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October 7, 2019

Distribution List

A summary of the Giant Mine Remediation Project ambient air quality monitoring program for the week ending September 28, 2019 is as follows:

Fence Line Stations

- No 15-minute average particulate matter less than 10 microns in diameter (PM₁₀) concentrations above the established Risk Based Action Level (RBAL) of 159 µg/m³ were measured at the fence line monitoring stations during the week. PM₁₀ concentrations measured at the fence line monitoring locations during the week were typical of seasonal background concentrations;
- No 15-minute average total suspended particulate (TSP) concentrations above the established RBAL of 333 µg/m³ were measured at the fence line monitoring stations during the week. TSP concentrations measured at the fence line monitoring stations A-North, C-Northwest, G-West, and H-Northwest Pond from 02:30 MST to 07:45 MST on September 22, 2019 were above typical seasonal background concentrations but remained below the RBAL. Remaining TSP concentrations measured during the week at fence line monitoring stations were typical of seasonal background concentrations;
- Laboratory results for integrated TSP, PM₁₀, and trace metals (including arsenic) analyses from samples collected on September 9 and 10, 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 September 10, 2019 are pending.

Community Stations

- No continuous PM_{2.5} or PM₁₀ 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, PM₁₀, and trace metals (including arsenic) samples collected on September 3, 6, 9, and 12, 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 September 12, 2019 are pending;
- Laboratory results from asbestos samples collected on September 3, 6, 9, and 12, 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 September 12, 2019 are pending;



- There were no NO₂ 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 NO₂ Concentrations

Date	Maximum One-hour Average (ppb)	24-hour Average (ppb)
September 22, 2019	2.4	1.1
September 23, 2019	0.5	0.1
September 24, 2019	15.5	2.9
September 25, 2019	10.4	3.5
September 26, 2019	3.8	0.6
September 27, 2019	23.3	5.2
September 28, 2019	24.7	6.4

General Operation

- Data completeness for the reporting period was 99.87% for continuous PM₁₀ and TSP concentrations measured at the fence line monitoring stations;
- The AAQM program operated as specified during the week ending September 28, 2019, with the following exceptions:
 - Two hours of PM_{2.5} and PM₁₀ data at the community station NDL were invalidated on September 22, 2019 during maintenance;
 - One hour of PM_{2.5} data at the community station NDL, three hours of PM_{2.5} data and one hour of PM₁₀ data at the community station YCC, one hour of PM_{2.5} and PM₁₀ data at the community station NVN were invalidated on September 23, 2019 during maintenance;
 - One hour of both PM_{2.5} and PM₁₀ data at all community stations (YCC, NDL, and NVN) were invalidated on September 27, 2019 during monthly quality control checks.

Weekly Summary of Reported Exceedances

**Table 2
Summary of Reported Exceedances**

Date	Standard	Jurisdiction	Number of Reported Exceedances
15-Minute Fence Line PM ₁₀	159 µg/m ³	--	0
15-Minute Fence Line TSP	333 µg/m ³	--	0
24-Hour Fence Line PM ₁₀	50 µg/m ³	Ontario	0
24-Hour Fence Line PM ₁₀ Arsenic	0.3 µg/m ³	Ontario	0
24-Hour Fence Line TSP	120 µg/m ³	Northwest Territories	0
24-Hour Fence Line TSP Arsenic	0.3 µg/m ³	Ontario	0
24-Hour Fence Line TSP Lead	0.5 µg/m ³	Ontario	0
24-Hour Fence Line TSP Antimony	25 µg/m ³	Ontario	0
24-Hour Fence Line TSP Nickel	0.2 µg/m ³	Ontario	0
24-Hour Fence Line TSP Iron	4.0 µg/m ³	Ontario	0
Continuous Community Station PM ₁₀	50 µg/m ³	Ontario	0
Continuous Community Station PM _{2.5}	28 µg/m ³	CCME CAAQS	0
24-Hour Community Station PM ₁₀	50 µg/m ³	Ontario	0
24-Hour Community Station TSP	120 µg/m ³	Northwest Territories	0
24-Hour Community Station Asbestos	0.04 fibres/cm ³	Ontario	0
1-Hour Community Station NO ₂	213 ppb	Northwest Territories	0
24-Hour Community Station NO ₂	106 ppb	Northwest Territories	0

Sincerely,



Natalie Plato
Deputy Director
Giant Mine Remediation Project

c.c.: Distribution List