BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT

COMPREHENSIVE ENVIRONMENTAL MONITORING PLAN

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SECTION 1.0 - INTRODUCTION

1.1 PURPOSE

This Comprehensive Environmental Monitoring Plan (CEMP) has been developed for the Project, with the following objectives:

- Integrate outcomes of the environmental review process (NIRB Environmental Screening)
- Assess the effectiveness of proposed mitigation and to adapt accordingly
- Facilitate compliance with applicable regulations and requirements of environmental permits
- Enhance the awareness of project personnel to environmental commitments and requirements
- Support the ongoing collection of baseline environmental data

The CEMP, in part, articulates Baffinland's environmental management system to guide site operations and facilitate effective environmental management and monitoring. The development and implementation of the CEMP was a requirement under Item #6 of the Nunavut Impact Review Board (NIRB) Recommended Terms and Conditions for the bulk sampling program, and also forms a schedule of the commercial lease on Inuit Owned Land (IOL) with the Qikiqtani Inuit Association (QIA). In addition, the CEMP is a requirement of Baffinland's Water Licences Nos. 2BB-MRY0710 (expired December 31, 2010) and 2BB-MRY1114 (renewed April 5, 2011). Specifically Part I, Section 1 of Water Licence No. 2BB-MRY1114 states: "The Licencee shall submit to the Board for approval within (90) days of the issuance of this licence a revised Environmental Monitoring Plan."

The "Project" or the "current Project", as defined in this report and to which the CEMP applies, includes activities expected to be undertaken post shipment of the bulk sample in October 2008 and in advance of mine development including exploration and geotechnical drilling, post bulk sample monitoring, continued progressive reclamation and associated support services such as camp operations, and ongoing site maintenance and upgrades for the purpose of reducing environmental and safety risks as well as conducting pre-construction staging activities. The CEMP does not explicitly address environmental baseline studies which are undertaken under the guidance of scientific research permits, as appropriate. The location of the main project activities are shown on Figure 1.1. The layout of the camp facilities at Milne Inlet, Mary River, Mid Rail and Steensby Inlet are shown Figures 1.2, 1.3, 1.4 and 1.5 respectively. Figure 1.6 shows the alignment of the Milne Inlet Tote Road.

The CEMP is a 'living document' that will be regularly updated as the Project progresses, empirical field experience is gained, and mitigation measures evolve in the spirit of adaptive management. This version of the CEMP has been developed to reflect the activities that were undertaken during 2008, 2009, and 2010 as well as those planned for 2011.

1.2 SCOPE OF THE MONITORING PROGRAM

The following, as applicable, will be monitored:

- Compliance with the terms and conditions of licenses, permits and authorizations, as well as commitments outlined in the Environmental Screening Decision (ESD)
- Activities in and around water, to ensure the protection of fish and fish habitat
- The presence and response of wildlife to Project activities
- Water sources for potable water consumption, treated sewage effluent prior to discharge, and receiving waters
- General site drainage in proximity to key site infrastructure and activities including roads and fuel storage areas
- Employment history and skills development of employees
- Continued collection of environmental and socio-economic baseline data

Each of the above components of the monitoring plan is described in the sections that follow. Abandonment and reclamation of the project and the associated monitoring is described in the "Abandonment and Reclamation Plan", the latest update to which was completed in March 2011.

1.3 ENVIRONMENTAL PROTECTION PLAN

An Environmental Protection Plan (EPP) has been developed for use by managers and field supervisors in raising awareness and guiding project personnel in the execution of the Mary River Project in a way that protects the environment and honours the legal requirements and commitments Baffinland has made for the project. The EPP consists of Operational Standards addressing how the variety of activities shall be conducted during the project to adhere to regulatory requirements and Owner's commitments. The EPP is the "hands-on" aspect of the CEMP to be distributed to all managers and supervisors.

1.4 DRAFT ENVIRONMENTAL IMPACT STATEMENT

Ongoing baseline data collection was also completed to support the completion of the Draft Environmental Impact Statement (DEIS). The Project continued to move through the NIRB environmental review process in 2010. The Guidelines for the Preparation of an Environmental Impact Statement (EIS) was issued by NIRB in November 2009. An Addendum to the Guidelines was issued in November 2010 relating to the inclusion of the "Road Haulage Option" as a Project alternative. Utilizing the above referenced guidelines, the DEIS was completed and submitted to NIRB on January 21, 2011. Ongoing baseline data collection was also completed to support the completion of the DEIS.

SECTION 2.0 - OWNER'S COMMITMENTS AND REGULATORY REQUIREMENTS

Baffinland is committed to conducting its work in a manner that minimizes potential impacts to the natural environment and contributes to positive social and economic effects, particularly as they relate to communities in the North Baffin region. Baffinland seeks to ensure that its activities and procedures meet these commitments and regulatory requirements, and that the commitments and requirements are understood, implemented and maintained by personnel at all levels involved with the Project.

2.1 OWNER'S COMMITMENTS DURING PROJECT SCREENING

Owner's Commitments refer to those statements/commitments made by Baffinland during the course of the environmental screening and/or discussions with Inuit organizations, government agencies and communities. Commitments made during the screening of both the exploration and geotechnical program, as well as the bulk sampling program, are included in Table 2.1.

2.2 REGULATORY REQUIREMENTS

Regulatory requirements refer to both the terms and conditions of permits and licences that have been issued to Baffinland, as well as applicable legislation (acts and regulations). Table 2.1 lists the Owner's commitments as well as the terms and conditions for the exploration and geotechnical program, as well as the bulk sampling program. The table will be updated when there are changes or additions to relevant regulatory requirements. Baffinland will assign responsibility for fulfilling these commitments to the appropriate personnel, when applicable. Table 2.2 lists the applicable legislation (acts and regulations) as well as guidelines, which have been identified to be applicable to the Project.

Exploration is focused on Federal Mineral Leases 2483, 2484 and 2485 (Deposit Nos. 1 to 4, incl.), shown on Figure 1.1. The leases are in good standing until August 2013. During 2010, exploration was focussed on Deposit No. 5 and vicinity (surface exploration and drilling), as well as on newly discovered Deposits Nos. 6 to 9, incl. (surface exploration only). The locations of Deposits Nos. 5 to 9, incl, are shown on Figure 1.1. Ongoing mineral exploration and geotechnical studies, along with the bulk sample program are governed by the terms and conditions in the authorizations shown below.

The CEMP is written to reflect the Terms and Conditions of these authorizations, and is updated as required to incorporate any changes in these terms and conditions as well as extensions, amendments or additional authorizations that are obtained. Relevant aspects of these approvals have also been incorporated into the EPP. Adherence to the EPP is the best guide to ensure compliance with the various acts and regulations that apply to the Project.

In the unlikely event that changes to legislation occur during the life of this document, the CEMP will be reviewed and amended as appropriate.

Type of Authorization	Approval No.	Authorizing Agency	Governing Activity	Period Valid
Expired Water License (Type "B")	2BB-MRY0710 (including Amendments 1 and 2)	NWB	Water use and waste disposal	Feb 20, 2007 to Dec 31, 2010
Renewed Water Licence (Type "B")	2BB-MRY1114	NWB	Water use and waste disposal	April 5, 2011 to April 5, 2014
Land Use Permit	N2006C0036	INAC	Exploration and Geotechnical Activities on Crown Land	April 3, 2011 to April 3, 2012
Land Use Permit	N2007F0004	INAC	Road Construction on Crown Land	July 4, 2011 to July 4, 2012
Commercial Lease for Inuit Owned Lands, Quarry Concession Agreement (Inuit Owned Lands)	Q07L3C001	QIA	Mining and exploration activities and use of borrow and quarry materials on Inuit Owned Land	August 1, 2007 to October 31, 2010
Commercial Lease for Inuit Owned Lands, Quarry Concession Agreement (Inuit Owned Lands)	Q10C3001	QIA	Mining and exploration activities and use of borrow and quarry materials on Inuit Owned Land	October 31, 2010 to December 31, 2011
Inuit Land Use Licence	Q10L3C010	QIA	Allow surface land use access for Deposit No. 5 and vicinity	June 1, 2010 to October 31, 2010
Quarry Permit	2010QP0088	INAC	Quarrying on Crown Land	June 28, 2011 to June 28, 2012
DFO Letter of Advice	File NU-06-0084, dated July 25, 2007, and subsequent	DFO	Crossing installations at Category Small Watercourses and Subsequent Modifications	Not applicable
HADD Authorization *Fisheries Act* S.35(2) and four amendments	File NU-06-0084, dated August 3, 2007	DFO	Crossing installations within fish habitat at 25 watercourses	No Expiry
Navigable Waters Protection Act Approval	8200-09-10415 8200-09-10425 8200-09-10414 8200-09-10424	Transport Canada	Construction of crossings in four (4) navigable waters	June 22, 2009 to June 30, 2015

SECTION 3.0 - ROLES AND RESPONSIBILITIES

3.1 ORGANIZATIONAL STRUCTURE

The Sustainable Development department is responsible for environmental management, including ensuring compliance with applicable regulations and permit requirements through on-going monitoring, and the development and implementation of operational standards, procedures and employee training. Roles and responsibilities for implementation of the CEMP and the companion EPP are described in Table 3.1.

3.2 MONITORING AND INSPECTION

A summary of the monitoring and inspection requirements described in Section 4 of this Plan is provided in Table 3.2. Responsibilities have been assigned to various personnel on the Project team. Where required, third party resources will be retained to supplement in-house resources and capabilities.

3.3 COMMUNICATION

The types of communications for which members of the team will participate include the following:

a) Formal written correspondence and meetings with stakeholders
b) Site visits by community representatives
c) Design, construction and planning meetings
d) Field inspections and monitoring reports disseminated by the Environmental Health & Safety Superintendent
e) Electronic communications
f) Tailgate/toolbox meetings
g) Formal written correspondence and meetings with government regulatory bodies
h) Formal environmental awareness training

Communications will be appropriately recorded and filed for future reference. Where appropriate, the copies of communications will be forwarded to the Operations Manager(s), and Vice President Sustainability.

3.4 TRAINING AND AWARENESS

Staff and sub-contractors working on site will receive environmental training as part of the Site Orientation, to achieve a basic level of environmental awareness understanding of their obligations regarding compliance with regulatory requirements, commitments and best practices.

Operations and Site Managers and contractor supervisors will be provided this CEMP, and will receive additional orientation with respect to the requirements outlined in the CEMP. In addition, all supervising level staff and sub-contractors will be provided with the Operational Standards (the EPP) as a written guidance for their work.

Targeted environmental awareness training will be provided to both individuals and groups of workers assuming a specific authority or responsibility for environmental management or those undertaking an activity with an elevated high risk of environmental impact, such as in-water work at watercourse crossings. These will be delivered in the form of toolbox/tailgate meetings or other means as appropriate.

The content of the environmental component of the site induction will include at a minimum:

a) Location of environmental sensitivities
b) Location of additional information on environmental matters
c) Due diligence responsibilities
d) Responsibilities related to waste management, minimizing noise as necessary, road traffic rules, etc.
e) Principles and necessary steps to avoid encounters with bears or other wildlife and what to do if one such encounter occurs

3.5 EXTERNAL COMMUNICATIONS

Effective forms of communication include the proactive notification to external stakeholders of Project activity. Project activity updates will be provided to the communities of North Baffin through various means including regular meetings, public notices and radio announcements as appropriate. Baffinland will endeavour to maintain Community Liaison Offices to assist in this regard. Shipping notification will be provided to Nunavut Tourism for dissemination to tourist operators in the region.

SECTION 4.0 - MONITORING PROGRAM

The monitoring program described in the sections below has been updated to reflect activities reasonably expected to be undertaken post shipment of the bulk sample in 2008 and in advance of mine construction. The design and associated results of monitoring programs undertaken in previous years are provided in various regulatory reports, most notably the NIRB and NWB annual reports for 2007 through to 2010.

4.1 METEOROLOGY

Three meteorological stations have been established, with one at the Mary River site and one at each of Steensby and Milne Inlet's locations. The stations record air temperature, relative humidity, precipitation, wind direction and wind speed. The data collected from the meteorological stations is establishing a climatic record at key project areas.

During 2009, each station was retrofitted with new research technology being tested to determine its ability to transfer data remotely in real time.

4.2 AIR QUALITY AND NOISE

Potential sources of project related effects to air quality include exhaust emissions from vehicles, aircraft, generators and other equipment, emissions from camp incinerators, and fugitive dust emissions from road traffic during the snow-free periods. In 2007 and 2008 there were additional sources of potential air related effects associated with bulk sample activities including fugitive dust emissions from mining/blasting, crushing, conveying and stockpiling activities. These sources were also contributors to the generation of project related noise.

- Ambient Air Quality Monitoring

Passive and active air quality monitoring was conducted during the period that the bulk sample was mined and shipped. Active monitoring involved the measurement of total suspended particulate matter (TSP) and various metal concentrations at areas of activity including the Mary River camp and airstrip, bulk sample pit, crusher, Mary River airstrip, crusher, haul road, and along the Milne Inlet tote road. Passive sampling included the collection of SO_2, NO_2, O_3, and dustfall samples simultaneously at the Mary River airstrip, the crusher, and along the Milne Inlet tote road. This monitoring was conducted specifically in support of the bulk sample program and for the collection of empirical information to support full-scale project planning. Continued monitoring is not required at this point in time.

- Incinerator Emission Testing

Non-hazardous camp wastes, not otherwise scheduled for off-site disposal/recycling or that are suitable for disposal in the on-site landfill are disposed of in the camp incinerators. Incinerated wastes are generally those generated from the kitchen and personnel accommodations.

Camp incinerators are installed at each of the camps associated with the Mary River Project, namely Milne Inlet, Mary River, Mid-Rail and Steensby. Each of these incinerators utilizes dual chamber, variable air flow design technology and is specifically designed for remote camp operations. The manufacturers of these incinerators claim that these incinerators are capable of meeting the Canadian Council of Ministers of the Environment (CCME), Canada Wide Standards (CWS) for Mercury Emissions and the CCME CWS for Dioxins and Furans.

The waste incinerators are operated on an as required basis. Standard operating procedures have been developed in accordance with the manufacturers recommendations and operators receive training by experienced supervisory personnel. Incinerator ash that is generated is stored on-site in 200 L drums for future disposal in the on-site landfill after the completion of a leachate toxicity testing program.

The incinerator at the Mary River Camp is the largest unit on-site and was replaced in 2008 as the previous incinerator had reached the end of its useful life. An emissions test was completed on this older unit in 2007. A discrete stack test of the new incinerator at Mary River was undertaken in 2008 and 2009 to provide an indication of potential emission characteristics from incineration activities at each of the camps. Testing was completed for dioxins/furans including mercury.

Incinerator monitoring will continue to be undertaken. An emphasis has been placed on procurement policies and the application of consistent operating practices to reduce the risk of poor quality emissions. A report completed by RWDI and presented in the 2011 NIRB Annual Report (January 2011) provided an analyses of historical testing results, operating practices and on-site waste management activities. It also provided recommendations for improvements to incineration operating and management practices that will be implemented.

- Noise

A noise monitoring program was undertaken at Mary River during the bulk sampling program. The purpose of the monitoring program was to assess the magnitude of noise impacts from the activities. In the absence of Nunavut-specific noise guidelines, the Alberta Energy and Utilities Board guidelines were used for comparative purposes. The three main activities that were expected to cause the main noise impacts included the Mary River site camp operations (including vehicles, generators, incinerators, etc.), aircraft activities, as well as mining, crushing and transportation activities related to bulk sample extraction. This monitoring was conducted specifically in support of the bulk sample program and for the collection of empirical information to support full-scale project planning. Continued monitoring is not required at this point in time.

Noise emissions associated with on-going site activities will be localized and will be generated by camp operations, equipment operation and frequent aircraft take offs and landings. Field activities will be conducted in accordance with the EPP to minimize potential effects to people and wildlife. More specifically, equipment will be operated with modern mufflers, aircraft will fly above minimum prescribed heights, and drilling and other site activities will be guided by the presence and response of wildlife.

4.3 LANDFORMS

The bulk sample program required the disturbance of surface landforms through cut and fill operations associated with road construction and excavations in borrow locations. Culverts were installed in the roadways at drainages and water crossings. A single pit on the top of Deposit No. 1 was advanced to extract the bulk sample. Other civil infrastructure was also constructed, most notably were lined polishing waste stabilization ponds (PWSPs) to accept effluent from the Milne Inlet and Mary River sewage treatment facilities and lined bulk fuel storage containment areas. Landforms associated with the bulk sample project have and will continue to be inspected on a regular basis to confirm suitable physical stability conditions remain. This will include inspection of disturbed areas to ensure the effectiveness of sediment and erosion control measures, the physical stability of open pit slopes and stockpiles including those of ice rich soils. Monitoring of disturbed areas will continue through post-closure as described in the Abandonment and Reclamation Plan.

Environmental protection measures in the EPP define the measures to be employed during construction, to ensure that impacts to the environment and receiving waters are protected from contaminated runoff and increased sediment loadings.

- Bulk Sample Pit

The bulk sample pit was constructed as a side-hill cut and was confirmed by land survey at its completion in 2008 to be free-draining. The bulk sample pit was designed to be free-draining so as to reduce any risk for poor water quality run-off. In 2009 and 2010, periodic monitoring of the pit indicated that the pit floor was free draining. The pit will continue to be inspected on an annual basis to ensure the pit slopes will be stable in the long term.

- Stockpiles

The bulk sample program generated stockpiles of ore adjacent to the pit at Deposit No.1, at the crusher site at the base of Deposit No.1, and at Milne Inlet where the ore was loaded for shipment in 2008. These stockpiles are expected to be stable in the long term. Monitoring of run-off water quality is discussed in Section 4.7.

- Road Embankment Construction

Upgrades necessary to support the hauling of the bulk sample were completed to the Milne Inlet Tote Road in 2007 and 2008 by adding fill to the roadbed, cutting and filling on hills, and installing crossing structures (mainly culverts) at watercourses and drainages. Similar work was undertaken to construct a haul road from the ridgeline on Deposit No. 1 to the crusher location. Fill from the areas immediately adjacent to the embankment and from designated large borrow areas was placed to form various road embankment thickness depending on the frost/thaw susceptibility of the underlying foundation soils.

The design of the watercourse crossings is such that, during summer, heavy flows overtop some of the culvert crossings equipped with overflow swales. This can result in some erosion and siltation,

and efforts have been made in 2009 and 2010 to improve environmental performance of a number of crossings where this has occurred. These conditions will improve in 2011 with continued Tote Road maintenance and upgrades which will reduce safety and environmental risk and improve performance.

It is intended that the Milne Inlet Tote Road will continue to provide all-season access to the Mary River Site until after proposed construction of the full-scale Mary River Project when it may be used to haul ore to Milne Inlet assuming the haul road option is advanced. Prior to mine construction, the road will be used to facilitate transport of fuel, supplies, and equipment to support ongoing exploration as well as pre-construction staging efforts. The road is expected to require regular maintenance including snow clearing during the winter months (when in use) as well as culvert and crossing maintenance and during the summer period.

Inspections will continue to be undertaken to monitor the physical stability and any environmental concerns related to the road and associated water crossings and borrow areas.

- Borrow Area Development

Fill materials needed for upgrades of the Milne Inlet Tote Road, the mine haul road, and other civil works has been obtained from designated large borrow areas and from within the road alignment.

Borrow material is obtained by shallow and broad stripping of the active layer without blasting and concentrated during the summer and fall. The stripping of the active layer results in a thawing of the underlying permafrost and eventually a re-establishment of a new active layer and permafrost depth. A release of excess moisture is expected with the thawing process, particularly if ice lenses are present. This thawing and release of moisture will be accompanied by settlement, the degree of which may vary from location to location based on the relative presence of ice lenses and topography.

During 2009, a field study conducted by a geotechnical engineering consultant was initiated to establish preliminary closure criteria for the Tote Road borrow areas and to confirm that as-built conditions are suitable for eventual decommissioning. The borrow pits were prioritized based on the established criteria and an action plan developed to reclaim the pits on a priority basis. During 2010, remedial action was initiated with the strategic placement of new embankment material on and adjacent to the road fill in areas where ongoing thaw is compromising the stability of the road and nearby terrain.

The reclamation effort may take several years of regrading, fill placement, monitoring, and adaptation to achieve acceptable long term condition. The monitoring program will continue to be undertaken to confirm stability of the borrow areas.

- Rock Quarries

Two (2) rock Quarries have been designated and approved for use. To date only the Quarry located near the Mary River Camp has been used. Quarrying will not occur within 30 m of a

watercourse, and drainage will be re-established as necessary during quarry development. Any rock faces will be inspected by a geotechnical engineer to ensure physical stability. Ditching and other drainage measures will be established as needed to limit erosion and maintain positive drainage to minimize water ponding. Contouring, ditching and silt fences will be applied as warranted to ensure sediment and erosion control. The post-excavation monitoring will reduce the potential for sediment transport to nearby watercourses and will ensure the conditions will be stable in the long term.

- Polishing/Waste Storage Ponds (PWSPs) and Fuel Storage Facilities

Engineered PWSPs have been installed at the Milne Inlet and Mary River camps as a contingency for the storage of effluent from the mechanical sewage treatment facilities during periods of plant start-up or in the event of upset where discharge criteria under the Water License is not met. Storage ponds will be inspected annual by a registered geotechnical engineer and a report submitted to the Nunavut Water Board in accordance with Part D, Item 16 of the water license.

Bulk fuel is stored within engineered and lined containment areas at the Mary River and Milne Inlet Camps. Barrelled fuel caches and hazardous wastes are also stored within lined areas at various project sites. Inspections of fuel and waste storage areas will be completed in accordance with the EPP, including an annual inspection by a registered geotechnical engineer and a report submitted to the Nunavut Water Board in accordance with Part D, Item 16 of the water license for the bulk fuel storage areas.

4.4 TERRESTRIAL WILDLIFE

Potential impacts to wildlife could arise during operation of the Mary River, Milne, Mid-Rail or Steensby Camps, from air traffic and drilling activity (exploration and geotechnical programs), and from use of the Milne Inlet Tote Road, and at the port facilities. General impacts that could potentially affect a wide range of species can be organized into the following six main categories:

a) Impacts directly related to the Milne Inlet Tote Road
b) Disturbance
c) Habitat loss
d) Attraction and habituation
e) Hunting (mortality sinks)
f) Bioaccumulation of heavy metals and other pollutants in forage plants

The ESD identified a number of changes in project design, operational safeguards, and contingency plans to be applied to mitigate potential impacts. Highlights of the potential impacts and proposed mitigation include:

- Limit potential impacts to wildlife by limiting noise emissions to the extent possible. All mobile equipment used during the project is to be properly equipped with appropriate mufflers, to minimize noise.

- Minimize project footprint, thus minimizing the loss of habitat and reduction of habitat effectiveness. Habitat effectiveness decreases when wildlife use of a previously important habitat declines not because of habitat loss but because of disturbance.
- Adhere to the intent and spirit of both the traffic management plan and the caribou protection measures outlined in the North Baffin Regional Land Use Plan. This will minimize direct mortalities due to collisions with vehicles, and disruption of wildlife movements across the road. The Traffic Management Plan is included in the EPP.
- Minimize attractants at camps through responsible waste management and effective environmental awareness programs;
- Minimize and eliminate contamination of habitat by industrial products, and
- Address the potential for human interactions with polar bears through the development and implementation of a Human-Polar Bear Conflict Management Plan (refer to Safety Program Guidelines).

The EPP provides further details on work procedures intended to mitigate potential wildlife related impacts. In addition, the Wildlife Mitigation and Monitoring Program specifically developed for the geotechnical drilling program (as amended from time to time) will be followed. The Wildlife Mitigation and Monitoring Program was developed as a condition of the ESD and is intended to detail potential wildlife impacts, propose mitigation strategies, and to establish a monitoring program specific to the geotechnical drilling program.

Wildlife monitoring was conducted in 2008 and in previous years as part of the on-going environmental baseline studies as well as specific activity monitoring associated with the exploration, geotechnical and bulk sample programs. Future baseline programs will be undertaken in accordance with approved plans and scientific research permits. The CEMP addresses only the monitoring to be undertaken in association with field activities including camp operation, air traffic, drilling activities, and port operations.

- Regional caribou and bird surveys

Caribou have been observed in low numbers and densities in areas of project activity. These observations have been substantiated by through IQ studies, aerial surveys, ground surveys, and habitat assessment plots. Key surveys for caribou have been conducted in past years though aerial surveys to determine late winter distribution (March), calving surveys (mid-June), fall distribution (September and October), and trail surveys (summer). This monitoring has been conducted specifically in support of the bulk sample program and for the collection of information required for full-scale project planning. Continued regional monitoring as described above is not required at this point in time.

In 2008, 2009, 2010, Baffinland provided cash and in-kind support to the Government of Nunavut (GN) for initiation of the “Caribou Collaring and Data Acquisition Program” for the North Baffin Region. The field collaring program was successfully completed in early 2009. The caribou survey covered approximately 80,000 km sq. and extended from the very north tip of the Borden Peninsula to the southern coast of Baffin Island by Steensby Inlet. Caribou occurred at low densities throughout the study area including the Mary River site. A total of 30 GPS collars that were

deployed in 2009 were retrieved in 2010. There were no injuries or mortalities during the collaring process. The information the collars collected on caribou movement and space will be useful for managing future land use activities, with the goal of minimizing impacts to both caribou and their habitat.

Bird studies have been undertaken and have included many aerial, ground and "point-count" surveys conducted in the spring, summer and fall at Mary River, along the Milne Inlet Tote Road, along the potential railway alignments, and at potential port sites and coastal areas. In 2008, surveys were conducted during four separate field sessions. These studies have been conducted specifically in support of the bulk sample program and for the collection of information required for full-scale project planning. Continued regional monitoring as described above is not required at this point in time.

During 2010, ground surveys were completed for caribou use of rail alignment and Tote Road as well as raptor surveys to document raptor use in the region of Steensby Camp. For the above surveys, the wildlife biologists were accompanied by local community members selected by their local HTOs for their traditional knowledge of wildlife in the Mary River area. During the surveys, the biologists relied heavily on the traditional knowledge provided by these individuals.

- Drill Monitoring

Wildlife surveys and observations of the area around geotechnical drill sites prior to drill placement, during and following drilling operations, by completing pre-drilling and post-drilling checklists in accordance with the EPP.

- Incidental Wildlife Observations

A wildlife log is maintained at each of the camps and will be used by all site personnel for the incidental reporting of wildlife observations while working at camps as well as during remote work or travelling by vehicle or air. The Environmental Health and Safety Superintendent will ensure the use of the wildlife log by personnel as per the EPP.

- Visitors Log

A visitors log is maintained to document observed visitors and hunters in the area of project activities, including the use of the Milne Inlet Tote Road. The Environmental Health and Safety Superintendent will ensure the use of the visitors log by personnel as per the EPP.

- Constraints Mapping

Information gathered through surveys and logs have been incorporated into constraints maps that are updated, as required, and used as an operational tool to assist in avoiding or minimizing disturbance to terrestrial wildlife.

4.5 FISHERIES AND AQUATIC RESOURCES

Potential sources of project related impacts to fish and fish habitat include the release of sediment to water courses affecting water quality, alteration of fish habitat or blockage of fish passage, accidental release of deleterious substances (i.e., fuel spills) or the potential entrainment of fish through water supply intakes for drilling and potable water.

- General Mitigation and Monitoring

In general, construction and operational activities will be undertaken a minimum of 30 metres away from water bodies to minimize the potential for release of sediment and deleterious substances that may affect fish or fish habitat. Constraint maps will be maintained by the Environmental Health and Safety Superintendent to identify areas assessed as fish habitat.

The potential for fuel spills in and around water will be addressed by refuelling of equipment at a distance greater than 30 m from any water bodies, as specified in land use approvals and wherever possible. Fuel will be managed and monitored in accordance with the EPP and related operating protocols.

- Milne Inlet Tote Road

Upgrade to the existing Milne Inlet tote road to facilitate all-season use required the installation and/or replacement of culverts at water crossings and key drainages along its approximate 104 km length. Work was initiated in 2007 and largely completed in 2008.

Twenty-five (25) of the culvert installations along the tote road were expected to likely result in a Harmful Alteration, Disruption or Destruction (HADD) of fish habitat as defined under the *Fisheries Act*. Under the terms of the Section 35(2) Fisheries Authorization issued by DFO for these installations, a Fish Habitat No Net Loss and Monitoring Plan (No Net Loss Plan) was developed to mitigate impacts to the associated fish habitat. As an element of the No Net Loss Plan, enhancement and/or restoration of fish habitat was planned at thirteen (13) locations along the tote road. An additional twenty-four (24) watercourses containing fish habitat identified along the length of the Milne Inlet Tote Road were deemed not to likely result in a HADD. A letter of advice was issued by DFO for the installation of these crossings. Tables 4.1 and 4.2 provide a summary of culvert installations.

The monitoring aspects of the No Net Loss Plan were developed to ensure that all measures and works specified in the Plan and the fisheries authorization have been implemented and are functioning as intended. This Monitoring Plan is being implemented at the 25 HADD authorized crossings and the 13 compensation sites, unless indicated otherwise below. The monitoring plan is to be implemented annually a minimum of two years post-construction or until the No Net Loss Plan has been successfully implemented.

The Fisheries Authorization requires an annual report to be submitted at the end of each calendar year. The annual report includes a description of any construction work, fish habitat assessments,

and fish habitat compensation works undertaken over the year, as well as turbidity monitoring data and a photographic record of the work. Much of the work required under the Fisheries Authorization was completed in 2008, with three crossings identified as No Net Loss Compensation Sites completed in 2009. Despite, the completion in 2009 of the construction measures required in the Fish Habitat Compensation Plan, there still remains a shortfall of habitat gain to compensate for HADD. This was largely due to the fact that many of the existing compensation sites were identified as non-fish bearing during 2009 studies. During 2010, actions were taken to address this concern.

During 2009, major repair work was required at box culvert CV-217 located at km 80 due to damage sustained during freshet flows. During fish and fish habitat surveys of crossings in the late spring and summer, four round culverts (were identified as partial or complete barriers to upstream movements of fish. Work plans were established to repair these crossings by means of downstream habitat enhancement construction. This work was partially completed during late 2009 and early 2010. Amendments to the HADD authorization and a letter of advice provided approval for the work to proceed.

Ongoing monitoring, maintenance and upgrades of the tote road and bulk sample pit haul road, including grading and contouring of borrow areas will be undertaken to further reduce the risks for substantial sediment and erosion and to enhance safety along the road.

- Construction Monitoring

During in-water construction of all Medium, Large and Extra-Large crossings ranked as fish habitat and all compensation and reclamation sites, a designated environmental inspector will be on site to ensure implementation of the designs as intended in the Plan and conditions of the authorization. A Watercourse Crossing Monitoring Data Form, included in the EPP has been prepared to be completed by the environmental inspector just prior to, during and immediately post construction.

Information to be collected and items to be monitored at each location, and recorded on the Watercourse Crossing Monitoring Data Form, includes:

a) Construction dates
b) Location
c) Fish and fish habitat assessment
d) Channel characteristics pre and post construction, upstream and downstream
e) Sediment and erosion control measures
f) Crossing installation details
g) Record of the photographs

For in-water work within the restricted timing window from September 1 to June 30, the Extra-Large, Large and Medium crossings with fish habitat will be assessed on-site by the designated environmental inspector prior to the onset of construction to confirm the absence or presence of potential spawning sites situated within 20 m either upstream or downstream of the crossing location, and whether spawning Arctic char are present in the vicinity.

During construction of HADD authorized crossings with flow, turbidity will be monitored downstream of the crossings where possible. Details of this monitoring are outlined in the sub-section below.

Crossings will be visually inspected immediately after construction to confirm that the culverts are functioning as intended and that fish access has been maintained or enhanced. Positive and/or negative effects will be documented.

In addition to the measures outlined above, there is the possibility of field adjustments to the exact location of any of the crossings within the watercourse. In these cases, a habitat assessment will be completed to confirm that impacts to habitat remain materially the same before proceeding.

- Post Construction Monitoring

Medium, Large and Extra-Large crossings ranked as fish habitat and compensation and reclamation sites will be monitored post construction to ensure that all measures and works specified in the Plan and the fisheries authorization have been implemented and are functioning as intended.

Flow will be monitored to ensure that the installation of crossing structures has not adversely affected upstream and downstream fish migration. Flow was measured during the spring runoff period and after extreme storm events, in 2008 and 2009, at the four Extra-Large crossings to determine if flows exceed the ability of adult char swimming. Flow depth was measured at all 25 HADD authorized crossings during the low flow period in August to ensure fish passage is possible through the embedded culvert.

Fish habitat compensation works will be monitored to ensure that the works are functioning as intended. Fish passage and habitat conditions will be assessed at the compensation sites, where relevant, post-construction through observation and fish trapping.

Compensation sites, where restoring fish access to upstream habitat was the goal, were inspected upstream and downstream to identify barriers to fish migration. Electrofishing was conducted within the fish accessible reach to document fish presence during the first full open water season post-construction.

Habitat reclamation sites were visually inspected post-construction to ensure that stream substrate below the debris removal spots is consistent with the rest of the stream. If not, the situation was assessed and rehabilitation measures, such as moving larger rocks to the area, were undertaken where appropriate. Electrofishing was conducted within the fish accessible reaches to document fish presence during the first full open water season post-construction, as appropriate.

Habitat enhancement sites were monitored to ensure that sediment inputs to the downstream environment have been reduced. Turbidity was monitored pre and post rainfall events downstream of BG016 and CV176. Turbidity was monitored approximately two weeks after construction, where possible, as outlined in the subsection below.

- Turbidity Monitoring

Turbidity has been shown to affect fish habitat. Suspended solids in turbid water can clog fish gills, reduce growth rates, decrease resistance to disease, and prevent egg and larval development. Settled particles can smother eggs of fish and aquatic insects.

During road construction, on-site visual monitoring of turbidity was conducted and used to ensure that various mitigation measures are implemented, including:

a) Minimizing timing of in-water work
b) Limiting fording to one-time, where possible
c) Implementing and maintaining effective sediment and erosion control measures
d) Delaying work if it is visibly apparent that char are migrating through the particular crossing

To document site conditions during and after construction and decommissioning, turbidity was monitored in watercourses with fish habitat both upstream and downstream of construction activities where possible. The upstream reading provided background turbidity information for the watercourse, while the downstream reading provided information on changes in turbidity caused by construction. Upstream readings were collected well away from any construction activity (approx. 50 m) to provide accurate results. Depending on activities and site conditions, readings may be collected at more than one location upstream and downstream. At each monitored watercourse crossing, a Turbidity Monitoring Data Form, included in the EPP, was completed to document conditions and record turbidity readings

Turbidity was measured during construction, as well as approximately 2 weeks after construction activity was completed at each monitored watercourse crossing. In comparing background data with post-construction data, factors affecting turbidity, such as weather conditions and stream flow, were considered. Turbidity measured post construction was compared with upstream turbidity measured during construction.

- Ice Blockage Monitoring and Contingency Plan

Following any crossing construction and during road use, the amount of ice build-up in front of the culverts will be monitored and ice will be removed if necessary. Ice will be removed manually or using steamers or other devices.

- Water Intake and Sewage Outfalls

The potential for entrainment of fish through water supply intakes (camps and drills) will be addressed through adherence to the Department of Fisheries and Oceans guideline entitled “Freshwater Intake End-of-Pipe Fish Screen Guideline” (DFO, 1995).

Water sources for drilling will be selected in consideration of the potential for drawdown. Streams will not be used unless previously approved by the Nunavut Water Board and rivers/lakes will not be selected for use should there be risk of drawdown elevation exceeding 5%. Water sources

proposed for use will be reported as per the water license, and at least ten (10) days in advance of use. During use, water sources will be periodically be monitored for drawdown and documented on drill inspection forms in the EPP. Drilling will be suspended if drawdown limits are exceeded.

Water intakes will be installed and operated in accordance with the DFO Letter of Advice and the Transport Canada Navigable Waters Section 5(2) approvals applicable to these activities.

4.6 MARINE WILDLIFE

The following project components have been identified through which the Project could potentially have an impact on marine mammals:

a) Underwater and airborne noise due to construction-related activities and from the operation of ships and barges
b) Human interactions with wildlife
c) Accidental introduction of hydrocarbons or other deleterious substances into the marine environment

In support of the shipment of a bulk sample, a marine mammal monitoring program within the Pond Inlet-Eclipse Sound-Milne Inlet area of Nunavut was conducted by aerial line transact surveys during the open water season of 2008. The objectives were to document the distribution and response of marine mammals in the area to ship traffic to and from the landing site at Milne Inlet and to assist in the environmental assessment of the Mary River Project. The 2008 monitoring program was guided by the results of the 2007 program. Also in 2008, a similar aerial survey was undertaken in association with the dry cargo sea-lift that landed at the Steensby Inlet camp site.

Observed reactions of marine mammals have been generally consistent with other studies documented in the literature. Large changes in the geographic distribution of marine mammals that could be attributed to vessel transit were not observed. Minor and localized behavioural reactions of narwhals to the ship transits en route to or from Milne Inlet were observed and characterized by increased swimming speed and some alteration to swimming direction by narwhals in close proximity to the vessel or vessel track.

A dedicated marine monitoring program is not required to support on-going sea-lift operations at Milne Inlet and Steensby Inlet in association with current project activities. Mitigating measures outlined in the EPP will continue be followed to reduce the potential for impacts to marine mammals.

4.7 WATER QUALITY

The objectives of the water monitoring programs are to:

a) Ensure water use is not exceeding quantity restrictions and is being extracted from approved locations without causing adverse effects

b) Ensure sewage treatment facilities are meeting effluent quality requirements and that receiving waters are not being negatively impacted
c) Ensure that site drainage and runoff are not being adversely affected by site activities

Water quality monitoring is described below. This section incorporates water license requirements as well as aspects of the ESD, the Site Water Management Plan, and the Waste Water Management Plan. The latter documents are requirements of the water license and outline the management approaches as well as monitoring that is consistent with the CEMP.

The water quality monitoring program consists of several elements as follows:

a) Measurement, recording and reporting of water volumes extracted, as prescribed by the water license
b) Sampling, analysis and reporting of water quality, as prescribed by the water license
c) Weekly to monthly monitoring downstream of exploration drilling activities during periods of open water

Table 4.2 summarizes the water quality monitoring program. This monitoring program is carried out concurrent with ongoing baseline water quality sampling; however, the baseline program is not discussed in the CEMP.

- Potable Water

Potable water treatment systems are in place for the Mary River Camp (drawing water from Camp Lake), for the Milne Inlet Camp (drawing water from Phillips Creek in summer and an un-named lake at km 32 of the Milne Inlet tote road in winter), and for the Mid-Rail Camp (drawing water from the adjacent lake). Potable water for Steensby Inlet Camp is either pumped directly using drill hose from an un-named lake approximately 3 km east of the camp or transported to camp in buckets via helicopter. . Potable water treatment systems for the four camps consisted of holding tanks, UV disinfection, and filtration. There are two main regulatory instruments related to potable water use: Baffinland's water license and the *Public Health Act* and associated regulations.

The water license requires reporting of daily water use, using flow meters as appropriate, for all active camp water taking locations, as described in Table 4.2. Daily water use is to be reported in monthly reports to the NWB. The total allowable daily water use for camp water supply is 60 m^3.

- Drill Water

The water license requires reporting of daily water use, using flow meters as appropriate for all exploration and geotechnical drilling water taking locations, as described in Table 4.2. Daily water use is to be reported in monthly reports to the NWB. The total allowable daily water use for drill water supply is 325 m^3. There is no water quality monitoring required under the water licence for drill water use, with the exception of on-ice drilling, as discussed further below.

An exploration drill water quality monitoring program has been undertaken since 2005 at selected locations upstream (reference), downstream along the Mary River (potentially affected), and along steep seasonal flow channels that drain the rugged topographic terrain that characterizes the land surface in the vicinity of Deposits 1,2 and 3. The main objective of the monitoring program is to identify and measure Contaminants of Potential Concern (COPCs) in Mary River, both upstream at locations unaffected by drilling activities, and downstream at locations that may be potentially affected by drilling activities. Each year, the water quality monitoring program is dependent and specific to the planned scope of the drill program. The Environmental Health and Safety Superintendent will, in consultation with Operations personnel, design the annual exploration drill water quality monitoring program and ensure that it is implemented. The results of the monitoring program will be used to guide adaptive management measures, as appropriate.

- Sewage Treatment Plant Effluent

Baffinland's water license specifies requirements to measure and report on a monthly basis both the flow (volume) of sewage effluent discharged as well as final effluent quality, to confirm that effluent quality meets the requirements of the Water License, and is acceptable for release into Sheardown Lake or the drainage ditch at Milne Inlet, as appropriate.

a) Quantity of sewage treated (continuous)
b) Quantity of sludge generated (tabulated)
c) Monthly testing of final effluent quality discharged from the WWTFs, as follows:
    - BOD_5 (biological oxygen demand)
    - Total suspended solids (TSS)
    - Faecal coliform
    - pH

In addition, Baffinland proposes to conduct the following additional monitoring, not required by the water license:

- Monthly testing of sewage influent for the following parameters:
    - BOD_5 (biological oxygen demand)
    - Total suspended solids (TSS)
    - Faecal coliform
    - pH
    - Total Kjeldahl Nitrogen (TKN) plus ammonia-nitrogen
    - Total phosphorus

- Monthly testing of final sewage effluent for the following additional parameters not required by the water license:
    - TKN plus ammonia-nitrogen
    - Total phosphorus

- Under ice and open water testing (on Sheardown Lake) of receiving water quality for the following additional parameters not required by the water license:

- o BOD5 (biological oxygen demand)
- o Total suspended solids (TSS)
- o Faecal coliform
- o pH
- o Total Kjeldahl Nitrogen (TKN) plus ammonia-nitrogen
- o Total phosphorus
- o Dissolved Oxygen

Monitoring of effluent and receiving water quality is outlined in detail in Table 4.2. Data will be reported on a monthly basis as required by the water license, and discussed further in Section 14.

- Bulk Fuel Storage Facilities

Precipitation will collect in the fuel tank farm containment area. The water license specifies the collection and testing of berm water prior to discharge, at the Mary River bulk fuel storage facility (MRY-6) and the Milne Inlet bulk fuel storage facility (MRY-7). Sampling should be conducted as outlined in Table 4.2.

- General Site Drainage and Stormwater

A number of water quality monitoring stations were established throughout the Project area to collect baseline water quality. Many of the sampling sites are within local creeks or drainages both upstream and downstream of drilling, mining, crushing, stockpiling and fuel storage locations. Current water quality sampling stations at Mary River and Milne Inlet and along the Milne Inlet Tote Road are shown on Figures 1.2, 4.1 and 4.2.

Several stations are sampled on a weekly basis up and downstream of exploration drilling, while most sites are sampled on a monthly basis during periods of flow. Annual water sampling stations will be contingent on the field programs, while maintaining continuity in the database.

Runoff monitoring locations in relation to the bulk sample pit and ore stockpiles, as required by the water license, is discussed on the following section.

- Runoff from Bulk Sample Pit and Ore Stockpiles

Baseline data collection continues on the characterization of waste rock and ore that would be generated during full-scale mining for acid generation (acid rock generation – ARD) or metal leaching (ML). The ESD predicted that the risk for ARD and ML associated with the bulk sample program was low, and this was confirmed through follow-up testing in 2008 of the materials actually generated. Monitoring of the bulk sample pit and residual ore stockpiles at the crusher location and Milne Inlet will continue in accordance with the requirements of the water license and to confirm that poor quality run-off is not being generated through ARD or ML.

Several stations are specified in the water license: MRY-9 will collect seepage from the mixed ore (hematite and magnetite) bulk sample pit. MRY-10 is seepage collection at the weathered ore

stockpile; MRY-11 and MRY-12 is seepage collection from the ore stockpiles at Mary River crusher location and Milne Inlet, respectively. Sampling parameters include the following:

a) Field parameters (pH and total suspended solids)
b) Metals, including arsenic, copper, lead, nickel and zinc
c) Oil and grease

Parameters required for reporting by the water license are identified in Table 4.2.

- On-site Kinetic Testing

On-site kinetic testing was initiated in 2007 to verify the effects of the environment on reaction rates and therefore the potential for ARD and ML associated with materials that would be generated during mine operations. This work includes the placement of rock into plastic barrels on-site and monitoring of drainage from a tap at the bottom of the barrels. Preliminary results indicate negligible risk for metal leaching. The on-site kinetic testing is one element of a broader environmental baseline program that has been undertaken to characterize waste and ore materials.

- On-ice Drilling

On-ice drilling is critical for geotechnical investigations so that information for bridges and water crossing structures may be collected for use in design. Overall water quality, including occurrence and concentrations of suspended solids and trace metals, will be monitored in accordance with the EPP.

4.8 HYDROLOGY

Seasonal hydrometric stations have been installed and operated in various locations from 2006 to 2008, and again in 2010, to characterise the hydrologic regime (timing and magnitude of flows) in the Mary River Project area. These seasonal stations are removed from the watercourses in mid-September as the rivers freeze and are re-installed in late May or early June as the rivers begin to flow. In addition, Water Survey of Canada (WSC) has been contracted since 2006 to operate year-round hydrometric stations on four large rivers within the region (Mary River, Ravn River, Rowley River and Isortoq River). This work will likely continue during 2011.

Assembled hydrology data has provided the basis for engineering design and environmental assessment of water related aspects of the proposed Mary River Project. During 2010, the Water Survey of Canada (WSC), under contract to Baffinland, continued to operate hydrometric stations on four large rivers within the region (Mary River, Ravn River, Rowley River and Isortoq River).

4.9 WASTE MANAGEMENT

- Waste Management Plan

Combustible non-hazardous solid waste will be incinerated in manufactured high efficiency diesel-fired incinerator at both Mary River and Milne Inlet. The incinerators have double burners and will burn circulated exhaust. Incinerators will be operated in accordance with manufacturers' guidance and reflected in the EPP and associated site specific procedures.

Disposal of non-hazardous bulky inert wastes, such as steel, plastics and rubber, will eventually be disposed of in the inert landfill. Empty drums will be shipped back to the vendor; damaged ones will be crushed and sent off-site for recycling. Disposal of hazardous wastes, including waste oil, is discussed below.

The inert landfill was constructed in 2010 (landfill construction was deferred in 2009), as approved by the Nunavut Water Board, and used for disposal of non-combustible, non-hazardous, bulky waste with little to no salvage value. The landfill is considered "inert" because no biodegradable or hazardous wastes are placed in the landfill – only steel, plastics, glass and rubber that has been cleaned of either oily residues or food wastes – so that the wastes do not attract animals and do not generate toxic leachate. Ash residue from the incinerators will also be placed in the landfill subject to analytical testing. Existing bulky wastes from the 1960s as well as equipment and materials associated with recent project activities, was screened for non-compatible contents and placed into the new landfill. The operation and monitoring of the landfill is in accordance with the approved operations and monitoring manual.

- Hazardous Waste Management

Hazardous wastes associated with the project include oils, greases, antifreeze, lead acid batteries, and cleaners. Waste materials (used oil, antifreeze) will be collected in suitable containers, labelled as waste, and stored within lined containment areas until removed from site.

- Waste Monitoring

Waste monitoring includes the visual inspection of three main components of the waste management system (described below) and the measurement and recording of all wastes taken off site. Part I, Item 16 of the water license requires the following to be reported on a monthly basis:

a) The quantities in cubic meters of domestic waste, sewage and hazardous waste hauled off-site for disposal
b) The location and name of the disposal facility for each waste type
c) The date that each was hauled off-site for disposal, for each occasion that these are removed from the site

Prior to the availability of an on-site landfill, inert wastes were temporarily stored in designated locations at Mary River and Milne Inlet and in a manner that minimized the opportunity for wind-blown debris and animal attraction. Any wastes that are shipped off site will be recorded using an Off-Site Waste Disposal Log or equivalent developed through the EPP.

Hazardous wastes must be manifested in accordance with the Transportation of Dangerous Goods Regulations. Copies of the manifests will be forwarded to the Environmental Health and Safety Superintendent for inclusion in the monthly report to the Nunavut Water Board.

Regular visual inspection of waste management facilities will be conducted by the Environmental Health and Safety Superintendent, to ensure proper operation and adequate environmental controls are in place.

Monitoring of the incinerator operation involves ensuring proper operation and that appropriate wastes are incinerated.

Monitoring of the inert landfill involves visual inspections to ensure that only inert wastes are deposited in the landfill, and that adequate cover is provided so that wastes are contained and are not being dispersed by the wind. The Waste Disposal Facility (Landfill) Inspection Form is included in the EPP. Temporary storage locations for landfillable waste will be monitored for suitability of materials.

Hazardous materials storage areas will be inspected on a regular basis to ensure:

a) Proper storage (including proper labelling) and containment
b) Evidence of accidental releases, or ongoing leaks, drips or other indications of loss
c) Identification of cracks, corrosion, or damage to tanks, protective equipment, or floors
d) Conducting periodic inspections of waste storage areas and documenting the findings
e) Preparing and implementing spill response and emergency plans, if required

4.10 OPERATIONS MONITORING

In addition to specific monitoring and reporting requirements under the regulatory approvals such as the water license, QIA land lease, land use permits, and fisheries authorization as well as monitoring of project effects associated with execution of the bulk sample program, the Environmental Health and Safety Superintendent will coordinate routine inspections of various aspects of the operations. Routine inspections are conducted to confirm overall conformance with the requirements of the CEMP and companion EPP and will include inspections of all site based activities including exploration and geotechnical drilling, environmental baseline and related studies, camp operations, and bulk sample related activities.

The EPP includes a copy of the Compliance Monitoring Form used to document the findings and required actions. These reports are generated as an internal operational management tool to promote continuous improvement in environmental stewardship.

Checklists are used on a hole by hole basis for the exploration and geotechnical drill program as internal operational monitoring and compliance tools. These checklists are integrated into the EPP.

4.11 SOCIO-ECONOMICS

- Archaeological Resources

Archaeologists will be retained for the Project, as necessary, and will be on site conducting surveys in advance of work being undertaken in areas not previously assessed for archaeological resources. Work will not be undertaken in an area without archaeological consultation.

Compliance with the provisions of the Territorial Land Use Regulations and the Territorial Lands Act will be enforced as part of the CEMP. Known or suspected archaeological features will be avoided by applying a 30 m buffer, unless otherwise approved, and work will be stopped if archaeological resources are identified.

An operational standard providing guidance to site personnel to ensure that archaeological resources are not impacted during site operations is provided in the companion EPP.

- Employment and Training

The current Project provides an ongoing opportunity to collect and organize information on employment, such as an inventory of skills and abilities, and the duration of employment of the workforce (i.e., short term versus for the duration of the program). This information will assist Baffinland and its consultants in understanding the "workforce ecology" of the participating communities in the region, provide a basic employee database, and enhance human resource strategies for a future full-scale mining operation. Records of successful completion of training will also be retained.

SECTION 5.0 - DATA MANAGEMENT AND REPORTING

5.1 DOCUMENTATION AND DATA CONTROL

The Environmental Health and Safety Superintendent will coordinate the preparation, review and distribution, as appropriate, of the data and reports required for regulatory purposes. Various management plans and other regulatory deliverables will also be coordinated by the Environmental Health and Safety Superintendent.

Execution of some of the monitoring programs detailed in the CEMP and associated plans will be conducted by, or supported by consultants and contractors to Baffinland. Data and reports will be prepared and delivered to Baffinland by its consultants for internal and external distribution and use, as appropriate.

All formalized documents and reports will follow data control procedures, with revision numbers and revision tracking. Documents and data that are to be issued and liable to change will be controlled to ensure that they are approved before issue and that the current issue or revision is known to and available to those requiring them.

5.2 EXTERNAL REPORTING

Implementation of the monitoring under the CEMP results in the collection of data and the generation of various reports. Whereas there are regulatory requirements for formal monthly and annual reports including disclosure of issues of non-conformance, internal reporting is used to provide direction to personnel and to provide operational updates to site and corporate management. Internal reporting mechanisms may include weekly environment reports, weekly operations reports, and routine inspection reports. Site based toolbox and management meetings are also an important internal reporting tool commonly used.

External reports will be prepared as follows:

- Monthly Reporting

The water license requires reporting on a monthly basis, for the preceding month by the end of the following month (i.e., the August monthly report is due by September 30). Table 4.2 outlines the reporting requirements. Not all monitoring is to be reported as per the water license; some components of the monitoring program are for Baffinland's information only.

- Annual Reporting

There are five instruments requiring reporting on an annual basis. The first two are the NIRB Screening Decisions for the Exploration and Geotechnical Drilling, and the Bulk Sampling Program, respectively. The contents of the annual report are summarized below.

NIRB Screening Decision dated March 24, 2007 for the Exploration and Geotechnical Drilling Program - Project-specific Terms and Condition #4

The Proponent shall submit an annual report with copies provided to the NIRB, INAC, the QIA, and EC by January 31 each year that the project is in operation commencing January 31, 2008. The report must contain, but not be limited to, the following information:
a. A summary of activities undertaken for the year, including the amount of drilling;
b. A work plan for the following year;
c. The results of environmental studies undertaken and plans for future studies;
d. Wildlife encounters and actions/mitigation taken;
e. A summary of local hires and initiatives;
f. A summary of community consultations undertaken and the results;
g. A summary of site-visits by inspectors with results and follow-up actions;
h. The number of take-offs & landings from an airstrip with approved flight path with date and location;
i. The number of helicopter touch-downs on the land with date and location (provide unless confidential);
j. Site photos;
k. Progressive reclamation work undertaken; and
l. A summary of how the Proponent has complied with NIRB conditions contained within this Screening Decision and the conditions associated with all authorizations for the project proposal.

NIRB Screening Decision dated May 4, 2007 for the Bulk Sampling Program - Project-specific Terms and Condition #5

The Proponent shall submit an annual report with copies provided to the NIRB, INAC, the QIA, Environment Canada and Government of Nunavut by January 31 each year that the project is in operation commencing January 31, 2008. The report must contain, but not be limited to, the following information:

a. A summary of activities undertaken for the year, including any progressive reclamation work undertaken, and a work plan for the following year –site photos should be provided where relevant;
b. A summary of how the Proponent has complied with NIRB conditions contained within this Screening Decision.
c. A summary of the results from the Monitoring Program and the Construction Environmental Management Plan, including:

- *i. An analysis of the impact of the project upon the bio-physical and socioeconomic environments, including the cumulative impacts from other activities within the project area;*
- *ii. An analysis of the effectiveness of mitigation measures;*
- *iii. The identification of any unanticipated environmental impacts (if any) and any follow-up required (if relevant);*
- *iv. Compliance status with applicable regulations and all authorizations associated with the project activities, including any exceedances of CCME-FWAL criteria (as reported to Environment Canada, the Nunavut Water Board, and the Department of Fisheries and Oceans Canada);*

v. Any necessary adaptive mitigation strategies employed;
vi. Any modifications made to the Monitoring Program;
vii. Results of community member involvement in the Monitoring Program; and
viii. Description of the progress made on the development of component-specific thresholds used to determine the necessity for adaptive mitigation and management strategies.

d. A summary of community consultations undertaken and the results; and
e. A summary of site-visits by inspectors with results and follow-up actions.

NIRB Screening Decision dated February 22, 2008 for the Exploration and Geotechnical Drilling Program - Project-specific Terms and Condition #8

The Proponent shall include in its Annual Report for Geotechnical and Exploration Program all the proposing project activities and components described in this application. In addition to the requirements directed by NIRB in its Screening Decision Report dated March 26, 2007 for 07EN004, an accumulative effects assessment should be included in the Annual Report with respective to the additive and cumulative effects by the two subprojects and the proposed expansions of the one subproject (i.e., the geotechnical and exploration project) comprising the larger Mary River project.

The requirements of the NIRB annual reports will be met with submission of a single report.

Water License Annual Report
Part B, Section 6

The Licensee shall file with the Board no later than March 31st of the year following the calendar year being reported, an Annual Report on the appurtenant undertaking which shall contain the following information:

a. the monthly and annual volumes, in cubic metres, of all fresh water obtained from Camp Lake at Monitoring Station MRY-1, Phillips Creek at Monitoring Station MRY-2, Km 99 Lake at Monitoring Station MRY-3, and additional sources of water identified for camp use under Part C, Item 1;
b. the monthly and annual volumes in cubic metres of all freshwater obtained for the purpose of drilling and other associated uses;
c. the monthly and annual volume in cubic meters of treated Sewage effluent discharged at Monitoring Station MRY-4, Mary River Camp WWTF at Monitoring Station MRY-5, and at Milne Inlet Camp WWTF Monitoring Station at MRY-5 along with any waters discharged from the respective PWSPs;
d. the monthly and annual volumes in cubic metres of Sludge removed from the Waste Water Treatment Facilities at Mary River Camp and Milne Inlet Camp and details on the storage and/or disposal;
e. a summary, including photographic records before, during and after construction activities, of any modifications and/or major maintenance work carried out on the Water Supply and the Wastewater Treatment Facilities, including all associated structures, and an outline of any work anticipated for the next year;
f. the geochemical analysis of drill cores as per Part F, Item 3;

g. a detailed discussion on the performance, installation, and evaluation, including the use of photographic record, of the primary and secondary containment functions used in fuel storage to safeguard impacts to freshwaters;
h. a list of unauthorized discharges and a summary of follow-up action(s) taken;
i. a brief description of follow-up action(s) taken to address concerns presented within inspection and compliance reports prepared by the Inspector;
j. an update, where required under Part B, Item 11, in the form of an addendum or revision to the Abandonment and Restoration Plan, Emergency Spill Response Plan, Site Water Management Plan, Waste Water Management Plan, Waste Rock and Ore Storage Plan, QA/QC, Landfill Operations and Maintenance Plan, and Landfarm Plan;
k. a description of all progressive and or final reclamation work undertaken, including drill sites, presented with photographic records of site conditions before, during and after completion of operations;
l. an updated estimate of the current restoration liability required under Part B, Item 2, based upon the results of progressive restoration, restoration research, project development monitoring, and any changes or modifications to the project;
m. tabular summaries of all data generated under the Monitoring Program, Part I;
n. a summary of public consultation/participation, describing consultation with local organizations and residents of the nearby communities, if any were conducted;
o. a summary of any specific studies or reports requested by the Board, and a brief description of any future studies planned or proposed; and
p. any other details on water use or waste disposal requested by the Board by November 1 of the year being reported.

The **DFO authorization (NU-06-0084)** stipulates that *a written report summarizing the above monitoring results shall be submitted to the Iqaluit, NU office of the Department of Fisheries and Oceans - Fish Habitat Management, Eastern Arctic Area on, or before, December 31 of each year, according to the schedule in section 5.2.*

The **QIA Commercial Lease for Inuit Owned Lands (No. Q10C3001)** Clause 6.01 (g)

The Tenant hereby covenants with the Landlord that it shall, at its own cost and expense:
(g) deliver to the Landlord, on or before March 1, 2011, and not later than March 1st of each subsequent year of the Term, a report, in form and scope satisfactory to the Landlord in respect of all environmental issues arising in respect of the Tenant's Operations and Work on the Property for the past calendar year, which report shall include:
(1) information respecting the Tenant's compliance with the terms of this Lease and any permits or licenses required in respect of its Operations on the Property, together with details of any incidents of non-compliance, the results of any inspection reports prepared by or fines levied by any competent regulatory authority and any remedial action relating thereto;
(2) copies of any environmental reports, or incident reports; or incident reports or documentation relating to project changes on environmental matters that the Tenant is required to submit to any competent regulatory authority;
(3) copies of any environmental monitoring reports or environmental studies in respect of the Property prepared for the Tenant, together with any interpretation or analysis of the data contained therein done by the Tenant or its agents or consultants; and

(4) a report on any Reclamation Work undertaken or required to be undertaken in accordance with this Lease.

The **QIA Commercial Lease for Inuit Owned Lands (No. Q10C3001)**: Schedule "D" Role, Responsibilities, and Authority of Environmental Inspector and Environmental Auditor - Liquidated Damages

17. If the Tenant contravenes any environmental obligation of this Lease, including failure to comply with the Environmental Terms and Conditions or any of the provisions of an Environmental Action Plan, or contravenes a direction or order issued by an Environmental Inspector or Environmental Auditor, the Tenant shall immediately notify the Landlord of such contravention in writing. The Tenant will then, within 15 days of such notification, present a plan to the Landlord to resolve the issue, such plan to be approved by the Landlord acting reasonably.

TABLE 2.1

BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT

COMPREHENSIVE ENVIRONMENTAL MONITORING PLAN

STATUS OF COMPLIANCE WITH CONDITIONS, APPROVALS AND COMMITMENTS

ITEM	DELIVERABLE	STATUS
NIRB Screening Decision March 24, 2007 - NIRB Recommendations and Recommended Conditions		
1. Indian and Northern Affairs Canada (INAC) impose similar mitigation measures and/or conditions pursuant to the Federal Land Use Permit to those which were imposed upon Baffinland Iron Mines Corporation (the Proponent) on June 29, 2004, in regard to: a. Location and Area; b. Time c. Equipment d. Methods and Techniques e. Type, Location, Capacity and Operation of Facilities f. Control or Prevention of Flooding, Erosion and Subsidence of Land g. Use, Storage, Handling and Disposal of Chemical or Toxic Material h. Wildlife and Fisheries Habitat i. Objects and Places of Recreational, Scenic and Ecological Value j. Petroleum Fuel Storage k. Matters Not Consistent with the Regulations	INAC Land Use Permits N2006C0036 and N2007F0004	Completed by INAC
2. The Qikiqtani Inuit Association (QIA) impose mitigation measures and/or conditions pursuant to the Inuit Owned Lands License upon the Proponent in regard to: a. General Standards b. Fuel and Chemical Storage c. Drilling d. Campsites e. Fisheries f. Ground Disturbance g. Other General h. Any other conditions recommended by the appropriate Community Lands and Resource Committee	QIA Commercial Lease for IOL Q07L3C001	Completed by QIA
3. The QIA require the Proponent to follow the QIA Code of Conduct for Land Users.	QIA Commercial Lease for IOL Q07L3C001	Completed by QIA
NIRB Screening Decision March 24, 2007 - NIRB Recommended Project-Specific Terms and Conditions		
1. Baffinland Iron Mines Corporation (the Proponent) shall maintain a copy of this Screening Decision at the site of operation at all times.	N/A	Copies are on site
2. The Proponent shall forward copies to NIRB of all permits obtained and required for this project prior to the commencement of the project.	Letter to NIRB dated June 8, 2007	Complete
3. The Proponent shall operate in accordance with commitments stated in Appendix A and all documentation provided to NIRB, INAC, the QIA and the Nunavut NWB. Where information in the documentation conflicts with Appendix A, Appendix A shall prevail.	N/A	Ongoing
4. The Proponent shall submit an annual report with copies provided to the NIRB, INAC, the QIA, and EC by January 31 each year that the project is in operation commencing January 31, 2008.The report must contain, but not be limited to, the following information: a. A summary of activities undertaken for the year, including the amount of drilling; b. A work plan for the following year; c. The results of environmental studies undertaken and plans for future studies; d. Wildlife encounters and actions/mitigation taken; e. A summary of local hires and initiatives; f. A summary of community consultations undertaken and the results; g. A summary of site-visits by inspectors with results and follow-up actions ; h. The number of take-offs & landings from an airstrip with approved flight path with date and location; i. The number of helicopter touch-downs on the land with date and location (provide unless confidential); j. Site photos; k. Progressive reclamation work undertaken; and l. A summary of how the Proponent has complied with NIRB conditions contained within this Screening Decision, and the conditions associated with all authorizations for the project proposal	**2007 Annual Report to the Nunavut Impact Review Board** (Knight Piésold Ref. No. NB102-00181/11-1, Rev. 0, dated January 25, 2008) **2008 Annual Report to the Nunavut Impact Review Board** (Baffinland, 2009) **2009 Annual Report to the Nunavut Impact Review Board** (Baffinland, 2010) **2010 Annual Report to the Nunavut Impact Review Board** (Baffinland, 2011)	Completed annually. Due January 31 each year starting in 2008
5. Immediately upon clarification regarding the commitment of the Proponent to participate in a Government of Nunavut Department of Environment (GN-DOE) caribou collaring initiative with the GN-DOE, the Proponent shall submit to NIRB relevant documentation providing evidence of the commitments of the Proponent and the GN-DOE in this regard.	**Memorandum of Understanding** (Signed in late 2007)	Complete
6. On or before May 31, 2007, the Proponent shall submit to NIRB, the NWB, the QIA and the Department of Fisheries and Oceans Canada (DFO) a report describing all possible locations where water-taking may result in a water body being drawn down. This report must include: a. Effects analysis of water draw-down in these locations; b. Proposed mitigation/abatement measures for potential adverse effects; and c. Monitoring and follow-up strategies regarding water draw down effects.	**Site Water Management Plan** (Knight Piésold Ref. No. NB102-00181/10-5, Rev. 1, dated March 31, 2008) **Site Water Management Plan** (Baffinland, dated March 31, 2009 **Site Water Management Plan** (Baffinland, dated March 31, 2010)	Complete
7. On or before May 31, 2007, the Proponent shall submit to NIRB, Environment Canada (EC), the QIA and the NWB a comprehensive Water Quality Monitoring and Management Program. ThisWater Quality Monitoring and Management Program may include the elements of the *Site Water Management Plan* (dated February 20, 2007 – to be submitted to the NWB ninety (90) days following the issuance of the water license) and any monitoring requirements included in the NWB water license and must also include: a. Details of the weekly monitoring program, such as monitoring locations, frequency of sampling, and parameters monitored; b. Guidelines used in the monitoring program, such as Canadian Council of Ministers for the Environment guidelines for the protection of freshwater aquatic life (CCME-FWAL),and any site-specific criteria established by the NWB; c. Operational procedures intended to mitigate the potential adverse effects to water quality, including those from drill wastes; d. Anticipated adaptive management strategies to deal with adverse impacts identified from the 2007 and 2008 monitoring program, including: i. Description of alternative methods of containment for waste deposition which may be considered by the Proponent; ii. Criteria the Proponent will use when considering the requirement for adaptive management. e. The requirement to report any exceedences of CCME-FWAL to Environment Canada, NWB, and DFO		
8. The Proponent shall ensure that the Wastewater Treatment Plan Design and Operations/Maintenance (O/M) Report to be submitted to the NWB for approval, must address design criteria such as: a. Identification of control parameters (COD/BOD5, TSS, heavy metals); b. Corresponding discharge limits; c. Emergency/O&M failure measures; d. Identification of the water bodies where effluent will be discharged; and e. Potential impacts to aquatic life from effluent discharge.	**Waste Water Management Plan for Mary River and Milne Inlet Camp Sites** (BH Martin Consultants Inc., Report Reference No. 06-090, dated September 15, 2007) **Wastewater Management Plan** (Baffinland, dated March 31, 2009) **Wastewater Management Plan** (Baffinland, dated March 31, 2010)	Complete
9. The Proponent shall consult Transport Canada's Canadian Aviation Regulations to ensure compliance where appropriate.	Aeronautical Obstruction Clearance Form Land Use Proposal Submission Form	Requisite forms submitted to Transport Canada
10. Prior to any ground disturbance activities, the Proponent shall submit an Archaeological Assessment Report to NIRB and the Government of Nunavut Department of Culture, Language, Elders and Youth (GN-CLEY). Any subsequent direction provided by the GN-CLEY the Archaeological Plan must be forwarded to NIRB.	**Archaeology Assessment Report** (Knight Piésold Ref. No. NB07-00348, dated April 30, 2007) **2007 Archaeology Investigations Final Permit Report** (Points West Heritage Consulting Ltd. NU Archaeologist's Permit 2007-017A, dated May 31, 2008) **Steensby Inlet 2008 Archeological Investigations Final Permit Report** (Knight Piesold Ref. No. NB102-181/15-A.01, dated March, 2009) **2008 Archeological Investigations Northern Section Final Report** (Knight Piesold Ref. No. NB102-181/15-A.01, dated March 20, 2009) Pinard Claude 2011 **Mary River Project, Nunavut, 2010 Archaeological Investigations. Final Permit Report** (NU Archaeologist's Permit 2010-026A).	Complete
11. The Proponent shall adhere to conditions stated in attached Appendix B *Archaeological and Palaeontological Resources – Terms and Conditions for Land Use Permit Holders.*	N/A	Incorporated into Environmental Protection Plan (EPP)
12. On or before May 31, 2007, the Proponent shall submit a report describing all ongoing baseline research activities to NIRB, GN-DOE and the QIA, which must include: a. Summary of the activities in the 2007 Environmental Baseline Program; and b. Protocols to be followed by researchers to reduce unnecessary impacts to the environment from research activities.	**Summary Report on Baseline Activities** (Knight Piésold Ref. No. NB07-00484, dated June 8, 2007)	Complete
13. On or before May 31, 2007, the Proponent shall submit a Wildlife Mitigation and Monitoring Plan to NIRB, the GN-DOE, and the QIA, which must include: a. All relevant baseline terrestrial data collected by the Proponent from previous baseline research activities; b. Predicted impacts to wildlife from project activities (wildlife assessment report); c. Proposed site-specific measures to reduce anticipated adverse impacts to wildlife, including adaptive management measures and all relevant Proponent commitments in Appendix A; d. Proposed measures for wildlife monitoring; and e. Incorporation, where possible, of data collected by the Pisikik Inuit Qaujimajatuqangit Working Group into the wildlife assessment report, measures to reduce adverse impacts to wildlife and proposed measures for wildlife monitoring. Any subsequent direction provided by the Government of Nunavut regarding the Wildlife Mitigation and Monitoring Plan must be forwarded to NIRB.	**Wildlife Monitoring and Mitigation Plan** (Knight Piésold Ref. No. NB102-00181/7-4, Rev. 0, dated August 15, 2008)	Complete
14. The Proponent shall submit its updated Spill Contingency Plan and Abandonment and Restoration Plan to NIRB, INAC, QIA and the NWB immediately.	**Spill Contingency Plan** (Qikiqtaaluk Environmental, March 2008) (Baffinland, March 31 2009) (Baffinland, March 31, 2010) (Baffinland, March 1, 2011) **Abandonment and Reclamation Plan** (Knight Piésold Ref. No. NB102-00181/6-7, Rev. 2, dated March 31, 2008) **2009 Abandonment & Reclamation Plan** (Knight Piesold Ref. No. NB102-181/15-1, Rev. 0, dated March 26, 2009) **2010 Abandonment & Reclamation Plan** (Baffinland, dated March 31, 2010) **2011 Abandonment & Reclamation Plan** (Baffinland, dated March 1, 2011)	Complete
15. The Proponent shall ensure that the disposal of combustible camp wastes comply with the *Canadian Wide Standards for Dioxins and Furans* , and the *Canadian Wide Standards for Mercury* . Efforts made to achieve compliance shall be reported to the NIRB as part of the annual report.	**2007 Annual Report to the Nunavut Impact Review Board** (Knight Piésold Ref. No. NB102-00181/11-1, Rev. 0, dated January 25, 2008) **2008 Annual Report to the Nunavut Impact Review Board** (Baffinland, 2009) **2009 Annual Report to the Nunavut Impact Review Board** (Baffinland, 2010) **2010 Annual report to the Nunavut Impact Review Board** (Baffinland, 2011)	Completed annually. Due January 31 each year starting in 2008
16. The Proponent shall not conduct any activity associated with the land use operation if critical periods of wildlife cycles are observed (e.g. caribou migration, calving, fish spawning, raptor nesting, polar bear movement).	N/A	Incorporated into EPP and project design
NIRB Screening Decision March 24, 2007 - Appendix A Proponent Commitments		
1. Submission of an Archaeological Assessment Report to Government of Nunavut Department of Culture, Language, Elders and Youth	**Archaeology Assessment Report** (Knight Piésold Ref. No. NB07-00348, dated April 30, 2007) **2007 Archaeology Investigations Final Permit Report** (Points West Heritage Consulting Ltd. NU Archaeologist's Permit 2007-017A, dated May 31, 2008) **Steensby Inlet 2008 Archeological Investigations Final Permit Report** (Knight Piesold Ref. No. NB102-181/15-A.01, dated March, 2009) **2008 Archeological Investigations Northern Section Final Report** (Knight Piesold Ref. No. NB102-181/15-A.01, dated March 20, 2009) Pinard Claude 2011 **Mary River Project, Nunavut, 2010 Archaeological Investigations. Final Permit Report** (NU Archaeologist's Permit 2010-026A).	Complete
2. Continue collecting and compiling wildlife baseline data, and identify critical habitat and avoid impacts based on current knowledge	N/A	Ongoing
3. Support a Government of Nunavut initiated caribou collaring program and a peregrine falcon research project, in addition to Baffinland's baseline studies	MOU Signed for Caribou Collaring Program; Peregrine falcon research program initiated in 2007 with Baffinland support	Complete
4. Conduct a wildlife assessment report for submission to DOE for mid-April 2007	**Wildlife Assessment Report** (Knight Piésold Ref. No. NB07-00412, dated May 5, 2007)	Complete
5. Comply with caribou protection measures	**N/A**	**Incorporated into EPP**
6. Contact local HTO and Wildlife Officer in the event of a defense polar bear kill.	N/A	Incorporated into EPP
7. Initiate discussions with the Mittimatalik Hunters and Trappers Organization and Igloolik Hunters and Trappers Association regarding compensation for any future defense kills of polar bear	N/A	Complete
8. Undertake the following with respect to air traffic: a. Minimize the number of flights b. Implement a 610 m flight altitude minimum and 1,000 m flight altitude minimum near concentrations of birds with exceptions where required; c. Avoid caribou calving grounds between May 15 and July 15. After July 15, post-calving areas known to have aggregations of caribou will be avoided d. Avoid a large concentration of wildlife, (i.e., Migratory Bird Sanctuaries, breeding colonies and caribou calving grounds), and take alternate routes e. Plan routes that are likely to have least occurrences of wildlife f. Use small aircraft rather than large aircraft whenever possible g. Hovering or circling may greatly increase disturbances and must be avoided h. Use fixed-wing aircraft rather than helicopters whenever possible i. Inform pilots of the wildlife sensitive areas j. Pilots to report caribou movements and locations during calving and post-calving periods, so that these areas can be avoided	N/A	Incorporated into EPP
9. Seek NWB approval prior to drilling within 30m of a water body	Baffinland Letter to NWB, dated February 19, 2008	Incorporated into EPP
10. Management plan of drill wastes to be submitted to the NWB for approval	**Site Water Management Plan** (Knight Piésold Ref. No. NB102-00181/10-5, Rev. 1, dated March 31, 2008) **Site Water Management Plan** (Baffinland, dated March 31, 2009) (Baffinland, dated March 31, 2010)	Incorporated into EPP
11. Return drill cuttings at surface to the drill hole, at all land-based drilling locations		Incorporated into EPP
12. Drilling through sea ice at potential port locations will be undertaken using drums, or equivalent, to collect and re-circulate all drill water and no drill water will be released from the casing into the water		Incorporated into EPP
13. Drill additives will not be used during on-ice drilling, and final disposal of drill water will be within a snow berm on land more than 30m from a water body		Incorporated into EPP
14. Improve drilling practices through use of in-ground sumps and/or alternative methods of containment will be identified and employed		Incorporated into EPP
15. Installation of a new incinerator to replace current incinerator at Mary River site and completion of stack test in early season to determine compliance with the *Canada-wide Standards for Dioxins and Furans*	**Incinerator Stack Testing - Mary River Incinerator** [2007] (RWDI AIR Inc. Proj No: #W07-5226A, dated Sept 28, 2007) **Incinerator Stack Testing - Mary River Incinerator** [2008] (RWDI AIR Inc. Proj No: #W07-5226F, dated October 29, 2008) **Incinerator Stack Testing - Mary River Incinerator (2009)** (RWDI Air Inc. Project 1010132, dated November 30, 2009)	Complete
16. Discussions with Government of Nunavut Department of Environment regarding waste oil disposal options	N/A	Completed
17. Compliance with Nunavut requirements as outlined in the *Environmental Guideline for the General Management of Hazardous Waste*	N/A	Incorporated into EPP
18. Filing of updated Spill Contingency Plan with the Nunavut Water Board	**Spill Contingency Plan** (Qikiqtaaluk Environmental, March 2008) **Spill Contingency Plan** (Baffinland, dated March 31, 2009) (Baffinland, dated March 31, 2010) (Baffinland, dated March 1, 2011)	Complete

TABLE 2.1

BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT

COMPREHENSIVE ENVIRONMENTAL MONITORING PLAN

STATUS OF COMPLIANCE WITH CONDITIONS, APPROVALS AND COMMITMENTS

ITEM	DELIVERABLE	STATUS
19. Filing of updated Abandonment and Restoration Plan with the Nunavut Water Board	**Abandonment and Reclamation Plan** (Knight Piésold Ref. No. NB102-00181/6-7, Rev. 2, dated March 31, 2008) **2009 Abandonment & Reclamation Plan** (Knight Piesold Ref. No. NB102-181/15-1, Rev. 0, dated March 26, 2009) **2010 Abandonment & Reclamation Plan** (Baffinland, dated March 31, 2010) **2011 Abandonment & Reclamation Plan** (Baffinland, dated March 1, 2011)	Complete
20. Review of bird survey methodologies and study findings with Canadian Wildlife Service	N/A	Discussions were held with Mark Mallory of CWS in March 2007
21. Develop and expand site orientation program	Baffinland's Site Orientation Package	Complete
22. Establishment of an on-going bird monitoring program consistent with precautions outlined by Government of Nunavut Department of Environment	N/A	Complete
23. On-going monitoring of polar bears with appropriate plans implemented as needed	N/A	Incorporated into EPP
24. Continuation of weekly water quality monitoring program	N/A	Incorporated into CEMP
25. Seek approval from NWB regarding sewage treatment plant and enlargement of sumps, if required	**Waste Water Management Plan for Mary River and Milne Inlet Camp Sites** (BH Martin Consultants Inc., Report Reference No. 06-090, dated September 15, 2007) **Wastewater Management Plan** (Baffinland, dated March 31, 2009) (Baffinland, dated March 31, 2010)	Complete
NIRB Screening Decision May 4, 2007 - NIRB Recommendations and Recommended Conditions		
Recommended Terms and Conditions, pursuant to 12.4.4(a) of the NLCA		
1. Baffinland Iron Mines Corporation (the Proponent) shall otherwise operate in accordance with all commitments stated in all documentation provided to NIRB, namely:		
a. Correspondence dated April 20, 2007 from Derek Chubb to Carolanne Inglis-McQuay, including the table addressing Parties' concerns		
The bulk sample pits are designed to be self draining to remove the potential for snow and rain precipitation to accumulate, thereby further reducing the potential for acid generation and metal leaching by removing pit wall contact with standing water. (response to Hamlet of Pond Inlet PI-1, Table 1, pg 5)(response to QIA-1, Table 2, pg 14) (response to GN-3, Table 3, pg 27) (response to GN-10, Table 3, pg 33)(response to EC-2, Table 4, pg 46) (response to INAC-3, Table 7, pg 56)	N/A	Ore extraction areas are self-drainng.
In the unlikely event that laboratory or field tests results suggest otherwise (ie. ore is likely to be acid generating or metal leaching to a significant level), Baffinland will further mitigate this risk by implementing additional engineering contingency plans. Contingency plans would require incorporating calcareous materials (sandstone, sands and gravel with buffering capacity) into the design of the small weathered ore stockpiles and test pits developed to extract the bulk sample. The costing in the Abandonment and Restoration Plan (A&R Plan) will be updated to include contingency costs associated with these contingency plans, and the revised A&R Plan will be submitted to the Nunavut Water Board in the near future. Test results will be available in advance of the collection of the actual bulk sample. (response to Hamlet of Pond Inlet, Table 1, pg 5)(response to QIA-1, Table 2, pg 14)(response to GN-3, Table 3, pg 27) (response to GN-10, Table 3, pg 33)(response to EC-2, Table 4, pg 46) (response to INAC-3, Table 7, pg 56)	**Abandonment and Reclamation Plan** (Knight Piésold Ref. No. NB102-00181/6-7, Rev. 2, dated March 31, 2008) **2009 Abandonment & Reclamation Plan** (Knight Piesold Ref. No. NB102-181/15-1, Rev. 0, dated March 26, 2009) **2010 Abandonment & Reclamation Plan** (Baffinland, dated March 31, 2010) **2011 Abandonment & Reclamation Plan** (Baffinland, dated March 1, 2011)	Complete
Baffinland will upgrade the proposed sewage treatment plant at the Mary River camp to meet tertiary treatment levels by including nutrient removal in its design (response to Hamlet of Pond Inlet PI-1, Table 1, pg 6) (response to GN-4, Table 3, pg 28)(response to INAC-1, Table 7, pg 54)	**Mary River Project - Rotating Biological Contactor (RBC) Sewage Treatment System As-Constructed Report** (Genivar, Report Reference No. 06-090, July 25, 2008)	Complete
In addition, a polishing pond up gradient of Sheardown Lake is being considered as a discharge point for treated sewage from the seasonal exploration camp (subject to Nunavut Water Board approval under the exploration project water license). The polishing pond, which will be lined and located near to Sheardown Lake, would be available to receive sewage from the Rotating Biological Contractor (RBC) system as a contingency measure in the event of RBC malfunction. Discharge to a pond system would provide an opportunity for biological and physical treatment prior to discharge to Sheardown Lake. (response to Hamlet of Pond Inlet PI-1, Table 1, pg 6)(response to GN-4, Table 3, pg 28)(response to INAC-1, Table 7, pg 54)	**Mary River Project - Tanks-A-Lot Sewage Treatment and Discharge As-Constructed Report** (BH Martin Consultants Inc., Report Reference No. 06-090, dated January 7, 2008) **Mary River Project - Rotating Biological Contactor (RBC) Sewage Treatment System As-Constructed Report** (Genivar, Report Reference No. 06-090, July 25, 2008) **Mary River Project - Waste Water Management Plan** (March 2010) see Appendices for updated as-constructed drawings.	Complete - Three (3) ponds were approved and constructed at the Mary River camp. Two ponds are in use, and the third was commissioned in 2009.
Nevertheless, snow sampling is proposed in the vicinity of the bulk sample pits, to detect any residual ammonia, as part of the monitoring program (ESD Section 8.6.4). (response to Hamlet of Pond Inlet PI-1, Table 1, pg 7)	**Comprehensive Environmental Monitoring Plan** (Knight Piésold Ref. No. NB102-00181/10-3, Rev. 1, dated March 31, 2008) (Baffinland, dated March 31,2010) (Baffinland, dated March 1, 2011)	Routine water sampling used to detect potential presence of ammonia
Baffinland has committed to modify minimum flight altitudes from 300 m as previously specified in land use permits to 610 m for project-related air traffic. Exceptions remain for wildlife surveys and the movement of drills by helicopters, which necessitate lower flight altitudes. This commitment will also be applied to the bulk sample program. (response to Hamlet of Pond Inlet PI-2, Table 1, pg 7)	N/A	Incorporated into EPP
The Construction Environmental Monitoring Plan (CEMP) will establish operating policies and procedures to minimize the potential for human/wildlife interaction and disruption due to site activities. All employees will be encouraged as part of the CEMP to report any observed response of wildlife to site activities. (response to Hamlet of Pond Inlet PI-2, Table 1, pg 7)	**Environmental Protection Plan**	Incorporated into EPP
The CEMP will include a Human-Polar Bear Conflict Management Plan. Polar bear safety training and general wildlife awareness training will be provided to all workers and visitors to site as part of the mandatory site orientation. (response to Hamlet of Pond Inlet PI-2, Table 1, pg 7)	**Environmental Protection Plan**	Incorporated into EPP
Independent of the bulk sample program, Baffinland is continuing with robust baseline studies designed to support a potential future full-scale mining application. Caribou is recognized as a species of critical importance to the community, and is a key focus in the baseline studies (response to Hamlet of Pond Inlet PI-2, Table 1, pg 8)	**Summary Report on Baseline Activities** (Knight Piésold Ref. No. NB07-00484, dated June 8, 2007)	Baseline studies ongoing
Baffinland expects that community representatives will be involved in marine wildlife monitoring activities as with other baseline wildlife programs, and is prepared to arrange for community representatives to accompany one of the ships from Pond Inlet into Milne Inlet during the course of the program.(response to Hamlet of Pond Inlet PI-3, Table 1, pg 8)	N/A	Community representatives from Pond Inlet and Igloolik participated in marine monitoring and baseline studies, as well as caribou aerial surveys and archaeological studies
The bulk sampling program will have no ice breaking and no project activities in the vicinity of the floe edge. (response to Hamlet of Pond Inlet PI-3, Table 1, pg 8)	N/A	N/A
Peregrine falcon nests have been identified throughout the area, and these nests are subject to ongoing monitoring as part of baseline studies. Site activities, including rock quarrying, have been designed to avoid these nests (Figures 2.27 to 2.29). (response to Hamlet of Pond Inlet PI-4, Table 1, pg 9)	N/A	Baseline studies on-going
Sea containers used in the development of temporary crossings of these water courses will be designed and engineered for that purpose. Designs will be approved by a professional engineer and made available at the direction of the Board. The water crossings will require approval and/or advice from the Department of Fisheries and Oceans to address potential risks to fish and fish habitat. (response to Hamlet of Pond Inlet PI-5, Table 1, pg 9)	**Fish Habitat No Net Loss and Monitoring Plan** (Knight Piésold Ref. No. NB102-00181/10-4, Rev. 0, dated August 30, 2007) Incorporated into Fisheries Act Authorization Amendment 1, dated December 8, 2008.	Approval from DFO and Transport Canada, Navigable Waters obtained
Efforts will be made to minimize disturbance to hunters and land users during the course of the program. Measures to minimize disturbance will be articulated in the Construction Environmental Monitoring Plan (CEMP), and will include community radio updates on project activities and a reporting checkpoint at Milne Inlet for hunters to notify the project of their intended travel routes inland so these areas can be avoided to the extent possible. (response to Hamlet of Pond Inlet PI-6, Table 1, pg 10)	**Environmental Protection Plan**	Incorporated into EPP
Baffinland will continue to meet with community hunters and proposes to document observed hunting activities in the area over the course of the bulk sampling program. Baffinland will respond to any input provided by local hunters as it relates to site activities and its interaction with hunting activity. (response to Hamlet of Pond Inlet PI-7, Table 1, pg 10)	N/A	Ongoing
Operational plans will be developed that further consider ways to minimize local disturbances (to Inuit harvesting activities).(response to Hamlet of Pond Inlet PI-7, Table 1, pg 10)	**Environmental Protection Plan**	Incorporated into EPP
Baffinland has been and remains committed to maximizing local benefits to the community of Pond Inlet. Local expenditures (wages, goods and services) reached $2.5 million in 2006, and approximately 34 seasonal positions were filled by people of Pond Inlet. The bulk sample program will provide even more opportunities for local benefits. With an increased level of activity associated with the bulk sample program, Baffinland expects hiring to extend to other communities as well.(response to Hamlet of Pond Inlet PI-9, Table 1, pg 11)(response to QIA-16, Table 2, pg 22)	N/A	Ongoing
additional socio-economic monitoring will be carried out during the course of the bulk sampling program to track training, experience and skills of workers. This data, respecting privacy requirements, can be provided to the Hamlet.(response to Hamlet of Pond Inlet PI-9, Table 1, pg 11)	N/A	Some data included in the 2007 and 2008 Annual Report to the Nunavut Impact Review Board
The same approach will be taken for tourism activities as it will be for hunting activities. Observed tourism activities will be documented and Baffinland will respond to any input provided by tourism operators and others. Baffinland will communicate with known stakeholders regarding shipping activities and schedules so that any concerns can be proactively addressed.(response to Hamlet of Pond Inlet PI-10, Table 1, pg 12)	N/A	Notification of shipping provided to Nunavut Tourism and the Hamlet of Pond Inlet
the project-related ship traffic is quite modest with 2 shipments planned in 2007 and 5 shipments in 2008 (response to Hamlet of Pond Inlet PI-10, Table 1, pg 12)	N/A	N/A
The shipping traffic associated with Baffinland's bulk sampling program includes 2 ships in August 2007, and five ships spanning August-September 2008. (response to Hamlet of Pond Inlet PI-10, Table 1, pg 12)	N/A	N/A
Mitigating measures are integrated into the design of the bulk sample program and adaptive management will be practiced in response to field results. Activities and interaction with the environment will be carefully managed through the implementation of a comprehensive CEMP to which was committed to in the ESD. The CEMP will address all phases of the Bulk Sample Program and include reporting mechanisms to the community and other stakeholders. Baffinland will continue its commitment to open communication and seek input from the community on a regular basis throughout the course of the project (response to Hamlet of Pond Inlet PI-11, Table 1, pg 12)	**Environmental Protection Plan**	Regular community and hamlet meetings are ongoing.
The ore will be coarsely crushed and then screened into two fractions; one -31.5+6.3mm in size and the second – 6.3mm or the size of small pebbles and through this process, very little fines are expected to be generated. As a result, dust is not anticipated to be generated in quantities that warrant suppression. This prediction will be validated through snow sampling downwind of the crusher as part of the monitoring program (Section 8.6.4). The crusher will operate for a very short period, in the order of 3-4 months. (response to QIA-2, Table 2, pg 15) (response to GN-7, Table 3, pg 30) (response to EC-4, Table 4, pg 47)	**Comprehensive Environmental Monitoring Plan** (Knight Piésold Ref. No. NB102-00181/10-3, Rev. 1, dated March 31, 2008) (Baffinland, dated March 31, 2010) (Baffinland, dated March 1, 2011)	Complete
The CEMP is an operational plan that will outline best management practices, environmental sensitivities, responsibilities, and action plans to address potential environmental effects. Baffinland will share a draft of the CEMP with the QIA and submit the plan to the QIA 30 days prior to the start of construction activities.(response to QIA-3, Table 2, pg 15)		
The Qikiqtaaluk Corporation, as a contractor on the project, will be one of the companies responsible for the implementation of the CEMP. (response to QIA-3, Table 2, pg 16)	N/A	Ongoing
There will be full-time presence of senior operations managers during the course of the bulk sampling program, to ensure the implementation of the CEMP. (response to QIA-3, Table 2, pg 16)	N/A	Ongoing
The CEMP will include environmental best management practices, as indicated in the draft table of contents in Appendix I of the CEMP. (response to QIA-4, Table 2, pg 16)	**Environmental Protection Plan**	Incorporated into EPP
Section 6.2.4.2 indicates that a Fish Habitat Mitigation, Compensation and Monitoring Plan will be developed to the satisfaction of the Department of Fisheries and Oceans (DFO), pending feedback from the regulatory process and completion of the detailed design for the road. This plan will articulate the ways that Baffinland will meet DFO's policy for the protection of fish and fish habitat (response to QIA-5, Table 2, pg 16)	**Fish Habitat No Net Loss and Monitoring Plan** (Knight Piésold Ref. No. NB102-00181/10-4, Rev. 0, dated August 30, 2007)	Complete
Monitoring of narwhal responses to ship traffic is proposed as part of the bulk sampling program, and thus the bulk sampling program presents an opportunity to collect real response data that can be used in consideration for a potential future full-scale mining operation. (response to QIA-6, Table 2, pg 17)	Monitoring results summarized in: **2007 Annual Report to the Nunavut Impact Review Board** (Knight Piésold Ref. No. NB102-00181/11-1, Rev. 0, dated January 25, 2008) **2008 Annual Report to the Nunavut Impact Review Board** (Baffinland, 2009) **2009 Annual Report to the Nunavut Impact Review Board** (Baffinland, 2010) **2010 Annual Report to the Nunavut Impact Review Board** (Baffinland, 2011)	Complete
Baffinland is working with the Government of Nunavut and others in undertaking caribou surveys and is assembling habitat mapping to better understand caribou ecology and distribution in the Region. (response to QIA-7, Table 2, pg 17)	N/A	Ongoing
The CEMP is under development and will address the interaction of the project/humans with wildlife that may be in the area. All employees will be encouraged as part of the CEMP to report any observed response of wildlife to site activities and activities will be responsive to any concerns that may arise. (response to QIA-7, Table 2, pg 17)	**Environmental Protection Plan**	Incorporated into EPP
The removal of hazardous wastes to a licensed disposal facility will take place in 2008 as well as at final abandonment in 2009.(response to QIA-9, Table 2, pg 18)	**Environmental Protection Plan**	Incorporated into EPP
The landfill will receive only inert, non-combustible and non-hazardous wastes. Construction and closure of the landfill is described in Sections 2.19.1 and 2.19.2. Monitoring includes quality assurance during construction and closure of the landfill. Regular monitoring of the materials placed in the landfill, to ensure they are both non-combustible and nonhazardous, will be carried out according to an operational procedure to ensure that only inert wastes are placed in the landfill and that the waste is regularly covered to minimize the potential for debris to scatter.(response to QIA-9, Table 2, pg 18)	**Bulk Sampling Program - Landfill Design and Operations** (Knight Piésold Ref. No. NB102-00181/10-6, Rev. 1, dated March 31, 2008) Subsequent Adendum	Landfill design received approval in 2009; construction of landfill completed in July 2010.
Section 2.19 notes that incinerator ash will be placed into the landfill. This is bottom ash, which will be inert, and no fly ash will be generated given the technology to be used. (response to QIA-10, Table 2, pg 18)		
With respect to work around fish bearing waters, this work will be conducted in accordance with authorizations obtained under the *Fisheries Act* , and will include full-time supervision of in-water work by an environmental monitor. The environmental monitor may be Inuit, as Inuit have been involved in various aspects of the baseline studies.(response to QIA-10, Table 2, pg 18)	**Environmental Protection Plan**	Conditions of the *Fisheries Act* authorization incorporated into the EPP
Baffinland activities in the Mary River area will include the Bulk Sample Program along with ongoing exploration drilling and baseline environmental and geotechnical programs for which required approvals are currently in place. (response to QIA-11, Table 2, pg 19) (response to GN-9, Table 3, p32)(response to INAC-5,Tabe 7, pg 57)	N/A	N/A
In 2007, environmental and geotechnical programs will be carried out at potential port sites at Milne and Steensby Inlets as well as potential transportation corridors between these locations and the main ore deposit. (response to QIA-11, Table 2, pg 19) (response to GN-9, Table 3, p32)(response to INAC-5,Tabe 7, pg 57)	N/A	N/A
Measures are being undertaken in 2007 to improve drill water management practices associated with the geotechnical drilling program for 2007 that was approved through separate application. There is no diamond drilling associated with the bulk sample program and hence no use of drilling salt. (response to QIA-11, Table 2, pg 19)	**Environmental Protection Plan**	Incorporated into EPP
Baffinland has retained licensed archaeologists to conduct annual surveys since 2006 to support baseline and project development. Inuit students have participated in the surveys. (response to QIA-12, Table 2, pg 19).	N/A	Participation by Inuit students is expected to be ongoing.
The Milne Inlet tote road will be abandoned in a condition that will be stable in the long-term. Sea container crossings will be removed as they are not designed for long-term use, and any culverts which are deemed not stable in the long term will also be removed (response to QIA-13, Table 2, pg 19)	**Abandonment and Reclamation Plan** (Knight Piésold Ref. No. NB102-00181/6-7, Rev. 2, dated March 31, 2008) **2009 Abandonment & Reclamation Plan** (Knight Piesold Ref. No. NB102-181/15-1, Rev. 0, dated March 26, 2009) **2010 Abandonment & Reclamation Plan** (Baffinland, 2010) **2011 Abandonment & Reclamation Plan** (Baffinland, 2011)	N/A
Contingency costs will be included in an updated A&R Plan (response to QIA-13, Table 2, pg 20)	**Abandonment and Reclamation Plan** (Knight Piésold Ref. No. NB102-00181/6-7, Rev. 2, dated March 31, 2008) **2009 Abandonment & Reclamation Plan** (Knight Piesold Ref. No. NB102-181/15-1, Rev. 0, dated March 26, 2009) **2010 Abandonment & Reclamation Plan** (Baffinland, 2010) **2011 Abandonment & Reclamation Plan** (Baffinland, 2011)	Complete; costs were further revised using the RECLAIM model, as requested by INAC.
The A&R Plan will be revised to reflect post-closure monitoring for a period of 5-years, with the option to cease monitoring earlier if conditions warrant (response to QIA-13, Table 2, pg 20)		
The A&R Plan remains a conceptual document for the purposes of the screening process. As an operational plan for execution, an updated A&R Plan will be submitted to the Nunavut Water Board for approval during the permitting phase (response to QIA-13, Table 2, pg 20)	**Abandonment and Reclamation Plan** (Knight Piésold Ref. No. NB102-00181/6-7, Rev. 2, dated March 31, 2008) **2009 Abandonment & Reclamation Plan** (Knight Piesold Ref. No. NB102-181/15-1, Rev. 0, dated March 26, 2009) **2010 Abandonment & Reclamation Plan** (Baffinland, 2010)	Complete
It is Baffinland's objective to execute it's A&R Plan upon completion of the program, and ensure that environmental liabilities do not remain. (response to QIA-14, Table 2, pg 20)	N/A	N/A
The Qikiqtaaluk Corporation has been contracted as part of the bulk sample program and will provide manpower from the region as well as construction services. (response to QIA-16, Table 2, pg 22)	N/A	N/A
As one element of study, Baffinland has committed to provide both financial and in-kind support to the GN in the implementation of a caribou collaring program in the North Baffin Region. A draft Memorandum of Understanding has been developed and is currently being finalized. (response to GN-1, Table 3, pg 24)	**Memorandum of Understanding** (Signed in late 2007)	Complete
Baffinland has committed to adherence to the Caribou Protection Measures as required for conformance with the North Baffin Regional Land Use Plan (Section 6.2.2.2). (response to GN-1, Table 3, pg 24)	N/A	Ongoing
On-site wildlife biologists as well as pilots will be monitoring caribou movements during the sensitive period set out in the Caribou Protection Measures of May 15 to July 15, and biologists will be responsible for assessing situations in which caribou are observed near to project activities.(response to GN-1, Table 3, pg 24)	**Environmental Protection Plan**	Incorporated into EPP
Additional mitigation (such as minimum flight altitudes, hunting restrictions and a traffic management plan) is outlined in Section 6.2.2.2 and will also be outlined in a Wildlife Monitoring and Mitigation Plan that will be used as an operational plan for the site. (response to GN-1, Table 3, pg 24)	**Wildlife Monitoring and Mitigation Plan** (Knight Piésold Ref. No. NB102-00181/7-4, Rev. 0, dated Aug 15, 2008) **Environmental Protection Plan**	Identified in the WMMP, and subsequently incorporated into the EPP
Responding to recommendations from the GN in the recent screening of the drilling program, Baffinland committed to a new minimum flight altitude of 610 m, rather than the previous 300 m specified in land use permit/licenses. (response to GN-1, Table 3, pg 24)	**Environmental Protection Plan**	Incorporated into EPP
As mentioned in Section 6.3.4.2, Baffinland is working with the shipping companies and regulators in the planning of a mock arctic fuel spill response training exercise in conjunction with the bulk sample program, which will provide added environmental protection in the unlikely instance of a fuel release. (response to GN-2, Table 3, pg 25)	N/A	Training exercise completed

TABLE 2.1

BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT

COMPREHENSIVE ENVIRONMENTAL MONITORING PLAN

STATUS OF COMPLIANCE WITH CONDITIONS, APPROVALS AND COMMITMENTS

ITEM	DELIVERABLE	STATUS
The 8 million litres (ML) of fuel to be shipped during the bulk sampling program will occur against the backdrop of annual fuel deliveries to 13 Baffin region communities in the order of 110 ML per year (AMEC, 2004). As outlined in Section 2.13, fuel delivery will be undertaken using an experienced arctic shipping company using conventional fuel transfer methods, in compliance with the Canada Shipping Act and Arctic Waters Pollution Prevention Act, and associated regulations and guidelines identified in Section 6.3.4.2. These regulations and guidelines require ships to have an Canadian Coast Guard approved Emergency Response Plan and must maintain an arrangement with a certified response organization such as the Eastern Canada Response Corporation. (response to GN-2, Table 3, pg 25)	N/A	N/A
The Milne Inlet camp will have a capacity of 30 persons, and the package sewage treatment plant will treat to secondary treatment levels (BOD=40 mg/L and TSS=60 mg/L). The NWT Water Board guidelines (1992) for sewage discharge to the marine environment in a bay or fiord is BOD=120 mg/L and TSS=180 mg/L. NWT Guidelines have been used in guiding the design basis for the treatment system in the absence of similar guidelines for Nunavut. (response to GN-4, Table 3, pg 28)(response to INAC-1, Table 7, pg 54)	**Waste Water Management Plan for Mary River and Milne Inlet Camp Sites** (BH Martin Consultants Inc., Report Reference No. 06-090, dated September 15, 2007) **Wastewater Management Plan** (Baffinland, dated March 31, 2009) (Baffinland, dated March 31, 2010)	Complete
Baffinland accepts this recommendation (that an appropriate methodology for detecting exceedances of the approved water quality guideline be developed and submitted to NIRB during the environmental screening process). Future metals analyses will be forwarded to ALS Laboratories in Vancouver, as this laboratory can achieve the necessary detection limit. (response to GN-5, Table 3, pg 29)	N/A	Water quality samples for metals analysis are forwarded to Exova.Accutest Laboratories, who have appropriate lab methods with suitably low detection limit for cadmium
The risks associated with runoff from roads, borrow areas and airstrips relate to the potential for sediment to enter nearby fish-bearing watercourses, with the potential to harm aquatic organisms and reduce biological productivity. This is a minor and manageable risk when addressed using standard sediment control measures and construction mitigation methods (Section 6.1.5.2). The details will be articulated in the Construction Environmental Monitoring Plan (CEMP) and will be required to support applications for fisheries authorizations. (response to GN-6, Table 3, pg 29)	**Environmental Protection Plan**	Incorporated into EPP
Baffinland will be using modern equipment designed to minimize emissions from combustion. (response to GN-7, Table 3, pg 30)	N/A	N/A
Air and noise emissions will be localized and addressed through operational practices, in compliance with *Northwest Territories and Nunavut Mine Health and Safety Act* and Regulations which govern worker exposure to noise, dust and all other matters related to health and safety. Appropriate personal protective equipment (PPE) will also be provided for all workers. This legislation is enforced through the Workers' Compensation Board (WCB), and Mine Inspectors approve Baffinland's health and safety plans and engineering plans prior to the start of work programs. (response to GN-7, Table 3, pg 30) (response to GN-8, Table 3, pg 31) (response to HC-1, Table 6, pg 51)	N/A	Ongoing
The incinerator will be of dual-chambered design intended to meet the Canada-wide Standards for Dioxins and Furans. The efficacy of this equipment will also limit the potential for the release of particulate matter. Confirmatory stack testing will be completed during the bulk sampling program. Air quality from crushing and mining activities is addressed in Section 6.1.1.1 (response to GN-7, Table 3, pg 30) (response to EC-4, Table 4, pg 47)	**2007 Annual Report to the Nunavut Impact Review Board** (Knight Piésold Ref. No. NB102-00181/11-1, Rev. 0, dated January 25, 2008) **2008 Annual Report to the Nunavut Impact Review Board** (Baffinland, 2009) **2009 Annual Report to the Nunavut Impact Review Board** (Baffinland, 2010) **2010 Annual Report to the Nunavut Review Board** (Baffinland, 2011)	Testing of emissions from incinerators (stack testing) was conducted in 2007, 2008, and 2009. The results from this test work have indicated that dioxin and furan levels have exceeded applicable guidelines adopted by the Government of Nunavut. During 2010, a study was commissioned to look at historical test results for dioxin and furan at Mary River and in the Canadian North generally. The study also reviewed steps undertaken by Baffinland to minimize emissions, and was to provide recommendations and best practices to assist Baffinland in reducing these emissions in the future. The recommendations are to be considered during camp operations in 2011.
With respect to proposed upgrades beginning in March, this would have involved the positioning of culverts and equipment at key locations prior to spring break-up, operating within the existing footprint of the road and airstrips. This schedule has now changed since the writing of the ESD, and the current schedule (subject to receiving a NIRB notice of decision and subsequent approvals) will involve positioning of culverts as early as May (operating within the existing road footprint) and beginning to develop borrow sources in early June, once clearance has been provided by the archaeologist.(response to GN-11, Table 3, pg 35)	N/A	N/A
Baffinland management is continuing to work with government and stakeholders on the development of its human resources, training and employment programs in support of current and future plans. Our management team has seen the addition of a Director of Human Resources and a Business Development Manager located in Iqaluit. Community Liaison Officers are planned for other Baffin communities. Presentations will be delivered very shortly at the community level to discuss the activities of the Company and what to expect to work at Baffinland. Classroom and on the job training programs are being developed and will include such areas as workplace safety, orientation, heavy equipment operation, and cultural diversity. (response to GN-12, Table 3, pg 36)	**2007 Annual Report to the Nunavut Impact Review Board** (Knight Piésold Ref. No. NB102-00181/11-1, Rev. 0, dated January 25, 2008) **2008 Annual Report to the Nunavut Impact Review Board** (Baffinland, 2009) **2009 Annual Report to the Nunavut Impact Review Board** (Baffinland, 2010) **2010 Annual Report too the Nunavut Impact Review Board** (Baffinland, 2011)	N/A
With respect to the number of additional employees required for the bulk sampling program who will be hired locally, Baffinland will be using the Qikiqtaaluk Corporation (QC) to provide manpower to the project and is encouraging other contractors to work with the QC to maximize local benefits. (response to GN-12, Table 3, pg 36)	N/A	N/A
Efforts will be made to minimize disturbance to hunters and land users during the course of the program. Measures to minimize disturbance will be articulated in the CEMP, and will include community radio updates on project activities and a reporting checkpoint at Milne Inlet for hunters to notify the project of their intended travel routes inland so these areas can be avoided to the extent possible. Baffinland is committed to discussing the details of how this will be done with various stakeholders. (response to GN-13, Table 3, pg 37)	**Environmental Protection Plan**	Incorporated into EPP
The road will therefore be upgraded at a time when the Mary River is of heightened importance to the community due to availability of caribou. (response to GN-13, Table 3, pg 37)	N/A	N/A
Baffinland will construct fuel storage facilities to meet the appropriate codes. Baffinland will consider the many useful comments provided in an updated Emergency and Spill Response Plan. Recommendations for adequate storage for contaminated snow will be taken into consideration and reflected in the updated spill plan (response to GN-14, Table 3, pg 39)	**Spill Contingency Plan** (Qikiqtaaluk Environmental, March 2008) **Spill Contingency Plan** (Baffinland, dated March 2009) (Baffinland, dated March 31, 2010) (Baffinland, dated March 1, 2011)	Complete
While the drilling program was noted in the ESD, separate permits have been issued for the drilling program and Baffinland will adhere to the terms and conditions of the permits and commitments made during the screening of the drilling program. Geotechnical and exploratory drilling requiring the use of water is not an element of the bulk sample program. (response to GN-15, Table 3, pg 39)	N/A	N/A
Baffinland will seek approval from the department (GN_DOE) for the use of EK35. (response to GN-16, Table 3, pg 40)	N/A	EK35 was not used and removed from site in 2008.
The incinerator to be used at the Mary River camp is dual chamber with controlled air flow. Baffinland proposes to conduct a stack test to verify compliance with the Canada-Wide Standards during a visit by its air and noise quality consultant for baseline monitoring work. The incinerator to be used at Milne Inlet is also dual chamber but with forced air flow. (response to GN-17, Table 3, pg 40)	**2007 Annual Report to the Nunavut Impact Review Board** (Knight Piésold Ref. No. NB102-00181/11-1, Rev. 0, dated January 25, 2008) **2008 Annual Report to the Nunavut Impact Review Board** (Baffinland, 2009) **2009 Annual Report to the Nunavut Impact Review Board** (Baffinland, 2010) **2010 Annual Report to the Nunavut Impact Review Board** (Baffinland, 2011)	Testing of emissions from incinerators (stack testing) was conducted in 2007, 2008, and 2009. The results from this test work have indicated that dioxin and furan levels have exceeded applicable guidelines adopted by the Government of Nunavut. During 2010, a study was commissioned to look at historical test results for dioxin and furan at Mary River and in the Canadian North generally. The study also reviewed steps undertaken by Baffinland to minimize emissions, and was to provide recommendations and best practices to assist Baffinland in reducing these emissions in the future. The recommendations are to be considered during camp operations in 2011.
Baffinland will make efforts to reduce greenhouse gas emissions in the context of the short-term nature of the bulk sampling program through the efficient use of energy. As part of ongoing work related to the potential for a full-scale mining operation, Baffinland is collecting the information necessary to evaluate the viability of renewable energy options including wind and hydro. (response to GN-18, Table 3, pg 40)	N/A	N/A
Baffinland will have full-time medical care at site in accordance with the Northwest Territories and Nunavut Mine Health and Safety Act and Regulations. The applicable regulations referenced by Health and Social Services regarding camp sanitation and water supply will be adhered to. The comment regarding separation of sleeping quarters and the kitchen has been taken under advisement. (response to GN-20, Table 3, pg 42)	N/A	Compliant
Baffinland remains committed to the basic principles of sustainable development, and creating both local employment and business opportunities. (response to GN-22, Table 3, pg 43)	N/A	N/A
With respect to open stockpiling of ore, only the weathered ore stockpile will remain at the conclusion of the 15-month program; all other ore will have been removed from site. The weathered ore stockpile will consist of blasted weathered ore placed on the weathered ore of Deposit No. 1. Weathered oxide ore does not have the potential to generate any appreciable acid draining or metal leaching. (response to EC-2, Table 4, pg 46) (response to INAC-3, Table 7, pg 56)	**2007 Annual Report to the Nunavut Impact Review Board** (Knight Piésold Ref. No. NB102-00181/11-1, Rev. 0, dated January 25, 2008) **2008 Annual Report to the Nunavut Impact Review Board** (Baffinland, 2009) **2009 Annual Report to the Nunavut Impact Review Board** (Baffinland, 2010) **2010 Annual Report to the Nunavut Impact Review Board** (Baffinland, 2011)	Residual ore stockpiles are present at Mary River and Milne Inlet.
Drilling activities, while considered as a concurrent activity in the bulk sample proposal, has been evaluated in a separate screening and drilling operations will be subject to the terms and conditions of the permits issued for that activity. Diamond drilling is not an activity proposed as part of the bulk sample program. (response to EC-2, Table 4, pg 47)	N/A	N/A
Baffinland proposes to utilize an experienced arctic shipper of fuel, and to utilize common fuel unloading methods used by nearly every community in Nunavut. (response to EC-3, Table 4, pg 47)	N/A	N/A
The QC is already working with Baffinland to advance the Spill Management Plan presented with the ESD and order the required spill response materials for the bulk sample program (response to EC-3, Table 4, pg 47)	**Spill Contingency Plan** (Qikiqtaaluk Environmental, March 2008) **Spill Contingency Plan** (Baffinland, dated March 2009) (Baffinland, dated March 2010) (Baffinland, dated Marcy 2011)	Complete
Drilling and blasting is an activity required as part of any open pit operation. Pit design and development will follow industry accepted practice to manage potential environmental, health and safety risks. (response to EC-5, Table 4, pg 48)	N/A	N/A
Drilling and blasting activities for the bulk sample will take place in the winter over a 2-3 month period further reducing potential risks to the environment. (response to EC-5, Table 4, pg 48)	N/A	N/A
The bulk sampling program has been designed to maximize use of the existing disturbed footprint, such that very little new habitat loss will occur. The program is 15-months in duration and all materials will be removed from site in accordance with an approved A&R Plan. (response to EC-6, Table 4, pg 48)	N/A	N/A
The Construction Environmental Monitoring Plan and related Monitoring and Mitigation plans will be the tools Baffinland will use to ensure effective implementation, and the terms and conditions of environmental permits will ensure Baffinland complies with these commitments and conditions. The program is 15- months in duration and all materials will be removed from site in accordance with an approved A&R Plan. (response to EC-8, Table 4, pg 49)	N/A	N/A
We acknowledge that fisheries authorizations may be required for the above listed activities, and look forward to discussing the details with DFO as part of the licensing phase of the application process. (response to DFO-1, Table 5, pg 50)	N/A	N/A
Baffinland is working on a comprehensive worker orientation and training program required for all contractors and employees that addresses personal protective equipment and all other requirements of the legislation that pertain personally to the worker. (response to HC-2. Table 6, pg 51)	Comprehensive Worker Orientation and Training Program	Complete; implementation ongoing
Visitors to the Mary River or Milne Inlet sites will be required to sign in and acknowledge the health and safety risks of being within an operational site. Baffinland will comply with all requirements for water use and waste disposal as outlined in its approvals/licenses. (response to HC-3. Table 6, pg 52)	N/A	Ongoing
Treated sewage effluent will be discharged into Milne Inlet, near to the camp but removed from Phillip's Creek (response to HC-3. Table 6, pg 52)	**Mary River Project - Rotating Biological Contactor (RBC System) Sewage Treatment and Discharge - Milne Inlet As-Constructed Report** (BH Martin Consultants Inc., Report Reference No. 06-090, dated January 21, 2008)	N/A
Drinking water for the camp (and possibly for community uses) will be obtained from Philip's Creek, upstream of the effluent discharge point.(response to HC-3. Table 6, pg 53)	N/A	N/A
Specific activities, such as ore crushing, stockpiling or ship loading, will each occur over the span of several months. With the exception of the weathered ore stockpile (which will be stockpiled on existing weathered ore on the deposit), all materials will be removed from site at the conclusion of the bulk sampling program. (response to HC-4. Table 6, pg 53)	N/A	N/A
Monitoring of fall-out from air emissions is proposed at the crushing, roadside and Milne Inlet ore stockpiling and loading operations, and site runoff will be monitored in the vicinity of the same areas, to monitor any deposition that occurs over the short time frame of the project, the potential loading that may occur over the long-term with a full-scale mining operation (response to HC-4. Table 6, pg 53)	**Comprehensive Environmental Monitoring Plan** **(Knight Piésold Ref. No. NB102-00181/10-3, Rev. 1, dated March 31, 2008)** (Baffinland, dated March 31, 2010) (Baffinland, dated March 1, 2011)	Complete
Aquatic monitoring of the receiving environment will be a component of the Construction Environmental Monitoring Plan (CEMP). (response to INAC-1, Table 7, pg 54)		
Nevertheless, snow sampling is proposed in the vicinity of the bulk sample pits, to detect any residual ammonia, as part of the monitoring program (Section 8.6.4). (response to INAC-2, Table 7, pg 55)		
The proposed landfill will contain only inert wastes such as metals, plastics and rubber, and no food waste or other biodegradable or hazardous wastes. (response to INAC-4, Table 7, pg 57)		
Run-off water quality from the proposed will be monitored as a part of the bulk sample program. (response to INAC-4, Table 7, pg 57)		
no fishing will be permitted by workers on the project. (response to INAC-5, Table 7, pg 58)	N/A	Ongoing
Baffinland will seek the requisite permit (explosives magazine license under the Explosives Use Act from the territorial government) as part of the licensing phase of this application. (response to NRCan-2, Table 8, pg 59)	N/A	Complete
Notification will be made to local stakeholders regarding the ship schedule for the bulk sampling program (Section 6.4.2.2). (response to PC-2, Table 9, pg 60)	Stakeholder notification	Complete
The shipping traffic associated with Baffinland's bulk sampling program includes 2 ships in August 2007, and five ships spanning August- September 2008. (response to PC-3, Table 9, pg 60)	N/A	N/A
Baffinland will comply with appropriate legislation (Aeronautics Act, The Canadian Aviation Regulations, CARS 301 and TC312) (response to TC-2, Table 10, pg 61)	N/A	N/A
b. Memorandum dated April 20, 2007 entitled *Establishing Significance of Residual Impacts of the Bulk Sampling Program*	N/A	Ongoing
c. Memorandum dated April 17, 2007 entitled *Calculation of Estimated Ammonia Runoff from Bulk Sample Pits*	N/A	Ongoing
d. Correspondence dated March 16, 2007 from Knight Piesold to Rod Cooper regarding Preliminary Results of Phase 1 Geochemical Characterization Program	N/A	N/A
e. Correspondence dated January 8, 2007 from Rod Cooper to Carolanne Inglis-McQuay	N/A	N/A
f. Indian and Northern Affairs Application for Land Use Permit	N/A	N/A
g. Indian and Northern Affairs Application for Quarrying Permit	N/A	N/A
h. Qikiqtani Inuit Association Application for Access to Inuit Owned Land	N/A	N/A
i. Baffinland Iron Mines Corporation Mary River Project, Bulk Sampling Program - Environmental Screening Document Volume I Report and Volume II Appendices (Knight Piesold Report NB102-00181/6-1, Rev. 0, dated November 20, 2007	N/A	N/A
2. The proponent shall maintain a copy of the Screening Decision at the site of operation at all times.	N/A	Copies are on site
3. The proponent shall forward copies to NIRB of all authorizations obtained and required for this project prior to the commencement of the project.	N/A	Complete
4. The proponent shall operate the project in accordance with all applicable Federal and Territorial Acts, Regulations and Guidelines.	N/A	Ongoing
5. The proponent shall submit and annual report with copies provided to the NIRB, INAC, the QIA, Environment Canada and Government of Nunavut by January 31 each year that the project is in operation commencing January 31, 2008. The report must contain, but not be limited to, the following information:	**2007 Annual Report to the Nunavut Impact Review Board** (Knight Piésold Ref. No. NB102-00181/11-1, Rev. 0, dated January 25, 2008) **2008 Annual Report to the Nunavut Impact Review Board** (Baffinland, 2009) **2009 Annual Report to the Nunavut Impact Review Board** (Baffinland, 2010) **2010 Annual Report to the Nunavut Impact Review Board** (Baffinland, 2011)	Complete
a. A summary of activities undertaken for the year, including any progressive reclamation work undertaken, and a work plan for the following year - site photos should be provided where relevant;		
b. A summary of how the Proponent has complied with NIRB conditions contained within this Screening Decision.		
c. A summary of the results from the Monitoring Program and the Construction Environmental Management Plan, including:		
i. An analysis of the impact of the project upon the bio-physical and socio-economic environments, including the cumulative impacts from other activities within the project area;		
ii. An analysis of the effectiveness of mitigation measures;		
iii. The identification of any unanticipated environmental impacts (if any) and any follow-up required (if relevant);		
iv. Compliance status with applicable regulations and all authorizations associated with the project activities, including any exceedances of CCME-FWAL criteria (as reported to Environment Canada, the Nunavut Water Board, and the Department of Fisheries and Oceans Canada)		
v. Any necessary adaptive mitigation strategies employed		
vi. Any modifications made to the Monitoring Program;		
vii. Results of community member involvement in the Monitoring Program; and		
viii. Description of the progress made on the development of component-specific thresholds used to determine the necessity for adaptive mitigation and management strategies.		
d. A summary of community consultations undertaken and the results; and		
e. A summary of site visits by inspectors with results and follow-up actions.		
6. Monitoring Program		
a. Prior to commencement of the Bulk Sample project proposal activities, the Proponent shall develop a comprehensive monitoring program for the project. The monitoring program must be developed for all stages of the project activities, including construction, operation, closure, and post-closure. The monitoring program should be developed in accordance with the objectives outlined in Section 8 of the Proponent's Environmental Screening Document, namely:	**Comprehensive Environmental Monitoring Plan** **(Knight Piésold Ref. No. NB102-00181/10-3, Rev. 1, dated March 31, 2008)** **(Baffinland, dated March 31, 2010)**	Complete
i. Detection of unanticipated environmental impacts (if any)		
ii. Assessment of the effectiveness of proposed mitigation and the need to modify the measures or implement contingency plans		
iii. Compliance with applicable regulations and requirements of environmental permits		
iv. Ongoing collection of baseline environmental data		
b. The monitoring program must monitor the components outlined in Section 8 of the Environmental Screening Document, but also must be updated to include monitoring for those components included in the significance assessment provided by the Proponent (on April 20, 2007), namely;	**2007 Annual Report to the Nunavut Impact Review Board** (Knight Piésold Ref. No. NB102-00181/11-1, Rev. 0, dated January 25, 2008) **2008 Annual Report to the Nunavut Impact Review Board** (Baffinland, 2009) **2009 Annual Report to the Nunavut Impact Review Board** (Baffinland, 2010) **2010 Annual Report to the Nunavut Impact Review Board** (Baffinland, 2011)	Complete
i. Air quality		
ii. Noise		
iii. Unique or fragile landscapes		
iv. Water quality including sewage effluent, ARD and ammonia run-off		
v. Caribou		
vi. Carnivores		
vii. Marine Wildlife		
c. The Proponent shall make efforts to monitor potential impacts from the project proposal on Inuit harvesting activities, particularly along the Milne Inlet Tote Road.		
d. The monitoring program may utilize the same monitoring activities as the Construction Environmental Management Plan, but must be a stand-alone program.		
e. The monitoring program must incorporate data collected by the Pisikik Inuit Qaujimajatuqangit Working Group, particularly in the determination of monitoring methodology and the identification of suitable indicators.		
f. Baffinland must make all reasonable efforts to involve the community members from the Hamlet of Pond Inlet and Qikiqtani Inuit Association representatives in the development and implementation of the monitoring program.		

TABLE 2.1

BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT

COMPREHENSIVE ENVIRONMENTAL MONITORING PLAN

STATUS OF COMPLIANCE WITH CONDITIONS, APPROVALS AND COMMITMENTS

ITEM	DELIVERABLE	STATUS
g. The marine wildlife monitoring component of the monitoring program should be developed in conjunction with Department of Fisheries and Oceans and must consider the use of local community members as marine wildlife monitors.		
h. The monitoring program must identify component-specific thresholds that will be used to determine the necessity for adaptive mitigation and management strategies.		
7. The Proponent must ensure that shipping contractors do not incinerate any wastes or deposit any sewage or bilge water in Milne Inlet.	N/A	Shipping contractors operated in compliance with applicable legislation
8. The Proponent must ensure that shipping contractors travel at a speed less than 25 km/hr, or otherwise directed by the Department of Fisheries and Oceans and/or Transport Canada.	N/A	Shipping contractors operated in compliance with applicable legislation
9. The Proponent shall submit an updated Emergency and Spill Response Plan immediately to NIRB and the Nunavut Water Board. Furthermore, the Proponent must ensure that there is sufficient spill response equipment at Milne Inlet to adequately respond to a fuel spill of, at a minimum, 9,520L.	**Spill Contingency Plan** (Qikiqtaaluk Environmental, March 2008) **Spill Contingency Plan** (Baffinland, dated March, 2009) (Baffinland, dated March 31, 2010) (Baffinland, dated March 1, 2011)	Complete
10. The Proponent shall ensure that all hazardous material is managed, removed from site and disposed in accordance with the *Environmental Protection Act (EPA)* , the Nunavut Territorial Regulations and Guidelines, and the Nunavut Hazardous Waste Disposal Manual.	N/A	Incorporated into EPP
11. If a formal Approval is required under the Navigable Waters Protection Act (NWPA) regarding works along the Milne Inlet Tote Road potentially interfering with navigation, the Proponent shall make all reasonable efforts to communicate this information to the community of Pond Inlet.	N/A	NWPA approval involved public notification process
12. The Proponent must provide the community of Pond Inlet, Parks Canada and Nunavut Tourism with advance notice regarding the timing of the project shipping activities for 2007 and 2008.	N/A	Notification of shipping provided to Nunavut Tourism and the Hamlet of Pond Inlet
13. In accordance with GN procedures where stated and sections 5.6.52 and 5.6.55 of the Nunavut Land Claims Agreement, the Proponent shall contact the nearest Government of Nunavut Wildlife Office in the event of a defence kill of a Polar Bear.	N/A	Incorporated into EPP
14. Aircraft take-offs and landings are prohibited if caribou monitoring indicates presence within of caribou within 1km of the airstrips and/or helipads.	N/A	Incorporated into EPP
15. The Proponent shall adhere to conditions stated in attached Appendix A *Archaeological and Palaeontological Resources - Terms and Conditions for Land Use Permit Holders.*	N/A	Incorporated into EPP
16. In advance of any ground disturbance, the Proponent must conduct archaeological surveys in any areas which have not been previously surveyed by a qualified archaeologist (i.e. borrow-source areas, Milne Inlet). Following the surveys, the Proponent must submit an Archaeological Assessment Report to NIRB and the Government of Nunavut Department of Culture, Language, Elders and Youth (GN-CLEY). Any subsequent direction provided by the GN-CLEY the Archaeological Plan must be forwarded to NIRB. The Proponent shall continue its efforts to involve Inuit in the planning of field work, conducting field work and the interpretation of findings.	N/A	Incorporated into EPP
17. If snow sampling activities indicate adverse environmental impacts resulting from dust deposition from project activities, the Proponent must employ dust suppression methods approved by the Government of Nunavut - Department of Environment.	**2007 Annual Report to the Nunavut Impact Review Board** (Knight Piésold Ref. No. NB102-00181/11-1, Rev. 0, dated January 25, 2008) **2008 Annual Report to the Nunavut Impact Review Board** (Baffinland, 2009) **2009 Annual Report to the Nunavut Ipact Review Board** (Baffinland, 2010) **2010 Annual Report to the Nunavut Ipact Review Board** (Baffinland, 2011)	Complete
Appendix A - Terms and Conditions		
1. The permittee shall not operate any vehicle over a known or suspected archaeological or palaeontological site.	N/A	Incorporated into EPP
2. The permittee shall not remove, disturb, or displace any archaeological artifact or site, or any fossil or palaeontolotical site.	N/A	Incorporated into EPP
3. The permittee shall immediately contact the Department of Culture, Language, Elders and Youth (867) 934-2046 or (867) 975-5500 or 1 (866) 934-2035 should an archaeological site or specimen, or a palaeontological site or fossil be encountered or disturbed by any land use activity.	N/A	Incorporated into EPP
4. The permittee shall immediately cease any activity that disturbs an archaeological or palaeontological site during the course of a land use operation, until permitted to proceed with the authorization of the Department of Culture, Language, Elders and Youth, Government of Nunavut.	N/A	Incorporated into EPP
5. The permittee shall follow the direction of the Department of Culture, Language, Elders and Youth and DIAND in restoring disturbed archaeological or palaeontological sites to an acceptable condition.	N/A	Incorporated into EPP
6. The permittee shall provide all information requested by the Department of Culture, Language, Elders and Youth concerning all archaeological sites or artifacts and all paleontological sites and fossils encountered in the course of any land use activity.	N/A	Incorporated into EPP
7. The permittee shall make best efforts to ensure that all persons working under authority of the permit are aware of these conditions concerning archaeological sites and artifacts, and palaeontological sites and fossils.	N/A	Incorporated into EPP
8. The permittee shall avoid the known archaeological and/or palaeontological sites listed in Attachment 1.	N/A	N/A
9. The permittee shall have an archaeologist or palaeontologist perform the following functions, as required by the Department of Culture, Language, Elders and Youth: a. survey b. inventory and documentation of the archaeological or palaeontological resources of the land use area c. assessment of potential for damage to archaeological or palaeontological sites d. mitigation e. marking boundaries of archaeological or palaeontological sites f. site restoration	N/A	A licensed archaeologist has conducted surveys each year as required by the regulations
The Department of Culture, Language, Elders and Youth shall authorize by way of a Nunavut Archaeologist Permit or a Nunavut Palaeontologist Permit, all procedures subsumed under the above operations.	N/A	N/A
NIRB Screening Decision February 22, 2008 - NIRB Recommended Project-Specific Terms and Conditions		
1. Baffinland Iron Mines Corporation (the Proponent) shall forward copies of all amended permits obtained and new authorizations required for this amendment to the Nunavut Impact Review Board (NIRB or Board) prior to the commencement of the project.	Baffinland sent via e-mail March 18, 2008	Complete
2. The Proponent shall conduct project activities in accordance with all commitments stated in all documents provided to the NIRB, Indian and Northern Affairs Canada (INAC), Nunavut Water Board (NWB) and other government agencies in this application and in the application for its Geotechnical and Exploration Program.	N/A	Ongoing
3. The Proponent is required to consult and submit a formal application as indicated by Transport Canada (TC) for Navigable Waters Protection Program (NWPP) with detailed drawings / plans and activities for applicable authorization.	Letters to Transport Canada dated December 10, 2007	Complete; approval granted
4. The Proponent is required that a revised Spill Contingency Plan be submitted to NIRB, Environment Canada (EC), INAC, Government of Nunavut – Department of Environment (GNDOE) and NWB along with 2007 Annual Report. It should include:	**Spill Contingency Plan** (Qikiqtaaluk Environmental, March 2008) **Spill Contingency Plan** (Baffinland, dated March 2009) (Baffinland, dated March 2010) (Baffinland, dated March 2011)	Complete
a. Detailed site maps of various fuel caches in association with nearby facilities.		
b. The issues raised by interviewers during the Water License Amendment application with NWB.		
c. The wildlife protection measures regarding potential spills in marine areas during shipping, in particular implementing specific mitigation measures to keep birds out of any contaminated area and list what measures would be taken if birds do come in contact with the spill.	Responsibility of the Shipping Contractor	Ongoing
5. The Proponent is required to submit a revised Wildlife Management and Monitoring Plan (WMMP) to NIRB, GN-DOE and INAC along with 2007 Annual Report for its Geotechnical and Exploration Program. The following perspectives should be addressed and included in the revised WMMP:	**Wildlife Monitoring and Mitigation Plan** (Knight Piésold Ref. No. NB102-00181/7-4, Rev. 0, dated August 20, 2008)	Complete
a. The mitigation and management measures specified in the revised WMMP should be detailed and site-specific including the proposed new activities and project components.		
b. Revised WMMP should reflect monitoring results in 2007 field operation and any additional impact analysis based on 2007 operation season.		
c. The proponent should demonstrate how the Caribou Protection Measures were applied in 2007. It is not clear in the current WMMP, how control and impact sites were chosen and where they are located with respect to each other.		
d. An explanation for choosing control and impact sites is required, and clear maps of the control and impact areas should be included in the WMMP.		
6. The Proponent shall verify its migratory bird survey techniques to ensure that the methodologies used are appropriate and comparable to surveys done elsewhere in the region by contacting and consulting the Canadian Wildlife Service (CWS) of Environment Canada: Myra Robertson (Environmental Assessment Coordinator, Canadian Wildlife Service, Environment Canada, Suite 301, 5204-50th Avenue, Yellowknife, NT X1A 1E2, Ph: (867) 669.4763 or myra.robertson@ec.gc.ca).	N/A	Complete
7. The Proponent is required to conduct stack testing to ensure compliance with the CWSs and report to NIRB, GN-DOE and INAC for its new incinerator employed.	**2007 Annual Report to the Nunavut Impact Review Board** (Knight Piésold Ref. No. NB102-00181/11-1, Rev. 0, dated January 25, 2008) **2008 Annual Report to the Nunavut Impact Review Board** (Baffinland, 2009) **2009 Annual Report to the Nunavut Impact Review Board** (Baffinland, 2010) **2010 Annual Report to the Nunavut Ipact Review Board** (Baffinland, 2011)	Mary River incinerator tested in 2008 and 2009 as representative of all camps.
8. The Proponent shall include in its Annual Report for Geotechnical and Exploration Program all the proposing project activities and components described in this application. In addition to the requirements directed by NIRB in its Screening Decision Report dated March 26, 2007 for 07EN004, an accumulative effects assessment should be included in the Annual Report with respective to the additive and cumulative effects by the two subprojects and the proposed expansions of the one subproject (i.e., the geotechnical and exploration project) comprising the larger Mary River project.	**2007 Annual Report to the Nunavut Impact Review Board** (Knight Piésold Ref. No. NB102-00181/11-1, Rev. 0, dated January 25, 2008) **2008 Annual Report to the Nunavut Impact Review Board** (Baffinland, 2009) **2009 Annual Report to the Nunavut Impact Review Board** (Baffinland, 2010) **2010 Annual Report to the Nunavut Ipact Review Board** (Baffinland, 2011)	Complete
9. The Proponent shall respond to the comments and concerns raised by the CLARC members directly as part of community consultation program and submit to NIRB, Qikiqtani Inuit Association and other parties associated with this project any results of such consultation.	Baffinland met with the CLARCs in late March/early April 2008 during public consultation meetings in each of the five North Baffin communities near the Project	Complete; ongoing
QIA Commercial Lease for Inuit Owned Lands Q07L3C001		
4.00 PERMITTED ACTIVITIES		
4.01 The Tenant agrees: (a) to use the Property for exploration of Minerals, the undertaking of engineering, geotechnical, and environmental studies in support of the planning for a potential major mining development, to engage in pre-construction staging activities and to complete a bulk sampling program (not exceeding a maximum extraction of 250,000 tons of iron ore) as generally described and approved by the Nunavut Impact Review Board including the construction, installation, and use of and maintenance of such equipment, buildings, plant and other infrastructure as is necessary to support such activities, provided no such Operations may be conducted on the Property unless and until a Work Plan or amended Work Plan as provided hereunder has been approved in respect of such Operations, by the Landlord; and further provided that the areas marked as 'Camp' on Schedules "A1, A2 and A3" shall be used only as a camp area for temporary occupation of the Tenant's employees, contractors and agents;	Work Plan to the QIA	2010 Complete, 2011 Submitted for Approval.
(b) to deliver to the Landlord by not later than April 1st in each calendar year during the Term a Work Plan which shall include:		
(i) a description of the Operations and Work on the Property that the Tenant proposes to perform in that year;		
(ii) a description of the topographical features and any natural or manmade features, structures or works that may be affected by the Tenant's Operations and Work on the Property;		
(iii) Environmental Action Plans that shall include the activities to be undertaken in that year, the details of the environmental monitoring and reporting plans for the upcoming year, a report of the estimated costs to be incurred to implement the Environmental Action Plans for the year and the balance of the Term, and any other planned activities for the balance of the Term, and which shall also include, but shall not be limited to, the proposed methods and procedures for the progressive:		
(1) removal of all structures, equipment, and other manmade debris; (2) rehabilitation of the area; (3) replacement of overburden and soil; (4) grading of the area back to its natural contours; and (5) re-establishment, to the extent possible, of flora required or necessary arising out of the Tenant's activities or presence on the Property.		
4.02 The parties hereto acknowledge and agree that the Work Plan annexed hereto as Schedule "I" is the Work Plan for the year 2007.	N/A	Complete
4.03 The Tenant shall have the right, but only as required to conduct its Operations and to perform the Work in compliance with the Work Plan or any Environmental Action Plan, to take from the Property the limited amounts and types of Specified Substances set forth in the Quarry Concession Agreement attached hereto as Schedule "B". The Tenant covenants and agrees that it, and its employees, contractors, subcontractors and agents, will conduct all quarry operations strictly and exclusively in accordance with the Quarry Concession Agreement.	N/A	Ongoing
4.04 The Tenant further agrees: (a) not to undertake any Operations on the Property until the Tenant has obtained the Landlord's express written consent to a Work Plan, which consent shall not be unreasonably withheld; and (b) subject to section 4.05, the Tenant shall not undertake or permit to occur any material changes in the Operations or the Work that is contemplated with respect to the Property under a Work Plan, until the Tenant has submitted in writing to the Landlord a proposed amended Work Plan and obtained the express written consent of the Landlord, which consent shall not be unreasonably withheld.	N/A	Ongoing
4.05 The Landlord shall, within sixty (60) days of receipt of a written request for consent pursuant to subsections 4.04(a), advise the Tenant if additional information is required in order to permit the Landlord to determine if consent should be granted. The Landlord shall, within ninety (90) days of the date upon which the Tenant submits a request for consent, or within thirty (30) of receipt of any additional information if requested, whichever is the latter, provide notice in writing to the Tenant that consent is granted, or is granted upon certain conditions, or is withheld (as the case may be), failing which the Landlord shall be deemed to have consented to the Work Plan or amended Work Plan submitted by the Tenant.	N/A	Ongoing
4.06 The Tenant acknowledges and agrees that any consent to a new Work Plan, or to an amended Work Plan may be subject to: (a) such further environmental terms and conditions in addition to or in substitution for the environmental terms and conditions set out in article 6.00 hereof; (b) such increase in the security deposit required under article 7.00 hereof; and (c) such further socio-economic terms and conditions in addition to or in substitution for the socio-economic terms and conditions set out in article 9.00 hereof; to address concerns reasonably arising out of Operations in respect of the new or amended Work Plan, as the Landlord may in its discretion determine, acting reasonably.	N/A	Ongoing
5.00 INSURANCE		
5.01 The Tenant hereby covenants with the Landlord that it shall, at the Tenant's expense: (a) maintain comprehensive general liability, contractual liability and tenant's legal liability insurance indemnifying the Tenant and Landlord against claims for damage or injury to person or property or for the loss of life occurring on the Property or the area adjacent thereto; the limit of insurance initially, and subject to increase at the reasonable request of the Landlord, is to be insurance in an amount not less than $5,000,000.00 in respect of bodily injury or death of one person, not less than $5,000,000.00 in respect of one occurrence, and not less than $5,000,000.00 for property damage;	N/A	Complete
(b) maintain environmental impairment liability insurance indemnifying the Tenant and Landlord against claims for environmental contamination in an amount that a prudent mining company would do having regard to the nature and scope of the Operations on the Property, unless the Landlord provides a written waiver of such coverage;		
(c) include in any insurance policies in respect of the Property a waiver of subrogation against the Landlord and the Tenant waives, releases and discharges the Landlord from all rights and claims which the Tenant might have or acquire against the Landlord arising out of damage to or destruction of the Property or any building or structure thereon occasioned by any perils insured against by the Tenant or which the Tenant has agreed to insure against, whether or not the rights and claims arise through the negligence or other fault of the Landlord, their servants, agents or contractors; and the Tenant agrees to look solely to its insurers in the event of loss whether the insurance coverage is sufficient fully to reimburse the Tenant for the loss or not; and		
(d) ensure that all such policies contain a severability of interests clause and a cross-liability clause in favour of the Landlord and the policies shall be primary and not call into contribution any other insurance available to the Landlord.		
5.02 Every contract of insurance required herein shall be placed with a company acceptable to the Landlord and licensed under the laws of Nunavut and ordinarily engaged in the business of insuring against the risks to be covered. The acceptance may not be unreasonably withheld.	N/A	Complete
5.03 Any insurance policies of the Tenant may include a deductible, provided the amount of the deductible must be approved by the Landlord which approval will not be unreasonably withheld.	N/A	Complete
5.04 All policies of insurance shall include a thirty (30) day written notice to the Landlord of policy cancellation. A copy of all changes to any policies of insurance shall be required to be provided promptly to the Landlord.	N/A	Ongoing
5.05 If the Tenant fails to obtain the insurance required hereunder, the Landlord may obtain the insurance and shall give the Tenant notice setting out the amount and dates of payment of all costs and expenses incurred by the Landlord in connection therewith to the date of the notice. In such event the Tenant shall, with the next instalment of rent due, pay the costs and expenses to the Landlord together with interest thereon at ten (10%) percent per annum calculated from the dates of payment by the Landlord up to the date of payment by the Tenant to the Landlord, failing which the amount of the costs and expenses together with interest shall be recoverable by the Landlord in the same manner as if it were rent reserved and in arrears.	N/A	N/A
5.06 The Tenant shall, prior to commencement of the Term, furnish the Landlord with certificates or other acceptable evidence of all insurance effected pursuant to this article.	Certificate of Insurance	Complete
6.00 RECLAMATION AND ENVIRONMENTAL TERMS		
6.01 The Tenant hereby covenants with the Landlord that it shall, at its own cost and expense: (a) comply with, and require compliance of all its employees, agents, contractors, subcontractors, licensees, permitees and sub-tenants with all Applicable Environmental Laws and all Environmental Action Plans approved by the Landlord, as amended from time to time; (b) be liable for and remedy any Environmental Damage not authorized under this Lease or where required pursuant to an Environmental Action Plan relating to the Operations of the Tenant, its agents, employees, contractors, subcontractors, licensees, permitees and sub-tenants which covenant shall survive the expiry or termination of this Lease; (c) provide written notice by facsimile transmission to the Landlord as soon as is reasonably practicable but in any event within twelve (12) hours of the Tenant becoming aware of any Environmental Damage not authorized by the Work Plan, or any material breach of any Applicable Environmental Laws or an Environmental Action Plan in respect of its Operations and Work on the Property;		
(d) upon receiving notice or observing that any event has occurred or is about to occur as a result of Operations on the Property which causes or may cause or contribute to a Material Adverse Change or constitutes or could constitute a contravention of or non-compliance with Applicable Environmental Laws or that any Hazardous Substance has or could be Released on, into or from the Property into the Environment contrary to Applicable Environmental Laws, or upon receiving notice that an administrative or judicial order has been filed or is about to be filed against the Tenant alleging violation of Applicable Environmental Laws or requiring the Tenant to perform any Remedial Work, it shall, at its own expense, take all necessary steps, including the application of Best Practices, to rectify the contravention or non-compliance, manage the Material Adverse Change, perform any Remedial Work and ensure compliance with all Applicable Environmental Laws;		

TABLE 2.1

BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT

COMPREHENSIVE ENVIRONMENTAL MONITORING PLAN

STATUS OF COMPLIANCE WITH CONDITIONS, APPROVALS AND COMMITMENTS

ITEM	DELIVERABLE	STATUS
(e) without limiting the generality of any other indemnity under the terms of this Lease, that it shall indemnify the Landlord, its officers, directors, employees, agents and members and agrees to hold each of them harmless from and against any and all losses, liabilities, damages, costs, expenses, suits and claims of every nature and kind whatsoever including, without limitation, the cost of defending and/or counterclaiming or claiming against third parties in respect of any action (all on the basis as between a solicitor and his/her own client) and any cost, liability, damage arising out of any action against the Landlord or a settlement of any action entered into by the Landlord relating to any Environmental Damage, any breach or non-observance of any environmental term, condition or covenant of this Lease; provided that this indemnity shall survive the expiry or termination of this Lease but shall not require the Tenant to indemnify the Landlord for the negligent act or omission of the Landlord or those for whom the Landlord is responsible at law;	N/A	Ongoing
(f) comply with and observe the Environmental Terms and Conditions annexed hereto as Schedule "E" as amended from time to time by the parties; (g) deliver to the Landlord, on or before March 1, 2008, and not later than March 1st of each subsequent year of the Term, a report, in form and scope satisfactory to the Landlord in respect of all environmental issues arising in respect of the Tenant's Operations and Work on the Property for the past calendar year, which report shall include: (1) information respecting the Tenant's compliance with the terms of this Lease and any permits or licenses required in respect of its Operations on the Property, together with details of any incidents of non-compliance, the results of any inspection reports prepared by or fines levied by any competent regulatory authority and any remedial action relating thereto; (2) copies of any environmental reports, or incident reports; or incident reports or documentation relating to project changes on environmental matters that the Tenant is required to submit to any competent regulatory authority;		
(3) copies of any environmental monitoring reports or environmental studies in respect of the Property prepared for the Tenant, together with any interpretation or analysis of the data contained therein done by the Tenant or its agents or consultants; and (4) a report on any Reclamation Work undertaken or required to be undertaken in accordance with this Lease; (h) reclaim and remediate the Property in accordance with all Environmental Action Plans, on an ongoing basis through the Term; (i) not later than one hundred twenty (120) days prior to the completion of Operations on the Property or the expiration of the Term or within one hundred twenty (120) days of early termination of the Lease, whichever first occurs, develop and submit for the approval of the Landlord any final amendments or modifications to the Reclamation Plan for approval by the Landlord;		
(j) subject to any agreement in writing between the parties, implement the Reclamation Plan as approved by the Landlord upon permanent cessation of Operations, provided however, nothing herein shall relieve the Tenant of any obligation to reclaim, remediate or repair the Property, to conform with any Applicable Environmental Laws or other laws of general application, or prejudice or impair any rights, indemnities, or remedies the Landlord may have against the Tenant, including without limitation any rights in respect of Environmental Damage to the Property;		
(k) if required to conduct ongoing reclamation or remediation subsequent to the expiry or termination of this Lease pursuant to any Environmental Action Plan including the Reclamation Plan (which shall not, in any event, exceed twelve (12) months from such termination or expiry unless otherwise agreed by the Landlord), conduct such reclamation or reclamation under the terms of a land use licence or permit issued by the Landlord pursuant to its standard policies and procedures, which shall be issued for the purpose of reclamation and remediation only and shall not permit the Tenant to carry on Operations on the Property;		
(m) subject to all Environmental Action Plans (including the Reclamation Plan) or other land use agreement approved by the Landlord, peaceably yield up and surrender the Property to the Landlord at the expiration or sooner termination of this Lease in a good state of repair, remediation and reclamation, as near as possible to its original state prior to the Tenant's entry on the Property under this Lease or under any land use licence or permit it may have held prior to the grant of this Lease, in compliance with all Applicable Environmental Laws and other laws, the orders of any competent regulatory authorities, and the terms and conditions hereof.		
7.00 SECURITY DEPOSIT		
7.01 Contemporaneously with the execution of this Lease, the Tenant shall deposit with the Landlord security of Five Million and Four Hundred and Seven Thousand Dollars ($5,407,000) (the "Security Deposit") in a form specified in section 7.08. Any interest earned on the Security Deposit shall be added to the Security Deposit.	Security Deposit	Complete
7.02 If the Tenant breaches any material term, covenant or condition of this Lease, including, without limitation, failure to comply with an Environmental Action Plan, and fails to remedy such breach within the applicable time permitted pursuant to section 13.01,or if any Environmental Audit identifies Environmental Damage not permitted by this Lease and the Tenant is unwilling or unable to conduct Remedial Work to remedy such damage, the Landlord may, at its option and without prejudice to any other rights, on fifteen (15) days' prior written notice to the Tenant of its intention to do so, appropriate and apply the Security Deposit or so much of it as may be necessary, to compensate the Landlord for loss or damage actually sustained by the Landlord arising out of or in connection with such breach by the Tenant, or to compensate the Landlord for the reasonable costs of any remediation or reclamation work it may undertake or cause to be undertaken under the terms of this Lease. The Landlord's notice to the Tenant shall include a detailed account of the costs and expenses incurred by the Landlord as a result of the Tenant's breach and the amount of the Security Deposit to be appropriated or applied.	N/A	Ongoing
7.02 If the Tenant breaches any material term, covenant or condition of this Lease, including, without limitation, failure to comply with an Environmental Action Plan, and fails to remedy such breach within the applicable time permitted pursuant to section 13.01,or if any Environmental Audit identifies Environmental Damage not permitted by this Lease and the Tenant is unwilling or unable to conduct Remedial Work to remedy such damage, the Landlord may, at its option and without prejudice to any other rights, on fifteen (15) days' prior written notice to the Tenant of its intention to do so, appropriate and apply the Security Deposit or so much of it as may be necessary, to compensate the Landlord for loss or		
damage actually sustained by the Landlord arising out of or in connection with such breach by the Tenant, or to compensate the Landlord for the reasonable costs of any remediation or reclamation work it may undertake or cause to be undertaken under the terms of this Lease. The Landlord's notice to the Tenant shall include a detailed account of the costs and expenses incurred by the Landlord as a result of the Tenant's breach and the amount of the Security Deposit to be appropriated or applied. Should the Landlord draw or realize on the Security Deposit during the Term, the Tenant shall, within five (5) business days' receipt of written notice given by the Landlord, replenish the Security Deposit by such amount of the security as may have been required to be realized on pursuant to this section 7.02.	N/A	Ongoing
7.03 If at any time during the Term the Tenant notifies the Landlord in writing or delivers to the Landlord an Environmental Action Plan (including as part of a Work Plan referred to in section 4.01), either of which identifies, or if any Environmental Audit conducted by the Landlord or the Tenant should identify, that the costs for remediation or reclamation activities or to rectify any potential Environmental Damage not permitted by this Lease may, reasonably considered, be in excess of the amount of the Security Deposit, the Tenant shall, within ten (10) business days' receipt of written notice from the Landlord, increase the Security Deposit by the amount of such excess costs. If at any time during the Term the Tenant		
delivers to the Landlord an Environmental Action Plan (including as part of a Work Plan) acceptable to the Landlord which identifies new or revised costs for remediation or reclamation activities that are less than the amount of the Security Deposit, the Landlord shall, within thirty (30) days' receipt of a written request from the Tenant, provide written confirmation to the Tenant that the Security Deposit can be decreased by the amount which is the difference between the new or revised costs for remediation or reclamation activities and the costs applicable prior to such request. The Landlord agrees to cooperate with the Tenant in providing or executing such documentation as may be necessary to give effect to the decrease in Security Deposit.	N/A	Ongoing
7.04 If at any time the Nunavut Water Board, Nunavut Impact Review Board or Indian and Northern Affairs Canada require that the Tenant post security with the Nunavut Water Board or Indian and Northern Affairs Canada, or any federal Crown department or agency, for activities undertaken on the Property pursuant to this Lease and the associated costs for remediation or reclamation activities, the Landlord shall, within thirty (30) days' receipt of a written request from the Tenant, provide written confirmation to Nunavut Water Board , Nunavut Impact Review Board or Indian and Northern Affairs Canada as to the amount of the Security Deposit and shall recommend that any further security deposit		
required by the Nunavut Water Board, Nunavut Impact Review Board or Indian and Northern Affairs Canada should be decreased by the amount which is the difference between the Security Deposit and the amount of security that the Tenant might otherwise be required to post with the Nunavut Water Board or Indian and Northern Affairs Canada, or any federal Crown department or agency. The Landlord agrees to cooperate with the Tenant in providing or executing such documentation as may be necessary to recommend a decrease in any other similar security deposit(s) for activities undertaken on the Property.	N/A	Ongoing
7.05 Provided that the Tenant is not in default hereunder, following commencement of the activities required by the final Reclamation Plan, the Landlord shall, upon request of the Tenant, at not less than six (6) month intervals, release to the Tenant that percentage of the Security Deposit which is equal to the percentage cost of work completed or which may not be required pursuant to the final Reclamation Plan of the total Security Deposit at the time of the lodging of the final Reclamation Plan, subject to a minimum holdback of twenty (20%) percent. Any holdback greater than twenty (20%) percent must be reasonably justified and based upon an Environmental Audit conducted pursuant to the final Reclamation Plan.	N/A	Ongoing
7.06 If the Tenant has been required to post security with the Nunavut Water Board or Indian and Northern Affairs Canada, or any federal Crown department or agency, for activities undertaken on the Property pursuant to this Lease and the associated costs for remediation or reclamation activities, the parties agree that, provided the Tenant is not in default hereunder, following commencement of the activities required by the final Reclamation Plan, the Landlord shall, upon request of the Tenant, at not less than six (6) month intervals, recommend to the Nunavut Water Board or Indian and Northern Affairs Canada that they release to the Tenant that percentage of any security deposit held by such third parties which is equal to the percentage cost of work completed or which may not be required pursuant to the final Reclamation Plan, calculated as if the Landlord did not have posted with it the Security Deposit for activities undertaken on the Property pursuant to this Lease and the associated costs for remediation or reclamation activities.	N/A	Ongoing
7.07 Subject to section 7.09, on the second anniversary of the date upon which the Tenant completes all of its obligations under this Lease to the satisfaction of the Landlord, including any reclamation or remediation obligations (whether completed before or after the termination of this Lease) the balance of the Security Deposit, plus interest (if any) shall be released to the Tenant.	N/A	Ongoing
7.08 The security shall be in a form and content acceptable to the Landlord and may, at the option of the Tenant, be in the form of: (a) cash; (b) promissory note guaranteed by a Canadian chartered bank and payable to the Landlord; (c) a certified cheque drawn on a Canadian chartered bank and payable to the Landlord; (d) a letter of credit issued by a Canadian chartered bank substantially in the form of Schedule "J" attached hereto, naming the Landlord as the beneficiary; and/or (e) bearer bonds issued or guaranteed by the Government of Canada.	Security Deposit Posted Under 7.01	Complete
7.09 In the event that the Tenant assigns its interest in the Property and in this Lease in accordance with subsection 3.02(c) and the permitted assignee has provided to the Landlord a Security Deposit equal to that posted by the Tenant at the time of the proposed assignment and agreed to be liable pursuant to this Lease for activities of the Tenant occurring prior to the assignment date, the Landlord shall, within five (5) business days of the posting of such security, release the Security Deposit or such portion of it remaining (and any interest thereon) to the Tenant whereupon the Tenant shall have no further obligation or liability to the Landlord in respect thereof. In the event that the permitted assignee does not agree to be liable as herein provided the Tenant agrees that it shall remain liable to the Landlord for activities of the Tenant occurring during the Term and prior to the assignment date.	N/A	Ongoing
8.00 LANDLORD'S OBLIGATIONS		
8.01 The Landlord represents, warrants and covenants that: (a) pursuant to the NLCA, it is the owner of an estate in fee simple of the surface rights of the Property, save and except for the mines and minerals that may be found to exist therein together with the right to work the same, but including the right to all Specific Substances, subject only to: (i) such rights and interests as are provided in the NLCA and all other terms thereof, (ii) the provisions of the Land Titles Act (Nunavut), and (iii) the encumbrances and interests endorsed on any certificate of title for the estate in fee simple of and in the surface rights of the Property, none of which materially adversely affect the rights of the Tenant under this Lease; and (b) the Tenant, paying the rent hereby reserved and observing and performing the covenants on its part herein contained, shall peaceably hold and enjoy the Property during the Term without any interruption or disturbance by the Landlord or any person rightfully claiming under or in trust for it, subject to the provisions herein.	N/A	Ongoing
8.02 Upon expiry of the Term and fulfillment by the Tenant of all of its obligations pursuant to this Lease, the Landlord shall provide to the Tenant written confirmation that the Tenant has completed all of its requirements under this Lease, including, without limitation, with respect to reclamation and remediation, provided that such confirmation shall not constitute a waiver or acquiescence by the Landlord with respect to any obligations of the Tenant hereunder.	N/A	Ongoing
8.03 The Landlord may release information relating to the Operations to the public. The parties agree to work co-operatively in developing any joint release of information arising from a Work Plan.	N/A	Ongoing
9.00 SOCIOECONOMIC BENEFITS		
9.01 The Tenant represents that its Operations on the Property have the potential to result in a major mining development, including, without limitation, the possibility of a Production Lease for the large scale extraction of Minerals, with significant potential to increase economic development and opportunities in the Qikiqtani Region of Nunavut.	N/A	Ongoing
9.02 Each party is relying upon the representation of the other that it is the intent of each of them to provide a cooperative atmosphere to establish practices that will maximize employment and economic opportunities for Inuit of the Qikiqtani Region of Nunavut.	N/A	Ongoing
9.03 The Tenant shall, during the Term, employ Inuit in its Operations and Work on the Property and contract with businesses owned, operated or controlled by Inuit, and/or Inuit Firms as defined in the NLCA, that are resident in the Qikiqtani Region of Nunavut or primarily carry on business in the Qikiqtani Region of Nunavut, for goods and services required for its Operations on the Property in accordance with the Socio-Economic Terms and Conditions set forth in Schedule "H" attached hereto, and shall also cause or procure its employees, contractors, subcontractors, affiliates, subsidiaries, joint-venturers, partners and agents to comply with the Socio-Economic Terms and Conditions.	N/A	Ongoing
9.04 The Tenant shall establish training programs for Inuit for skills relating to employment in its Operations on the Property and in the mining industry generally.	N/A	Ongoing
9.05 The Tenant shall, prior to commencement of the Term and on or before April 1st of each year of the Term, submit to the Landlord for its approval the Tenant's proposed plan for implementation of sections 9.03 and 9.04, including, without limitation, the Tenant's implementation of the Socio-Economic Terms and Conditions.	Work Plan to the QIA	2010 Complete; 2011 Submitted for Approval
9.06 The parties agree that provisions of the Socio-Economic Terms and Conditions may become superseded by an Inuit Impact and Benefit Agreement entered into between the parties in furtherance of the NLCA, provided that the provisions of this Lease and any Inuit Impact and Benefit Agreement may both apply, in respect of the same subject matter or otherwise, unless expressly stated to the contrary, and the provisions thereof shall be interpreted so as to enhance the maximum benefit for Inuit. In the event of a conflict between the provisions of this Lease and the terms of any Inuit Impact and Benefit Agreement, the provisions of the Impact and Benefit Agreement shall take priority, but only to the extent of such conflict.	N/A	Ongoing
10.00 RIGHT OF RENEWAL		
10.01 Provided the Tenant pays the rent and observes and performs the terms and conditions on its part herein contained, the Tenant may renew this Lease for a further term of one (1) year from the expiration of the Term. Any further renewal shall be as may be agreed by the parties. Any renewal of this Lease shall be subject to the terms and conditions herein contained excepting only this right of renewal, at a rent to be determined pursuant to section 10.03 hereof but which shall not be less than the rent payable during the initial Term. In the event of renewal, all references herein to the Term shall apply to the renewal term.	N/A	Ongoing
10.02 The Tenant may exercise this right to renew by notice in writing to the Landlord provided not later than ninety (90) days before the expiration of the Term. If the Tenant does not exercise its right of renewal as provided herein, the Tenant shall have no further right to renew this Lease and the Landlord shall not be obliged to grant a renewal of the Term.	N/A	Ongoing
10.03 The rent reserved under the renewed Lease shall be payable annually and shall be established by the Landlord in accordance with its approved policies.	Annual Fees	Complete
10.04 The Tenant may dispute the renewal rent set by the Landlord, within thirty (30) days next following the date that the Landlord gives notice of the renewal rent, by advising the Landlord in writing of its intention to dispute the rent set by the Landlord and also notifying the Landlord of its alternate proposal for the renewal rent. If, within thirty (30) days following receipt by the Landlord of such notice from the Tenant, the parties are unable to agree upon the renewal rent, the matter shall be referred to the Surface Rights Tribunal established pursuant to the NLCA for a final determination in accordance with the NLCA.	N/A	Ongoing
11.00 FORCE MAJEURE		
11.01 Whenever and to the extent that either party is bona fide unable, despite its best efforts, to fulfill or is delayed or restricted in fulfilling any of its obligations under this Lease by an event of Force Majeure, such party shall be relieved from the fulfillment of the part of its obligations affected by Force Majeure during the period of Force Majeure.	N/A	Ongoing
11.02 Notwithstanding an event of Force Majeure, the party affected shall proceed with the performance of its obligations not thereby affected. An event of Force Majeure shall not operate to excuse the Tenant from the payment of any rent, the provision of or payment for any insurance or any other obligation to pay money or from obtaining any form of security, including a Letter of Credit, as required by this Lease.	N/A	Ongoing
12.00 MONITORING		
12.01 The proposed Monitoring Plan, attached hereto as Schedule "F", is subject to approval in writing by the Landlord prior to implementation, and may be amended by the agreement of the parties in writing. The parties covenant to take all steps, and perform such tasks, as shall be reasonably necessary to implement the Monitoring Plan, as amended, including those provisions relating to ongoing monitoring. This covenant shall survive the expiry or early termination of this Lease, howsoever occurring, and shall remain binding upon the parties.	Work Plan to the QIA	2010 Complete; 2011 Submitted for Approval
12.02 Subject to section 3.02(b), the Tenant shall be responsible for all costs of the Landlord arising from the Monitoring Plan, including without limitation the Landlord's reasonable costs for the Environmental Auditor, and all other reasonable monitoring costs. The Environmental Auditor shall be appointed by the Landlord, acting in its sole discretion, to monitor the Operations and the Tenant's compliance with this Lease or any Environmental Action Plan. The role, responsibilities and authority of the Environmental Auditor are set forth in the Schedule "D" attached hereto.	N/A	Ongoing
12.03 Within six (6) months following the termination of this Lease, or upon the completion of the Operations and the Work, whichever shall first occur, the Tenant and the Landlord shall enter into a Monitoring Agreement, which shall include, at a minimum, implementation of the provisions in the Reclamation Plan and the Monitoring Plan that are in respect of monitoring subsequent to the completion of the Operations and the Work.	N/A	Ongoing
12.04 The Monitoring Agreement shall be for a minimum term of five (5) years and shall otherwise include, at a minimum, the provisions set forth in the Monitoring Plan and Reclamation Plan that are in respect of monitoring subsequent to the completion of the Operations and the Work and shall include such further matters as may be necessary or desirable to ensure the Tenant's compliance with its obligations to remediate and reclaim, as near as possible to its original state prior to the Tenant's entry on the Property under this Lease or under any land use licence or permit it may have held prior to the grant of this Lease. If either party fails to execute the Monitoring Agreement, then either party may apply to the		
Nunavut Court of Justice for an Order appointing an arbitrator and determining any terms of reference the court deems necessary or desirable, and the decision of the arbitrator as to the appropriate terms and conditions of the Monitoring Agreement shall be final and binding on the parties. The minimum terms and conditions of the Monitoring Plan and Reclamation Plan that are in respect of monitoring and Reclamation Work subsequent to the completion of the Operations and the Work shall survive the termination of this Lease and shall continue in full force and effect as binding obligations of the parties.	N/A	Ongoing
INAC Land Use Permit N2006C0036		
31(1)(a) - Location and Area		
1. The Permittee shall not conduct this land use operation on any lands not designated in the accepted application, unless otherwise authorized in writing by the Engineer.	N/A	Incorporated into EPP
2. The Permittee shall remove from Territorial Lands, all scrap metal, discarded machinery and parts, barrels and kegs, building and building material.	**Abandonment and Reclamation Plan** (Knight Piésold Ref. No. NB102-00181/6-7, Rev. 2, dated March 31, 2008) **2009 Abandonment & Reclamation Plan** (Knight Piesold Ref. No. NB102-181/15-1, Rev. 0, dated March 26, 2009) **2010 Abandonment & Reclamation Plan** (Baffinland dated March 2010) **2011 Abandonment & Reclamation Plan** (Baffinland dated March 2011)	Ongoing
3. The Permittee shall not construct an adit or drill site within 31 metres of the normal high water mark of a stream unless approval in writing is obtained from the Engineer.	N/A	Incorporated into EPP
4. The Permittee shall locate all camps on gravel, sand or other durable land.	N/A	Ongoing
31(1)(b) - Time		
5. The Permittee's Field Supervisor shall contact or meet with a Land Use Inspector at the Iqaluit office of the Department of Indian Affairs and Northern Development, phone number (867) 975-4297, at least 48 hours prior to the commencement of this land use operation.	Notification	Ongoing
6. The Permittee shall complete all clean-up and restoration of the lands used prior to the expiry date of this permit.	N/A	Ongoing
7. The Permittee shall advise a Land Use Inspector at least 10 days prior to the completion of the land use operation of, a) his plans for removal or storage of equipment and materials, and b) when final clean-up and restoration of the lands used will be	Notification	Not yet required
31(1)(c) - Equipment		
8. The Permittee shall not use any equipment except of the type, size and number that is listed in the accepted application, unless otherwise authorized in writing by the Land Use Inspector	N/A	Ongoing
9. The Permittee shall burn all combustible garbage and debris in a container acceptable to the Land Use Inspector.	N/A	Incorporated into EPP
10. The Permittee shall keep all garbage and debris in a covered metal container until disposed of.	N/A	Incorporated into EPP
31(1)(d) - Methods and Techniques		
11. The Permittee shall plug all bore holes as the use land use operation progresses	N/A	Incorporated into EPP
12. The Permittee shall not erect camps or store material on the surface ice of streams	N/A	Incorporated into EPP
31(1)(e) - Type, Location, Capacity and Operation of Facilities		
13. The Permittee shall not locate any sump within 33 metres of the normal high water mark of any stream.	N/A	Incorporated into EPP
14. The Permittee shall backfill and restore all sumps prior to the expiry date of this permit.	N/A	Incorporated into EPP
15. The Permittee shall ensure that the land use area is kept clean and tidy at all times.	N/A	Incorporated into EPP
31(1)(f) - Control or Prevention of Flooding, Erosion and Subsidence of Land		
16. a) The Permittee shall, where flowing water from bore holes is encountered, plug the bore hole in such a manner as to permanently prevent any further outflow of water.	N/A	Incorporated into EPP
b) The artesian occurrence shall be reported to the Engineer within forty-eight (48) hours.	Notification	Ongoing
17. The Permittee shall install erosion control structures as the land use operation progresses unless otherwise authorized by a Land Use Inspector.	N/A	Incorporated into EPP
18. The Permittee shall prepare the site in such a manner as to prevent rutting of the ground surface.	N/A	Incorporated into EPP
19. The Permittee shall not move any equipment or vehicles unless the ground surface is in a state capable of fully supporting the equipment or vehicles without rutting or gouging.	N/A	Incorporated into EPP
20. The Permittee shall suspend overland travel of equipment or vehicles if rutting occurs.	N/A	Incorporated into EPP
31(1)(g) - Use, Storage, Handling and Disposal of Chemical or Toxic Material		

TABLE 2.1

BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT

COMPREHENSIVE ENVIRONMENTAL MONITORING PLAN

STATUS OF COMPLIANCE WITH CONDITIONS, APPROVALS AND COMMITMENTS

ITEM	DELIVERABLE	STATUS
21. The Permittee shall deposit all sewage into a sump.	N/A	Incorporated into EPP
22. The Permittee shall deposit all drill waste into a sump.	N/A	Incorporated into EPP
23. The Permittee shall not allow any drilling waste to spread to the surrounding lands or water bodies.	N/A	Incorporated into EPP
24. The Permittee shall remove all non-combustible garbage and debris from the land use area to a disposal site approved in writing by a Land Use Inspector.	**Bulk Sampling Program - Landfill Design and Operations** (Knight Piésold Ref. No. NB102-00181/10-6, Rev. 1, dated March 31, 2008)	Ongoing
25. The Permittee shall dispose of all combustible waste petroleum products by incineration or removal..	N/A	Incorporated into EPP
26. The Permittee shall dispose of all toxic or persistent substances in a manner as approved in writing by the Engineer.	N/A	Incorporated into EPP
27. The Permittee shall report all spills immediately in accordance with instructions contained in "Spill Report" form NWT 1752 (05/93) Twenty four (24) hour spill report line (867) 920-8130.	N/A	Incorporated into EPP and Spill Contingency Plan
31(1)(h) - Wildlife and Fisheries Habitat		
28. The Permittee shall not unnecessarily damage wildlife habitat in conducting this land use operation.	N/A	Incorporated into EPP
29. Your operation is in an area where bears may be encountered. Proper food handling and garbage disposal procedures will lessen the likelihood of bears being attracted to your operation. Information about the latest bear detection and deterrent techniques can be obtained from the Department of Renewable Resources at Iqaluit.	N/A	Ongoing
31(1)(i) - Objects and Places of Recreational, Scenic and Ecological Value		
30. The Permittee shall not feed wildlife.	N/A	Incorporated into EPP
31(1)(k) - Petroleum Fuel Storage		
31. The Permittee shall not place any petroleum fuel storage containers within thirty one (31) metres of the normal high mark of any stream.	N/A	Incorporated into EPP
32. The Permittee shall not allow petroleum products to spread to surrounding lands or into water bodies.	N/A	Incorporated into EPP
33. The Permittee shall have one extra fuel storage container on site equal to, or greater than, the size of the largest fuel container.	N/A	Incorporated into EPP
34. The Permittee shall a) Examine all fuel storage containers for leaks a minimum of once every day. b) Repair all leaks immediately	Controls and inspections to prevent potential impacts from fuel leaks in active operations.	A risk-based Fuel Management and Control Plan has been developed and implemented.
35. The Permittee shall seal all container outlets except the outlet currently in use.	N/A	Incorporated into EPP
36. The Permittee shall mark all fuel containers with the Permittee's name.	N/A	Incorporated into EPP
31(1)(m) - Matters not Inconsistent with the Requlations		
37. The Permittee shall not remove any material from below the ordinary high water mark of any stream without first obtaining written permission from a Land Use Inspector.	N/A	Incorporated into EPP
38. The Permittee shall display a copy of this permit in a conspicuous place in each campsite established to carry out this land use operation.	N/A	Copies are on site
39. Part 1 - In this Permit		
"Sump" means a man-made pit, trench hollow or cavity in the earth's surface used for the purpose of depositing waste material therein.	N/A	Information
"Drill waste" means all materials or chemicals, solid or liquid, associated with the drilling of bore holes and includes bore hole cuttings.	N/A	Information
40. The Permittee shall submit to the Engineer a contingency plan, for chemical and petroleum spills, for use during the construction and operation of the winter road.	**Spill Contingency Plan** (Qikiqtaaluk Environmental, March 2008) **Spill Contingency Plan** (Baffinland, dated March, 2009) (Baffinland, dated March 2010) (Baffinland, dated March 2011)	Complete
ADDED AS PER MARCH 14, 2008 AMENDMENT		
1. The Permitee shall not use bladders for storing petroleum products.	N/A	N/A
2. The Permitee shall not use bladders for transporting petroleum products.	N/A	N/A
Archaeology Terms and Conditions		
1. The Permittee shall not operate any vehicle over a known or suspected archaeological or palaeontological site.	N/A	Incorporated into EPP
2. The permittee shall not remove, disturb, or displace any archaeological artifact or site, or any fossil or palaeontological site.	N/A	Incorporated into EPP
3. The Permittee shall immediately contact the Department of Culture, Language, Elders and Youth (867) 934-2046 or (867) 975-5500 or 1 (866) 934-2035 should an archaeological site or specimen, or a palaeontological site or fossil be encountered or disturbed by any land use activity.	N/A	Incorporated into EPP
4. The Permittee shall immediately cease any activity that disturbs an archaeological or palaeontological site encountered during the course of a land use operation, until permitted to proceed with the authorization of the Department of Culture, Language, Elders and Youth, Government of Nunavut.	N/A	Incorporated into EPP
5. The Permittee shall follow the direction of the Department of Culture, Language, Elders and Youth and DIAND in restoring disturbed archaeological or palaeontological sites to an acceptable condition.	N/A	Ongoing
6. The Permittee shall provide all information requested by the Department of Culture, Language, Elders and Youth concerning all archaeological sites or artifacts and all palaeontological sites and fossils encountered in the course of any land use activity.	N/A	Ongoing
7. The Permittee shall make best efforts to ensure that all persons working under authority of the permit are aware of these conditions concerning archaeological sites and artifacts, and palaeontological sites and fossils.	N/A	Ongoing
8. The Permittee shall avoid the known archaeological and/or palaeontological sites listed in Attachment 1.	N/A	Ongoing
9. The permittee shall have an archaeologist or palaeontologist perform the following functions, as required by the Department of Culture, Language, Elders and Youth a) survey b) inventory and documentation of the archaeological or palaeontological resources of the land use area c) assessment of potential for damage to archaeological or palaeontological sites d) mitigation e) marking boundaries of archaeological or palaeontological sites f) site restoration The Department of Culture, Language, Elders and Youth shall authorize by way of a Nunavut Archaeologist Permit or a Nunavut Palaeontological Permit, all procedures subsumed under the above operations	**Archaeology Assessment Report** (Knight Piésold Ref. No. NB07-00348, dated April 30, 2007) **2007 Archaeology Investigations Final Permit Report** (Points West Heritage Consulting Ltd. NU Archaeologist's Permit 2007-017A, dated May 31, 2008) **Steensby Inlet 2008 Archeological Investigations Final** Permit Report (Knight Piesold Ref. No. NB102-181/15-A.01, dated March, 2009) **2008 Archeological Investigations Northern Section Final Report** (Knight Piesold Ref. No. NB102-181/15-A.01, dated March **20, 2009)** **Mary River Project, Nunavut, 2010 Archaeological Investigations. Final Permit Report** (NU Archaeologist's Permit 2010-026A).	N/A
INAC Land Use Permit N2007F0004		
31 (1) (A) LOCATION AND AREA		
1. The Permittee shall not conduct this land use operation on any lands not designated in the accepted application, unless otherwise authorized in writing by the Engineer	N/A	Incorporated into EPP
2. The Permittees shall remove from Territorial Lands, all scrap metal, discarded machinery and parts, barrels and kegs, buildings and building material	**Abandonment and Reclamation Plan** (Knight Piésold Ref. No. NB102-00181/6-7, Rev. 2, dated March 31, 2008) **2009 Abandonment & Reclamation Plan** (Knight Piesold Ref. No. NB102-181/15-1, Rev. 0, dated March 26, 2009) **2010 Abandonment & Reclamation Plan** (Baffinland dated March 2010) **2011 Abandonment & Reclamation Plan** (Baffinland dated March 2011)	Complete
3. The Permittee shall not construct an adit or drillsiite within 31 meters of the normal high water mark of a stream unless approval in writing is obtained from the Engineer	N/A	Incorporated into EPP
31(1)(B) TIME		
4. The Permittee's Field Supervisor shall contact or meet with a Land Use Inspector at the Iqaluit office of the Department of Indian Affairs and Northern Development, phone number (867) 975-4296, at least 48 hours prior to the commencement of this land use operation.	Notification	Complete
5. The Permittee shall advise a Land Use Inspector at least 10 days prior to the completion of the land use operation of, a) his plans for removal or storage of equipment and materials b) when final clean-up and restoration of the lands used will be completed	Notification	Not yet required
6. The Permittee shall complete all clean-up and restoration of the lands used prior to the expiry date of this permit.	N/A	Not yet required
7. The Engineer reserved the right to impose closure of any area to the Permittee in periods when dangers to natural resources are severe	N/A	N/A
31 (1) (c) EQUIPMENT		
8 The Permittee shall not use any equipment except of the type, size, and number that is listed in the accepted application, unless otherwise authorized in writing by the Land Use Inspector	N/A	Ongoing
9. The Permittee shall keep all garbage and debris in a covered metal container until disposed of.	N/A	Incorporated into EPP
31 (1) (D) - METHODS AND TECHNIQUES		
10. The Permittee shall slope the sides of excavations and embankments except in solid rock to a horizontal/vertical ratio of 2 1 unless otherwise authorized in writing by the Land Use Inspector	N/A	Incorporated into EPP
31 (1) (E) - TYPE, LOCATION, CAPACITY AND OPERATION OF FACILITIES		
11. The Permittee shall ensure that the land use area is kept clean and tidy at all times	N/A	Incorporated into EPP
31 (1) (F) - CONTROL OR PREVENTION OF FLOODING, EROSION, AND SUBSIDENCE OF LAND		
12. The Permittee shall remove any obstruction to natural drainage caused by any part of this land use operation	N/A	Incorporated into EPP
13. The Permittee shall not cut any stream bank unless authorized in writing by a Land Use Inspector	N/A	N/A
14. The Permittee shall install erosion control structures as the land use operation progresses unless otherwise authorized by a Land Use Inspector	N/A	Incorporated into EPP
15. The Permittee shall prepare the site in such a manner as to prevent rutting of the ground surface.	N/A	Incorporated into EPP
31 (1) (G) USE, STORAGE, HANDLING AND DISPOSAL OF CHEMICAL OR TOXIC MATERIAL		
16. The Permittee shall not use chemicals in connection with the land use operation without the prior approval of the Engineer	N/A	Incorporated into EPP
17. The Permittee shall remove all non-combustible garbage and debris from the land use area to a disposal site approved in writing by a Land Use Inspector	**Bulk Sampling Program - Landfill Design and Operations** (Knight Piésold Ref. No. NB102-00181/10-6, Rev. 1, dated March 31, 2008)	Ongoing
18. The Permittee shall dispose of all combustible waste petroleum products by incineration or removal	N/A	Incorporated into EPP
19. The Permittee shall report all spills immediately in accordance with instructions contained in "Spill Report" form NWT 1752(05/93) Twenty four (24) hour spill report line (867)920-8130	N/A	Incorporated into EPP and Spill Contingency Plan
31 (1) (H) WILDLIFE AND FISHERIES HABITAT		
20. The Permittee shall not detonate explosives within fifteen (15) meters of any body of water which is not completely frozen to the bottom.	N/A	Incorporated into EPP
21. Aircraft take-offs and landings are prohibited if caribou monitoring indicates presence of caribou within 1 km of the airstrips and/or helipads.	N/A	Incorporated into EPP
31 (1) (K) PETROLEUM FUEL STORAGE		
22. The Permittee shall report in writing to a Land Use Inspector the location and quantity of all petroleum fuel caches within ten (10) days after the establishment	Written notification	N/A
23. The Permittee shall not place any petroleum fuel storage containers within thirty-one (31) meters of the normal high water mark of any stream	N/A	Incorporated into EPP
24. The Permittee shall not allow petroleum products to spread to surrounding lands or into water bodies	Controls and inspections to prevent potential impacts from fuel leaks in active operations.	A risk-based Fuel Management and Control Plan has been developed and implemented.
25. The Permittee shall construct a dyke around each stationary fuel container or group of stationary fuel containers where any one container has a capacity exceeding 4,000 litres.	N/A	Incorporated into EPP
31 (1) (M) MATTERS NOT CONSISTENT WITH THE REGULATIONS		
26. The Permittee shall not remove any material from below the ordinary high water mark of any stream without first obtaining written permission from a Land Use Inspector	N/A	Incorporated into EPP
27. The Permittee shall keep on hand, at all times during this land use operation, a copy of the Land Use Permit and a copy of the NIRB Screening Decision.	N/A	Copies are on site
28. The Permittee shall submit to the Engineer, NIRB, and the Nunavut Water Board an updated Emergency and Spill Response Plan, for chemical and petroleum spills, for use during the construction and operation of the winter road. The Permittee must ensure that there is sufficient spill response equipment at Milne Inlet to adequately respond to a fuel spill of, at a minimum, 9,520 L.	**Spill Contingency Plan** (Qikiqtaaluk Environmental, March 2008) **Spill Contingency Plan** (Baffinland, dated March 2009) (Baffinland, dated March 2010)	Complete
29. to 31. These items are re-stated from the May 4, 2007 NIRB Screening Decision	See above	Complete
30. The Permittee shall abide by and comply with all applicable lawful rules, acts, regulations, and by-laws of Canada, Nunavut, any Municipality or regulatory body or authority having jurisdiction, the Nunavut Land Claim Agreement, and all other agreements, permits, licenses, and other instruments whatsoever related to the project	N/A	N/A
31 (a) Prior to commencement of the Bulk Sample project proposal activities, the Proponent shall develop a comprehensive monitoring program for the project. The monitoring program must be developed for all stages of the project activities, including construction, operation, closure and post-closure. The monitoring program should be developed in accordance with the objectives outlined in Section 8 of the Proponent's Environmental Screening Document as per number 6 of the NIRB Screening Report.	**Comprehensive Environmental Monitoring Plan** (Knight Piésold Ref. No. NB102-00181/10-3, Rev. 1, dated March 31, 2008) (Baffinland, dated March 2010) (Baffinland, dated March 2011)	Complete
31 (b) The monitoring program must monitor the components outlined in Section 8 of the Environmental Screening Document, but also must be updated to include monitoring for those components included in the significance assessment provided by the Proponent (on April 20, 2007), as per number 6 of the NIRB Screening Report	**2007 Annual Report to the Nunavut Impact Review Board** (Knight Piésold Ref. No. NB102-00181/11-1, Rev. 0, dated January 25, 2008) **2008 Annual Report to the Nunavut Impact Review Board** (Baffinland, 2009) **2009 Annual Report to the Nunavut Impact Review Board** (Baffinland, 2010) **2010 Annual Report to the Nunavut Ipact Review Board** (Baffinland, 2011)	Complete
31 (c) The Proponent shall make efforts to monitor potential impacts from the project proposal on Inuit harvesting activities, particularly along the Milne Inlet Tote Road.		Complete
31 (d) The monitoring program may utilize the same monitoring activities as the Construction Environmental Management Plan, but must be a stand-alone program.		Complete
31 (e) The monitoring program must incorporate data collected by the Pisikik Inuit Qaujimajatuqangit Working Group, particularly in the determination of monitoring methodology and the identification of suitable indicators.		Complete
31 (f) Baffinland must make all reasonable efforts to involve the community members from the Hamlet of Pond Inlet and Qikiqtani Inuit Association representatives in the development and implementation of the monitoring program.		Complete
31 (g) The marine wildlife monitoring component of the monitoring program should be developed in conjunction with Department of Fisheries and Oceans and must consider the use of local community members as marine wildlife monitors.		Complete
31 (h) The monitoring program must identify component-specific thresholds that will be used to determine the necessity for adaptive mitigation and management strategies.		Complete
32. The Proponent must ensure that shipping contractors do not incinerate any wastes or deposit any sewage or bilge water in Milne Inlet.	N/A	Shipping contractors operated in compliance with applicable legislation
33. The Proponent must ensure that shipping contractors travel at a speed less than 25 km/hr, or otherwise directed by the Department of Fisheries and Oceans and/or Transport Canada.	N/A	Shipping contractors operated in compliance with applicable legislation
WATER LICENCE 2BB-MRY0710		
PART A: SCOPE, DEFINITIONS AND ENFORCEMENT		
1. Scope (left out of this table)		
This Licence allows for the use of water and the disposal of waste for an undertaking classified as Mining and Milling as per Schedule II of the Regulations. This Licence allows for exploration and bulk sampling operations, all-weather road construction, camp operations, domestic waste treatment and/or disposal, fuel containment, and all associated uses at the Mary River Exploration and Bulk Sampling Project located in the Qikiqtani Region, Nunavut.		Information
(i) This Licence is issued subject to the conditions contained herein with respect to the taking of water and the depositing of waste of any type in any waters or in any place under any conditions where such waste or any other waste that results from the deposits of such waste may enter any waters. Whenever new Regulations are made or existing Regulations are amended by the Governor in Council under the Nunavut Waters and Nunavut Surface Rights Tribunal Act, or other statutes imposing more stringent conditions relating to the quantity or type of waste that may be so deposited or under which any such waste may be so deposited, this Licence shall be deemed, upon promulgation of such Regulations, to be subject to such requirements; and;		Information
(ii) Compliance with the terms and conditions of this Licence does not absolve the Licensee from responsibility for compliance with the requirements of all applicable Federal, Territorial and Municipal legislation.		Information
2. Definitions (left out of this table)		
"Act" means the Nunavut Waters and Nunavut Surface Rights Tribunal Act;		Information
"Amendment" means a change to original terms and conditions of this Licence requiring correction, addition or deletion of specific terms and conditions of the Licence; modifications inconsistent with the terms of the set terms and conditions of the Licence;		Information
"Appurtenant Undertaking" means an undertaking in relation to which a use of water or a deposit of waste is permitted by a licence issued by the Board;		Information
"Board" means the Nunavut Water Board established under the Nunavut Land Claims Agreement and the Nunavut Waters and Nunavut Surface Rights Tribunal Act;		Information
"Bulk Sample Project" means the activities, in addition to those of the Licence renewal, as described in the application for amendment received December 4, 2006.		Information
"Engineer" means a professional engineer registered to practice in Nunavut in accordance with the Engineering, Geological and Geophysical Act (Nunavut) S.N.W.T. 1998, c.38, s.5;		Information
"Greywater" means all liquid wastes from showers, baths, sinks, kitchens and domestic washing facilities, but does not include toilet wastes;		Information
"Infrastructure" means all construction necessary for mining, such as watercourse crossings, piping, sewage and water systems, reservoirs, and roads;		Information
"Inspector" means an Inspector designated by the Minister under Section 85 (1) of the Act;		Information
"Licensee" means the holder of this Licence;		Information
"Minewater" means groundwater or any water used in mining, which is pumped or flows out of any underground workings or open pit;		Information
"Modification" means an alteration to a physical work that introduces a new structure or eliminates an existing structure and does not alter the purpose or function of the work, but does not include an expansion;		Information
"Nunavut Land Claims Agreement" (NLCA) means the "Agreement Between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in right of Canada", including its preamble and schedules, and any amendments to that agreement made pursuant to it;		Information
"Polishing/Waste Stabilization Ponds" (PWSP) means the containment ponds designed as interim and/or contingency containment of sewage at the Mary River and Milne Inlet Camps;		Information
"Regulations" means the Northwest Territories Water Regulations sor/93-303 8th June, 1993, omitting Section 5, Water Use or Waste Deposit Without a Licence;		Information
"Sewage" means all toilet wastes and greywater;		Information
"Spill Contingency Plan" means a Plan developed to deal with unforeseen petroleum and chemical events that may occur during the operations conducted under the Licence;		Information
"Sump" means an excavation in impermeable soil for the purpose of catching or storing water or waste;		Information
"Toilet Wastes" means all human excreta and associated products, but does not include greywater;		Information
"Waste" means, as defined in S.4 of the Act, any substance that, by itself or in combination with other substances found in water, would have the effect of altering the quality of any water to which the substance is added to an extent that is detrimental to its use by people or by any animal, fish or plant, or any water that would have that effect because of the quantity or concentration of the substances contained in it or because it has been treated or changed, by heat or other means.		Information
"Waste Water Treatment Facilities" (WWTF) means the treatment facilities and/or associated contingency infrastructure used for the treatment of sewage at the Mary River Camp(s) and the Milne Inlet Camp.		Information
3. Enforcement (left out of this table)		
(i) Failure to comply with this Licence will be a violation of the Act, subjecting the Licensee to the enforcement measures and the penalties provided for in the Act		Information
(ii) All inspection and enforcement services regarding this Licence will be provided by Inspectors appointed under the Act; and		Information
(iii) For the purpose of enforcing this Licence and with respect to the use of water and deposit or discharge of waste by the licensee, Inspectors appointed under the Act, hold all powers, privileges and protections that are conferred upon them by the Act or by other applicable law.		Information
PART B: GENERAL CONDITIONS		
1. The water use fee of $30, payable to the Receiver General for Canada, shall be sent to the Board annually in advance of any use in accordance with Section 9 of the Regulations.	Payment	Complete

TABLE 2.1

BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT

COMPREHENSIVE ENVIRONMENTAL MONITORING PLAN

STATUS OF COMPLIANCE WITH CONDITIONS, APPROVALS AND COMMITMENTS

ITEM	DELIVERABLE	STATUS
2. The Licensee shall submit to the Board for approval within ninety (90) days of the effective date of the amended licence, an assessment of current restoration liability using the most recent version of RECLAIM or other equivalent method as approved by the Board	**Mary River Project Bulk Sampling Program – RECLAIM Model Results** (Knight Piésold Ref. No. NB07-00898, dated October 24, 2007) **Abandonment and Reclamation Plan** (Knight Piésold Ref. No. NB102-00181/6-7, Rev. 2, dated March 31, 2008) **2009 Abandonment & Reclamation Plan** (Knight Piesold Ref. No. NB102-181/15-1, Rev. 0, dated March 26, 2009) **2010 Abandonment & Reclamation Plan** (Baffinland dated March 2010) **2011 Abandonment & Reclamation Plan** (Baffinland dated March 2011)	Complete
3. The Licensee shall furnish and maintain security with the Minister as required by the Board in a form and amount acceptable to the Minister	Security held by the Qikiqtani Inuit Association	Complete
4. The security deposit shall be maintained until such time as the Minister is satisfied that the Licensee has complied with all provisions of the approved Abandonment and Restoration Plan. This clause shall survive the expiry of this Licence or renewals thereof.	N/A	N/A
5. The Licensee shall file an Annual Report on the appurtenant undertaking with the Board no later than March 31st of the year following the calendar year being reported which shall contain the following information:	**2008 Annual Report to the Nunavut Water Board** (Baffinland, 2009) **2009 Annual Report to the Nunavut Water Board** (Baffinland, 2010) **2010 Annual Report to the Nunavut Water Board** (Baffinland, 2011)	Pending; due March 31, 2011
~~(i) the monthly and annual quantities in cubic metres of all freshwater obtained from Camp Lake at Monitoring Station MRY-1, Phillips Creek at Monitoring Station MRY-2 and km99 Lake at Monitoring Station MRY-3;~~ **AS PER AMENDMENT NO. 2 (FEBRUARY 29, 2008) HAS BEEN AMENDED TO READ:**		
(i) the monthly and annual quantities in cubic metres of all freshwater obtained from Camp Lake at Monitoring Station MRY-1, Phillips Creek at Monitoring Station MRY-2, km99 Lake at Monitoring Station MRY-3 and the additional freshwater sources identified for Camp use under Part C, Item 1.		
(ii) the monthly and annual quantities in cubic metres of all freshwater obtained for the purposes of drilling and other associated uses;		
(iii) the monthly and annual quantities in cubic meters of treated Sewage effluent discharged at Monitoring Station MRY-4, Mary River Camp WWTF and at Monitoring Station MRY-5, Milne Inlet Camp WWTF along with any waters discharged from the respective PWSP's;		
(iv) the monthly and annual quantities in cubic metres of Sludge removed from the Waste Water Treatment Facilities at Mary River Camp and Milne Inlet Camp and details on the storage and/or disposal;		
(v) A summary, including photographic records before, during and after construction activities; any modifications and/or major maintenance work carried out on the Water Supply and the wastewater Treatment Facilities, including all associated structures, and an outline of any work anticipated for the next year;		
(vi) The geochemical analysis of drill cores as per Part F, Item 3;		
(vii) Detailed discussion on the performance, installation, and evaluation, including the use of photographic record, of the primary and secondary containment functions used in fuel storage to safeguard impacts to freshwaters;		
(viii) A list of unauthorized discharges and a summary of follow-up actions taken;		
(ix) A brief description of follow-up action taken to address concerns presented within inspection and compliance reports prepared by the Inspector;		
(x) Updates in the form of an addendum or revisions to the Abandonment and Restoration Plan, Emergency Spill Response Plan, Waste Rock and Ore Storage Plan, QA/QC, Landfill Operations and Maintenance Plan, and Landfarm Plan		
(xi) A description of all progressive and or final reclamation work undertaken, including drill sites, presented with photographic records of site conditions before, during and after completion of operations;		
(xii) An updated estimate of the current restoration liability required under Part B, Item 2, based upon the results of restoration research, project development monitoring, and any changes or modifications to the Project;		
(xiii) Tabular summaries of all data generated under the Monitoring Program, Part I;		
(xiv) A summary of public consultation/participation, describing consultation with local organizations and residents of the nearby communities, if any were conducted;		
(xv) A summary of any specific studies or reports requested by the Board, and a brief description of any future studies planned or proposed; and		
(xvi) Any other details on water use or waste disposal requested by the Board by November 1 of the year being reported.		
6. The Licensee shall submit to the Board a Site Water Management Plan, within ninety (90) days following the issuance of the licence, for Board approval, that includes but is not limited to the following:	**Site Water Management Plan** (Knight Piésold Ref. No. NB102-00181/10-5, Rev. 1, dated March 31, 2008) **Site Water Management Plan** (Baffinland, dated March 31, 2009) (Baffinland, dated March 31,2010)	Complete
(i) A description of the quantity and direction of surface water flow from the road, over the surrounding landscape, and the overall site, along with topographic maps that effectively delineate the movement of waters on site;		
(ii) A detailed description of the location and capacity of water retention areas that would allow for the management of surface water runoff from the road and other Infrastructure;		
(iii) A detailed description of the sampling locations along the access road and the overall site where the water procured would provide the most representative analytical results, as determined by an appropriately qualified Engineer through a clear disclaimer outlining any limitations to judgment made by the Engineer, of surface water quality draining from the road surface and any other Infrastructure; and		
(iv) Any further information that a qualified Engineer believes to be pertinent to describe the movement and quality of surface water draining from the access road and any other Infrastructure.		
7. The Licensee shall submit to the Board for approval, within ninety (90) days of the effective date this license, a revised Site Water Management Plan referred to in Part B, Item 6 to reflect changes in operation and infrastructure as a result of the amendment application for the Bulk Sampling Project. The revised Plan shall consider water management associated with all infrastructure components of the undertaking, including , but not be limited to:		
(i) Bulk Sample Open Pit operations;		
(ii) Weathered ore/waste storage piles;		
(iii) Temporary ore storage at Mary River and Milne Inlet;		
(iv) Bulk fuel storage areas;		
(v) Ore processing area;		
(vi) Access roads;		
(vii) All weather road; and		
(viii) Associated construction material quarry operations		
8. If the Board does not approve the Plan referred to in Part B, Item 7, the Licensee shall revise the Plan and resubmit to the Board for approval within two (2) months of receiving notification of the Board's decision	N/A	Approval pending
9. The Licensee shall implement the Plans specified in this Part as and when approved by the Board.	N/A	Ongoing
10. The Licensee shall notify the NWB of any changes in operating plans or conditions associated with this project at least thirty (30) days prior to any such change.	N/A	Ongoing
11. The Licensee shall install and maintain flow meters or other such devices, or implement suitable methods required for the measuring of water and waste volumes, to be operated and maintained to the satisfaction of an Inspector.	N/A	Ongoing
12. The Licensee shall post signs in the appropriate areas to identify the location of Monitoring Stations designated under Part I. All signs shall be located and maintained to the satisfaction of an Inspector	N/A	Not yet installed.
13. The Licensee shall ensure a copy of this Licence is maintained at the site of operations at all times. Any communication with respect to this Licence shall be made in writing to the attention of:	N/A	Compliant
(i) Manager of Licensing: Nunavut Water Board P.O. Box 119 Gjoa Haven, NU X0B 1J0 Telephone: (867) 360-6338 Fax: (867) 360-6369		
(ii) Inspector Contact: Water Resources Officer, INAC Nunavut District, Nunavut Region P.O. Box 100 Iqaluit, NU X0A 0H0 Telephone: (867) 975-4295 Fax: (867) 979-6445		
14. The Licensee shall submit one paper copy and one electronic copy of all reports, studies, and plans to the Board. Reports or studies submitted to the Board by the Licensee shall include a detailed executive summary in Inuktitut.	N/A	N/A
15. The Licensee is responsible to ensure that any documents or correspondence submitted by the Licensee to the Board have been received and acknowledged by the Manager of Licensing.	N/A	N/A
16. This Licence is not assignable except as provided in Section 44 of the Act.	N/A	N/A
17. The expiry or cancellation of this Licence does not relieve the holder from any obligations imposed by the Licence as per Section 46 of the Act.	N/A	N/A
PART C: CONDITIONS APPLYING TO WATER USE		
~~1. The Licensee shall obtain all water for domestic purposes from Camp Lake at Monitoring Station MRY-1, Philips Creek at Monitoring Station MRY-2 and Km 99 Lake at Monitoring Station MRY-3. Total water use for domestic purposes shall not exceed sixty (60) cubic metres per day. Water for the purposes of drilling and other associated uses, shall be obtained from sources adjacent to drill targets or as otherwise approved by the Board and is not to exceed four hundred and fifty five (455) cubic metres per day.~~ **AS PER AMENDMENT NO. 2 (FEBRUARY 29, 2008) HAS BEEN AMENDED TO READ:**	N/A	October 18, 2007 NWB letter approved additional potable water sources for the Milne Inlet Camp
1. The Licensee shall obtain water for domestic purposes from the following locations, or as otherwise approved by the Board:	N/A	Ongoing
(i) Mary River Camp; Camp Lake at Monitoring Station MRY-1;		
(ii) Milne Inlet Camp; Philips Creek at Monitoring Station MRY-2;		
(iii) Km 99 Lake at Monitoring Station MRY-3;		
(iv) An alternative water source for Milne Camp at Km 32 Lake;		
(v) Deposit 4 Camp; Proposed under the Amendment No.1 application and to be identified prior to use;		
(vi) Rail Camp; an adjacent unnamed lake; and		
(vii) Steensby Inlet Camp; an unnamed lake near camp or the alternate source for freshwater identified in the Application,		
Total water use for domestic purposes from all sources shall not exceed a combined total of sixty (60) cubic metres per day. Water for the purposes of drilling and other associated uses, shall be obtained from sources adjacent to drill targets, or as otherwise approved by the Board and is not to exceed four hundred and fifty five (455) cubic metres per day.		
2. The Licensee shall maintain the Water Supply Facilities to the satisfaction of the Inspector.	N/A	N/A
3. Streams cannot be used as a water source unless authorized and approved by the Board.	N/A	Incorporated into EPP
4. If the Licensee requires water in sufficient volume that the source water body may be drawn down the Licensee shall, at least 30 days prior to commencement of use of water, submit to the Board for approval the following: volume required, hydrological overview of the water body, details of impacts, and proposed mitigation measures.	N/A	Incorporated into EPP
5. The Licensee shall equip all water intake hoses with a screen of an appropriate mesh size to ensure that fish are not entrained and shall withdraw water at a rate such that fish do not become impinged on the screen.	N/A	Incorporated into EPP
6. The Licensee shall not remove any material from below the ordinary high water mark of any water body unless authorized.	N/A	Incorporated into EPP
7. The Licensee shall not cause erosion to the banks of any body of water and shall provide necessary controls to prevent such erosion.	N/A	Incorporated into EPP
8. Sediment and erosion control measures shall be implemented prior to and maintained during the operation to prevent entry of sediment into water.	N/A	Incorporated into EPP
PART D : CONDITIONS APPLYING TO WASTE DISPOSAL		
1. The Licensee shall locate areas designated for waste disposal at a minimum distance of thirty (30) metres from the ordinary high water mark of any water body such that the quality, quantity or flow of water is not impaired, unless otherwise authorized by the Board.	**Bulk Sampling Program - Landfill Design and Operations** (Knight Piésold Ref. No. NB102-00181/10-6, Rev. 1, dated March 31, 2008)	Ongoing
2. Unless otherwise approved by the Board, the Licensee shall not practice open burning or on-site land filling of domestic waste.	N/A	Request for controlled open burning requested in 2008. Approval received 2009.
3. The Licensee is authorized to dispose of all acceptable food waste, paper waste and untreated wood products in an incinerator.	N/A	Incorporated into EPP
4. The Licensee shall submit to the Board and the Inspector, thirty (30) days prior to the removal and transfer of waste, a declaration of authorization from the Hamlet of Pond Inlet, which clearly indicates the authorization to allow the deposit of solid waste by the Licensee, in the Hamlet's NWB licensed solid waste facility.	Letter from the Hamlet of Pond Inlet	Complete
5. The Licensee shall backhaul and dispose of all hazardous wastes generated through the course of the operation in an approved waste disposal site.	N/A	Incorporated into EPP
6. The Licensee shall maintain records of all waste backhauled and records of confirmation of proper disposal of backhauled waste. These records shall be made available to an Inspector upon request.	N/A	Incorporated into EPP
7. The Licensee shall notify an Inspector at least ten (10) days prior to any discharge from the facilities in this Part.	N/A	Incorporated into EPP
8. All Minewater and surface drainage from the weathered ore stockpiles shall be directed to a discharge location that will allow monitoring.	N/A	Incorporated into CEMP
~~9. All discharge from the two Bulk Sample open pits at Monitoring Stations MRY-8 and MRY-9 shall not exceed the following limits:~~ **AS PER AMENDMENT NO. 2 (FEBRUARY 29, 2008) HAS BEEN AMENDED TO READ:**		
9. All discharge from the two Bulk Sample open pits, weathered ore stockpile, lump ore and fine ore stockpiles at Monitoring Stations MRY-8, MRY-9, MRY-10, MRY-11 and MRY-12 shall not exceed the following limits:	Monthly Water License Reports	Ongoing
Parameter / Max Avg Conc (mg/L) / Max Conc of any Grab Sample (mg/L)		
Total Arsenic / 0.5 / 1.00		
Total Copper / 0.30 / 0.60		
Total Lead / 0.20 / 0.40		
Total Nickel / 0.50 / 1.00		
Total Zinc / 0.50 / 1.00		
Total Suspended Solids / 15.0 / 50.0		
Oil and Grease no visible sheen		
The Waste discharged shall have a pH of between 6.0 and 9.5		
10. All Sewage discharged from the Waste Water Treatment Facility, at Monitoring Station MRY 4 and MRY-4a shall not exceed the following quality standards:	Monthly Water License Reports	Ongoing
Parameter : Max Avg Concentration		
BOD5 : 30 mg/L		
Total Suspended Solids : 35 mg/L		
Faecal Coliform : 1,000 CFU/100 mL		
Oil and Grease : no visible sheen		
pH : between 6.0 and 9.5		
11. All Sewage discharged from the Waste Water Treatment Facility, at Monitoring Station MRY 5 and MRY-5a shall not exceed the following quality standards:	Monthly Water License Reports	Ongoing
Parameter : Max Avg Concentration		
BOD5 : 100 mg/L		
Total Suspended Solids : 120 mg/L		
Faecal Coliform : 10,000 CFU/100 mL		
Oil and Grease : no visible sheen		
pH : between 6.0 and 9.5		
~~12. The licensee shall ensure that effluent discharged from monitoring station MRY-4 and MRY-4a, and MRY-5 and MRY-5a, are demonstrated to be non-acutely toxic through testing in accordance with Part I, Item 5.~~ **AS PER AMENDMENT NO. 2 (FEBRUARY 29, 2008) HAS BEEN AMENDED TO READ:**	Monthly Water License Reports	Ongoing
12. The licensee shall ensure that effluent discharged from monitoring station MRY-4 and MRY-4a, and MRY-5 and MRY-5a, are demonstrated to be non-acutely toxic through testing in accordance with Part I, Item 4.	Monthly Water License Reports	Ongoing
13. The Licensee shall submit to the Board for approval, within thirty(30) days following the commissioning of the Waste Water Treatment Facilities, a Waste Water Management Plan which includes provision for Operation and Maintenance in accordance with the "Guidelines for the Preparation of an Operation and Maintenance Manual for Sewage and Solid Waste Disposal Facilities in the Northwest Territories, 1996". The plan shall include options for treatment and disposal of sludge.	**Waste Water Management Plan for Mary River and Milne Inlet Camp Sites** (BH Martin Consultants Inc., Report Reference No. 06-090, dated September 15, 2007) **Site Water Management Plan** (Baffinland, dated March 31, 2009) (Baffinland, dated March 31,2010)	Complete
14. All PWSP discharges shall be released in such a manner to minimize surface erosion.		
15. The Licensee shall ensure that PWSP's are designed and bermed in such a way to ensure there is no seepage. A report on seepage shall be included as part of the Annual Report required under Part B, Item 5.	**2008 Annual Report to the Nunavut Water Board** (Baffinland, 2009) (Also included in Annual Geotechnical Inspection 2008 and Annual Geotechnical Inspection 2009) Completed by Genivar Consultants LP **2010 Annual Report to the Nunavut Water Board** (Baffinland, 2011)	Pending; due March 31, 2010
16. An inspection of the earthworks, geological regime, and the hydrological regime of the Project is to be carried out during the summer of 2008, by a Geotechnical Engineer. The Geotechnical Engineer's report shall be submitted to the Board within sixty (60) days of the inspection, with a covering letter from the Licensee outlining an implementation plan to respond to the Engineer's recommendations.	**Annual Geotechnical Inspection 2008, 2009, and 2010** completed by Genivar Consultants LP	Complete
17. All effluent being discharged from the Bulk Fuel Storage Facilities at Monitoring Stations MRY – 6 and MRY – 7, shall meet the following effluent quality standards:	Monthly Water License Reports	Ongoing
Parameter : Maximum Average Concentration (ug/L)		
Benzene : 370		
Toluene : 2		
Ethylbenzene : 90		
Lead : 1		
Oil & Grease : 15,000 and no visible sheen		
18. The Licensee shall maintain all constructed facilities, including the fresh water intakes, Waste Water Treatment Facilities, Bulk Fuel Storage Facilities and the Polishing/Waste Stabilization Ponds (PWSP) to the satisfaction of an Inspector.	N/A	N/A
19. The Licensee shall submit to the Board for approval, at least ninety (90) days prior to construction of a proposed landfill, a final engineered design report, stamped by a professional Engineer registered in Nunavut. The report shall include, but not be limited to, an Operation and Maintenance Plan for the proposed facility, prepared in accordance with the "Guidelines for the Preparation of an Operation and Maintenance Manual for Sewage and Solid Waste Disposal Facilities in the Northwest Territories, 1996".	**Bulk Sampling Program - Landfill Design and Operations** (Knight Piésold Ref. No. NB102-00181/10-6, Rev. 1, dated March 31, 2008)	Complete
20. The Licensee shall submit to the Board for approval, within ninety (90) days of the issuance of the amendment, a Bulk Sampling Management Plan which addresses Acid Rock Drainage and Metal Leaching potential through the verification of Kinetic testing, Waste Rock Storage and Ore Storage management.	**Bulk Sampling Management Plan** (Knight Piésold Letter dated March 31, 2008, Ref. No. NB08-00275)	Complete
21. The Licensee may incinerate all food waste, paper waste and wood products in an incinerator capable of meeting the emission limits established under the Canadawide Standards for Dioxins and Furans the Canada-wide Standards for Mercury Emissions. In such case, the Licensee shall insure that the waste is burned in a device that promotes efficient combustion and reduction of emissions, and shall as much as possible reduce the amount of waste to be incinerated. The use of appropriate waste incineration technology shall be combined with a comprehensive waste management strategy, especially waste segregation, that is designed to reduce and control the volumes of wastes produced, transported, and disposed of.	N/A	N/A
22. The Licensee shall backhaul and dispose of all hazardous wastes, waste oil and non-combustible waste generated through the course of the operation in an approved waste disposal site.	N/A	Incorporated into EPP
23. The Licensee shall contain all greywater, not directed to the WWTF, in a sump located at a distance of at least thirty (30) metres above the ordinary high water mark of any water body, at a site where direct flow into a water body is not possible and no additional impacts are created, unless otherwise approved by the Board.	N/A	Incorporated into EPP
~~24. The Licensee shall dispose of all Sewage to the Waste Water Treatment Facilities or as otherwise approved by the Board.~~ **AS PER AMENDMENT NO. 2 (FEBRUARY 29, 2008) HAS BEEN AMENDED TO READ:**	N/A	Compliant

TABLE 2.1

BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT

COMPREHENSIVE ENVIRONMENTAL MONITORING PLAN

STATUS OF COMPLIANCE WITH CONDITIONS, APPROVALS AND COMMITMENTS

ITEM	DELIVERABLE	STATUS
24. The Licensee shall dispose of all Sewage generated at the Mary River Camp and the Milne Inlet Camp to the Waste Water Treatment Facilities, or as otherwise approved by the Board.	N/A	Compliant
25. The Licensee shall contain all other toilet wastes with disposal by incineration, Latrines for this use shall be located at a distance of at least thirty (30) metres above the ordinary high water mark of any water body.	N/A	Compliant
26. If the Board does not approve the Plan(s) referred to in this Part, the Licensee shall revise this Plan(s) and resubmit it to the Board for approval within two (2) months of receiving notification of the Board's decision.	**Waste Water Management Plan for Mary River and Milne Inlet Camp Sites** (BH Martin Consultants Inc., Report Reference No. 06-090, dated September 15, 2007) **Waste Water Management Plan** (Baffinland, March 2009) (Baffinland, dated March 2010)	Complete
27. The Licensee shall implement the Plan(s) specified in this Part as and when approved by the Board.	N/A	Plans have been implemented
PART E : CONDITIONS FOR CAMPS, ACCESS INFRASTRUCTURES AND OPERATIONS		
1. The Licensee shall not erect camps or store material on the surface of frozen streams or lakes including immediate banks except what is for immediate use. Camps shall be located such as to minimize impacts on surface drainage.	N/A	Incorporated into EPP
2. All activities shall be conducted in such a way as to minimize impacts on surface drainage and the Licensee shall immediately undertake any corrective measures in the event of any impacts on surface drainage.	N/A	Incorporated into EPP
3. Winter lake and stream crossings, including ice bridges, shall be constructed entirely of water, ice or snow. The Licensee should minimize disturbance by locating ice bridges at an area that requires the minimum approach grading and the shortest crossing route. Stream crossings shall be removed or the ice notched prior to spring break-up.	N/A	N/A
4. With respect to access road, pad construction or other earthworks, the deposition of debris or sediment into or onto any water body is prohibited. These materials shall be disposed a distance of at least thirty (30) metres from the ordinary high water mark in such a fashion that they do not enter the water. The Licensee shall ensure that any chemicals, fuel or wastes associated with the undertaking do not enter any water body.	N/A	Incorporated into EPP
5. The Licensee shall not cut any stream bank or remove any material from below the ordinary high water mark of any water body.	N/A	Incorporated into EPP
6. The Licensee shall not do anything that will cause erosion to the banks of any body of water and shall provide necessary controls to prevent such erosion.	N/A	Incorporated into EPP
7. Sediment and erosion control measures shall be implemented prior to and maintained during construction and operation to prevent entry of sediment into water.	N/A	Incorporated into EPP
8. The Licensee shall undertake appropriate corrective measures to mitigate impacts on surface drainage resulting from the Licensee's operations.	N/A	Incorporated into EPP
9. The Licensee shall limit any in-stream activity to low water periods. In-stream activity is prohibited during fish migration.	N/A	Incorporated into EPP
10. The Licensee shall locate stream crossings to minimize approach grades. Approaches shall be stabilized during construction and upon completion of the project, to control runoff, erosion and subsequent siltation to any water body.	N/A	Incorporated into EPP
11. Machinery is not permitted to travel up the stream bed and fording of any water body is to be kept to a minimum and limited to one area and a one-time event. Equipment used should be well cleaned and free of oil and grease and maintained free of fluid leaks.	N/A	Incorporated into EPP
12. The Licensee shall ensure that pollutants from machinery fording the crossings do not enter water.	N/A	Incorporated into EPP
13. The Licensee shall ensure that all fill material used during construction is from an approved source and shall be free of contaminants.	N/A	Incorporated into EPP
14. To minimize impacts on surface drainage, the Licensee shall prepare all sites in such manner as to prevent rutting of the ground surface.	N/A	Incorporated into EPP
15. Equipment storage holding areas should be located on gravel, sand or other durable land, a distance of at least thirty (30) metres above the ordinary high water mark of any water body in order to minimize impacts on surface drainage and water quality.	N/A	Incorporated into EPP
16. The Licensee shall designate an area for the deposition of excavated and stockpiled materials that is at least thirty (30) metres above the ordinary high water mark of any water body.	N/A	Incorporated into EPP
17. The Licensee shall not utilize any equipment or vehicles in the course of this undertaking unless the ground surface is in a state capable of fully supporting the equipment or vehicles without rutting or gouging. Overland travel of equipment or vehicles shall cease if rutting occurs.	N/A	Incorporated into EPP
PART F : CONDITIONS APPLYING TO DRILLIING OPERATIONS		
1. The Licensee shall not conduct any land based drilling within thirty (30) metres of the ordinary high water mark of any water body, unless otherwise approved by the Board.	Baffinland Letter dated February 19, 2008	Incorporated into EPP
~~2. The Licensee shall delineate through an appropriately scaled site map, include approximate GPS coordinates, and any mitigation measures in place to protect waters if filing a request to the Board to drill within thirty (30) metres of the ordinary high water mark of any water body.~~ **AS PER AMENDMENT NO. 2 (FEBRUARY 29, 2008) HAS BEEN AMENDED TO READ:**	N/A	Incorporated into EPP
2. Licensee may, for the purpose of geotechnical investigations as described in the application for Amendment, carry out drilling activities within thirty (30) metres of the high water mark of any water body, provided that such activities are consistent with the terms of this Licence and a request has been submitted and received by the NWB, ten (10) days in advance of drilling, that includes a thorough description of the proposed activities and the following:	Baffinland Letter dated February 19, 2008	Incorporated into EPP
(i) An appropriately scaled site map, complete with approximate GPS coordinates of planned drilling locations and the associated water bodies;		
(ii) Locations of waste deposition, that are consistent with Part F, Item 4; and		
(iii) Mitigation measures that are planned to be in place, prior to, during drilling and following if required to protect waters.		
3. The Licensee shall analyze the geochemical constituents of drill cores as follows:	**2008 Annual Report to the Nunavut Water Board** (Baffinland, 2009) **2009 Annual Report to the Nunavut Water Board** (Baffinland, 2010) **2010 Annual Report to the Nunavut Water Board** (Baffinland, 2011)	Pending; due March 31, 2011
(i) That reflects actuality and is truly representative of the drilling program for all constituents that may impact waters as determined, and clearly qualified, by a Geochemist registered in Nunavut;		
(ii) All assumptions, and any limitation to each assumption, in determining a representative sampling population reflecting actuality and the geochemical testing methods employed;		
(iii) Includes all raw data and an accompanying summary table of the geochemical analysis;		
(iv) Define clear conclusions on the results of the geochemical analysis; and		
(v) Present the geochemical analysis in the Annual Report as required by Part B, Item 2.		
4. The Licensee shall ensure that all drill waste, including water, chips, muds and salts (CaCl2) in any quantity or concentration, from land-based drilling, shall be disposed of in a properly constructed sump or an appropriate natural depression located at a distance of at least thirty (30) metres from the ordinary high water mark of any adjacent water body, where direct flow into a water body is not possible and no additional impacts are created.	**Site Water Management Plan** (Knight Piésold Ref. No. NB102-00181/10-5, Rev. 1, dated March 31, 2008) **Site Water Management Plan** (Baffinland, dated March 31, 2009) (Baffinland, dated March 31,2010)	Incorporated into EPP
~~5. On ice drilling has not been authorized within this Licence.~~ **AS PER AMENDMENT NO. 2 (FEBRUARY 29, 2008) HAS BEEN AMENDED TO READ:**	N/A	N/A
5. Drilling additives or mud shall not be used in connection with holes drilled through lake ice unless they are re-circulated or contained such that they do not enter the water, or are demonstrated to be non-toxic.	N/A	Incorporated into EPP
6. If artesian flow is encountered, drill holes shall be immediately sealed and permanently capped to prevent induced contamination of groundwater or salinization of surface waters. All artesian flows, including location (GPS), should be reported in the annual report to the NWB.	Report in the Annual Report to the Nunavut Water Board, if applicable	No artesian flow encountered to date
7. If the bottom of the permanently frozen ground, or permafrost, is broken through by the drill, the depth of the bottom of permafrost and location should be reported in the annual report to the Board for data management purposes.	Report in the Annual Report to the Nunavut Water Board, if applicable	The permafrost has not been penetrated to date
8. **ADDED AS PER AMENDMENT NO. 2 (FEBRUARY 29, 2008):** For "on-ice" drilling where drill additives are not being used, return water released must be nontoxic, and not result in an increase in total suspended solids in the immediate receiving waters above the Canadian Council of Ministers for the Environment, Guidelines for the Protection of Freshwater Aquatic Life (i.e. 10mg/L for lakes with background levels under 100 mg/L, or 10% for those above 100mg/L).	N/A	Incorporated into EPP
9. **ADDED AS PER AMENDMENT NO. 2 (FEBRUARY 29, 2008):**The Licensee shall establish water quality conditions prior to and upon completion of any drilling program through lake ice.	N/A	Incorporated into EPP
PART G: CONDITIONS APPLYING TO SPILL CONTINGENCY PLANNING		
1. The Licensee shall submit within ninety (90) days of issuance of the Licence, a revised Spill Contingency Plan that is specific to the scope of this Licence and prepared in accordance with the Spill Contingency Planning and Reporting Regulations developed under Section 34 of the Environmental Protection Act. The Licensee shall update the Plan by referring to, but not be limited by, the comments received by interested parties during the review of the application and include updated emergency contact information and updated material safety data sheets to be included as an Appendix.	**Spill Contingency Plan** **(Qikiqtaaluk Environmental, March 2008)** **Spill Contingency Plan** (Baffinland, dated March 2009) (Baffinland, dated March 2010) (Baffinland, dated March 2011)	Complete
2. If the Board does not approve the Plan referred to in this Part, the Licensee shall revise this Plan and resubmit it to the Board for approval within two (2) months of receiving notification of the Board's decision.	**Spill Contingency Plan** (Qikiqtaaluk Environmental, March 2008) **Spill Contingency Plan** (Baffinland, dated March 2009) (Baffinland, dated March 2010) (Baffinland, dated March 2011)	Complete
3. The Licensee shall implement the Plan specified in this Part as and when approved by the Board	N/A	Plan has been approved
4. The Licensee shall annually review the Plan referred to in this Part and if needed, modify it to reflect changes in operation and/or technology. The Plan and/or any revisions shall be submitted with the Annual Report.	**Spill Contingency Plan** (Qikiqtaaluk Environmental, March 2008) **Spill Contingency Plan** (Baffinland, dated March 2009) (Baffinland, dated March 2010) (Baffinland, dated March 2011)	Complete
5. The Licensee shall provide a report, to be approved by the Board, within ninety (90) days of issuance of the licence, appropriately qualified by an Engineer registered in Nunavut, which clearly details that the requirements of the CCME guidance document "Aboveground Storage Tank Systems for Petroleum and Allied Petroleum Products (2003)" have been met by the Licensee.	**Mary River Project - Fuel Storage Facility - Milne Inlet** (BH Martin Consultants Inc., Report Ref. No. 06-090, dated December 9, 2007) **Mary River Project - Report on Fuel Storage Facilities (Milne Inlet and Mary River Sites)** (GENIVAR, Report Ref. No. 06-090, dated January 18, 2008)	Complete
6. The Licensee shall ensure that any chemicals, petroleum products or wastes associated with the project do not enter water. All sumps and fuel caches shall be located at a distance of at least thirty (30) metres from the ordinary high water mark of any adjacent water body and inspected on a regular basis.	N/A	Incorporated into EPP
7. The Licensee shall ensure that any equipment maintenance and servicing be conducted only in designated areas and shall implement special procedures (such as the use of drip pans) to manage motor fluids and other waste and contain potential spills.	N/A	Incorporated into EPP
8. If during the term of this Licence, an unauthorized discharge of waste occurs, or if such a discharge is foreseeable, the Licensee shall:	N/A	Incorporated into EPP
(i) Employ the Spill Contingency Plan;		
(ii) Report the spill immediately to the 24-Hour Spill Line at (867) 920-8130 and to the Inspector at (867) 975-4295; and		
(iii) For each spill occurrence, submit to the Inspector, no later than thirty (30) days after initially reporting the event, a detailed report that will include the amount and type of spilled product, the GPS location of the spill, and the measures taken to contain and clean up the spill site.		
PART H : CONDITIONS APPLYING TO ABANDONMENT AND RESTORATION		
1. The Licensee shall implement the "Bulk Sample Program Abandonment and Restoration Plan" dated June 2007, as and when approved by the Board.	**Abandonment and Reclamation Plan** (Knight Piésold Ref. No. NB102-00181/6-7, Rev. 2, dated March 31, 2008) **2009 Abandonment & Reclamation Plan** (Knight Piesold Ref. No. NB102-181/15-1, Rev. 0, dated March 26, 2009) **2010 Abandonment & Reclamation Plan** (Baffinland dated March 2010) **2011 Abandonment & Reclamation Plan** (Baffinland dated March 2011)	Complete
2. If the Plan referred to in Part H, Item 1 is not approved, the Licensee shall make the necessary revisions and resubmit the Plan(s) within thirty (30) days following notification from the Board.		Plan approved
3. The Licensee shall review the Plan(s) referred to in this Part as required by changes in operation and/or technology and modify the Plan(s) accordingly. Revisions to the Plan(s) are to be submitted in the form of an Addendum to be included within the Annual Report unless directed otherwise by an Inspector.		Complete
4. The Licensee shall complete all restoration work prior to the expiry of this Licence.		N/A
5. The Licensee shall carry out progressive reclamation of any components of the project no longer required for the Licensee's operations.		N/A
6. When possible to do so, the Licensee shall backfill and restore, to the satisfaction of an Inspector, all sumps to the pre-existing natural contours of the land.		Ongoing
7. The Licensee shall remove from the site Infrastructures and site material, including but not limited to, all fuel caches, drums, barrels, buildings and contents, docks, water pumps and lines, all bulky wastes, material and equipment before the expiry of this License.		Ongoing
~~8. All roads and airstrip, if any, shall be re-graded to match natural contour to reduce erosion.~~ **DELETED AS PER AMENDMENT NO. 2 (FEBRUARY 29, 2008)**	N/A	N/A
~~9. All culverts shall be removed and the drainage opened up to match the natural channel. Measures shall be implemented to minimize erosion and sedimentation.~~ **AS PER AMENDMENT NO. 2 (FEBRUARY 29, 2008) HAS BEEN AMENDED TO READ:**	N/A	N/A
9. The Licensee shall, unless otherwise identified within the approved Plan under Part H, Item 1, remove all culverts and open the natural drainage channel. In carrying out this activity, measures shall be implemented to minimize erosion and sedimentation.	**Abandonment and Reclamation Plan** (Knight Piésold Ref. No. NB102-00181/6-7, Rev. 2, dated March 31, 2008) **2009 Abandonment & Reclamation Plan** (Knight Piesold Ref. No. NB102-181/15-1, Rev. 0, dated March 26, 2009) **2010 Abandonment & Reclamation Plan** (Baffinland dated March 2010) **2011 Abandonment & Reclamation Plan** (Baffinland dated March 2011)	Complete
~~10. In order to promote growth of vegetation and the needed microclimate for seed deposition, all disturbed surfaces shall be prepared by ripping, grading, or scarifying the surface to conform to the natural topography.~~ **DELETED AS PER AMENDMENT NO. 2 (FEBRUARY 29, 2008)**	N/A	N/A
11. Areas that have been contaminated by hydrocarbons from normal fuel transfer procedures shall be reclaimed to the satisfaction of an Inspector. The use of reclaimed soils for the purpose of back fill or general site grading may be carried out only upon approval by an Inspector.	**Abandonment and Reclamation Plan** (Knight Piésold Ref. No. NB102-00181/6-7, Rev. 2, dated March 31, 2008) **2009 Abandonment & Reclamation Plan** (Knight Piesold Ref. No. NB102-181/15-1, Rev. 0, dated March 26, 2009) **2010 Abandonment & Reclamation Plan** (Baffinland dated March 2010) **2011 Abandonment & Reclamation Plan** (Baffinland dated March 2011)	N/A
~~12. Drill holes and disturbed areas will be restored to natural conditions immediately upon completion of the drilling. The reclamation of drill holes must include the removal of any drill casing materials and the capping of holes with a permanent seal.~~ **DELETED AS PER AMENDMENT NO. 2 (FEBRUARY 29, 2008)**	N/A	N/A
13. The Licensee may store drill core produced by the appurtenant undertaking in an appropriate manner and location at least thirty (30) metres above the ordinary high water mark of any adjacent water body, where any direct flow into a water body is not possible and no additional impacts are created, or as directed by an Inspector.	N/A	Incorporated into EPP
~~14. All disturbed areas shall be contoured and stabilized upon completion of work and restored to a pre-disturbed state.~~ **DELETED AS PER AMENDMENT NO. 2 (FEBRUARY 29, 2008)**	N/A	N/A
PART I : CONDITIONS APPLYING TO THE MONITORING PROGRAM		
1. The Licensee shall submit to the Board for approval within (90) days of issuance of the licence an Environmental Monitoring Plan which addresses but is not limited to the following:	**Site Water Management Plan** (Knight Piésold Ref. No. NB102-00181/10-5, Rev. 1, dated March 31, 2008) **Site Water Management Plan** (Baffinland, dated March 31, 2009) (Baffinland, dated March 31,2010)	Complete
(i) Establishment of alternative treatment and disposal or discharge parameters for effluent discharged from the Bulk Fuel Storage Facilities(s);		
(ii) Monitoring requirements that may be required under the Bulk Sampling Management Plan; and		
(iii) Address recommendations of interested parties.		
2. The Licensee shall, at a minimum, maintain Monitoring Stations at the following locations:	**Comprehensive Environmental Monitoring Plan** (Knight Piésold Ref. No. NB102-00181/10-3, Rev. 1, dated March 31, 2008) **Comprehensive Environmental Monitoring Plan** (Baffinland, dated March 31, 2009) (Baffinland, dated March 31,2010) Baffinland, dated March 1, 2011)	Ongoing
Monitoring Program Station Number / Description / Status		
MRY – 1 / Water supply for the Mary River Camp at Camp Lake / Active-Volume		
MRY – 2 / Summer water supply for the Milne Inlet Camp at Phillips Creek / Active-Volume		
MRY – 3 / Winter water supply for the Milne Inlet Camp at the Km 99 lake / Active Volume		
MRY – 4 / Mary River Camp sewage discharge at the WWTF / Active		
MRY – 4a / Mary River Camp sewage discharge from the PWSP		
MRY – 5 / Milne Inlet Camp sewage discharge at the WWTF / Active		
MRY – 5a / Milne Inlet Camp sewage discharge from the PWSP		
MRY – 6 / Water collected within the Bulk Fuel Storage Facility at Mary River prior to release		
MRY – 7 / Water collected within the Bulk Fuel Storage Facility at Milne Inlet prior to release		
MRY – 8 / Minewater and surface drainage either pumped or released from the Hematite Open Pit / Active		
MRY – 9 / Minewater and surface drainage either pumped or released from the Magnetite Open Pit / Active		
MRY – 10 / Surface discharge from the weathered ore stockpile		
~~MRY - 12 / Surface discharge from the lump ore and fine ore stockpiles at the processing area~~ **AS PER AMENDMENT NO. 2 (FEBRUARY 29, 2008) HAS BEEN AMENDED TO READ:**		
MRY – 11 / Surface discharge from the lump ore and fine ore stockpiles at the processing area		
~~MRY - 13 / Surface discharge from the lump ore and fine ore stockpiles at Milne Inlet~~ **AS PER AMENDMENT NO. 2 (FEBRUARY 29, 2008) HAS BEEN AMENDED TO READ:**		
MRY - 12 / Surface discharge from the lump ore and fine ore stockpiles at Milne Inlet		
3. The Licensee shall sample at Monitoring Program Stations MRY 4, and MRY 5 every four (4) weeks during discharge and at Monitoring Stations MRY-4a and MRY-5a once prior to discharge and every four (4) weeks thereafter. Samples shall be analyzed for the following parameters:	N/A	Ongoing
Biochemical Oxygen Demand - BOD		
Total Suspended Solids		
pH		
Faecal Coliforms		
Oil and Grease (visual)		
4. The Licensee shall conduct toxicity testing on treated sewage effluent at the final discharge points at the Monitoring Station(s) MRY-4 and/or MRY – 4a; and MRY 5 and/or MRY – 5a, once annually during open water season in accordance with the following test procedures:	N/A	Ongoing
(i) Acute lethality to Rainbow Trout, Oncorhynchus mykiss (as per Environment Canada's Environmental Protection Series Biological Test Method EPS/1/RM/13); and		
(ii) Acute lethality to Daphnia magna (as per Environment Canada's Environmental Protection Series Biological Test Method EPS/1/RM/14).		
~~5. The Licensee shall sample at Monitoring Program Stations MRY -6 and MRY - 7 monthly during removal of water from the facilities as required by Part D, Item 20.~~ **AS PER AMENDMENT NO. 2 (FEBRUARY 29, 2008) HAS BEEN AMENDED TO READ:**	N/A	N/A
5. The Licensee shall sample at:		
a) Monitoring Program Stations MRY -6 and MRY – 7, monthly during removal of water from the facilities as required by Part D, Item 17; and	N/A	Ongoing
b) Monitoring Program Stations MRY-8, MRY-9, MRY-10, MRY-11 and MRY-12, monthly during periods of observed flow as required by Part D, Item 9.	N/A	Ongoing
6. The Monitoring Program and compliance dates specified in the Licence may be modified at the discretion of the Chief Administrative Officer.	N/A	N/A
7. The Licensee shall measure and record, in cubic metres, the daily quantities of water utilized for camp, drilling and other purposes.	**2007 Annual Report to the Nunavut Impact Review Board** (Knight Piésold Ref. No. NB102-00181/11-1, Rev. 0, dated January 25, 2008) **2008 Annual Reports to the Nunavut Water Board** (Baffinland, 2009) **2009 Annual Report to the Nunavut Water Board** (Baffinland, 2010) **2010 Annual Report to the Nunavut Water Board** (Baffinland, 2011)	Pending; due March 31, 2011
8. An Inspector may impose additional monitoring requirements.	N/A	N/A
9. The Licensee shall submit a Quality Assurance/Quality Control Plan, prepared in accordance with the INAC document "Quality Assurance (QA) and Quality Control (QC) Guidelines for use by Class "B" Licensees in Collecting Representative Water Samples in the Field, 1996" to an Analyst for approval within ninety (90) days of the issuance of the licence (amendment). The plan shall include analysis of field blanks and certified reference material, and replicate sampling in order to assess accuracy, precision and field contamination.	**Surface Water Sampling Program Quality Assurance & Quality Control Plan** (Knight Piésold Ref. No. NB102-00181/10-7, Rev. 1, dated March 31, 2008) **Surface Water Sampling Program Quality Assurance & Quality Control Plan** (Baffinland 2009) **Surface Water Sampling Program Quality Assurance & Quality Control Plan** (Baffinland 2009)	Complete
10. If the Board does not approve the Plan referred to in this Part, the Licensee shall revise this Plan and resubmit it to the Board for approval within two (2) months of receiving notification of the Board's decision.		
11. The Licensee shall implement the Plan specified in this Part as and when approved by the Board.		
12. The Licensee shall annually review the approved Quality Assurance/Quality Control plan and modify it as necessary. Proposed modifications shall be submitted to an Analyst for approval.		
13. The approved Quality Assurance/Quality Control Plan shall be submitted to the Board for review and implemented as approved by an Analyst.		

TABLE 2.1

BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT

COMPREHENSIVE ENVIRONMENTAL MONITORING PLAN

STATUS OF COMPLIANCE WITH CONDITIONS, APPROVALS AND COMMITMENTS

ITEM	DELIVERABLE	STATUS
14. All sampling, sample preservation and analyses shall be conducted in accordance with methods prescribed in the current edition of Standard Methods for the Examination of Water and Wastewater, or by such other methods approved by the Board.		
15. All analyses shall be performed in a laboratory accredited according to ISO/IEC Standard 17025. The accreditation shall be current and in good standing.		
16. The Licensee shall measure and record the following:	**2007 Annual Report to the Nunavut Water Board** (Knight Piésold Ref. No. NB102-00181/11-1, Rev. 0, dated January 25, 2008) **2008 Annual Report to the Nunavut Water Board** (Baffinland, 2009) **2010 Annual Report to the Nunavut Water Board** (Baffinland, 2011)	Pending; due March 31, 2011
(i) the quantities, in cubic metres, of domestic waste, sewage, and hazardous waste hauled off-site for disposal;		
(ii) the location and name of the disposal facility for each waste type noted above; and		
(iii) the date that each was hauled off-site for disposal, for each occasion that these are removed from the site.		
17. The Licensee shall provide the GPS co-ordinates (in degrees, minutes and seconds of latitude and longitude) of all locations where sources of water are utilized for all purposes. The Licensee shall report these co-ordinates to the Inspector prior to utilizing waters.	**2007 Annual Report to the Nunavut Water Board** (Knight Piésold Ref. No. NB102-00181/11-1, Rev. 0, dated January 25, 2008) **2008 Annual Report to the Nunavut Water Board** (Baffinland, 2009) **2010 Annual Report to the Nunavut Water Board** (Baffinland, 2011)	Pending; due March 31, 2011
18. The Licensee shall determine the GPS co-ordinates (in degrees, minutes and seconds of latitude and longitude) of all locations of temporary and permanent storage areas where wastes associated with camp, drilling and Infrastructure operations are deposited. The Licensee shall report these co-ordinates to the Inspector prior to depositing wastes.		Pending; due March 31, 2011
19. A Monitoring Program summary report shall be submitted to the Board for review within thirty (30) days following the month being reported. This summary shall include, at a minimum, all the monitoring requirement under this Part.		Complete; and ongoing
20. The Licensee shall include in the Annual Report required under Part B, Item 5 all data and information required under this Part.		Pending; due March 31, 2011
ADDED AS PER AMENDMENT NO. 2 (FEBRUARY 29, 2008) 21. The Licensee shall obtain representative samples of the water column below any ice, where required under Part F, Items 8 and 9. Monitoring shall include, at a minimum, the following: Total Suspended Solids pH Electrical Conductivity Total Trace Metals as determined by a standard ICP Scan (to include at a minimum, the following elements: Al, Sb, Ba, Be, Cd, Cr, Co, Cu, Fe, Pb, Li, Mn, Mo, Ni, Se, Sn, Sr, Tl, Ti, U, V, Zn), and Trace Arsenic and Mercury	**2007 Annual Report to the Nunavut Water Board** (Knight Piésold Ref. No. NB102-00181/11-1, Rev. 0, dated January 25, 2008) **2008 Annual Report to the Nunavut Water Board** (Baffinland, 2009)	Complete
PART J : CONDITIONS APPLYING TO CONSTRUCTION AND MODIFICATION		
1. The Licensee may, without written consent from the Board, carry out Modifications to the Water Supply Facilities and Waste Disposal Facilities provided that such Modifications are consistent with the terms of this License and the following requirements are met:	N/A	N/A
(i) The Licensee has notified the Board in writing of such proposed Modifications at least sixty (60) days prior to beginning the Modifications;		
(ii) Such Modifications do not place the Licensee in contravention of the License or the Act;		
(iii) The Board has not, during the sixty (60) days following notification of the proposed Modifications, informed the Licensee that review of the proposal will require more than sixty (60) days; and		
(iv) The Board has not rejected the proposed Modifications.		
2. Modifications for which all of the conditions referred to in Part F, Item 1 have not been met can be carried out only with written approval from the Board.	N/A	N/A
3. The Licensee shall provide as-built plans and drawings of any construction and Modifications referred to in this License within ninety (90) days of completion of the construction or Modification. These plans and drawings shall be signed and sealed by an Engineer.	**Mary River Project - Fuel Storage Facility - Milne Inlet** (BH Martin Consultants Inc., Report Ref. No. 06-090, dated December 9, 2007) **Mary River Project - Report on Fuel Storage Facilities (Milne Inlet and Mary River Sites)** (GENIVAR, Report Ref. No. 06-090, dated January 18, 2008) **Mary River Project - Rotating Biological Contactor (RBC System) Sewage Treatment and Discharge - Milne Inlet As-Constructed Report** (BH Martin Consultants Inc., Report Reference No. 06-090, dated January 21, 2008) **Mary River Project - Tanks-A-Lot Sewage Treatment and Discharge As-Constructed Report** (BH Martin Consultants Inc., Report Reference No. 06-090, dated January 7, 2008) *Being replaced with tertiary treatment **Mary River Project - Rotating Biological Contactor (RBC) Sewage Treatment System As-Constructed Report** (Genivar, Report Reference No. 06-090, July 25, 2008)	Completed
4. The Licensee shall provide as-built plans and drawings, stamped and sealed by a professional Engineer registered in Nunavut, within ninety (90) days of completion of all construction works, including but not limited to the following:		
(i) Road alignment and all stream crossing installations;		
(ii) Waste Water Treatment Facilities;		
(iii) Bulk Storage of fuel Facilities; and		
(iv) Landfill.		
TRANSPORT CANADA - NAVIGABLE WATERS PROTECTION ACT APPROVALS - NAVIGABLE WATER CROSSINGS (as Amended)		
1. No person shall permit any tools, equipment, vehicles, temporary structures or parts thereof used or maintained for the purpose of building or placing a work in a navigable water to remain in such water after the completion of the project.	N/A	N/A
2. Where a work or a portion of a work that is being constructed or maintained in a navigable water causes debris or other material to accumulate on the bed or on the surface of such water, the owner of that work or portion of the work shall cause the debris or other material to be removed to satisfaction of the Minister.	N/A	N/A
3. Any proposed changes must be reviewed and accepted by the NWP Program prior to implementation of the same.	N/A	N/A
4. The 'works' as described within the plans shall be removed by the proponent/owner upon completion of the bulk sampling program prior to June 30, 2009.	Amendment requested to extend date toi June 30, 2015 to allow road to be used during project construction.	Amendment Approved 2009
5. Any in water compensation as required under the provisions of the Fisheries Act shall be reviewed and accepted by the NWP Program prior to placement/construction.	N/A	Complete
6. Upon installation of the proposed 'works', a description, drawings, and the location shall be posted with the local Hunter and Trapper Association.	Description and Drawings for 10 Crossings	Complete
DFO AUTHORIZATION FOR THE HARMFUL ALTERATION, DISRUPTION OR DESTRUCTION OF FISH HABITAT (as per Amendment #1, dated December 8, 2008)		
1. The conditions of this Authorization notwithstanding, should the above works or undertakings, due to weather conditions, different soil or other natural conditions, or for any other reason, appear, in the opinion of the Department of Fisheries and Oceans ("DFO") likely to cause greater impacts than the parties previously contemplated, then DFO may direct Baffinland Iron Mines Corporation (hereafter referred to the "Proponent"), and its agents, and contractors, to suspend or alter works and activities associated with the project, to avoid or mitigate adverse impacts to fisheries resources. DFO may also direct the Proponent and its agents, and contractors, to carry out at the Proponent's expense any works or activities deemed necessary by DFO to avoid or mitigate further adverse impacts to fisheries resources. In circumstances where DFO is of the view that greater impacts may occur than were contemplated by the parties, DFO may also modify or rescind this authorization. If the authorization is to be changed the Proponent will be given an opportunity to discuss any proposed modifications or rescission.	N/A	N/A
2. Conditions that relate to the Proponent plan:		
2.1 The Proponent confirms that all plans and specifications relating to this authorization have been duly prepared and reviewed by appropriate professionals working on behalf of the Proponent. The Proponent acknowledges that they are solely responsible for all design, safety, and workmanship aspects of all the works associated with this Authorization	N/A	Ongoing
2.2 The installation of crossing structures at nine (9) navigable watercrossing sites (four (4) extra large crossing sites and five (5) large crossing sites), eight (8) large watercrossing sites and eight (8) medium watercrossing sites comply with those criteria as identified within this Authorization. Harmful alteration, disruption or destruction of fish habitat other than that specifically identified within this Authorization is prohibited.	N/A	Ongoing
2.3 Works and undertakings shall be conducted in accordance with the practices outlined in the following reports and as approved by DFO:		
2.3.1 Email regarding coordinates and spawning mitigation, prepared by Derek Chubb (Baffinland Iron Mines Corporation), dated July 31, 2007	N/A	N/A
2.3.2 Memorandum regarding Mary River Project Bulk Sampling Program - Fish Habitat Compensation Updated Footprint Calculations and Compensation Area Proposed, signed by Maret Tae (Knight Piesold Consulting) and approved by Steve Aiken (Knight Piesold Consulting), dated July 23, 2007.	N/A	N/A
2.3.3 Memorandum regarding Mary River Project Bulk Sampling Program - Fish and Fish Habitat Monitoring Plan for DFO, signed by Maret Tae (Knight Piesold Consulting) dated July 23, 2007	N/A	N/A
2.3.4 Memorandum regarding the response to DFO Engineer's 2007-05-10 Questions, approved by Steven Aiken (Knight Piesold Consulting) dated June 6, 2007	N/A	N/A
2.3.5 Letter regarding the Mary River Project Bulk Sampling Program interaction with Fish and Fish Habitat, addressed to Derek Chubb (Baffinland Iron Mines Corporation), prepared by Maret Tae and Steven Aiken (Knight Piesold Consulting), dated May 25, 2007	N/A	N/A
2.3.6 Baffinland Iron Mines Corporation Mary River Project - Information Package for DFO Meeting - Ottawa May 2 and 3, 2007, prepared by Knight Piesold Consulting, dated May 2, 2007	N/A	N/A
2.3.7 Application for Authorization for Works or Undertakings Affecting Fish Habitat, signed by Rodney Cooper (Baffinland Iron Mines Corporation) dated December 20, 2006	N/A	N/A
2.3.8 The above documents and drawings are hereafter referred to as the "Plan". Where contradictions exist, the most recent version shall apply.	N/A	N/A
3. Conditions that relate to the mitigation of potential harmful alteration, disruption or destruction ("HADD") of fish habitat. The following measures shall be implemented to avoid the unauthorized HADD of fish habitat:		
3.1 Following the mitigations measures provided below as well as the mitigation measures provided in the Plan, the in-water work is allowed to occur within the restricted timing window from the September 1, 2007 to June 30, 2008		
3.1.1 An environmental monitor shall be on-site to assess the crossings prior to the onset of construction to confirm the absence or presence of spawning sites at least 20 meters upstream or downstream of the crossing location, and whether spawning Arctic char are present in the vicinity	N/A	Ongoing
3.1.2 Machinery fording shall occur at least 20 meters upstream or downstream of location where fish and/or spawning sites are noted.	N/A	Ongoing
3.2 A qualified biologist or environmental inspector shall be on site during all in-water construction, compensation and restoration works to ensure implementation of the designs as intended in the Plan and conditions of this authorization	N/A	Ongoing
3.3 Machinery fording the watercourse to bring equipment required for construction to the opposite side of the watercourse shall be limited to a one-time event (over and back) and occur only if an existing crossing at another location cannot be used. If the stream bed and banks are highly erodible (e.g. dominated by organic materials and silts) and erosion and degradation is likely to occur as a result of equipment crossing, then a temporary crossing structure or other practices shall be used to protect these areas	N/A	Incorporated into EPP
3.4 All materials and equipment used for the purpose of all work phases shall be operated and stored in a manner that prevents any deleterious substances (e.g. petroleum products, silt, debris, etc.) from entering the water.	N/A	Incorporated into EPP
3.4.1 Any stockpiled materials shall be stored and stabilized above the ordinary high water mark of any water body	N/A	Incorporated into EPP
3.4.2 Vehicle and equipment re-fuelling and maintenance shall be conducted above the ordinary high water mark of any water body	N/A	Incorporated into EPP
3.4.3 Any part of equipment entering the water shall be free of fluid leaks and externally cleaned/degreased to prevent any deleterious substances from entering the water	N/A	Incorporated into EPP
3.5 Only clean, competent, certified non-acid generating rock and material free of fine particulate matter shall be placed in the water.	N/A	Incorporated into EPP
3.6 Material used for habitat compensation features shall not be taken from below the ordinary high water mark or shoreline of any water body	**Tote Road Upgrades Fish Habitat Monitoring** (Knight Piésold Ref. No. NB102-00181/10-8, Rev. 0, dated December 20, 2007) **Fish Habitat No Net Loss and Monitoring Plan** (Knight Piésold Ref. No. NB102-00181/10-4, Rev. 0, dated August 30, 2007)	Ongoing
3.7 Sediment and erosion control measures shall be implemented prior to work, and maintained during the work phases, including decommissioning and restoration phases, to prevent entry of sediment into the water or the movement of re-suspended sediment	N/A	Incorporated into EPP
3.7.1 All disturbed areas shall be stabilized upon completion of work and restored to a pre-disturbed state or better	**Abandonment and Reclamation Plan** (Knight Piésold Ref. No. NB102-00181/6-7, Rev. 2, dated March 31, 2008) **2009 Abandonment & Reclamation Plan** (Knight Piesold Ref. No. NB102-181/15-1, Rev. 0, dated March 26, 2009) **2010 Abandonment & Reclamation Plan** (Baffinland dated March 2010) **2011 Abandonment & Reclamation Plan** (Baffinland dated March 2011)	Ongoing
3.7.2 Sediment and erosion control measures shall be left in place and maintained until all disturbed areas have been stabilized	N/A	Incorporated into EPP
4. Conditions that relate to the compensation for the loss of 8551 square meters of fish habitat are defined in the Plan,	N/A	N/A
4.1 The specific locations of the fourteen (14) fish habitat compensation areas are located at: UTM Zone 17 at CV 183 (UTM Easting 504683, UTM Northing 7976414), CV181 (UTM Easting 504133, UTM Northing 7976217), CV152 (UTM Easting 508201, UTM Northing 7969684), CV157 (UTM Easting 507374, UTM Northing 7970538), CV166 (UTM Easting 505538, UTM Northing 7972370), CV170 (UTM Easting 505015, UTM Northing 7972932), CV001 (UTM Easting 553782, UTM Northing 7914922), CV154 (UTM Easting 507620, UTM Northing 7970076), CV159 (UTM Easting 506902.82, UTM Northing 7970829.97), CV188 (UTM Easting 562392.8, UTM Northing 7912843.07), CV113 (UTM Easting 520747, UTM Northing 7955659), CV176 (UTM Easting 503834, UTM Northing 7975057), CV156 (UTM Easting 507580, UTM Northing 7970389), BG16 (UTM Easting 550742, UTM Northing 7917611),	N/A	N/A
4.2 The Proponent shall prepare a comprehensive No Net Loss Plan, including a detailed description of the works at the fourteen (14) fish habitat compensation sites, detailed plans, construction methods, timelines for construction and a monitoring program	**Fish Habitat No Net Loss and Monitoring Plan** (Knight Piésold Ref. No. NB102-00181/10-4, Rev. 0, dated August 30, 2007)	Complete
4.2.1 The No Net Loss Plan shall be submitted for DFO review and approval on or before **August 30, 2007**		
4.3 In addition, the Proponent shall prepare and submit for DFO review and approval on or before **August 30, 2007**, a construction plan including timing of the road enhancement activities, monitoring schedule for sediment and erosion control measures, and restoration details of how the four extra-large crossing sites and their respective floodplains shall be returned to pre-construction condition by restoring the natural hydrology, topography, and riparian vegetation.	**Mary River Project Bulk Sampling Program - Fish and Fish Habitat Monitoring Plan for DFO** (Knight Piésold letter Ref. No. NB07-00651, dated July 27, 2007)	Complete
4.4 Decommissioning of the followig water crossings: BG050, CV128, CV217, CV223, BG017, CV040, CV072, CV099, CV129, CV077 shall be completed by June 30, 2015.	**Abandonment and Reclamation Plan** (Knight Piésold Ref. No. NB102-00181/6-7, Rev. 2, dated March 31, 2008) **2009 Abandonment & Reclamation Plan** (Knight Piesold Ref. No. NB102-181/15-1, Rev. 0, dated March 26, 2009) **2010 Abandonment & Reclamation Plan** (Baffinland dated March 2010)	Ongoing
4.5 All compensation work shall be completed by June 30, 2009.	**Fish Habitat No Net Loss and Monitoring Plan** (Knight Piésold Ref. No. NB102-00181/10-4, Rev. 0, dated August 30, 2007)	Plan complete; implementation ongoing.
5. Conditions that relate to monitoring		
5.1 A detailed Monitoring Plan shall be developed by the Proponent and submitted on or before **August 30, 2007** to DFO for review and approval.	**Fish Habitat No Net Loss and Monitoring Plan** (Knight Piésold Ref. No. NB102-00181/10-4, Rev. 0, dated August 30, 2007)	Complete
5.2 The approved Monitoring Plan shall be implemented annually from the first year of upgrading the Milne Inlet tote road (i.e. 2007) to two years post-construction (2008-2009), and in the year of decommissioning (i.e., 2015) and one year after decommissioning (i.e., 2016). The detailed Monitoring Plan shall include but not be limited to:		
5.2.1 Monitoring to assess if the installation of crossing structures has adversely affected upstream and downstream fish migration according to the schedule in section 5.2 above.		
5.2.2 Monitoring of fish habitat compensation sites to ensure that the works are functioning as intended, according to the schedule in section 5.2 above.		
5.2.3 If at any time during the monitoring period, compensation features are not functioning as intended, measured shall be identified to reduce the risk of future failure and additional compensation shall be created to meet the No Net Loss guiding principles using an adaptive management approach.		
5.3 A photographic record of before, during and after construction, showing that all works and undertakings have been completed according to the approved Plan and conditions of this authorization, shall be submitted to the Iqaluit, NU office of the Department of Fisheries and Oceans, Fish Habitat Management, Eastern Arctic Area on or before December 31 of each year, according to the schedule in 5.2 above	**Tote Road Upgrades Fish Habitat Monitoring - 2007 Annual Report to Department of Fisheries and Oceans** (Knight Piésold Ref. No. NB102-00181/10-8, Rev. 0, dated December 21, 2007) (Baffinland, dated December 31, 2010)	Complete
5.3.1 The photographic record shall include, but not be limited to, a record of the sediment and erosion control measures, compensation measures and upstream and downstream views of the crossings		
5.3.2 The photographs for each pre-construction, during construction, post-construction time periods shall be taken from the same vantage point(s) and direction.		
5.3.3 All photographs shall be clearly labelled as to date and vantage points. The photographic vantage points and viewing directions shall be indicated, and clearly indexed to the photographs, on a plan view drawing of the construction site(s).		
6. A written report summarizing the above monitoring results shall be submitted to the Iqaluit, NU office of the Department of Fisheries and Oceans - Fish Habitat Management, Eastern Arctic Area on, or before, December 31 of each year, according to the schedule in 5.2		
7. Any deviation from the approved plans, the construction schedule, mitigation, compensation and/or monitoring measures stated above must be discussed with, and approved in writing by the Iqaluit, NU office of the Department of Fisheries and Oceans, Fish Habitat Management, Eastern Arctic Area prior to implementing	N/A	N/A
8. All mitigation, compensation, and monitoring measures shall be implemented to the satisfaction of the Iqaluit, NU of the Department of Fisheries and Oceans, Habitat Management Eastern Arctic Area.	N/A	Incorporated into EPP
9. Written notification of the commencement of works or undertakings shall be provided to the Iqaluit, NU Department of Fisheries and Oceans, Habitat Management, Eastern Arctic Area, by e-mail to NunavutHabitat@dfo-mpo.gc.ca or fax (867) 979-8039 not less than 10 days prior to the initiation of said works or undertakings	August 20, 2007 email notification provided to NunavutHabitat@df0-mpo.gc.ca by Derek Chubb of Baffinland	Complete

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TABLE 2.2

BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT

COMPREHENSIVE ENVIRONMENTAL MONITORING PLAN

APPLICABLE LEGISLATION AND GUIDELINES

Act	Regulation	Responsible Agency	Guideline
FEDERAL			
Aeronautics Act, [R.S. 1985, c. A-2]	Canadian Aviation Regulations, [SOR/96-433]	TC-Civil Aviation	
Arctic Waters Pollution Prevention Act, [R.S.C. 1985, c. A-12]	Arctic Waters Pollution Prevention Regulations [C.R.C., c.345]	TC-Marine Safety	Guidelines for the Operation of Tankers and Barges in Canadian Arctic Waters (Interim)
	Arctic Shipping Pollution Prevention Regulations		Arctic Ice Regime Shipping System Standards
			Arctic Waters Oil Transfer Guidelines
Canada Shipping Act, 2001, [2001, c.26]	Ballast Water Control and Management Regulations SOR/2006-129	TC-Marine Safety	A Guide to Canada's Ballast Water Control and Management Regulations
	Anchorage Regulations SOR/88-101		
	Oil Pollution Prevention Regulatio		
	Response Organization and Oil Handling Facilities Regulatio		
Canada Transportation Act, [1996, c. 10]	Handling of Carloads of Explosives on Railway Trackage Regulations SOR/79-15	TC	
	Railway Employee Qualification Standards Regulations SOR/87-150		
	Railway Prevention of Electric Sparks Regulations SOR/82-101		
	Railway Third Party Liability Insurance Coverage Regulations SOR/96-33		
	Railway Traffic Liability Regulations		
	Railway Service Equipment Cars Regulations SOR/86-922		
Canada Marine Act 1998, c. 10	Natural and Man-made Harbour Navigation and Use Regulations SOR/2005-7	TC	
	Port Authorities Management Regulation		
	Port Authorities Operations Regulations SOR/2000-5		
	Seaway Property Regulations SOR/2003-10		
Canada Water Act, [R.S.C. 1985, c. C-11]		EC	
Canada Wildlife Act (R.S., 1985, c. W-9)	Wildlife Area Regulations (C.R.C., c. 1609)	EC	
Canadian Environmental Protection Act, [1999, [1999, c.33]	Environmental Emergency Regulations [SOR/2003-307]	EC	CCME Canada Wide Standards for Dioxins and Furans
	Federal Registration of Storage Tank Systems for Petroleum Products and Allied Petroleum Products on Federal Lands or Aboriginal Lands Regulations (SOR/97-10		CCME Canada Wide Standards for Mercury Emissions
	Fuels Information Regulations, No. 1 (SOR/C.R.C., c. 407)		Health Canada Federal Contaminated Sites Guidance on Human Health Risk Assessment in Canada
	Interprovincial Movement of Hazardous Waste Regulations (SOR/2002-301)		
	Sulphur in Diesel Fuel Regulations (SOR/2002-254		
	Sulphur in Gasoline Regulations (SOR/99-236)		
	Proposed - Interprovincial Movement of Hazardous Waste and Hazardous Recyclable Material Regulations		
	Proposed - Storage Tank Systems for Petroleum Products and Allied Petroleum Products Regulations		
	Proposed - Regulations Amending the Environmental Emergency Regulations		http://www.ec.gc.ca/CEPARegistry/guidelines/
Explosives Act, [R.S.C. 1985, c. E-17]	Ammonia Nitrate and Fuel Order, [C.R.C., c. 598]	NRCan	
	Explosives Regulations [C.R.C., c. 599		
Fisheries Act, [R.S.C. c. F-14]	Metal Mining Effluent Regulations, [SOR/ 2002-2222]	DFO	Guidelines for the Use of Explosives In or Near Canadian Fisheries Waters
			DFO - Freshwater Intake End-of-Pipe Fish Screen Guideline
			DFO-Habitat Conservation and Protection Guidelines 1998
			Various DFO Operational Statements
			DFO Policy for the Management of Fish Habitat
Migratory Birds Convention Act, 1994, [1994, c.22]	Migratory Bird Sanctuary Regulations, [C.R.C., c.1036	EC	
	Migratory Birds Regulations, [C.R.C., c.1035		
Navigable Waters Protection Act, [R.S. 1985, c. N-22]	Navigable Waters Bridges Regulations (C.R.C., c. 1231)	TC - NWPP	
	Navigable Waters Works Regulations (C.R.C., c. 1232)		
Nunavut Act, [1993, c. 28]	Nunavut Archaeological and Paleontological Sites Regulations, [SOR/2001-220]	GN-CLEY	
Nunavut Land Claims Agreement		NTI	A Guide to Mineral Exploration and Development on Inuit Owned Lands in Nunavu
NLCA Article 12-Development Impact		NIRB	
NLCA Article 13-Water Management		NWB	
NLCA Article 26-Inuit Impact Benefit Agreement		DIO	
NLCA Article 6-Wildlife Compensation			
NLCA Article 20-Inuit Water Rights		NWB/DIO	
NLCA Article 21-Entry and Access Part 4			
Nunavut Waters and Nunavut Surface Rights Tribunal Act, [2002, c.10]	Application of Regulations made under paragraph 33(1)(m) or (n) of the Northwest Territories Waters Act in Nunavut Order	INAC	
Species At Risk Act, [2002, c.29]		EC	Species at Risk Act: A Guide
Territorial Lands Act, [R.S. 1985, c. T-7]	Canada Mining Regulations, [C.R.C., c. 1516]	INAC	INAC Mine Site Reclamation Policy for Nunavut
	Territorial Land Use Regulations, [C.R.C., c. 1524]		
	Territorial Quarrying Operations, [C.R.C., c. 1527]		
	Northwest Territories Mining District and Nunavut Mining District Order		
Transportation of Dangerous Goods Act, [1992, c.34]	Transportation of Dangerous Goods Regulations	TC	

Baffinland
Iron Mines Corporation

TABLE 2.2

BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT

COMPREHENSIVE ENVIRONMENTAL MONITORING PLAN

APPLICABLE LEGISLATION AND GUIDELINES

Act	Regulation	Responsible Agency	Guideline
TERRITORIAL			
Commissioner's Land Act (Nunavut), [R.S.N.W.T. 1988, c. C-11]	Commissioner's Airport Lands Regulations, N.W.T. Reg. 067-97		
	Commissioner's Land Regulations, R.R.N.W.T. 1990 c. C-13		
Environmental Protection Act (Nunavut), [R.S.N.W.T. 1988, c. E-7]	Spill Contingency Planning and Reporting Regulations, N.W.T. Reg. 068-93		Spill Contingency planning and reporting in Nunavut: A Guide to the new regulations
	Asphalt Paving Industry Emission Regulations, R.R.N.W.T. 1990 c. E-23		Government of Nunavut Environmental Guideline fo Site Remediation
			Government of Nunavut Guideline for Management of Waste Lead and Lead Paint
			Government of Nunavut Environmental Guideline fo Air Quality Sulphur Dioxide and Suspended Particulates
			Government of Nunavut Guideline for Dust Suppression
			Government of Nunavut Environmental Guideline fo General Management of Hazardous Waste
			Government of Nunavut Environmental Guideline fo Industrial Waste Discharges
			Government of Nunavut Environmental Guideline fo Waste Antifreeze
			Government of Nunavut Environmental Guideline fo Waste Asbestos
			Government of Nunavut Environmental Guideline fo Waste Batteries
			Government of Nunavut Environmental Guideline fo Waste Paints
			Government of Nunavut Environmental Guideline fo Waste Solvents
Explosives Use Act, R.S.W.N.T. 1988, c.E-10	Explosives Regulations, R.R.N.W.T. 1990 c. E-27		
Fire Prevention Act, R.S.N.W.T. 1988, c. F-6	Fire Prevention Regulations, R.R.N.W.T. 1990 c. F-12		
	Propane Cylinder Storage Regulations, N.W.T. Reg. 094-91		
Mine Health and Safety Act, [S.N.W.T 1994, c.25]	Mine Health and Safety Regulations, [R-125-95		
	Mine Health and Safety Regulations, amendment, Nu. Reg. 016-2003		
Public Health Act, R.S.N.W.T. 1988, c. P-12	Camp Sanitation Regulations, R.R.N.W.T. 1990 c. P-12		
	General Sanitation Regulations, R.R.N.W.T. 1990 c. P-16		
	Public Water Supply Regulations, R.R.N.W.T. 1990 c. P-23		
	Public Sewerage Systems Regulations, R.R.N.W.T. 1990 c. P-22		
Safety Act, R.S.N.W.T. 1988, c. S-1	Asbestos Safety Regulations, N.W.T. Reg. 016-92		
	General Safety Regulations, R.R.N.W.T. 1990 c. S-1		
	General Safety Regulations, amendment, Nu. Reg. 021-2000		
	Safety Forms Regulations, N.W.T. Reg. 102-91		
	Silica Sandblasting Safety Regulations, N.W.T. Reg. 015-92		
	Work Site Hazardous Materials Information System Regulations, R.R.N.W.T. 1990 c. S-2		
Scientists Act, [R.S.N.W.T. 1988, c. S-4]	Scientists Act Administration Regulations, N.W.T. Reg. 174-96		
Transportation of Dangerous Goods Act, [R.S.N.W.T. 1988, c. 81 (Supp.)]	Transportation of Dangerous Goods Regulations, 1991, N.W.T. Reg. 095-91		
Wildlife Act, [R.S.N.W.T. 1988, c. W-4]	Wildlife General Regulations, N.W.T. Reg. 026-92		
	Critical Wildlife Areas Regulations, R.R.N.W.T. 1990 c. W-3		
	Polar Bear Defence Kill Regulations, N.W.T. Reg. 037-93		
	Wildlife Management Barren-Ground Caribou Areas Regulations, N.W.T. Reg. 099-98		
	Wildlife Management Grizzly Bear Areas Regulations, N.W.T. Reg. 155-9		
	Wildlife Management Muskox Areas Regulations, R.R.N.W.T. 1990 c. W-1		
	Wildlife Management Polar Bear Areas Regulations, R.R.N.W.T. 1990 c. W-1		
	Wildlife Sanctuaries Regulations, R.R.N.W.T. 1990 c. W-2		
	Wildlife Preserves Regulations, R.R.N.W.T. 1990 c. W-18		
Workers' Compensation Act, R.S.N.W.T. 1988, c. W-6	Workers' Compensation General Regulations, R.R.N.W.T. 1990 c. W-21		

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TABLE 3.1

BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT

COMPREHENSIVE ENVIRONMENTAL MONITORING PLAN

ROLES AND RESPONSIBILITIES

Position	Responsibility
Executive Vice President,	- Liaise with Operations Manager and Vice President, Sustainability and Director EHS, providing overall direction of corporate - Communicate with stakeholders and government agencies - Provide media relations, if required
Vice President, Sustainability	- Support the implementation of the CEMP and EPP to facilitate compliance with these documents and environmental permits, regulations and best practices - Transmit management and regulatory decisions to Environmental and Project Managers - Liaise with stakeholders, regulatory agencies and communities - Provide media relations, if required Lead the development and direct the implementation of the Corporate environment policy throughout the Operating Units of the
Director EHS	- Providing direction and assistance to the Corporation in developing and implementing its environmental strategies and establishing strategic risk programs and liability management - Assist with the preparation of the annual budgets - Providing interpretation and guidance to the Corporation to ensure accurate information on environmental regulations and proposed regulations effecting the industry and business enterprise - Assuring that all Operating Facilities remain free of any environmental regulatory violations through the initiation of the appropriate audits - Maintain contact with the appropriate Government and Regulatory Authorities
Manager, Sustainable Development	- Assist in the coordination of permit and regulatory submissions - Work with Environmental Consultants to establish baseline projects to achieve company objectives - Provide guidance on regulatory and baseline work to the Vice President, Sustainable Development on an ongoing basis Provide technical input and support in the development and implementation of a company audit program, for environment
Operations Manager	- Manage site activities including ensuring implementation of the CEMP and EPP - Accountable for compliance with applicable legislation, permit terms and conditions and field level commitments made by Baffinland - Report to the Vice President, Operations and Vice President, Sustainability on environmental incidents, response measures and outcomes - Document the cause of environmental incidents and effectiveness of response, and implement the appropriate measures to prevent a recurrence - Ensure that the situations are resolved and all follow-up communication and reports are filed with the necessary regulatory authorities (including spill reports)
Site Managers	Site Managers are located on site and have responsibility for day-to-day activities on the project. In relation to environmental management, the Site Manager's responsibilities include: - Ensure environmental considerations are integrated into decision-making for all construction activities - Liaise with Environmental Superintendent, Site Engineers and Operations Manager to ensure the environmental controls and procedures in the EPP are implemented - Conduct regular site checks to ensure environmental controls such as silt fences are functioning properly
Site Engineers	Site Engineers will be located at site to oversee key construction activities. The responsibilities of the Site Engineers include the following: - Ensure environmental considerations are integrated into decision-making for all construction activities - Direct field work in accordance with the CEMP and EPP - Conduct regular site checks to ensure environmental controls such as silt fences are functioning properly - Liaise with Site Managers, Operations Manager and Environmental Superintendent to ensure that the environmental controls and
EHS Superintendent	The EHS Superintendents will report to the Director EHS and will maintain day-to-day contact and support to the Operations Manager and Site Managers. The principal role of the Environmental Superintendent is to support line management (Operations Manager, Site Managers and Site Engineers) in the satisfactory implementation of the CEMP and EPP, and to monitor environmental compliance. Further, at the discretion of the Vice President Sustainability their responsibilities may include: - Endorse the CEMP and EPP - Maintain, assess and monitor the implementation of the CEMP and EPP - Confirm that all project environmental obligations are met, through the CEMP and EPP, and otherwise - Provide input and advice to engineers on work method statements - Assist in the preparation of environmental induction and training materials - Coordinate site visits by government inspectors - Ensure procedures are in place to respond to environmental incidents - Solicit the advise or input of environmental consultants - Coordinate environmental documents - Ensure adequate system environmental audits are undertaken - Review and endorse reports on environmental compliance - Assist in ways necessary to ensure monitoring of environmental controls, and the monitoring of the subcontractor environmental performance is undertaken The Environmental Superintendent will maintain copies of regulatory licenses and permits and the CEMP at site. He/she will also maintain records of all inspection reports, environmental field monitoring data and results, employee induction and training records, environmental checklists, environmental accidents/incidents/emergency reports, a complaints register, non-conformance reports, and annual reports required by approvals. The Environmental Superintendent will coordinate the preparation, review and distribution, as appropriate, of these documents.

TABLE 3.1

BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT

COMPREHENSIVE ENVIRONMENTAL MONITORING PLAN

ROLES AND RESPONSIBILITIES

Position	Responsibility
Environmental Consultants	- Provide specialist advice and input on environmental matters, reporting to the Vice President, Sustainable Development and supporting the On-site Environmental Superintendent - Conduct environmental baseline and monitoring program - Conduct audits of operations, if requested - Prepare environmental reports
Contractors/Sub-contractors	All contracted project personnel are considered equivalent to Baffinland staff in all aspects of environmental management and control and their responsibilities in this respect mirrors those of Baffinland personnel. Contractor personnel will be included in the on-site induction process. The responsibilities of the Contractors include but are not limited to the following: - Comply in full with the requirements of the EPP The responsibilities of the Contractor Foremen include the following: - Conduct regular site checks to ensure that regular maintenance is undertaken to minimize environmental impacts - Provide personnel with appropriate environmental toolbox/tailgate meetings and training

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Baffinland Iron Mines Corporation

TABLE 3.2

BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT

COMPREHENSIVE ENVIRONMENTAL MONITORING PLAN

MONITORING AND INSPECTION SUMMARY

Component	Monitoring Task	Status	
		Complete	Ongoing
METEOROLOGY	Continuous wind speed, direction, temperature, precipitation at Mary River, Milne Inlet, Steensby Inlet		✓
AIR QUALITY	Emissions stack testing of camp waste incineration	✓	
	Air quality monitoring of bulk sample activities at Milne Inlet	✓	
	Air quality monitoring of bulk sample activities at Mary River	✓	
	Air quality monitoring of bulk sample activities along Milne Inlet Tote Road	✓	
	Representative vegetation sampling in vicinity of bulk sample activities	✓	
NOISE	Noise monitoring of bulk sample activities at Milne Inlet	✓	
	Noise monitoring of bulk sample activities at Mary River	✓	
LANDFORMS			
Physical Stability	Inspection of bulk sample pit and residual stockpiles		✓
	Inspection of tote road, water crossings and borrow/quarry areas for physical stability and sediment and erosion control		✓
	Inspection of polishing waste stabilization ponds		✓
	Inspection of lined bulk fuel containment areas		✓
TERRESTRIAL WILDLIFE AND BIRDS			
General	Incidental wildlife logs		✓
	Pre-drilling and post-drilling checklists		✓
Caribou	Aerial surveys focused on environmental baseline data collection	✓	
	Provide support to Government of Nunavut regional collaring program		✓
Carnivores	Active wolf den inventory and monitoring during bulk sample program	✓	
Raptors	Raptor behaviour and breeding success in relation to project activities	✓	
Loons, Ducks and Geese	Behaviour and breeding success of loons in relation to disturbance from project activities	✓	
Songbirds and Shorebirds	Behaviour and breeding success in relation to disturbance from project activities	✓	
Seabirds	Monitor the effects of disturbance from the bulk sampling program	✓	
FISHERIES AND AQUATIC RESOURCES			
Fish Habitat	Full-time road construction supervision for overall QA/QC of the implementation of environmental protection measures and compliance with permit requirements.	✓	
	Inspect HADD crossings to confirm presence or absence of spawning sites within 20 m up and downstream.	✓	
	Monitor construction activities and turbidity at HADD crossings and compensation sites by an environmental inspector during and post construction.	✓	
	Maintain a photographic record of all HADD authorized crossings and fish habitat compensation works before, during and after construction.	✓	
	Monitor fish habitat compensation works to ensure that the works are functioning as intended.		✓
	Monitor construction of water intake and sewage outfalls at Camp Lake and Sheardown Lake.	✓	
	Monitor amount of ice build-up in front of the culverts and remove if necessary.		✓
Fish Migration	Measure flow depth at all 25 HADD authorized crossings during the low flow period to ensure fish passage in the embedded culvert.	✓	
	Monitor water flow velocity at the four box culvert crossings to ensure crossing installation does not adversely affect upstream or downstream fish migration.	✓	
MARINE WILDLIFE			
Polar Bears	Bear monitors will supervise work and camps at the coasts as well as isolated field work		✓
Whales	Behavioural responses of narwhal and bowhead whales to sealift traffic	✓	
Ringed Seals	Ringed seal responses to construction activity and noise in the Milne Inlet area	✓	
WATER QUALITY			
Water Supply	Sampling and testing (field and laboratory) of potable water supply sources	See Table 4.2	
Sewage Effluent	Sampling of final effluent from the Waste Water Treatment Facilities (WWTFs) and Polishing/Waste Stabilization Ponds (PWSPs)	See Table 4.2	
Site Runoff	Sampling water quality runoff from bulk fuel storage berms, bulk sample pits, and ore stockpiles	See Table 4.2	
Drill Water Run-Off	Sampling of water quality in vicinity of exploration drilling		✓
Geotechnical Drilling	Pre-drilling and post-drilling water quality monitoring for on-ice drilling		✓
Baseline Water Quality	Regional water quality monitoring as part of baseline program; includes site runoff stations in addition to those prescribed by the water license in Table 4.3		✓
Kinetic Testing	On-site kinetic testing of ore and waste rock samples		✓
HYDROLOGY	Baseline data collection - seasonal hydrology stations		✓
	Baseline data collection - all season hydrology stations established with Water Survey of Canada		✓
WASTE MANAGEMENT			
Off-Site Waste Disposal	Non-hazardous solid wastes taken off-site for disposal (i.e., to Pond Inlet's landfill) to be logged; TDG waste manifests for hazardous wastes taken off-site to be provided to Environmental Superintendent.		✓
On-Site Waste Disposal	Regular visual inspection of temporary waste storage facilities		✓
	Landfill Monitoring form		✓
OPERATIONS MONITORING			
Drilling Operations	Regular inspection of drill operations		✓
Fuel Management	Regular inspection of fuel storage facilities and operations		✓
Environmental Issue Identification	General monitoring and inspection to identify any environmental issues of concern, such as non-conformance to the Environmental Protection Plan, or the requirement for a new environmental control.		✓
SOCIO-ECONOMICS			
Archaeological Resources	Archaeology surveys where ground disturbance activities are proposed, prior to work being conducted		✓
Human Resources	Employment duration, turn-over, etc.		✓
Skills Inventory of Staff	Education and skill sets of existing site personnel from local communities		✓
Training	Record all training conducted on- and off-site for the project		✓
REPORTING			
SNP Reports	Submit Monthly Water License (Surveillance Network Program) Reports		✓
Borrow Reports	Submit Monthly Borrow Reports (QIA and INAC Quarry Authorizations)		✓
NIRB Annual Reports	Prepare an annual report that meets the information requirements of the NIRB Screening Decisions		✓
Water License Annual Report	Prepare an annual report in accordance with Part B, Item 5 of the water license		✓
QIA Annual Report	Prepare an annual report in accordance with Commercial Lease Q07L3001		✓
Fisheries Authorization Annual Report	Prepare an annual report that meets the information requirements of the Fisheries Authorization		✓

Rev. 2 - Updated and Reissued

Baffinland Iron Mines Corporation

TABLE 4.1

BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT

COMPREHENSIVE ENVIRONMENTAL MONITORING PLAN

SUMMARY OF AS-BUILT TOTE ROAD CULVERT INSTALLATIONS

Water Crossing No.	Culvert No.	Road Chainage (Design)[12] (m)	Road Chainage (Upgraded)[12] (m)	Water Crossing Size Classification	Culvert Invert Elevation		Length of CSP Culverts						Sea Containers	DFO regulated Water Crossing Modified	Comment from 2009 Tote Road Inspection
					Upstream (m)	Downstream (m)	Ø = 1.2 m (m)	Ø = 1.0 m (m)	Ø = 0.5 m (m)	Ø = 0.25 m (m)	Ø = 0.15 m (m)*	Ø = 0.10 m (m)*			
CV183		0+145	A1+023	Extra-Large										x	Old culvert removed from Water Crossing
CV182		0+480	NA	Extra-Small											Old culvert removed from Water Crossing
CV181		0+583	A1+028	Medium										x	Old culvert removed from Water Crossing
CV180		0+796	NA	Extra-Small											Old culvert removed from Water Crossing
CV179		1+507	A1+231	Extra-Small	9.254	9.106			9						
CV178		1+776	A1+497	Extra-Small	9.981	9.954		9							
CV177	A	2+427	A2+138	Extra-Small	50.929	50.413					20.9				US/DS ends damaged and partially buried
	B	2+427	A2+138		50.950	50.418					20.3				
CV176[2]		2+638	A2+349	Small	51.346	51.023		10.8							
CV175[7]		2+867	A2+578	Extra-Small											
CV174		3+734	A3+429	Extra-Small	55.682	55.397			9						
Additional[7]			A3+877	Additional	51.303	51.132					11.0				
Additional			A3+987	Additional	50.882	50.728					10.3				US/DS ends damaged and partially buried
CV173[3]		4+425	A4+181	Extra-Small	54.044	53.705			12.2						
CV172[6]		4+722	NA	Extra-Small											
CV171		4+867	A4+582	Extra-Small	52.543	52.031					11.0				
CV170		5+267	A4+984	Small	45.630	45.038		12							
CV169		5+427	A5+149	Extra-Small	46.834	46.541			9						
CV168[6]		5+882	NA	Extra-Small											
CV167[3]		5+960	A5+673	Extra-Small	48.592	47.364			15.1						
CV166[3]	A	6+056	A5+770	Small	44.239	43.910		15.3							
	B	6+056	A5+770		44.172	44.112			15.3						
CV165[4]		7+038	A6+746	Small	43.725	42.568	22.1								
CV164		7+299	A6+999	Extra-Small	56.994	56.135			18						
Additional			A7+249	Additional	52.511	52.357					10.8				
CV163[6]		7+832	NA	Extra-Small											
CV162[2]		7+922	A7+625	Extra-Small	43.897	43.569		9.5							US end damaged
CV161[2]		8+230	A7+928	Extra-Small	40.280	39.643			9.9						
CV159		8+407	A8+100	Extra-Small	25.564	25.293		12							
CV158	A	8+648	A8+345	Extra-Small	33.423	32.814			12						US end damaged
	B	8+648	A8+347		34.004	31.212			18						
CV157	A	8+960	A8+657	Small	37.359	37.018		12							
	B	8+960	A8+662		37.357	37.315			12						Partially buried
CV156[6]		9+223	A8+903	Extra-Small											
CV155	A	9+328	A8+997	Extra-Small	37.418	36.466				12					
	B	9+328	A9+003		37.821	37.214					13.7				
	C	9+328	A9+003		37.815	37.353					13.7				
Additional[7]			A9+145	Additional	33.294	32.947			12						
CV154	A	9+570	A9+241	Small	30.500	30.154			15						
	B	9+570	A9+249		30.662	30.154		15							
CV153	A	10+218	A9+892	Small	37.332	37.287			12						Some of US/DS ends damaged but functional
	B	10+218	A9+848		37.510	37.224			12						
	C	10+218	A9+849		37.518	37.400			12						
	D	10+218	A9+850		37.511	37.382			12						
	F[7]	10+218	NA						NA						Culvert ends buried and not functional
CV152	A	10+280	A9+950	Small	42.678	41.147			22						Some of US/DS ends damaged but functional
	B	10+280	A9+939		42.719	41.060			22						
	C	10+280	A9+940		42.753	41.032			22						
	D	10+280	A9+941		42.844	41.183			22						
	E	10+280	A9+943		42.807	41.164			22						
CV151	A	10+460	A10+127	Small	62.772	62.251			12						DS end buried
	B	10+460	A10+102		62.789	62.307			12						
CV150	A	10+507	A10+125	Extra-Small	63.131	62.515			12						
	B	10+507	A10+127		63.216	62.499			12						
Additional			A10+441	Additional	61.044	60.704			12						
Additional			A10+609	Additional	62.864	62.684				12					DS end close to road edge
CV149		10+954	A10+623	Extra-Small	62.633	61.896				12					DS end buried
CV148[7]	A	11+180	A10+846	Extra-Small	66.098	65.793				12					
	B	11+180	A10+847		66.004	65.828				12					
CV147[6]			A10+840												
CV146	A	11+348	A11+014	Small	66.383	66.259			12						
	B	11+348	A11+017		66.446	66.226			12						
	C	11+348	A11+019		66.487	66.059			12						

Baffinland Iron Mines Corporation

TABLE 4.1

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SUMMARY OF AS-BUILT TOTE ROAD CULVERT INSTALLATIONS

Water Crossing No.	Culvert No.	Road Chainage (Design)[12] (m)	Road Chainage (Upgraded)[12] (m)	Water Crossing Size Classification	Culvert Invert Elevation		Length of CSP Culverts						Sea Containers	DFO regulated Water Crossing Modified	Comment from 2009 Tote Road Inspection
					Upstream (m)	Downstream (m)	Ø = 1.2 m (m)	Ø = 1.0 m (m)	Ø = 0.5 m (m)	Ø = 0.25 m (m)	Ø = 0.15 m (m)*	Ø = 0.10 m (m)*			
	D	11+348	A11+018		66.410	66.225			12						
	E	11+348	A11+017		66.437	66.205			12						
CV145[6]		11+208	NA	Extra-Small											
CV144		12+205	A11+856	Extra-Small	83.517	83.426			9						
CV143[6]		12+236	NA	Extra-Small											
CV142[6]		12+266	NA	Extra-Small											
CV141[6]		12+453	NA	Extra-Small											
CV140[6]		12+501	NA	Extra-Small											
CV139[6]		12+679	NA	Extra-Small											
CV138[6]		12+784	NA	Extra-Small											
CV137		13+042	A12+704	Extra-Small	95.660	95.099				12					
Additional			A12+848	Additional	97.386	96.482				9					Ends partially buried and damaged
CV136		13+425	A13+093	Extra-Small	91.811	91.227				18					Ends partially buried and damaged
CV135		13+675	A13+327	Extra-Small	90.799	90.455				12					
CV134[7]		14+014	A13+674	Extra-Small	81.258	80.464				12					
Additional			A13+749	Additional	79.198	78.542			12						
Additional			A13+851	Additional	79.064	78.526				12					
CV133		14+201	A13+859	Extra-Small	78.806	78.240				12					
Additional			A13+953	Additional	78.098	77.844				9					
Additional			A14+189	Additional	79.649	79.390			12						
Additional 09	A		A14+352	Additional	NA	NA				12*					
	B		A14+352		NA	NA				12*					
CV132[6]		14+625	NA	Extra-Small											
CV131[3]		14+709	A14+370	Extra-Small	NA	NA				18*					
CV195		15+008	A14+666	Extra-Small	79.587	79.506				18					
CV130		15+202	A14+871	Extra-Small	79.121	78.794				18					
CV129		15+650	A15+310	Large	78.11	77.92	18								
CV196[6]		15+839	NA	Extra-Small											
Extra-01		17+020	A16+807	2 Unclassified	75.869	75.613			12						
CV128		17+486	A17+117	Extra-Large									20		
CV127[6]		18+279	NA	Extra-Small											
CV126		19+243	A18+724	Extra-Small	76.968	76.740			12						DS end damaged
CV125	A	20+447	A19+945	Small	78.560	78.505			15						
	B[3]	20+447	A19+929		78.095	77.862		15							
CV124		20+626	A20+119	Extra-Small	80.254	80.242			9						
Additional			A20+509	Additional	83.248	83.165				9					US end damaged
CV123	A	21+399	A20+891	Extra-Small	82.803	82.440			12						
	B	21+399	A20+892		82.888	82.442			12						
Additional			A21+178	Additional	81.687	81.286		12							
CV122[6]		21+949	NA	Extra-Small											
Additional			A21+808	Additional	90.365	90.344			12						
Additional			A22+330	Additional	96.351	96.011			9						Small amount of backfill material on top of culvert, US/DS ends buried
CV121[6]		23+199	NA	Extra-Small											
Additional			A22+764	Additional	95.655	95.487				6					DS end buried
Additional			A22+900	Additional	91.824	91.377			9						
CV120	A	23+515	A23+002	Small	86.756	86.721			18						
	B	23+515	A23+012		86.803	86.793			18						
	C	23+515	A23+013		86.728	86.686			18						
	D	23+515	A23+018		86.547	86.505		18							
CV119		24+264	A23+756	Small	97.055	96.345		15							
Additional 09			A24+446	Additional	104.270	103.758					11.8				
Additional[7]			A24+470	Additional	104.389	104.070						7.6			
Additional			A25+060	Additional	105.052	104.740			9						
CV197[7]		25+633	A25+133	Extra-Small	105.959	105.830					7.5				
Additional	A		A25+257	Additional	106.198	105.926					7.4				US/DS ends buried
	B		A25+258		106.239	105.812					7.3				
CV118[6]		25+878	NA	Extra-Small											
Additional 09			A25+317	Additional	105.888	105.784				12.4					
Additional			A25+740	Additional	104.724	104.470				12.2					Water Crossing modified after October 2008
CV198[7]		26+444	A25+939	Extra-Small	105.597	105.525					9.3				
CV199[6]		26+658	NA	Extra-Small											
Additional	A		A26+248	Additional	107.397	107.074					10.3				

Baffinland Iron Mines Corporation

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					Upstream (m)	Downstream (m)	Ø = 1.2 m (m)	Ø = 1.0 m (m)	Ø = 0.5 m (m)	Ø = 0.25 m (m)	Ø = 0.15 m (m)*	Ø = 0.10 m (m)*			
	B		A26+248		107.335	107.067					10.4				
CV117	A	27+073	A26+584	Small	104.178	103.921		12							
	B	27+073	A26+581		104.161	103.781			12						
CV116		27+388	A26+890	Extra-Small	102.865	102.834			12						
CV115	A	27+686	A27+193	Small	104.408	104.380			15						
	B	27+686	A27+200		104.004	103.973		15							
Additional			A28+244	Additional	108.049	107.639			12						
CV200[6]		28+938	NA	Extra-Small											
Additional 09			A28+325	Additional	107.642	107.403					11.6				
Additional			A28+573	Additional	110.846	110.412			9						
CV114		29+647	A29+151	Medium	106.904	106.247		15							
Additional			A29+223	Additional	109.075	108.752			9						
Additional			A29+447	Additional	111.172	110.546					10.4				DS end buried
Additional			A29+632	Additional	112.058	111.648			9						
CV201		30+483	A29+982	Extra-Small	112.606	112.265			9						
CV113	A	30+655	A30+157	Small	113.243	112.746			15						
	B	30+655	A30+153		113.573	112.878			15						
	C	30+655	A30+154		113.713	112.950			12						
	D	30+655	A30+155		113.765	112.911			15						
Additional 09			A30+565	Additional	110.318	110.086				12.4					
			A30+565		110.411	110.056				12.4					
Additional[7]			A30+587	Additional	110.397	109.926					10.3				
CV112	A	31+450	A30+947	Small	112.797	112.427	15								
	B	31+450	A30+951		113.029	112.580			15						
Additional			A31+410	Additional	118.084	117.551			12						
CV111		31+990	A31+489	Medium	115.851	115.017		18							
CV110		32+220	A31+726	Extra-Small	117.920	117.546			12						
Additional			A31+855	Additional	117.084	116.540			9						
CV109[6]		32+441	NA	Extra-Small											
CV108		32+513	A31+994	Extra-Small	115.167	114.964			9						Sign of bank erosion
Additional 09			A32+047	Additional	115.252	114.563					11.4				
Additional 09			A32+134	Additional	114.045	112.990					15.0				
Additional			A32+266	Additional	110.478	110.351			12						
CV202		32+825	A32+336	Small	109.116	108.708		15							
CV107		33+091	A32+601	Extra-Small	111.293	111.198			9						
CV106		33+170	A32+681	Small	112.791	112.460		15							
CV105		33+307	A32+818	Extra-Small	113.481	113.198					12.4				
CV104	A	33+794	A33+301	Medium	112.917	112.325	15								
	B	33+794	A33+307		112.713	112.152	15								
CV203	A	34+153	A33+665	Small	115.344	114.653		12							
	B		A33+781		109.860	109.599			12						
	C		A33+782		109.800	109.604			12						
Additional	A		A34+039	Additional	110.704	110.650					13.2				
	B		A34+040		110.746	110.668					13.6				
Additional			A34+277	Additional	112.677	112.192					14.0				
CV204		35+154	A34+650	Extra-Small	113.952	113.656					12.5				
Additional 09			A35+102	Additional	110.462	110.046				12.5					
Additional			A35+217	Additional	111.556	111.394			9						
Additional			A35+286	Additional	111.971	111.722					10.5				
CV103		35+885	A35+383	Extra-Small	110.650	110.301			8.2						
CV102	A	36+028	A35+540	Small	113.063	112.454		15							
	B	36+028	A35+543		113.065	112.759			15						
	C	36+028	A35+544		113.036	112.771			15						
	D	36+028	A35+545		113.026	112.734			15						
CV101		36+954	A36+469	Extra-Small	114.755	114.590			9						
CV100[6]		37+052	NA	Extra-Small											
CV099	A	37+840	A37+351	Large	119.76	119.31	18								
	B	37+840	A37+343		120.12	119.61	21								
	C	37+840	A37+346		120.14	119.77	21								
	D	37+840	A37+354		121.09	121.12			12						
	E	37+840	A37+355		121.11	121.06			12						
	F[3]	37+840	A37+360		NA	NA		18							
Additional			A37+987	Additional	138.993	138.879			12						

Baffinland Iron Mines Corporation

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CV098	A	38+525	A38+034	Medium	139.122	139.115		15							
	B[7]	38+525	NA						NA						Culvert ends buried and not functional
Additional			A38+188	Additional	140.867	140.783			9						
CV097		39+028	A38+542	Extra-Small	146.456	146.402			12						
Additional			A40+008	Additional	161.623	161.061					11.7				
CV096[6]		40+967	NA	Extra-Small											
Additional	A[7]		A40+522	Additional	146.216	145.394					11.1				
	B		A40+522		146.129	145.393					11.0				
CV095[6]		41+100	NA	Extra-Small											
Additional			A40+675	Additional	142.555	141.634					12.4				
CV094	A	41+613	A41+112	Large	140.464	139.437	18								
	B[3]	41+613	A41+112		141.756	140.986		15.2							
CV093	A	42+216	A41+711	Small	148.080	147.998		12							
	B[7]	42+216	A41+698		148.644	148.311			12						Culvert ends buried and not functional
Additional			A42+274	Additional	150.008	149.429					11.2				
CV092 & CV091	A	42+949	A42+445	Medium	147.337	147.048		12							
	B	42+949	A42+445		147.720	147.578		12							
	C	42+949	A42+445		147.728	147.631		12							
CV205[6]		43+871	NA	Extra-Small											
CV090	A	44+832	A44+351	Small	168.190	167.940		12							
	B	44+832	A44+366		168.500	168.314			12						
CV089[6]		45+016	NA	Extra-Small											
CV088		45+991	A45+506	Extra-Small	169.559	169.266		9							
CV087	A	46+223	A45+741	Medium	168.080	167.836	12								
	B	46+223	A45+737		168.085	167.832	12								
	C	46+223	A45+752		168.773	168.306			12						
CV086[3]		46+300	A45+805	Small	169.743	169.452		18							
CV085		46+422	A45+933	Small	165.472	164.747		15							
Additional 09			A46+443	Additional	150.791	150.778				12.2					
CV084		47+045	A46+563	Extra-Small	169.910	169.569			12						
CV083		47+643	A47+169	Small	175.054	174.776		12							
CV206[6]		49+031	NA	Extra-Small											
Additional			A49+014	Additional	174.820	174.817					11.2				
CV082	A	49+655	A49+167	Small	173.216	173.026	12								Culvert partially buried
	B	49+655	A49+173		173.120	173.068			12						
	C	49+655	A49+175		173.141	173.092			12						
CV081[6]		49+792	NA	Extra-Small											
CV080	A	49+929	A49+436	Extra-Small	178.179	177.841				12.3					Water Crossing installed after October 2008
	B		A49+436		178.178	177.714				12.3					
CV079[3]	A	50+600	A50+060	Large	148.954	148.864	15.2								
	B	50+600	A50+063		148.602	148.493	15.3								
	C		A50+225		165.903	165.783					14.7				
	D		A50+226		166.760	165.937					14.8				
	E		A50+112		149.067	148.332			18.4						
	F		A50+157		148.770	148.590			18.3						
	G		A50+231		147.936	148.631		18.2							
	H		A50+268		147.883	147.272		18.1							
	I		A50+270		147.814	147.441		18							
	J		A50+290		147.715	147.597		12.2							
	K		A50+306		147.880	147.506	17.8								
CV207[8]		50+762	NA	Extra-Small											
CV078	A	51+171	A50+680	Large	165.786	165.702	15								
	B[3]	51+171	A50+657		149.271	148.980		12.1							
	C[3]	51+171	A50+668		148.785	148.463		18.2							
	D[3]	51+171	A50+670		148.849	148.585		18.1							
Additional			A51+126	Additional	171.914	171.666					11.1				
CV077		52+091	A51+602	Extra-Small	165.55	165.23		15							
CV076		53+028	A52+536	Small	159.361	159.335		15							
CV075	A	53+337	A52+842	Small	160.575	160.301			12						
	B	53+337	A52+829		160.664	160.502			12						
	C	53+337	A52+830		160.698	160.542			12						
	D	53+337	A52+831		160.526	160.273			12						
	E	53+337	A52+832		160.806	160.670			12						
Additional			A52+937	Additional	159.873	159.334					11.2				

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TABLE 4.1

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COMPREHENSIVE ENVIRONMENTAL MONITORING PLAN

SUMMARY OF AS-BUILT TOTE ROAD CULVERT INSTALLATIONS

Water Crossing No.	Culvert No.	Road Chainage (Design)[12] (m)	Road Chainage (Upgraded)[12] (m)	Water Crossing Size Classification	Culvert Invert Elevation		Length of CSP Culverts						Sea Containers	DFO regulated Water Crossing Modified	Comment from 2009 Tote Road Inspection
					Upstream (m)	Downstream (m)	Ø = 1.2 m (m)	Ø = 1.0 m (m)	Ø = 0.5 m (m)	Ø = 0.25 m (m)	Ø = 0.15 m (m)*	Ø = 0.10 m (m)*			
Additional 09			A53+155	Additional	143.726	143.436			12.3						
CV074	A	53+764	A53+266	Extra-Small	143.981	143.561			15.1						Water Crossing installed after October 2008
	B		A53+266		143.959	143.634			15.3						
CV073[6]		53+842	NA	Extra-Small											
CV072	A[3]	53+878	A53+343	Large	161.71	161.28	15								
	B	53+878	A53+345		161.69	161.45	15								
	C	53+878	A53+379		161.140	160.600	15								
Additional 09			A53+435	Additional	NA	NA					11*				
CV071		54+144	A53+646	Extra-Small	165.856	165.193					10.9				
CV070[6]		54+173	NA	Extra-Small											
CV069[6]		54+669	NA	Extra-Small											
CV068[6]		54+861	NA	Extra-Small											
CV067[6]		55+197	NA	Extra-Small											
CV066[6]		55+383	NA	Extra-Small											
CV065[6]		55+401	NA	Extra-Small											
CV064		55+469	A54+956	Extra-Small	175.192	175.014					11.1				
CV063[6]		55+524	NA	Extra-Small											
CV062[6]		55+692	NA	Extra-Small											
Additional[7]			A55+222	Additional	174.395	174.017					11.1				
Additional			A55+307	Additional	172.376	172.001					13.1				
Additional			A56+280	Additional	168.452	168.127			15.4						
Additional			A56+997	Additional	164.511	164.271			12.3						
CV061[6]		57+761	NA	Extra-Small											
Additional			A57+773	Additional	158.890	158.549					11.3				
Additional			A57+774	Additional	158.887	158.526					11.1				
Additional			A57+995	Additional	159.491	159.332					11.0				
CV060	A	58+856	A58+114	Medium	158.533	158.478		15							
	B	58+856	A58+114		158.669	158.739		15							
CV059	A	59+960	A59+217	Small	160.749	160.456			12						
	B	59+960	A59+216		160.688	160.301			12						
	C	59+960	A59+217		160.615	160.393			12						
	D	59+960	A59+218		160.763	160.485			12						
CV058	A	60+523	A59+779	Small	161.044	160.434			18						
	B	60+523	A59+773		160.840	160.335	18								
CV057	A	60+712	A59+970	Small	161.854	161.682			15						
	B	60+712	A59+966		161.975	161.884			15						
	C	60+712	A59+967		162.011	161.871			15						
Additional[7]			A61+052	Additional	165.415	165.075					11.0				
CV056		61+810	A61+050	Extra-Small	148.100	147.798				12.5					Water Crossing installed after October 2008
CV055		61+904	A61+155	Extra-Small	162.493	161.945				12.3					Water Crossing installed after October 2009
CV054		62+018	A61+262	Extra-Small	162.649	161.902				18.5					Water Crossing installed after October 2010
CV053[6]		62+117	NA	Extra-Small											
CV052[6]		62+332	NA	Extra-Small											
CV051[6]		62+390	NA	Extra-Small											
CV050[6]		62+495	NA	Extra-Small											
Additional[7]			A61+929	Additional	148.329	148.194					11.0				
BG50	A[3]	62+804	A62+079	Extra-Large	142.436	141.949	18								
	B	62+804	A62+081		142.365	141.757	18								
	C[3]	62+804	A62+054										13		
CV049	A	63+302	A62+550	Large	147.410	147.044	15							x	Water Crossing modified after October 2008
	B	63+302	A62+536		147.680	147.388	15								
	C		A62+530		NA	NA			12*						Culverts installed as overflow
	D		A62+530		NA	NA			12*						
	E		A62+530		NA	NA			12*						
	F		A62+530		NA	NA			12*						
CV048	A	64+312	A63+560	Large	185.224	185.177	15								
	B	64+312	A63+554		185.533	185.365	15								
CV208[6]		64+672	NA	Extra-Small											
CV209[6]		64+847	NA	Extra-Small											
Additional[7]			A65+378	Additional	229.495	229.119					10.8				
CV047	A	66+426	A65+681	Medium	231.882	230.989	15								
	B	66+426	A65+682		232.153	231.293	15								
CV046	A	66+490	A65+747	Small	233.200	232.542			15						

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TABLE 4.1

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SUMMARY OF AS-BUILT TOTE ROAD CULVERT INSTALLATIONS

Water Crossing No.	Culvert No.	Road Chainage (Design)[12] (m)	Road Chainage (Upgraded)[12] (m)	Water Crossing Size Classification	Culvert Invert Elevation		Length of CSP Culverts						Sea Containers	DFO regulated Water Crossing Modified	Comment from 2009 Tote Road Inspection
					Upstream (m)	Downstream (m)	Ø = 1.2 m (m)	Ø = 1.0 m (m)	Ø = 0.5 m (m)	Ø = 0.25 m (m)	Ø = 0.15 m (m)*	Ø = 0.10 m (m)*			
	B	66+490	A65+738		232.968	232.170			15						
	C	66+490	A65+739		233.052	232.057		15							
	D	66+490	A65+740		233.066	232.277			15						
	E	66+490	A65+741		233.187	232.442			15						
CV045[6]		66+873	NA	Extra-Small											
CV044		67+036	A66+279	Extra-Small	265.731	265.454			12.3						Water Crossing installed after October 2008
CV043	A	67+469	A66+729	Small	290.256	289.760		15							
	B	67+469	A66+736		290.437	289.793			15						
	C	67+469	A66+737		290.541	289.849			15						
CV042[6]		69+294	NA	Extra-Small											
CV041		69+369	A68+796	Extra-Small	325.612	325.414					11.1				
Additional 09			A69+866	Additional	311.048	310.649					11.6				
Additional			A70+613	Additional	289.327	289.096					9.5				
Additional 09	A		A71+090	Additional	276.201	276.023					15.1				
	B		A71+090		276.200	276.008					15.0				
Additional			A71+271	Additional	272.037	271.758					11.1				
Additional 09			A71+624	Additional	256.776	256.369				12.5					
CV210		71+871	A71+718	Extra-Small	254.154	254.030					9.1				
Additional 09			A71+778	Additional	NA	252.020				12.5*					
Additional 09			A71+921	Additional	247.845	247.538				12.3					
Additional			A71+926	Additional	247.623	246.682					15.8				
CV040	A	72+263	A72+062	Large	235.43	235.24	15								
	B	72+263	A72+051		235.45	235.03	15								
	C[3]	72+263	A72+090		236.306	235.960	12.2								
Additional[7]			A72+083	Additional	235.69	236.12					11.0				
Additional[7]			A72+084	Additional	236.14	235.71					11.1				
CV039		72+845	A72+637	Extra-Small	244.400	244.263					11.1				
CV038	B		A72+731	Extra-Small	243.296	242.877				12.4					Water Crossing modified after October 2008
	A	72+943	A72+734		243.210	243.111					11.0				
Additional			A72+815	Additional	243.409	243.113					11.0				
Additional			A72+858	Additional	243.301	243.102					11.8				
CV037		73+105	A72+896	Extra-Small	243.789	243.457					10.9				
CV036[6]		73+351	NA	Extra-Small											
Additional 09			A73+072	Additional	-	239.559					9.0*				
Additional 09			A73+144	Additional	239.809	239.472					15.3				
Additional			A73+414	Additional	223.873	223.726					15.1				
CV211[6]		73+779	NA	Extra-Small											
CV212	C[3]		A74+242	Extra-Small	NA	NA		12*							
	A	74+410	A74+249		209.924	209.598					11.1				
	B	74+410	A74+251		209.986	209.465					11.1				
Additional			A74+468	Additional	198.526	198.026					11.1				
Additional			A74+469	Additional	198.535	197.951					11.2				
Additional			A74+481	Additional	198.876	198.493					12.9				
Additional 09			A74+482	Additional	199.327	197.832		11.9							
Additional[7]			A74+484	Additional	198.689	198.106					12.4				
Additional[7]			A74+485	Additional	198.695	198.105					12.5				
CV033		75+783	A75+637	Extra-Small	212.488	212.218					14.1				
Additional			A76+360	Additional	168.469	168.064					11.2				
Additional			A76+361	Additional	168.437	167.864					11.1				
Additional			A76+508	Additional	156.076	155.671			12						
BG33		77+025	A76+996	Extra-Small	147.771	147.399			15						
CV031[6]		77+219	NA	Extra-Small											
CV032[6]		77+343	NA	Extra-Small											
CV030	A	77+506	A77+459	Small	143.855	143.698		15							
	B	77+506	A77+435		144.052	143.825			15						
BG32	A	78+161	A78+123	Large	140.983	140.918	15								
	B	78+161	A78+130		141.134	141.023	15								
CV213[6]		78+401	NA	Extra-Small											
Additional			A78+408	Additional	144.209	143.955				15					
CV214		78+877	A78+837	Extra-Small	142.954	142.410			12						
Additional			A79+073	Additional	144.147	144.016				12					
CV215	A	79+572	A79+523	Small	142.714	142.590			12						
	B	79+572	A79+534		142.799	142.612			12						

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SUMMARY OF AS-BUILT TOTE ROAD CULVERT INSTALLATIONS

Water Crossing No.	Culvert No.	Road Chainage (Design)[12] (m)	Road Chainage (Upgraded)[12] (m)	Water Crossing Size Classification	Culvert Invert Elevation		Length of CSP Culverts						Sea Containers	DFO regulated Water Crossing Modified	Comment from 2009 Tote Road Inspection
					Upstream (m)	Downstream (m)	Ø = 1.2 m (m)	Ø = 1.0 m (m)	Ø = 0.5 m (m)	Ø = 0.25 m (m)	Ø = 0.15 m (m)*	Ø = 0.10 m (m)*			
	C	79+572	A79+535		142.725	142.587			12						
	D	79+572	A79+536		142.716	142.436			12						
CV217	A	79+915	A79+854	Extra-Large	141.549	141.270	15							x	
	B	79+915	A79+831		141.452	141.147	15								
	C	79+915	A79+833		141.554	141.218	15								
	D	79+915	NA										14		Water Crossing modified in 2009
Additional			A80+460	Additional	145.785	145.570					11.2				
CV216	A	80+646	A80+591	Large	142.710	142.656	15								
	B	80+646	A80+580		143.048	142.947	15								
	C	80+646	A80+582		143.057	142.922	15								
Additional			A80+988	Additional	146.303	146.236					10.4				
Additional[7]			A81+375	Additional	147.018	146.809				9					
Additional 09			A81+379	Additional	146.467	146.086			12.2						
Additional			A81+513	Additional	148.032	147.833				9					
BG31		82+076	A82+014	Extra-Small	151.687	150.683			12						
Additional			A82+473	Additional	164.399	163.945				12.5					Water Crossing modified after October 2008
Additional 09			A82+848	Additional	184.330	183.920			12.3						
CV023		83+147	A83+094	Small	181.980	181.779		12							
Additional 09			A83+530	Additional	NA	NA					12*				
Additional			A84+005	Additional	163.422	163.311					8.4				
Additional			A84+128	Additional	161.884	161.739					9.0				
Additional			A84+166	Additional	161.681	161.458					9.1				
BG30		84+636	A84+537	Small	155.219	154.188		15							
BG29		84+805	A84+706	Small	151.334	151.288		15							
CV022[6]		85+062	NA	Extra-Small											
CV021		85+079	A84+982	Extra-Small	152.630	152.520			12						
CV020		85+614	A85+513	Extra-Small	163.246	163.183				9					
CV019[6]		85+763	NA	Extra-Small											
CV018[6]		85+813	NA	Extra-Small											
CV017		85+891	A85+778	Extra-Small	169.872	169.735				9					
BG28	B		A86+132	Extra-Small	159.543	158.815					11.8				Water Crossing modified after October 2008
	A	86+263	A86+135		159.345	158.928				9					
CV016		86+434	A86+327	Extra-Small	160.468	159.993				9					DS end damaged
BG27	A	86+609	A86+499	Small	159.311	158.534			18						
	B	86+609	A86+493		159.304	158.444			18						
	C	86+609	A86+494		159.159	158.411			18						
CV015		86+765	A86+652	Extra-Small	164.217	163.884					11.1				
CV014		86+834	A86+719	Extra-Small	166.637	166.597					8.5				Water Crossing installed after October 2008
CV013[6]		86+934	NA	Extra-Small											
BG26[6]		86+978	NA	Extra-Small											
BG25	C	87+054	A86+944	Extra-Small	157.831	157.788				12.3					Water Crossing modified after October 2008
	A[7]	87+054	A86+945		157.714	157.705					10.0				
	B[7]	87+054	A86+945		157.621	157.075					10.1				
CV218[6]		87+617	NA	Extra-Small											
BG24	A	87+710	A87+588	Medium	157.422	157.033	15								
	B	87+710	A87+610		157.384	156.742	15								
	C	87+710	A87+612		157.591	156.999	15								
	D[3]		A87+585		156.728	157.420	18.1								
BG23[6]		87+784	NA	Extra-Small											
Additional			A87+955	Additional	160.996	160.699					9.4				
CV012[6]		88+171	NA	Extra-Small											
CV011[6]		88+232	NA	Extra-Small											
CV010		88+316	A88+189	Extra-Small	162.231	161.935				9					
Additional[7]			A88+475	Additional	160.480	160.294					14.3				
Additional[7]			A88+475	Additional	160.630	160.269					13.6				
Additional			A88+570	Additional	160.605	160.473				9					
CV009[6]		88+896	NA	Extra-Small											
BG22		89+275	A89+151	Extra-Small	170.397	169.674				9					
BG21	B		A89+304	Extra-Small	163.581	162.847					15.3				Water Crossing modified after October 2008
	A[7]	89+415	A89+307		163.162	163.108				9					
BG20		89+512	A89+389	Extra-Small	163.023	162.460				9					
CV008		89+696	A89+557	Extra-Small	161.934	161.764				9					
BG19		89+815	A89+671	Extra-Small	162.338	162.162				12					

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TABLE 4.1

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SUMMARY OF AS-BUILT TOTE ROAD CULVERT INSTALLATIONS

Water Crossing No.	Culvert No.	Road Chainage (Design)[12] (m)	Road Chainage (Upgraded)[12] (m)	Water Crossing Size Classification	Culvert Invert Elevation		Length of CSP Culverts						Sea Containers	DFO regulated Water Crossing Modified	Comment from 2009 Tote Road Inspection
					Upstream (m)	Downstream (m)	Ø = 1.2 m (m)	Ø = 1.0 m (m)	Ø = 0.5 m (m)	Ø = 0.25 m (m)	Ø = 0.15 m (m)*	Ø = 0.10 m (m)*			
Additional 09			A89+780	Additional	161.057	160.711		12.3							
Additional 09			A89+905	Additional	161.409	160.922				15.3					
BG18[5][7]		90+092	NA	Extra-Small						12					
BG17	A	90+167	A90+016	Large	158.11	157.80	15							x	Water Crossing modified after October 2008
	C		A90+017		159.756	159.525			12.3						Culvert installed as overflow
	B	90+167	A90+019		158.00	157.73	15								
BG16[7]		90+218	A90+068	Extra-Small	NA	NA			NA						Culvert buried and not functional
BG15		90+331	A90+185	Extra-Small	161.533	160.772				12					
BG14	A	90+389	A90+246	Extra-Small	161.34	160.85				12					Water Crossing modified after October 2008
	B		A90+247		161.252	161.112				15.3					
Additional			A90+338	Additional	162.939	162.458				12					
CV007		90+670	A90+510	Extra-Small	161.368	161.260				12					
BG13		90+995	A90+846	Extra-Small	161.993	161.598				12					
Additional 09			A90+936	Additional	162.939	NA				10.2*					
CV006[6]		91+092	NA	Extra-Small											
BG12[6]		91+394	NA	Extra-Small											
CV005[6]		91+513	NA	Extra-Small											
BG11		91+601	A91+430	Extra-Small	172.201	171.593				12					
BG10[6]		91+705	NA	Extra-Small											
BG09[6]		91+890	NA	Extra-Small											
CV219		92+093	A91+949	Extra-Small	162.986	162.832					9.9				
CV220[6]		92+207	NA	Extra-Small											
CV221[6]		92+288	NA	Extra-Small											
BG08		92+514	A92+335	Extra-Small	160.767	160.308				18.3					Water Crossing installed after October 2008
CV004	A	92+660	A92+477	Extra-Small	162.725	162.425					9.9				Water Crossing modified after October 2008
	B		A92+486		161.265	160.968				18.3					
CV003[6]		92+908	NA	Extra-Small											
BG07		93+123	A92+955	Extra-Small	162.453	161.705			12.3						Water Crossing modified after October 2008
CV002		93+199	A93+022	Extra-Small	165.485	165.298					9.6				
Additional 09			A93+439	Additional	163.447	163.217					11.6				
Additional[7]			A93+492	Additional	164.790	164.714					11.2				
Additional			A93+782	Additional	167.495	164.429					9.7				
BG04	A	94+148	A93+992	Medium	163.785	163.648	15								
	B	94+148	A93+993		163.570	163.463	15								
CV001[3]	A	94+728	A94+347	Small	165.199	164.878			15.2						
	B	94+728	A94+349		165.010	164.771		15.3							
	C	94+728	A94+350		165.262	164.887			15.3						
CV222		95+216	A95+073	Extra-Small	166.006	165.736					14.7				Water Crossing installed after October 2008
BG03		95+735	A95+585	Extra-Small	164.307	163.840				18					
BG02[6]		96+041	NA	Extra-Small											
Additional			A96+817	Additional	153.743	153.309					13.9				
CV223	A	97+155	A97+007	Extra-Large									16		
	B	97+155	A96+981		151.827	151.314	15								
	C	97+155	A96+983		151.792	151.337	15								
	D	97+155	A96+985		151.859	151.313	15								
	E	97+155	A97+072		152.629	152.615	15								
	F	97+155	A97+074		152.784	152.669	15								
Additional			A97+298	Additional	157.989	157.819					8.8				
CV224	A	97+758	A97+576	Medium	153.289	153.131		15							
	B	97+758	A98+568		153.466	153.317		15							
CV225	A	98+989	A98+845	Large	NA	NA		15							
	B	98+989	A98+804		151.682	151.505	18								
BG01[3]	A	99+672	A99+479	Medium	158.277	157.905	18.2								
	B	99+672	A99+481		157.426	157.007	18.1								
	C	99+672	A99+483		157.855	157.625	18.2								
Additional 09			A100+126	Additional	172.306	172.114			12.2						
Additional 09			A100+395	Additional	172.646	172.548			12.3						
Additional 09			A100+652	Additional	172.791	172.785			18.3						
CV184[5]		101+557	NA	Extra-Small											
CV185[5]		101+764	NA	Extra-Small											
CV186[3]	A	102+812	A102+584	Small	177.712	177.037			15.4						
	B	102+812	A102+585		177.447	176.477		15.1							
	C	102+812	A102+586	Small	177.764	176.995			15.2						

Baffinland Iron Mines Corporation

TABLE 4.1

BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT

COMPREHENSIVE ENVIRONMENTAL MONITORING PLAN

SUMMARY OF AS-BUILT TOTE ROAD CULVERT INSTALLATIONS

Water Crossing No.	Culvert No.	Road Chainage (Design)[12] (m)	Road Chainage (Upgraded)[12] (m)	Water Crossing Size Classification	Culvert Invert Elevation		Length of CSP Culverts						Sea Containers	DFO regulated Water Crossing Modified	Comment from 2009 Tote Road Inspection
					Upstream (m)	Downstream (m)	Ø = 1.2 m (m)	Ø = 1.0 m (m)	Ø = 0.5 m (m)	Ø = 0.25 m (m)	Ø = 0.15 m (m)*	Ø = 0.10 m (m)*			
CV187[3]	A	103+078	A102+857	Small	180.25	180.002			21.1						
	B	103+078	A102+858		180.063	179.829		20.5							
CV188[9]		104+701	A104+485	Extra-Small	NA	NA									
CV189[9]		105+342	NA	Extra-Small											
CV190[9]		105+454	A105+230	Extra-Small	NA	NA									
CV191[9]		106+047	A105+845	Extra-Small	NA	NA									
CV192[9]		106+189	NA	Extra-Small											
CV193[9]		106+216	NA	Extra-Small											
CV194[9]		106+430	NA	Extra-Small											
CVD1-1[10]		NA	A105+575	NA				24							
CVD1-2[6]		NA	NA	NA											
CVD1-3[10]		NA	A106+173	NA				24							
CVD1-4[10]		NA	A106+399	NA				18							
CVD1-5[10]		NA	A106+515	NA				18							
CVD1-5B[10]		NA	NA	NA				18							
CVD1-6[10]		NA	A106+731	NA				18							
CVD1-7[10]		NA	A107+149	NA				18							
CVD1-8[10]		NA	A107+430	NA				18							
CVD1-9[10]		NA	A107+689	NA				18							
CVD1-10[10]		NA	A108+004	NA				18							
CVD1-11[10]		NA	A108+334	NA				18							
CVD1-12[10]		NA	A108+618	NA				18							
CVD1-13[10]		NA	A108+886	NA				18							
CVD1-14[10]		NA	A109+677	NA				18							
CVSSR-1[10]		NA	A105+916	NA					NA						
CVSSR-2[10]		NA	A106+389	NA					NA						

Notes:
1. Culvert length surveyed by genial. Lengths followed by "*" were estimated by hand measurement.
2. Existing culvert lengthened by adding extension.
3. Culvert with survey information updated in 2009 by Genivar.
4. Existing culvert crossing unchanged.
5. Culvert location not surveyed by Genivar.
6. Culvert not installed.
7. Culvert not observed during 2009 tote road inspection.
8. Crossing cv-207 and cv-079 are located in the same water body (a braided stream).
9. Crossings superseded by cvd1 culvert series installed as and where required.
10. Culverts not inspected during 2009 tote road inspection because of inaccessibility.
11. Information for extra-small crossings obtained from genial survey and/or Knight Piésold construction records.
12. The road chainage (design) is the chainage that was included with the design report based on the original tote road alignment. The road chainage (upgraded) reflects the chainage of the upgraded tote road.
13. "NA" Indicates no data available.
14. "Additional" refers to extra culverts installed in 2007 to October 2008 beyond those identified in the initial design. "additional 09" refers to extra culverts installed after October 2008 beyond those identified in the initial design, and documented during the 2009 Tote Road inspection.
15. "DFO regulated water crossing modified" refers to do regulated water crossings that were modified after October 2008, as documented during the 2009 Tote Road inspection.
16. "Comment from 2009 tote road inspection" refers to observations made during 2009 Tote Road inspection.

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Baffinland Iron Mines Corporation

TABLE 4.2

BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT

COMPREHENSIVE ENVIRONMENTAL MONITORING PLAN

WATER QUALITY AND QUANTITY MONITORING LOCATIONS

Monitoring Location ID	Description	UTM Coordinates (NAD83) Easting (m)	UTM Coordinates (NAD83) Northing (m)	Parameters	Maximum Amount/ Average Concentration	Maximum Grab Concentration	Sampling Frequency	Monitoring and Reporting Requirement	Reporting Frequency
MRY-1	Water Supply for the Mary River Camp at Camp Lake	557,682	7,914,693	Daily Volume	< 60 m^3/d (combined total for all camp usage)	N/A	Daily	Water License Part B, Item 5 Part I, Items 7, 19 and 20	Daily Volume Requirement for monthly reporting
MRY-2	Summer Water Supply for the Milne Inlet Camp at Phillips Creek	514,503	7,964,579	Daily Volume	< 60 m^3/d (combined total for all camp usage)	N/A	Daily	Water License Part B, Item 5 Part I, Items 7, 19 and 20	Daily Volume Requirement for monthly reporting
MRY-3	Winter Water Supply for the Milne Inlet Camp at km 32 Lake [1]	521,714	7,951,862	Daily Volume	< 60 m^3/d (combined total for all camp usage)	N/A	Daily	Water License Part B, Item 5 Part I, Items 7, 19 and 20	Daily Volume Requirement for monthly reporting
Unnamed	Water Supply for the Rail Camp at Unnamed Lake Adjacent to Camp	595,547	7,876,328	Daily Volume	< 60 m^3/d (combined total for all camp usage)	N/A	Daily	Water License Part B, Item 5 Part I, Items 7, 19 and 20	Daily Volume Requirement for monthly reporting
Unnamed	Water Supply for the Steensby Inlet Camp at 3km Lake, 10 km Lake or Ocean	596,585	7,800,231	Daily Volume	< 60 m^3/d (combined total for all camp usage)	N/A	Daily	Water License Part B, Item 5 Part I, Items 7, 19 and 20	Daily Volume Requirement for monthly reporting
Various	Water Supply for Exploration and Geotechnical Drilling at Various Named and Unnamed Sources Throughout the Project Area	Various locations upstream, downstream, and near-field.		Daily Volume	< 455 m^3/d (combined total for all drilling usage)	N/A	Daily	Water License Part B, Item 5 Part I, Items 7, 19 and 20	Daily Volume Requirement for monthly reporting
MILNE-INF	Sewage Influent - WWTF at Milne Inlet Camp	Primary Chamber		BOD5 Total suspended solids (TSS) Faecal coliforms pH Total Kjeldahl Nitrogen (TKN) Ammonia-nitrogen Total phosphorus	N/A	N/A	Every 4 weeks during discharge	Baffinland Requirement	For information only; not reported
MILNE-RC1	Receiving waters of Milne Inlet, adjacent drainage ditch	TBD	TBD	BOD_5 Total suspended solids (TSS) Faecal coliforms pH Total Kjeldahl Nitrogen (TKN) Ammonia-nitrogen Total phosphorus	N/A	N/A	Every 4 weeks during discharge	Baffinland Requirement	For information only; not reported
MRY-INF	Sewage Influent - WWTF at Mary River Camp	Primary Chamber		BOD_5 Total suspended solids (TSS) Faecal coliforms pH Total Kjeldahl Nitrogen (TKN) Ammonia-nitrogen Total phosphorus	N/A	N/A	Every 4 weeks during discharge	Baffinland Requirement	For information only; not reported
Shear-RC1	Sheardown Lake in the vicinity of the sewage outfall	TBD	TBD	BOD_5 Total suspended solids (TSS) Faecal coliforms pH Total Kjeldahl Nitrogen (TKN) Ammonia-nitrogen Total phosphorus Dissolved oxygen	N/A	N/A	Every 4 weeks during discharge	Baffinland Requirement	For information only; not reported
MRY-4	Mary River Camp sewage discharge at the WWTF	557,920	7,914,372	BOD_5 TSS pH Faecel Coliforms Oil and Grease Volume	30 mg/L 35 mg/L 6.0 to 9.5 1,000 CFU/100 mL No visible sheen	N/A	Every 4 weeks during discharge; daily for volumes	Water License Part B, Item 5 Part D, Item 10 Part I, Items 3, 19 and 20	Daily Volume Requirement for monthly reporting
				Total Kjeldahl Nitrogen (TKN) Ammonia-nitrogen Total phosphorus		N/A	Every 4 weeks during discharge	Baffinland Requirement	For information only; not reported
				Acute lethality to Rainbow Trout and Daphnia magna (Biological Test Methods EPS/1/RM/13 and EPS/1/RM/14)	Non-toxic	N/A	Once annually during open water	Water License Part B, Item 5 Part D, Item 12 Part I, Items 4, 19 and 20	Monthly report following testing; annual report
MRY-4a	Mary River Camp sewage discharge from the PWSPs	558,706	7,913,930	BOD_5 TSS pH Faecel Coliforms Oil and Grease Volume	30 mg/L 35 mg/L 6.0 to 9.5 1,000 CFU/100 mL No visible sheen	N/A	Once prior to discharge and every 4 weeks thereafter; daily for volumes	Water License Part B, Item 5 Part D, Item 10 Part I, Items 3, 19 and 20	Daily Volume Requirement for monthly reporting
				Total Kjeldahl Nitrogen (TKN) Ammonia-nitrogen Total phosphorus		N/A	Every 4 weeks during discharge	Baffinland Requirement	For information only; not reported
				Acute lethality to Rainbow Trout and Daphnia magna (Biological Test Methods EPS/1/RM/13 & EPS/1/RM/14)	Non-toxic	N/A	Once annually during open water	Water License Part B, Item 5 Part D, Item 12 Part I, Items 4, 19 and 20	Monthly report following testing; annual report

Baffinland Iron Mines Corporation

TABLE 4.2

BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT

COMPREHENSIVE ENVIRONMENTAL MONITORING PLAN

WATER QUALITY AND QUANTITY MONITORING LOCATIONS

Monitoring Location ID	Description	UTM Coordinates (NAD83) Easting (m)	UTM Coordinates (NAD83) Northing (m)	Parameters	Maximum Amount/ Average Concentration	Maximum Grab Concentration	Sampling Frequency	Monitoring and Reporting Requirement	Reporting Frequency
MRY-5	Milne Inlet Camp sewage discharge at the WWTF	503,462	7,975,764	BOD_5 TSS pH Faecel Coliforms Oil and Grease Volume	100 mg/L 120 mg/L 6.0 to 9.5 10,000 CFU/100 mL No visible sheen	N/A	Every 4 weeks during discharge; daily for volumes	Water License Part B, Item 5 Part D, Item 11 Part I, Items 3, 19 and 20	Daily Volume Requirement for monthly reporting
				Total Kjeldahl Nitrogen (TKN) Ammonia-nitrogen Total phosphorus		N/A	Every 4 weeks during discharge	Baffinland Requirement	For information only; not reported
				Acute lethality to Rainbow Trout and Daphnia magna (Biological Test Methods EPS/1/RM/13 and EPS/1/RM/14)	Non-toxic	N/A	Once annually during open water	Water License Part B, Item 5 Part D, Item 12 Part I, Items 4, 19 and 20	Monthly report following testing; annual report
MRY-5a	Milne Inlet Camp sewage discharge from the PWSP	503,344	7,976,118	BOD_5 TSS pH Faecel Coliforms Oil and Grease Volume	100 mg/L 120 mg/L 6.0 to 9.5 10,000 CFU/100 mL No visible sheen	N/A	Once prior to discharge and every 4 weeks thereafter; daily for volumes	Water License Part B, Item 5 Part D, Item 11 Part I, Items 3, 19 and 20	Daily Volume Requirement for monthly reporting
				Total Kjeldahl Nitrogen (TKN) Ammonia-nitrogen Total phosphorus		N/A	Every 4 weeks during discharge	Baffinland Requirement	For information only; not reported
				Acute lethality to Rainbow Trout and Daphnia magna (Biological Test Methods EPS/1/RM/13 and EPS/1/RM/14)	Non-toxic	N/A	Once annually during open water	Water License Part B, Item 5 Part D, Item 12 Part I, Items 4, 19 and 20	Monthly report following testing; annual report
MRY-6	Water collected within the Bulk Fuel Storage Facility at Mary River prior to release	558,186	7,914,780	Benzene Toluene Ethylbenzene Lead Oil and Grease	370 µg/L 2 µg/L 90 µg/L 1 µg/L 15,000 µg/L and no visible sheen	N/A	Monthly during removal of water	Water License Part B, Item 5 Part D, Item 17 Part I, Items 5, 19 and 20	Monthly report following testing; annual report
MRY-7	Water collected within the Bulk Fuel Storage Facility at Milne Inlet prior to release	503,309	7,976,097	Benzene Toluene Ethylbenzene Lead Oil and Grease	370 µg/L 2 µg/L 90 µg/L 1 µg/L 15,000 µg/L and no visible sheen	N/A	Monthly during removal of water	Water License Part B, Item 5 Part D, Item 17 Part I, Items 5, 19 and 20	Monthly report following testing; annual report
MRY-8	Minewater and surface drainage either pumped or released from the Hematite Open Pit	NO LONGER REQUIRED[2]							
MRY-9	Minewater and surface drainage either pumped or released from the Magnetite Open Pit[2]	563,239	7,914,596	Total Arsenic Total Copper Total Lead Total Nickel Total Zinc TSS Oil and Grease pH (of waste discharged)	As 0.5 mg/L Cu 0.30 mg/L Pb 0.20 mg/L Ni 0.50 mg/L Zn 0.50 mg/L TSS 15 mg/L O&G No visible sheen pH Between 6.0 and 9.5	As 1.00 mg/L Cu 0.60 mg/L Pb 0.40 mg/L Ni 1.00 mg/L Zn 1.00 mg/L TSS 50.0 mg/L	Monthly during periods of flow	Water License Part B, Item 5 Part D, Item 9 Part I, Items 5, 19 and 20	Monthly report following testing; annual report
MRY-10	Surface discharge from the weathered ore stockpile	563,349	7,915,262	Total Arsenic Total Copper Total Lead Total Nickel Total Zinc TSS Oil and Grease pH (of waste discharged)	As 0.5 mg/L Cu 0.30 mg/L Pb 0.20 mg/L Ni 0.50 mg/L Zn 0.50 mg/L TSS 15 mg/L O&G No visible sheen pH Between 6.0 and 9.5	As 1.00 mg/L Cu 0.60 mg/L Pb 0.40 mg/L Ni 1.00 mg/L Zn 1.00 mg/L TSS 50.0 mg/L	Seepage / surface run off - monthly during periods of flow	Water License Part B, Item 5 Part D, Item 9 Part I, Items 5, 19 and 20	Monthly report following testing; annual report
MRY-11	Surface discharge from the lump ore and fine ore stockpiles at the processing area	560,987	7,913,364	Total Arsenic Total Copper Total Lead Total Nickel Total Zinc TSS Oil and Grease pH (of waste discharged)	As 0.5 mg/L Cu 0.30 mg/L Pb 0.20 mg/L Ni 0.50 mg/L Zn 0.50 mg/L TSS 15 mg/L O&G No visible sheen pH Between 6.0 and 9.5	As 1.00 mg/L Cu 0.60 mg/L Pb 0.40 mg/L Ni 1.00 mg/L Zn 1.00 mg/L TSS 50.0 mg/L	Seepage / surface run off - monthly during periods of flow	Water License Part B, Item 5 Part D, Item 9 Part I, Items 5, 19 and 20	Monthly report following testing; annual report
MRY-12	Surface discharge from the lump ore and fine ore stockpiles at Milne Inlet	12a - 503,356 12b - 503,522	7,976,452 7,976,399	Total Arsenic Total Copper Total Lead Total Nickel Total Zinc TSS Oil and Grease pH (of waste discharged)	As 0.5 mg/L Cu 0.30 mg/L Pb 0.20 mg/L Ni 0.50 mg/L Zn 0.50 mg/L TSS 15 mg/L O&G No visible sheen pH Between 6.0 and 9.5	As 1.00 mg/L Cu 0.60 mg/L Pb 0.40 mg/L Ni 1.00 mg/L Zn 1.00 mg/L TSS 50.0 mg/L	Seepage / surface run off - monthly during periods of flow	Water License Part B, Item 5 Part D, Item 9 Part I, Items 5, 19 and 20	Monthly report following testing; annual report
Landfill Down Gradient	Surface discharge downstream of landfill	560,756	7,912,496	Total Arsenic Total Copper Total Lead Total Nickel Total Zinc TSS Oil and Grease pH	TBD	TBD	TBD	N/A	TBD
Exploration Drill Monitoring		Various locations upstream, downstream, and near-field.		Major ions, total metals, general parameters, flow.	N/A	N/A	Weekly to monthly during drilling.	Annual NIRB Report	Once per year.

Notes:
1. Shaded monitoring location ID cells denote Water Licence Monitoring Locations.
2. Shaded parameters cells denote required parameters to be reported under the Water Licence.
3. This location is referenced as Km 99 Lake in the Water Licence. This is in error.
4. There is actually only one bulk sample pit now.
5. More frequent sampling of MRY-4, 4a, 5, 5a, Milne-INFL, and MRY-INFL may be undertaken for the purpose of internal process management and early detection of potential upset conditions.
6. Landfill Down Gradient Sampling location to be finalized after next field visits by INAC Water Resources and QIA Inspectors.

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XREF FILE(S): TOPO - 01 - MAR 06 2009; INUIT OWNED LANDS - SURFACE AND SUBSERFACE - 01 - MAR 05 2009; RAILWAY ALIGNMENT - MARY RIVER STEENSBY - OCT 07 2008; ROAD EXISTING - 01 - MAR 05 2009; ROAD TOTE AS-CONSTRUCTED - 01 - JAN 29 2008; RAILWAY CONSTRUCTION ACCESS ROAD -01 - OCT 15 2008; RAILWAY CONSTRUCTION CAMPS - 01 - SEPT 19 2008; ClaimBlocks IMAGE FILE(S): Baffinland logo-big corp

500000 E
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MILNE INLET
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CROWN MINERAL CLAIMS
ᒪᓂᐃᐧᓕᖅ ᐊᖏᔪ ᐅᓱᖅᑕᕐᓂᒃ
MILNE INLET TOTE ROAD
ᑲᑎᑎᒍᖅ
KATIKTOK LAKE
ᓯᒪᐅᑉ ᑕᓐᓇᕐᓂᒃ (18ᓂᒃ ᐊᓯᖏᑐᕐᓂᒃ) ᐃᓚᖃᖅᓯᒪ ᓇᓴᐅᑎᓂᒃ 5ᒥᒃ
MCOUAT LAKE BLOCK
(18 CLAIMS) DEPOSIT NO. 5
ᓇᓂᐅᑉ 1 ᐅᓴᖃᑦᓂᓪᓗᑉ ᐊᓯᖏᓇᑎ 2484
DEPOSIT NO. 1 MINING LEASE 2484
ᓇᓂᐅᑉ 1
DEPOSIT NO. 1
ᓇᓂᐅᑉ 4 ᐅᓴᖃᑦᓂᓪᓗᑉ ᐊᓯᖏᓇᑎ 2483
DEPOSIT NO. 4 MINING LEASE 2483
ᓇᓂᐅᑉ 5
DEPOSIT NO. 5
ᐃᓐᓇ ᐆᒃ ᐳᓪᓚᕆᑕᓂᒃ (9ᓂ ᐊᓯᖏᓇᑎᖃᓕᕆᓂᒃ) ᐃᓪᓚᐅᖅᓯᒪ ᐃᓂᖅ ᓇᓴᐅᑎᓂᒃ 7ᒥᒃ
TURNER RIVER BLOCK
(9 CLAIMS) DEPOSIT NO. 7
ᖃᐅᔨᓕᓂ ᐃᓇᐃᑦ ᑲᑐᔪᐊᕐᑎᑦᓯᑦ ᑲᖏᓇᑦ ᓄᓇᕗᑦ ᕿᓚᐱᓕᒃ ᐊᑐᓕᕐᓂᒃ ᓴᓇᔨᓕᕐᓂᒃ ᐊᑐᖅᑐᒥᓂᒃ ᐊᑐᖅᑐᒥᓂᒃ ᐃᓚᖃᖅᓯᒪ ᐃᓇᐃᑦ
QIA SURFACE COMMERCIAL LEASE BOUNDARY
ᓴᖅᑭᓂᒃ ᑕᓐᓇᕐᓂᒃ (20ᓂᒃ) ᐃᓚᖃᖅᓯᒪᓕᖅ ᓴᓇᔨᓕᕐᓂᒃ 6
GLACIER LAKES CLAIMS
(20 CLAIMS) DEPOSIT NO. 6
ᐃᖅᑲᐃᑦ ᑯᓚ
RAVIN RIVER
ᓄᓇᕗᑦ ᑐᓴᒪᓕᐊᑯᑦ ᓴᓚᒥᓪ ᓱᓕᓐᓂᖅᑐᑦ ᑲᑐᔪᓐᓃᑦ ᐊᓕᓇᐅᑎᖅᓴᒪᖅ 16,695ᓂᒃ ᐊᖏᓂᒃ
NTI BAFFINLAND JOINT VENTURE AREA 16,695 HA
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MARY RIVER CAMP
ᓄᓇᕗᑦ 2, ᓴᒪᒻ 3 ᐅᓴᖃᑦᓂᓪᓗᑉ ᐊᖏᔪᓇᑎ 2485
DEPOSIT NOS. 2, AND 3
MINING LEASE 2485
ᓄᕐᕕᒃᓴᖅ ᑲᑎᒪᔨᖏᑦ ᐱᖓᓱᐃᓐᓇᖅᑐᑦ ᓄᓇᕗᑦ ᑭᓇᐅᔭᕆᐊᓕᖅ ᐊᑐᖅᑐᒥᓂᒃ
SOUTHERN BOUNDARY OF NORTH BAFFIN
PLANNING REGION
ᐊᖏᔪᓕᕐᓗᒃ ᑲᑎᒪᔨᖏᑦ
ANGAJURJUALUK LAKE
ᐃᓚᒋᔭᐅᓕᖅ ᐃᓇᐃᑦ (8ᓂᒃ ᐊᖏᔪᓇᑎᖃᓕᕆᓂᒃ) ᓴᓇᓴᖃᓂᒃ ᐃᓕᓴᐅᓚᕐᓂᒃ ᓇᒥᒃ
NORTH COCKBURN RIVER (8 CLAIMS) DEPOSIT
NO. 8
ᐅᖅᑯᓇᖅ ᑲᓱᖃᓕᒫᑦ ᓇᒥᒃ (4ᓂᒃ ᐊᖏᔪᓇᑎᑦᓴᐅᑎᓕᕐᓂᒃ) ᓴᓇᓴᖃᓂᒃ ᐃᓕᓴᐅᓚᕐᓂᒃ ᓇᓚᐅᖅ 9ᒥᒃ
NORTH ROWLEY RIVER
(4 CLAIMS) DEPOSIT NO. 9
ᕿᑐᓇᖅ
QUARTZ LAKE
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COCKBURN RIVER
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ROWLEY RIVER
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PROPOSED RAILWAY
ᓴᓇᓴᕆᓕᖅ ᓇᒥᒃ
NINA BANG LAKE
ᓇᓕᐅᑎᓂᒃ ᐊᖏᔪᓇᑎᖃᓕᕆᓂᒃ
CONSTRUCTION ACCESS ROAD
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ERICHSEN LAKE
ᐃᖅᑲᐃᑦ ᓇᒥᒃ
RAVIN RIVER
ᑕᕐᔪᐊᖅᐸᕆᒃ
TARUJAQ ARM
ᐃᓚᒋᔭᐅᓕᖅ ᓇᒥᒃ
COCKBURN RIVER
ᐃᓚᒋᔭᐅᓕᖅ ᓇᒥᒃ
ROWLEY RIVER
ᐃᓚᐅᑎᑦᓴᐅᓕᕐᓂᒃ ᑐᓴᕐᓂᒃ
STEENSBY PORT
ᓴᑎᑦᓗᓚᕐᓂᒃ
STEENSBY INLET

ᑐᑭᓯᐊᖅᑐᑦ

LEGEND:

- ᐃᒥᖅ — WATER
- ᐃᓄᐃᑦ ᓄᓇᕗᑦᓯᒪᓂᒃ - ᖃᓄᐃᓂ ᓴᓇᓴᓚᐃᑦ ᐱᖓᓱᐅᑎᖅᑕᓂᒃ — INUIT OWNED LAND - SURFACE ONLY EXCLUDING MINERALS
- ᐃᓄᐃᑦ ᓄᓇᕗᑦᓯᒪᓂᒃ - ᖃᓄᐃᓂ ᐊᒋᓂᓗ ᐱᖓᓱᐅᑎᓗᑦ ᓴᓇᓴᕐᓂᒃ — INUIT OWNED LAND - SURFACE AND SUBSURFACE INCLUDING MINERALS
- ᓴᓇᓴᖃᓂᓪᓚᒋ ᑭᓪᓕᖅ ᓄᓇᕗᓂᒃ ᐱᓱᐅᓕᕐᓂᒃ — MINERAL LEASE BOUNDARY
- ᓄᕐᕕᒃᓴᖅ ᓄᓇᕗᑦᓯᒪᓂᒃ — CROWN LAND
- ᐃᐊᓴᑲᓂᕐᓂᒃ (ᐃᓄᐃᑦ ᓄᓇᕗᑦᓯᒪᓂᒃ ᑭᓄᐅᓱᓴᓂᐅᑉᐳᓂᒃ) — EXISTING BORROW AREA (IOL COMMERCIAL LEASE)
- ᐃᐊᓴᑲᓂᕐᓂᐅᓯᑎᒍᒃ (ᐃᓄᐃᑦ ᓄᓇᕗᑦᓯᒪᓂᒃ ᑭᓄᐅᓱᓴᓂᐅᑉᐳᓂᒃ) — EXISTING ROCK QUARRY (IOL COMMERCIAL LEASE)
- ᓄᓇᕗᑦ ᑐᓐᖓᓇᓴᑦ ᖃᐅᔨᓇᓱᐊᕐᓂᖓᓐᖓᓕᒃ — NTI EXPLORATION AREA
- ᓴᓇᓴᖃᓂᓪᓚᒋ ᐊᖏᔪᓇᑎᖃᓕᕆᓂᒃ ᓄᓇᕗᑦ — CROWN MINERAL CLAIMS

- ᖃᓄᐃᓂ ᐊᑦᓱᒃᑎ ᐅᓂᖃᑦᓂᓴᑦ — MILNE INLET TOTE ROAD
- ᓄᓇᓂᐅᑎᓂᒃ ᐊᑦᓱᒃᑎᓂᓕᕆᑦᓂᖅ — PROPOSED RAIL ALIGNMENT
- ᐊᑦᓱᒃᑎᓕᓂᐊᖅᐅᓚᐅᖏᓐᓂᒃ ᐅᐊᑦᓂᓴᐃᓐᓂᒃ — PROPOSED CONSTRUCTION ACCESS ROAD
- ᑯᐃᑐᖃᓚᒃ/ᑯᒪᓕᒃᑐᖃᓚᒃ/ᑯᓴᐃᐅᔨᓕᖅ — RIVER/STREAM/DRAINAGE
- ᖃᐃᓴᖃᓚᐃᓂᓂᖅ — CONTOUR
- ᐃᓚᓗᓂᐅᓴᐅᑎᓗᒍ ᐅᐊᑎᑎᐅᓴᐅᓕᓚᐅᓪᓚᑦᓯᑦ — TEMPORARY CONSTRUCTION CAMP

NOTES:

1. BASE MAP: © HER MAJESTY THE QUEEN IN RIGHTS OF CANADA, DEPARTMENT OF NATURAL RESOURCES (2004). ALL RIGHTS RESERVED.
2. COORDINATE GRID IS SHOWN IN UTM (NAD83) ZONE 17 AND IS IN METRES.
3. CONTOURS ARE IN METRES. CONTOUR INTERVAL VARIES.
4. PROPOSED RAIL ALIGNMENT PROVIDED BY CANARAIL CONSULTANTS INC.

ᖃᐅᔨᓕᕆᔨᖃᑎᒌᑦ

1. ᓄᓇᕗᑦᓯᒪᓂᒃ ᑎᑎᕋᓕᓂᒃ: ᐊᐃᓐ ᑲᓇᑕᒥ
2. ᓄᓇᕗᑦ ᑎᑎᕋᓕᓂᒃ ᒪᓕᓐᓂᒃ UTM (NAD83) ZONE 17
3. ᑎᑎᕋᓕᓴᑦ ᒥᑕ: ᐊᖏᔪᓂᒃᓂᕐᓂ ᐅᖃᓕᓂᑎᑎᓂᑦ ᐊᐅᓚᕐᓂᑦ
4. ᓄᓇᕗᑦᓯᒪᓂᒃ ᐊᑦᓱᒃᑎᐊᖅᖃᒃ CANARAIL CONSULTANTS INC

ᕿᒥᕐᓂᖅ 8 4 0 10 20 30 40 km
SCALE A

Baffinland Iron Mines Corporation

ᓄᓇᕗᑦ ᐅᕐᕋᕐᓂᑦ MARY RIVER PROJECT

ᐃᓕᓴᕐᓂᒃ ᖃᓄᐃᓕᐅᕈᑎᑦ **LOCATION OF PROJECT ACTIVITIES**

Knight Piésold CONSULTING

P/A NO.	REF NO.
NB102-181/27	NB11-00106

ᑎᑎᕋᐅᓕᕐᓂᒃ FIGURE **1.1** REV 0