

Environmental Protection Operations Directorate  
Prairie & Northern Region  
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ECCC File: 6100 000 009/011  
NWB File: 2AM-LUP2032



September 28, 2021

via email at: [licensing@nwb-oen.ca](mailto:licensing@nwb-oen.ca)

Richard Dwyer  
Manager Licencing  
Nunavut Water Board  
P.O. Box 119  
Gjoa Haven, NU X0B 1J0

Dear Richard Dwyer,

**RE: 2AM-LUP2032 Lupin Mine Water Licence – 2020 Annual Report**

Environment and Climate Change Canada (ECCC) has reviewed the 2020 Annual Report submitted to the Nunavut Water Board (NWB) for water licence 2AM-LUP2032 by Lupin Mines Incorporated (the Proponent).

ECCC's specialist advice is based on our mandate pursuant to the *Canadian Environmental Protection Act* and the pollution prevention provisions of the *Fisheries Act*.

The following comments are provided:

**1. General – Errors and Inconsistencies in the Report**

Reference(s):

- 2020 Annual Report

Comments:

There are several inconsistencies and errors within the report, such as the following examples:

- It is stated in one location of the report that discharge at LUP-10 concluded on August 29 and other sections state that discharge concluded on September 23. (pg. 6);
- The reviewer is directed to Table 3 in Appendix B, which does not appear to be correct (pg. 11); and
- The reviewer is directed to Appendix A for Certificates of analysis, when this data is provided in Appendix B (pg. 13).

Recommendation(s):

ECCC recommends that the overall annual report be reviewed for accuracy and consistency and that all errors be corrected.



## 2. Clarification of Monitoring Data

### Reference(s):

- 2020 Annual Report – Section G – Monitoring Program Data
- Appendix A – Table 3

### Comments:

The Annual Report states that,

*“The final date of discharge, September 23, 2020, was not included in the calculations for minimum, maximum, and average values as the results for most regulated parameters were erroneously high, likely due to the inclusion of suspended matter, as evidenced by the high total suspended solids value of 10.5 mg/L and the higher total metals concentrations, whereas the soluble parameters of ammonia, nitrate, nitrite, and cyanide exhibited little difference to the previous days discharge.”*

However, Appendix A – Table 3, which includes a summary of the data collected at LUP-10 on all monitoring events, does not support this statement, as the data presented in the table does not have elevated TSS or metal concentrations. According to Table 3, the TSS concentration for September 23 was 1.1 mg/L and metal concentrations fell within the range of previously recorded values.

### Recommendation(s):

ECCC recommends the Proponent provide additional clarification and discussion on the September 23 data and clarify whether the statements provided in Section G are correct or the laboratory data provided in Appendix A is correct.

## 3. Dates not Sampled – LUP-10

### Reference(s):

- 2020 Annual Report – Section G – Monitoring Program Data

### Comments:

The Annual Report states that,

*“As noted in Table 3, Appendix B, several dates were missing analysis results due to either the sample not being able to be taken, mostly due to high winds in Pond 2 that make it unsafe or the sample shipment not arriving at the lab in Yellowknife, NT.”*

ECCC notes that Appendix B only provides the laboratory certificates of analysis and there does not appear to be a Table included that describes which sampling dates were missed in 2020 and the reasons that sampling analysis was not completed for these dates.

### Recommendation(s):

ECCC recommends the Proponent provide information on which intended sampling dates were missed in 2020 and the reasons that sampling and analysis was not completed.

#### 4. Downstream Water Quality Results

Reference(s):

- Appendix A – Table 4 & 5

Comments:

Tables 4 and 5 provide summaries of water quality monitoring data downstream of discharge from the Tailings Containment Area. The tables include several highlighted values (Nitrate – Sept 17, Copper – Aug 11) but does not include a legend as to why these values are highlighted. It is assumed that these highlighted values may be guideline exceedances, however, water quality guidelines used for analysis of data at these downstream locations have not been provided for reference in the table. In addition, the annual report provides no discussion of any guideline exceedances in the downstream environment.

Recommendation(s):

ECCC recommends the Proponent:

- Provide a legend for all tables in this and future annual reports;
- Include the water quality guidelines used for analysis of water quality in the downstream environment within tables; and
- Provide a discussion of any water quality guideline exceedances in the downstream environment within the body annual report.

If you need more information, please contact Victoria Shore at [Victoria.Shore@canada.ca](mailto:Victoria.Shore@canada.ca).

Sincerely,

*[original signed by]*

Victoria Shore  
Senior Environmental Assessment Officer  
Environmental Protection Operations Directorate, Prairie Northern Region

Cc: Jody Small, Head, Environmental Assessment North (NT and NU)  
Environmental Protection Operations Directorate, Prairie Northern Region