

Items to be addressed as Identified in NWB's Conformity Review of the Type "A" Water Licence Application (Appendix 3B) of Baffinland Iron Mines Corporation's FEIS

Appendix 1B-3

Appendix 1B-5

Appendix 1B-7

**Table 1**: Items to be addressed as Identified in NWB's Conformity Review of the Type "A" Water Licence Application (Appendix 3B) of Baffinland Iron Mines Corporation's FEIS

Site	Drawing Title	Drawing Number	NWB Comments			
Railway	Ravn River Camp	H337697-7000-10-014-0003	This drawing was referenced under Block 13 of the Water Licence Application Form; however, it seems to be missing from or mislabeled under Attachment 9 (Railway Drawings)			
	Mid Rail Camp	H337697-7000-10-014-0004	This drawing was referenced under Block 13 of the Water Licence Application Form; however, it seems to be missing from or mislabeled under Attachment 9 (Railway Drawings)			
	South Cockburn Camp	H337697-7000-10-014-0005	This drawing was referenced under Block 13 of the Water Licence Application Form; however, it seems to be missing from or mislabeled under Attachment 9 (Railway Drawings)			
	North Cockburn Camp	H337697-7000-10-014-0008	This drawing was referenced under Block 13 of the Water Licence Application Form; however, it seems to be missing from Attachment 9 (Railway Drawings)			
Steensby	Steensby Inlet Construction Work Site Layout	H337697-7000-10-014-1006	This drawing was referred to on the summary sheet containing the list of drawings for Steensby Port; however, it seems to be missing from or mislabeled under Attachment 9			
	Steensby Inlet Quarry Site Layout	H3337697-7000-10-014-1112	A stamped copy of the drawing was not seen in the appropriate management plan and/or under the list of drawings provided under Attachment 9			
Milne Inlet	Milne Inlet Quarry Site Layout	H3337697-7000-10-014-1110	A stamped copy of the drawing was not seen in the appropriate management plan and/or under the list of drawings provided under Attachment 9			
Mary River Mine site	Mine Site Quarry Site Layout	H3337697-7000-10-014-1111	A stamped copy of the drawing was not seen in the appropriate management plan and/or under the list of drawings provided under Attachment 9			
Miscellaneous (Drawings/Plans / Reports)	Quarry Operations and Management Plans for Quarry Q7-500, Q133-500, and Q77-200	The drawing numbers are not legible	Stamped copies of these drawings were not seen under the relevant management plans and under attachment 9. Also each of the drawings provided in the relevant plans need to be more legible			
	Water Crossing Summary Sheets from Dillon Consulting (Attachment7)	E337697-2000-07-124-0001, E337697-2000- 07-124-0002, E337697-2000-07-124-0003, E337697-2000-07-124-0004, E337697-2000- 07-124-0005, E337697-2000-07-124-0006, E337697-2000-07-124-0007, E337697-2000- 07-124-0008,	Stamped copies of the design specifications for water crossings were not seen under Attachment 7 of the submission (Water Crossing)			
	Slope Stability Analysis for the Waste Rock Dump	H337697-4210-40-124-0001	An explanation should be provided as to why this document is not stamped			



Inadequate Information or Incorrect Referencing or Clarification Required



Information is absent or could not be found in the reference(s) provided

Inadequate Information or Incorrect Referencing or Clarification Required Information is absent or could not be found in the reference(s) provided

			Indicate whether					NWB's Determination	
Section Title	Section No.	Information Requirement	Information Requirement is applicable by inserting 'Y' or 'NA'	If 'NA' provide justification	Insert <u>Title</u> , <u>Author</u> and <u>Date of Document</u> where information is provided	Insert electronic file name of document where information is provided	Insert Section of document where information is provided	Conforms to NWB -MM3 Guidelines (Yes) or (No)	Comments
Minimum Application Requirements (Work sheet 2.0: Minimum Requirements)	7	A table indicating concordance of the application and supporting documents to the Guidelines. These generic Guidelines are provided in excel as a tool for applicants to provide the necessary concordance table.	Y	_	Mary River Project Environmental Impact Statement, Baffinland Iron Mines Corporation, February 2012	In Volume 1: Appendix 1C EIS Master Table of Contents.pdf	Volume 1, Appendix 1C-2.	Yes	Clarifications is required for this item as it might be referring to the information contained in appendix 1B-3 as instead of 1C-2.
Water Use: Quality and Quantity (Worksheet 3.0: General Water)	14a	The source of water including the name of the water body and the location of the water source as shown on a map;	Y	_	Type A Water Licence Application, Hatch, February 2012	Attachment 1: 001 - Type A Application Form.pdf; In Volume 3, Appendix 3B, Attachment 5: 006 - Fresh Water Supply, Sewage and Wastewater Management	Volume 3, Appendix 3B, Attachment 1- Block 13; Attachment 5 - Fresh Water, Sewage and Waste Water Management Plan	Yes	The locations of primary potable water sources are depicted on the maps referenced in Block 13; drawing number H337697-7000-10-014-0008 (North Cockburn Camp) seems to be missing
Description of Undertaking (Worksheet 4.0 Project Description)	2c	Description of any existing mine shafts or openings.	Y	_	Mary River Project Final Environmental Impact Statement, Baffinland Iron Mines Corporation, February 2012	Volume 3.pdf	Volume 3, Section 3.0	No	The shaft being referred to seems to apply to ships as opposed to the mine
Water Use: Quality and Quantity Water Intake (Worksheet 6.0: Water Use)	2	Provide the name of the primary water source as well as the name of any alternative water source(s).	Y	_	Mary River Project Final Environmental Impact Statement, Baffinland Iron Mines Corporation, February 2012;  Type A Water Licence Application, Hatch, February 2012	Volume 3.pdf; In Volume 3, Appendix 3B, Attachment 5: 006 - Fresh Water Supply, Sewage and Wastewater Management Plan.pdf,	Volume 3, Sections 2.0 and 3.0 Volume 3, Figures 3-1.1 to Figure 3- 2.9, Appendix 3B, Attachment 5 - Fresh Water Supply, Sewage and waste water Management Plan, Environmental Monitoring Plan	Yes	The names of primary water sources are provided, information on the names and location of alternative water sources were not provided
Water Use: Quality and Quantity Water Intake (Worksheet 6.0: Water Use)	15	Indicate the quantities of water required for ice road construction and provide a description of the methods of ice road construction.	Y	_	Mary River Project Final Environmental Impact Statement, Baffinland Iron Mines Corporation, February 2012	I V olumo 3 ndt	Volume 3, Section 2.5.1	No	The amount of water required for the construction of ice roads were not provided
Water works (worksheet 6.0: Water Use)	30n	Operation and maintenance plans including instrumentation, monitoring and inspection requirements.	Y	_	Type A Water Licence Application, Hatch, February 2012	see folder in Volume 3, Appendix 3B: 09. Attachment 7 - Water Crossings	Volume 3, Appendix 3B, Attachment 7, Water Crossing Summary Sheets,Exsisting Conditions at crossing site	Yes	References should be provided for all Operation and Maintenance Plans applying to all to water works not only water crossings
Water Works (worksheet 6.0: Water Use)	300	Contingency plans.	NA	_	_	_	_	Yes	A spill contingency plan was provided; the reference to that plan should be provided
Predicted Environmental Effects and Proposed Mitigation Measures (Worksheet 7.0: Watste Disposal)	13	Provide a discussion of the consequences of long-term stratification in any pit lakes and associated contingency plans.	Y	_	Mary River Project Final Environmental Impact Statement, Baffinland Iron Mines Corporation, February 2012;  Type A Water Licence Application, Hatch, February 2012	Volume 3.pdf; In Volume 3, Appendix 3B, Attachment 10: 002-Preliminary Mine Closure and Reclamation Plan.pdf	Volume 3, Section 4.0 Appendix 3B, Attachment 10 - Preliminary Mine Closure and Reclamation Plan	No	No information on stratification in the sections referenced
Studies (Wookbook 7: Waste Disposal)	24h	Incineration management;	Y	_	Type A Water Licence Application, Hatch, February 2012	Attachment 5: 007 - Waste Management Plan for Construction, Operation and	Volume 3, Appendix 3B, Attachment 5 - Waste Management Plan (Annex 3)	Yes	An explanation should be provided as to why the Incinerator Operation Information is a sample draft

Inadequate Information or Incorrect Referencing or Clarification Required Information is absent or could not be found in the reference(s) provided

Commitment #	Commitment	FEIS Section	NWB's I	Determination
	DEIS Organization, Alternatives Assessmen	nt	Recommendations Addressed	Comments
30	Adaptive management will be applied to address unforeseen risks. For foreseeable risks, every effort will be made to identify ahead of time, and apply appropriate mitigation and monitoring measures.	Vol 10, Sec 2.5.7 & Sec 11.0 Vol 10, App 10D-10, Sec 8.1.4	Yes	Section 2.5.7 does not exist; relevant information is found under the other sections referenced
108	As part of detailed design, thermal modeling will be conducted to determine whether the proposed berm design would maintain a permafrost barrier and prevent shallow subsurface seepage to the surrounding environment.	Vol 3, App 3B, Attachment 4 - Site Specific Documents - Mary River - Waste Rock Design Criteria - Section 3.6; and Attachment 5 - Waste Rock Management Plan	Yes	Sections other than 3.6 of the design criteria do contain the information; Attachment 5 also contains relevant information
117	Provide the long-term closure and post-closure stability of the pit walls especially with regard to the presence of the pit lake and its impact on stability.	Vol 3, App 3B, Attachment 4 - Site Specific Documents - Mary River - Slope Stability Analysis Report Section 8 - Stability of Mine Pit Wall Adjacent to Waste Rock Dump and Section 9 - Conclusions and Recommendations	Yes	Information relevant to addressing this recommendation is provided; however, "Conclusions and Recommendations" are under Section 10 rather than Section 9
118	Provide further analysis showing that the design of the pit is stable and that the vicinity of the waste rock pile to the pit has been taken into account.	Vol 3, App 3B, Attachment 4 - Site Specific Documents - Mary River - Slope Stability Analysis Report Sec 8.0 - Stability of Mine Pit Wall Adjacent to Waste Rock Dump and Sec 9 - Conclusions and Recommendations	Yes	Information relevant to addressing this recommendation is provided; however, "Conclusions and Recommendations" are under Section 10 rather than section 9
128	Provide an analysis and discussion to support the proposed side slope design criteria for borrow pits.	Vol 3, App 3B, Attachment 6 - Borrow Pit and Quarry Management Plan - section 4.3 and in Section 4.1 of each of the individual Quarry Management and Operations Plan (for Steensby, Milne, Mary River, Q7, Q77 and Q133)	Yes	The Borrow Pit and Quarry Management Plan does not contain Section 4.3; the other referencing provided does contain the relevant information
219	The waste rock management plan will discuss alternatives to encapsulation for treating effluents from waste rock.	Vol 10, Sec 7.2.4.1; Vol 3, App 3B, Attachment 5 - Waste Rock Management Plan	Yes	Volume 10, Section 7.2.4.1 does not exist; Section 7.2.2 contains relevant information
220	Waste rock characterisation will be an ongoing program for the life of the Project.	Vol 10, Sec 7.2.4.1	Yes	Volume 10, Section 7.2.4.1 does not exist; 7.2.2.4 contains relevant information
221	A detailed waste rock characterisation and monitoring program will be presented in the FEIS.	Vol 10, Sec 7.2.4.1; Vol 3, App 3B, Attachment 5 - Waste Rock Management Plan	Yes	Volume 10, Section 7.2.4.1 does not exist; other sections referenced contain relevant information
222	As-built site drainage plans will be incorporated into a future surface water management plan, once constructed.	Vol 10, Sec 7.4.2.2	No	This section does not exist in Volume 10
246	A protocol for executing ARD/ML testing as part of quarry development will be included in an updated Borrow Pit and Quarry Management Plan in the FEIS.	Vol 10, Sec 8.2.3; Vol 3, App 3B, Attachment 6 - Borrow Pit and Quarry Management Plan, App B: Acid Rock Drainage Testing Protocol	Yes	Volume 10, Section 8.2.3 does not exist in the plan; the other sections referenced do contain relevant information
330	This ties in with # 244. An enhanced description of waste rock runoff treatment alternatives will be presented in the FEIS.	Vol 10, Sec 7.2.4.4; Vol 3, App 3B, Attachment 5 - Waste Rock Management Plan, Sec 3.8.5	Yes	Volume 10, Section 7.2.4.4 does not exist in the plan; the other sections referenced contain relevant information
332	Enhance the description of the railway management plan, including scheduling of trains, emergency equipment at sites and the specifications of tank cars that are designed to withstand the impact of derailment.	Vol 10, Sec 7.2.5; App 10D-9 Railway Management Plan, Sec 4.0	Yes	Relevant information is provided; the Rail Management Plan, however, is in draft form
345	s) Re-examine the list of parameters to be monitored to include any constituents that potentially could be released (based on what is used and disposed of on-site) and all potential sources of effluents.	Vol 3, App 3B, Attachment 10, Table 8-1	Yes	Table 8-1 was not seen in Attachment 10; Table 9-1 seems to contain the relevant information
347	Stability of the waste rock pile and pit wall will be addressed in the FEIS.	Vol 3, App 3B, Attachment 10, Sec 8.1	Yes	Attachment 10, Section 8.2 rather than Section 8.1 contains the relevant information; Sec. 8.1 contains information on "Health and safety of Workers and the Public"

Inadequate Information or Incorrect Referencing or Clarification Required
Information is absent or could not be found in the reference(s) provided

Item		FEIS Section	N	NWB's Determination		
Type A Water Lice		ense	Comments and/or Recommendations Addressed	Comments		
19	Information on the characteristics, name, location, and type of alternative water sources	Refer to Block Flow Diagrams for each site in Vol 3, App 3B, Attachment 9 - Steensby - DWG H337697-4510-014-1107; Mine Site - DWG H337697-4210-10-002-0001 & Milne Site - DWG H337697-7000-10-002-0001	No	Steensby - DWG H337697-4510-014-1107 is not contained under Attachment 9; The Mine Site -DWG H337697-4210-10-002-0001, shows the Mine Site Water Balance Block Flow Chart and the Milne Site-DWG H337697-7000-10-002-0001, shows Milne Inlet Block Flow Diagram Water Balance		
51	Actual copies of the Material Safety Data Sheets (MSDS) for all hazardous substances stored on site should be included in the Plan.	Vol 3, App 3B, Attachment 5 - Hazardous Waste Managment Plan, Annex 1	Yes	The information is provided under Annex A; Annex 1 does not exist in the document referenced		
52		Vol 3, App 3B, Attachment 5 - Hazardous Waste Managment Plan, Annex 8	No	Annex 8 Seems to be missing from the document referenced		
56	Section 5.1, Pg. 11, states that copies of the relevant MSDS are provided in Annex 8; however, Annex 8 appears to be absent from the document.	Vol 3, App 3B, Attachment 5 - Oil Pollution Emergency Plan: Milne Inlet Fuel Storage Facility (H337697-0000-07-126-0009), Annex 8	Yes	Annex 8 does not refer to MSDS; instead it refers to "Standard Operating Guideline (SOG), Emergency Response Code 1 Situations, Milne Inlet."		
64	Section 5.1, Pg. 16, states that copies of the MSDS for substances stored on site are provided in Annex 8; however, Annex 8 appears to be absent from the document.	Vol 3, App 3B, Attachment 5 - Hazardous Materials and Hazardous Waste Management Plan (H337697-0000-07-126-0002), Annex 1	Yes	The reference provided seems to be referring to Annex A instead of Annex 1; Annex 1 does not exist in the document. Relevant information is provided under Annex A		
66	such as, level sensors and backflow prevention	Vol 3, App 3B, Attachment 5 - Hazardous Materials and Hazardous Waste Management Plan (H337697-0000-07-126-0002), Section 7.3	No	Attachment 5, Section 7.3 does not exist		
68	Section 7.1, Pg. 29-30, contains two subsections, 1.1.1 – Training Content and 1.1.2 – Short -Notice Training, which appear to be improperly labeled.	Vol 3, App 3B, Attachment 5 - Oil Pollution Emergency Plan: Steensby Inlet Fuel Storage Facility (H337697-0000-07-126-0010), Section 7.1	No	This appears to be 6.1 as opposed to 7.1; section 7.1 does not exist in the document		
70	It is recommended that the appendices, Annexes 1 to 10, be included in the Plan.	Vol 3, App 3B, Attachment 5 - Oil Pollution Emergency Plan: Steensby Inlet Fuel Storage Facility (H337697-0000-07-126-0010), Annexes 1 - 9	Yes?	Annex 9 might be referring to Annex 8; there is no Annex 9 in the document. Relevant information is provided under Annex 8		
72	both plans. Even though there is the recognition	Vol 3, App 3B, Attachment 5 - Oil Pollution Emergency Plan: Steensby Inlet Fuel Storage Facility (H337697-0000-07-126-0010), Section 2.3	No	Section 2.3 does not exist in the plan		
80	and/or proposed Explosive Management Facilities should be included in the	Vol 3, App 3B, Attachment 9 - Steensby Port Drawings-Steensby Inlet Construction Works Site Layout (H337697-7000-10-014-1006) and Mary River Drawings - Mary River Mine Site Construction Works Site Layout (H337607-7000- 10-014-1002)	No	The drawings referenced were not found		
91	Section 3.5, Pg. 11, states that ore will be stored in a Run-of-Mine (ROM) stockpile located near the crusher and that following crushing and screening, four temporary ore stockpiles will be used for storing crushed and screened ore. Other than stating that the drainage will be controlled there is insufficient information pertaining to how the ore storage and associated drainage areas will be constructed.	Vol 3, App 3B, Attachment 5 - Wasterock Management Plan (H337697-0000-07-126- 0012), Section 3.6.2	No	Section 3.6.2 does not exist in the Plan		
112	Information on the externality effects of the project on municipal water and waste disposal facilities in communities proximal to the project area; and	Vol 4, Sec 7.4.2	Yes	Information relevant to addressing this recommendation is provided in a sort of holistic way but not specifically applicable to municipal water and waste		