

From: Irwin, Geneva (AADNC/AANDC)
Subject: Air Quality Monitoring Weekly Summary - Week Endind in July 21
Date: July 27, 2018 12:52:08 PM
Attachments: [Scanned from a Xerox Multifunction Printer.pdf](#)

Good Afternoon,

A summary of the Giant Mine ambient air quality monitoring program (AQM) for the week ending July 21, 2018 is as follows:

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Fenceline Network:

- 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 fenceline monitoring stations during the week. PM₁₀ concentrations measured at the fenceline 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 fenceline monitoring stations during the week. TSP concentrations measured the fenceline monitoring locations during the week were typical of seasonal background concentrations;
- Laboratory results for TSP, PM₁₀, and trace metals (including arsenic) analyses from samples collected on June 22, 28, July 1, 4, and 7, 2018 at the fence line monitoring locations were less than the analytical detection limit and/or below the referenced standard. Laboratory analyses of integrated 24-hour arsenic, PM₁₀, and TSP filter samples collected at the fence line sampling locations after July 7, 2018 are pending.

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Community Stations:

- No real time 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 TSP, PM₁₀, and trace metals (including arsenic) samples collected on June 25, 28 July 1, 4 and 7, 2018 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 July 7, 2018 are pending;
- Laboratory results for asbestos analyses from samples collected on June 22, 28, July 1, 4, and 7, 2018 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 July 7, 2018 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 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)
July 15, 2018	1.2	0.3
July 16, 2018	0.6	0.2
July 17, 2018	4.6	0.3
July 18, 2018	1.8	0.1
July 19, 2018	1.1	0.4
July 20, 2018	2.5	0.9
July 21, 2018	4.2	0.9

C5-09 Stope Stabilization Program:

- Air quality monitoring specific to the C5-09 stope stabilization program was conducted throughout the week at four locations within the vicinity of UBC Pit, and at four locations within the vicinity of the North, Central, and South Tailings Ponds;
- There were no 15-minute average PM₁₀ concentrations above the RBAL of 260 µg/m³ measured at the monitors associated with the C5-09 stope stabilization program during the week;
- Laboratory results for PM₁₀ and arsenic analyses from samples collected on June 22, 28, July 1, 4, and 7, 2018 at the C5-09 monitoring locations were less than the analytical detection limit and/or below the referenced standard. Laboratory analyses of C5-09 PM₁₀ and arsenic filter samples collected after July 7, 2018 are pending.

General Operation:

- Data completeness for the reporting period was 99.77% for real time TSP samplers associated with the fence line monitoring network, 99.57% for real time PM₁₀ samplers associated with the fence line monitoring network, and 99.65% for real time PM samplers associated with the C5-09 monitoring network;

- The AQM program operated as specified during the week ending July 21, 2018, with the following exceptions:
 - The PM₁₀ sampler at C5-09 monitoring location Site PF1 - C1 did not record data on July 15, 2018 from 02:45 MST to 05:00 MST, due to battery failure. SLR technicians have identified the failed battery and removed it from service;
 - The PM₁₀ sampler at fence line monitoring location Site C-Northwest did not record data on July 16, 2018 from 09:30 MST to 11:30 MST due to the failure of a battery fuse. SLR technicians have identified and replaced the failed fuse;
 - The TSP sampler at fence line monitoring location Site C-Northwest did not record data on July 16, 2018 from 09:15 MST to 11:30 MST due to battery failure. SLR technicians have identified the failed battery and removed it from service;
 - The PM₁₀ sampler at fence line monitoring location Site I-South Pond did not record data on July 16, 2018 from 20:15 MST to 21:45 MST, due to a loose connection at the ac power supply. SLR technicians repaired the connection and restarted the sampler;
 - The PM₁₀ sampler at C5-09 monitoring location Site PF4 – MSA did not record data on July 17, 2018 from 01:00 MST to 02:30 MST, due to battery failure. SLR technicians have identified the failed battery and removed it from service.

Best,

Geneva Irwin



PO BOX 1500
YELLOWKNIFE NT X1A 2R3

July 27, 2018

Distribution List

RE: Air Quality Reports for the Week of July 21, 2018.

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Sincerely,



Natalie Plato
Deputy Director
Giant Mine Remediation Project

c.c.: Distribution List