

December 6, 2013

Jean Allen Water Management Specialist Water Resources Nunavut Regional Office PO Box 100 Igaluit, NU X0A 0H0

Dear Jean,

Re: Response to Early Comments/Questions on the Annual Security Review Documents Provided by AANDC

Thank you for your review comments submitted November 22, 2013 regarding the 2014 Work Plan and Annual Security submission by Baffinland.

We have endeavoured to respond to each comment in the table attached below. Should you have any remaining questions or clarification, please do not hesitate to contact me.

Sincerely,

Oliver Curran,

Director Sustainable Development

Cc: Murray Ball (AANDC)

Damien Cote (NWB)
David Hohnstein (NWB)
Sean Joseph (NWB)
Phyllis Beaulieu (NWB)

Stephen Williamson Bathory (QIA)

Erik Madsen (Baffinland) Jim Millard (Baffinland)

Adam Grzegorczyk (Hatch)





Baffinland Iron Mines Corporation - Mary River Project

Response to Early Comments/Questions on the Annual Security Review Documents Provided by AANDC

**Project Report** 

December 6, 2013

## **Baffinland Iron Mines Corporation Mary River Project**

DISTRIBUTION

E. Madsen

O. Curran

J. Millard

J. St. Paul-Butler

## Response to Early Comments/Questions on the Annual Security **Review Documents Provided by AANDC**

Table 1-1: Response to Comments/Questions Regarding the 2014 Work Plan

Ref #	Comment/Question	Response
1	List of proposed activities appears to be complete	N/A
2	Section 2.3 – "Infrastructure Layout at End of 2014" (pg. 9 of 19) is not very useful: drawings referenced in Appendix B do not differentiate 2014 works/infrastructure from total site development and what is already existing; Milne Port Drawing is for ERP showing ore dock and ore stockpiles and not for the "approved" project (this is not a major issue since 2014 works are described in the text elsewhere in the document. In the future it may be appropriate to ask that the Proponent provides drawings differentiating new works: this would be very useful for individuals conducting on-site inspections).	Understood. Drawings were provided to provide better context to discussion of site layout if ERP approval was granted.  Baffinland recognizes this layout is subject to ERP approval.

Table 1-2: Response to Comments/Questions Regarding the 2014 Marginal Reclamation and **Closure Security Estimate** 

Ref #	Comment/Question	Response
1	Approach and presentation used is generally	N/A
	sound	







Ref #	Comment/Question	Response
2	As in the Work Plan 2014, the Milne Port Drawings are for the ERP and do not reflect the "approved" project	Understood. Drawings were provided to provide better context to discussion of site layout if ERP approval was granted.  Baffinland recognizes this layout is subject to ERP approval.
3	The Interim Closure and Reclamation Plan (H349000-1000-07-126-0012) has not been approved yet or amended for the 2014 Work Plan. This may introduce procedural issues where it is being referenced in the 2014 Marginal Reclamation and Closure Security Estimate. While the "approved" 2014 infrastructure was addressed in the Preliminary Closure and Reclamation Plan, some aspects related to the ERP have not been addressed, specifically the ore handling facilities and the ore dock.	The Interim Closure and Reclamation Plan (H349000-1000-07-126-0012) was updated in June 2013 taking into consideration activities that would be dependent on ERP approval prior to being conducted including discussion of closure and reclamation strategies for the ore dock, ore stockpiling, and ore loading equipment (see Section 3.2.1 of the Interim Closure and Reclamation Plan). It should be noted however that in section 8.6 of the Interim Closure and Reclamation Plan it is stated that the docks and infrastructure at Milne Port will be removed and either recycled or shipped offsite to an appropriate facility for disposal. This strategy has since been updated to reflect the project closure and reclamation strategy proposed and approved for Steensby Port in the Preliminary Closure and Reclamation Plan in which all dock structures will be left intact but infrastructure will be removed. The 2014 Marginal Reclamation and Closure Security Estimate reflects this updated strategy and Baffinland recognizes that the Interim Closure and Reclamation Plan will have to be updated upon ERP approval.
4	According to the Inspection Report (August 2013), it appears as though one of the laydown areas at Milne Inlet was constructed using crushed ore (possibly left over from bulk sampling) instead of quarried rock from Q1 Quarry at Milne Inlet. The implications, if any, of this from a closure perspective have not been addressed in the security estimate. Clarification of this should be sought from the Proponent.	A ore stockpile remaining from the bulk sample was used for the construction of a laydown area at Milne Port as identified in the Inspection Report (August 2013). This stockpile was monitored for run off since the Bulk Sampling Campaign. Based on monitoring results of the stockpile and test results of the parent ore body the use of this





Ref #	Comment/Question	Response
		material in this fashion is not expected to have any additional cost implications on the security estimate. To ensure this is the case, this laydown area, as with all project facilities/components left at Milne Port in a closure scenario, would be subject to post mine closure monitoring for physical, chemical, and biological stability as described in Section 9 of the Interim Closure and Reclamation Plan (H349000-1000-07-126-0012).
		It should be noted however the cost for reclaiming a stockpile at Milne Port is still included in The Carry Over to Type A Closure Cost as described in 2013 Work Plan Marginal Closure Cost Summary (H349000-1000-07-245-0001) in the case ERP would be approved and ore will be hauled along the Tote Road and stockpiled at Milne Inlet. Specifically, the cost is listed as \$182,256.
5	On page C-2, paragraph 1 the Proponent states "To best estimate the total closure and reclamation security, some actions were modified or adapted to the strategies defined in the Preliminary Mine Closure and Reclamation Plan (February, 2012)." No further details are provided. Specifically what actions were modified or adapted?	This statement was included to indicate that in the 2014 Marginal Reclamation and Closure Security Estimate project specific unit costs were used whenever possible. However, when project specific unit costs are unknown, pre-determined RECLAIM 'unit' costs based on defined actions associated to reclaim the project component are used. The use of RECLAIM 'unit' costs based on defined actions was a more prevalent methodology used to establish the reclamation and closure security estimate in the Preliminary Mine Closure and Reclamation Plan (February, 2012). Baffinland recognizes this statement may be redundant as this is stated more clearly on page C-3, paragraph 3. For specific case where RECLAIM unit costs based on defined actions was used, see Appendix C and Appendix E of the 2014 Marginal





Ref #	Comment/Question	Response
		Reclamation and Closure Security Estimate.
6	On page C-7, Section C.2.5.1 Rock Pile Assumptions it is stated that the approximate footprint of the Milne Inlet Stockpile is 68,500 m2 as described in the 2013 Work Plan Marginal Closure Cost Summary (H349000-1000-07-245-0001). However in Figure B4 (page B-4) an allowance for Ore Stockpile pad contouring at Milne Port of 235,241 m2 is listed. What is the reason for the discrepancy in the cited areas? Does this address the issue of the laydown area constructed of crushed ore noted above?	2014 Marginal Reclamation and Closure Security Estimate includes a cost for reclaiming the proposed ore stockpile pads, not any actual stockpiles. The previous stockpile at Milne Port is addressed in the Carry Over to Type A Closure Cost as described in 2013 Work Plan Marginal Closure Cost Summary (H349000-1000-07-245-0001). A total area of the ore stockpile pad contouring at Milne Port is 235,241 m2, with a proposed associated cost of \$616,167.
7	In each of Figures B3, B4 and B5 (pages. B-3 to B-5) a large "Credit for 2013 Break Basement Slabs" has been applied. What is the reason for 2014 basement slab footprint estimates to be much lower than 2013 estimates? For example, in Section C.2.6.4 Objective: Break Basement Slabs at Mine Site the sum of the cited footprints is equal to 6,875 m2 while the total footprint considered in the 2013 Marginal Cost was significantly higher at 13,577 m2.	In the 2013 Work Plan Marginal Closure Cost Summary, it was assumed any building which had any type of foundation would be subject to the 'Break Basement Slabs' unit cost as the level of detail to differentiate foundation types was not available at the time of estimate. For 2014 Marginal Reclamation and Closure Security Estimate, project definition has increased and the type of foundation for each building was available. Based on this available information, only buildings with precast piers and precast footing types of foundation were applied the 'Break Basement Slabs' unit cost. This cost difference is essentially the result of the strategy to apply as a credit the cost of breaking basement slabs for all buildings identified as being constructed with a foundation in 2013 in return for applying a reclamation cost of all building with precast piers and precast footing type of foundation in 2014 as reflected in the Master Building Matrix which is inclusive of all building on-site regardless of construction date. This strategy was chosen to simplify the estimate process due to the major revisions in the Master Building Matrix.
8	On page C-13 under sub-heading Disposal Mobile Equipment it is stated that "based on the	The 2014 Marginal Reclamation and Closure Security Estimate was developed under the





Ref #	Comment/Question	Response
	Mechanical Equipment and Motors List (H349000-1000-50-144-0001), 372 pieces of mechanical equipment (from 2013 and 2014) will be onsite upon completion of the 2014 Work Plan project-wide. It is assumed all the mechanical equipment listed on the Mechanical Equipment and Motors List will be disposed onsite (exact disposal location to be determined)." In the Preliminary Mine Closure and Reclamation Plan (February. 2012), page 29, Section 8.4 Removal of Machinery, Equipment, and Storage Tanks it states "Salvageable machinery, equipment and other materials will be dismantled and taken offsite for sale or reuse if economically feasible; if not, they will be cleaned of oil and grease, where appropriate, and deposited within onsite landfills or the open pit. Gearboxes or other equipment containing Baffinland Iron Mines Corporation – Mary River Project hydrocarbons that cannot readily be cleaned will be removed and sent to either Milne Port or Steensby Port for sea-lift to an approved disposal facility." The Proponent is asked to clarify whether their assumed disposal of the 372 pieces of mechanical equipment on-site is consistent with what is stated in their Preliminary Mine Closure and Reclamation Plan and whether appropriate security has been set aside to sealift a portion of this equipment for	assumptions that salvage value of equipment cannot be claimed and 3 <sup>rd</sup> Party contractors would be responsible for the execution of reclamation work. Based on this, it was assumed that all mechanical equipment listed on Mechanical Equipment and Motors List (H349000-1000-50-144-0001) would be disposed of on-site. This assumption was chosen because it would be the most economically efficient disposal method of the stated options in the approved Preliminary Mine Closure and Reclamation Plan for a 3 <sup>rd</sup> Party Contractor if salvage could not be claimed. In practice, Baffinland will endeavour to salvage machinery, equipment and other materials, if economically feasible, in a closure scenario.
9	sale, reuse or recycling off-site.  In Figure B8 (page B-8) a large \$3M credit has been applied for the 2013 Sealift which translates to an overall reduction in the security estimate. This seems to be largely attributed to the issue noted above concerning the ultimate disposal of the mobile equipment on-site (in the mine pit?) and not shipping it off-site. It is not clear whether this on-site disposal approach was properly vetted during the approvals process.	Disposal of decontaminated mobile/mechanical equipment on-site was stated as an option in the Preliminary Mine Closure and Reclamation Plan which was approved under Project Certificate #005. Specifically the Preliminary Mine Closure and Reclamation Plan (February, 2012), page 28, Section 8.4 under Removal of Machinery, Equipment, and Storage Tanks states "Salvageable machinery, equipment and other materials will be dismantled and taken offsite for sale or reuse if economically feasible; if not, they will be cleaned of oil and





Ref #	Comment/Question	Response
		grease, where appropriate, and deposited within onsite landfills or the open pit".
10	On page C-1, Section C.1 states that all work described in the 2014 Work Plan will not be completed in 2014; that the cost as presented only covers the cost of reclamation of activities scheduled to occur in 2014; and that activities that extend into 2015 are not considered to apply for 2014. The limitation to work within the calendar year of 2014 does not align with the period for the work plan or for the security review which runs to the end of the first quarter of 2015. If the security review only covers to December 31, 2014, and the next year's security would not take effect until the end of March, 2015, Baffinland would not be able to conduct additional work in January through March of 2015 because the licence prohibits work not covered by security. Please clarify your understanding of the security review period and how that fits with the work plan.	Baffinland would like to clarify that the 2014 Marginal Reclamation and Closure Security Estimate covers all work described in the 2014 Work Plan including any work scheduled in 2015.
11	On page C-16, Section C.2.6.12 Landfill for Demolition Waste at Milne Port – it is stated that the estimate considers the cost to cover demolition waste at Milne Port (location to be determined). Given that no landfill is proposed at Milne Port (as indicated in the heading) what locations are being considered for disposal at Milne Port?	Specific disposal locations of demolition waste are under investigation but no specific locations have finalized.