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BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT

BULK SAMPLING PROGRAM
ABANDONMENT AND RECLAMATION PLAN
(REF. NO. NB102-00181/6-7)

Rev. No.	Revision	Date	Approved
0	Issued in Final	November 17, 2006	KDE
1	Geochemistry, ARD Contingency Plan and Revised Closure Costs Included	June 13, 2007	KDE
2	Revised for 2008	March 31, 2008	

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EXECUTIVE SUMMARY

Foreword

The Mary River Project is an iron ore advanced exploration project located in the northern Baffin Island region of Nunavut. The project is wholly owned by Canadian mining company Baffinland Iron Mines Corporation (Baffinland). Baffinland is conducting a bulk sampling program which began in 2007 and will end in 2009. Exploration and geotechnical drilling programs will also continue. This abandonment and reclamation plan (A&R Plan) addresses the abandonment and reclamation of the project sites following completion of the existing exploration and geotechnical drilling, environmental studies as well as the bulk sampling program at the Mary River Project area.

Earlier versions of this A&R Plan were prepared to support environmental screening and permitting activities for the bulk sampling program (Knight Piésold Ref. No. NB102-00181/6-7, Rev. 0, dated 17-November-2006) and later updated (Knight Piésold Ref. No. NB102-00181/6-7, Rev. 1, dated 13-June-2007) to reflect the outcome of the environmental screening, including the following commitments made by Baffinland:

- Allocation of increased costs to manage contaminated soils at closure
- Allocation of contingency costs to manage the unlikely possibility of stockpiled weathered ore and waste rock or pit walls to generate acid and/or leach metals
- Extension of post-closure monitoring from one year to up to five years, with a corresponding increase in corresponding closure costs

The A&R Plan, dated June 13, 2007 was accepted and approved by the Nunavut Water Board (NWB) under Motion 2007-19-15. In approving the A&R Plan, the NWB noted several comments to be address in subsequent revisions or addendums.

This document is an update to the June 2007 version in consideration of changes to the scope of the work as provided by Amendment No. 2 to the Nunavut Water Board (NWB) water licence as well as the comments made by the NWB in the above noted approval of the A&R Plan. Amendment No. 2 included the following main project changes:

- Expansion of the Steensby Camp from an 8-12 person seasonally operated “fly-in camp” to an approximately 40 person seasonally operated tent or trailer camp
- Establishment of the new seasonally operated “Rail Camp” for approximately 40 people

This updated A&R Plan will become the closure document that Baffinland will follow in the course of the bulk sampling program, subject to any future revisions required to reflect material changes. The Plan is written with a view to address all project-related activity areas and infrastructure related to the existing exploration and geotechnical drilling as well as the bulk sampling program.

Project Description

The Mary River Project is currently subject to exploration drilling at Mary River as well as geotechnical drilling for the engineering design of various components of the project including the railway alignment, Steensby Inlet port facility, mine site infrastructure, open pit overburden, potential wind and hydroelectric sites, borrow pits, quarry sites and others. In addition, the bulk sampling program is underway and will be completed in 2009. The bulk sample program and the exploration and geotechnical drilling programs involve the following:

Mine design related operations

- Operation of up to 10 drill rigs for both exploration drilling at the Mary River ore deposits and geotechnical drilling at proposed mine infrastructure areas
- Operation of a temporary seasonally occupied tent camp, associated facilities and related infrastructure for approximately 40 people part way along the proposed railway alignment (referred to as the Rail Camp)
- Operation of a temporary seasonally occupied tent or trailer camp, associated facilities and related infrastructure for approximately 40 people at the future port site at Steensby Inlet
- Sealifts at Steensby Inlet to re-supply the Rail and Steensby Inlet camps and drilling operations conducted along the proposed railway alignment with dry goods and fuel
- Environmental studies, including aerial and ground-based terrestrial and marine wildlife surveys, fisheries and aquatics, water quality sampling, vegetation sampling, and archaeological surveys

Milne Inlet Site and Milne Inlet Tote Road

- Operation of an all-season 60 person fully serviced trailer camp, associated facilities and related infrastructure including a package sewage treatment plant at Milne Inlet to support the Milne Inlet Tote Road construction activities, seasonal re-supply, and barge loading of the bulk sample
- A lined bladder tank farm with an approximate capacity of 8.25-million litres (ML) as well as a lined re-fuelling station and re-supply pipeline
- Improvements to the airstrip at Milne Inlet, including the placement of fill, re-grading of the surface, application of EK35 and the installation of temporary airstrip lighting
- Upgrading the existing Milne Inlet Tote Road to allow all-season use, including excavating sand and gravel for the road bed from within the road alignment, and supplemented with material from large designated borrow/quarry areas, adding the fill to the roadbed and installing crossing structures (mainly culverts) at watercourses and drainages.
- Emergency shelters (trailers) positioned along the road
- Consolidation of historical scrap steel and debris along the Milne Inlet Tote Road

- Communication towers and repeater stations at the Mary River and Milne Inlet camp sites and along the Milne Inlet Tote Road
- Dry cargo and fuel tanker sealifts at Milne Inlet, to re-supply the project with equipment, materials, supplies and fuel to Milne Inlet, with subsequent overland transport to Mary River
- Removal and disposal of four (4) sea container box culvert crossings and six (6) culvert crossings from navigable waters along the Milne Inlet Tote Road

Mary River Camp

- Operation of an approximate 100-person winterized exploration tent camp and a 100-person all-season tent camp, and ancillary facilities (e.g. wash trailer, leach pit for greywater, diesel-electric power generation, maintenance shop, rotating biological contractor, incinerator, etc) at Mary River.
- A polishing waste storage pond (PWSP), and a Tanks-A-Lot sewage treatment system installed for use by the existing exploration camp prior to installation of the all-season camp
- Operation of a non-hazardous waste landfill (upon approval from the NWB)
- Improvements to the airstrip at Mary River, including the placement of fill, re-grading of the surface and the installation of temporary airstrip lighting
- Bulk fuel storage facilities and lined re-fuelling stations at the Mary River camp and crusher area
- A 60-m high test wind tower approximately 19.6 km northeast of Mary River Camp to record information on wind speeds and direction
- Remove hazardous wastes off-site for disposal at a licensed disposal facility or to recycling depots

Mine the Bulk Sample at Deposit No. 1

- Mine haulage road from the ridgeline on Deposit No. 1 to the crusher location
- Refuge trailer parked at the crusher location near Deposit No. 1
- Explosives storage and detonator storage magazines near Deposit No. 1 and an associated access road
- The drilling, blasting and stockpiling of approximately 154,000 dry tonnes (t) of weathered surface rock and 6,600 t of waste rock on the top of Deposit No. 1 at Mary River
- The drilling, blasting and crushing of 250,000 t of iron ore bulk sample from an open pit on Deposit No. 1 at Mary River
- Truck haulage from the bulk sample pit to the crusher, and truck haulage of the bulk sample to Milne Inlet
- Temporary stockpiling of the iron ore bulk sample at Milne Inlet
- Loading of iron ore at Milne Inlet on five ships sailing to Europe in August through October 2008
- Barge loading and ship loading at Milne Inlet

Figures 3.1 to 3.6 shows the location of activity areas related to the bulk sample program and exploration and geotechnical investigation programs.

Abandonment Scenarios

Two abandonment scenarios have been conceived in this A&R Plan: temporary suspension, and final abandonment. A temporary suspension of activities involves the temporary cease of the bulk sampling program operations and exploration and geotechnical operations, either as planned or due to unforeseen circumstances, lasting for weeks to months. This could be due to economic or operational difficulties that would cause a temporary cease of current operations at the project sites, such as a prolonged period of poor weather and related issues, fuel shortages or mechanical problems with critical equipment. All facilities will be secured in a manner similar to the seasonal shutdown of the existing Mary River camp that has occurred in past years.

Final abandonment would be undertaken after completion of the bulk sampling program, provided there are no immediate or pending plans to advance the project towards mine development. Final abandonment may also occur if the bulk sampling program was terminated before completion due to unforeseen circumstances and a decision was made to cease all exploration and geotechnical investigation activities at Mary River.

Final abandonment will include removing all equipment and materials either off-site or into an on-site landfill (for inert, non-hazardous, non-combustible materials), and contouring ground surfaces. Equipment and materials to be taken off-site will be transported overland from Mary River Camp to Milne Inlet. Materials and Equipment at Rail Camp will be flown to Steensby Camp or the Mary River Camp. Arrangements will be made with a sealift contractor to collect the shipment of materials and equipment at Milne Inlet and Steensby Inlet and ship materials offsite for re-sale, salvage or disposal.

The timing of final abandonment and reclamation is largely governed by site access and weather. It is estimated that a total of four and a half months will be required to remove equipment and materials from Mary River with a crew of about 20 people.

Follow-Up and Monitoring

All development areas related to the project will be subjected to a closure inspection by a company representative or contractor, and a brief abandonment and reclamation report with photographs will be prepared, documenting the reclamation work completed and the site conditions following closure.

In order to ensure the physical and chemical stability of various components of the sites after closure of the Mary River Project facilities, monitoring and follow-up inspections of all sites will be conducted for up to five years after final abandonment.

Estimated Cost

The estimated cost to complete the final abandonment work described in this A&R Plan is $6,203,300.

Financial Assurance

Most of the project infrastructure and hence estimated cost of final reclamation is located on Inuit Owned Lands. Under the terms of a Commercial Lease with the QIA, Baffinland has posted a Letter of Credit for $5,407,000 as security for reclamation activities.

BAFFINLAND IRON MINES CORPORATION
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ᕿᒪᐃᓂᕐᒧᑦ ᐊᒻᒪᓗ ᓴᓗᒻᒪᖅᓴᐃᓂᕐᒧᑦ ᐸᕐᓇᐅᑎᑦ
(REF. NO. NB102-00181/6-7)

ᑎᑎᕋᕐᓯᒪᔪᑦ ᓇᐃᒃᓕᒋᐊᕐᓯᒪᔪᑦ

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ᓄᓘᔩᓂ ᐅᔭᕋᒃᓂᐊᕐᑐᑦ ᓴᕕᒃᓴᒥᒃ ᐱᒋᐊᒃᑲᓐᓂᕐᓯᒪᓪᓗᓂ ᕿᓂᕐᓂᖏᓐᓂ ᓄᓇᖓᓂ ᕿᑭᖅᑕᓗᒃᒥ ᓄᓇᕗᑦᒥ. ᐅᔭᕋᒃᑕᕐᕕᐅᔪᖅ ᐱᒋᔭᐅᔪᖅ ᑲᓇᑕᒥᐅᑕᓄᑦ ᐅᔭᕋᒃᓯᐅᕐᑎᓄᑦ Baffinland Iron Mines Corporation (Baffinland). Baffinland ᐅᔭᕋᒃᑕᕐᒪᑕ ᖃᐅᔨᓴᒐᒃᓴᓂᒃ ᐱᒋᐊᓚᐅᕐᓯᒪᔪᖅ 2007 ᐃᓱᓕᓐᓂᐊᕐᓗᓂᓗ 2009. ᓇᓂᕐᓂᖏᑦ ᐊᒻᒪᓗ ᐅᔭᕋᒃᓂᒃ ᖃᐅᔨᓴᕐᓂᖏᑦ ᓂᐅᕐᑐᖃᑦᑕᕐᓗᑎᒃ ᑲᔪᓯᓂᐊᓇᓪᓗᓂ. ᑕᓐᓇ ᐃᒪᐃᓂᕐᒧᑦ ᓴᓗᒻᒪᖅᓴᕐᓂᕐᒧᓪᓗ ᐸᕐᓇᐅᑎ ᑎᑎᕋᕐᓯᒪᔪᖅ ᕿᒪᒃᑕᐅᓂᖓ ᐊᒻᒪᓗ ᓴᓗᒻᒪᖅᓴᕐᑕᐅᓂᖓ ᐅᔭᕋᒃᑕᕐᕕᐅᔪᖅ ᐱᔭᓇᕐᐸᑕ ᕿᓂᕐᓂᖏᑦ ᐊᒻᒪᓗ ᓂᐅᕐᑐᑲᑕᒃᓂᖏᑦ, ᐊᕙᑎᓕᕆᓂᕐᒧᑦ ᖃᐅᔨᓴᕐᓂᖏᑦ ᐊᒻᒪᓗ ᖃᐅᔨᓴᒐᒃᓴᓂᒃ ᐅᔭᕋᒃᑕᕐᓂᖏᑦ ᓄᓘᔩᓂ ᐅᔭᕋᒃᑕᕐᕕᐅᔪᒥ.

ᓯᕗᓪᓕᐅᓚᐅᕐᑐᑦ ᐸᕐᓇᐅᑎᑦ ᐊᕿᒃᑕᐅᓚᐅᕐᒪᑕ ᐃᑲᔪᕐᑐᑕᐅᓪᓗᑎᒃ ᐊᕙᑎᓕᕆᓂᕐᒧᑦ ᐊᒻᒪᓗ ᐊᖏᕐᑕᐅᓇᓱᒃᓂᕐᒧᑦ ᖃᐅᔨᓴᒐᒃᓴᓂᒃ ᐅᔭᕋᒃᑕᕐᑎᓪᓗᒋᑦ (Knight Piésold Ref. No. NB102-00181/6-7, Rev. 0, dated 17-November-2006) ᐊᒻᒪᓗ ᑭᖑᓂᐊᒍᑦ ᐅᐊ ᑎᑎᕋᕐᑕᐅᒋᓪᓗᑎᒃ (Knight Piésold Ref. No. NB102-00181/6-7, Rev. 1, dated 13-June-2007) ᐱᔭᐅᕙᓪᓕᐊᔪᑦ ᒪᓕᒃᓗᒋᑦ ᐊᕙᑎᓕᕆᓂᕐᒧᑦ, ᐱᖃᓯᐅᑎᓪᓗᒋᑦ ᐅᑯᐊ ᐊᑕᓂᑦᑐᑦ ᐅᖃᕐᑕᐅᔪᑦ ᐅᑯᓄᖓ Baffinland:

- ᐊᑭᑦᑐᓇᐊᕐᕋᔭᕐᓂᖓᓂᒃ ᑲᒪᒋᔭᐅᓇᓱᒃᓗᑎᒃ ᓱᕈᕐᓇᕐᑐᖅᑐᑦ ᑐᐊᐸᖓ ᒪᑐᓕᕈᓂ
- ᐊᕕᒃᑐᕐᑕᐅᓂᖏᑦ ᓇᐅᑦᑎᐅᒪᔪᒃᑯᑦ ᐊᑭᒋᒐᔭᕐᑕᖏᑦ ᐊᐅᓚᑕᐅᓇᓱᒃᓗᑎᒃ ᑲᑎᑕᐅᓯᒪᔪᑦ ᓴᕕᒃᓴᕕᓂᑦ ᐊᒻᒪᓗ ᐅᔭᕋᐃᓐᓇᐃᑦ ᐅᕙᓗᓐᓂᑦ ᐱᔭᕐᑕᐅᕙᓪᓕᐊᔪᑦ ᐊᕙᓗᖕ ᓱᕈᕐᓇᕐᑐᖅᔨᐊᖏᒃᑲᓗᐊᕐᑎᓪᓗᒍ
- ᐅᖓᕙᓇᐊᕐᑕᐅᓂᖏᑦ ᒪᑐᓯᒪᓕᕐᑎᓪᓗᒍ ᖃᐅᔨᓴᕐᑕᐅᓂᖓ ᐊᕐᒍᖓ ᐊᑕᐅᓯᐅᓚᐅᕈᓗᐊᕐᑐᖅ ᑕᓪᓕᒪᓄᑦ ᐊᕐᒍᓄᑦ ᖃᐅᔨᓴᕐᑕᐅᑦᑕᕐᓗᓂ ᐊᑭᑦᑐᓇᐊᕈᑕᐅᓂᖏᓪᓗ ᐱᖃᓯᐅᑎᓪᓗᒋᑦ

ᕿᒪᐃᓂᕐᒧᑦ ᓴᓗᒻᒪᖅᓴᐃᓂᕐᒧᓪᓗ ᐸᕐᓇᐅᑎ, ᐅᓪᓗᖅᑐᖅ ᔪᓂ 13, 2007 ᐊᖏᕐᑕᐅᓚᐅᕐᑐᑦ ᓄᓇᕗᑦᒥ ᐃᒥᓕᕆᔨᒃᑯᑦ ᑲᑎᒪᔨᖏᓐᓄᑦ ᐱᖁᔨᕗᖓᕐᓗᑎᒃ 2007-19-15. ᐸᖏᕐᓯᓪᓗᑎᒃ ᕿᒪᐃᓂᕐᒧᑦ ᐸᕐᓇᐅᑎᒥᒃ, ᐃᒥᓕᕆᔨᒃᑯᑦ ᑲᑎᒪᔨᖏᑦ ᐅᖃᓚᐅᕐᒪᑕ ᐊᕿᒋᐊᕈᑎᒃᓴᓂᒃ ᐃᓕᓯᒪᔭᓇᐊᓕᒃᓂᒃ ᐃᓚᒃᑲᓐᓂᕐᑕᐅᒍᑎᒃ.

ᑕᓐᓇ ᑎᑎᕋᕐᓯᒪᔪᖅ ᓄᑕᖑᕐᑎᑕᐅᓯᒪᔪᖅ ᑕᐃᒃᑯᐊ ᑎᑎᕋᕐᑕᐅᓚᐅᕐᑐᑦ ᔪᓂ 2007 ᐊᓯᓪᓕᕐᓂᖏᑦ ᒪᓕᒃᓗᒋᑦ ᐊᕿᒋᐊᕐᓯᒪᔪᑦ ᑎᑎᕋᐃᑦ 2 ᒪᓕᒃᓗᒋᑦ ᓄᓇᕗᑦ ᐃᒥᓕᕆᔨᒃᑯᓐᓄᑦ ᐃᒥᕐᒧᑦ ᐱᔪᓐᓇᐅᑎᒥᒃ ᐊᒻᒪᓗ ᐅᖃᐅᓯᐅᓚᐅᕐᑐᑦ ᒪᓕᒃᓗᒋᑦ ᐊᖏᕐᑕᐅᓇᓱᒃᑎᓪᓗᒋᑦ ᒪᑐᓂᕐᒧᑦ ᐸᕐᓇᐅᑎᖓᓂ. ᐊᕿᒋᐊᕐᓯᒪᔪᕐ 2 ᐱᖃᓯᐅᔨᓯᒪᔪᖅ ᐅᑯᓂᖓ:

- ᐊᖏᒃᓕᒋᐊᕐᑕᐅᓂᖓ ᑲᖏᕐᓗᒃᔪᐊᕐᒥ ᓄᓇᒋᔭᐅᓂᐊᕐᑐᖅ 8-12 ᐃᓄᖅᓂᐊᓚᐅᕈᓗᐊᕐᒪᑦ ᐊᐅᓚᑕᐅᓗᓂ ᖃᖓᑕᓱᒃᑯᑦ ᐅᐸᒃᑕᐅᖃᑦᑕᕐᓗᓂ ᐊᕿᒋᐊᕐᑕᐅᓪᓗᓂ ᐃᓄᖃᕈᓐᓇᕐᓯᓗᓂ 40-ᓂᒃ ᑐᐱᕐᓂᒃ ᐅᕙᓗᓐᓂᑦ ᑕᒃᒪᕐᕕᒃᓂᒃ.
- ᐊᕿᒃᓯᓗᑎᒃ ᓄᑕᒥᒃ ᐃᓂᒋᔭᐅᓂᐊᕐᑐᒥᒃ ᓄᓇᓯᐅᑎᑯᑕᒃ ᓴᓇᔭᐅᓕᕐᐸᑦ ᐃᓄᖅᑐᓂ 40-ᓂᒃ

ᑕᓐᓇ ᓄᑕᖑᓇᐊᕐᓯᒪᔪᖅ ᒪᑐᓂᖓᓄᑦ ᐸᕐᓇᐅᑎ ᐊᑐᕐᑕᐅᓂᐊᕐᑐᖅ ᒪᑐᒍᓂ ᖃᐅᔨᓴᒐᒃᓴᓂᒃ ᐅᔭᕋᒃᑕᕐᑎᓪᓗᒋᑦ, ᐊᓯᓪᓕᓇᐊᖅᕈᑎᒃᓗ ᐊᓯᓪᓕᕐᓯᒪᔭᐃᑦ ᐱᖁᓯᐅᑎᓚᕐᓗᑎᒃ. ᑕᓐᓇ ᐸᕐᓇᐅᑎ ᑎᑎᕋᕐᑕᐅᔪᖅ ᐊᐅᓚᓂᖏᑦ ᑕᐅᑐᒃᑕᐅᓪᓗᑎᒃ ᐱᖁᑎᖏᓪᓗ ᕿᓂᕐᓴᕐᓂᖏᓐᓄᑦ ᐊᒻᒪᓗ ᓂᐅᕐᑐᖃᑦᑕᕐᑎᓪᓗᒋᑦ ᐊᒻᒪᓗ ᖃᐅᔨᓴᒐᒃᓴᓂᒃ ᐅᔭᕋᒃᑕᕐᑎᓪᓗᒋᑦ

. ᐊᑐᕐᑕᐅᔪᒪᔪᖅ ᖃᓄᐃᓕᖓᓂᖓ

ᓄᓘᔾᓂ ᐅᔾᕿᒃᓂᐊᕐᑐᑦ ᒪᓕᒃᓯᒪᒃᒪᑦ ᕿᓂᕐᓂᕐᒧᑦ ᓂᐅᕐᑐᕐᐸᓪᓕᐊᓪᓗᑎᒃ ᓄᓘᔾᓂ ᐊᒻᒪᓗ ᓴᕕᒃᓴᐅᓂᖓᓂᒃ ᖃᓄᑎᒋᕐᒪᖔᑦ ᖃᐅᔨᓇᓱᒃᐸᓪᓕᐊᓪᓗᑎᒃ ᐊᒻᒪᓗ ᒪᓂᕆᖓᓂᒃ ᖃᓄᐃᑦᑐᒃᒪᖔᑦ ᖃᐅᔨᓇᓱᒃᓗᑎᒃ ᓄᓇᓯᐅᑎᑯᑦ ᐊᕐᑯᑎᒋᓂᐊᕐᑕᖓᓂ, ᑐᓪᒃᑕᕐᕕᐅᓂᐊᕐᑐᒥᓗ, ᐅᔾᕿᒃᑕᓕᕐᐸᑕᓗ ᐃᓂᒋᓂᐊᕐᑕᖓᓂ, ᐱᔾᐃᓕᕐᐸᑕᓗ ᓴᕕᒃᓴᓂᒃ ᖃᑎᕕᐅᓂᐊᕐᑐᒥ, ᐊᓄᓇᒧᑦ ᐃᒥᕐᒧᓪᓗ ᐃᑯᒪᕐᑯᑎᖃᕐᕕᐅᔪᓐᓇᕐᑐᓂᒃ ᖃᐅᔨᓴᕐᓗᑎᒃᓗ, ᐃᓗᑦᑐᕐᑕᐅᕙᓪᓕᐊᓂᐊᕐᑐᕐᓗ ᐅᔾᕿᒃᑕᕐᕕᐅᔪᕐ, ᑐᐊᐸᒃᑕᕐᕕᐅᓂᐊᕐᑐᕐᓗ ᐊᓯᖏᓐᓂᒃᓗ. ᐊᒻᒪᓗ ᖃᐅᔨᓴᕋᒃᓴᒥᒃ ᐅᔾᕿᒃᑕᕐᑎᓪᓗᒋᑦ ᖃᐅᔨᔭᐅᓇᓱᒃᓗᓂᓗ ᓴᕕᒃᓴᖓ ᐅᔾᕿᒃᑕᕐᑎᓪᓗᒋᑦ ᓂᐅᕐᑐᖃᑦᑕᕐᓂᖏᑦ ᐅᑯᐊᖑᓂᐊᕐᑐᑦ:

ᐅᔾᕿᒃᑕᕐᕕᐅᔪᑦ ᐊᕿᒃᓯᒪᓂᖓᓂᒃ ᐊᐅᓚᑕᐅᓂᐊᕐᑐᑦ

- ᐊᐅᓚᑕᐅᓗᑎᒃ 10 ᓂᐅᕐᑐᑎᑦ ᑕᒪᕐᒥᒃ ᓄᓘᔾᓂ ᐊᒻᒪᓗ ᐱᕐᑯᑎᒃᑯᕕᐅᓂᐊᕐᑐᓂ ᐅᔾᕿᒃᑕᓕᕐᐸᑕ ᐱᕐᑯᑎᒋᔾᐅᓂᐊᕐᑐᓄᑦ ᓄᓇᖓᓂ
- ᐊᐅᓚᑕᐅᓗᓂ ᑕᒃᒪᕐᕕᐅᔪᖅ ᑐᐱᕐ, ᐱᕐᑯᑎᖏᓪᓗ ᐊᒻᒪᓗ ᐊᐅᓚᔪᑕᐅᔪᑦ ᐃᓄᖃᕐᑐᓄᑦ 40 ᐊᑯᓐᓂᖓᓂ ᓄᓇᓯᐅᑎᑯᑦ ᐊᕐᑯᑎᒋᒐᔾᕐᑕᖓᓂ (ᑕᐃᔾᐅᓪᓗᓂ ᓄᓇᓯᐅᑎᑯᑕ ᐊᕐᑯᑕᓂᑦᑐᑦ ᑕᒃᒪᕐᕕᑦ)
- ᐊᐅᓚᑕᐅᓗᓂ ᐃᓂᒋᔾᐅᓚᐅᑲᒃᓂᐊᕐᑐᖅ ᑐᐱᑦ ᐅᕙᓗᓐᓂᑦ ᐃᒃᓗᐃᑦ, ᐊᑐᕐᑕᐅᔪᓪᓗ ᐱᕐᑯᑦ ᐃᓄᒋᐊᒃᑎᒋᔪᓄᑦ 40 ᑐᓚᒃᑕᕐᕕᒃᓴᒥ ᑲᖏᕐᓗᒃᔪᐊᕐᒥ
- ᐅᒥᐊᕐᔪᐊᑦ ᑲᖏᕐᓗᒃᔪᐊᕐᒥ ᐱᕐᑯᑕᕐᓂᐊᕐᑐᑦ ᓄᓇᓯᐅᑎᑯᑕᒃᓴᒥᒃ ᐊᒻᒪᓗ ᑲᖏᕐᓗᒃᔪᐊᕐᒥ ᑕᒃᒪᕐᕕᐅᖃᑦᑕᕐᓂᐊᕐᑐᑦ ᓂᐅᕐᑐᖃᑦᑕᕐᓂᐊᕐᑐᓪᓗ ᓄᓇᓯᐅᑎᑯᑕᒃ ᐊᕐᑯᑎᒋᓂᐊᕐᑕᖓᓂ ᐱᕐᑯᑎᓂᒃ ᐸᓂᕐᑐᓂᒃ ᐊᒻᒪᓗ ᐅᕐᓱᐊᓗᒃᓂᒃ
- ᐊᕙᑎᖓᓂᒃ ᖃᐅᔨᓴᕐᓂᕐ, ᐱᖃᓯᐅᑎᓪᓗᒍ ᖃᖓᑕᖃᑦᑕᕐᓗᑎᒃ ᐊᒻᒪᓗ ᒪᓂᕿᒃᑯᕐᑐᑦ ᐅᒪᔪᐃᑦ ᐃᒪᓂᑦᑐᓪᓗ ᐅᒪᔪᐃᑦ ᖃᐅᔨᓴᕐᑕᐅᓗᑎᒃ, ᐃᖃᓗᐃᑦ ᐃᒪᕐᒥᐅᑕᐃᓪᓗ, ᐃᒥᐅᓪᓗ ᐱᐅᓂᖓᓂᒃ ᖃᐅᔨᓴᖃᑦᑕᕐᓗᑎᒃ, ᐱᕈᕐᑐᐃᓪᓗ ᖃᐅᔨᓴᕐᑕᐅᓗᑎᒃ ᐊᒻᒪᓗ ᐱᑐᖃᕕᓂᑦ ᖃᐅᔨᓴᕐᑕᐅᕙᓪᓕᐊᓗᑎᒃ

ᒥᑦᑎᒪᑕᓕᐅᑦ ᑭᖑᐊᓂ ᓇᔪᕐᑕᐅᓂᐊᕐᑐᖅ ᐊᒻᒪᓗ ᕿᖑᐊᓂᑦ ᐊᕐᑯᓯᐅᕐᑕᐅᓯᒪᔪᖅ

- ᐊᐅᓚᑕᐅᓗᓂ ᖃᖓᑐᐃᓐᓇᒃᑯᑦ ᐊᑐᕐᑕᐅᓂᐊᕐᑐᖅ ᐃᓄᖃᕈᓐᓇᕐᑐᖅ 60-ᓂᒃ ᑕᒃᒪᕐᕕᐅᖃᑦᑕᕐᓗᓂ, ᐱᕐᑯᑎᒋᓂᐊᕐᑕᖏᓪᓗ ᐊᐅᓚᔪᑕᐅᓂᐊᕐᑐᑦ ᐱᖃᓯᐅᑎᓪᓗᒋᑦ ᑯᕕᕐᑕᕐᑕᐅᔪᒃ ᓴᓗᒻᒪᖅᓴᐃᕕᑦ ᕿᖑᐊᓂ ᐊᕐᑯᑎᖓᓂ ᐊᐅᓚᑕᐅᔪᑦ ᐃᑲᔪᕐᑕᐅᓇᓱᒃᓗᑎᒃ, ᐊᐅᔭᖑᕿᖓᑦ ᐅᒥᐊᕐᔪᐊᕐᑕᐅᖃᑦᑕᕐᓗᓂ, ᐊᒻᒪᓗ ᐅᓯᓕᕐᓱᕐᑕᐅᓇᓱᒃᑎᓪᓗᒍ ᓴᕕᒃᓴᕐ ᐅᒥᐊᕐᔪᐊᒧᑦ
- ᐅᕐᓱᖃᐅᑎᑦ ᕿᑐᒪᔪᑦ ᐃᒻᒥᕈᓐᓇᕐᑐᑦ 8.25- ᒥᓕᐊᓐ ᓕᑕ (ML) ᐊᒻᒪᓗ ᐅᕐᓴᒃᓴᐃᕕᒃ ᐊᒻᒪᓗ ᐃᒥᕐᓱᕐᑕᐅᑎᓪᓗᒍ ᓱᓪᓗᓕᖓ
- ᓴᓇᔾᐅᒃᑲᓐᓂᕐᓗᓂ ᒥᑦᑕᕐᕕᖓ ᕿᖑᐊᓂ, ᐱᖃᓯᐅᑎᓗᒍ ᐃᓕᔾᐅᓂᖓ ᑐᐊᐸᐅᑦ, ᖃᓕᕐᓱᕐᑕᐅᓂᖓ ᖃᖓ, ᐊᑐᕐᑕᐅᓗᑎᒃ ᑎᑎᕋᕐᓯᒪᔪᑦ EK35 ᐊᒻᒪᓗ ᐃᓕᔾᐅᓗᓂ ᐊᑐᓚᐅᑲᒃᓂᐊᕐᑐᑦ ᖃᐅᒪᕐᑯᑎᑦ ᒥᑦᑕᕐᕕᒃᒧᑦ
- ᐊᕿᒋᐊᕐᑕᐅᓗᓂ ᐊᕐᑯᑎᐅᕙᒋᕐᑐᖅ ᕿᖑᐊᓂᑦ ᐅᓯᒃᑕᕐᕕᐅᓂᐊᕐᑐᖅ ᐱᔪᓐᓇᕐᑎᓪᓗᒋᑦ ᖃᖓᑐᐃᓐᓇᒃᑯᑦ ᐊᕿᒍ ᐃᓗᐊᓂ ᐊᑐᕐᑕᐅᔪᓐᓇᕐᓗᓂ, ᐱᖃᓯᐅᑎᓗᒍ ᐱᔾᐃᓂᖏᑦ ᓯᐅᕿᒥᒃ ᐊᒻᒪᓗ ᑐᐊᐸᒃᒥᒃ ᐊᕐᑯᓯᐅᕈᑕᐅᓂᐊᕐᑎᓪᓗᒍ ᑐᖓᕕᐅᓗᓂ ᐊᕐᑎᕕᓂᕐᒥ, ᐊᒻᒪᓗ ᐃᑲᔪᑕᐅᓗᑎᒃ ᐊᖏᓇᕐᑐᒥᒃ ᐱᔾᐃᕕᐅᓗᑎᒃ ᑕᐃᔾᐅᓯᒪᔪᒥᑦ ᐱᔾᐃᕕᐅᔪᒪᓯᒪᔪᒥ/ᑐᐊᐸᒃᑕᕐᕕᐅᔪᒥ, ᐃᓕᔾᐅᖃᑦᑕᕐᓗᓂ ᐱᔾᕐᑕᐅᓂᑯ ᐃᓗᑐᓂᖏᓐᓄᑦ ᐊᕐᑎᒥ ᐊᕿᒃᓯᖃᑦᑕᕐᓗᑎᒃᓗ ᐃᑲᐳᑎᓂᒃ (ᑯᒃᕕᑦ ᓱᓪᓗᓕᑦ ᓴᕕᕿᔾᐃᑦ) ᑯᒃᓂᐅᔪᓂ ᐊᒻᒪᓗ ᐃᒪᐃᔾᐃᕕᐅᔪᓂ.
- ᑐᐊᕕᕐᓇᕐᑐᒥ ᐃᓂᒋᔾᐅᓚᐅᑲᖑᓐᓇᕐᑐᑦ (ᐃᒃᓗᕿᓚᑦ ᑲᓕᑲᑦᑕᑦ) ᐊᕐᕐᑯᑎᐅᑉ ᐃᓚᖓᓂ ᐃᓕᔾᐅᓯᒪᓗᑎᒃ
- ᑲᑎᑕᐅᓗᑎᒃ ᓴᕕᕿᔾᐅᓂᖏᑦ ᐊᒻᒪᓗ ᓴᓂᕈᔪᓂᖏᑦ ᐊᕐᑯᑎᐅᑦ ᐊᕙᑕᓂᑦᑐᑦ ᕿᖑᐊᓄᑦ ᐊᕐᕐᑯᑎᐅᔪᒥ ᐅᓯᒃᑕᕐᕕᐅᔪᒥ.
- ᐅᖃᓚᐅᑎᓄᑦ ᑐᓴᐅᒪᔪᑎᓄᓪᓗ ᓇᐊᔪᐃᑦ ᐊᒻᒪᓗ ᑲᔪᓯᑎᑦᑎᔾᔪᑎᑦ ᓄᓘᔾᓂ ᐊᒻᒪᓗ ᕿᖑᐊᓂ ᐊᒻᒪᓗ ᕿᖑᐊᓂᖓᕐᑐᖅ ᐊᕐᕐᑯᑎ ᐃᓯᒃᑕᕐᕕᐳᒧᖅ
- ᐸᓂᕐᑐᑦ ᐃᓚᒃᓴᓂᒃ ᐊᒻᒪᓗ ᐅᕐᓱᐊᓗᒃᑕᐅᑎᑦ ᐅᒥᐊᕐᔪᐊᑦ ᕿᖑᐊᓂ, ᐊᐅᓚᔪᑕᐅᓂᐊᕐᑐᓂᒃ ᐅᔾᕿᒃᑕᕐᑎᓪᓗᒋᑦ ᐱᕐᑯᑎᖏᓐᓂᒃ, ᐃᓚᒃᓴᓂᒃ ᐊᑐᕐᑕᐅᓂᐊᕐᑐᓂᒃᓗ ᐊᒻᒪᓗ ᐅᕐᓱᐊᓗᒃᓂᒃ ᕿᖑᐊᓄᑦ, ᑕᕙᖓᓪᓗ ᐅᓯᔾᐅᖃᑦᑕᕐᓗᑎᒃ ᐅᔾᕿᒃᑕᕐᕕᐅᔪᒧᑦ ᓄᓘᔾᓄᑦ ᓄᓇᖓᓄᑦ
- ᐱᔾᕐᑕᐅᓗᑎᒃ ᐊᒻᒪᓗ ᐃᒋᑕᐅᓗᑎᒃ ᑎᓴᒪᐃᑦ ᐅᒥᐊᕐᔪᐊᒃᑯᑦ ᐅᓯᒃᑕᐅᑎᑦ ᓴᕕᕿᔾᐃᑦ ᐊᑐᓕᑦ ᓱᓪᓗᓕᐊᓈᓯᒪᔪᑦ ᐊᒻᒪᓗ 6 ᑯᒃᕕᑦ ᐃᑲᐳᑎᑦ ᑯᒃᑐᓄᑦ ᐃᒥᕐᒧᑦ ᐊᕐᕐᑯᑎᐅᑦ ᐃᓚᖓᓂ.

ᓄᓘᔮᓂ ᓄᓇᖓᓂ ᑕᒃᒪᕐᕕᖓ

- ᐊᑐᕐᑕᐅᓂᐊᕐᑐᑦ 100-ᓄᑦ ᐃᓄᒃᓄᑦ ᐅᑭᐅᒃᑯᑦ ᐊᑐᕐᑕᐅᔪᓐᓇᕐᑐᑦ ᕿᓂᕐᓂᕐᒥᓂ ᐊᑐᕐᑕᐅᓚᐅᑲᒃᑐᑦ ᑐᐱᑦ ᐊᒻᒪᓗ 100-ᓂᒃ ᐃᓄᖃᕈᓐᓇᕐᑐᖅ ᖃᖓᑐᐃᓐᓇᒃᑯᑦ ᑐᐱᑦ, ᐊᒻᒪᓗ ᐊᐅᓚᓂᖓᓄᑦ ᐃᓂᒋᔭᐅᔪᑦ (ᓱᕐᓗ ᐅᐊᓴᕐᕕᑦ ᑯᕕᕐᑕᕐᕕᐅᔪᒧᑦ ᐃᒪᖃᐅᑎ, ᐃᑯᒻᒪᕐᑯᑎᖃᕐᕕᒃ,ᐊᐅᓚᐅᓯᕆᕕᒃ, ᐊᒥᖃᕐᑐᑦ ᖃᐅᔨᓴᕐᑎᑦ ᑲᓐᑐᓚᒃᑕᐅᓯᒪᔪᑦ, ᐃᑭᑦᑎᕕᒃ ᐊᓯᖏᓪᓗ) ᓄᓘᔮ ᓄᓇᖓᓂ
- ᑯᕕᕐᑕᕐᕕᐅᔪᖅ ᑕᓯᓕᐊᕆᓯᒪᔪᖅ, ᑯᕕᕐᑕᕐᕕᐅᔪᖅ ᓴᓗᒻᒪᕐᓴᐃᕕᒃ ᐊᑐᕐᑕᐅᔪᕐ ᑕᒃᒪᕐᕕᐅᔪᒥ.
- ᐊᒃᑕᕐᕕᒃ ᐃᒋᑦᑎᕕᒃ ᓱᕈᕐᓇᖏᑦᑐᓂᒃ
- ᐊᕿᒋᐊᕐᑕᐅᓗᓂ ᒥᑦᑕᕐᕕᖓ ᓄᓘᔮᓂ, ᐱᖃᓯᐅᑎᓪᓗᒋᑦ ᑐᐊᐸᐃᑦ ᐃᓕᔭᐅᓂᖏᑦ, ᖃᖓ ᐊᕿᒋᐊᕐᑕᐅᓂᖓ ᐊᒻᒪᓗ ᖃᐅᒻᒪᕐᑯᑎᓂᒃ ᐊᑐᕐᑕᐅᓚᐅᑲᒃᓂᐊᕐᑐᓂᒃ
- ᐅᕐᓱᐊᓗᖃᐅᑎᑦ ᕿᑐᒪᔪᓪᓗ ᐅᕐᓱᖃᐅᑎᑦ ᓄᓘᔮᓂ ᐊᒻᒪᓗ ᐅᔭᕋᒃᑕᕐᕕᐅᔪᑦ ᓯᖃᓕᑦᑎᑦᑎᔪᑎᐅᑦ ᖃᓂᒋᔭᓂ
- 60-ᒥᑕᒥᒃ ᐳᕐᑐᓂᖃᕐᑐᖅ ᐊᓄᕆᒧᑦ ᖃᐅᔨᓴᐅᑎ ᐅᖓᓯᒃᓂᖃᕐᑐᖅ 19.6 ᐅᐊᒃᓇᖓᖓᓂᑦ ᓄᓘᔮᓂᑦ ᖃᐅᔨᓴᕈᑕᐅᔪᖅ ᐊᓄᕆᖓ ᖃᓄᑎᒋ ᓱᒃᑲᑎᒋᒃᒪᖓᑦ ᓇᑭᖓᖃᑦᑕᕐᒪᖓᓪᓗ
- ᐱᔭᕐᑕᐅᓗᑎᒃ ᐊᑦᑕᕐᓇᕐᑐᑦ ᐃᒋᑕᒃᓴᐃᑦ ᐊᐅᓚᕐᑎᑕᐅᓂᐊᕐᒪᑕ ᓴᓗᒻᒪᕐᓴᐃᕕᒃᒧᑦ

ᐅᔭᕋᒃᑕᕐᑐᑦ ᖃᐅᔨᓴᒐᒃᓴᒥᒃ ᓇᓂᔭᐅᓯᒪᔪᒥ 1

- ᐅᔭᕋᒃᑕᕐᑐᑦ ᐊᕐᑯᑎᖓ ᑭᒃᓕᖓᓂᑦ ᓇᓂᔭᐅᓯᒪᔪᑦ 1 ᓯᖃᓕᑦᑎᕕᒃᒧᑦ
- ᓴᓂᒃᑯᕕᒃ ᓯᖃᓕᑦᑎᔪᑎᐅᑦ ᖃᓂᒋᔭᓂᑦᑐᖅ
- ᖃᕈᑎᑦ ᐳᖓ ᐊᒻᒪᓗ ᖃᕈᑎᑦ ᐃᓚᒃᓴᖏᓐᓄᑦ ᖃᓂᒋᔭᓂ ᐅᔭᕋᑦᑎᐅᔪᑦ ᐊᒻᒪᓗ ᐊᕐᑯᑎ ᐊᑐᕐᑕᐅᖃᑦᑕᕐᑐᖅ
- ᓂᐅᕐᑐᕐᑐᑦ, ᖃᕐᑎᕐᑎᔪᑦ ᐊᒻᒪᓗ ᑲᑎᕐᑎᔪᑦ ᐊᖑᓂᖃᕐᑐᒥᒃ 154,000 ᑕᓐ ᐸᓂᕐᑐᑦ ᖃᖓᓂᑦᑐᕕᓂᑦ ᐅᔭᕋᐃᑦ ᐊᒻᒪᓗ 6,600 ᑕᓐ ᐅᔭᕋᑐᐃᓐᓇᐃᑦ ᐊᑐᕐᑕᐅᖏᑦᑐᑦ ᖃᖓᓂᑦᑐᑦ ᐅᔭᕋᒃᑕᕐᑕᐅᔪᑦ
- ᓂᐅᕐᑐᖃᑦᑕᕐᓂᖓ, ᖃᕐᑎᕐᑎᖃᑦᑕᕐᓂᖓᓗ ᑲᑎᑦᑕᐅᕙᓪᓚᐊᓂᖏᓪᓗ 250,000 ᑕᓐ ᓴᕕᒃᓴᐃᑦ ᖃᐅᔨᓴᒐᒃᓴᐃᑦ ᐅᔭᕋᒃᑕᕐᕕᐅᔪᒥᑦ ᓇᓂᔭᐅᓯᒪᔪᒥ 1 ᓄᓘᔮᓂ
- ᓄᓇᓯᐅᑎᒃᑯᑦ ᐅᓯᒃᑕᕐᑐᑎᒃ ᖃᐅᔨᓴᒐᒃᓴᓂᒃ ᐅᔭᕋᒃᑕᕐᕕᐅᔪᒥᑦ ᓯᖃᓕᑦᑎᕕᒃᒧᑦ, ᐊᒻᒪᓗ ᓄᓇᓯᐅᑎᒃᑯᑦ ᐅᓯᒃᑕᕐᑕᐅᓗᑎᒃ ᓴᕕᒃᓴᐅᔪᑦ ᕿᒍᐊᓄᑦ
- ᐃᓕᓯᒪᓚᐅᑲᒃᑐᓂ ᑲᑎᑕᐅᓯᒪᔪᑦ ᓴᕕᒃᓴᐃᑦ ᕿᒍᐊᓂ
- ᐅᓯᑲᕐᑕᐅᑎᑦ ᑲᓕᑲᑕᑦ ᐅᓯᓕᕐᓱᑕᐅᓗᑎᒃ ᐅᒥᐊᕐᔪᐊᓄᑦ ᕿᒍᐊᓂ

ᑎᑎᕋᐅᔭᕐᓯᒪᔪᑦ 3.1 to 3.6 ᑕᑯᒃᓴᐅᔪᑦ ᐃᓂᒋᓂᐊᕐᑕᖓ ᓇᒥᓂᐊᕐᒪᖓᑕ ᖃᐅᔨᓴᒐᒃᓴᓂᒃ ᐅᔭᕋᒃᑕᕐᑎᓪᓗᒋᑦ ᐊᒻᒪᓗ ᕿᓂᕐᑎᓪᓗᒋᑦ ᐊᒻᒪᓗ ᐅᔭᕋᒃᓂᒃ ᖃᐅᔨᓴᕐᐸᓪᓕᐊᑎᓪᓗᒋᑦ

ᕿᒪᐃᓂᕐᒧᑦ ᐃᓱᒪᒋᔭᐅᔪᑦ

ᒪᕈᒃ ᕿᒪᐃᓕᕈᑎᒃ ᐃᓱᒪᒋᔭᐅᔪᒃ ᓴᓗᒻᒪᕐᓴᐃᓂᕐᒧᑦ ᐸᕐᓇᐅᑎᖏᓐᓂ: ᓄᖃᖓᑎᑕᐅᓚᐅᑲᒃᑐᓂ ᓴᓗᒻᒪᕐᓴᕐᑕᐅᓕᕐᓗᓂ. ᓄᖃᖓᑎᑕᐅᓚᑲᑐᐃᓐᓇᕐᓗᓂ ᖃᓄᐃᓕᐅᕐᑐᑦ ᐅᔭᕋᕐᑐᑦ ᖃᐅᔨᓴᒐᒃᓴᒥᒃ ᐊᐅᓚᓂᖓᓂᒃ ᐊᒻᒪᓗ ᕿᓂᕐᓴᕐᓂᖏᑦ ᐊᒻᒪᓗ ᖃᐅᔨᓇᓱᒃᓂᖏᑦ ᐅᔭᕋᐃᑦ ᖃᓄᐃᑦᑐᒃᒪᖓᑕ, ᐸᕐᓇᒃᑕᐅᓯᒪᓗᓂ ᐅᕙᓗᓐᓂᑦ ᖃᐅᔨᓴᓇᖏᑦᑐᓂᒃ ᐱᑕᖃᐅᕈᓂ ᕿᓚᒻᒥᐅᔪᓐᓇᕐᓗᓂ ᐱᓇᓱᐊᕈᓯᕐᓂᒃ ᐅᕙᓗᓐᓂᒃ ᐊᑯᓂᐅᔪᓐᓇᕐᓗᓂ ᑕᕿᓄᑦ. ᐱᔾᔪᑎᖃᐅᕈᓐᓇᕐᑐᑦ ᑭᓇᐅᔭᑎᒍᑦ ᐅᕙᓗᓐᓂᑦ ᐊᐅᓚᓂᖓ ᐊᔪᕐᓇᕐᓯᒃᐸᑦ ᓄᖃᖓᓚᐅᑲᒍᑕᐅᑎᓪᓗᒋᑦ, ᓱᕐᓗ ᓯᓚᑦᑎᐊᕙᐅᑲᑕᖏᑦᑐᒧᑦ ᐊᓯᖏᓪᓗ ᓯᓚᒧᑦ, ᐅᕐᓱᖅᖏᓗᐊᓕᕈᑎᒃ, ᐅᕙᓗᓐᓂᒃ ᐊᐅᓚᐅᑎᖏᑦ ᐱᐅᔪᓐᓂᕐᐸᑕ ᐊᑐᕐᑕᐅᓗᐊᕐᓂᖏᑦ. ᑕᒪᕐᒥᒃ ᐱᖁᑎᒋᔭᐅᔪᑦ ᒪᑐᓯᒪᓚᐅᑲᒃᑲᔭᕐᑐᑦ ᑕᐃᒪᓐᓇᑦᑕᐅᕐ ᒪᑐᓯᒪᓚᐅᑲᖅᑕᕐᒪᑕ ᑭᒍᓂᖓᑦᑎᓐᓂ.

ᑭᖑᓪᓕᕐᐸᕐᓯᐅᑎ ᓴᓗᒻᒪᕐᓴᐃᓂᖓ ᕿᒪᐃᓂᖓ ᐊᑐᕐᑕᐅᓚᔭᕐᑐᖅ ᐱᔭᓇᕐᑕᐅᒍᓂ ᖃᐅᔨᓴᒐᒃᓴᒥᒃ ᐅᔭᕋᒃᑕᕐᑎᓪᓗᒋᑦ, ᐱᔭᐅᑲᐅᑎᒋᔭᓇᐊᖅᖏᒃᑯᓂ ᐅᕙᓗᓐᓂᑦ ᐸᕐᓇᒃᑐᖅᓯᒪᒍᓂ ᑲᔪᒋᐊᕈᑎᒃᓴᒥᒃ ᐅᔭᕋᒃᑕᕐᓂᕐᒧᑦ ᐱᒋᐊᕈᒪᓗᑎᒃ. ᑭᖑᓪᓕᕐᐸᕐᓯᐅᑎ ᐊᑐᕐᑕᐅᓕᕐᓴᕐᒥᐊᖅ ᖃᐅᔨᓴᒐᒃᓴᒥᒃ ᐅᔭᕋᒃᑕᕐᑐᑦ ᓄᖃᑲᑲᓪᓚᒃᑯᑎᒃ ᐱᔭᓇᓚᐅᕐᒋᑎᓪᓗᒍ ᖃᐅᔨᒪᓇᕐᒋᑦᑐᒃᑯᑦ ᖃᓄᐃᑦᑐᖃᕈᓂ ᐊᒻᒪᓗ ᐊᕿᒃᓯᓗᑎᒃ ᓄᖃᕐᑎᑕᐅᓗᑎᒃ ᕿᓂᕐᓂᐅᔪᑦ ᖃᐅᔨᓴᕐᓂᐅᔪᓪᓗ ᓄᓘᔮᓂ.

ᑭᖑᓪᓕᕐᐸᕐᓯᐅᑦ ᕿᒪᐃᓂᕐᒧᑦ ᐱᖃᓯᐅᔨᓂᐊᕐᑐᖅ ᐱᔭᕐᑕᐅᓗᑎᒃ ᐱᕐᑯᑎᓕᒪᖏᑦ ᐊᒻᒪᓗ ᐊᐅᓚᔪᑎᖏᑦ ᐊᐅᓪᓚᕐᑎᑕᐅᓗᑎᕐ ᐅᕙᓗᓐᓂᑦ ᓄᓇᖓᓂ ᓴᐅᔭᐅᓗᑎᒃ (ᓱᑭᕐᓇᕐᑐᖃᖏᑦᑐᓄᑦ, ᐃᑭᔭᖏᑦᑐᓄᑦ ᐱᕐᑯᑎᓄᑦ), ᒪᓂᕐᖃᒃᓴᕐᑕᐅᓗᓂᓗ ᓴᐅᔭᐅᒍᓂ. ᐱᕐᑯᑎᑦ ᐊᐅᓚᔪᑎᓪᓗ ᐊᐅᓚᕐᑎᑕᐅᔭᕆᐊᓕᑦ ᓄᓇᑯᕐᖃᑦᑕᕐᓂᐊᕐᑐᑦ ᓄᓘᔮᓂᑦ ᕿᖑᐊᓄᑦ. ᐊᐅᓚᔪᑎᑦ ᐱᕐᑯᑎᓪᓗ ᓄᓇᓯᐅᑎᑯᑕᑦ ᐊᕐᑯᑎᒋᓂᐊᕐᑕᖓᓂᑦᑐᑦ ᐊᐅᓪᓚᕐᑎᑕᐅᓂᐊᕐᑐᑦ ᑲᖏᕐᓗᒃᔪᐊᑦ ᕿᖑᐊᓄᑦ ᐅᕙᓗᓐᓂᑦ ᓄᓘᔮᓄᑦ. ᑎᓕᔭᐅᓯᒪᓂᐊᕐᑐᑦ ᐅᒥᐊᕐᔪᐊᖅᑐᑦ ᑲᓐᑐᓚᖅᑐᑎᒃ ᐅᓯᓕᐅᔨᓗᑎᒃ ᕿᖑᐊᓂᑦ ᐊᒻᒪᓗ ᑲᖏᕐᓗᒃᔪᐊᕐᒥᑦ ᐊᐅᓚᕐᑎᑕᐅᓗᑎᒃᓗ ᓂᐅᕈᑕᐅᓗᑎᒃ, ᑐᓂᔭᐅᓗᑎᒃ ᐅᕙᓗᓐᓂᑦ ᐃᒋᑕᐅᓗᑎᒃ.

ᖃᖓᒃᑯᖓᒐᔭᕐᓂᖓ ᑭᖑᓪᓕᕐᐸᕐᓯᐅᑦ ᕿᒪᐃᓂᕐᒧᑦ ᐊᒻᒪᓗ ᓴᓗᒻᒪᕐᓴᐃᓂᕐᒧᑦ ᐊᐅᓚᑕᐅᒐᔭᕐᑐᖅ ᐅᐸᒐᒃᓴᐅᓂᖓᓄᑦ ᐊᒻᒪᓗ ᓯᓚᒧᑦ. ᐃᓱᒪᒋᔭᐅᓯᒪᔪᖅ ᑎᓴᒪᓄᑦ ᑕᕿᓄᑦ ᐱᔭᕐᑕᐅᓇᓱᒃᑲᔭᕐᑐᑦ ᐱᕐᑯᑎᖏᑦ ᐊᐅᓚᔪᑎᕕᓂᓪᓗ ᓄᓘᔮᓂᑦ ᐃᓄᖃᕐᓗᓂ 20-ᓂᒃ.

ᖃᐅᔨᒋᐊᕐᓂᖅ ᐊᒻᒪᓗ ᖃᐅᔨᓴᕐᓂᖅ

ᑕᒪᕐᒥᒃ ᐃᖃᓇᐃᔭᕐᕕᐅᔪᑦ ᐅᔭᕋᒃᑕᕐᓂᖏᓐᓂ ᒪᓕᒃᓯᒪᓂᐊᕐᑐᖅ ᒪᑐᓂᖓᓄᑦ ᖃᐅᔨᓴᕐᑕᐅᓗᓂ ᐅᔭᕋᒃᓯᐅᕐᑐᓂᑦ ᐅᕙᓗᓐᓂᑦ ᑲᓐᑐᓚᒃᑯᕐᑐᒥᒃ, ᐊᒻᒪᓗ ᓇᐃᒃᓕᒋᐊᕐᓯᒪᔪᐊᒥᒃ ᐅᓂᑲᓕᐅᕐᓂᐊᕐᑐᑦ ᕿᒪᐃᓂᕐᒧᑦ ᓴᓗᒻᒪᕐᓴᐃᓂᕐᒧᓪᓗ ᐊᔾᔨᓕᐅᕐᑕᐅᑲᑦᑕᓗᓂᓗ, ᑎᑎᕋᕐᑕᐅᕙᓪᓕᐊᓗᓂ ᓗᒻᒪᕐᓴᕐᓂᖏᑦ ᐱᔭᕆᕐᐸᓪᓕᐊᔪᑦ ᖃᓄᐃᓕᖓᓕᕐᒪᖓᓪᓗ ᓄᓇᖓ ᒪᑐᓯᒪᓕᕐᑎᓪᓗᒍ.

ᐃᓗᓕᖏᑦ ᐊᕿᒃᓯᒪᓂᖏᓪᓗ ᐊᔾᔨᒋᖏᑦᑐᑦ ᓄᓇᒥᑦᑐᑦ ᒪᑐᓯᒪᓕᕐᑎᓪᓗᒍ ᓄᓘᔮᓂ ᐊᑐᕐᑕᐅᔪᑦ, ᖃᐅᔨᓴᕐᑕᐅᖃᑦᑕᕐᓂᐊᕐᑐᑦ ᐊᒻᒪᓗ ᖃᐅᔨᒋᐊᕐᑕᐅᖃᑦᑕᕐᓗᑎᒃ ᓇᔪᕐᑕᐅᔪᓕᒪᖑᓚᐅᕐᑐᑦ ᐊᕐᕌᓄᑦ ᑕᓪᓕᒪᓄᑦ ᑎᑭᓪᓗᒍ ᒪᑐᓯᒪᓕᕐᑎᓪᓗᒍ ᑭᖑᓪᓕᕐᐸᖓᓂ.

ᐊᑭᒋᓂᐊᕐᓱᒋᔭᐅᔪᑦ

ᐃᓱᒪᒋᔭᐅᔪᖅ ᐊᑭᖃᕐᓂᐊᕐᒪᖓᑦ ᐱᔭᓇᕐᓱᒃᓗᒍ ᑭᖑᓪᓕᕐᐸᖓᓂ ᒪᑐᔭᐅᓂᖓᓄᑦ ᑎᑎᕋᕐᓯᒪᔪᑦ ᕿᒪᐃᓂᕐᒧᑦ ᓴᓗᒻᒪᕐᓴᐃᓂᕐᒧᓪᓗ ᐸᕐᓇᐅᑎᓂ $6,198,500.

ᑭᓇᐅᔭᑎᒍᑦ ᐱᓂᐊᕐᓂᕐᓴᐃᓂᖅ

ᐅᓄᕐᓂᕐᓴᐃᑦ ᐱᕐᑯᑎᖏᑦ ᐊᒻᒪᓗ ᐊᑭᒋᓂᐊᕐᓱᒋᔭᐅᔪᑦ ᑭᖑᓪᓕᕐᐸᖓᓂ ᓴᓗᒻᒪᕐᓴᐃᑎᓪᓗᒋᑦ ᐃᓄᐃᑦ ᓄᓇᕐᑯᑎᖓᓂᑦᑐᖅ. ᒪᓕᒃᑐᒍ ᐊᕿᒃᓯᒪᔪᖅ ᓄᓇᒥᒃ ᐊᑐᕐᓂᕐᒧᑦ ᕿᑭᕐᑕᓂ ᐃᓄᐃᑦ ᑲᑐᕐᖃᑎᒋᖏᑦᓄᑦ, Baffinland ᑐᓂᓯᓯᒪᔪᑦ ᑎᑎᕋᕐᒥᒃ ᐱᓂᐊᕐᓂᕐᓴᐃᓯᒪᔪᐊᒥᒃ $5,407,000 ᓇᐅᑦᑎᐅᒪᑎᑕᐅᓗᓂ ᓴᓗᒻᒪᕐᓴᐃᓂᕐᒧᑦ.

BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT

BULK SAMPLING PROGRAM
ABANDONMENT AND RECLAMATION PLAN
(REF. NO. NB102-00181/6-7)

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Knight Piésold CONSULTING

BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT

BULK SAMPLING PROGRAM
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(REF. NO. NB102-00181/6-7)

SECTION 1.0 - INTRODUCTION

The Mary River Project is an iron ore advanced exploration project located in the northern Baffin Island region of Nunavut (Figure 1.1). The project is wholly owned by Canadian mining company Baffinland Iron Mines Corporation (Baffinland). Baffinland initiated a bulk sampling program in the second half of 2007. This abandonment and reclamation plan (A&R Plan) was prepared to address abandonment and reclamation following completion of the proposed bulk sampling program, exploration and geotechnical drilling program and environmental studies at the Mary River Project area.

Earlier versions of this A&R Plan were prepared to support environmental screening and permitting activities for the bulk sampling program (Knight Piésold Ref. No. NB102-00181/6-7, Rev. 0, dated 17-November-2006) and to reflect the outcome of the environmental screening ((Knight Piésold Ref. No. NB102-00181/6-7, Rev. 1, dated 13-June-2007), including the following commitments made by Baffinland:

- Allocation of increased costs to manage contaminated soils at closure
- Allocation of contingency costs to manage the unlikely possibility of stockpiled weathered ore and waste rock or pit walls to generate acid and/or leach metals
- Extension of post-closure monitoring from one year to up to five years, with a corresponding increase in corresponding closure costs

The A&R Plan, dated June 13, 2007 was accepted and approved by the Nunavut Water Board (NWB) under Motion 2007-19-15. In approving the A&R Plan, the NWB noted several comments to be address in subsequent revisions or addendums.

This document is an update to the June 2007 version in consideration of changes to the scope of the work as provided by Amendment No. 2 to the Nunavut Water Board (NWB) water licence as well as the comments made by the NWB in the above noted approval of the A&R Plan. Amendment No. 2 included the following main project changes:

- Expansion of the Steensby Camp from an 8-12 person seasonally operated “fly-in camp” to an approximately 40 person seasonally operated tent or trailer camp
- Establishment of the new seasonally operated “Rail Camp” for approximately 40 people

This updated A&R Plan will become the closure document that Baffinland will follow in the course of the bulk sampling program, subject to any future revisions required to reflect material changes. The

Plan is written with a view to address all project-related activity areas and infrastructure related to the existing exploration and geotechnical drilling as well as the bulk sampling program.

1.1 EXISTING PERMITS

Exploration is focused on Federal Mineral Leases 2483, 2484 and 2485 that were established in the 1960s before the Nunavut Land Claims Agreement and are wholly held by Baffinland.

The exploration and geotechnical activities, the bulk sample program and any future abandonment and reclamation activities that may be undertaken, are subject to the terms and conditions of the following core authorizations issued to Baffinland:

Type of Authorization	Approval No.	Authorizing Agency	Governing Activity	Period Valid
Water License (Type B)	2BB-MRY0710 (including Amendments 1 and 2)	NWB	Water use and waste disposal	Feb 20, 2007 to Dec 31, 2010
Land Use Permit	N2006C0036	INAC	Exploration and Geotechnical Activities on Crown Land	April 4, 2007 to December 31, 2010
Land Use Permit	N2007F0004	INAC	Road Construction on Crown Land	July 6, 2007 to July 6, 2009
Commercial Lease for Inuit Owned Lands	Q07L3C001	QIA	Mining and exploration activities on Inuit Owned Land	August 1, 2007 to October 31, 2009
Quarry Permit	2007QP0098	INAC	Quarrying on Crown Land	July 6, 2007 to July 6, 2009
DFO Letter of Advice	File NU-06-0084, dated July 25, 2007	DFO	Crossing installations at Category Small Watercourses	Not applicable
HADD Authorization *Fisheries Act* S.35(2)	File NU-06-0084, dated August 3, 2007	DFO	Crossing installations within fish habitat at 25 watercourses	Not applicable
Navigable Waters Protection Act Approval	8200-07-10265 8200-07-10266 8200-07-10267 8200-07-10268 8200-07-10269 8200-07-10270 8200-07-10271 8200-07-10272 8200-07-10273 8200-07-10274	Transport Canada	Construction of crossings in 10 navigable waters	September 6, 2007 to September 6, 2013

1.2 APPLICABLE GUIDELINES

The following guidelines were referenced during the development of this A&R Plan:

- *Guidelines for Abandonment and Restoration Planning for Mines in the Northwest Territories*, by the Northwest Territories Water Board, September 1990.

- *Mine Reclamation in Northwest Territories and Yukon*, Prepared by Steffen, Robertson and Kirsten (B.C.) Inc. for the Northern Affairs Program of the Department of Indian Affairs and Northern Development, April 1992.

The Department of Indian and Northern Affairs Canada (INAC) published a Mine Site Reclamation Policy for Nunavut in 2002, although the policy does not apply to exploration or advanced exploration stages of the development of a mineral property and only applies to new and developed mines and their mining-related activities (INAC, 2002). Draft guidelines for mine reclamation in the Northwest Territories and Nunavut were also issued by INAC in 2002 and a revision of these guidelines is still pending. Therefore, the above two approved guidelines have been used as guidance.

SECTION 2.0 - ABANDONMENT & RECLAMATION PLAN OBJECTIVES

In accordance with the objectives outlined in the cited guidelines, the general abandonment and reclamation goals of this A&R Plan are to:

- Ensure the long-term physical and chemical stability of the project area(s) so as to protect the public's health and safety
- Enhance natural recovery of the disturbed area(s) to a state that is compatible with original conditions to allow for future use by people and wildlife
- Ensure that the requirement for long-term maintenance and monitoring is minimized

This A&R Plan is written with a view to address all project-related activity areas and infrastructure, the existing exploration and geotechnical drilling as well as the bulk sampling program.

SECTION 3.0 - PROJECT DESCRIPTION

3.1 OVERVIEW

The Mary River Project is currently subject to exploration drilling at Mary River as well as geotechnical drilling for the engineering design of various components of the project including the railway alignment, Steensby Inlet port facility, mine site infrastructure, open pit overburden, potential wind and hydroelectric sites, borrow pits, quarry sites and others. In addition, the bulk sampling program is underway and will be completed in 2009. The bulk sample program and the exploration and geotechnical drilling programs involve the following:

Mine design related operations

- Operation of up to 10 drill rigs for both exploration drilling at the Mary River ore deposits and geotechnical drilling at proposed mine infrastructure areas
- Operation of a temporary seasonally occupied tent camp, associated facilities and related infrastructure for approximately 40 people part way along the proposed railway alignment (referred to as the Rail Camp)
- Operation of a temporary seasonally occupied tent or trailer camp, associated facilities and related infrastructure for approximately 40 people at the future port site at Steensby Inlet
- Sealifts at Steensby Inlet to re-supply the Rail and Steensby Inlet camps and drilling operations conducted along the proposed railway alignment with dry goods and fuel
- Environmental studies, including aerial and ground-based terrestrial and marine wildlife surveys, fisheries and aquatics, water quality sampling, vegetation sampling, and archaeological surveys

Milne Inlet Site and Milne Inlet Tote Road

- Operation of an all-season 60 person fully serviced trailer camp, associated facilities and related infrastructure including a package sewage treatment plant at Milne Inlet to support the Milne Inlet Tote Road construction activities, seasonal re-supply, and barge loading of the bulk sample
- A lined bladder tank farm with an approximate capacity of 8.25-million litres (ML) as well as a lined re-fuelling station and re-supply pipeline
- Improvements to the airstrip at Milne Inlet, including the placement of fill, re-grading of the surface, application of EK35 and the installation of temporary airstrip lighting
- Upgrading the existing Milne Inlet Tote Road to allow all-season use, including excavating sand and gravel for the road bed from within the road alignment, and supplemented with material from large designated borrow/quarry areas, adding the fill to the roadbed and installing crossing structures (mainly culverts) at watercourses and drainages.
- Emergency shelters (trailers) positioned along the road
- Consolidation of historical scrap steel and debris along the Milne Inlet Tote Road
- Communication towers and repeater stations at the Mary River and Milne Inlet camp sites and along the Milne Inlet Tote Road

- Dry cargo and fuel tanker sealifts at Milne Inlet, to re-supply the project with equipment, materials, supplies and fuel to Milne Inlet, with subsequent overland transport to Mary River
- Removal and disposal of four (4) sea container box culvert crossings and six (6) culvert crossings from navigable waters along the Milne Inlet Tote Road

Mary River Camp

- Operation of an approximately 100-person winterized exploration tent camp and a 100-person all-season tent camp, and ancillary facilities (e.g. wash trailer, leach pit for greywater, diesel-electric power generation, maintenance shop, rotating biological contractor, incinerator, etc) at Mary River.
- A polishing waste storage pond (PWSP), and a Tanks-A-Lot sewage treatment system for use by the existing exploration camp
- Operation of a non-hazardous waste landfill (upon NWB approval)
- Improvements to the airstrip at Mary River, including the placement of fill, re-grading of the surface and the installation of temporary airstrip lighting
- Bulk fuel storage facilities and lined re-fuelling stations at the Mary River camp and crusher area
- A 60-m high test wind tower approximately 19.6 km northeast of Mary River Camp to record information on wind speeds and direction
- Remove hazardous wastes off-site for disposal at a licensed disposal facility or to recycling depots

Mine the Bulk Sample at Deposit No. 1

- Mine haulage road from the ridgeline on Deposit No. 1 to the crusher location
- Refuge trailer parked at the crusher location near Deposit No. 1
- Explosives storage and detonator storage magazines near Deposit No. 1 and an associated access road
- The drilling, blasting and stockpiling of approximately 154,000 dry tonnes (t) of weathered surface rock and 6,600 t of waste rock on the top of Deposit No. 1 at Mary River
- The drilling, blasting and crushing of 250,000 t of iron ore bulk sample from an open pit on Deposit No. 1 at Mary River
- Truck haulage from the bulk sample pit to the crusher, and truck haulage of the bulk sample to Milne Inlet
- Temporary stockpiling of the iron ore bulk sample at Milne Inlet
- Loading of iron ore at Milne Inlet on five ships sailing to Europe in August through October 2008
- Barge loading and ship loading at Milne Inlet

Figures 3.1 to 3.6 shows the location of activity areas related to the bulk sample program and exploration and geotechnical investigation programs.

3.2 SCHEDULE

A general schedule of the activities involved with the bulk sample program is as follows:

- November 2006 Submitted Environmental Screening Document and Permit Applications
- June 2007 Permits issued; road and airstrip upgrades begin
- August 2007 Mobilize camp and equipment for bulk sample
- March 2008 Camp and infrastructure constructed, bulk sampling begins
- March 2008 Start haulage of ore to Milne Inlet
- Aug-Oct 2008 Ore loaded onto ships and delivered to market
- Oct 2009 Bulk sampling program completed

The exploration and design related drilling are ongoing, in support of project planning.

3.3 BULK SAMPLE

3.3.1 Mining

Mining of the bulk sample will involve the following steps:

- A total of approximately 154,000 t of weathered iron ore and 6,600 t of waste rock will be stripped from one pit on Deposit No. 1 and stockpiled near the pit on the deposit. The proposed location of the bulk sample pit and weathered ore and waste rock stockpile are shown on Figure 3.2.

- Ore will be extracted by blasting using explosives and excavating at 5 m intervals. The total depth of the pit is estimated to be 20 m and is designed to be free-draining (i.e. side hill cut) so that no water is impounded.

- The bulk sample ore will be transported to a crushing area, where it will be crushed to produce both lump and fine ore products. Separate lump and fine ore stockpiles will be created and temporarily placed next to the crusher and at the Milne Inlet site.

3.3.2 Geochemical Properties

Acid Rock Drainage (ARD) and Metal Leaching (ML) testing has been conducted on the iron oxide (fresh and weathered hematite and magnetite ore), waste rock, borrow source and ballast material using drill core and/or surface samples from the exploration program (Knight Piésold, 2007). Major highlights from this report as it relates to the bulk sampling program are summarized herein.

Borrow Source and Ballast Materials

Borrow source samples were collected from sites around the Mary River Site for possible bulk sample road construction material. Samples were also selected around the site for

potential borrow sources for railroad ballast. Initial testing determined that the source material for both the borrow and ballast are considered to be non-acid generating due to very low sulphide content and readily reactive carbonate minerals. The sites where these samples were collected could potentially be a very good source of neutralizing material. Mineralogy of the samples varied but the rock was generally composed of quartz, feldspars, plagioclase and mica.

Iron Oxide (Ore) Samples

Iron oxide samples that were used in the preliminary ARD/ML testing were not taken from the immediate area or depth of the bulk sample pit but rather from the ultimate pit for the proposed full-scale project. These sample results would have an inherently higher potential for ARD and ML since the core was collected from deeper iron formation and therefore the samples would not have been exposed to surface weathering like the ore from the bulk sample pit. Sulphur concentrations from shallow channel rock samples collected in 2006 from locations within both the hematite and magnetite bulk sample pit were reported to be 0.007% and 0.024%, respectively, indicating a low potential for ARD. This would be characteristic of the ore that will be extracted and stockpiled. The ore from this area will likely not generate ARD or ML as it has historically already reacted with the environment.

Iron oxide samples that were taken from existing drill core generally had low sulphide concentration with the exception of two samples. Overall however, they were classified as possibly acid generating to acid generating due to acidic paste pH (in Acid-Base Accounting testing) and incapability to neutralize any acid. Leaching of major and minor trace metals including iron and manganese may also occur under mildly acidic conditions, if this condition were to occur. The results from this testing however should be seen as a worse case scenario as samples were taken from deep within the ore body and have not been subjected to surface exposure and weathering processes.

It is important to note that local cold and dry environmental conditions at the Mary River site would slow any onset of ARD as cold and dry weather climates reduce reaction rates. On-site field kinetic testing was conducted in the summer of 2007 to confirm these effects on potential ARD and ML generation from the ore and waste rock samples for the proposed full-scale mining project. The testing is ongoing and dependant on environmental conditions (i.e. precipitation) at the site. Preliminary results are confirming that the potential risk for ARD and ML is low and are consistent with the above reported results. Testing results used to assess the potential for ARD and ML for the bulk sampling program are addressed in the bulk sampling management plan which is updated yearly.

3.4 STOCKPILES

Stockpiles that will be created during the bulk sampling program include:

- A stockpile of weathered iron ore and waste rock located on Deposit No. 1
- A temporary crusher feed stockpile

- Temporary lump ore and fines stockpiles next to the crusher at Mary River
- Temporary lump ore and fines stockpiles at Milne Inlet

The mixed ore pit of hematite and magnetite is expected to generate approximately 154,000 t of weathered ore and 6,600 t of waste rock. This equates to an approximate volume of 55,000 m^3, based on a density of 4.36 t/ m^3 and an average bulking factor of 1.5. The proposed weathered ore stockpile location is shown on Figure 3.2. The stockpile will be developed to an approximate height of 4 m, with maximum 2H:1V side slopes.

A crusher feed stockpile will be developed as trucks deliver ore from the bulk sample pit to the crusher. This feed stockpile will vary in size according to production from the pit and crusher operation, but is expected to be in the order of one to two days of production (15,000 to 30,000 t).

Temporary and separate lump ore and fine ore stockpiles will be constructed at two main locations: near the crusher, and at Milne Inlet. The location of the two proposed temporary stockpiles at the crusher are shown on Figure 3.2 and the stockpile locations at Milne Inlet are shown on Figure 3.3.

The 250,000 t bulk sample will translate into approximately 87,000 m^3, based on a density of 4.36 t/m^3 and a rough average bulking factor of 1.5. Based on an expected 75% lump to 25% fines proportion, and not accounting for differences in bulking factors, the lump and fine ore stockpiles will have volumes in the order of 65,000 m^3 and 22,000 m^3, respectively. The temporary ore stockpiles will be constructed as the trucks dump the ore into a conveyor hopper, and the conveyor will develop the stockpiles with stable side slopes.

3.5 CAMPS AND RELATED FACILITIES

Camp facilities are described below and locations are shown on Figure 3.1.

The existing all-season exploration camp at Mary River, shown on Figure 3.6, will continue to operate for the duration of the bulk sampling program, and a new 100-person all-season camp will be constructed next to the existing camp to accommodate additional workers during the bulk sampling program. The primary ancillary facilities and related infrastructure at Mary River are shown on Figure 3.6.

A trailer camp for approximately 60 people, associated facilities and related infrastructure will continue to operate throughout the year at the Milne Inlet site to house the sealift and road construction/operation personnel and support the Milne Inlet Tote Road and barge loading of the bulk sample.

There are two temporary refuge stations consisting each of a small half size trailer with bottled water and fuel storage area for 4 fuel drums located at kilometre 33 and 68 of the Milne Inlet Tote Road.

Radio towers will be positioned at Milne Inlet, Mary River camp and two along the Milne Inlet Tote Road. Weather stations are located at Mary River and both Milne Inlet and Steensby Inlet.

An 8-12 person seasonally operated (March through October) fly camp (when established) will support preliminary exploration activities at Deposit No. 4.

In 2007, a seasonally operated camp was established at Steensby Inlet to support on-ice port site drilling and geotechnical drilling in the general southern areas of the rail alignment. The 8-12 person temporary tent camp at the future port site will be expanded to an approximate 40 person temporary tent or trailer camp in 2008. The camp will support the geotechnical drill program between Steensby Inlet and Rail Camp for the rail route, potential hydro-electric power generation, port infrastructure, as well as environmental studies in the area.

A temporary seasonally occupied tent camp for approximately 40 people part way along the potential future railway alignment north of Cockburn Lake referred to as the Rail Camp will be constructed in 2008. The camp will support the geotechnical drill program between Mary River and Steensby Inlet, as well as environmental studies based in the area.

3.6 EQUIPMENT

The list of equipment on-site at final reclamation includes the following:

Item	No. of Units	Item	No. of Units
Snowmobile/ATV	10	Excavators	4
Camp	6	Fork Lifts (ZoomBooms)	5
Incinerator	7	Packers	4
Airstrip Lights	2	Fuel Tanks (steel)	1
Sewage Treatment Facilities	3	Crusher	1
Camp Gensets	10	Crusher Genset	1
Aux Gensets	10	Rescue Boat	1
Haul Road Trucks	14	Emergency Trailers	2
Haul Road Truck Pups	12	Radio Towers	4
Dozers	8	Rigmats	40
Loaders	6	Office Trailers	7
Supervisor Vehicles	12	Mine Haul Trucks	3
Cranes	1	Graders	2
Light Plants	8	Water Tanks	1
Compressors	2	Waste Tank	1
Fuel Truck	1	Snowblower Truck	1
Maintenance Vehicles	15	Grasshopper Conveyor	1
Emergency Vehicles	1		

In addition, the drilling contractor operates up to 10 drills and supporting equipment and air charter companies operate helicopters and fixed-wing aircraft at the site during each exploration season.

3.7 AIRSTRIPS AND ROADS

There are two existing gravel airstrips used for the project. Temporary lighting is installed at Mary River and Milne Inlet airstrips. Drainage improvements (grading and contouring) are ongoing at the Mary River and Milne Inlet airstrips.

The Milne Inlet Tote Road is an existing 105 km road between the Mary River Site and Milne Inlet. The road is continuing to be upgraded to a year-round all-weather road. The road improvements involve:

- Excavating sand and gravel from within the road alignment and from material from large designated borrow/quarry areas
- Placement of engineered fill to improve road bearing capacity at select locations
- Road bed widening plus construction of turn-outs
- Replacement/installation of crossing structures (mainly culverts) at watercourses and drainages

The road was made passable as a winter road by the end of November 2007. By the end of 2007, roughly 13% of all crossings (culverts and sea container box culverts) had been installed, including two of the modified sea container box culvert crossings

Figures 3.1 shows the existing road alignment and the borrow sources identified for quarrying.

3.8 BORROW SOURCES

Three main borrow sources and two quarries have been identified, at locations shown on Figure 3.1. Approximately 650,000 to 700,000 m^3 of sand and gravel will be excavated from within the road alignment and these main borrow sources and quarries to support the bulk sampling activities. Material is progressively stripped from the active layer at select locations identified in the field. Excavation edges are constructed to stable slopes and drainage re-established as part of operations. On-going monitoring will allow for progressive reclamation activities, to identify and rehabilitate any areas where thaw settlement results in ponding of water or erosion.

3.9 FUEL STORAGE

Fuel storage facilities are located at the camp and crusher area at Mary River, at Milne Inlet, Refuge Stations, Rail Camp and at Steensby Inlet Camp. The following bulk fuel storage facilities will be used:

- An 8.25 ML capacity bulk fuel storage facility at Milne Inlet, consisting of 114,000 L fuel bladders in a lined containment as well as a lined re-fuelling station and re-supply pipeline
- 1.75 ML bulk fuel storage capacity near the Mary River Camp, consisting of 114,000 L bladders in lined containment. A double walled 75,000 litre tank in lined containment will also be installed.

Refuelling stations at Milne Inlet and Mary River will be equipped with a lined and bermed area to contain any minor spills or leaks during refuelling. The liner will be protected by sand bedding and vehicles and equipment will drive onto the lined area to refuel.

In addition, drum caches in lined containment will also be situated at Milne Inlet, Mary, River, Steensby Inlet and Rail Camps. In total, a peak of approximately 11,000, 200L drums may be stored on-site.

3.10 CHEMICALS

Some chemicals and potentially hazardous materials associated with project operations will include:

- Oils, greases, lubricants, and drilling additives for mining and heavy equipment
- Calcium chloride flakes for drill water for exploration drilling and for geotechnical investigations in the area of the future mine site infrastructure at Mary River
- Lead acid batteries and cleaning supplies at camp sites
- Waste oils generated from mobile equipment and generators

Lubricants and oils, as well as both new and used batteries, are stored in containers. Waste oils are stored in drums in lined containment, until transported to Milne Inlet and sent offsite via sealift to a registered hazardous waste disposal facility or to recycling depots.

3.11 EXPLOSIVES

Approximately 240 t of pre-packaged emulsion and high explosives (Class A) will be used at the bulk sample location. The explosives are stored in the 16 explosives magazines used for transport of the explosives to Mary River. The self contained explosives magazines are positioned in conformance with the *NWT/Nunavut Mine Health and Safety Act* and regulations. Detonators and explosives are stored in separate magazines, and inventory is strictly controlled with supervisory control. The explosives magazines are located away from other infrastructure in accordance with the British Table of Distances, and warning signs are prominently posted.

3.12 WASTE AND WATER MANAGEMENT

Water will be supplied to each camp as follows:

- The new water supply and treatment system (heated intake, ultra-violet disinfection) at Mary River supplies water to the new combined population at the camp site
- Water supply at the Milne Inlet site consists of a holding tanks that are filled by truck from Philip's Creek during summer months and from a nearby lake during winter and treated using an ultra-violet (UV) disinfection system
- Drinking water at the Rail Camp will come from the adjacent unnamed lake, stored in holding tanks and treated using an ultra-violet (UV) light disinfection system
- Drinking water at Steensby Inlet Camp, if sourced from the unnamed in-land freshwater lake will be treated using an ultra-violet (UV) disinfection system. Water, if sourced from Steensby

Inlet will be treated using a pre-engineered reverse osmosis desalination treatment plant. Water from the desalination plant will be stored in tanks and treated using an ultra-violet (UV) disinfection system before use.

Sewage and greywater will be treated and disposed of at each camp as follows:

- Sewage and grey water at Mary River is treated using a rotating biological contractor sewage treatment plant and the treated effluent is discharged via a 2 km heat traced pipeline into Sheardown Lake
- Sewage and grey water at Milne Inlet is treated using a packaged sewage treatment plant, and the treated effluent is discharged by pipe to a surface drainage channel discharging to Milne Inlet
- Toilet wastes collected from the outhouses at Steensby Inlet and Rail Camp will be incinerated in a dual-stage, forced air incinerator at each of the camps. Greywater will be disposed of in a sump established at each camp.

Solid wastes will be stored and disposed of as follows:

- Camp incinerators will be operated at each of the Mary River, Milne Inlet, Steensby Inlet and Rail camps for disposal of inert combustible non-hazardous solid wastes. Ash will be placed in containers to help prevent wind distribution
- Inert non-combustible wastes such as scrap metal, plastic, rubber, metals and ashes from the incinerator will be disposed of in the landfill at Mary River as described in the Bulk Sampling Program Landfill Design and Operations (Knight Piésold Ref. No. NB102-00181/10-6, Rev. 1, dated 31-March-2008)
- Wastes generated at the refuge stations will be stored in containers or ore sacks and will be backhauled to Mary River for disposal by incineration or landfilling, as appropriate or to Milne Inlet for shipment off site
- Waste oil and other hazardous and recyclable wastes will be collected, temporarily stored on-site in a lined containment area and backhauled to Milne Inlet or Steensby Inlet in preparation for shipment off site. Used batteries will be collected in a sealed container and transported off site. Empty fuel drums will be disposed of to the on-site landfill or, if suitable for reuse, transported by sealift off-site where they will be returned to the vendor.

SECTION 4.0 - TEMPORARY SUSPENSION

A temporary suspension of activities involves the temporary cease of the bulk sampling and the exploration and geotechnical drilling program operations, either as planned or due to unforeseen circumstances.

A planned shutdown occurs when there is a potential for economic or operational difficulties that would cause a temporary cease of current operations at the project sites. The bulk sampling program could be temporarily suspended because of unforeseen circumstances such as a prolonged period of poor weather and related issues, fuel shortages or mechanical problems with critical equipment. Temporary suspension could last for a period of weeks to several months. The intention however, would be to immediately resume operations as soon as all issues have been resolved. All facilities will be secured in a manner similar to the seasonal shutdown of the existing Mary River camp that has occurred in past years.

4.1 BULK SAMPLE PIT

The bulk sample pit has been designed to be free draining. Any blasted ore will be moved to a stockpile. The pit will be visually inspected as part of the monitoring program to identify any indications of acid generation or metal leaching, and the drainage that collects in or downstream of the bulk sample pit will be sampled and tested for general chemistry and metals during the semi-annually (twice per year) site visits (discussed below).

4.2 STOCKPILES

The weathered ore and waste rock stockpile will be constructed with 2H:1V side slopes and to a height of 4 m which is expected to be physically stable in the long term. Inspection will be carried out to verify this. As well, any seepage observed from the weathered ore and waste rock stockpile will be sampled and tested for general chemistry and metals during the semi-annual (twice per year) site visits (discussed below).

Temporary ore stockpiles will be inspected for physical stability and re-grading of side slopes will be undertaken if required, prior to temporary suspension.

4.3 CAMP AND RELATED FACILITIES

The following measures will be undertaken at all camp facilities in a temporary suspension scenario:

- Tents and camp facilities (i.e., kitchens, outhouses, showers, warehouses, etc.) will be thoroughly cleaned and all open food and wastes incinerated. All unopened food supplies will be contained in sealed and secure containers so as not to attract any wildlife to the site.
- Oil stoves and propane systems will be shut off and supply oil drums and propane cylinders firmly closed

- Diesel generators will be shut down and winterized according to their manufacturer's procedures; fuel hoses will be drained and storage tanks connected to the power supply will be sealed and inspected
- Drill sites in operation or undergoing progressive reclamation will be closed as per the operational licensing and permitting requirements

4.4 EQUIPMENT

Heavy equipment and vehicles will be consolidated at either the Mary River or Milne Inlet camps. Small equipment will be returned to a designated warehouse where they will be securely stored.

4.5 ROADS AND AIRSTRIPS

No closure measures are proposed for roads and airstrips during temporary suspension. An inspection of the airstrips and roads will be undertaken to ensure there is no impeded drainage or substantial erosion that requires attention.

4.6 BORROW AREAS

Borrow areas will be progressively reclaimed as part of operations, including maintaining stable side slopes and grading for natural drainage. The borrow areas will be inspected at the onset of temporary suspension, and re-grading will be completed as required to ensure the areas are physically stable.

4.7 FUEL STORAGE

Bulk fuel storage facilities at Mary River and Milne Inlet sites will be inspected for leaks and all valves and dispensers closed and secured. Drums of fuel will be left within the lined containment areas.

4.8 CHEMICALS

All chemicals present, such as cleaning supplies, lubricants, antifreeze, oils, and greases will be stored away in secure buildings and properly sealed.

4.9 EXPLOSIVES

All explosives will be placed in the explosives magazines and locked.

4.10 WATER SUPPLY AND WASTE MANAGEMENT

The water supply systems (tanks, pipes, and lines) will be completely drained, removed and stored away. Waste water treatment facilities will be shut down according to manufacturer's procedures, and any remaining sewage or sludge will be directed to the polishing/waste stabilization ponds.

Combustible non-hazardous inert wastes will be incinerated and non-combustible wastes will be moved to the Mary River landfill.

Hazardous waste will remain stored in a manner that minimizes environmental risk in preparation for final off-site disposal and/or recycling.

4.11 MONITORING

Baffinland will arrange semi-annual (twice per year) site visits to inspect the camps, and repairs will be made as necessary. These visits would continue until activities resume. Under this scenario, Baffinland would notify the NWB and QIA of planned site visits so that the NWB and QIA could chose to attend if desired. QIA and NWB will be copied on all follow-up reports.

Water quality monitoring will be carried out at the stockpile locations and the bulk sample pit as indicated above, and in accordance with the conditions of the water license.

SECTION 5.0 - FINAL ABANDONMENT

Final abandonment would be undertaken at completion of the bulk sampling program, provided there are no immediate or pending plans to advance the project towards mine development.

Final abandonment may also occur if the bulk sampling program was terminated before completion due to unforeseen circumstances and a decision was made to cease all exploration and geotechnical exploration activities at Mary River. Final abandonment will include removing all equipment and materials either off-site or into the on-site landfill (for inert, non-hazardous, non-combustible materials), and contouring ground surfaces. Equipment and materials to be taken off-site will be transported overland from Mary River Camp to Milne Inlet. Materials and Equipment at Rail Camp will be flown to Steensby Camp or the Mary River Camp. Arrangements will be made with a sealift contractor to collect the shipment of materials and equipment at Milne Inlet and Steensby Inlet and ship material offsite for re-sale, salvage or disposal.

Most materials and equipment found at the project sites will have some residual value for either re-sale or relocation to another exploration site. It is possible some or all of the camp infrastructure and equipment could be airlifted to another exploration site or could possibly be donated to the local communities. If there is no future use for materials in the area or they possess no residual value, they will be shipped off-site where they will either be salvaged or properly disposed.

5.1 BULK SAMPLE PIT

The shallow pit area created on Deposit No. 1 will be inspected for any physically unstable surfaces. The bulk sample pit has been designed to be free draining and will be left open. Rehabilitation measures will be undertaken if necessary to ensure the pit is free draining and that unstable areas do not remain. This may include additional blasting, excavation or backfilling using weathered ore.

As described in Section 3.3.2, the ore exposed through the bulk sample program is not expected to generate acid or leach metals under the conditions at site. The walls and floor of the pit will be visually inspected as part of the monitoring program to identify any indications of acid generation or leaching, and any seepage that collects in or downstream of the bulk sample pit will be sampled and tested for general chemistry and metals.

If visual observation or runoff water analyses from the bulk sample pit suggest that acid generation or metal leaching is occurring, a contingency plan will be implemented to mitigate these impacts. The contingency plan consists of two actions. First, up-gradient surface runoff will be routed around the bulk sample pit to reduce the amount of runoff that can make contact with the pit walls and floor. Second, readily available neutralizing material will be placed within the pit to effectively neutralize any acidity that might be present. Nearby Cambrian-Ordovician dolostone and limestone south of the deposit or local acid buffering overburden material would be used as the neutralizing agent if needed. The exact quantity of material to be added would ensure that the neutralizing capacity to the acid generating capacity has a minimum ratio of 2:1..

5.2 STOCKPILES

The weathered ore and waste rock stockpile will be constructed with 2H:1V side slopes and to a height of approximately 4 m which is expected to be physically stable in the long term. Inspection will be carried out to verify this. As well, any seepage observed below the weathered ore and waste rock stockpile during follow-up monitoring will be sampled and tested for general chemistry and metals during the annual post-closure site visits (discussed below).

The potential is considered low for potential poor quality run-off from the weathered ore and waste rock stockpile. However, if visual observation or runoff water analyses from the weathered ore and waste rock stockpile suggest otherwise, a contingency plan will be implemented to mitigate these impacts. The contingency plan consists of two actions. First, up-gradient surface runoff will be routed around the weathered ore and waste rock stockpile, to reduce the amount of runoff that can make contact with the stockpile. Second, readily available neutralizing material will be mixed with the weathered ore in the stockpile. Nearby Cambrian-Ordovician dolostone and limestone south of the deposit or local acid buffering overburden material, would be used as the neutralizing agent if needed. The exact quantity of material to be added would ensure that the neutralizing capacity to the acid generating capacity has a minimum ratio of 2:1.

At the conclusion of the bulk sample program, minor amounts of residual ore will be present at the crushing station and stockpile areas at Mary River and Milne Inlet. Crusher and ore storage areas will be graded and covered with approximately 1.0m of borrow material. Shallow ditching may be excavated around the former stockpile areas to collect seepage for environmental monitoring.

5.3 CAMP AND RELATED FACILITIES

Most materials found at the camp sites will have residual value, so if the camps can not be salvaged either through re-sale or relocation to another exploration project, the materials will be moved off-site by sealift. Tent facilities and Quonset buildings will be dismantled and, with the pre-fabricated trailers, will be transported overland to Milne Inlet. Wooden structures such as warehouses, outhouses, tent floors, bunk beds and tables will be dismantled, salvaged for re-use by others, or burned on site. Only clean wood, wood that has not been coated with preservative chemicals or paint, will be considered for burning .

All camp areas will be inspected for signs of fuel spills and any contaminated materials excavated as described in Section 5.10. Ground surfaces will be re-contoured if necessary to ensure long-term physical stability.

Generators will be prepared for travel, transported overland to Milne Inlet, and sent off-site on sealift for re-sale. Fuel storage, hoses and filters associated with the power supply will be drained. Waste oil, residual fuels and oil/fuel filters will be managed as hazardous waste, contained and removed from site to a licensed waste disposal facility.

Drill sites in operation or undergoing progressive reclamation will be closed as per the operational licensing and permitting requirements. Drill core will be disposed of in the weathered ore stockpile location or in the bulk sample pit.

5.4 ROADS AND AIRSTRIPS

Airstrips will remain to allow for future access to the site for exploration as well as monitoring, although temporary airstrip lighting will be removed. The Milne Inlet Tote Road and the access road to Deposit No. 1 will be inspected to ensure these areas are physically stable. Any areas of significant erosion will be re-graded to improve long-term stability. Four (4) sea can crossings and six (6) culvert crossings deemed as navigable waters under authorization by Transport Canada and the Federal Department of Fisheries and Oceans along the Milne Inlet Tote Road are required to be removed and the crossing re-graded. The culverts and sea-cans will be disposed of in an inert landfill at Mary River. Alternately the sea cans may be hauled to Milne Inlet and shipped off site for disposal or recycling. The roadbed will remain for other users, in accordance with the road's designation of public access in the Nunavut Land Claim Agreement.

5.5 BORROW AND QUARRY AREAS

Borrow and quarry areas will be progressively reclaimed as part of operations, including maintaining stable side slopes and grading for natural drainage. Final re-grading will be completed as required to re-establish natural drainage and limit the potential for excessive erosion. Borrow and quarry areas will be revisited as part of the post-closure monitoring program, to document that no substantial thaw settlement has occurred that will necessitate further remedial action.

5.6 FUEL STORAGE

Drums of fuel will be consolidated, inspected and securely sealed. Any open drums of diesel, off-specification fuel and waste oil will be shipped to registered hazardous waste disposal facilities or to recycling depots. Sealed fuel drums may be sold locally or to other users in the region. Drums will be transported overland to Milne Inlet or by air to Steensby Inlet and loaded onto sealift. Empty fuel drums will be disposed of to the on-site landfill or, if suitable for reuse, transported by sealift off-site where they will be returned to the vendor.

Fuel bladders will be drained using compressed air, transferred to a truck, and relocated to Milne Inlet where they will be removed offsite for salvage. Any fuel remaining will be loaded onto a sealift and transported to other users or will be shipped to registered hazardous waste disposal facilities or to recycling depots. The Mary River fuel storage facility will be emptied and decommissioned first, followed by the Milne Inlet facility once any excess fuel has been taken off site.

Containment for each fuel storage facility consists of an earthen berm lined with a petroleum-resistant geomembrane liner. Any bedding material inside the liner will be tested for petroleum hydrocarbons before being removed. Liners will be sent off-site for disposal at a licensed

facility. Soil beneath the lined areas will also be tested for petroleum hydrocarbons. Disposal of contaminated soils is described in Section 5.10.

5.7 CHEMICALS

Chemicals, such as cleaning supplies, lubricants, antifreeze, oils, and greases will be placed in a sea container and will be transported off-site for either re-use or disposal.

Waste oil will be shipped to registered hazardous waste disposal facilities or to recycling depots. Used batteries and any other hazardous waste will be taken off-site to a licensed disposal facility for recycling or proper disposal.

5.8 EXPLOSIVES

Unused explosives will be securely contained in magazines and removed from site. The explosives magazines will be transported to Milne Inlet and sent offsite via sealift for proper disposal or re-use.

5.9 WASTE AND WATER MANAGEMENT

Combustible non-hazardous inert wastes will be incinerated on site. Non-combustible non-hazardous inert bulky waste that has no salvage value will be landfilled on-site.

Existing bulky wastes from the 1960s, equipment and materials associated with recent project activities, will be inspected for any hazardous materials. Oil pans and fuel tanks will be drained and the oil or fuel shipped to registered hazardous waste disposal facilities or to recycling depots. Any remaining hazardous components such as batteries, tanks and filters will be removed from site to a licensed off-site facility.

A landfill will be constructed as part of the bulk sampling program for the disposal of bulky inert wastes, including steel, rubber and plastics. Bulky wastes remnant of historic exploration activities will be relocated to the landfill. No organic or hazardous wastes will be disposed of in the landfill. The landfill site will be covered with a 1.5 m thick layer of inert overburden. The landfill will have been progressively closed during operations prior to final mine closure as part of normal facility operations.

The water supply system (tanks and lines) will be drained, dismantled, and will be either dismantled for disposal in the landfill at Mary River or will be transported to Milne Inlet for salvage or disposal off-site.

Grey-water sumps filled and contoured to grade.. Sewage treatment plants will be decommissioned in accordance with manufacturer procedures, and any remaining sewage or sludge will be sent to the polishing/waste storage pond. The polishing/waste stabilization ponds will be decanted and the solids left to dry. Dried solids will be disposed of the on-site landfill upon confirmation as non-hazardous waste. Liners will be removed and the polishing/waste stabilization ponds will be filled and contoured to grade. The treatment plants will be prepared for shipping and will be

transported to Milne Inlet to be loaded onto sealift and shipped to other users. The concrete tanks associated with Tanks-A-Lot treatment facility will broken-up and disposed of in the inert landfill at Mary River.

5.10 CONTAMINATED SOILS

Any contaminated soils will be excavated using the skid steers or excavators and will be loaded into fibreglass ore sacks and removed off-site for disposal at a licensed treatment or disposal facility.

5.11 TIMING AND SCHEDULE OF FINAL ABANDONMENT

The timing of final abandonment and reclamation is largely governed by site access and weather. Activities such as removal of lined containment facilities and the testing and excavation of contaminated soils must be completed when the ground surface is not frozen. Overland access will be year-round until the ten (10) navigable crossings are removed from the Milne Inlet Tote Road in May 2009. Sealift is possible only during the open water period of August through October.

Upon completion of the delivery of the bulk sample to Milne Inlet, if final abandonment was implemented it will be possible to remove the heavy equipment and materials from the Mary River site, with complete decommissioning and reclamation of the Mary River site before the winter period and subsequent removal of culverts from the ten (10) navigable crossings in the spring of 2009. Complete decommissioning of project facilities and reclamation activities at locations other than the Mary River site can occur through the winter period and/or in the spring and through the summer of 2009.

If final abandonment was unexpectedly implemented earlier, a similar schedule would apply, considering the timing constraints for reclamation activities and demobilization.

It is estimated that a total of four and a half months will be required to remove equipment and materials from Mary River with a crew of about 20 people. The current camp will be scaled down to 20-person capacity, initially, and then removed completely once all other reclamation activities are complete. The reclamation crew will move to Milne Inlet and then to the Steensby Inlet to complete reclamation at these camps.

Final abandonment could be undertaken under favourable weather conditions, leading up to sealift in August through October.

SECTION 6.0 - FOLLOW-UP MONITORING

In order to ensure the physical and chemical stability of various components of the sites after closure of the Mary River Project facilities, monitoring and follow-up inspections of all sites will be conducted. Annual inspections of all sites will be carried out for up to five years following the final abandonment, to ensure that conditions have not changed and remain both physically and chemically stable. The monitoring program may be discontinued earlier than five years, only if monitoring results indicate that site conditions are stable, and agreement can be reached with the landowner(s) and Nunavut Water Board.

The physical stability of the bulk sample pit, weathered ore and waste rock stockpile, Milne Inlet Tote Road and other project components shall be monitored through visual inspection.

The chemical stability of the site will be monitored through visual inspection as well as surface water sampling and analyses, during the closure period and for up to five years post-closure, or as otherwise dictated by the water license. The monitoring plan for the bulk sampling program will continue through closure and post-closure periods.

In the unlikely event that monitoring indicates the bulk sample pit and/or weathered ore stockpile are generating acid or leaching metals, the contingency plan described in Sections 5.1 and 5.2 will be implemented. If the contingency plan has been implemented, then monitoring will be conducted for the five year period to verify the effectiveness of the contingency measures.

At the conclusion of the post-closure monitoring period (i.e., in the fifth year of monitoring), all development areas related to the project will be subjected to a closure inspection by a company representative or contractor, and a brief abandonment and reclamation report with photographs will be prepared, documenting the reclamation work completed and the site conditions following closure.

SECTION 7.0 - ESTIMATED ABANDONMENT COSTS AND FINANCIAL ASSURANCE

The estimated cost to complete the final abandonment work described in this A&R Plan is shown on Table 7.1.

The following assumptions have been made in developing the cost estimate:

- Contractor and Baffinland equipment that are at site for the bulk sampling program will be available to carry out the final abandonment activities
- A dedicated sealift will be used to remove materials and equipment from site, so potential cost savings could be realized if demobilization activities were coordinated with the community sealift
- The monthly cost to operate the 20-person camp at Mary River during final abandonment will be the same as the current monthly cost to operate the current 100-person Mary River tent camp
- Approximately 500,000 L of unused fuel will be at Mary River and will require back-haul to Milne Inlet for off-site disposal
- All the iron ore bulk sample delivered to Milne Inlet is shipped to its destination, not requiring transport of the material back to Mary River
- Costs to implement a contingency plan to address the remote potential for acid generation and/or metal leaching arising from the bulk sample pit and weathered ore stockpile have been based upon the quarrying of approximately 30,000 m^3 of local material with net neutralizing potential.

Most of the project infrastructure and hence estimated cost of final reclamation is located on Inuit Owned Lands. Under the terms of a Commercial Lease with the QIA, Baffinland has posted a Letter of Credit for $5,407,000 as security for reclamation activities.

SECTION 8.0 - ESTIMATED ABANDONMENT COSTS USING RECLAIM

As required by the Nunavut Water Board (NWB) General Conditions of the water licence, a supplemental reclamation cost assessment for the abandonment and reclamation of Baffinland's Mary River project following completion of the proposed bulk sampling program was completed using the RECLAIM model (version 5.1). The RECLAIM modelling was based on this abandonment and reclamation plan.

The prescribed methodology of assessing the full cost for abandonment and reclamation (A&R) is with the RECLAIM model (version 5.1), which is based on a unit cost table that is part of the model. The unit cost table lists common reclamation activities that may be carried out at a particular mine site and the associated unit costs (based on 2005 data) for each activity. An attempt was made to include all reclamation activities identified within the A&R Plan into the RECLAIM model. The limitations of the RECLAIM model include the use of prescribed rates which may not exactly match the proposed reclamation activity and are based on a historic database and therefore may not be current. Although the unit rates in the table can be altered, the intent of performing the cost estimate using the RECLAIM model wasn't to alter the model to mimic the method, and thus the cost estimate presented in this Abandonment and Reclamation Plan, but to incorporate unit rates provided in the model as much as possible to come up with an estimate. In a few cases, unit rates were specified. In most cases the unit number for each line item in the RECLAIM model is a known quantity based on the actual physical layout, inventory, distances, etc. at the site. In cases where quantities were unknown conservative estimates were incorporated into the model.

The estimated cost to complete the final abandonment work using the RECLAIM model is $4,030,885. A summary of the estimated cost using RECLAIM is shown on Table 8.1. The results of the RECLAIM model are attached.

The estimated cost to complete the final abandonment work included in the A&R Plan was $6,203,300. This cost was determined based on Baffinland's experience operating in North Baffin Island and Knight Piésold's experience with abandonment work in Canada and internationally. Confirmation of the reasonableness of the civil works aspects of the A&R Plan cost estimate was also provided by an experienced northern contractor.

The costs presented in the A&R Plan are higher than those calculated using the RECLAIM model. The costs presented in the A&R Plan are therefore considered conservative and Baffinland proposes to post financial assurance based on this amount.

SECTION 9.0 - REFERENCES

1. Baffinland Iron Mines Corporation. Abandonment and Restoration Plan, Mary River Project, December 2004.

2. Indian and Northern Affairs Canada. Mine Site Reclamation Policy for Nunavut. Ottawa, 2002.

3. Knight Piésold. Letter to Derek Chubb - Baffinland Iron Mines Corporation, Re: Evaluation of Geochemical Characterization Related to the Bulk Sampling Program. Ref. No. NB07-00481, June, 2007. North Bay: Knight Piésold, 2007.

4. Northwest Territories Water Board. Guidelines for Abandonment and Restoration Planning for Mines in the Northwest Territories. September 1990.

5. Price. W.A. Draft Guidelines and Recommended Methods for the Prediction of Metal Leaching and Acid Rock Drainage at Minesites in British Columbia. Smithers, B.C.: Ministry of Employment and Investment, Energy and Minerals Division, 1997.

6. Steffen, Robertson and Kirsten (B.C.) Inc. Mine Reclamation in Northwest Territories and Yukon. Prepared under contract for the Northern Water Resource Studies Program, Water Resources Division, Natural Resources and Environment Branch, Department of Indian Affairs and Northern Development. April 1992.

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SECTION 10.0 - CERTIFICATION

This report was prepared, reviewed and approved by the undersigned.

Prepared by: _____

Reagan McIsaac, Ph.D.
E.I.T.

Reviewed by: _____

Steve Aiken, P.Eng
Manager Environmental Services

Approved by: _____

Ken D. Embree, P.Eng.
Managing Director

Knight Piésold CONSULTING

TABLE 7.1

BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT

BULK SAMPLING PROGRAM
ABANDONMENT AND RECLAMATION PLAN

ESTIMATED COSTS FOR FINAL ABANDONMENT

Components and Tasks	Units	No. Units	Unit Rate	Task Reclamation	Component Reclamation Cost
Mining Areas					
Inspect mining areas - included in camp operating costs				-	
Remedial blasting and/or excavation	Allowance	1	10,000	10,000	$ 10,000
Stockpiles					
Inspect stockpiles for physical stability - included in camp operating costs					
Recontour weathered ore and waste rock slopes, if required (using dozer)	Hours	20	250	5,000	
Grade and cover residual ore at storage areas at Mary River and Milne Inlet	Hours	20	500	10,000	$ 15,000
Camps and Related Facilities					
Initial decommissioning of full-scale Mary River camp to 20-persons	Person-Days	150	500	75,000	
Final decommissioning of Mary River camp	Person-Days	42	500	21,000	
Truck containers of materials from Mary River to Milne Inlet (20 containers)	Trips	20	500	10,000	
Decommission Refuge Sites (haul trailers to Milne)	Trips	4	500	2,000	
Decommission Milne Inlet camp	Person-Days	22	500	11,000	
Fly containers of materials from Rail Camp to Steensby Inlet (6 containers)	Trips	6	800	4,800	
Decommission Rail Camp	Person-Days	60	500	30,000	
Decommission Steensby Inlet Camp	Person-Days	60	500	30,000	$ 183,800
Roads and Airstrips					
Inspect and repair any erosion	Allowance	1	13,000	13,000	
Remove airstrip lighting (2 airstrips)	Worker Days	2	1,000	2,000	
Remove 10 navigable water crossings and regrade (excavator and truck)	Hours	100	300	30,000	$ 45,000
Borrow/Quarry Areas					
Recontour following any thaw settlement/erosion	Allowance	1	20,000	20,000	$ 20,000
Fuel Storage Facilities (Bulk and Drums)					
Return excess fuel at Mary River to Milne Inlet (assume 500,000 L)	Trips	44	500	22,000	
Drain, fold, and containerize Mary River bladder tanks	Person-Days	8	500	4,000	
Truck containerized bladders to Milne Inlet (3 containers)	Trips	3	500	1,500	
Drain, fold, and containerize Milne Inlet bladder tanks	Person-Days	32	500	16,000	
Remove all geomembrane fuel liners to port site; recontour surface	Person-Days	12	500	6,000	
Remove all geomembrane sewage liners to landfill; recontour surface	Person-Days	8	500	4,000	$ 53,500
Chemicals and Explosives					
Prepare explosives magazines for shipping	Days	2	1,000	2,000	
Ship magazines (16) and other chemicals/oils to Milne Inlet	Trips	17	500	8,500	$ 10,500
Waste Management					
Placement of waste materials into landfill	Allowance	1	10,000	10,000	
Apply 1.5 m cover (dozer, truck)	Hours	60	300	18,000	$ 28,000
Contaminated Materials					
Collect and test soil samples	L.S.	1	75,000	75,000	
Excavate contaminated materials and backhaul (loader and truck)	Hours	300	300	90,000	
Excavate, transport and place backfill material	m^3	1000	10	10,000	
Misc. waste disposal fees (soil, batteries, oil, etc.)	L.S.	1	75,000	75,000	
Site supervision	L.S.	1	50,000	50,000	$ 300,000
General Site Area					
Recontour camp areas as required (using dozer)	Hours	100	300	30,000	$ 30,000
Sealift Materials from Milne Inlet and Steensby Inlet to Montreal					
Dedicated sea-lift for materials requiring off-site salvage or disposal	L.S.	1	1,400,000	1,400,000	$ 1,400,000
Camp Operating Costs					
Operate 20-person camp for 4.5 months (includes aviation)	Month	4.5	750,000	3,375,000	$ 3,375,000
Environmental Monitoring					
Site supervision during final abandonment; reporting	L.S.	1	120,000	120,000	
Annual water sampling (25 samples; 5-years)	Each	125	500	62,500	
Annual site visits (5-years); reporting	L.S.	5	50,000	250,000	$ 432,500
Subtotal					5,903,300
Contingency Remediation of ARD/ML at Pit and Stockpile					
Quarry, transport and place buffering material (local overburden)	m^3	30,000	7.50	225,000	
Quarry concession fees	m^3	30,000	2.50	75,000	$ 300,000
Total					$ 6,203,300

I:\102-00181-6\Assignment\Report\Report 7, Rev. 2 - Abandonment & Restoration Plan\Report 7, Rev. 2 - Abandonment & Restoration Plan (FINAL)\Tables\[Table 7.1 Updated Cost Estimate (Rev 2).xls]Table 7.1 Updated Closure Cost
31-Mar-08

Rev. 2 - Revised for 2008

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TABLE 8.1

BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT

BULK SAMPLING PROGRAM
ABANDONMENT AND RECLAMATION PLAN

SUMMARY OF ESTIMATED COSTS FOR FINAL ABANDONMENT BASED ON THE RECLAIM MODEL

SUMMARY OF COSTS

Capital Costs

COMPONENT TYPE	COMPONENT NAME		TOTAL COST	Land Liability	Water Liability
OPEN PIT	Bulk Sample Pit		$19,332.75	$19,333	$0
~~UNDERGROUND MINE~~		0	**NO UNDERGROUND MINE**		
~~TAILINGS~~		0	**NO TAILINGS FACILITY**		
ROCK PILE	Residual Ore		$18,680.00	$18,680	$0
BUILDINGS AND EQUIPMENT		0	$633,270.30	$525,348	$107,923
CHEMICALS AND SOIL MANAGEMENT	Camps and Operatio		$207,406.00	$207,406	$0
WATER MANAGEMENT	Bulk Sample Progran		$780.00	$0	$780
POST-CLOSURE SITE MAINTENANCE			$593,105.53	$444,357	$148,749
SUBTOTAL			**$1,472,575**	**$1,215,123**	**$257,452**
			Percentages		
MOBILIZATION/DEMOBILIZATION		0	$2,220,786		
MONITORING AND MAINTENANCE		0	$164,000		
PROJECT MANAGEMENT - Project Management costs have already been included in the Monitoring and Maintenance costs					
ENGINEERING		3 %	$44,177		
CONTINGENCY		10 %	$129,347		
GRAND TOTAL - CAPITAL COSTS			**$4,030,885**		

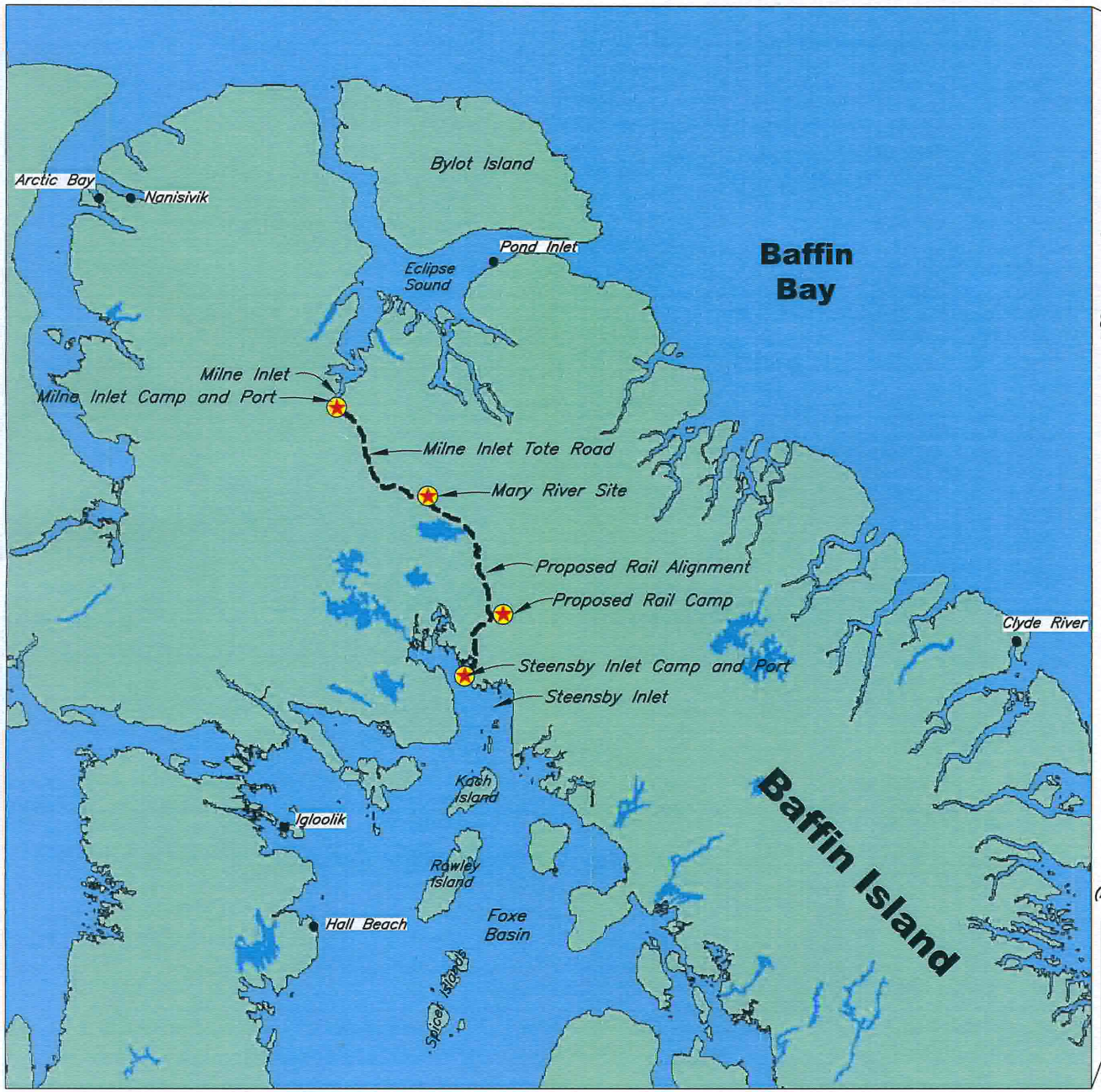
I:\102-00181-6\Assignment\Report\Report 7, Rev. 2 - Abandonment & Restoration Plan\Report 7, Rev. 2 - Abandonment & Restoration Plan (FINAL)\Tables\[Table 8.1 RECLAIM Cost Estimate Summary (Rev 2).xls]Table 8.1 RECLAIM Closure Costs

31-Mar-08

Note:
1. Table developed based Reclaim Model 5.1 format.

Rev. 2 - Revised for 2008

XREF FILE(S): IMAGE FILE(S): 4 Baffinland logo-big corp Baffinland logo_new NORTH BAFFINLAND



LEGEND:

- Water
- Camp Location
- Existing Community

Scale (Approx.) 40 20 0 40 80 120 160 200 Km

NORTH BAY ON. SAVED: I:\102-00181-6\Assignment\Acad\Fig\A16, 3/27/2008 8:11:40 AM PRINTED: 3/27/2008 8:11:49 AM, Layout1, rjohnson

Baffinland Iron Mines Corporation

MARY RIVER PROJECT

PROJECT LOCATION MAP

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P/A NO.	REF.	REV.
NB102-00181/6	7	1

FIGURE 1.1

XREF FILE(S): Base Map 2; Existing Roadway July 2007; Inuit Owned Lands Surface-Subsurface_REV1; Lakes hatched IMAGE FILE(S): 037G05_1079982884802 logo corp Native Land Use

N

8000000 N

7950000 N

7900000 N

7850000 N

7800000 N

7750000 N

500000 E

550000 E

600000 E

650000 E

MILNE INLET

Milne Inlet Camp and Port

Rock Quarry No. 1

Borrow Source No. 1

Phillips Creek

20+000

Refuge Station (Km 33)

PI-19

40+000

Milne Inlet Tote Road

Katiktok Lake

McQuat Lake

60+000

Borrow Source No. 2

PI-17

80+000

Refuge Station (Km 68)

David Lake

Borrow Source No. 3

Mary River Camp

100+000

PI-16

Southern Boundary of North Baffin Planning Region

Angajurjualuk Lake

Quartz Lake

Nina Bang Lake

Erichsen Lake

Ravn River

Tariujaq Arm

PI-20

PI-14

PI-12

PI-13

PI-15

Deposit No. 4 Mining Lease 2483

Deposit No. 4 Camp Lease Area

Muriel Lake

Deposit No. 1 Mining Lease 2484

Mary River Site

Wind Test Tower (Potential Wind Farm Location)

Deposit Nos. 2, 3 and 3B Mining Lease 2485

Rock Quarry No. 2

Mine Area IOL Commercial Lease Boundary

Ravn River

Proposed Rail Alignment

Cockburn River

Rowley River

Rail Camp (Not Present in 2007)

Potential Hydro-Electric Site

On-Ice Drilling Area

Potable Water Source for Steensby Inlet Camp

Steensby Inlet Camp and Port

STEENSBY INLET

LEGEND:

- River/Stream/Drainage
- Milne Inlet Tote Road
- Proposed Rail Alignment
- Contour
- Water
- Inuit Owned Land-Surface Only Excluding Minerals
- Inuit Owned Land-Surface and Subsurface Including Minerals
- Mineral Lease Boundary
- Crown Land
- Existing Borrow Area (IOL Commercial Lease)
- Existing Rock Quarry (IOL Commercial Lease)

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. in late 2007.

Scale 10 5 0 10 20 30 40 Kilometres

Baffinland Iron Mines Corporation

MARY RIVER PROJECT

LOCATION OF PROJECT ACTIVITIES

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P/A NO. NB102-00181/6 | REF. 7 | REV. 1

FIGURE 3.1

NORTH BAY ON. SAVED: i:\102-00181-6\Assignment\Acad\Fig\B75, 3/31/2008 1:43:48 PM PRINTED: 3/31/2008 1:45:02 PM, LAYOUT, rjohnson

Mary River Camp
Camp Lake
MRY-6
MRY-4
Airstrip
Expanded Camp (approximate as of March 31, 2008)
Bone-Yard
Temporary Empty Fuel Drum Storage Area
Existing Polishing/Waste Stabilization Pond
MRY-4a
Temporary Storage of Drums of Diesel Contaminated Human Wastes
Trench for Buried Latrine Waste (Approximiate Location)
Milne Inlet Tote Road
MRY-11
Approximate Location of Crusher and Stockpile
Sheardown Lake
Proposed Landfill Site
Explosives Magazine Storage
Rock Quarry No. 2
Deposit No. 1 Mining Lease 2484
Bulk Sample Pit
MRY-9
MRY-10
Weathered Ore and Waste Rock Stockpile
Mineral Lease Boundaries
Deposit Nos. 2, 3, and 3B Mining Lease 2485
Mary River
Sheardown Lake
Proposed Rail Alignment
7917000 N
7916000 N
7915000 N
7914000 N
7913000 N
7912000 N
558000 E
559000 E
560000 E
561000 E
562000 E
563000 E
564000 E
565000 E

LEGEND:

- Water
- Rock Quarry Location
- River/Stream/Drainage
- Water Licence Monitoring Location
- Milne Inlet Tote Road
- Drill Road
- Proposed Rail Alignment

NOTES:

1. Topography provided by Eagle Mapping (2005).
2. Coordinate grid is shown in UTM (NAD83) Zone 17 and is in metres.
3. Contours are in metres. Contour interval is 10 metres.
4. Layout as of December 31, 2007 provided by BH Martin/Genivar and Baffinland.
5. Some infrastructure not shown for clarity.

Scale 250 125 0 250 500 750 1000 1250 Metres

Baffinland Iron Mines Corporation

MARY RIVER PROJECT

MARY RIVER SITE LAYOUT

Knight Piésold CONSULTING

P/A NO.	REF.	REV.
NB102-00181/6	7	0

FIGURE 3.2

XREF FILE(S): PROJECT SITE PLAN 2m INTERVAL_REV2; Mine_Site_Water Hatch IMAGE FILE(S): 070820_Sheardown_Lake_North_Bathy1, Baffinland logo-big corp Baffinland logo-big corp EagLogo

NORTH BAY ON. SAVED: E:\102-00181-6\Assignment\Acad\Fig\BB2, 3/28/2008 11:10:46 AM PRINTED: 3/31/2008 1:40:44 PM, Layout1, bpark

Milne Inlet

PMTF-001
PMSD-001

MRY12a
MRY12b

Previous Tent Camp and Greywater Sump (Approximate Location – Pre October 2007)

Ore Stockpiles Location

Existing Cabin

Sewage Outfall

Temporary Ash Storage Area

Trench for Buried Latrine Waste (Approximate Location in 2007)

Temporary Non–Hazardous Waste Storage Area

Existing Polishing/Waste Stabilization Pond (MRY–5a)

Temporary Storage of Drummed Latrine Waste (2007)

Fuel Drums on Pallets Storage Area

MRY7 (Proposed)

Laydown Area

Fuel Storage

Incinerator

Temporary Empty Fuel Drums on Ground

Hazardous Waste Berm

BS-001
PMT-001
Fuel Farm

PMBC-002
PMPL-002
Fuel Drums in Lined Storage Area

Shanco Camp

Airstrip

Fuel Storage

Garage

Wastewater Treatment Facility (MRY–5)

Laydown Area

Milne Inlet Tote Road

Rock Quarry No. 1

Borrow Source No. 1

7977000 N
7976500 N
7976000 N
7975500 N

501500 E
502000 E
502500 E
503000 E
503500 E
504000 E
504500 E
505000 E

25
50
75
100
125

LEGEND:

- Water
- Inuit Owned Land–Surface Only Excluding Minerals
- Crown Land
- Laydown Area
- Surface Rights Area (IOL Commercial Lease)
- Existing Borrow Area (IOL Commercial Lease)
- Existing Rock Quarry (IOL Commercial Lease)
- Wetland
- Drillhole Completed in 2007
- River/Stream/Drainage
- Direction of surface water runoff
- Milne Inlet Tote Road
- Road
- MRY5 Water Licence Monitoring Location

NOTES:

1. Topography provided by Eagle Mapping (2005).
2. Coordinate grid is shown in UTM (NAD83) Zone 17 and is in metres.
3. Contours are in metres. Contour interval is 2.5 metres.
4. Layout provided by BH Martin/Genivar and Baffinland (as of December 31, 2007).

Scale 100 50 0 100 200 300 400 500 Metres

Baffinland Iron Mines Corporation

MARY RIVER PROJECT

MILNE INLET CAMP AND PORT LAYOUT

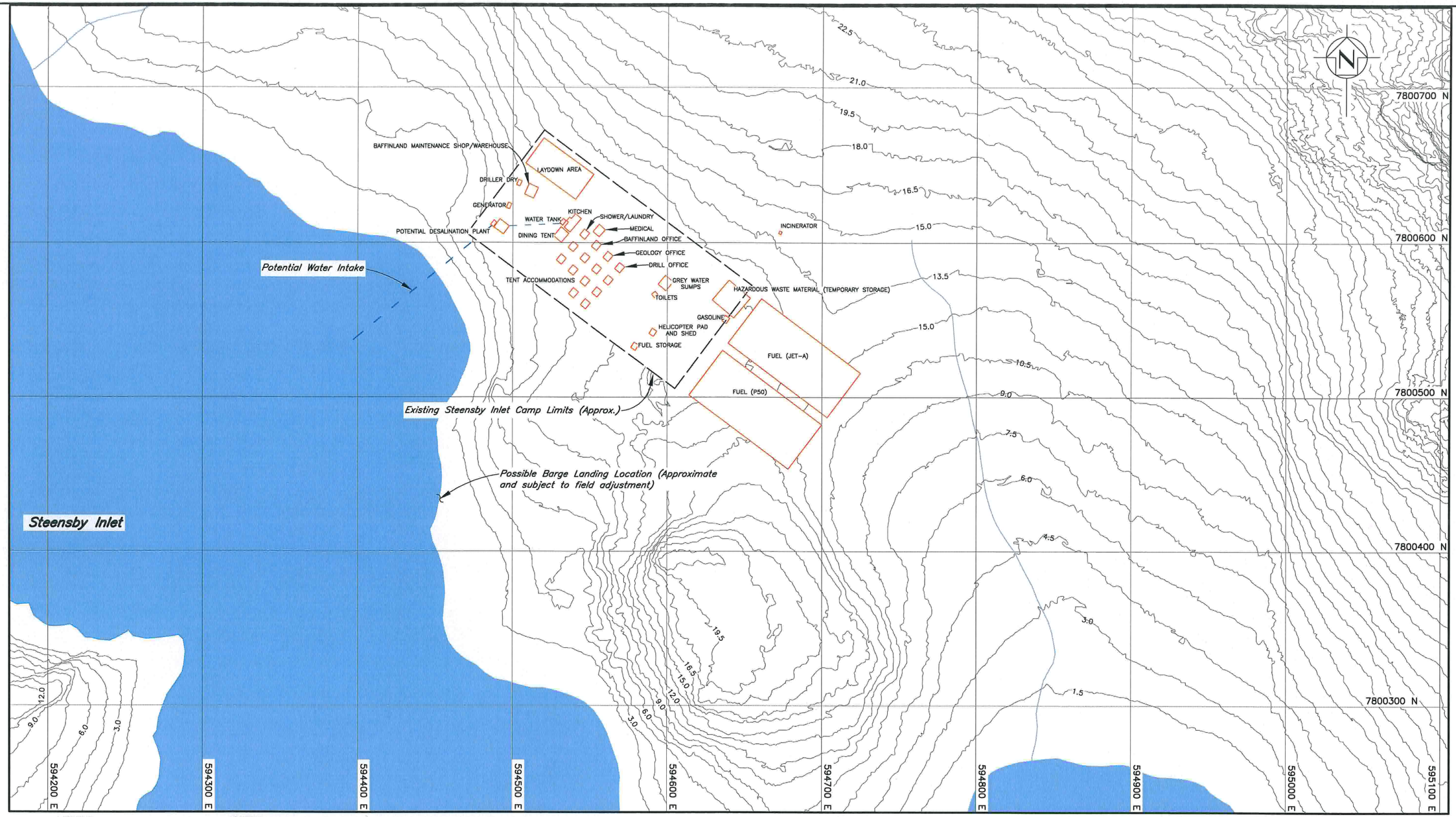
Knight Piésold CONSULTING

P/A NO.	REF.	REV.
NB102-00181/6	7	0

FIGURE 3.3

XREF FILE(S): Milne bases; Inuit Owned Lands Surface-Subsurface_REV1; Lakes hatched IMAGE FILE(S): Baffinland logo-big corp

NORTH BAY ON. SAVED: I:\102-00181-6\Assignment\Acad\Fig\R76, 3/31/2008 2:10:28 PM PRINTED: 3/31/2008 2:10:56 PM, Layout1, gnelson



LEGEND:

- Water
- Wetland
- River/Stream/Drainage

NOTES:

1. ALS contour data was provided by Terrapoint (2006).
2. Coordinate grid is shown in UTM (NAD83) Zone 17 and is in metres.
3. Contours are in metres. Contour interval is 1.5 metres.
4. No location details available for 2007 Steensby Inlet Camp. With the exception of three existing tent structures including a kitchen/wash tent), an outhouse and two lined fuel storage areas, all infrastructure shown is proposed. Location of the proposed Steensby Inlet Camp infrastructure is approximate and subject to field adjustment.
5. The camp will consist of either tents (ie. weatherhaven) or trailers (ie. Shanco style). A tent camp is shown.

Scale 25 13 0 25 50 75 100 125 Metres

Baffinland Iron Mines Corporation

MARY RIVER PROJECT

STEENSBY INLET AREA PROPOSED CAMP LAYOUT

Knight Piésold CONSULTING

P/A NO.	REF.	REV.
NB102-00181/6	7	0

FIGURE 3.4

LEGEND:

- Water
- Wetland
- River/Stream/Drainage
- Proposed Rail Alignment

NOTES:

1. Topography provided by Eagle mapping (2005).
2. Coordinate grid is shown in UTM (NAD83) Zone 17 and is in metres.
3. Contours are in metres. Contour interval is 2.5 metres.
4. Proposed Rail Alignment provided by Canarail Consultants Inc. in late 2007.
5. Location of the proposed Rail Camp infrastructure is approximate and subject to field adjustment.

Scale 20 10 0 20 40 60 80 100 Metres

Baffinland Iron Mines Corporation

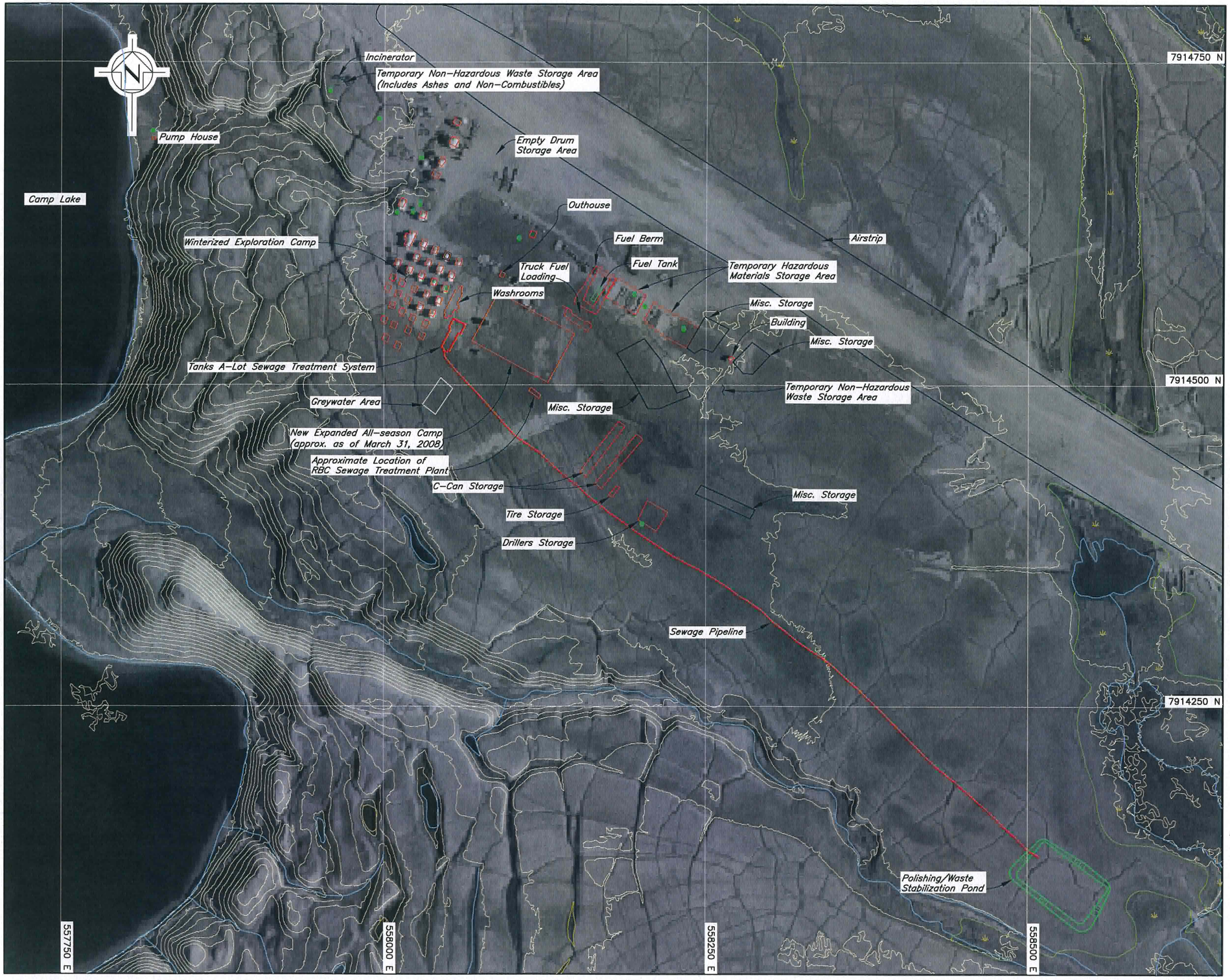
MARY RIVER PROJECT

RAIL CAMP
PROPOSED CAMP LAYOUT

Knight Piésold CONSULTING

P/A NO.	REF.	REV.
NB102-00181/6	7	0

FIGURE 3.5



LEGEND:

- River/Stream/Drainage
- Spill Kit
- Tent

NOTES:

1. Airphotos provided by Eagle Mapping (2005) and ALS contour data provided by Terrapoint (2006).
2. Coordinate grid is shown in UTM (NAD83) Zone 17 and is in metres.
3. Contours are in metres. Contour interval is 1.5 metres.
4. Layout as of December 31, 2007 provided by BH Martin/Genivar and Baffinland.

Scale 30 15 0 30 60 90 120 150 Metres

Baffinland
IRON MINES CORPORATION

MARY RIVER PROJECT

MARY RIVER CAMP

Knight Piésold CONSULTING

P/A NO.	REF.	REV.
NB102-00181/6	7	1

FIGURE 3.6

XREF FILE(S): Mine Site Lidar; Mine_Site_Water Hatch; PROJECT SITE PLAN 2m INTERVAL_BDV3 IMAGE FILE(S): logo-big corp edit Mary River 070820_Sheardown_Lake_North_Bathy1L Baffinland logo-big corp EagLogo
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APPENDIX A

▲R2

RECLAIM MODEL RESULTS

- Cost Estimate 19 pages

SUMMARY OF COSTS

Capital Costs

COMPONENT TYPE	COMPONENT NAME	TOTAL COST	Land Liability	Water Liability
OPEN PIT	Bulk Sample Pit	$19,332.75	$19,333	$0
~~UNDERGROUND MINE~~	0	NO UNDERGROUND MINE		
~~TAILINGS~~	0	NO TAILINGS FACILITY		
ROCK PILE	Residual Ore	$18,680.00	$18,680	$0
BUILDINGS AND EQUIPMENT	0	$633,270.30	$525,348	$107,923
CHEMICALS AND SOIL MANAGEMENT	Camps and Operatio	$207,406.00	$207,406	$0
WATER MANAGEMENT	Bulk Sample Progran	$780.00	$0	$780
POST-CLOSURE SITE MAINTENANCE		$593,105.53	$444,357	$148,749
SUBTOTAL		**$1,472,575**	**$1,215,123**	**$257,452**
		Percentages		
MOBILIZATION/DEMOBILIZATION	0	$2,220,786		
MONITORING AND MAINTENANCE	0	$164,000		

PROJECT MANAGEMENT - Project Management costs have already been included in the Monitoring and Maintenance costs

ENGINEERING	3 %	$44,177		
CONTINGENCY	10 %	$129,347		
GRAND TOTAL - CAPITAL COSTS		**$4,030,885**		

1 **Open Pit Name:** ***Bulk Sample Pit*** **Pit #** ***1***

ACTIVITY/MATERIAL	Units	Quantity	Cost Code	Unit Cost	Cost	% Land	Land Cost	Water Cost
A OBJECTIVE: CONTROL ACCESS								
. • Controlled access is not required.								
B OBJECTIVE: STABILIZE SLOPES								
. Drill and blast pit crests	m3	300	DBh	22	$6,600	100%	$6,600	$0
. Buldoze/trim overburden at crest	m3	300	DRh	1.95	$585	100%	$585	$0
. Runoff diversion berms around top of open pit	m3	75	SB2h	5.97	$448	100%	$448	$0
C OBJECTIVE: COVER/CONTOUR SLOPES								
. • Weathered shallow bulk sample pit will not require capping. If visual observations or runoff water analyses (SEE POST CLOSURE COSTS) suggest otherwise a contingency plan (SEE POST CLOSURE COSTS) will be implemented to mix the weathered ore with neutralizing material and to reroute up-gradient surface runoff around the pile.								
. OBJECTIVE: SPILLWAY								
. • Spillway is not required at this site as pit is self-draining.								
E OBJECTIVE: FLOOD PIT								
. • Shallow pit is self draining and thus will not be flooded.								
F RECLAIM QUARRIES								
. • Borrow areas will be progressively reclaimed as part of operations, including maintaining stable side slopes and restoration of natural drainage.								
. Recontour borrow areas and quarries	m3	6000	DRh	1.95	$11,700	100%	$11,700	$0
H OTHER ITEMS								
.								
Subtotal					$19,333	100%	$19,333	$0
					Total Pit	Percent Land	Total Land	Total Water

1 **Underground Mine Name** _____ **UG Mine #** ***1***

ACTIVITY/MATERIAL	Units	Quantity	Cost Code	Unit Cost	Cost	% Land	Land Cost	Water Cost
A OBJECTIVE: CONTROL ACCESS								
Fence	m		#N/A	0	$0		$0	$0
. Signs	each		#N/A	0	$0		$0	$0
. Ditch, mat'l A	m3		#N/A	0	$0		$0	$0
. , mat'l B	m3		#N/A	0	$0		$0	$0
. Berm	m3		#N/A	0	$0		$0	$0
. Block adits	m3		#N/A	0	$0		$0	$0
. Cap shaft	m3		#N/A	0	$0		$0	$0
. Cap raise #1	m3		#N/A	0	$0		$0	$0
. Cap raise #2	m3		#N/A	0	$0		$0	$0
. Backfill adits	m3		#N/A	0	$0		$0	$0
. Backfill shaft	m3		#N/A	0	$0		$0	$0
. Backfill raise #1	m3		#N/A	0	$0		$0	$0
. Backfill raise #2	m3		#N/A	0	$0		$0	$0
. Backfill open stopes	m3		#N/A	0	$0		$0	$0
. Other			#N/A	0	$0		$0	$0
B OBJECTIVE: STABILIZE GROUND SURFACE								
. Backfill mine	m3		#N/A	0	$0		$0	$0
. Collapse crown pillar			#N/A	0	$0		$0	$0
. Contour, mat'l A	m3		#N/A	0	$0		$0	$0
. , mat'l B	m3		#N/A	0	$0		$0	$0
. Maintain de... (see "...NITO.../MAINTENANCE" costing component)			#N/A	0	$0		$0	$0
. Other			#N/A	0	$0		$0	$0
C OBJECTIVE: LOC... NE								
. Plug adits	m3		#N/A	0	$0		$0	$0
. Plug drillholes to surface	each		#N/A	0	$0		$0	$0
. Grouting	m3		#N/A	0	$0		$0	$0
. LIme addition, kg/m3 of water	tonne		#N/A	0	$0		$0	$0
. Lime, purchase and shipping	tonne		#N/A	0	$0		$0	$0
D OBJECTIVE: HAZARDOUS MATERIALS								
. remove hazardous materials	each		#N/A	0			$0	$0
. remove/decontam. equipment	each		#N/A	0	$0		$0	$0
. Other			#N/A	0	$0		$0	$0
E SPECIALIZED ITEMS								
.			#N/A	0	$0		$0	$0
Subtotal					$0	#DIV/0!	$0	$0
					Total U/G	Percent Land	Total Land	Total Water

NO U/G MINE

1 **Tailings Impoundment Name:** _____ **Impoundment #** ***1***

	ACTIVITY/MATERIAL	Units	Quantity	Cost Code	Unit Cost	Cost	% Land	Land Cost	Water Cost
A	OBJECTIVE: CONTROL ACCESS								
	Fence	m		#N/A	0	$0		$0	$0
.	Signs	each		#N/A	0	$0		$0	$0
.	Ditch, mat'l A	m3		#N/A	0	$0		$0	$0
.	, mat'l B	m3		#N/A	0	$0		$0	$0
.	Berm	m3		#N/A	0	$0		$0	$0
.	Block roads	m3		#N/A	0	$0		$0	$0
.	Other			#N/A	0	$0		$0	$0
B	OBJECTIVE: STABILIZE EMBANKMENT								
.	Toe buttress, drain mat'l	m3		#N/A	0	$0		$0	$0
.	, fill mat'l A	m3		#N/A	0	$0		$0	$0
.	, fill mat'l B	m3		#N/A	0	$0		$0	$0
.	Rip rap	m3		#N/A	0	$0		$0	$0
.	Vegetate	ha		#N/A	0	$0		$0	$0
.	Raise crest	m3		#N/A	0	$0		$0	$0
.	Flatten slopes	m3		#N/A	0	$0		$0	$0
.	Other			#N/A	0	$0		$0	$0
C	OBJECTIVE: COVER TAILINGS								
.	Soil cover	m3		#N/A	0	$0		$0	$0
.	Rip rap	m3		#N/A	0	$0		$0	$0
.	Vegetate			#N/A		$0		$0	$0
.	Other			#N/A		$0		$0	$0
D	OBJECTIVE: FLOOD TAILINGS								
.	Ditch, mat'l A			#N/A	0	$0		$0	$0
.	, mat'l B			#N/A	0	$0		$0	$0
.	Raise crest	m3		#N/A	0	$0		$0	$0
.	Other			#N/A	0	$0		$0	$0
E	OBJECTIVE: TREAT SUPERNATANT								
.	Pump water	m3		#N/A	0	$0		$0	$0
.	Supply reagent	tonne		#N/A	0	$0		$0	$0
.	Operate treatment plant	m3		#N/A	0			$0	
.	Other			#N/A	0	$0		$0	$0
F	OBJECTIVE: UPGRADE SPILLWAY								
.	Excavate channel, mat'l A	m3		#N/A	0	$0		$0	$0
.	, mat'l B	m3		#N/A	0	$0		$0	$0
.	Concrete	m3		#N/A	0	$0		$0	$0
.	Rip rap	m3		#N/A	0	$0		$0	$0
.	Other			#N/A	0	$0		$0	$0
G	OBJECTIVE: STABILIZE DECANT SYSTEM								
.	Remove	m3		#N/A	0	$0		$0	$0
.	Plug/backfill	m3		#N/A	0	$0		$0	$0
.	Other			#N/A	0	$0		$0	$0
H	OBJECTIVE: REMOVE TAILINGS DISCHARGE								
.	Cyclones	m3		#N/A	0	$0		$0	$0
.	Pipe	m3		#N/A	0	$0		$0	$0
.	Other			#N/A	0	$0		$0	$0
I	SPECIALIZED ITEMS								
.				#N/A	0	$0			$0
	Subtotal					$0	#DIV/0!	$0	$0
						Total Tailings	Percent Land	Total Land	Total Water

1 **Rock Pile Name: *Residual OR* Rock Pile #: *1***

ACTIVITY/MATERIAL	Units	Quantity	Cost Code	Unit Cost	Cost	% Land	Land Cost	Water Cost
A OBJECTIVE: STABILIZE SLOPES								
• The weathered ore and waste rock stockpile will be constructed with 2H:1V side slopes and to a height of approx. 4 m which will be be physically stable in the long term. Inspection during post-closure site visits will verify this.								
B OBJECTIVE: COVER DUMP								
• No cover planned.								
C OBJECTIVE: RELOCATE DUMPS								
• Minor amounts of residual ore will be present at the crushing station and stockpile areas at Mary River and Milne Inlet. Crusher and ore storage areas will be graded and covered with approximately 1.0m of borrow material (SEE BELOW).								
• The potential for the weathered ore and waste rock stockpile to produce poor quality run-off is considered low. If visual observations or runoff water analyses (SEE POST CLOSURE COSTS) suggest otherwise a contingency plan (SEE POST CLOSURE COSTS) will be implemented to mix the weathered ore with neutralizing material.								
Buldoze/trim crusher and ore storage areas at Mary River and Milne Inlet	m3	1000	DSl	0.78	$780	100%	$780	$0
Apply 1.0m borrow cover over residual ore at crushing station and stockpile areas at Mary River and Milne Inlet	m3	2000	SB4h	8.95	$17,900	100%	$17,900	$0
D OBJECTIVE: COLLECT AND TREAT								
• If visual observations or runoff water analyses (SEE POST CLOSURE COSTS) suggest otherwise a contingency plan (SEE POST CLOSURE COSTS) will be implemented to mix the weathered ore and waste rock with neutralizing material.								
E OBJECTIVE: DEVELOP WETLAND								
• Not applicable.								
F SPECIALIZED ITEMS								
• Not applicable.								
Subtotal					$18,680	100.0%	$18,680	$0
					Total for Rock Pile	Percent Land	Total Land	Total Water

1 **Building / Equip Name:** _____ **Bldg / Equip #:** ***1***

	ACTIVITY/MATERIAL	Units	Quantity	Cost Code	Unit Cost	Cost	% Land	Land Cost	Water Cost
A	OBJECTIVE: DISPOSE MOBILE EQUIPMENT (Decontaminate and ship to Milne/Steensby Inlet)								
.	Demobilize mobile equipment to Milne Inlet - 100km by road	$/km/75pc	7500	MHERl	2.81	$21,075	100%	$21,075	$0
.	Demobilize mobile equipment at Rail Camp to Steensby Inlet - by air	$/hr/3pc	3	MHEA	800	$2,400	100%	$2,400	$0
B	OBJECTIVE: DISPOSE STATIONARY EQUIPMENT (Decontaminate and ship to Milne/Steensby Inlet)								
.	Demobilize stationary equipment to Milne Inlet - 100km by road - generators, sewage treatment plant, etc.	$/km/15pc	1500	MHERl	2.81	$4,215	100%	$4,215	$0
.	Demobilize stationary equipment at Rail Camp to Steensby Inlet - by airplane - generators, incinerator, etc.	$/hr/3pc	3	MHEA	800	$2,400	100%	$2,400	$0
C	OBJECTIVE: DISPOSE ORE CONCENTRATION EQUIPMENT (Decontaminate and ship to Milne/Steensby Inlet)								
.	• Contractor equipment (crusher, conveyors, stackers, etc) is removed as part of operations								
D	OBJECTIVE: DISPOSE WATER TREATMENT EQUIPMENT (Decontaminate and ship to Milne/Steensby Inlet)								
.	Remove tanks at Mary River	$/km/2 pcs	200	MHERl	2.81	$562	100%	$562	$0
.	Remove plumbing	m	1300	PPSl	0.5	$650	100%	$650	$0
E	OBJECTIVE: DECONTAMINATE BUILDINGS & TANKS (and ship to Milne/Steensby Inlet)								
.	Demolish maintenance garage and dispose in landfill.	person-days	4	#N/A	500	$2,000	100%	$2,000	$0
.	Camp (Mary River Camp, Milne Inlet, Mid-way, Rail Camp, Steensby Camp and temp. drill camps)	person-days	80	#N/A	500	$40,000	100%	$40,000	$0
.	Drain, fold, and containerize Mary River and Milne Inlet bulk fuel bladders and truck containers of bladders (3 containers) from Mary River to Milne Inlet	L.S.	1	#N/A	41,000	$41,000	100%	$41,000	$0
.	Remove geomembrane liners	m3	1000	SB2h	5.97	$5,970	100%	$5,970	$0
.	Transport geomembrane liners to Milne/Steensby Inlet	$/km/8pc	800	MHERl	2.81	$2,248	100%	$2,248	$0
.	Decontaminate buried concrete sewage system tank in A-Lot	person-days	4	#N/A	500	$2,000	100%	$2,000	$0
F	OBJECTIVE: MOTHBALL BUILDINGS								
.	• No buildings (mothball) will remain								
.	Airstrips will remain (inspect and repair any erosion)	m3	5000	DSl	0.78	$3,900	100%	$3,900	$0
G	OBJECTIVE: REMOVE BUILDINGS (to Milne Inlet)								
.	Mary River - seasonal camp	m2	5000	BRW1l	21.5	$107,500	100%	$107,500	$0
.	Mary River - all weather camp - including treatment plant, airstrip ligh	m2	5000	BRW1l	21.5	$107,500	100%	$107,500	$0
.	4 wooden buildings at Mary River (< 200 ft^2 each)	m2	80	BRW2l	5.5	$440	100%	$440	$0
.	NUNA Logistics Milne Inlet camp	m2	1000	BRW1l	21.5	$21,500	100%	$21,500	$0
.	Refuge stations	m2	200	BRW1l	21.5	$4,300	100%	$4,300	$0
.	Temporary drill camps (helicopter support included in mobilization co	m2	500	BRW1l	21.5	$10,750	100%	$10,750	$0
.	Remove boneyard waste to landfill	m3	1000	SB1h	4.85	$4,850	100%	$4,850	$0
.	Truck 100 containers to Milne Inlet - includes camp items, comm. towers, tents, etc	$/km/100 pcs	10000	MHERl	2.81	$28,100	100%	$28,100	$0
.	Rail Camp	m2	1000	BRW1l	21.5	$21,500	100%	$21,500	$0
.	Transport 10 containers from Rail Camp to Steensby Inlet - includes camp items, tents, etc	$/hr/10pc	10	MHEA	800	$8,000	100%	$8,000	$0
.	Steensby Camp	m2	1000	BRW1l	21.5	$21,500	100%	$21,500	$0

1 **Building / Equip Name:** _____ **Bldg / Equip #:** ***1***

	ACTIVITY/MATERIAL	Units	Quantity	Cost Code	Unit Cost	Cost	% Land	Land Cost	Water Cost
H	OBJECTIVE: BREAK BASEMENT SLABS								
.	• No concrete slabs are present. The camp structures are founded on wooden floor systems.								
I	OBJECTIVE: REMOVE BURIED TANKS								
.	Demolish buried concrete sewage system tank in A-Lot	m3	500	RB1l	9.35	$4,675	100%	$4,675	$0
.	Remove demolished concrete sewage system tank in A-Lot to landfil	m3	500	SB1h	4.85	$2,425	100%	$2,425	$0
J	OBJECTIVE: LANDFILL FOR DEMOLITION WASTE								
.	Placement of waste materials into landfill	m3	1250	SB1h	4.85	$6,063	100%	$6,063	$0
.	Apply cover over landfill	m3	1000	SB4h	8.95	$8,950	100%	$8,950	$0
K	OBJECTIVE: GRADE AND CONTOUR								
.	Recontour camp site areas as required (using dozer)	m3	12500	DSh	3.11	$38,875	100%	$38,875	$0
L	OBJECTIVE: RECLAIM ROADS								
.	Remove 10 navigatable water crossings - 30 days x crew of 6	person-days	180	#N/A	500	$90,000	0%	$0	$90,000
.	Excavate, load and haul to landfill/Milne Inlet	m3	1702	SB1l	3.2	$5,446	0%	$0	$5,446
.	Additional cost to haul sea containters, culverts, etc 60km to landfill/Milne Inlet	$/load/km	4440	MHERl	2.81	$12,476	0%	$0	$12,476
.	• There was an existing tote road and will remain at abandonment.								
K	SPECIALIZED ITEMS								
.									
	Subtotal					$633,270	83.0%	$525,348	$107,923
						Total Buildings	Percent Land	Total Land	Total Water

Chemicals and Soil Contamination: *Camps and Operations 1*

ACTIVITY/MATERIAL	Units	Quantity	Cost Code	Unit Cost	Cost	% Land	Land Cost	Water Cost
Note: The procedures, equipment and packaging for clean up and removal of chemicals or contaminated soils are highly dependent on the nature of the chemicals and their existing state of containment. Government guidelines should be consulted on an individual chemical basis. Any estimate made here should be considered very rough unless specific evaluations have been conducted.								
A LABORATORY CHEMICALS								
. Miscellaneous	pallet	2	LCRh	2320	$4,640	100%	$4,640	$0
B PCB, hauling								
. • No PCB's								
C FUEL								
. Fuel - Return excess fuel at Mary River to Milne (assume 500,000L) - Road is 100km long.	$/km/44 loads	4400	MHERl	2.81	$12,364	100%	$12,364	$0
. Fuel handling (preparing fuel for transport, etc)	L.S.	1	#N/A	5000	$5,000	100%	$5,000	$0
D WASTE OIL								
. Oils/lubricants - transported to Milne Inlet. Progressive reclamation in 2008 has reduced volume to dispose of at abandonment.	litre	1000	ORl	0.35	$350	100%	$350	$0
E PROCESS OR TREATMENT CHEMICALS								
. • None								
F EXPLOSIVES								
. Transport explosives magazines to Milne Inlet	$/km/16 pcs	1600	MHERH	8.42	$13,472	100%	$13,472	$0
G CONTAMINATED SOILS								
. Excavate contaminated materials	m3	1300	SB1h	4.85	$6,305	100%	$6,305	$0
. Transport contaminated materials to Milne Inlet	m3	1000	CSRl	38.5	$38,500	100%	$38,500	$0
. Backfill excavation	m3	1000	SB1h	4.85	$4,850	100%	$4,850	$0
. Transport contaminated materials from Rail Camp to Steensby Inlet	m3	50	CSRl	38.5	$1,925	100%	$1,925	$0
H Haz. Mat. testing & assessment								
. Technician and analyses	L.S.	1	#N/A	50000	$50,000	100%	$50,000	$0
. OTHER								
. Haz. Mat. waste disposal fee	L.S.	1	#N/A	70000	$70,000	100%	$70,000	$0
Subtotal					$207,406 Total Chemical	100.0% Percent Land	$207,406 Total Land	$0 Total Water

1 **Water Management Project:** ***Bulk Sample Progr*** **Project #** ***1***

ACTIVITY/MATERIAL	Units	Quantity	Cost Code	Unit Cost	Cost	% Land	Land Cost	Water Cost
A OBJECTIVE: STABILIZE EMBANKMENT								
. • No embankment								
B OBJECTIVE: UPGRADE SPILLWAY								
. • No spillway								
C OBJECTIVE: STABILIZE SEDIMENT CONTAINMENT PONDS								
. Regrade two sediment containment ponds with dozer	m3	1000	DSl	0.78	$780	0%	$0	$780
D OBJECTIVE: BREACH EMBANKMENT								
. • No embankment								
E OBJECTIVE: STABILIZE DITCHES								
. • No ditches								
F OBJECTIVE: BREACH DITCHES								
. • No ditches								
G OBJECTIVE: REMOVE PIPELINES								
. • Remove pipes - Included in Activity E of Bldgs & Equip worksheet								
H OBJECTIVE: REMOVE STORAGE TANKS								
. • Remove tanks & plumbing - Included in Activity D of Bldgs & Equip worksheet								
I OBJECTIVE: COLLECT DRAINAGE FOR TREATMENT								
. • No ongoing treatment required								
J OBJECTIVE: TREAT DRAINAGE (see "ONGOING TREATMENT" for operating costs)								
. • No treatment plant necessary								
Subtotal					$780 Total Water	0.0% Percent Land	$0 Total Land	$780 Total Water

Mobilization Name: _____ **Mob #** ***1***

ACTIVITY/MATERIAL	Units	Quantity	Cost Code	Unit Cost	Cost	% Land	Land Cost	Water Cost
A MOBILIZE HEAVY EQUIPMENT								
Equipment to regional centre								
Dedicated sealift for materials from Milne Inlet and Steensby Inlet								
. to Montreal requiring off-site salvage or disposal.	L.S.	1	#N/A	1E+06	$1,400,000		$0	$1,400,000
Equipment, regional centre to site								
. • Sufficient equipment on site from bulk sample program for reclamation activities - NUNA/QC/BIM								
B MOBILIZE CAMP								
. • Use existing camp for reclamation								
C MOBILIZE WORKERS								
. MOB workers	person	90	MM>I	990	$89,100	100%	$89,100	$0
D MOBILIZE MISC. SUPPLIES								
. • Sufficient supplies remain from bulk sample program for reclamation activities								
. Helicopter and Air Plane Support	month	4.5	#N/A	80000	$360,000	90%	$324,000	$36,000
E MOBILIZE & HOUSE WORKERS person days								
. Operate 20-person camp for 4 months	month	90	ACCMI	1320	$118,800	100%	$118,800	$0
. WINTER ROAD								
. • Operate Milne Inlet Tote Road during winter	km	100	WRI	1320	$132,000	100%	$132,000	$0
F BONDING								
. 2.5 basis points of total bond amount	0.00025	1	#N/A	885.9	$886	100%	$886	$0
G TAXES lump sum								
.	L.S.	1	#N/A	20000	$20,000	100%	$20,000	$0
H INSURANCE lump sum								
.	L.S.	1	#N/A	1E+05	$100,000	100%	$100,000	$0
Subtotal					$2,220,786	35.3%	$784,786	$1,436,000
					Total Mob.	Percent Land	Total Land	Total Water

Monitoring & Maintenance Mon / Mtce # *1*

ACTIVITY/MATERIAL	Units	Quantity	Cost Code	Unit Cost	Cost	% Land	Land Cost	Water Cost
A OBJECTIVE: INSPECTIONS								
. Site supervision during final abandonment	$/month	4.5	VIh	30000	$135,000	80%	$108,000	$27,000
. Water sampling	year	1	WSh	9000	$9,000	0%	$0	$9,000
. Additional water sampling costs per year	year	1	WSh	9000	$9,000	0%	$0	$9,000
. Reporting	report	1	RPTh	11000	$11,000	80%	$8,800	$2,200
B OBJECTIVE: MAINTENANCE								
• No items will remain that need to be maintained post-closure. A contigency amount has been added (SEE POST CLOSURE COSTS) to mitigate any . observed ARD/ML during post-closure site visits.								
Subtotal					$164,000 Total Pit	71.2% Percent Land	$116,800 Total Land	$47,200 Total Water

Post-Closure Site Maintenance

ACTIVITY/MATERIAL	Units	Quantity	Cost Code	Unit Cost	Cost	% Land	Land Cost	Water Cost
A WATER TREATMENT								
• Not Applicable. On-going water treatment will not occur. Shallow pit areas will remain free draining. If visual observation or runoff water analyses suggest acid generation or metal leaching during site visits a contigency plan will be implemented (SEE BELOW).								
B Cover Maintenance								
• Cover material on the site is not required except for the landfill. A cover (1.5m) will be placed on the landfill with gentle slopes. Ongoing problems with erosion and integrity is not anticipated. However, the cover will be inspected every year for 5 years post closure (SEE BELOW).								
C Spillway Maintenance								
• Not applicable. No spillways to maintain.								
D Other								
Annual site visits (4 years post closure)	visit	4	VIh	7100	$28,400	80%	$22,720	$5,680
Annual reporting (4 years post closure)	report	4	RPTh	11000	$44,000	80%	$35,200	$8,800
Annual water sampling (25 samples; 4 years post closure)	year	1	WSh	9000	$9,000	0%	$0	$9,000
Additional water sampling costs per year	year	1	WSh	9000	$9,000	0%	$0	$9,000
Contigency: Remediation of ARD/ML and stockpile includes quarry, transport and place buffering material (local overburden). Correcting any unstable areas of the shallow pit may include additional blasting, excavation or backfilling using weathered ore.	m3	30000	SB2h	5.97	$179,100	100%	$179,100	$0
Subtotal, Annual post-closure costs					$90,400		$57,920	$32,480
Discount rate for calculation of net present value of post-closure cost, %			3.00%				$0	
Number of years of post-closure activity			5	years			$0	
Present Value of payment stream					$593,106	74.9%	$444,357	$148,749
					Total Post closure	Percent Land	Total Land	Total Water

WATER TREATMENT COSTS

ANNUAL VOLUME OF WATER (m3)

Reagent addition rates

Reagent	kg reagent/m3 water		cost in $/kg, FOB site	Annual reagent cost
H2O2	0.1	kg/m3	1.5	$0
lime		kg/m3	0.45	$0
ferric sulphate		kg/m3		$0
ferrous sulphate		kg/m3		$0
flocculents		kg/m3		$0
			TOTAL	$0

Supplies and Labour

power, kW-hr	0	rate, $/kW-h		$0
misc. supplies, hoses, tools				$0
sampling equip.				$0
equip. maintenance and parts				$0
water analysis				$0
reporting				$0
truck rental				$0
annual mileage				$0
road maintenace & spo[illegible]				$0
electrician/mechanic for [illegible] plant & power supply				$0
		Annual cost		$0
labour hourly rate	35			
	men per day for water treatment work			1
	on site, days per year			0
	spring/fall maintenance, extra work			0
	hours worked per year			0
	annual labor cost			$0
		Total, labour and suppli		$0
TOTAL ANNUAL COSTS, reagents plus labour and supplies				$0
Average treatment cost, $/m3				$0.00

NO WATER TREATMENT

Water analyses	
samples per month	10
analysis cost/sample	100
shipping	200
Total Water Sampling	1200

Site Access	
annual site access cost	
road	$0
air	$0
winter road	$0

Unit Cost Table

ITEM	Detail	COST CODE	UNITS	LOW $	HIGH $	SPECIFIED $	
1	**excavate Rock, Bulk**						COMMENTS
	drill, blast, load short haul (<500m) Dump	RB1	m3	9.35	14	#N/A	quarry operations for bulk fill
	RB1 + long haul, up to 1500 m	RB2	m3	9.9	14.6	#N/A	
	RB1 + spread and compact	RB3	m3	9.9	14.6	#N/A	
	RB1 + long haul + spread and compact	RB4	m3	10.45	25.25	#N/A	
	RB1 + Specified activity	RBS	m3	#N/A	#N/A	#N/A	
2	**excavate Rock, Controlled**						
	drill, blast, load short haul (<500m) Dump	RC1	m3	22	33	#N/A	spillway excavation
	RC1 + long haul, up to 1500 m	RC2	m3	10.45	15.1	#N/A	
	RC1 + spread and compact	RC3	m3	9.9	14.6	#N/A	
	RC1 + long haul + spread and compact	RC4	m3	11.1	15.73	#N/A	
	RC1 + Specified activity	RCS	m3	#N/A	#N/A	145	$145/M3-drift excavation
3	**excavate Soil, Bulk**						
	excavate, load short haul (<500m) dump	SB1	m3	3.2	4.85	#N/A	LOW cost: excavation of loose soil, high volume
	SB1 + long haul, up to 1500 m	SB2	m3	3.98	5.97	#N/A	LOW cost: excavation of loose soil, 1.5 km haul, high volume
	SB1 + spread and compact	SB3	m3	3.7	5.31	#N/A	
	SB1 + long haul + spread and compact	SB4	m3	4.5	8.95	#N/A	LOW cost: excavation of loose soil, 1.5 km haul, high volume, const. of simple soil cover
	SB1 + Specified activity	SBS	m3	2.31	6.38	10.95	LOW cost: rehandle waste rock dump into pit, >500,000 m3, 2 km haul SPECIFIED cost: rehandle waste rock, haul 3 km, place & compact on dam
	Soil, tailings	SBT	m3	3.03	7.15		LOW cost: doze tailings, HIGH cost: excavate & short haul
4	**excavate Soil, Controlled**						
	excavate, load short haul (<500 m), dump	SC1	m3	5.61	7.65	#N/A	
	SC1 + long haul, up to 1500 m	SC2	m3	6.95	9.64	#N/A	
	SC1 + spread and compact	SC3	m3	5.61	11.66	#N/A	HIGH cost: for simple soil covers
	SC1 + long haul + spread and compact	SC4	m3	6.3	19.05	#N/A	HIGH cost: for complex covers & dam construction, spillway repair, LOW volume
	SC1 + Specified activity	SCS	m3	#N/A	#N/A	15.75	SPECIFIED cost: backfill adit with waste rock
	Geo-synthetics						
	geotextile, filter cloth	GST	M2	0.99	1.98	#N/A	FOB Edmonton, add shipping & installation
	geogrid	GSG	M2	4.73		#N/A	

Unit Cost Table

ITEM	Detail	COST CODE	UNITS	LOW $	HIGH $	SPECIFIED $	
	liner, HDPE	GSHDPE	M2	5.89		#N/A	
	liner, PVC	GSPVC	M2			#N/A	
	geosynthetic installation	GSI	m2	0.83	1	#N/A	
	bentonite soil ammendment	GSBA	tonne	253	286	#N/A	FOB Edmonton, add shipping & mixing
	Shaft, Raise & Portal Closures						
	Shaft & Raises	SR	m2	530	1750	#N/A	LOW cost: pre-cast concrete slabs, little site prep. HIGH cost: for hand construction, remote site
	Portals	POR	m3		205	1000	HIGH cost: for excavate & backfill collapsed portal SPECIFIED cost: installed pressure plug
5	**Concrete work**						
	Small pour, no forms	CS	m3	297	595	#N/A	
	Large pour, no forms	CL	m3	235	350	#N/A	
	Small pour, Formed	CSF	m3	350	1750	#N/A	
	Large pour, Formed	CLF	m3	290	410	#N/A	
6	**Vegetation**						
	Hydroseed, Flat	VHF	ha	1595	4950	#N/A	
	Hydroseed, Sloped	VHS	ha	1848	5555	#N/A	
	veg. Blanket/erosion mat	VB	ha	11000	13200	#N/A	
	Tree planting	VT	ha	11000	13200	#N/A	
	Wetland species	VW	ha	55000	82500	#N/A	
7	**Pumps**						
	Small, <	PS	each	3000	6000	#N/A	
	Large, >	PL	each	5000	100000	#N/A	large - 250 hp Gould w/diesel motor
8	**PiPes**						
	Small, < 6 inch diameter	PPS	m	0.5	5	#N/A	LOW cost: pipe removal, HIGH cost: supply new pipe SPECIFIED: small, heat traced & insulated pipe
	Large, > 6 inch diameter	PPL	m	1	180	#N/A	LOW cost: pipe removal, HIGH cost: supply 24" 100 psi HDPE pipe, FOB Edm. add shipping & installation

Unit Cost Table

	ITEM	Detail	COST CODE	UNITS	LOW $	HIGH $	SPECIFIED $	
9	**pump sand BackFill**		BF	m3	5.5	16.5	#N/A	
10	**Fence**		F	m	11	165	#N/A	
11	**Signs**		S	each	11	33	#N/A	
12	**rock, Drill and Blast only**		DB	m3	11	22	#N/A	
	(flatten slope, collapse drift)							
13	**excavate Rip Rap**	drill, blast, load short haul (<500 m) dump and spread	RR1	m3	10.95	16.35	#N/A	
		RR1 + long haul	RR2	m3	11.1	16.95	#N/A	HIGH cost: quarry & place rip rap in channel
		excavate rock from waste dump, short haul, spread	RR3	m3	4.2	5.78	#N/A	LOW cost: removal of 18 in minus from dump, long haul and spread HIGH cost: removal of coarse rock from dump, long haul, armour spillway
		RR3 + long haul	RR4	m3	4.68	6.25	#N/A	
		specified rip rap source	RR5	m3	#N/A	#N/A	#N/A	
14	**Import LimeStone**		ILS	tonne	8.8	13.2	#N/A	
15	**Import LiMe**		ILM	tonne	165	495	#N/A	LOW cost: bulk shipping, high volume, FOB Vancouver/Edmonton HIGH cost: bags delivered to central Yukon, small volume
16	**Grouting**		G	m3	198	240	#N/A	HIGH cost: cement, FOB Yellowknife
17	**Dozing**							
		doze Rock piles	DR	m3	0.85	1.95	#N/A	LOW cost: doze crest off dump
		doze overburden/Soil piles	DS	m3	0.78	3.11	#N/A	HIGH cost: push up to 300 m
18								
		regrade	DRE	hr			300	
							#N/A	
19								
							#N/A	
							#N/A	
20				each	0	0	#N/A	
				each			#N/A	
21	**Buildings - Decontaminate**							

Unit Cost Table

ITEM	Detail	COST CODE	UNITS	LOW $	HIGH $	SPECIFIED $	
	Chemicals	BDC	m3	#N/A	#N/A	#N/A	
	Asbestos	BDA	m2	21	42	#N/A	LOW cost: removal of asbestos siding & flooring HIGH cost: removal of insulated pipes, friable asbestos
22	**Buildings - Remove**						
	areas are per floor on 3 m average height						LOW cost: removal and on-site disposal - small wooden structures
	Wood - teardown	BRW1	m2	21.5	33	#N/A	
	Wood - burn	BRW2	m2	5.5	11	#N/A	
	Masonry	BRM	m2	23.65	33	#N/A	
	Concrete	BRC	m	33	49.5	6	LOW cost: removal of building perimeter walls, HIGH cost: per m3 for bulk concrete SPECIFIED cost: $/m2 to break floor slab
	Steel - teardown	BRS1	m2	35.2	52.8	240	SPECIFIED cost: demolition shear $/hour operating
	Steel - salvage	BRS2	m2	55	82.5	#N/A	
23	**Power & Pipe Lines**						
	Power lines, remove	POWR	each	20.9	4620	#N/A	
						#N/A	
24	**Laboratory Chemicals**						
	Remove from site	LCR	pallet	1750	2320	#N/A	
	Dispose on site	LCD	each	#N/A	#N/A	#N/A	
25	**PCB - Remove from site**	PCBR	litre	33	38.5	#N/A	LOW cost: shipping, handling & disposal from Yellowknife
26	**Fuel**						
	Remove from site	FR	kg	0	1.02	#N/A	
	Burn on site	FB	kg	#N/A	#N/A	#N/A	
27	**Oil**						
	Remove from site	OR	litre	0.35	1.02	#N/A	
	Burn on site	OB	litre	0.35	0.55	#N/A	
28	**Process Chemicals**						
	Remove from site	PCR	kg	0.35	2.05	#N/A	
	Dispose on site	PCD	kg	#N/A	#N/A	#N/A	
29	**Explosives**						
	Remove from site	ER	kg	0	2.2	#N/A	
	Dispose on site	ED	kg	#N/A	#N/A	#N/A	

Unit Cost Table

ITEM	Detail	COST CODE	UNITS	LOW $	HIGH $	SPECIFIED $	
30	**Contaminated Soils**						
	Remediate on site	CSR	m3	38.5	120	#N/A	LOW cost: bio-remediate on-site. HIGH cost: ship off-site to landfil as haz. waste
	consolidate & cover	Use cost code items 1 - 4					
	cover in place	Use cost code items 1 - 4					
31	**Mobilize Heavy Equipment**						
	Road access	MHER	$/km	2.81	8.42	2.05	SPECIFIED cost: $/tonne/km in cargo plane
	Air access	MHEA	each	#N/A	#N/A	1375	SPECIFIED cost: helicopter cost, $/hr of operation
32	**Mobilize Camp**						
	<20 persons Road access	MC<R	each	#N/A	#N/A	#N/A	
	<20 persons Air access	MC<A	each	#N/A	#N/A	#N/A	
33	**Mobilize Workers**						
	mobilize	MM<	person	193	990	#N/A	LOW cost: road access. HIGH cost: transport by Twin Otter aircraft
	>20 persons	MM>	person	990	1320	#N/A	
34	**ACCoModation**	ACCM	month	1320	1980	#N/A	LOW cost, accom in existing camp, per man, HIGH cost: - supply new camp
35	**Mobilize Misc. Supplies**	MMS	each	#N/A	#N/A	#N/A	LOW cost: winter road - limited use, LOW snowfall
36	**Winter Road**	WR	km	1320	2620	#N/A	
37	**Visual site Inspection**	VI	each	3520	7100	10000	
38	**Survey site Inspection**	SI	each	#N/A	#N/A	#N/A	
39	**Water Sampling**	WS	each	5500	9000	#N/A	
40	**site inspection RePorT**	RPT	each	#N/A	11000	#N/A	
41	**Security Guard**	SG	pers/mo	5500	7700	#N/A	
42	**Maintain Pumping**	MP	month	3300	#N/A	#N/A	
43	**Clear SpillWay**	CSW	each	1870	5280	#N/A	
44	**Build Treatment Plant**						
	Small (< 1000 m3/d)	BTPS	lump su	1E+06	2E+06	#N/A	
	Large (> 1000 m3/d)	BTPL	lump su	2E+06	3.5E+6	#N/A	
45	**Operate Treatment Plant**	OTP	m3	0.29	1.65	#N/A	
46	**SCariFY road and install water breaks**	SCFY	km	3525	4950	#N/A	

Unit Cost Table

ITEM	Detail	COST CODE	UNITS	LOW $	HIGH $	SPECIFIED $
water treatment chemicals						
ferric sulphate		ferric	kg	0.67		
ferrous sulphate		ferrous	kg	0.44		
lime		lime	kg	0.3		
hydrogen peroxide, 50%		hperox	kg	1.43		
Sodium Metabisulfate		Nametab	kg	0.99		
Caustic soda, 50%		caustic	kg	0.62		
Sulfuric acid, 93%		sulfuric	kg	0.26		
flocculant		flocc	kg	5.39		
copper sulphate		copper	kg			
typical shipping, to Whitehorse or Yellowknife			kg	0.072		
Typical Labour & Equipment Rates						
	Site manage		$/hr	70	80	
	Mine superintenden		$/hr		60	
	Environmental coordinato		$/hr		60	
	Journeyman (mech, elec, weld)		$/hr	50	60	
	Equipment operato		$/hr	45	55	
	labour - skilled		$/hr	35	38	
	labour - unskillec		$/hr	32	35	
	Security / first aic		$/hr	38	48	
	Admin.		$/hr	42	49	
	Front end loader, ?, Cat99		$/hr		330	
	excavator, Cat23		$/hr		175	
	dump truck - tandem		$/hr			
	dump truck off road, Cat 77		$/hr	265		
	dozer, D8, D1(		$/hr	170	300	