



PO BOX 1500  
YELLOWKNIFE NT X1A 2R3

May 10, 2022

Distribution List

A summary of the Giant Mine Remediation Project ambient air quality monitoring program (AAQMP) for the week ending April 30, 2022 is as follows:

### Site Perimeter Monitoring Stations

- 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) of 159 µg/m<sup>3</sup> were measured at the Site Perimeter Monitoring Stations during the week. PM<sub>10</sub> concentrations measured 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<sup>3</sup> were measured at the Site Perimeter Monitoring Stations during the week. TSP concentrations measured during the week were typical of seasonal background concentrations.

### Community Monitoring Stations

- No continuous PM<sub>2.5</sub> or PM<sub>10</sub> 24-hour average concentrations above the program standards for each were measured at any of the Community Monitoring Stations during the week. PM<sub>2.5</sub> and PM<sub>10</sub> concentrations during the week were typically representative of seasonal background concentrations.
- Laboratory analyses results for samples collected after April 11, 2022, are pending.
- There were no NO<sub>2</sub> concentrations measured at the Niven Lake Community Monitoring Station above the NWT Ambient Air Quality 24-hour standard of 106 parts per billion (ppb) or the one-hour standard of 213 ppb during the week. Table 1 summarizes the maximum hourly concentration each day and the corresponding 24-hour average concentration measured at the Niven Lake Community Monitoring Station.



Table 1: Niven Lake Community Monitoring Station NO2 Concentrations

Date	Maximum One-hour Average (ppb)	24-hour Average (ppb)
April 24, 2022	0.0	0.0
April 25, 2022	0.9	0.0
April 26, 2022	1.1	0.0
April 27, 2022	5.5	0.5
April 28, 2022	0.3	0.0
April 29, 2022	0.4	0.0
April 30, 2022	2.1	0.0

### General Operation

- Integrated sampling for TSP, PM10, and trace metals was conducted at all three Community Monitoring Stations on April 29, 2022. The next regularly scheduled sampling date is May 2, 2022.
- Data completeness at the Site Perimeter Monitoring Stations for the week was 99.31% for continuous TSP and 99.44% for continuous PM10.
- Data completeness at the Community Monitoring Stations was 100% for PM10 and PM2.5 at the Yellowknife Bay Community Monitoring Station, 98.81% and 98.21% for PM10 and PM2.5 at the Niven Lake Community Monitoring Station, respectively, 94.64% and 96.43% for PM10 and PM2.5 at the Ndilq Community Monitoring Station, respectively, and 99.4% for NO2 at the Niven Lake Community Monitoring Station.
- The AAQMP operated as specified during the week ending April 30, 2022, with the following exceptions:
  - Minor data loss at the Site Perimeter Monitoring Stations due to battery failure.
  - The NDL community station did not record six hours of PM2.5 on April 26, 2022 due to a tape break and eight hours of PM10 on April 26, 2022 due to an instrument error following routine maintenance.

- The NVN community station did not record two hours of PM10 and one hour of PM2.5 on April 27, 2022, and 2 hours of PM2.5 on April 28, 2022, due to an instrument error.
- An instrument error at Site Perimeter Monitoring Station C-Northwest resulted in the invalidation of TSP data from 04:00 to 05:15 on April 30, 2022. This event was initially investigated as an exceedance, however the site technician determined the measurements were the result of instrument malfunction.

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