



PO BOX 1500
YELLOWKNIFE NT X1A 2R3

NT 928160

October 13, 2017

Distribution List

RE: Air Quality Reports for the Week of September 16, 2017.

Summary report is below. Let me know if you have any questions:

A summary of the Giant Mine ambient air quality monitoring program (AQM) for the week ending September 16, 2017 is as follows:

Fenceline Network:

- No 15-minute average particulate matter less than 10 microns in diameter (PM_{10}) concentrations above the established Risk Based Action Level (RBAL) of $159 \mu\text{g}/\text{m}^3$ were measured at the fenceline monitoring stations during the week. PM_{10} concentrations measured at most of the fenceline locations during the week were typical of seasonal background concentrations;
- A total of five (5) 15-minute average total suspended particulate (TSP) concentrations above the established RBAL of $333 \mu\text{g}/\text{m}^3$ were measured at the fenceline monitoring station H-NW Pond on September 14, 2017. Elevated concentrations appear to be the result of heavy fog observed in the area of the samplers. No site activities that may have contributed to the measured concentrations were reported during this time period;
 - o Five (5) 15-minute average TSP concentrations above the established fenceline RBAL were measured at fenceline monitoring site H-NW Pond on September 14, 2017. The concentrations ranged from $362 \mu\text{g}/\text{m}^3$ to $778 \mu\text{g}/\text{m}^3$ and were measured between 05:15 and 06:45 MST. Winds were calm throughout the night and morning, including during the time period elevated concentrations were measured;
- Laboratory results for TSP, PM_{10} , and trace metals (including arsenic) analyses from samples collected on August 23, 2017 at the fenceline samplers were less than the analytical detection limit and/or below the referenced standard. Laboratory analyses of integrated 24-hour arsenic, PM_{10} , and TSP filter samples collected by the fenceline samplers after August 23, 2017 are pending

Community Stations:

- No 24-hour average concentrations of $PM_{2.5}$ and PM_{10} were measured above the referenced standards at the community stations during the week. $PM_{2.5}$ and PM_{10} concentrations during the week were typically representative of seasonal background concentrations;

Laboratory analyses of community station filters collected after August 20, 2017 are pending;

- Laboratory results for asbestos analyses from samples collected on August 23, 26, September 1, and 4, 2017 at the community stations were less than the analytical detection limit and/or below the referenced standard. Laboratory analyses of asbestos samples collected at the community stations on August 29, 2017 and after September 4, 2017 are pending;
- There were no NO₂ concentrations measured at the recently established Niven Lake community air monitoring station above the NWT Ambient Air Quality 24-Hour Standard of 106 parts per billion (ppb) or the 1-Hour Standard of 213 ppb during the week. Table 1 summarizes the daily hourly maximum concentrations and the daily 24-Hour average concentrations measured at the Niven Lake community station during the week.

Table 1
Niven Lake Community AQM Station NO₂ Concentrations

Date	Maximum One-hour Average (ppb)	24-hour Average (ppb)
September 10, 2017	1.2	0.0
September 11, 2017	2.2	0.7
September 12, 2017	3.6	0.5
September 13, 2017	1.0	-0.1
September 14, 2017	4.3	0.8
September 15, 2017	1.1	0.2
September 16, 2017	0.7	0.2

General Operation:

The AQM program operated as specified during the week ending September 16, 2017, with the following exception:

- o Fenceline PM₁₀ site G-West did not report eight (8) 15-minute averages on September 14, 2017 from 14:15 to 16:00 MST, due to a battery malfunction.

Sincerely,



Natalie Plato
Deputy Director
Giant Mine Remediation Project

c.c.: Distribution List