Road Haulage Option

A Project Refinement to the Mary River Project

Introduction:

Baffinland Iron Mines Corp. (BIM) is conducting an investigation to determine the feasibility (economically, environmentally and operability) of trucking iron ore from the Mary River Deposit # No.1 to Milne Inlet, then shipping the ore to markets during the open water season.

The reasons for undertaking a review of the road haulage option are provided below:

- Current, elevated iron ore prices are expected to remain high for the foreseeable future;
- The Company gained valuable operating experience during the 2008 Bulk sample operation;
- The capital cost of the road haulage option is within the financial range that Baffinland could raise without the assistance of a partner;
- The road haulage option utilizes existing infrastructure – allowing for it to begin sooner that the rail option;
- With a shorter horizon to begin operations - permanent, local, full-time jobs and local contracting opportunities, will be available sooner; and
- Section 6.1 of the NIRB Guidelines required the Company to evaluate alternatives within the Project.

A feasibility study is currently underway and will provide a detailed design of the road haulage option. This information will be available for the DEIS scheduled for submission in late 2010. However, for planning purposes a preliminary outline of the road haulage option is described below.

Project Schedule and Project Description

The road haulage construction and operation will occur in parallel with the construction and operation of the Port Steensby Rail corridor. Assuming the project is released from the environmental assessment process by the first half of 2012 and the necessary operating permits are issued by the end of that year, then limited production could occur as early as 2013 with full production occurring in 2014. Contingent on financing, the Port Steensby Rail three to four year construction project would start in 2013 once all the necessary permits have been obtained.

The following assumptions[1] have been used to define the road haulage option:

The current design production for the road haulage option is about 3 million tonnes per annum;

- The trucks used for ore haulage will have a 120-tonne capacity;
- The composition of the ore is similar to that identified in the "Rail Project" with 75% high quality lump iron ore and 25% premium quality fine iron ore (sinter feed);
- The rail line option production would remain at 18 million tonnes per annum;

[1] The decision to review the road haulage proposal was made in July, therefore the details such as truck size etc. are preliminary. The purpose of this document is to provide the reader with a description of the road haulage proposal at this early stage of development.

- The life of mine operation will be for 21 years, similar to the Rail Project;
- Approximately, 150 to 300 workers will be required during the construction period; and
- Approximately 300 to 500 workers will be required to support the road haulage activity during the operational phase.

The construction, operation and closure phases of the road haulage project are described below:

Construction:

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The construction of the trucking option is anticipated to commence in early 2013 allowing for some iron ore to be shipped during Q3, 2013. During 2011 and 2012, upgrading and maintaining the Milne Tote Road will continue. Once the permits have been acquired, construction activities would focus on prestripping and preparing the open pit for mining, upgrading the existing Tote Road, and developing ancillary facilities at Milne Inlet.

Mining Plan Open Pit and Mary River Camp

The mining plan will use a similar mining location and sequence as described in the existing rail line Project. Preliminary development will include the preparation of the ore and waste pads, removal of overburden, construction of mine haul roads and the placement of crushers and other mining equipment. The Mary River existing camp, potable water supply, power supply, laydown areas, fuel storage, temporary explosives storage, sewage treatment plant and ponds will be upgraded. The airstrip will be reconfigured to accommodate larger aircraft.

Tote Road

The Tote Road was upgraded to a three season road in 2008 and continues to follow the path of the original 1960's exploration road. Under the Rail Project, the Tote Road would need to be upgraded so that ore sorting and crushing equipment and other Mary River infrastructure and other ancillary facilities a can be transported to the mine site. As part of the road haulage option, the Tote Road requires further upgrades to support the year-round ore haulage. These upgrades include realignment of sharp curves, reduction of slope gradients and improved visibility. All of these upgrades will improve safe operations on the road and mitigate erosional damage caused by weather-related events.

Milne Inlet

The Milne Inlet Camp will accommodate some of the road haulage crew. The Port will provide a staging point for consumables and depot for equipment. A floating or other similar structure dock to allow for the ore transfer to the ore carriers will be constructed. The ore storage area will store the ore during the periods when shipping transport does not occur. The Milne Inlet Port will only operate during the open water season.

The existing 40 person camp, related water supply, sewage treatment plant and ponds, airstrip, power supply, laydown areas, and fuel storage will be expanded to approximately 100 beds. Construction activities include expanding the camp and related infrastructure, fuel storage and the construction of additional laydown, ore stockpiles, ore handling facilities, floating dock structures, dock storage during winter and supply ship unloading.

Operations:

If the environmental assessment process is completed in the first half of 2012, a partial shipment of ore could be shipped from Milne Inlet in late 2013. Full production would occur in 2014. For the purpose of evaluating the environmental and socio economic effects of the Project, it is assumed that the road haulage option continues for the life of the Rail transport project.

Mining and Mary River Camp

Primary accommodations and flights in and out of the site would be based at the Mary River Camp. Ore would be removed from Deposit # No.1 via conventional open pit mining techniques. The ore will be crushed, screened and transported by truck to Milne Inlet.

The waste rock will be stored in the same locations as identified in the rail transport project. During the first few years of operation the stripping ratio of waste to ore is 0.6:1.0. For the life of the project the stripping ratio is 1.7:1.0. Also, any potentially acid generating rock will be managed in the same manner described in the Rail project. All run-off from the open pit and waste storage area will be controlled as described in the Mary River Project Description.

Crushing and screening will be carried out at Mary River to produce a lump and fine product. Although not finalized, the ore will be crushed to a size of -42mm, then the ore will be screened. The + 28mm rock will be sent for tertiary crushing, the -7 mm undersize ore will be directed to the “fines stockpile” and the – 25mm to +7mm sized rock will be sent to the “lump stockpile”.

Trucks with a 120-tonne capacity are used successfully at other Arctic mining operations and will be considered for this Project, although there may be the potential to use larger trucks. The haul distance between Deposit # No.1 and Milne Inlet is approximately 200km, round trip. The estimated cycle time for a truck would be 2 trips per 12 hour shift. Taking into account these factors and an assumption of a truck fill factor of 95%, then approximately 20 to 30 haulage trucks will be required for transporting the lump and fine ores to Milne inlet. An additional 25 heavy duty equipment vehicles and 10 light duty trucks will be needed to support the road haulage operation at the mine, Tote Road and Milne Inlet.

All major project coordination would be conducted out of Mary River including equipment maintenance and administration. The Port operations will be coordinated at Milne Inlet. The activities proposed for the Mary River Camp are similar to the proposed 18 million tonne Rail Project.

Tote Road

The Tote Road will be used for transporting ore from Deposit # No.1 to Milne Inlet and consumables and equipment from Milne Inlet to the Mary River site. These activities along the road would occur throughout the year with possible short breaks during significant weather events and when driving conditions are unsafe.

Upgrades to the Tote Road include realignment to improve gradients (currently as high as 16%) and road surface; improve visibility; improve safety in the operating environment, improve drainage; reduce ongoing maintenance requirements; facilitate snow clearing; and reduce risk of road washouts during freshet periods. The stream and

river crossings will be examined to provide stable, secure structures. Road maintenance would continue throughout the year.

Milne Inlet

All ore vessels would be loaded at Milne Inlet and shipped during ice free period, nominally 90 days long. Milne Inlet would be utilized to receive and send out consumables and equipment during the life of the project. During the ice free period about 3 to 4 ships per week will visit the Milne facilities. Each round trip based upon the assumption of Milne Inlet to Rotterdam as the average voyage would take 25 to 27 days at an average speed of 14 knots. The ship will slow to approximately 8 knots near land.

At Milne Inlet, the ore trucks will be side-dumped on a truck-unload-hopper and stacked via a radialconveyor-stacker into stockpiles, ranging from 500,000 to one million tonnes in size. Efforts will be made to minimize drop points on the stockpile. Other measures will be taken to reduce dusting during transport. The stockpiles will be designed with a capacity of approximately three million tonnes. All run-off will be collected and treated if necessary before released to the receiving environment.

Lump and fine ore stockpiles will be loaded onto the shiploader through mobile equipment (front-end loaders) and a conveyor. Protective side shields, aprons and other mitigation measures will be employed to prevent ore loss during ship loading. Ships will be loaded at an approximate capacity of 3,000 tonnes per hour with minimal trimming of the cargoes. It is assumed that if a one-line shiploader is used, it will operate at an average rate of 2,000 - 2,500 tonnes per hour for 20 hours per day giving a daily capacity of 40,000 to 50,000 tonnes dependent upon the ship being loaded.

One design that could be used for the dock is during the open water season use 2 flat deck barges for an approximate length of 120 metres with a floating dock barge extension. Direct loading onto ships is envisioned with conveyors with increased length to minimize length of hauls. After the shipping season has been concluded the barges will be moved to shore or to a safe designated area until the start of the following year's shipping season.

Closure:

The objective will be to reclaim Project areas to be both physically and chemically stable in the longterm for both public safety and environmental protection. Materials and equipment will either be removed from site or disposed at site, and all hazardous materials and wastes will be removed from site to licensed disposal facilities. The open pit and waste rock stockpiles will be inspected for physical stability. Roads, airstrips and development areas will be recontoured as appropriate to provide longterm stability and reduce the potential for significant erosion. Major water crossings and culverts on the Tote Road will be removed and the slopes stabilized. The closure and reclamation phase is expected to be one year, followed by a minimum of five years of post-closure environmental monitoring to verify reclamation has successfully met closure and reclamation objectives.