

# Rio Algom Mining LLC

August 27, 2007

ADDRESSEE ONLY

Mr. Tom McLaughlin, Project Manager  
U.S. Nuclear Regulatory Commission  
Mail Stop T-7-E18  
Washington, DC 20555

Re: **License SUA-1473, Docket No. 40-8905**  
**Semiannual Effluent Report – 1<sup>st</sup> Half 2007**

Dear Mr. McLaughlin,

In accordance with license condition #19 of the above referenced source material license and the NRC approved *Health Physics and Environmental Programs Manual*, please find attached the first half 2007 Semiannual Report for the Ambrosia Lake facility.

If you have any questions or need additional information, please do not hesitate to call me at (505) 287-8851, extension 15.

Regards,



Donald Sweeney  
Environmental Supervisor/RSO

Attachment

xc: T. Fletcher  
NRC (document control)  
file

# RIO ALGOM MINING LLC AMBROSIA LAKE FACILITY

License SUA – 1473   Docket 40 – 8905

## Semi – Annual Effluent Report 1<sup>st</sup> half 2007

August 27, 2007

Rio Algom Mining LLC  
Ambrosia Lake Facility

License SUA-1473  
Docket Number 40-8905

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### Yellowcake Dryer Stack Emissions

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Mill building demolition of the conventional mill circuit was successfully completed in February 2004.

Rio Algom Mining LLC  
Ambrosia Lake Facility

License SUA-1473  
Docket Number 40-8905

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### Crushing Circuit Stack Emissions

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Mill building demolition of the conventional mill circuit was successfully completed in February 2004.

High Volume Environmental Air Samples  
1st Half 2007

1st Quarter 2007					Substation	2nd Quarter 2007				
Nuclide	Conc. (uCi/ml)	Error (uCi/ml)	LLD (uCi/ml)	% Limit		Nuclide	Conc. (uCi/ml)	Error (uCi/ml)	LLD (uCi/ml)	% Limit
U-nat	3.6E-18	1.1E-19	3.0E-18	< 1.0		U-nat	8.4E-18	5.0E-19	3.0E-18	< 1.0
Th-230	5.3E-17	8.6E-18	5.8E-18	< 1.0		Th-230	1.1E-16	1.8E-17	1.2E-17	< 1.0
Ra-226	-1.8E-19	5.0E-18	1.1E-17	< 1.0		Ra-226	3.9E-18	2.4E-18	5.6E-18	< 1.0
Pb-210	1.5E-15	5.2E-17	6.5E-17	< 1.0		Pb-210	1.3E-15	8.7E-17	2.4E-16	< 1.0

1st Quarter 2007					Section 17 VH 4	2nd Quarter 2007				
Nuclide	Conc. (uCi/ml)	Error (uCi/ml)	LLD (uCi/ml)	% Limit		Nuclide	Conc. (uCi/ml)	Error (uCi/ml)	LLD (uCi/ml)	% Limit
U-nat	-2.6E-18	-7.8E-20	2.6E-18	< 1.0		U-nat	3.6E-18	2.2E-19	2.6E-18	< 1.0
Th-230	1.5E-17	4.8E-18	4.9E-18	< 1.0		Th-230	1.3E-17	7.4E-18	9.2E-18	< 1.0
Ra-226	5.4E-19	2.4E-18	5.7E-18	< 1.0		Ra-226	4.1E-18	2.5E-18	5.5E-18	< 1.0
Pb-210	1.2E-15	4.5E-17	5.5E-17	< 1.0		Pb-210	1.0E-15	7.7E-17	2.3E-16	< 1.0

Note: On-going site reclamation (lined pond relocation project) initiated in December 2005.  
Relocation work reflected in slight increase in concentrations in 2nd quarter.

High Volume Environmental Air Samples  
1st Half 2007

1st Quarter 2007					Section 30 West VH 6					2nd Quarter 2007				
Nuclide	Conc. (uCi/ml)	Error (uCi/ml)	LLD (uCi/ml)	% Limit	Nuclide	Conc. (uCi/ml)	Error (uCi/ml)	LLD (uCi/ml)	% Limit	Nuclide	Conc. (uCi/ml)	Error (uCi/ml)	LLD (uCi/ml)	% Limit
U-nat	6.4E-18	1.9E-19	2.7E-18	< 1.0	U-nat	1.1E-17	6.7E-19	2.7E-18	< 1.0	U-nat	1.1E-17	6.7E-19	2.7E-18	< 1.0
Th-230	6.7E-17	1.0E-17	6.7E-18	< 1.0	Th-230	5.9E-17	1.2E-17	9.4E-18	< 1.0	Th-230	5.9E-17	1.2E-17	9.4E-18	< 1.0
Ra-226	4.2E-18	3.7E-18	9.4E-18	< 1.0	Ra-226	1.3E-17	3.1E-18	6.8E-18	< 1.0	Ra-226	1.3E-17	3.1E-18	6.8E-18	< 1.0
Pb-210	1.7E-15	5.4E-17	6.6E-17	< 1.0	Pb-210	1.4E-15	6.9E-17	1.9E-16	< 1.0	Pb-210	1.4E-15	6.9E-17	1.9E-16	< 1.0

1st Quarter 2007					North Fence					2nd Quarter 2007				
Nuclide	Conc. (uCi/ml)	Error (uCi/ml)	LLD (uCi/ml)	% Limit	Nuclide	Conc. (uCi/ml)	Error (uCi/ml)	LLD (uCi/ml)	% Limit	Nuclide	Conc. (uCi/ml)	Error (uCi/ml)	LLD (uCi/ml)	% Limit
U-nat	1.1E-17	3.4E-19	2.9E-18	< 1.0	U-nat	3.2E-17	1.9E-18	2.9E-18	< 1.0	U-nat	3.2E-17	1.9E-18	2.9E-18	< 1.0
Th-230	1.2E-16	2.8E-17	2.4E-17	< 1.0	Th-230	2.8E-16	2.5E-17	1.0E-17	1.4	Th-230	2.8E-16	2.5E-17	1.0E-17	1.4
Ra-226	8.7E-18	2.3E-18	5.1E-18	< 1.0	Ra-226	2.3E-17	3.7E-18	6.3E-18	< 1.0	Ra-226	2.3E-17	3.7E-18	6.3E-18	< 1.0
Pb-210	1.6E-15	5.1E-17	5.6E-17	< 1.0	Pb-210	1.0E-15	8.3E-17	2.4E-16	< 1.0	Pb-210	1.0E-15	8.3E-17	2.4E-16	< 1.0

Note: On-going site reclamation (lined pond relocation project) initiated in December 2005.  
Relocation work reflected in slight increase in concentrations in 2nd quarter.

High Volume Environmental Air Samples  
1st Half 2007

1st Quarter 2007					KGL-North					2nd Quarter 2007				
Nuclide	Conc. (uCi/ml)	Error (uCi/ml)	LLD (uCi/ml)	% Limit	Nuclide	Conc. (uCi/ml)	Error (uCi/ml)	LLD (uCi/ml)	% Limit	Nuclide	Conc. (uCi/ml)	Error (uCi/ml)	LLD (uCi/ml)	% Limit
U-nat	2.6E-17	7.7E-19	3.0E-18	< 1.0	U-nat	1.8E-17	1.1E-18	3.0E-18	< 1.0	U-nat	1.8E-17	1.1E-18	3.0E-18	< 1.0
Th-230	3.7E-16	2.2E-17	6.5E-18	1.8	Th-230	1.9E-16	2.1E-17	1.1E-17	< 1.0	Th-230	1.9E-16	2.1E-17	1.1E-17	< 1.0
Ra-226	1.1E-17	3.7E-18	9.6E-18	< 1.0	Ra-226	6.8E-18	2.7E-18	6.2E-18	< 1.0	Ra-226	6.8E-18	2.7E-18	6.2E-18	< 1.0
Pb-210	2.1E-15	6.0E-17	5.9E-17	< 1.0	Pb-210	1.7E-15	1.1E-16	2.8E-16	< 1.0	Pb-210	1.7E-15	1.1E-16	2.8E-16	< 1.0

1st Quarter 2007					KGL-South					2nd Quarter 2007				
Nuclide	Conc. (uCi/ml)	Error (uCi/ml)	LLD (uCi/ml)	% Limit	Nuclide	Conc. (uCi/ml)	Error (uCi/ml)	LLD (uCi/ml)	% Limit	Nuclide	Conc. (uCi/ml)	Error (uCi/ml)	LLD (uCi/ml)	% Limit
U-nat	1.3E-17	4.0E-19	2.2E-18	< 1.0	U-nat	1.6E-17	9.8E-19	2.2E-18	< 1.0	U-nat	1.6E-17	9.8E-19	2.2E-18	< 1.0
Th-230	1.6E-16	1.2E-17	4.8E-18	< 1.0	Th-230	2.1E-16	1.8E-17	7.8E-18	1.0	Th-230	2.1E-16	1.8E-17	7.8E-18	1.0
Ra-226	7.8E-18	3.5E-18	1.1E-17	< 1.0	Ra-226	5.9E-19	1.3E-18	4.6E-18	< 1.0	Ra-226	5.9E-19	1.3E-18	4.6E-18	< 1.0
Pb-210	2.1E-15	5.3E-17	5.4E-17	< 1.0	Pb-210	1.6E-15	8.5E-17	2.4E-16	< 1.0	Pb-210	1.6E-15	8.5E-17	2.4E-16	< 1.0

Note: On-going site reclamation (lined pond relocation project) initiated in December 2005.  
Relocation work reflected in slight increase in concentrations in 2nd quarter.

High Volume Environmental Air Samples  
1st Half 2007

1st Quarter 2007					2nd Quarter 2007				
Mill Diversion									
Nuclide	Conc. (uCi/ml)	Error (uCi/ml)	LLD (uCi/ml)	% Limit	Nuclide	Conc. (uCi/ml)	Error (uCi/ml)	LLD (uCi/ml)	% Limit
U-nat	1.8E-16	5.4E-18	3.2E-17	< 1.0	U-nat	2.3E-16	1.4E-17	3.2E-17	< 1.0
Th-230	3.3E-15	2.2E-16	7.4E-17	16.7	Th-230	4.8E-15	3.4E-16	1.1E-16	23.8
Ra-226	1.8E-16	3.9E-17	8.0E-17	< 1.0	Ra-226	1.8E-16	3.8E-17	7.7E-17	< 1.0
Pb-210	1.7E-14	5.7E-16	6.2E-16	2.9	Pb-210	1.6E-14	9.4E-16	2.2E-15	2.7

Note: On-going site reclamation (lined pond relocation project) initiated in December 2005.  
Relocation work reflected in slight increase in concentrations in 2nd quarter.



Rio Algom Mining LLC  
Ambrosia Lake Facility

License SUA-1473  
Docket Number 40-8905

Vegetation

Location: Substation Date: June 2007 Sample Media: Vegetation				Location: Mill Diversion Date: June 2007 Sample Media: Vegetation			
Nuclide	Conc. (uCi/kg)	Error (uCi/kg)	LLD (uCi/kg)	Nuclide	Conc. (uCi/kg)	Error (uCi/kg)	LLD (uCi/kg)
U-nat	4.1E-05	1.4E-06	3.4E-05	U-nat	4.2E-04	1.5E-05	3.4E-05
Th-230	3.7E-04	1.4E-03	2.1E-03	Th-230	1.5E-03	1.5E-03	2.1E-03
Ra-226	4.4E-04	5.4E-04	1.6E-03	Ra-226	1.8E-03	7.3E-04	1.7E-03
Pb-210	0.0E+00	4.5E-03	1.5E-02	Pb-210	0.0E+00	5.6E-03	2.0E-02

  

Location: Section 30 West VH6 Date: June 2007 Sample Media: Vegetation				Location: North Fence Date: June 2007 Sample Media: Vegetation			
Nuclide	Conc. (uCi/kg)	Error (uCi/kg)	LLD (uCi/kg)	Nuclide	Conc. (uCi/kg)	Error (uCi/kg)	LLD (uCi/kg)
U-nat	1.2E-04	4.3E-06	3.4E-05	U-nat	1.8E-04	6.4E-06	3.4E-05
Th-230	-1.5E-04	1.1E-03	1.9E-03	Th-230	1.3E-03	1.3E-03	1.7E-03
Ra-226	4.3E-04	5.7E-04	1.8E-03	Ra-226	1.5E-04	6.6E-04	2.2E-03
Pb-210	6.2E-04	4.6E-03	1.6E-02	Pb-210	0.0E+00	4.7E-03	1.6E-02

Vegetation

Location: Section 17 VH 4  
Date: June 2007  
Sample Media: Vegetation

Nuclide	Conc. (uCi/kg)	Error (uCi/kg)	LLD (uCi/kg)
U-nat	-3.4E-05	-1.2E-06	2.0E-05
Th-230	2.2E-04	1.1E-03	1.6E-03
Ra-226	1.5E-04	4.8E-04	1.7E-03
Pb-210	6.7E-03	4.8E-03	1.5E-02

Location: KGL-North  
Date: June 2007  
Sample Media: Vegetation

Nuclide	Conc. (uCi/kg)	Error (uCi/kg)	LLD (uCi/kg)
U-nat	2.2E-04	7.8E-06	4.1E-05
Th-230	1.7E-03	1.3E-03	1.8E-03
Ra-226	4.6E-04	5.8E-04	1.8E-03
Pb-210	0.0E+00	4.9E-03	1.6E-02

Location: KGL-South  
Date: June 2007  
Sample Media: Vegetation

Nuclide	Conc. (uCi/kg)	Error (uCi/kg)	LLD (uCi/kg)
U-nat	9.5E-05	3.3E-06	4.1E-05
Th-230	5.8E-04	1.1E-03	1.6E-03
Ra-226	2.5E-04	5.3E-04	1.7E-03
Pb-210	4.7E-04	5.8E-03	2.1E-02

Rio Algom Mining LLC  
Ambrosia Lake Facility

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Docket Number 40-8905

Soil

Location: Substation				Location: Mill Diversion			
Date: April 2007				Date: April 2007			
Sample Media: Soil				Sample Media: Soil			
Nuclide	Conc. (uCi/g)	Error (uCi/g)	LLD (uCi/g)	Nuclide	Conc. (uCi/g)	Error (uCi/g)	LLD (uCi/g)
U-nat	7.5E-07	7.8E-08	3.4E-08	U-nat	5.1E-06	5.3E-07	3.4E-08
Th-230	1.0E-05	4.8E-07	5.6E-07	Th-230	2.1E-06	1.6E-06	5.7E-07
Ra-226	1.8E-06	5.4E-07	1.0E-06	Ra-226	1.6E-06	1.4E-06	1.0E-06
Pb-210	3.6E-06	1.4E-06	3.4E-06	Pb-210	1.1E-06	2.0E-06	4.5E-06

  

Location: Section 30 West VH6				Location: North Fence			
Date: April 2007				Date: April 2007			
Sample Media: Soil				Sample Media: Soil			
Nuclide	Conc. (uCi/g)	Error (uCi/g)	LLD (uCi/g)	Nuclide	Conc. (uCi/g)	Error (uCi/g)	LLD (uCi/g)
U-nat	3.7E-06	3.8E-07	3.4E-08	U-nat	9.7E-07	1.0E-07	3.4E-08
Th-230	2.1E-06	6.2E-07	6.1E-07	Th-230	7.4E-07	5.1E-07	6.0E-07
Ra-226	2.6E-06	6.1E-07	9.8E-07	Ra-226	1.2E-06	5.0E-07	1.1E-06
Pb-210	3.5E-06	1.7E-06	4.4E-06	Pb-210	3.0E-06	1.5E-06	3.9E-06

Soil

Location: Section 17 VH 4  
Date: April 2007  
Sample Media: Soil

Nuclide	Conc. (uCi/g)	Error (uCi/g)	LLD (uCi/g)
U-nat	8.6E-07	8.9E-08	3.4E-08
Th-230	1.2E-06	5.4E-07	6.2E-07
Ra-226	1.2E-06	4.7E-07	1.0E-06
Pb-210	1.3E-06	1.4E-06	3.7E-06

Location: KGL-North  
Date: April 2007  
Sample Media: Soil

Nuclide	Conc. (uCi/g)	Error (uCi/g)	LLD (uCi/g)
U-nat	9.1E-07	9.4E-08	3.4E-08
Th-230	2.0E-06	6.5E-07	6.6E-07
Ra-226	2.1E-06	5.4E-07	9.4E-07
Pb-210	1.6E-06	1.6E-06	4.3E-06

Location: KGL-South  
Date: April 2007  
Sample Media: Soil

Nuclide	Conc. (uCi/g)	Error (uCi/g)	LLD (uCi/g)
U-nat	1.5E-06	1.6E-07	3.4E-08
Th-230	2.8E-06	6.5E-07	5.5E-07
Ra-226	1.9E-06	5.5E-07	1.0E-06
Pb-210	2.8E-06	6.5E-07	5.5E-07

Sediment

Location: P-0 Date: June 2007 Sample Media: Sediment				Location: P-1 Date: June 2007 Sample Media: Sediment			
Nuclide	Conc. (uCi/g)	Error (uCi/g)	LLD (uCi/g)	Nuclide	Conc. (uCi/g)	Error (uCi/g)	LLD (uCi/g)
U-nat	5.7E-06	3.4E-07	3.4E-08	U-nat	7.0E-06	4.1E-07	3.4E-08
Th-230	1.4E-06	5.3E-07	5.7E-07	Th-230	1.1E-05	1.1E-06	5.2E-07
Ra-226	2.0E-06	4.6E-06	7.6E-06	Ra-226	5.8E-06	7.9E-07	8.5E-07
Pb-210	6.4E-06	3.3E-06	8.0E-06	Pb-210	2.3E-06	4.3E-06	1.2E-05

  

Location: P-2 Date: June 2007 Sample Media: Sediment				Location: P-3 Date: June 2007 Sample Media: Sediment			
Nuclide	Conc. (uCi/g)	Error (uCi/g)	LLD (uCi/g)	Nuclide	Conc. (uCi/g)	Error (uCi/g)	LLD (uCi/g)
U-nat	7.0E-06	4.1E-07	3.4E-08	U-nat	2.3E-06	1.4E-07	3.4E-08
Th-230	7.6E-06	9.6E-07	5.5E-07	Th-230	1.6E-06	5.6E-07	5.7E-07
Ra-226	8.1E-06	8.6E-07	7.6E-07	Ra-226	2.7E-06	5.2E-06	7.5E-07
Pb-210	1.0E-05	3.8E-06	9.3E-06	Pb-210	2.7E-06	3.1E-06	7.8E-06

Environmental Gamma Radiation

Date: 1st Quarter 2007  
Sample Media: Gamma

Location	Rate (mRem/qtr)	Error (mRem/qtr)
Substation	0	1.1
Mill Diversion	14	1.0
Section 30W VH6	5	1.9
North Fence	0	1.8
Section 17 VH4	0	2.4
KGL South	0	1.8
KGL North	1	2.1

Date: 2nd Quarter 2007  
Sample Media: Gamma

Location	Rate (mRem/qtr)	Error (mRem/qtr)
Substation	0	1.4
Mill Diversion	13	6.0
Section 30W VH6	1	3.5
North Fence	0	3.2
Section 17 VH4	0	1.0
KGL South	0	4.2
KGL North	2	11.2

Notes:

- 1 - KGL sample locations added as part of lined pond relocation project.
  - 2 - Values represent net values after subtraction of site control dosimeter.
  - 3 - Errors represent the 95% confidence interval based on the standard error of the mean.
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Environmental Radon

Date: 1st Quarter 2007  
Sample Media: Track Etch

Location	Rate pCi/L	Error pCi/L
Substation	0.4	0.0
Mill Diversion	3.0	0.2
Section 30W VH6	2.8	0.2
North Fence	2.7	0.2
Section 17 VH4	0.8	0.1
KGL-North	1.7	0.1
KGL-South	2.0	0.2

Date: 2nd Quarter 2007  
Sample Media: Track Etch

Location	Rate pCi/L	Error pCi/L
Substation	0.8	0.1
Mill Diversion	2.8	0.2
Section 30W VH6	3.3	0.2
North Fence	2.5	0.2
Section 17 VH4	1.5	0.1
KGL-North	1.5	0.1
KGL-South	2.1	0.1

Notes:

1 - KGL sample locations added as part of lined pond relocation project.

Treated Mine Discharge Water

Sample: Treated Mine Water

Date: 1st Quarter 2007

Location	Uranium			Radium-226 (soluble)			Radium-226 (insoluble)		
	Conc. (mg/L)	Error (mg/L)	LLD (mg/L)	Conc. (pCi/L)	Error (pCi/L)	LLD (pCi/L)	Conc. (pCi/L)	Error (pCi/L)	LLD (pCi/L)
P-8	dry	dry	dry	dry	dry	dry	dry	dry	dry
P-10	dry	dry	dry	dry	dry	dry	dry	dry	dry
P-12	dry	dry	dry	dry	dry	dry	dry	dry	dry
P-14	dry	dry	dry	dry	dry	dry	dry	dry	dry
P-16	dry	dry	dry	dry	dry	dry	dry	dry	dry
P-18	dry	dry	dry	dry	dry	dry	dry	dry	dry

Sample: Treated Mine Water

Date: 2nd Quarter 2007

Location	Uranium			Radium-226 (soluble)			Radium-226 (insoluble)		
	Conc. (mg/L)	Error (mg/L)	LLD (mg/L)	Conc. (pCi/L)	Error (pCi/L)	LLD (pCi/L)	Conc. (pCi/L)	Error (pCi/L)	LLD (pCi/L)
P-8	dry	dry	dry	dry	dry	dry	dry	dry	dry
P-10	dry	dry	dry	dry	dry	dry	dry	dry	dry
P-12	dry	dry	dry	dry	dry	dry	dry	dry	dry
P-14	dry	dry	dry	dry	dry	dry	dry	dry	dry
P-16	dry	dry	dry	dry	dry	dry	dry	dry	dry
P-18	dry	dry	dry	dry	dry	dry	dry	dry	dry

Mine water treatment discharge subject to NPDES permit limitations at outfall location.

Limits: Total Uranium = 4 mg/L (max); soluble Ra-226 = 10 pCi/L (max); total Ra-226 = 30 pCi/L (max)



RIO ALGOM MINING LLC  
DISCHARGE PERMIT - DP-71  
MONITORING RESULTS - 1ST QUARTER 2007

Date	Location	Depth to Water (ft)	Total Depth (ft)	WELL STATUS	pH (s.u.)	Temp. ( C)	Spec. Cond. (uS)	Chloride (mg/L)	Sulfate (mg/L)	TDS (mg/L)	Nitrate (mg/L)	Arsenic (mg/L)	Selenium (mg/L)	Uranium (mg/L)
1/26/2007	MW-12		15.42	NS										
1/26/2007	MW-13		29.35	NS										
1/29/2007	MW-22	34.71	36.79		6.53	10.9	5800	105	2850	4740	26.4	0.0075	0.104	0.0302
1/26/2007	MW-23	41.75	41.77	NS										
1/26/2007	MW-24		50.17	NS										
1/26/2007	MW-25		29.67	NS										
1/26/2007	MW-26	34.79	35.65	NS										
1/26/2007	MW-27		27.91	NS										
1/26/2007	MW-28		32.40	NS										
1/26/2007	MW-29		29.37	NS										
1/26/2007	MW-30		41.05	NS										
1/26/2007	MW-31		50.61	NS										
1/29/2007	MW-32	68.05	71.62		6.51	11.3	5340	126	2420	4500	1.44	0.0152	0.0258	0.0404
1/26/2007	MW-33		59.42	NS										

Notes

- 1 - Well status listed as "NS" indicates the well was either dry or contained insufficient water for sample collection.
- 2 - Monitor wells MW-1 through MW-11, MW-14 through MW-21 plugged and abandoned for the lined pond relocation project.

RIO ALGOM MINING LLC  
DISCHARGE PERMIT - DP-71  
MONITORING RESULTS - 1ST QUARTER 2007  
SEMI-ANNUAL REPORT

Date	Location	WELL STATUS	HCO3 (mg/L)	CO3 (mg/L)	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	F (mg/L)	Al (mg/L)	Cd (mg/L)	Cr (mg/L)	Co (mg/L)	Cu (mg/L)
1/26/2007	MW-12	NS												
1/26/2007	MW-13	NS												
1/29/2007	MW-22		485.00	-2	540.00	264	660	9.1	0.8	-0.03	-0.005	-0.01	0.02	-0.01
1/26/2007	MW-23	NS												
1/26/2007	MW-24	NS												
1/26/2007	MW-25	NS												
1/26/2007	MW-26	NS												
1/26/2007	MW-27	NS												
1/26/2007	MW-28	NS												
1/26/2007	MW-29	NS												
1/26/2007	MW-30	NS												
1/26/2007	MW-31	NS												
1/29/2007	MW-32		881.00	-2	566.00	363	485	7.3	1.2	-0.03	-0.005	-0.01	-0.01	-0.01
1/26/2007	MW-33	NS												

Notes

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RIO ALGOM MINING LLC  
DISCHARGE PERMIT - DP-71  
MONITORING RESULTS - 1ST QUARTER 2007  
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Date	Location	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 & Ra-228 (pCi/L)
1/26/2007	MW-12									
1/26/2007	MW-13									
1/29/2007	MW-22	3.55	-0.0001	17.1	-0.01	0.03	9.4	-0.01	-0.01	
1/26/2007	MW-23									
1/26/2007	MW-24									
1/26/2007	MW-25									
1/26/2007	MW-26									
1/26/2007	MW-27									
1/26/2007	MW-28									
1/26/2007	MW-29									
1/26/2007	MW-30									
1/26/2007	MW-31									
1/29/2007	MW-32	0.89	0.0001	1.8	-0.01	-0.01	2.5	-0.01	-0.01	
1/26/2007	MW-33									

Notes

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RIO ALGOM MINING LLC  
DISCHARGE PERMIT - DP-71  
MONITORING RESULTS - 2nd QUARTER 2007

Date	Location	Depth to Water (ft)	Total Depth (ft)	WELL STATUS	pH (s.u.)	Temp. ( C )	Spec. Cond. (uS)	Chloride (mg/L)	Sulfate (mg/L)	TDS (mg/L)	Nitrate (mg/L)	Arsenic (mg/L)	Selenium (mg/L)	Uranium (mg/L)
5/1/2007	MW-12		14.85	NS										
5/1/2007	MW-13		29.34	NS										
4/30/2007	MW-22	34.79	36.76		6.98	15.5	5750	110	2880	5300	6.6	0.01	0.0304	0.0327
4/30/2007	MW-23	41.71	41.71	NS										
4/30/2007	MW-24		50.10	NS										
5/1/2007	MW-25		29.61	NS										
5/1/2007	MW-26	34.81	35.27	NS										
5/1/2007	MW-27		27.93	NS										
5/1/2007	MW-28		32.50	NS										
5/1/2007	MW-29		29.30	NS										
5/1/2007	MW-30		41.03	NS										
5/1/2007	MW-31		50.54	NS										
5/1/2007	MW-32	68.07	71.64		7.21	13.5	5400	130	2350	5200	6.6	0.021	0.0218	0.0604
5/1/2007	MW-33		59.35	NS										

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RIO ALGOM MINING LLC  
DISCHARGE PERMIT - DP-71  
MONITORING RESULTS - 2nd QUARTER 2007  
SEMI-ANNUAL REPORT

Date	Location	WELL STATUS	HCO3 (mg/L)	CO3 (mg/L)	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	F (mg/L)	Al (mg/L)	Cd (mg/L)	Cr (mg/L)	Co (mg/L)	Cu (mg/L)
5/1/2007	MW-12	NS												
5/1/2007	MW-13	NS												
4/30/2007	MW-22		671.00	-2.00	553.00	278	670	8	0.6	-0.2	-0.03	-0.05	-0.05	-0.05
4/30/2007	MW-23	NS												
4/30/2007	MW-24	NS												
5/1/2007	MW-25	NS												
5/1/2007	MW-26	NS												
5/1/2007	MW-27	NS												
5/1/2007	MW-28	NS												
5/1/2007	MW-29	NS												
5/1/2007	MW-30	NS												
5/1/2007	MW-31	NS												
5/1/2007	MW-32		1060.00	-2.00	579.00	359	499	7	0.8	-0.2	-0.03	-0.05	-0.05	-0.05
5/1/2007	MW-33	NS												

Notes

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RIO ALGOM MINING LLC  
DISCHARGE PERMIT - DP-71  
MONITORING RESULTS - 2nd QUARTER 2007  
SEMI-ANNUAL REPORT

Date	Location	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 & Ra-228 (pCi/L)
5/1/2007	MW-12									
5/1/2007	MW-13									
4/30/2007	MW-22	5.6	-0.0005	17.3	-0.05	-0.05	6.6	-0.05	-0.05	1.7 & 3.5
4/30/2007	MW-23									
4/30/2007	MW-24									
5/1/2007	MW-25									
5/1/2007	MW-26									
5/1/2007	MW-27									
5/1/2007	MW-28									
5/1/2007	MW-29									
5/1/2007	MW-30									
5/1/2007	MW-31									
5/1/2007	MW-32	0.7	-0.0005	1.62	0.06	-0.05	6.6	-0.05	-0.05	.33 & 1.6
5/1/2007	MW-33									

Notes

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