

## MVLWB Registry

---

**From:** Adrian Paradis <Adrian.Paradis@aandc-aadnc.gc.ca>  
**Sent:** Friday, April 24, 2015 4:37 PM  
**Subject:** Giant Mine Weekly Air Summary for the week ending April 18, 2015  
**Attachments:** YELLOWKN-#686860-v1-GIANT\_REGULATORY\_WEEKLY\_AQM\_APRIL\_18\_2015.PDF;  
Adrian Paradis.vcf

Please find the summary of the Giant Mine ambient air quality monitoring report for the week ending April 18, 2015

### Fenceline Network:

- Fenceline air quality monitoring started operations at all sites Friday April 10, 2015. Fenceline samplers are scheduled to run daily from 7 AM to 7 PM local time;
- No 15-minute average particulate matter less than 10 microns in diameter ( $PM_{10}$ ) concentrations above the established Risk Based Action Level (RBAL) criteria were measured at the fenceline monitoring stations during the week.  $PM_{10}$  concentrations measured at all fenceline locations remained typical of background concentrations;
- No 15-minute average total suspended particulate (TSP) concentrations above the established RBAL were measured at the fenceline monitoring stations during the week.  $PM_{10}$  concentrations measured at all fenceline locations remained typical of background concentrations.

### Community Stations

- There were no continuous 24-hour average concentrations of particulate matter less than 2.5 microns in diameter ( $PM_{2.5}$ ) above the referenced criteria measured at the community stations during the week. 24-hour  $PM_{10}$  concentrations were above the referenced criteria on April 13, 2015 at the NAPS community station and on April 14, 2015 at the NDL community station. Winds on April 13 and April 14 were light to moderate blowing from the north and northeast. Fenceline concentrations remained low on April 13 and April 14, with fenceline 15-minute  $PM_{10}$  concentrations below  $10 \mu\text{g}/\text{m}^3$ .  $PM_{10}$  concentrations at YCC were well below the reference criteria during the week. Road dust in the city of Yellowknife has been visually observed throughout the reporting period;
- Laboratory results from all valid TSP,  $PM_{10}$ , and trace metals (including arsenic) samples measured on March 19, 22, and 25, 2015 at the community stations were less than the analytical detection limit and/or below the referenced criteria. The March 7<sup>th</sup> and 13<sup>th</sup> TSP samples collected at NAPS were invalidated due to irregular sampler motor performance; make-up samples at NAPS were completed on March 10<sup>th</sup> and March 17<sup>th</sup>, 2015 and lab results recently received show that TSP and trace metals (including arsenic) were less than the analytical detection limit and/or below the referenced criteria.

- Laboratory results from all valid TSP, PM<sub>10</sub>, and trace metals (including arsenic) samples measured on March 28 and 31, 2015 at the NDL and YCC community stations were less than the analytical detection limit and/or below the referenced criteria. The YCC PM<sub>10</sub> samples scheduled for March 28 and March 31, 2015 were invalidated due to motor wiring failure; one make-up sample was conducted on April 1, 2015.
- Laboratory results from 24-hour TSP samples collected on March 28 and March 31, 2015 at NAPS community station exceeded the referenced criteria for TSP. The March 31, 2015 also exceeded the referenced criteria for iron. Winds on March 28, 2015 were light to moderate blowing from the northwest, and winds on March 31, 2015 were light blowing from the northeast. Visual observations of conditions on March 28 and March 31, 2015 indicate road dust influenced TSP and iron exceedances. Real-time and integrated monitoring at YCC and NDL stations were much lower than monitoring at NAPS, indicating TSP and iron exceedances at NAPS on March 28 and March 31 were influenced primarily by localized sources.
- Laboratory results from TSP and PM<sub>10</sub> samples collected at the community stations after March 31, 2015 are pending;
  - Laboratory results from all valid asbestos samples measured on March 1, 7, 13, 19, 22, 25, 28, and 31, 2015 at the community stations were less than the analytical detection limit and/or below the referenced criteria. Make-up asbestos samples collected at NAPS community station on March 6 and March 10, 2015 were less than the analytical detection limit. Laboratory results from asbestos samples collected at the community stations after March 31, 2015 are pending;
- The 3-day sampling schedule for 24-hour integrated TSP, PM<sub>10</sub>, trace metals, and asbestos monitoring at the community stations has resumed as of March 19, 2015;

### Interim Underground Stabilization (IUS) (tailings work)

- IUS activities for 2015 have not yet resumed;

### General Operations

- The AQM program operated as specified during the week ending April 18, 2015 with the following exception:
  - NDL and YCC PM<sub>10</sub> and PM<sub>2.5</sub> BAM monitors were down from late Thursday through Monday afternoon (April 9 - April 13) for routine annual maintenance. The BAM monitors were undergoing 72-hour zero signal conditioning checks in preparation for the upcoming season.

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>.

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](mailto:Adrian.Paradis@aandc-aadnc.gc.ca).

Regards,

Adrian Paradis

Regulatory Manager, NWT Region, Giant Mine Remediation Project

AANDC/ Government of Canada

[adrian.paradis@aandc-aandc.gc.ca](mailto:adrian.paradis@aandc-aandc.gc.ca) / Tel: 867-669-2425

Gestionnaire à la réglementation

AADNC/ Gouvernement du Canada

[adrian.paradis@aandc-aadnc.gc.ca](mailto:adrian.paradis@aandc-aadnc.gc.ca) / Tel: 867-669-2425



PO BOX 1500  
YELLOWKNIFE NT X1A 2R3

NT 686859

April 24, 2015

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

**RE: Water Licence MV2012L8-0010 – Air Quality Reports for the Week of April 5**

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:

- PM<sub>10</sub> 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.

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 Giant Mine ambient air quality monitoring program for the week ending April 18, 2015 is as follows:

Fenceline Network:

- Fenceline air quality monitoring started operations at all sites Friday April 10, 2015. Fenceline samplers are scheduled to run daily from 7 AM to 7 PM local time.
- No 15-minute average particulate matter less than 10 microns in diameter (PM<sub>10</sub>) concentrations above the established Risk Based Action Level (RBAL) criteria were

measured at the fenceline monitoring stations during the week.  $PM_{10}$  concentrations measured at all fenceline locations remained typical of background concentrations.

- No 15-minute average total suspended particulate (TSP) concentrations above the established RBAL were measured at the fenceline monitoring stations during the week.  $PM_{10}$  concentrations measured at all fenceline locations remained typical of background concentrations.

### Community Stations

- There were no continuous 24-hour average concentrations of particulate matter less than 2.5 microns in diameter ( $PM_{2.5}$ ) above the referenced criteria measured at the community stations during the week. 24-hour  $PM_{10}$  concentrations were above the referenced criteria on April 13, 2015 at the NAPS community station and on April 14, 2015 at the NDL community station. Winds on April 13 and April 14 were light to moderate blowing from the north and northeast. Fenceline concentrations remained low on April 13 and April 14, with fenceline 15-minute  $PM_{10}$  concentrations below  $10 \mu\text{g}/\text{m}^3$ .  $PM_{10}$  concentrations at YCC were well below the reference criteria during the week. Road dust in the city of Yellowknife has been visually observed throughout the reporting period.
- Laboratory results from all valid TSP,  $PM_{10}$ , and trace metals (including arsenic) samples measured on March 19, 22, and 25, 2015 at the community stations were less than the analytical detection limit and/or below the referenced criteria. The March 7<sup>th</sup> and 13<sup>th</sup> TSP samples collected at NAPS were invalidated due to irregular sampler motor performance; make-up samples at NAPS were completed on March 10<sup>th</sup> and March 17<sup>th</sup>, 2015 and lab results recently received show that TSP and trace metals (including arsenic) were less than the analytical detection limit and/or below the referenced criteria.
- Laboratory results from all valid TSP,  $PM_{10}$ , and trace metals (including arsenic) samples measured on March 28 and 31, 2015 at the NDL and YCC community stations were less than the analytical detection limit and/or below the referenced criteria. The YCC  $PM_{10}$  samples scheduled for March 28 and March 31, 2015 were invalidated due to motor wiring failure; one make-up sample was conducted on April 1, 2015.
- Laboratory results from 24-hour TSP samples collected on March 28 and March 31, 2015 at NAPS community station exceeded the referenced criteria for TSP. The March 31, 2015 also exceeded the referenced criteria for iron. Winds on March 28, 2015 were light to moderate blowing from the northwest, and winds on March 31, 2015 were light blowing from the northeast. Visual observations of conditions on March 28 and March 31, 2015 indicate road dust influenced TSP and iron exceedances. Real-time and integrated monitoring at YCC and NDL stations were much lower than monitoring at NAPS, indicating TSP and iron exceedances at NAPS on March 28 and March 31 were influenced primarily by localized sources.
- Laboratory results from TSP and  $PM_{10}$  samples collected at the community stations after March 31, 2015 are pending.
- Laboratory results from all valid asbestos samples measured on March 1, 7, 13, 19, 22, 25, 28, and 31, 2015 at the community stations were less than the analytical detection

limit and/or below the referenced criteria. Make-up asbestos samples collected at NAPS community station on March 6 and March 10, 2015 were less than the analytical detection limit. Laboratory results from asbestos samples collected at the community stations after March 31, 2015 are pending.

- The 3-day sampling schedule for 24-hour integrated TSP, PM<sub>10</sub>, trace metals, and asbestos monitoring at the community stations has resumed as of March 19, 2015.

#### Interim Underground Stabilization (IUS) (tailings work)

- IUS activities for 2015 have not yet resumed.

#### General Operations

- The AQM program operated as specified during the week ending April 18, 2015 with the following exception:
  1. NDL and YCC PM<sub>10</sub> and PM<sub>2.5</sub> BAM monitors were down from late Thursday through Monday afternoon (April 9 – April 13) for routine annual maintenance. The BAM monitors were undergoing 72-hour zero signal conditioning checks in preparation for the upcoming season.

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>.

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](mailto:Adrian.Paradis@aandc-aadnc.gc.ca).

Sincerely,



Adrian Paradis  
Regulatory Manager  
Giant Mine Remediation Project

c.c.: Distribution List