PO BOX 1500
YELLOWKNIFE NT X1A 2R3

September 25, 2019

Distribution List

A summary of the Giant Mine Remediation Project ambient air quality monitoring program for the week ending September 7, 2019 is as follows:

Fence Line Stations

- 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 $\mu g/m^3$ were measured at the fence line monitoring stations during the week. PM_{10} concentrations measured at the fence line monitoring locations during the week were typical of seasonal background concentrations;

- One 15-minute average total suspended particulate (TSP) concentration of 499 $\mu g/m^3$ above the established RBAL of 333 $\mu g/m^3$ was measured at fence line monitoring Station C-Northwest at 6:45 AM MST on September 6, 2019. Remaining TSP concentrations measured during the week at fence line monitoring stations were typical of seasonal background concentrations and/or below the RBAL. No site activities that may have contributed to the reported exceedance were observed by or reported to SLR personnel during this time period;

    - Winds were blowing from the southwest at an average wind speed of 1.1 m/s, placing Yellowknife crosswind from Giant Mine. Additionally, TSP concentrations ranging from 22 $\mu g/m^3$ to 304 $\mu g/m^3$ were measured between 6:00 AM MST and 8:30 AM MST at all fence line stations except Station A-North and B-Town on this day. Heavy fog was observed in the early morning on this day and was the likely cause of all elevated measurements, including the reported TSP exceedance;

- Laboratory results for integrated TSP, PM_{10}, and trace metals (including arsenic) analyses from samples collected on August 13, 16, and 19, 2019 at the fence line stations were less than the analytical detection limit and/or below the referenced standard. Laboratory analyses of fence line station filters collected at the fence line stations after August 19, 2019 are pending.

Community Stations

- No continuous $PM_{2.5}$ or PM_{10} 24-hour average concentrations above the referenced standards for each were measured at any of the community stations during the week;

- Laboratory results from integrated TSP, PM_{10}, and trace metals (including arsenic) samples collected on August 13 and 16, 2019 at the community stations were less than the analytical detection limit and/or below the referenced standard. Laboratory analyses of community station filters collected after August 16, 2019 are pending;

- Laboratory results from asbestos samples collected on August 19, 2019 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 after August 19, 2019 are pending;

- There were no NO_2 concentrations measured at the 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 each day's maximum hourly concentration and each day's 24-hour average concentration at the Niven Lake community station during the week.

Table 1
Niven Lake Community Station NO_2 Concentrations

Date	Maximum One-hour Average (ppb)	24-hour Average (ppb)
September 01, 2019	1.7	0.6
September 02, 2019	2.7	0.5
September 03, 2019	1.2	0.3
September 04, 2019	1.4	0.5
September 05, 2019	12.8	3.1
September 06, 2019	19.6	5.4
September 07, 2019	14.4	1.3

General Operation

- Data completeness for the reporting period was 99.50% for continuous PM_{10} and 100% for continuous TSP concentrations measured at the fence line monitoring stations;

- The AAQM program operated as specified during the week ending September 7, 2019, with the following exceptions:

    - One hour of PM_{10} data at the YCC community station were invalidated on September 2 and 3, 2019 due to an instrument error.

Sincerely,

Natalie Plato
Deputy Director
Giant Mine Remediation Project

c.c.: Distribution List