

MVLWB Registry

From: Fallon Morton <Fallon.Morton@aandc-aadnc.gc.ca>
Sent: Friday, August 7, 2015 2:56 PM
To: NWTLands
Subject: Giant Mine Remediation AQM weekly summary report for the week ending August 1, 2015
Attachments: AQM Weekly Summary Jul 26 - Aug 1, 2015.pdf
Follow Up Flag: Follow up
Flag Status: Flagged

Greetings,

Attached is the AQM weekly summary report for Giant Mine for week ending August 1, 2015.

In discussions with the Giant Mine Working Group, in lieu of the detailed weekly reports the project has decided to provide weekly summaries and a detailed monthly report. This is done to make the reporting more useful to users, while still maintaining the level of details previously provided.

A summary of the report is provided below:

Fenceline Network:

- No 15-minute average particulate matter less than 10 microns in diameter (PM₁₀) concentrations above the established Risk Based Action Level (RBAL) criteria (159 µg/m³) were measured at the fenceline monitoring stations during the week. PM₁₀ concentrations measured at fenceline locations during the week were typical of seasonal background concentrations;
- No 15-minute average total suspended particulate (TSP) concentrations above the established RBAL (333 µg/m³) were measured at the fenceline monitoring stations on during the week. TSP concentrations measured at fenceline locations during the week were typical of seasonal background concentrations;

Community Stations:

- There were no continuous 24-hour average concentrations of PM_{2.5} and no 24-hour average concentrations of PM₁₀ measured above the referenced criteria at the community stations during the week;
- Laboratory results from available TSP, PM₁₀, and trace metals (including arsenic) samples collected on July 11, 2015 at the community stations were less than the analytical detection limit and/or below the referenced criteria. Laboratory analysis of community station filters collected after July 11, 2015 are pending;
- Laboratory results from available asbestos samples collected on July 11, 14, 17, and 20, 2015 at the community stations were less than the analytical detection limit and/or below the referenced criteria. Laboratory results from asbestos samples collected at the community stations after July 20, 2015 are pending;

Interim Underground Stabilization (IUS) (tailings work):

- Air quality monitoring specific to the IUS program was conducted at:

1. Four (4) locations within the vicinity of paste fill operations in the B1 and A1 Pits;
 2. Four (4) locations set on the west, north, and south perimeters of the Central and South Tailings Ponds;
 3. Four (4) locations at the mine vents and intake openings.
- There were several 15-minute average PM₁₀ concentrations above the surface drilling RBAL (260 µg/m³) measured at the monitors located in the vicinity of paste fill operations on July 28, 2015. Elevated PM₁₀ concentrations were recorded during the early morning hours on July 28, 2015 at Site PF2 located just south of paste fill hole #1. Site investigations discovered fog and moisture interferences causing the elevated concentrations at Site PF2. Concentration readings returned to normal following dissipation of the fog. Concentrations were typical of background levels during the remainder of the week;
 - There were no 15-minute average PM₁₀ concentrations above the tailings pond work RBAL (180 µg/m³) measured at the perimeter of the tailings pond work areas during the week. Concentrations were typical of background levels during the week;
 - There were no 15-minute average PM₁₀ concentrations above the underground vent monitoring RBAL (300 µg/m³) measured at the monitors located at mine vents and intake openings during the week. Concentrations were typical of background levels during the week;
 - Laboratory results from available arsenic filter samples collected July 14, 2015 at the IUS locations were less than the analytical detection limit and/or below the referenced criteria. Laboratory results from available arsenic filter samples collected after July 14, 2015 at the IUS locations are pending.

General Operations:

- The AQM program operated as specified during the week ending August 1, 2015 with exception to the following:
 1. YCC PM_{2.5} BAM sampler data was invalidated for a total of nineteen hours on July 27-29, 2015 due to low concentration measurement values recorded below sampler minimum concentration range of -3 µg/m³.

Regards,

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August 7, 2015

Mr. Willard Hagen, Chair
Mackenzie Valley Land and Water Board
7TH FLOOR – 4910, 50TH AVE., PO BOX 2130
YELLOWKNIFE, NT X1A 2P6

RE: Water Licence MV2012L8-0010 – Air Quality Reports for the Week of July 26

Dear: Mr. Hagen,

This report is meant to satisfy commitments made in the May 21, 2013, responses to review comments on the roaster plans. Our commitment was to provide weekly summaries of the following data:

- PM₁₀ measurements captured by the contractor and the fence-line program;
- All other available and quality assured data, including TSP, trace elements (metals) and asbestos data.

A summary of the Giant Mine ambient air quality monitoring program for the week ending August 1, 2015 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) criteria (159 µg/m³) were measured at the fenceline monitoring stations during the week. PM₁₀ concentrations measured at fenceline locations during the week were typical of seasonal background concentrations;
- No 15-minute average total suspended particulate (TSP) concentrations above the established RBAL (333 µg/m³) were measured at the fenceline monitoring

stations on during the week. TSP concentrations measured at fenceline locations during the week were typical of seasonal background concentrations;

Community Stations:

- There were no continuous 24-hour average concentrations of PM_{2.5} and no 24-hour average concentrations of PM₁₀ measured above the referenced criteria at the community stations during the week;
- Laboratory results from available TSP, PM₁₀, and trace metals (including arsenic) samples collected on July 11, 2015 at the community stations were less than the analytical detection limit and/or below the referenced criteria. Laboratory analysis of community station filters collected after July 11, 2015 are pending;
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Interim Underground Stabilization (IUS) (tailings work):

- Air quality monitoring specific to the IUS program was conducted at:
 1. Four (4) locations within the vicinity of paste fill operations in the B1 and A1 Pits;
 2. Four (4) locations set on the west, north, and south perimeters of the Central and South Tailings Ponds;
 3. Four (4) locations at the mine vents and intake openings.
- There were several 15-minute average PM₁₀ concentrations above the surface drilling RBAL (260 µg/m³) measured at the monitors located in the vicinity of paste fill operations on July 28, 2015. Elevated PM₁₀ concentrations were recorded during the early morning hours on July 28, 2015 at Site PF2 located just south of paste fill hole #1. Site investigations discovered fog and moisture interferences causing the elevated concentrations at Site PF2. Concentration readings returned to normal following dissipation of the fog. Concentrations were typical of background levels during the remainder of the week;
- There were no 15-minute average PM₁₀ concentrations above the tailings pond work RBAL (180 µg/m³) measured at the perimeter of the tailings pond work areas during the week. Concentrations were typical of background levels during the week;
- There were no 15-minute average PM₁₀ concentrations above the underground vent monitoring RBAL (300 µg/m³) measured at the monitors located at mine

vents and intake openings during the week. Concentrations were typical of background levels during the week;

- Laboratory results from available arsenic filter samples collected July 14, 2015 at the IUS locations were less than the analytical detection limit and/or below the referenced criteria. Laboratory results from available arsenic filter samples collected after July 14, 2015 at the IUS locations are pending.

General Operations:

- The AQM program operated as specified during the week ending August 1, 2015 with exception to the following:
 1. YCC PM2.5 BAM sampler data was invalidated for a total of nineteen hours on July 27-29, 2015 due to low concentration measurement values recorded below sampler minimum concentration range of $-3 \mu\text{g}/\text{m}^3$.

Additional air quality information for the Giant Mine can be found on the NWT Air Quality Monitoring Network web page: <http://aqm.enr.gov.nt.ca>.

For information on RBALs, TSP, PM10 and for answers to other commonly asked questions about Air Quality Monitoring, please see the Giant Mine Remediation Project Team's [online FAQs](#). Should you have any questions or comments, please contact Adrian Paradis by Telephone: (867) 669-2425 or by E-mail: Adrian.Paradis@aandc-aadnc.gc.ca.

Sincerely,



Adrian Paradis
Regulatory Manager
Giant Mine Remediation Project

c.c.: Distribution List