic, dissolved M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG343270													
WG343270ICV	ICV	05/07/13 18:10	MS130416-2	.05		.05418	mg/L	108.4	90	110			
WG343270ICB	ICB	05/07/13 18:13				U	mg/L		-0.0006	0.0006			
WG343270LFB	LFB	05/07/13 18:18	MS130329-1	.05005		.05048	mg/L	100.9	85	115			
L11707-02AS	AS	05/07/13 18:31	MS130329-1	.25025	U	.2539	mg/L	101.5	70	130			
L11707-02ASD	ASD	05/07/13 18:35	MS130329-1	.25025	U	.2566	mg/L	102.5	70	130	1.06	20	

Cadmium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG343021													
WG343021ICV	ICV	05/01/13 18:29	II130114-3	2		1.914	mg/L	95.7	95	105			
WG343021ICB	ICB	05/01/13 18:35				U	mg/L		-0.015	0.015			
WG343021LFB	LFB	05/01/13 18:47	II130426-4	.5		.5023	mg/L	100.5	85	115			
L11719-01AS	AS	05/01/13 18:54	II130426-4	.5	U	.4881	mg/L	97.6	85	115			
L11719-01ASD	ASD	05/01/13 18:57	II130426-4	.5	U	.4919	mg/L	98.4	85	115	0.78	20	

Calcium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG343021													
WG343021ICV	ICV	05/01/13 18:29	II130114-3	100		99.11	mg/L	99.1	95	105			
WG343021ICB	ICB	05/01/13 18:35				U	mg/L		-0.6	0.6			
WG343021LFB	LFB	05/01/13 18:47	II130426-4	67.95918		74.1	mg/L	109	85	115			
L11719-01AS	AS	05/01/13 18:54	II130426-4	67.95918	162	230.7	mg/L	101.1	85	115			
L11719-01ASD	ASD	05/01/13 18:57	II130426-4	67.95918	162	231.7	mg/L	102.6	85	115	0.43	20	

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ACZ Project ID: ***L11720***

Chloride SM4500Cl-E

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG343424													
WG343424ICB	ICB	05/09/13 8:59				U	mg/L		-3	3			
WG343424ICV	ICV	05/09/13 8:59	WI130131-1	54.945		58.1	mg/L	105.7	90	110			
WG343424LFB1	LFB	05/09/13 9:11	WI130201-8	30		31.4	mg/L	104.7	90	110			
L11719-01AS	AS	05/09/13 9:11	WI130201-8	30	27	56.2	mg/L	97.3	90	110			
L11720-01DUP	DUP	05/09/13 9:20			130	129	mg/L				0.8	20	
WG343424LFB2	LFB	05/09/13 9:35	WI130201-8	30		31.7	mg/L	105.7	90	110			

Chromium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG343021													
WG343021ICV	ICV	05/01/13 18:29	II130114-3	2		1.965	mg/L	98.3	95	105			
WG343021ICB	ICB	05/01/13 18:35				U	mg/L		-0.03	0.03			
WG343021LFB	LFB	05/01/13 18:47	II130426-4	.5		.508	mg/L	101.6	85	115			
L11719-01AS	AS	05/01/13 18:54	II130426-4	.5	U	.499	mg/L	99.8	85	115			
L11719-01ASD	ASD	05/01/13 18:57	II130426-4	.5	U	.507	mg/L	101.4	85	115	1.59	20	

Cobalt, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG343021													
WG343021ICV	ICV	05/01/13 18:29	II130114-3	2.002		1.994	mg/L	99.6	95	105			
WG343021ICB	ICB	05/01/13 18:35				U	mg/L		-0.03	0.03			
WG343021LFB	LFB	05/01/13 18:47	II130426-4	.5		.515	mg/L	103	85	115			
L11719-01AS	AS	05/01/13 18:54	II130426-4	.5	.01	.507	mg/L	99.4	85	115			
L11719-01ASD	ASD	05/01/13 18:57	II130426-4	.5	.01	.514	mg/L	100.8	85	115	1.37	20	

Copper, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG343021													
WG343021ICV	ICV	05/01/13 18:29	II130114-3	2		1.97	mg/L	98.5	95	105			
WG343021ICB	ICB	05/01/13 18:35				U	mg/L		-0.03	0.03			
WG343021LFB	LFB	05/01/13 18:47	II130426-4	.5		.511	mg/L	102.2	85	115			
L11719-01AS	AS	05/01/13 18:54	II130426-4	.5	U	.513	mg/L	102.6	85	115			
L11719-01ASD	ASD	05/01/13 18:57	II130426-4	.5	U	.522	mg/L	104.4	85	115	1.74	20	

Fluoride SM4500F-C

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG343178													
WG343178ICV	ICV	05/04/13 13:22	WC130430-	2.002		1.93	mg/L	96.4	95	105			
WG343178ICB	ICB	05/04/13 13:26				U	mg/L		-0.3	0.3			
WG343178LFB1	LFB	05/04/13 13:34	WC130313-	5.005		4.8	mg/L	95.9	90	110			
L11719-01AS	AS	05/04/13 13:46	WC130313-	5.005	.4	5.68	mg/L	105.5	90	110			
L11719-01DUP	DUP	05/04/13 13:49			.4	.36	mg/L				10.5	20	RA
WG343178LFB2	LFB	05/04/13 15:49	WC130313-	5.005		4.64	mg/L	92.7	90	110			

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ACZ Project ID: ***L11720***

Iron, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG343021													
WG343021ICV	ICV	05/01/13 18:29	II130114-3	2		2.006	mg/L	100.3	95	105			
WG343021ICB	ICB	05/01/13 18:35				U	mg/L		-0.06	0.06			
WG343021LFB	LFB	05/01/13 18:47	II130426-4	1		1.046	mg/L	104.6	85	115			
L11719-01AS	AS	05/01/13 18:54	II130426-4	1	U	1.033	mg/L	103.3	85	115			
L11719-01ASD	ASD	05/01/13 18:57	II130426-4	1	U	1.047	mg/L	104.7	85	115	1.35	20	

Lead, dissolved M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG343270													
WG343270ICV	ICV	05/07/13 18:10	MS130416-2	.05		.05048	mg/L	101	90	110			
WG343270ICB	ICB	05/07/13 18:13				U	mg/L		-0.0003	0.0003			
WG343270LFB	LFB	05/07/13 18:18	MS130329-1	.05005		.04979	mg/L	99.5	85	115			
L11707-02AS	AS	05/07/13 18:31	MS130329-1	.25025	U	.25435	mg/L	101.6	70	130			
L11707-02ASD	ASD	05/07/13 18:35	MS130329-1	.25025	U	.2543	mg/L	101.6	70	130	0.02	20	

Magnesium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG343021													
WG343021ICV	ICV	05/01/13 18:29	II130114-3	100		101.53	mg/L	101.5	95	105			
WG343021ICB	ICB	05/01/13 18:35				U	mg/L		-0.6	0.6			
WG343021LFB	LFB	05/01/13 18:47	II130426-4	49.99941		54.17	mg/L	108.3	85	115			
L11719-01AS	AS	05/01/13 18:54	II130426-4	49.99941	29.1	82.72	mg/L	107.2	85	115			
L11719-01ASD	ASD	05/01/13 18:57	II130426-4	49.99941	29.1	83.39	mg/L	108.6	85	115	0.81	20	

Manganese, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG343021													
WG343021ICV	ICV	05/01/13 18:29	II130114-3	2		1.9305	mg/L	96.5	95	105			
WG343021ICB	ICB	05/01/13 18:35				U	mg/L		-0.015	0.015			
WG343021LFB	LFB	05/01/13 18:47	II130426-4	.5		.5116	mg/L	102.3	85	115			
L11719-01AS	AS	05/01/13 18:54	II130426-4	.5	2.94	3.3	mg/L	72	85	115			M3
L11719-01ASD	ASD	05/01/13 18:57	II130426-4	.5	2.94	3.321	mg/L	76.2	85	115	0.63	20	M3

Molybdenum, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG343021													
WG343021ICV	ICV	05/01/13 18:29	II130114-3	2		1.986	mg/L	99.3	95	105			
WG343021ICB	ICB	05/01/13 18:35				U	mg/L		-0.06	0.06			
WG343021LFB	LFB	05/01/13 18:47	II130426-4	.5		.537	mg/L	107.4	85	115			
L11719-01AS	AS	05/01/13 18:54	II130426-4	.5	U	.531	mg/L	106.2	85	115			
L11719-01ASD	ASD	05/01/13 18:57	II130426-4	.5	U	.532	mg/L	106.4	85	115	0.19	20	

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ACZ Project ID: ***L11720***

Nickel, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG343021													
WG343021ICV	ICV	05/01/13 18:29	II130114-3	2		1.991	mg/L	99.6	95	105			
WG343021ICB	ICB	05/01/13 18:35				U	mg/L		-0.03	0.03			
WG343021LFB	LFB	05/01/13 18:47	II130426-4	.5		.513	mg/L	102.6	85	115			
L11719-01AS	AS	05/01/13 18:54	II130426-4	.5	U	.513	mg/L	102.6	85	115			
L11719-01ASD	ASD	05/01/13 18:57	II130426-4	.5	U	.509	mg/L	101.8	85	115	0.78	20	

Nitrate/Nitrite as N M353.2 - H2SO4 preserved

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG343476													
WG343476ICV	ICV	05/09/13 19:09	WI130411-3	2.416		2.334	mg/L	96.6	90	110			
WG343476ICB	ICB	05/09/13 19:10				U	mg/L		-0.06	0.06			
WG343480													
WG343480LFB	LFB	05/10/13 0:19	WI130215-3	2		1.916	mg/L	95.8	90	110			
L11720-01AS	AS	05/10/13 0:55	WI130215-3	100	54	153.2	mg/L	99.2	90	110			
L11791-01DUP	DUP	05/10/13 0:57			.43	.41	mg/L				4.8	20	

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
WG343406													
WG343406ICV	ICV	05/08/13 22:28	WI130424-3	4		3.82	mg/L	95.5	90	110			
WG343406ICB	ICB	05/08/13 22:29				U	mg/L		-0.3	0.3			
WG343309LRB1	LRB	05/08/13 22:30				U	mg/L		-0.3	0.3			
WG343309LFB1	LFB	05/08/13 22:31	WI130424-2	2.5		2.42	mg/L	96.8	90	110			
L11720-01LFM	LFM	05/08/13 22:34	WI130424-2	2.5	.2	.5	mg/L	12	90	110			N1
WG343309LRB2	LRB	05/08/13 23:04				U	mg/L		-0.3	0.3			
WG343309LFB2	LFB	05/08/13 23:05	WI130424-2	2.5		2.45	mg/L	98	90	110			
L11734-01DUP	DUP	05/09/13 0:17			U	U	mg/L				0	20	RA

Potassium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG343021													
WG343021ICV	ICV	05/01/13 18:29	II130114-3	20		20.15	mg/L	100.8	95	105			
WG343021ICB	ICB	05/01/13 18:35				U	mg/L		-0.9	0.9			
WG343021LFB	LFB	05/01/13 18:47	II130426-4	99.97161		107.7	mg/L	107.7	85	115			
L11719-01AS	AS	05/01/13 18:54	II130426-4	99.97161	8.6	117.5	mg/L	108.9	85	115			
L11719-01ASD	ASD	05/01/13 18:57	II130426-4	99.97161	8.6	118.7	mg/L	110.1	85	115	1.02	20	

Residue, Filterable (TDS) @180C SM2540C

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG342604													
WG342604PBW	PBW	04/24/13 13:40				U	mg/L		-20	20			
WG342604LCSW	LCSW	04/24/13 13:41	PCN42172	260		262	mg/L	100.8	80	120			
L11722-03DUP	DUP	04/24/13 14:14			200	196	mg/L				2	10	

Rio Algom Mining Company

ACZ Project ID: ***L11720***

Selenium, dissolved M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG343270													
WG343270ICV	ICV	05/07/13 18:10	MS130416-2	.05		.05226	mg/L	104.5	90	110			
WG343270ICB	ICB	05/07/13 18:13				.00015	mg/L		-0.0003	0.0003			
WG343270LFB	LFB	05/07/13 18:18	MS130329-1	.05005		.05283	mg/L	105.6	85	115			
L11707-02AS	AS	05/07/13 18:31	MS130329-1	.25025	.001	.2789	mg/L	111	70	130			
L11707-02ASD	ASD	05/07/13 18:35	MS130329-1	.25025	.001	.27925	mg/L	111.2	70	130	0.13	20	

Silver, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG343021													
WG343021ICV	ICV	05/01/13 18:29	II130114-3	.998		.998	mg/L	100	95	105			
WG343021ICB	ICB	05/01/13 18:35				U	mg/L		-0.03	0.03			
WG343021LFB	LFB	05/01/13 18:47	II130426-4	.5		.502	mg/L	100.4	85	115			
L11719-01AS	AS	05/01/13 18:54	II130426-4	.5	U	.346	mg/L	69.2	85	115			M2 ZA
L11719-01ASD	ASD	05/01/13 18:57	II130426-4	.5	U	.38	mg/L	76	85	115	9.37	20	M2 ZA

Sodium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG343021													
WG343021ICV	ICV	05/01/13 18:29	II130114-3	100		100.55	mg/L	100.6	95	105			
WG343021ICB	ICB	05/01/13 18:35				U	mg/L		-0.9	0.9			
WG343021LFB	LFB	05/01/13 18:47	II130426-4	100.0416		106.7	mg/L	106.7	85	115			
L11719-01AS	AS	05/01/13 18:54	II130426-4	100.0416	108	211.5	mg/L	103.5	85	115			
L11719-01ASD	ASD	05/01/13 18:57	II130426-4	100.0416	108	213.7	mg/L	105.7	85	115	1.03	20	

Sulfate D516-02 - Turbidimetric

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG343292													
WG343292ICB	ICB	05/07/13 10:24				U	mg/L		-3	3			
WG343292ICV	ICV	05/07/13 10:24	WI130502-2	20		20.4	mg/L	102	90	110			
WG343292LFB	LFB	05/07/13 13:46	WI130416-3	9.99		10	mg/L	100.1	90	110			
L11825-01DUP	DUP	05/07/13 13:46			4	3.8	mg/L				5.1	20	RA
L11825-02AS	AS	05/07/13 13:46	WI130416-3	9.99	U	10.5	mg/L	105.1	90	110			

Uranium, dissolved M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG343270													
WG343270ICV	ICV	05/07/13 18:10	MS130416-2	.05		.05243	mg/L	104.9	90	110			
WG343270ICB	ICB	05/07/13 18:13				U	mg/L		-0.0003	0.0003			
WG343270LFB	LFB	05/07/13 18:18	MS130329-1	.05		.05204	mg/L	104.1	85	115			
L11707-02AS	AS	05/07/13 18:31	MS130329-1	.25	.004	.287	mg/L	113.2	70	130			
L11707-02ASD	ASD	05/07/13 18:35	MS130329-1	.25	.004	.29175	mg/L	115.1	70	130	1.64	20	

Rio Algom Mining Company

ACZ Project ID: ***L11720***

Zinc, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG343021													
WG343021ICV	ICV	05/01/13 18:29	II130114-3	2		1.941	mg/L	97.1	95	105			
WG343021ICB	ICB	05/01/13 18:35				U	mg/L		-0.03	0.03			
WG343021LFB	LFB	05/01/13 18:47	II130426-4	.5		.527	mg/L	105.4	85	115			
L11719-01AS	AS	05/01/13 18:54	II130426-4	.5	U	.516	mg/L	103.2	85	115			
L11719-01ASD	ASD	05/01/13 18:57	II130426-4	.5	U	.521	mg/L	104.2	85	115	0.96	20	

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

Inorganic Extended Qualifier Report

Rio Algom Mining Company

ACZ Project ID: ***L11720***

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L11720-01	WG343021	Manganese, dissolved	M200.7 ICP	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
		Silver, dissolved	M200.7 ICP	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
			M200.7 ICP	ZA	Poor recovery for Silver quality control is accepted due to low Silver solubility in samples, digestates, or extracts that do not contain sufficient Hydrochloric acid.
	WG343178	Fluoride	SM4500F-C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG343406	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	N1	See Case Narrative.
			M351.2 - TKN by Block Digester	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG342604	Residue, Filterable (TDS) @180C	SM2540C	ZO	Concentration is based on a final residue greater than 200 mg.
	WG343292	Sulfate	D516-02 - Turbidimetric	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG342850	Total Alkalinity	SM2320B - Titration	ZW	Method deviation. The sample was centrifuged prior to analysis due to high solid content.

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

RadioChemistry Analytical Results

Rio Algom Mining Company
Project ID: 58481/BS01072229
Sample ID: MW-32
Locator:

ACZ Sample ID: ***L11720-01***
Date Sampled: *04/22/13 10:14*
Date Received: *04/24/13*
Sample Matrix: *Ground Water*

Radium 226, dissolved — Prep Method:
M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226, dissolved	05/06/13 17:15		0.5	0.18	0.47	pCi/L		thf

Radium 228, dissolved — Prep Method:
M9320

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 228, dissolved	05/07/13 11:24		2.5	0.78	1.3	pCi/L		mla

Report Header Explanations

Batch	A distinct set of samples analyzed at a specific time
Error(+/-)	Calculated sample specific uncertainty
Found	Value of the QC Type of interest
Limit	Upper limit for RPD, in %.
LCL	Lower Control Limit, in % (except for LCSS, mg/Kg)
LLD	Calculated sample specific Lower Limit of Detection
PCN/SCN	A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis
PQL	Practical Quantitation Limit
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)
RER	Relative Error Ratio, calculation used for Dup. QC taking into account the error factor.
RPD	Relative Percent Difference, calculation used for Duplicate QC Types
UCL	Upper Control Limit, in % (except for LCSS, mg/Kg)
Sample	Value of the Sample of interest

QC Sample Types

DUP	Sample Duplicate	*MS/MSD*	Matrix Spike/Matrix Spike Duplicate
LCSS	Laboratory Control Sample - Soil	*PBS*	Prep Blank - Soil
LCSW	Laboratory Control Sample - Water	*PBW*	Prep Blank - Water

QC Sample Type Explanations

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

ACZ Qualifiers (Qual)

H	Analysis exceeded method hold time.

Method Prefix Reference

M	EPA methodology, including those under SDWA, CWA, and RCRA
SM	Standard Methods for the Examination of Water and Wastewater.
D	ASTM
RP	DOE
ESM	DOE/ESM

Comments

(1)	Solid matrices are reported on a dry weight basis.
(2)	Preparation method: "Method" indicates preparation defined in analytical method.
(3)	QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.
(4)	An asterisk in the "XQ" column indicates there is an extended qualifier and/or certification qualifier associated with the result.

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

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

Radiochemistry QC Summary

Rio Algom Mining Company

ACZ Project ID: ***L11720***

Radium 226, dissolved M903.1 **Units:** pCi/L

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Error	LLD	Found	Error	LLD	Rec	Lower	Upper	RPD/RER	Limit	Qual
WG343299																
WG342880PBW	PBW	05/06/13						.04	0.08	0.27			0.54			
WG342880LCSW	LCSW	05/06/13	RC130227-2	23.92				24	0.63	0.13	100.4	43	148			
L11694-05DUP	DUP-RER	05/06/13			0.74	0.2	0.34	.91	0.17	0.17				0.65	2	
L11679-01MS	MS	05/06/13	RC130227-2	23.92	9.6	0.44	0.14	32	0.72	0.1	93.7	43	148			
L11633-03DUP	DUP-RER	05/06/13			0.04	0.12	0.15	.07	0.07	0.12				0.22	2	

Radium 228, dissolved M9320 **Units:** pCi/L

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Error	LLD	Found	Error	LLD	Rec	Lower	Upper	RPD/RER	Limit	Qual
WG343347																
WG343031PBW	PBW	05/07/13						.11	0.31	0.55			1.1			
WG343031LCSW	LCSW	05/07/13	PCN42010	19.28				12	1.1	1.2	62.2	47	123			
L11720-01MS	MS	05/07/13	PCN42010	19.28	2.5	0.78	1.3	12	1.2	1.3	49.3	47	123			
L11720-01DUP	DUP-RER	05/07/13			2.5	0.78	1.3	1.5	0.69	1.1				0.96	2	

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RadChem Extended Qualifier Report

Rio Algom Mining Company

ACZ Project ID: ***L11720***

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION

No extended qualifiers associated with this analysis

Certification Qualifiers

Rio Algom Mining Company

ACZ Project ID: ***L11720***

No certification qualifiers associated with this analysis

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Sample Receipt

Rio Algom Mining Company
58481/BS01072229

ACZ Project ID: L11720
Date Received: 04/24/2013 09:38
Received By: ksj
Date Printed: 4/24/2013

Receipt Verification

	YES	NO	NA
1) Is a foreign soil permit included for applicable samples?			X
2) Is the Chain of Custody 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 complete and accurate?	X		
7) Were any changes made to the Chain of Custody 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 match for Sample ID, Date, and Time?	X		
11) For preserved bottle types, was the pH checked and within limits?	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		

Chain of Custody Related Remarks

Client Contact Remarks

Shipping Containers

Cooler Id	Temp (°C)	Rad (µR/Hr)	Custody Seal Intact?
3929	2.4	13	Yes

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. L11720

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

Name: Doug Murray	Address: P.O. Box 218
Company: Rio Algom Mining LLC	Grants, N.M. 87020
E-mail:	Telephone: 505-287-8851

Name:	E-mail:
Company:	Telephone:

Name:	Address:
Company:	
E-mail:	Telephone:

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: _____ Sampler's site Information State ☐ Zip code ☐ Time Zone ☐ ☐

Quote #:

~~Doc~~ Project/PO #: 58481 / BS01072229

Reporting state for compliance testing:

Check box if samples include NRC licensed material? ☐

			# of Containers	DP-715							
MW-32	4-22-13 : 1014	GW	5	X							

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

RAM COC # 13-14

Shipment of (1)

Please refer to ACZ's terms & conditions located on the reverse side of this COC. 1 of 1.

Harold Sims	4-22-13 : 1345	TB		4-24-13 9:38

FRMAD050.02.11.11 White - Return with sample. Yellow - Retain for your records.

L11720 Chain of Custody

RIO ALGOM MINING LLC - PROJECT CODES

~~ACL-ALL~~	~~ACL-TRB~~	~~ACL-TRA~~	~~ACL-KD~~	~~DP-71-Q~~	~~SEC 4 PONDS~~ [see note]	DP-71-S
50/year	30/year	15/year	35/year	10/year	20/year	10/year
Chloride	Chloride	Chloride	Chloride	Chloride	Chloride	Chloride
Sulfate	Sulfate	Sulfate	Sulfate	Sulfate	Sulfate	Sulfate
TDS	TDS	TDS	TDS	TDS	TDS	TDS
Nitrate + Nitrite	Nitrate + Nitrite	Nitrate + Nitrite	Nitrate + Nitrite	Nitrate + Nitrite	Nitrate + Nitrite	Nitrate + Nitrite
Molybdenum	Cyanide	Cyanide	***Antimony***	***Arsenic***	Arsenic	***Arsenic***
Nickel	***Molybdenum***	***Molybdenum***	***Arsenic***	***Selenium***	Selenium	***Selenium***
Selenium	***Nickel***	***Nickel***	***Beryllium***	***Uranium***	Uranium	***Uranium***
Gross Alpha	***Selenium***	***Selenium***	***Cadmium***		Carbonate (CO_3)	Carbonate (CO_3)
Radium-226	***Gross Alpha***	***Gross Alpha***	***Cyanide***		Bicarbonate (HCO_3)	Bicarbonate (HCO_3)
Radium-228	***Radium-226***	***Radium-226***	***Lead***		Calcium	***Calcium***
Thorium-230	***Radium-228***	***Radium-228***	***Molybdenum***		Potassium	***Potassium***
Lead-210	***Thorium-230***	***Thorium-230***	***Nickel***		Magnesium	***Magnesium***
Uranium	***Lead-210***	***Lead-210***	***Selenium***		Sodium	***Sodium***
	Uranium	***Uranium***	***Gross Alpha***		Lead	***Lead***
			Radium-226		Nickel	***Nickel***
			Radium-228		Silver	***Silver***
			Thorium-230		Iron	***Iron***
			Lead-210		Molybdenum	***Molybdenum***
			Uranium		Zinc	***Zinc***
					Manganese	***Manganese***
					Copper	***Copper***
					Cobalt	***Cobalt***
					Chromium	***Chromium***
					Cadmium	***Cadmium***
					Aluminum	***Aluminum***
					Fluoride	***Fluoride***
					Radium-226	***Radium-226***
					Radium-228	***Radium-228***
					Total Kjeldal nitrogen	Total Kjeldal nitrogen

Wednesday, August 08, 2007 versions.

The Wednesday, August 08, 2007 product code replaces all previous