APPENDIX C3
WATER LICENSE APPLICATION

P.O. BOX 119
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NUNAVUT IMALIRIYIN KATIMAYINGI
NUNAVUT WATER BOARD
OFFICE DES EAUX DU NUNAVUT

WATER LICENCE
APPLICATION FORM

Application for: (check one)

☒ **New** ☐ **Renewal** ☐ **Amendment** ☐ **Assignment** ☐ **Cancellation**

LICENCE NO:
(for NWB use only)

1. NAME AND MAILING ADDRESS OF APPLICANT/LICENSEE

Baffinland Iron Mines Corporation
Suite 1016, 120 Adelaide Street West
Toronto, Ontario M5H 1T1

Phone: (416) 814-3171
Fax: (416) 844-0903
e-mail: derek.chubb@baffinland.com

2. ADDRESS OF CORPORATE OFFICE IN CANADA (if applicable)

Same as left

Phone: _____
Fax: _____
e-mail: _____

3. LOCATION OF UNDERTAKING (describe and attach a topographical map, indicating the main components of the Undertaking)

Existing camps (Milne Inlet, Mary River, Rail and Steensby Inlet Camps) have been established through the current water license (#2BB-MRY0710). Upgrades to the existing Mary River and Steensby Inlet Camps are proposed, as well as the establishment of 4 new construction camps. Refer to the Executive Summary and Figure 1.2 of the Development Proposal for further details.

Latitude: (71°19'35" N) Longitude: (79°22'43" W)
NTS Map Sheet No. 37F, 37G, 47H Scale: 1:250,000 Other camps or main components? Milne Inlet Camp Latitude: (71° 53' 18" N), Longitude: (80° 54' 21" W); Mary River Camp Latitude: (71° 19' 35" N), Longitude: (79° 22' 43" W); Rail Construction Camp #1 Latitude: (70° 56' 52.5" N), Longitude: (78° 16' 50" W); Rail Construction Camp #2 Latitude: (70 ° 34' 35.9"N), Longitude: (78 ° 10' 1.15" W); Rail Construction Alternative Camp #2 Latitude: (70° 33' 44.5" N), Longitude: (78° 19' 5.8" W); Bridge #1 Camp Latitude: (71° 7' 21.5" N), Longitude: (78° 26' 51.1" W); Bridge #2 Camp Latitude: (70° 39' 2.3" N), Longitude: (78° 5' 6.7" W); Alternative Bridge #2 Camp (70° 38' 32.1" N), Longitude: (78° 3' 42.9" W); Steensby Camp Latitude: (70°17'38" N),Longitude: (78° 29'13" W)

4. DESCRIPTION OF UNDERTAKING (attach plans and drawings)
Mining - Refer to Sections 2, 3 and 4 of the Development Proposal

5. TYPE OF PRIMARY UNDERTAKING (A supplementary questionnaire **must** be submitted with the application for undertakings listed in **"bold"**)

☐ **Industrial**
☒ **Mining and Milling**(includes exploration/drilling)
☐ **Municipal** (includes camps/lodges)
☐ Power
☐ Agricultural
☐ **Conservation**
☐ Recreational
☐ **Miscellaneous** (describe below):

See Schedule II of *Northwest Territories Waters Regulations* for Description of Undertakings

6. WATER USE

☒ To obtain water
☒ To cross a watercourse
☒ To modify the bed or bank of a watercourse
☐ Flood control
☒ To divert a watercourse
☐ To alter the flow of , or store, water

☐ Other (describe):
Refer to Sections 3.0 and 4.0 of the Development Proposal

7. QUANTITY OF WATER INVOLVED (cubic metres per day including both quantity to be used and quality to be returned to source)

Water use
☐ $100m^3$/day or less
☒ Greater than $100m^3$/day; if greater, indicate quantities to be used for each purpose (camp, drilling, etc.)

To support mine construction, and in addition to the current permitted use of water under an existing license for camp operations and exploration/geotechnical drilling the primary uses of water will be for (1) Camp Operations and (2) Civil Support and other uses. Camp Operations will require water from adjacent lakes for potable and camp fire suppression systems for camps located at the mine site (new construction camps) and up to 4 construction camps along the railway. Water for civil support consists of trucked water supply from various sources to aid in the construction of roads and airstrips (packing) and for dust control as required. Water use for these purposes is seasonal in need. Water will also be required at both Steensby Inlet and the mine site at batch concrete mixing plants. With an on-site workforce during construction estimated at approximately 1760 people (not including personnel for on-going exploration, geotechnical drilling and environmental programs) and an estimated 6 water trucks, water demand during construction may peak at over 3,000 m3/d. The water draw from any one source is modest in comparison to this cumulative total. This volume of water is calculated on a simple assumption of peak water use should all 6 water trucks be operating on a 24 hour basis.

During the operations phase, the water demand will significantly decline from that required for constructions. Water will be required to support Camp operations with an estimated personnel of approximately 450 persons; and water for other uses will be required only for dust control at the mine site and at the Steensby port site during certain periods of the year. Ancillary water may still be required for other purposes, but this will be modest. Not including drilling for on-going exploration programs, water demand during operations will be the order 500 m3/d; where 80% of this is an allowance for trucked demand for other uses.

The above estimates are provided for the purposes of expressing order of magnitude water needs during construction and operations. Refinement and allocation for the purposes of licensing will be discussed through the course of the environmental assessment and permitting phases of the project approval process.

As ore preparation consists of only crushing and screening, process water is not required.

Water returned to source
0 m^3/day

8. WASTE (for each type of waste describe: composition, quantity (cubic metres per day), methods of treatment and disposal, etc.)

☒ Sewage
☒ Solid Waste
☒ Hazardous
☒ Bulky Items/Scrap Metal
☒ Waste oil
☒ Greywater
☐ Sludges
☐ Other describe):

Refer to Sections 2, 3 and 4 of the Development Proposal

9. OTHER PERSONS OR PROPERTIES AFFECTED BY THIS UNDERTAKING (give name, mailing address and location; attach if necessary)

Land Use Permit

DIAND	☒ Yes	☐ No	If no, date expected _____
Regional Inuit Association	☒ Yes	☐ No	If no, date expected _____
Commissioner	☐ Yes	☒ No	If no, date expected N/A

10. PREDICTED ENVIRONMENTAL IMPACTS OF UNDERTAKING AND PROPOSED MITIGATION MEASURES (direct, indirect, cumulative impacts, etc.)

To be addressed in a future Environmental Impact Statement

NIRB Screening ☐ Yes ☒ No If no, date expected _____

11. INUIT WATER RIGHTS

Will the project or activity substantially affect the quality, quantity, or flow of water flowing through Inuit Owned Lands and the rights of Inuit under Article 20 of the Nunavut Land Claims Agreement?

This will be addressed in a future Environmental Impact Statement

If yes, has the applicant entered into an agreement with the Designated Inuit organization to pay compensation for any loss or damage that may be caused by the alteration. If no compensation agreement has been made, how will compensation be determined?

If required, this will be negotiated with the Qikiqtani Inuit Association as part of an IIBA. Baffinland and the QIA initiated discussions towards and IIBA in 2006. The need for a Compensation Agreement will be discussed in a future Environmental Impact Statement.

12. CONTRACTORS AND SUB-CONTRACTORS (name, address and functions)

Refer to Section 1.4 of the Development Proposal

13. STUDIES UNDERTAKEN TO DATE (list and attach copies of studies, reports, research, etc.)

Refer to Section 6 of the Development Proposal.

14. THE FOLLOWING DOCUMENTS MUST BE INCLUDED WITH THE APPLICATION FOR THE REGULATORY PROCESS TO BEGIN

Supplementary Questionnaire (where applicable: see section 5)	☒ Yes	☐ No	If no, date expected _____
Inuktitut and/or Inuinnaqtun/English Summary of Project	☒ Yes	☐ No	If no, date expected _____
Application fee of $30.00 (Payee Receiver General for Canada)	☒ Yes	☐ No	If no, date expected _____

Water Use fee of $30.00 (unless otherwise indicated in Section 9 of the *NWT Waters Regulations;* Payee Receiver

General for Canada)

☒ Yes ☐ No If no, date expected _____

15. PROPOSED TIME SCHEDULE (unless otherwise indicated, the NWB will consider the application for a five (5) year term)

☐ one year or less (or) ☒ Multi Year

Start Date: _____ Completion Date: December 31, 2043 -

The current schedule is based on a construction start date of 2010, immediately upon receipt of a Project Certificate and requisite licenses and permits. A minimum five (5) year license is required for the construction phase; the proposed Project has an operating mine life of about 21 years, with subsequent mine closure, reclamation and post-closure monitoring covering a period of approximately 8 years. As part of the water licensing process, Baffinland requests discussion as to the merits of staged licensing.

Derek Chubb	Vice President, Sustainable Development		March 15, 2008
Name (Print)	Title (Print)	Signature	Date

For Nunavut Water Board office use only

APPLICATION FEE **Amount: $_____** **Pay ID No.: _____**

WATER USE DEPOSIT **Amount: $_____** **Pay ID No.: _____**

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NUNAVUT WATER BOARD
NUNAVUT IMALIRIYIN KATIMAYINGI

Water Licence Application
Supplementary Questionnaire
for Mine Development

SECTION 1 :

GENERAL

1. Applicant Baffinland Iron Mines Corporation
(Company, corporation, owner)

Suite 1016, 120 Adelaide Street West, Toronto, Ontario, M5H 1T1
(Postal address)

416-814-3171 416-844-0903
(Telephone number) (Fax)

derek.chubb@baffinland.com
(E-Mail)

Corporate Address (if different from above):

Same as above
(Corporate Office address)

(Telephone number) (Fax)

(E-Mail)

Project Name Mary River Project

Location Northern Baffin Island

Closest Community Pond Inlet

Latitude/Longitude 71° 19’ 35”/79° 22’ 43” (Mary River Camp)
Show the location of the project on a general location map (eg: 1:1,000,000)

2. Environmental Manager Derek Chubb 416-814-3171
(Name) (Telephone No.)

or Project Manager Rod Cooper 416-364-0193
(Vice President and Chief Operating Officer)

3. Indicate the status of the mine or mill on the date of application. (Check the appropriate space.) Indicate schedule or time table of project activities.

Design	X
Under construction	
In operation	
Suspended	
Care and Maintenance	
Abandoned	

4. If a change in the status of the mine or mill is expected, indicate the nature and anticipated date of such change.

Refer to Section 1 of the Development Proposal

5. Indicate the proposed schedule for the Mine/Mill operating schedule.

Hours per week	
Days per week	
Weeks per year	
Number of employees	
Number of Inuit employees	

Refer to Section 5 of the Development Proposal

6. How will the project effect the traditional uses on Inuit Owned Lands?

Refer to Sections 2, 3 and 4 of the Development Proposal for a description of proposed activities and Section 6 for a brief description of traditional land uses. A detailed description of land use and effects will be addressed in a future Environmental Impact Statement (EIS).

7. Have the Elders been consulted on effects to the traditional use on Inuit Owned Land? If so, list them. If not, why not?

Refer to Section 6 of the Development Proposal for a record of consultation.

8. Has the proponent consulted Inuit Organization in the Area? If so, list them.

The Qikiqtani Inuit Association is actively involved in the Project.

9. Has the proponent consulted surrounding communities on traditional water use areas? If so, list them. If not, why not?

Yes. Inuit knowledge studies are underway collecting this information, which will be described in a future EIS.

10. Attach a detailed location map (1:50,000) drawn to scale showing all on site and off site facilities and activities. Show the relative locations of the (proposed) locations of the mine, mill, water treatment facilities, sewage and solid waste facilities, and tailings containment areas. The plan should include the water intake and pumphouse, fuel and chemical storage facilities, any existing or proposed concentrate, ore and waste rock stroage piles, any existing and proposed drainage controls, piping distribution systems, gas, electric and water utility route locations, and transportation access routes around the site. The map also should include elevation contours, water bodies and an indication of drainage patterns for the area.

Refer to Figures 1.1 and 1.2 in the Development Proposal for location maps. Figures in Section 3 show site layouts during construction, and figures in Section 4 show operation phase layouts.

11. If applicable, provide a brief history of property development which took place before the present company gained control of the site. Include shafts, adits, mills (give rated capacity, etc.) waste dumps, chemical storage areas, tailings disposal areas and effluent discharge locations. Make references to the detailed map.

Refer to Section 1.1 of the Development Proposal

12. Give a short description of the proposed or current freshwater intake facility, the type and operating capacity of the pumps used, and the intake screen size.

Freshwater intakes (camp water supply, water truck intakes, fire protection and others) will be equipped with fish screens in accordance with the DFO document entitled “Freshwater Intake End-of-Pipe Fish Screen Guideline”. Pumps will be sized accordingly to suit the need for water at each location.

Temporary intakes (i.e. for temporary camps, drilling, dust suppression) will be placed directly on the waterbody bottom, and located in such a way as to minimize disturbance to fish habitat. Temporary pipelines will not be anchored however the intakes themselves may require an anchor to hold them in place. Permanent intakes (i.e. for permanent camps) will also be located in such a way as to minimize disturbance to fish habitat. Permanent intakes may be secured to a PVC pipe rack which will then be placed directly on the waterbody bottom (similar to the existing intake at Mary River Camp). The pipelines from these intakes will lie on the waterbody bottom and may be secured in place with riprap or some other approved method. Pumps for both temporary and permanent intakes will be located on shore. Pipelines for potable water may be heat traced and insulated.

Water treatment from freshwater sources for permanent camps will consist of chemical treatment followed by settlement, filtration, polishing and chlorine or ultraviolet disinfection. Treated potable water will be stored in an insulated and heat-traced water storage tank sized to meet the requirements of each camp.

It is expected that potable water for Steensby Camp will be supplied via desalination of sea water for the existing exploration camp and for the two barge-mounted construction camps arriving in 2009. A larger construction camp will require a fresh water intake from a lake near the camp’s location.

At the mine and port sites water truck(s) will deliver potable water for local consumption in remote areas such as the mine maintenance shop / office, explosives handling facility and other ancillary facilities as appropriate. Water trucks will also be used for dust suppression on site roads, airstrips, etc. as required.

The fire protection system at the mine site will include a primary fire pump (and backups) and sprinkler systems for the accommodation, administration, laboratory and warehouse facilities. A dry sprinkler system will be provided for the plant maintenance complex. Fully-equipped hose cabinets will be installed in heated buildings. Similarly, fire protection will be required for facilities at Steensby Inlet.

Further information is provided in Sections 3.0 and 4.0 of the Development Proposal and details will be provided in future design reports.

13. At the rate of intended water usage for the exploration activity, explain water balance inputs and outputs in terms of estimated maximum draw down and recharge capability of the water source from fresh water will be drawn.

Water usage from any one location is expected to be modest and as such drawdown of local water sources is unlikely. Further details will be provided and evaluated in a future Environmental Impact Statement (EIS).

14. Will any work be done that penetrates regions of permafrost?
Yes____ No__X__

15. If "YES"above, is the permafrost continuous or discontinuous?

N/A

16. Were (or will) any old workings or water bodies (be) dewatered in order to conduct the exploration activity?
Yes_____ No__X__

17. If "YES" above, indicate the name of the water body, the total volume of water to be discharged and the chemical characteristics of the water. Also included should be the receiving water body and expected schedule of the dewatering.

18. Was (or will) the above discharge (be) treated chemically?
Yes_____ No_____N/A

19. If "YES" above, describe the applied treatment.

SECTION 2:

GEOLOGY AND MINERALOGY

20. Physiography; Provide an analysis and interpretation of the geologic and hydrologic environment in the immediate vicinity of the mine or plant. The investigation should

extend from ground surface downward to the base of the glacial drift. Include large scale topographic map(s) covering the area where the mine, mill and waste disposal basin are (or were to be) located. The map(s) should provide information on groundwater patterns and permafrost variations in the area.

Refer to Section 6.0 of the Development Proposal and associated figures.

21. Briefly describe the physical nature of the orebody, including known dimensions and approximate shape.

The high-grade iron deposits at Mary River are located within a deformed granite-greenstone terrain. Initial fieldwork in the 1962 to 1965 period outlined the presence of four exposed deposits of high-grade hematite-magnetite mineralization (Deposit Nos. 1, 2, 3, and 4) hosted within extensive belts of banded iron formation. Deposit Nos. 1 to 3 occur within a single 30-km2 area, while Deposit No. 4 is situated 27 km to the northwest. The sedimentary-volcanic succession in which the iron formations are developed was designated as the Mary River Group. Rocks of the Mary River Group in the Project area included banded oxide and silicate facies iron formation, high-grade iron formation (hematite, magnetite and mixed hematite-magnetite-specularite varieties), mixed meta-sedimentary rocks (quartzite, metaconglomerate, metapelites, metagreywacke and related derived cordierite-staurolite-garnet-mica to quartz-feldspar-biotite schists and gneisses).

Deposit No. 1 is currently the largest defined iron deposit in the Mary River area. The deposit has a total strike length, as defined by outcrop and magnetic anomalies of about 3800 m. Outcrops of high-grade iron oxides consisting of hematite and magnetite in various proportions and of specularite are exposed along the margin and crest of Nuluujaak Mountain at elevations ranging from 250 to 700 m, over a strike length of 2500 m. A possible additional strike of 550 m is suggested by magnetics and outcrop to the south, and magnetics indicate the continuation of the iron formation for about 750 m to the north.

22. Briefly describe the host rock in the general vicinity of the orebody (from the surface to the mineralized zone.)

See above

23. Provide a geological description of the <u>ore minerals</u> of the deposit. (If possible, include the percentage of metals.)

See above

24. Describe the geochemical tests which have been (or will be) performed on the ore, host rock, and waste rock to determine their relative acid generation and contaminant leaching potential. Outline methods used (or to be used) and provide test results in an attached report (ie. Static, Kinetic tests.)

Static geochemical testing has been conducted to date, and additional static and kinetic testing results are pending. Details will be provided in a future EIS.

SECTION 3:

THE MINE

25. Indicate the type of mining method to be used on the property:

Open Pit _____X_____
Underground _____
Strip mining _____
Other mining activity_____
Explain:

26. Outline any possible operational changes and when that might occur. (Eg. Open pit to underground)

N/A

27. Describe the type(s) of explosives to be used in mining operations.

Refer to Sections 3 and 4 of the Development Proposal

28. Indicate the number of shafts or other openings that are presently on the property. Signify whether or not the openings are presently in use. (Submit measurement in metres) Indicate if used seasonally.

No mine openings are located on the property.

29. Are any entrances to shafts, adits, etc. below ground water level.

N/A

30. Are permafrost conditions expected?

Yes

31. Indicate the expected life of the mine.

The expected life of the mine has been estimated as follows:

- 4 years for construction (2010 through 2014)
- 21 years of operations (2014 through 2034)
- 3 years of closure (2034 through 2037)
- 5 years of post-closure monitoring (2037 through 2043)

32. Indicate the present average rate of production from all ore sources on the property.

Refer to Section 1.6 of the Development Proposal

33. Indicate the expected maximum rate of production from all ore sources on the property.

Refer to Section 1.6 of the Development Proposal

34. Outline all water usage in the mine. Indicating the source and volume of water for each use.

Refer to Sections 3 and 4 of the Development Proposal

35. Indicate the volume of natural ground water presently gaining access to the mine workings.

N/A m^3/day

36. Outline methods used (planned) underground to decrease minewater flow. (For example: recycling)

Permafrost extends up to 700 m below grade and well below the depth of mining. No minewater is anticipated.

37. Indicate the average daily volume of water to be discharged from the mine during normal operations.

The pit will be developed within the permafrost layer, so pit water will be limited. The EIS will further characterize mine water and any mine water management that may or may not be required.

38. If a mill will be operating on the property in conjunction with mining, will all minewater (underground, open pit, etc.) be directed to the mill for reuse?

There will be no mill operating on site, and therefore no process water used.

39. If not, indicate the proposed point and volume of discharge for the minewater.

See Section 4.1.3.5 of the Development Proposal.

40. What are the chemical and physical characteristics of the preceding minewater?

See Section 4.1.3.5 of the Development Proposal.

41. Are there any treatment plans for minewater and will any chemicals be used in such treatment? Explain.

N/A

SECTION 4:

THE MILL (PROCESSING PLANT)

42. Attach a copy of the (proposed) mill flow sheet. Indicate the points of addition of all the various reagents (chemicals) that are (or will be) used.

    Not applicable; there will be no mill operating on site. Ore processing is limited to crushing and screening, which is a dry process.

43. If milling is in progress on the property at the present time, indicate the rate of milling.

    ___X____ not applicable (check) OR _____ tonnes/day

44. What is the present (or proposed) maximum capacity of the mill?

    N/A

45. List the types and quantities of all reagent used in the mill process (in kg/tonne ore milled.)

    N/A

46. Is the (proposed) milling circuit based on autogenous grinding?

    Yes ___N/A____ No __N/A_____ Partially ___N/A_____

47. Indicate the amount(s) of concentrate(s) produced in the mill.

    No concentrate will be produced

48. Will fresh water undergo treatment prior to use in the mill process? Explain.

    N/A

49. Indicate all uses of water in the mill. Include the quantity and source of the water for each use.

    N/A

Use	Source	Volume m^3/day

50. Indicate the total volume of water discharged from the mill.

    N/A

51. Of the preceding volume, what quantity is (will be) recycled to other areas on the property (mine, mill, etc.)? Indicate location of use and quantity.

N/A

52. Based on yearly production, indicate the average quantity of tailings (Dry weight) discharged from the mill.

No tailings will be generated by the mine.

53. What is the average liquid-solid ratio of tailings leaving the mill?

By weight: _____ By volume: _____
Liquid: Solid Liquid: Solid

N/A

54. If applicable, identify any chemical treatment applied to the liquid phase before being discharged to the tailings area. (Attach flow sheet if available.)

N/A

55. Based on present production or bench test results, describe the chemical and physical characteristics of liquid mill wastes directed to the tailings area.

N/A

56. Provide a geochemical description of the solid fraction of the tailings.

N/A

57. Identify the current source of power production.

N/A

58. At present, is the mill handling custom lots of ore from other properties (or will the mill be handling any in the future)?

The crushing and screening equipment is not expected to process ores from other properties.

59. If so, specify ore characteristics and describe any mill processes which will change as a result.

N/A

60. If tailings are being recovered in the mill or elsewhere for use as backfill etc.), indicate the quantity of solid tails (tonnes/day) recovered from the mill process.

N/A

61. Will exits be bermed to prevent spills from escaping the mill?

N/A

62. Will all sumps for process tanks have the required 110% holding capacity of the largest tank?

N/A

SECTION 5:

THE CONTAINMENT AREAS

63. Is the tailings containment area (being) designed for total containment?

There will be no tailings generated as part of these operations

64. Attach detailed scale plan drawings of the proposed (or present) tailings area. The drawings must include the following:

a. details of pond size and elevation;

b. precise details of all retaining structures (length, width, height, materials of construction, etc.);

c. details of the drainage basin, and existing and proposed drainage modification;

d. details of all decant, siphon mechanisms etc,. including water treatment plant facilities;

e. the plan for tailings deposition and final tailings configuration;

f. details with regard to the direction and route followed by the flow of wastes and/or waters from the ore; and

g. indication of the distance to nearby major watercourses.

Note: Individual detailed large scale drawings of any facility (dam, decant system, ditch, dike, water treatment plant, etc.) (to be) constructed must be attached. Specific details with regard to the methods of construction, materials (to be) used, etc., are required.

N/A

65. Explain your choice of location for the tailings pond design by rationalizing rejection of other options. Consider the following criteria in your comparisons; subsurface strata, permeability, abandonment of tailings, recycling/reclaiming waters, and assessment of runoff into basins. Attach a brief summation.

N/A

66. The total area for the existing tailings basin in hectares and for any proposed tailings area is _____ Hectares.

N/A

67. The average depth of the tailings basin is _____ metres.

N/A

68. Indicate the total capacity for the existing tailings area by using water balance and stage volume calculation and curves. (Attach a description of inputs and outputs along with volume calculations.)

N/A

69. Indicate the total capacity for the proposed tailings area using water balance and stage volume calculation and curves. (Attach a description of inputs and outputs along with volume calculations.)

N/A

70. Will the present tailings area contain the entire production from the mine-mill complex for the life of the project?

N/A

71. If "NO' above, or if production output increases tailings volumes. Indicate what plans have been made for future tailings disposal on the property.

N/A

72. Has any land in the immediate area been identified as native or crown land or withdrawn pending native claim settlement?

N/A

73. Do the tailings area and all related treatment facilities lie on company held claims?

N/A

74. If not, indicate mine claim boundaries (and owners) on tailings area plan map. Also, attach a copy of all pertinent agreements signed with the owners of the claims not held by the company.

N/A

75. Will the proposed tailings area engulf or otherwise disturb any existing watercourse?

N/A

76. If "YES", attach all pertinent details (name of watercourse, present average flow, direction of flow, proposed diversions, etc.).

N/A

77. If any natural watercourse will gain access to the proposed tailings are, What methods will be used to decrease the amount of runoff water entering the containment area? Indicate the volume of water which will enter the tailings area from the source(s) in question and attach all pertinent details of proposed diversions.

N/A

78. Indicate on the tailings area plan drawing all sources of seepage presently encountered in the vicinity of the tailing area, the volume of each seepage flow (m3/day), and the direction of each flow.

N/A

79. Are the seepage flows from the property presently being treated chemically? _____ If so, describe how.

N/A

80. If NOT, explain.

N/A

81. Please attach a conceptual abandonment and restoration plan for all tailings areas being developed. Describe the measures that have been (or will be) taken to contain and stabilize the tailings area(s) against leaching and seepage after operations on the property cease.

N/A

82. Describe the proposed or present operation, maintenance and monitoring of the tailings area.

N/A

SECTION 6:

WATER TREATMENT

83. Describe the methods of chemical treatment that are presently being used and/or will be used to control the quality of the tailings effluent . Attach engineering drawings where applicable and a process flow chart. If a pilot test has been conducted please attach description of methodology and results.

There will be no tailings generated as part of these operations

84. List the names of chemicals to be used in the water treatment process.

N/A

85. What is the proposed or present average rate of effluent treatment of the plant (if applicable)?

N/A

86. What is the proposed or present maximum effluent treatment capacity of the plant (if applicable)?

N/A

87. Will treated effluent be discharged directly to a natural water body or will polishing or settling ponds be employed? Describe location control structures and process of water retention and transfer. Attach any relevant design drawings.

N/A

88. Name the first major watercourse the discharge flow enters after it leaves the area of company operations.

N/A

89. In terms of rate of effluent release and volume and flushing rate of the receiving watercourse, estimate the extent of the mixing zone within the receiving waters and where background levels of constituents for that watercourse will be attained.

N/A

90. Describe the present (proposed from pilot tests) chemical and physical characteristics of the tailings effluent (Decant).

N/A

SECTION 7:

ENVIRONMENTAL MONITORING PROGRAM

91. Have elders been consulted in the establishment of the monitoring program?

    Yes, please refer to Section 6 of the Development Proposal

92. Has Traditional Knowledge of the area been considered?

    Yes, please refer to Section 6 of the Development Proposal

93. Has any baseline data been collected for the main water bodies in the area prior to development?

    Yes, please refer to Section 6 of the Development Proposal

94. If "YES" include all data gathered on the physical, biotic and chemical characteristics at each sampling location. Identify sampling location on a map.

    Please refer to Section 6 of the Development Proposal

95. Provide an inventory of hazardous materials on the property and storage locations. (Attach separate Map)

    Refer to Sections 2, 3 and 4 of the Development Proposal

96. Attach the present or proposed contingency plan which describes course of action, mitigative measures and equipment available for use in the event of system failures and spills or hazardous materials.

    A Spill Contingency Plan is in place for current exploration activities. Further details will be provided in a a future Environmental Impact Statement.

97. Provide a conceptual abandonment and restoration plan for the site, detailing the costs to carry out the plan, and a proposal for a financial assurance which covers the costs to carry out the plan.

    Conceptual restoration plans are presented in Section 4.7 of the Development Proposal. Abandonment and Restoration including costs and financial assurance will be discussed as part of the EIS and licensing process.

98. Provide a detailed emergency response plan for the project.

Emergency Response Plans will be discussed as part of the EIS process.

99. Provide a description of the pollution control systems and environmental management procedures.

This information will be provided in a future EIS

SECTION 8:

ENVIRONMENTAL ASSESSMENT AND SCREENING

100. Has this project ever undergone an initial environmental review, including previous owners.

Exploration and bulk sampling activities currently underway have undergone environmental screening. This application is submitted to initiate the environmental review process; an environmental review for mine development has not been carried out previously.

101. Has any baseline data collection and evaluation been undertaken with respect to the various biophysical components of the environment potentially affected by the project (e.g. wildlife, soils, air quality), i.e. in addition to water related information requested in this questionnaire?

Yes, refer to Section 6 of the Development Proposal

102. Describe any cumulative impacts the project may create?

Cumulative impacts will be addressed in a future EIS

103. Has any meteorological data been collected at or near the site? (E.g. precipitation, evaporation, snow, wind).

a) If so, please include the data and attach copies of reports or site titles, authors and dates.

Yes, the data will be presented in a baseline report that will accompany a future EIS

104. If no, are such studies being planned? Briefly describe the proposals.

N/A

105. Has authorization been obtained or sought from the department of fisheries and oceans for dewatering or using any water bodies for containment of waste?

N/A Baffinland is seeking authorization from the DFO for water intakes, sewage outfalls, docks, etc., however lake dewatering and tailings disposal are not part of this request to the DFO. Lake dewatering and tailings disposal are not project elements.

106. Please attach an outline briefly describing any options or alternatives considered or reflected for the various mine components outlined in this questionnaire (e.g. mill site, water supply sources, location for ore and waste piles).

Alternatives will be described and assessed in a future EIS.

107. Has a socio-economic impact assessment or evaluation of this project been undertaken? (This would include a review of any public concerns, and water and cultural uses of the area, implication of land claims, compensation, local employment opportunities, etc.)

The project has undergone an environmental screening for the bulk sampling program which included socio-economic considerations. Socio-economic baseline studies will continue in support of a future EIS.

108. If yes, please describe the proposal briefly.

N/A

109. If no, is such a study being planned? Yes_____ (When) OR No_____

N/A

110. Does the project alter the quantity or quality or flow of waters through Inuit Owned Lands?

This will be assessed in a future Environmental Impact Statement

111. If yes, has the applicant entered into an agreement with the Designated Inuit Organization to pay compensation for any loss or damage that may be caused by the alteration.

N/A

112. If no compensation arrangement has been made, how will compensation be determined?

N/A

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NUNAVUT WATER BOARD
NUNAVUT IMALIRIYIN KATIMAYINGI

Supplemental Technical Information Required for Water Crossings (linear/bridge/culverts)

1. Waterbody name (English and Inuktitut) and location (Lat & Long)

   Various - refer to Appendix E of the Development Proposal.

2. Site photo, site map or air photo detailing location

   Refer to figures and Appendix E in the Development Proposal

3. Other Agencies contacted to date

   Refer to Section 1.3 of the Development Proposal

4. Need for the project and alternatives considered

   Refer to Section 1.6 of the Development Proposal; alternatives will be described in a future Environmental Impact Statement (EIS)

5. General condition of the site (s)
   i. Slope of banks
   ii. Description of substrate
   iii. Vegetation (on banks, in-stream, to be removed)
   iv. Expected flow rates during time of construction
   v. Channel meander pattern

   Refer to Appendix E of the Development Proposal

6. Existing Habitat
   i. Fish Community (species/common names) at and near the site
   ii. Use of impacted are as spawning, nursery, rearing, food supply or migration route
   iii. Presence of sensitive habitat
   iv. Assessment of impact to fish and fish habitat

   Refer to Appendix E of the Development Proposal for Items i, ii and iii. Item iv to be addressed in the future Environmental Impact Statement.

7. Construction Details
   i. In water work timing restriction for fishery
   ii. Proposed start date and completion date
   iii. Type of crossing,
   iv. Method of installation
   v. Dimensions of pipe or structure
   vi. Machinery to be used
   vii. Construction sequence (timing restriction may need to be taken into account)
   viii. Sedimentation and erosion control measures
   ix. Monitoring during construction
   x. Other mitigation measures
   xi. Assessment of impact to fish and fish habitat
   xii. Bank stabilization (size range of material)
   xiii. Cumulative impacts to area
   xiv. Contingency plan
   xv. Revegetation proposed

xvi. Proposed post-construction monitoring (photos taken of the site before construction, during construction and after construction; photographs should be taken form the same reference point for easy comparison)

Refer to Appendix E of the Development Proposal for typical installations. Remaining information to be addressed in future design reports and Environmental Impact Statement.

8. Bridge
    i. Bridge dimensions and type
    ii. Any structures (abutments, pilings, piers) that will be placed in the water, on a temporary or permanent basis
    iii. Anticipated changes to the existing channel/shoreline morphology as a result of the proposed works
    iv. Activities or structures that may cause a temporary or permanent barrier to movement of fish or flow of water
    v. Coffer dams, dewatering, temporary watercourse diversions, excavation and temporary crossings
    vi. Total area of impact (m^2)
    vii. Stabilization method and materials used at bridge abutments(include details of material size range)

Refer to Appendix E of the Development Proposal for typical installations. Remaining information to be addressed in future design reports and Environmental Impact Statement.

9. Culvert Installation
    i. Culvert dimensions (height and width or diameter, length)
    ii. Culvert type/material
    iii. Impact to fisheries ability to migrate through the culvert
    iv. Need to realign the channel?
    v. Open bottom or natural substrate inside?
    vi. Slope of culvert
    vii. Installation of baffles, rock weirs or other structures

Refer to Appendix E of the Development Proposal for typical installations. Remaining information to be addressed in future design reports and Environmental Impact Statement.