

From: [Geneva Irwin](#)
Subject: Air Quality Monitoring Weekly Summary week ending in August 6
Date: Monday, August 15, 2016 1:57:17 PM
Attachments: [AQM August 6.pdf](#)

Good Afternoon,

A summary of the Giant Mine ambient air quality monitoring program (AQM) for the week ending August 6, 2016 is as follows:

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. Elevated PM₁₀ concentrations above the normal background were measured at fenceline locations during the week and were likely caused by smoke from regional forest fires;

No 15-minute average total suspended particulate (TSP) concentrations above the established fenceline RBAL of 333 µg/m³ were measured at the fenceline monitoring stations during the week. Elevated TSP concentrations above typical background concentrations were measured at all fenceline locations during the week and were likely caused by smoke from regional forest fires;

Laboratory results of arsenic concentrations from samples collected on July 14, and 17, 2016 at the Fenceline E-Sampler locations were less than the analytical detection limit and/or below the referenced standards. E-Sampler blanks collected on July 16, 2016 were less than the analytical detection limit and/or below quality assurance thresholds. Laboratory analyses of arsenic filter samples collected after July 17, 2016 are pending.

Community Stations:

No 24-hour average concentrations of PM_{2.5} and PM₁₀ were measured above the referenced standards at the community stations during the week. PM_{2.5} and PM₁₀ concentrations were above typical background during the week and were likely impacted by smoke from regional forest fires;

Laboratory results from TSP, PM₁₀, and trace metals (including arsenic) samples collected on July 14, 14, 17 and 20, 2016 at the community stations were less than the analytical detection limit and/or below the referenced standard. Laboratory analysis of community station filters collected after July 20, 2016 are pending;

- Laboratory results from asbestos samples collected on July 17, 2016 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 20, 2016 are pending.

Stope Borehole Drilling Program:

Air quality monitoring specific to the stope borehole drilling program was conducted near active drilling operations throughout the week at the following locations: at three locations within the vicinity of B3 Pit; at three locations within the vicinity of the C1 Pit; and, at four locations at the mine vents and the intake opening;

There were no 15-minute average PM₁₀ concentrations above the surface drilling RBAL of 260 µg/m³ measured at the monitors located in the vicinity of drilling operations during the week;

There were no 15-minute average PM₁₀ concentrations above the underground vent monitoring RBAL (300 µg/m³) measured during the week;

Laboratory results of arsenic concentrations from samples collected on July 14, and 17, 2016 at the stope borehole and underground vent monitoring locations were less than the analytical detection limit and/or below the referenced standards. E-Sampler blanks collected on July 16, 2016 were less than the analytical detection limit

and/or below quality assurance thresholds. Laboratory analyses of arsenic filter samples collected after July 17, 2016 are pending.

General Operation:

The AQM program operated as specified during the week ending August 6, 2016 with the following exceptions:

- o Vent monitoring E-Sampler E16 – C1 Pit lost power on August 6, 2016 from 12:30 PM MST to 1:30 PM MST due to an electrical failure in the solar power system which has been repaired;
- o An area wide power outage on August 4 and 5, 2016 affected the operation of fenceline site F-Marina, mine vent and intake opening E-Samplers E06 – UBC Portal, E01 – Blower, and stope borehole E-Sampler E11 – C1 Pit North, from 11:15 PM MST August 4, 2016 to 2:00 AM MST on August 5, 2016;
- o The August 6, 2016 power outage caused two hours of PM_{2.5} and PM₁₀ data at NDL and three hours of PM_{2.5} and PM₁₀ data YCC to be invalidated. Additionally, three hour of PM₁₀ data and seven hours of PM_{2.5} data at NDL and three hours of PM₁₀ data and one hour of PM_{2.5} data at YCC were invalidated due to reported concentrations of less than $-3 \mu\text{g}/\text{m}^3$, which were recording directly following the re-instatement of power.

Best,

Natalie Plato



PO BOX 1500
YELLOWKNIFE NT X1A 2R3

NT 852805

August 15, 2016

Distribution List

RE: Air Quality Reports for the Week of August 6, 2016.

A summary of the Giant Mine ambient air quality monitoring program (AQM) for the week ending August 6, 2016 is as follows:

Fenceline Network:

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- ❖ Laboratory results of arsenic concentrations from samples collected on July 14, and 17, 2016 at the stope borehole and underground vent monitoring locations were less than the analytical detection limit and/or below the referenced standards. E-Sampler blanks collected on July 16, 2016 were less than the analytical detection limit and/or below quality assurance thresholds. Laboratory analyses of arsenic filter samples collected after July 17, 2016 are pending.

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Sincerely,

A handwritten signature in blue ink that reads "Natalie Plato". The signature is written in a cursive, flowing style.

Natalie Plato
Deputy Director
Giant Mine Remediation Project

c.c.: Distribution List