From: Irwin, Geneva (AADNC/AANDC)
Subject: Air Quality Monitoring Weekly Summary - Week ending in July 14, 2018
Date: July 20, 2018 12:03:44 PM
Attachments: AQM - July 14, 2018.pdf

Good Morning,

A summary of the Giant Mine ambient air quality monitoring program (AQM) for the week ending July 14, 2018 is as follows:

Fence line 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 µg/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;

- No 15-minute average total suspended particulate (TSP) concentrations above the established RBAL of 333 µg/m^3 were measured at the fence line monitoring stations during the week. TSP concentrations measured the fence line monitoring locations during the week were typical of seasonal background concentrations;

- Laboratory results for TSP, PM_{10}, and trace metals (including arsenic) analyses from samples collected on June 25, 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, PM_{10}, and TSP filter samples collected at the fence line sampling locations on June 22, 2018 and after June 25, 2018 are pending.

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Community Stations:

- No real time $PM_{2.5}$ 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 analyses of community station filters collected after June 22, 2018 are pending;

- Laboratory analyses of asbestos samples collected at the community stations on June 22, 2018 and after June 25, 2018 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 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 NO_2 Concentrations

Date	Maximum One-hour Average (ppb)	24-hour Average (ppb)
July 08, 2018	1.1	0.1
July 09, 2018	1.0	0.4
July 10, 2018	1.7	0.7
July 11, 2018	7.0	1.4
July 12, 2018	2.6	0.7
July 13, 2018	1.3	0.1
July 14, 2018	1.2	0.0

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 PM_{10} concentrations above the RBAL of 260 µg/m^3 measured at the monitors associated with the C5-09 stope stabilization program during the week;
- Laboratory results for PM_{10} and arsenic analyses from samples collected on June 25, 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 PM_{10} and arsenic filter samples collected on June 22, 2018 and after June 25, 2018 are pending.

General Operation:

- Data completeness for the reporting period was 99.83% for real time TSP samplers associated with the fence line monitoring network, 99.88% for real time PM_{10} samplers associated with the fence line monitoring network, and 99.85% for real time PM_{10} samplers associated with the C5-09 monitoring network;
- The AQM program operated as specified during the week ending July 14, 2018, with the following exceptions:
    - The PM_{10} sampler at C5-09 monitoring location Site PF1- C1 did not record data on July 9, 2018 from 16:00 MST to 18:00 MST, due to battery failure. SLR technicians have identified the failed battery and removed it from service;

- The PM_{10} sampler at fence line monitoring location Site A-North did not record data on July 14, 2018 from 04:00 MST to 05:45 MST, due to battery failure. SLR technicians have identified the failed battery and removed it from service;
- The TSP sampler at fence line monitoring location Site A-North did not record data on July 14, 2018 from 04:30 MST to 05:45 MST due to battery failure. SLR technicians have identified the failed battery and removed it from service;
- The PM_{10} sampler at fence line monitoring location Site C-Northwest did not record data on July 14, 2018 from 15:00 MST to 16:15 MST due to a sampler malfunction. SLR technicians inspected and evaluated the sampler and returned it to service.

Indigenous and Northern Affairs Canada
Affaires autochtones et du Nord Canada

PO BOX 1500
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July 20, 2018

Distribution List

RE: Air Quality Reports for the Week of July 14, 2018.

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Sincerely,

Natalie Plato
Deputy Director
Giant Mine Remediation Project

c.c.: Distribution List