

# Rio Algom Mining LLC

February 25, 2019

ADDRESSEE ONLY  
Document Control Desk and  
Director  
Office of Nuclear Material Safety and Safeguards  
U.S. Nuclear Regulatory Commission  
Washington, DC  
20555-0001

CERTIFIED MAIL

Re: **License SUA-1473, Docket No. 40-8905**  
**Semiannual Effluent Report – 2<sup>nd</sup> Half 2018**

Dear Director:

In accordance with license condition #19 of source material license SUA-1473 and the Rio Algom Mining, LLC (RAML) *Health Physics and Environmental Programs Manual*, RAML is providing the second half of calendar year 2018 Semiannual Report for the Ambrosia Lake facility.

In a letter dated December 14, 2016 (ML16344A027), the Nuclear Regulatory Commission (NRC) agreed in part with a RAML proposal to terminate certain routine environmental monitoring tasks since the site has been mostly reclaimed. As a result, routine monitoring for environmental external dose, sediment, vegetation, and surface soil was discontinued on December 31, 2016.

Likewise, in a letter dated December 20, 2017 (ML17293A342), the NRC agreed with RAML's proposal to terminate environmental monitoring for radioactive particulates. RAML terminated this monitoring on December 31, 2017.

Table 1 provides second-half 2018 environmental monitoring results for radon-222 in ambient air. Monitoring locations for the facility are depicted in Figure 1.

If you have any questions or need additional information, please do not hesitate to call me at (505) 298-4224.

Regards,



Michael Schierman  
Radiation Safety Officer

Attachment

cc: NRC (document control)  
File (RAML)  
James Webb-Project Manager (NRC)

IE48  
NM5520

**Table 1. Radon-222 Monitoring Results**

Environmental Radon 2018					
3rd Quarter Sample Media: Ambient Air			4th Quarter Sample Media: Ambient Air		
Location:	Conc. pCi/L	Error pCi/L	Location:	Conc. pCi/L	Error pCi/L
Substation	0.70	0.14	Substation	0.65	0.11
Mill Diversion	1.70	0.25	Mill Diversion	2.50	0.33
Section 30W VH6	2.80	0.38	Section 30W VH6	4.10	0.52
Section 30W VH6-Duplicate	2.90	0.38	Section 30W VH6-Duplicate	4.10	0.52
North Fence	1.90	0.28	North Fence	3.00	0.36
North Fence-Duplicate	2.20	0.30	North Fence -Duplicate	2.90	0.36
Section 17 VH4	0.51	0.11	Section 17 VH4	0.54	0.11
KGL - North	1.30	0.19	KGL - North	2.50	0.33
KGL - North- Duplicate	1.90	0.25	KGL - North- Duplicate	2.20	0.28
KGL - South	1.40	0.19	KGL - South	2.10	0.28
<p>Notes: Error is the measurement uncertainty at a 95% confidence level. All measurements were collected using a closed high-sensitivity alpha-track detector.</p> <p>Q3: 7/2/18 - 10/5/18</p> <p>Q4: 10/5/18 - 1/9/19</p>					

**Figure 1. Radon Monitoring Locations**

