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## **MEDIA BACKGROUNDER 2**

### **VOISEY'S BAY MINE-MILL PROJECT JOINT ENVIRONMENTAL ASSESSMENT PANEL**

#### **PROJECT DESCRIPTION AND FACTORS TO BE CONSIDERED DURING THE REVIEW**

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## **1. THE PROJECT**

Voisey's Bay Nickel Company Ltd. (the proponent) is proposing to develop a nickel-copper-cobalt mine and mill in the vicinity of a place known to the Inuit of Labrador as Tasiujatsoak, to the Innu of Labrador as Kapukuanipant-kauashat, which is also known as Voisey's Bay. The indicated mineral resource is estimated to be 150 million tonnes. The deposit consists of three ore bodies known as the Ovoid, the Eastern Deeps, and the Western Extension. The Ovoid would be mined using open pit techniques. The Western Extension and Eastern Deeps would be mined by underground techniques. The ore would be processed to nickel-cobalt and copper concentrates using conventional milling processes. The concentrates would be shipped to a smelter off-site.

### **Location**

The proposed mine/mill would be located in northern Labrador, 35 km Southwest of Nain and 79 km Northwest of Utshimasits (Davis Inlet). The climate is subarctic with short summers and long winters. The surrounding terrain is rugged, with elevations ranging to 400 m above sea level. Most of the undertaking would be located in a sheltered valley connecting Anaktalak Bay, to the north, with Voisey's Bay to the south. Disposal of tailings and waste rock would take place in valleys to the east of the mine. Valleys are largely forested, while upland areas consist predominantly of barren rock. The area drains to several watersheds which include watercourses supporting Arctic char and other fish populations.

### **Components of the Project**

The undertaking, through its life cycle, includes:

- open pit and underground mining facilities and operations;
- the construction and operation of storage and deposition areas for waste rock and overburden;
- mine site roads;
- borrow pits and quarries and their road access;
- an airstrip;
- a concentrator;
- a tailings impoundment area;
- an accommodations and services complex;
- a port site with shipping dock and concentrate storage building;
- maintenance and storage areas including equipment laydown and fuel storage areas;
- explosives storage and manufacturing facilities; and
- a sewage treatment system, a power supply and distribution system, a water supply and distribution system, water diversion and drainage systems and communications system.

The undertaking includes the activities associated with the above operations and infrastructure such as the transportation of personnel and supplies and the shipping of concentrates.

### **Open Pit Mine**

The open pit would be mined using conventional methods. The waste rock would be stored near the open pit, or under a water cover, depending on its potential to generate acid. An estimated 13.7 million tonnes of overburden would be removed and stored near the open pit. Approximately 20.5 million tonnes of non-acid generating waste rock would be stored in surface facilities. One million tonnes of waste rock is categorized as potentially acid generating and would be placed under a water cover. Discharge water from the mineralized waste rock disposal pond may need treatment.

### **Underground Mine**

Underground deposits would be mined by sinking shafts followed by blasting and load-haul-dump operations. Approximately 15.5 million tonnes of waste rock from the underground mine would be produced. Fifteen million tonnes is considered potentially acid generating and would be placed under water cover; the remaining 0.5 million tonnes would be stored above ground. Water from the open pit and underground mining sites, as well as drainage from waste rock and overburden piles would be collected and, if necessary, treated before discharge.

### **Transportation and Concentrator**

Ore would be transported to the concentrator, and processed into nickel-cobalt and copper concentrates using crushing, grinding and flotation processes. The concentrator would be designed based on an initial production rate of 15,000 tonnes per day of ore. Concentrates would be trucked to storage facilities at the port site at Anaktalak Bay and shipped for smelting.

### **Tailings**

The tailings produced during the concentrating process are potentially acid-generating and would be placed under a permanent water cover to inhibit acid generation and leaching of metals. The proponent's preferred tailings basin site is a pond approximately 12 km Northeast of the plant site. The proponent maintains it has sufficient capacity to accommodate the tailings associated with the projected mineral resource. Site development would include perimeter dams, control gates, access roads, surface water diversion and, if necessary, polishing pond. Decant water would be reclaimed and recycled, with any excess water treated, if necessary, before discharge.

### **Shipping Routes**

To date, three shipping routes (northern, eastern and southern) are being proposed by the proponent for the passage of bulk carriers containing the concentrate between the outer islands of the Labrador coast and the proposed port site at Kakiak (Edward's Cove). The proposed northern route following a portion of "Strathcona Run", the existing shipping route to Nain, is currently the proponent's preferred. Three shipping season options are being proposed. Seasonal shipping would consist of shipping during the ice-free season. Extended shipping

would enable shipping to continue during early ice formation and during ice break-up. Year-round shipping would involve uninterrupted service throughout the year. The proponent would prefer to ship concentrate during the greatest number of months possible, however, because of the importance of ice for winter travel, habitat and harvesting, the proponent states that it will continue to consult with local residents and government regulators regarding an appropriate shipping season.

## **Employment**

Approximately 700 persons would be employed during construction of the undertaking, and during operations, an estimated 500 persons would be employed plus additional contract personnel. The expected life of the undertaking is longer than 20 years and depends on the mineral resource and production rate. Workers would be transported to the site by air. Living accommodations would be provided on-site. No town site is planned.

## **Decommissioning**

Upon mine closure, the site would be decommissioned and rehabilitated to approach pre-development conditions. Progressive decommissioning and rehabilitation would commence at an early stage during mine development and would continue throughout the life of the mine until the effective surrender of any leases by the proponent.

## **2. FACTORS TO BE CONSIDERED DURING PUBLIC REVIEW**

The review will include consideration of the following factors as they relate to all phases of the project:

1. Description of the project, including its temporal and spatial boundaries;
2. Need for the project;
3. Purpose of and rationale for the project;
4. Analysis of alternatives including:
  - (a) alternatives to the project, and
  - (b) alternative means of carrying out the project which are technically and economically feasible and the environmental effects of any such alternatives;
5. Temporal and spatial boundaries of the study areas;
6. Extent to which biological diversity is affected by the project;
7. Description of the present environment which may reasonably be expected to be affected, directly or indirectly, by the project, including adequate baseline characterization;
8. Description of the likely future condition of the environment within the expected life span of the project, if the project were not approved;