

BAFFINLAND IRON MINES CORPORATION

MARY RIVER PROJECT

ADDENDUM TO ABANDONMENT AND RECLAMATION PLAN IN SUPPORT OF APPLICATION FOR PRE-DEVELOPMENT WORK

APPENDIX B.12

September 2011

BAFFINLAND IRON MINES CORPORATION

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ADDENDUM TO 2011 - ABANDONMENT AND RECLAMATION PLAN

SUBMITTED AS PART OF THE

APPLICATION FOR PRE-DEVELOPMENT WORK

1. Introduction

The 2011 Abandonment and Reclamation Plan (February 2011) for the Mary River project was submitted as requirements under Baffinland's renewed Type B water license and under its Commercial Land Lease with the QIA. This addendum document outlines the activities planned for Abandonment and Reclamation (A&R) of the Pre-Development Work (PDW) closure as well as an estimate of the closure liabilities incurred up to the point of the decision to abandon and reclaim. The applicable guidelines and policies, and abandonment and reclamation objectives and criteria adopted for the PDW are the same as outlined in the existing February 2011 A&R Plan.

This addendum to the A&R Plan is submitted as part of the application for PDW for the Mary River project. The range of activities is described in the text of the application document submitted to NIRB on September 15, 2011. This addendum provides a summary of the activities and an estimate of the costs for abandonment and reclamation for the PDW activities should the project not be approved.

A decision on the Project Certificate is expected for Q3 2012. In the event of a positive decision, and the Project Certificate is granted, Baffinland will proceed immediately with the construction of the Project. In the event of an unfavorable decision, Baffinland will reassess its decision to carry on with the Mary River Project as currently defined in the DEIS. After further consultations with NIRB, and the land owners (QIA and AANDC), Baffinland will make its decision with respect to abandonment and reclamation of the PDW sites. Note that a decision to implement the A&R plan for the PDW does not mean that Baffinland would abandon its current bulk sampling and exploration program for which it holds valid authorizations, licenses and permits. Security for the existing bulk sampling and exploration project is currently held by QIA and the Crown in the form of letters of credit.

The PDW A&R plan assumes that the decision to abandon & reclaim the sites would be taken after:

- 1. the completion of PDW activities at Milne Inlet, the Mine Site and Steensby in Q1 2013
- 2. the conclusion of further consultations with both the QIA and AANDC on an appropriate path forward regarding the future development of the Mary River Project.

At the earliest, it is expected that A&R activities for the PDW would commence during the open water shipping season of 2013, and continue during the open water shipping season of 2014 and be completed by the end of the 2015 open water season.

Note that:

- The PDW undertaking related to staging of material and equipment along the railway corridor cannot effectively be undertaken until the Q1 2013, at a time when climatic conditions enable the construction of a winter road to the railway corridor staging locations. Hence, in the event of an adverse decision on the Project Certificate delivered prior to Q1 2013, no physical work would have been undertaken for staging of material and equipment along the railway corridor.
- An adverse decision on the Project as presented in the DEIS, does not mean that Baffinalnd would abandon all exploration activities for which it currently holds valid license and authorisation. Hence it is assumed that A&R work would be undertaken for the PDW activities only.

2. Pre-Development activities

The activities of the PDW and the associated impact assessment are summarized in Section 1.0 of the main text of the document and are associated with the site capture and staging of a large quantity of equipment and materials to allow for more efficient implementation of the project execution plan. This requires the opening of quarries at Milne Inlet (MI), Mary River mine site (MR) and Steensby port (SB) only for the purpose of producing sufficient aggregate for the completion of lay down areas for the staging of equipment and partial construction of fuel tank farms at Milne Inlet, Mary River and Steensby port. In addition, aggregate is required for the planned extension to the airstrip at the Mine site and blasting is required for the cut and fill reprofiling of the initial phase of the new airstrip at Steensby port.

To allow for start of construction of the rail embankment, camps and equipment must be staged at the rail construction camps using winter roads constructed during the winter of 2012 - 2013. Should an adverse decision on the Project Certificate be received by Q1 2013, this portion of the PDW will not take place.

3. Abandonment and Reclamation (A & R) activities following PDW

These activities are described in sections 2.10, 3.1, 4.12, 5.13 and 6.7 of the main document. The principal activity is the reversal of the staging of the materials and equipment, that is the removal of all the equipment and materials and reloading onto marine transport vessels and return to port of loading for return to the manufacturers or for re-sale. Infrastructure installed and operated as part of PDW activities will be decommissioned and returned to the port of loading. In addition, all equipment and remaining materials used to support quarry operations will be shipped off-site. Hazardous materials will be shipped off site to an approved disposal facility. Natural drainage will be restored and lay downs re-contoured as appropriate.

The PDW A&R implementation plan involves the following principal activities:

- 1. the cost of shipping all sealift material from Steensby and Milne to home port is estimated by assuming they are the same as shipping to Steensby / Milne
 - a. Shipping of sealift materials includes the following elements and associated stevedoring costs:

- i. dock Barge capable of withstanding between 150 tons and 250 tons of deck load
- ii. two larger deck barges with approximately 10,000 m² of deck space, these barges should be outfitted with a ramp as well as 4-spuds
- iii. one fuel storage vessel to supply the required fuel for the 75-day operation.
 - 1. Two tug boats required to tow the larger deck barges
 - 2. One tug boat to tow the Dock Barge
- 2. preparation and loading material and equipment on to the sea lift in 2013-2015, but principally in 2014
 - a. This includes marshalling and loading of all containers unloaded in 2012 sealift.
- 3. closure of 3 PDW quarries; Milne Port, Mine site, and Steensby Port
- 4. dismantling of construction camps and explosives magazines at MI, MR, SB and return to port of loading
 - a. Only exploration camps remain to support reclamation activities and further exploration programs.
- 5. dismantling of fuel tanks and lined fuel containments at Milne Port, Mine Site, and Steensby Port in 2015
 - a. The new 5 ML tanks at Milne and Mary River, which replaced the fuel bladders, would remain for exploration use. Tanks would be purged before dismantling. Any contaminated fill would be placed in land farms.
- 6. removal of water crossings and storm water pond at SB and return of natural drainage
- 7. return of natural drainage and re-profiling of new lay downs at Steensby Port in 2015 to complete final reclamation of Steensby Port in time for the 2015 sea lift
 - a. This assumes that all rehabilitation of Steensby land farm material and reclamation of land farm is complete by 2015
- 8. 2016-2018.
 - a. Annual summer post closure monitoring for three years as part of the overall A&R monitoring plan. Following removal of PDW camps and associated infrastructure this would be carried out using fixed wing aircraft support to ferry in the qualified personnel and monitoring equipment.

4. Schedule

The execution of the PDW A&R plan would be carried out from the end of Q3 2013 to the end of Q3 2015.

During the open water seasons of 2013 and 2014 most of the material and equipment brought up in 2012 would be returned to port of loading. During 2015 reclamation of quarries used for PDW would be completed and rehabilitated land farmed material would be used in reclamation. All PDW lay downs would be reclaimed and water courses returned to their natural drainage pattern. Post closure monitoring would continue during open water seasons for three years from 2016 - 2018 or until reclamation objectives approved by the authorities have been met.

5. Estimate of PDW closure costs

The A&R plan cost estimate is provided in Table 1. The costs are based on the conservative assumption that the resources required for closure will be similar to the cost estimate that is being generated for PDW execution (currently an estimate is being used since the PDW have not yet been carried out). As an example, the cost of shipping the same material back to the port of origin has been assumed to be the same as the estimate for shipping costs received from a shipping company.

Similarly the labour costs for decommissioning of the fuel farms, explosives magazines, camps and water crossings constructed as part of PDW are assumed to be the same as for the labour and equipment cost estimate for construction. This is a conservative estimate since decommissioning is less complex and labour intensive than for construction staging and therefore costs will be less. However, costs are assumed to cover reclamation. Other costs have been estimated based on the assumptions laid out in Table 1.

Table 1: Pre-development Work Abandonment & Reclamation Estimate

PDW Closure Costs			
#	Activity	Cost Estimate (\$)	Comments
ASSUMPTIONS: - Closure decision made in Q3 2013 after 2013 sea lift. - Assume that first phase of Steensby airstrip is complete. - All PDW A&R activities completed by sealift of 2015.			
1	Shipping of all sealift material from Steensby and Milne to home port	8,022,500	Estimate of shipping, landing and stevedoring costs for PDW sealift \$8,022,500. Assume this effort for removal spread over longer period from Q3 2013 to Q3 2015.
2	Preparation and loading material and equipment on to sea lift in Year 1 and Year 2	29,300,000	Estimate of \$29,300,000 for PDW staging effort. Assume this effort for removal spread over longer period from Q3 2013 to Q3 2015.
3	Camp operating costs during A&R activities	1,572,480	\$60 / person / day. Extra camp costs for A&R corresponding to labour requirements at Steensby (SB), Mary River (MR) and Milne (MI) but spread out over longer period. 208 people for 126 days = 26,208 man / day
4	Closure of 3 PDW quarries; MI, MR and SB		Included in #4
5	Dismantling of construction camps, explosives magazines, emulsion plants at MI, MR, SB and return to sealift		Included in #4
6	Dismantling of fuel tanks and lined fuel containments at MI, MR and SB		Included in #4
7	Removal of water crossings and storm water pond at SB and return of natural drainage		Included in #4
8	Return of natural drainage and reprofiling of lay downs at MI, MR and SB		Included in #4
9	Fuel barge and fuel costs	-	\$120,000 / week rental, return included. Unused fuel in tanks will be returned to barge and returned to port of loading.
10	Post closure monitoring: 3 yrs	300,000	\$100,000 / year
Sub - Total:		39,194,980	
Contingency 20%:		7,838,996	
TOTAL:		\$47,033,976	