



Water Resources  
Nunavut Regional Office  
P.O. Box 100  
Iqaluit, NU, X0A 0H0

December 15, 2011

Phyllis Beaulieu  
Licensing Administrator  
Nunavut Water Board  
P.O. Box 119  
Gjoa Haven, NU, X0A 1J0

Your file - Votre référence  
2BE-LEP----  
Our file - Notre référence  
CIDM# 495969

**Re: 2BE-LEP---- Lupin Project – Lupin Mines Incorporated – Kitikmeot  
Region – New Application**

Dear Phyllis Beaulieu:

Aboriginal Affairs and Northern Development Canada (AANDC) has performed a review of the new water licence application, 2BE-LEP---- (Lupin Project) submitted by Lupin Mines Incorporated to the Nunavut Water Board (NWB). The following advice has been provided pursuant to AANDC's mandated responsibilities for the enforcement of the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* (NWNSTRA) and the *Department of Indian Affairs and Northern Development Act* (DIAND Act). In conducting our review, AANDC referred to the documents on the NWB's FTP-site under 2BE-LEP----.

Should you have any questions or comments, please do not hesitate to contact me at (867) 975-4738 or by e-mail at [Jean.Allen@aandc-aadnc.gc.ca](mailto:Jean.Allen@aandc-aadnc.gc.ca)

Sincerely,

*Original Signed By*

Jean Allen  
Water Management Specialist

Cc. David Abernethy, A/Manager of Water Resources, AANDC  
Kevin Robertson, A/Manager of Field Operations, AANDC



## **Technical Review Memorandum**

To: Phyllis Beaulieu – Manager of Licensing, Nunavut Water Board

From: Jean Allen – Water Management Specialist, Aboriginal Affairs and  
Northern Development Canada

---

**Re: 2BE-LEP---- Lupin Project – Lupin Mines Incorporated – Kitikmeot  
Region – New Application**

### **A. Project Description**

On November 15, 2011, the Nunavut Water Board (Board) distributed Lupin Mining Inc.'s (a wholly indirect subsidiary of Elgin Mining Inc.) application for a Type B water licence for water use and waste disposal in association with the Lupin Project. The applicant has requested a licence term of 5 years (January 2012 to January 2017) for an exploration program to investigate targets surrounding the Lupin Mine site.

Lupin Mining Inc. proposes the use of the existing Lupin Mine camp (designed for 200 people) to accommodate 30-40 people. The camp is on Crown lands (65° 45'29" N, 113° 13'20" W) and is located approximately 285 km southeast of Kugluktuk and 400 km north-northeast of Yellowknife, Northwest Territories (NT). Exploration was anticipated to start in November 2011 and continue until September 2012, after which programs will operate on a seasonal basis between March and October. First stage drilling will be limited to 5,000 metres of diamond drilling at 7 known targets at or nearby the existing Lupin mine site and related infrastructure.

Water will be drawn from Contwoyto Lake and nearby lakes for drilling activities. The estimated quantity of water required is 45 m<sup>3</sup> per day (5 m<sup>3</sup> for domestic use permitted under water licence 2AM-LUP0914 and 45 m<sup>3</sup> for drilling operations proposed under water licence 2BE-LEP----). Sewage and greywater will be disposed in the Lupin Mine Site sewage pond system permitted under water licence 2AM-LUP0914. Drill waste will either be backhauled to the Lupin Mine tailings containment area or pumped to a nearby sump. Solid waste will be backhauled to Lupin Mine site for disposal via incineration, burn pit, or landfill permitted under water licence 2AM-LUP0914. Empty barrels, waste oil, and hazardous waste will be backhauled to Yellowknife, NT.

### **B. Results of Review**

AANDC Water Resources Division offers the following comments/  
recommendations for the Board's consideration.



## 1. General

- The application states that water will be pumped from nearby lakes for drilling activities. AANDC recommends that the NWB be provided with coordinates for all water sources and deposition of wastes in annual reports.
- The application states that short spur roads will be developed off of existing mine roads if necessary. AANDC recommends that detailed plans and engineer drawings be submitted prior to any construction.
- The application states that short spur roads will be constructed from existing sources (i.e., existing quarry). AANDC recommends that the quarried rock be tested and demonstrated to be non-acid generating and non-metal leaching prior to use and post-construction. All geochemical sampling results should be provided in annual report submissions.

## 2. Waste Management Plan

- A discrepancy in regards to the disposal of drums exists between the Waste Management Plan (WMP) and the application/questionnaire. Clarification is required as to whether drums will be backhauled to Yellowknife, NT according to the application/questionnaire or buried according to the WMP. Should the drums be buried, AANDC recommends that more detail be provided in the plan regarding burial (i.e., cleaning, crushing, etc.).
- The WMP and the supplementary questionnaire include burning as a method for solid waste disposal. AANDC does not encourage open burning of solid waste and recommends that all non-hazardous combustible solid waste be incinerated in accordance with Environment Canada's Technical Document for Batch Waste Incineration. Should the proponent choose to open burn in the Lupin Mine burn pit, AANDC recommends that the proponent first receive approval from the NWB to open burn under the new licence 2BE-LEP----.
- The words "burn" and "incinerate" seem to be used interchangeably in the plan. AANDC recommends that the plan be revised to clarify what is proposed for burning and what is proposed for incineration.
- Section 5 of the plan states that non-recyclable metal, demolition debris, and maintenance shop waste (including aerosol cans) will be burnt and disposed in the landfill. As a minimum, AANDC recommends that solid waste be managed according to the Government of Nunavut's Environmental Guidelines for the Burning and Incineration of Solid Waste as well as the Environmental Canada's technical document mentioned above. AANDC does not encourage the burning of aerosol cans and recommends that they be backhauled to an approved facility.

## 3. Spill Contingency Plan

- The Material Safety Data Sheet (MSDS) for propane was not located in the plan. AANDC recommends that the plan include MSDS for all chemicals, fuels, and hazardous materials stored on site.



- Any spill of any volume should be reported to the Manager of Field Operations at Tel: (867) 975-4295 and Fax: (867) 975-6445.
- The Government of Canada contact information should be as follows: Manager, Land Administration at (867) 975-4283; Manager, Water Resources at (867) 975-4550.
- Section 4.1 states that spill kits will be located near fuel farms and at the generators. AANDC recommends that the plan include a list of spill kit contents and a map of the property identifying the location of each spill kit.
- The plan states that spill plans will be posted in key locations at the site (Section 1.0). AANDC recommends that the specific locations for spill plans be provided in the plan (in a list and a map).
- In-situ combustion is proposed as a method of disposal. AANDC recommends that this method only be considered if other approaches are not feasible and that the appropriate authorities be contacted for approval prior to combustion.
- The plan states that gasoline spills on water will be allowed to spread and evaporate. AANDC recommends that the gasoline is first contained prior to evaporation and that this method is considered if other approaches are not feasible and is only to be undertaken upon approval from appropriate authorities.
- The plan states that all employees and contractors will be made aware of the plan and its contents. AANDC recommends that an additional section for training be included in the plan and that this training be provided to all employees on site.
- The plan states that recovered lubricants and hydraulic oil may be buried at an approved site. AANDC recommends that recovered lubricants and hydraulic oil be backhauled to an approved facility.
- AANDC recommends that a spill response procedure for propane be included in this plan.
- AANDC recommends that the plan include procedures for restoring/reclamation of areas affected by spills (i.e., soil replacement, grading, scarifying, etc.).
- Hazardous materials are listed in the plan but the plan does not include storage quantities or details regarding storage locations.

#### **4. Abandonment and Restoration (A&R) Plan**

- AANDC recommends that all fuel be stored within secondary containment.
- Section 5.0 states that roads will be regarded to match natural contours. It is assumed that this is a typo and is meant to read regraded. AANDC recommends that this statement be revised for clarification.
- The plan does not include plans for waste management (i.e., wastewater, solid waste, etc.) at seasonal and final closure. AANDC recommends that waste management be included in a revised A&R plan.