



March 31, 2010

Transmitted via: e-mail and Canada Post

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Email: [licensing@nunavutwaterboard.org](mailto:licensing@nunavutwaterboard.org)

Dear Ms. Beaulieu and Mr. Dwyer:

RE: Submission of 2009 Annual Report to the Nunavut Water Board,  
Type B Water Licence #2BB-MRY0710  
Mary River Project

Baffinland Iron Mines Corporation (BIM) is pleased to submit, herewith, one copy of the Annual Water Licence Report which is a requirement under Part B, Item 5 of the above referenced water licence. This report has been prepared to summarize the project activities and monitoring undertaken by BIM during 2009.

In accordance with Part B, Item 5 (x) of the water licence, an annual review of the management plans developed under the water licence has been undertaken. Updates to the Abandonment and Reclamation Plan, the Spill Contingency Plan, Site Water Management Plan, QA/QC Plan and Wastewater Management Plan have been completed and form Appendix F of the subject document.

This document has been uploaded to our ftp site. The accompanying e-mail provides you with a link to access and download the document files. A hard copy of the document and CD will also be sent to you via Canada Post.

Please do not hesitate to contact [jim.millard@baffinland.com](mailto:jim.millard@baffinland.com) should you have any questions regarding this submission or have problems downloading the document.

Yours sincerely,

**Baffinland Iron Mines Corporation**

A handwritten signature in black ink, appearing to read 'J. Millard', written over a horizontal line.

James Millard, M.Sc., P.Geo.  
Senior Environmental Superintendent

Attach: One hard copy and CD of the 2009 Annual Report to the Nunavut Water Board

cc: Stephen Bathory, QIA.  
Andrew Keim, INAC  
Bill Napier, Matthew Pickard, Len Kutchaw BIM

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**BAFFINLAND IRON MINES CORPORATION  
MARY RIVER PROJECT**

**2010 ABANDONMENT AND RECLAMATION PLAN**

**MARCH 31, 2010**

**Baffinland Iron Mines Corporation**

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**BAFFINLAND IRON MINES CORPORATION  
MARY RIVER PROJECT**

**2010 ABANDONMENT AND RECLAMATION PLAN**

**EXECUTIVE SUMMARY**

Foreword

The Mary River Project is an advanced iron ore 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 has released a Definitive Feasibility Study (DFS) demonstrating the robust potential of full-scale development and has initiated the regulatory approval process for full-scale development. This Abandonment and Reclamation Plan (A&R Plan) was prepared to address closure and reclamation in accordance with best corporate governance practices and as a condition of the surface lease held by Baffinland with the Qikiqtani Inuit Association.

Earlier versions of this A&R Plan were prepared to support environmental screening and permitting activities for the bulk sampling program as well as to reflect the outcome of the environmental screening and changes to the scope of the work as provided by Amendment No. 2 to the Nunavut Water Board (NWB) water licence and associated comments made by the NWB (Knight Piésold Ref. No. NB102-00181/6-7, Rev. 2, dated 31-March-2008).

This document is an update to the March 2009 version of the A&R Plan in order to reflect changes in reclamation requirements caused by operations and reclamation activities since the last version and to reflect continued improvement in cost estimation accuracy.

This updated A&R Plan will become the closure document that Baffinland would follow if there were no immediate or pending plans to advance the project towards mine development, subject to any future revisions required to reflect material changes. The A&R Plan provides a full cost of implementing closure that addresses all project-related activity areas and infrastructure related to the Mary River Project that will be in place assuming a planned shut-down by Baffinland as of January 1, 2011. This is a hypothetical date as actual closure timing is currently unknown.

Key differences relative to the 2009 A&R Plan submission include:

- Changes in site conditions from that which was assumed in the 2009 A&R Plan due to actual operations and actual progressive reclamation activities performed during 2009.
- Improved task definition, productivity and cost estimates due to actual experience gained during 2009 operations and reclamation activities.
- Costs for planned progressive reclamation activities during 2010 have been included.
- Improved estimation of helicopter and fixed wing aircraft support requirements due to actual experience gained during 2009 operations and reclamation activities.

- Inclusion of a contingency amount which was estimated by applying a unique contingency amount to each of approximately 200 individual tasks according to the quality of the scope, equipment and labour productivity assumptions and other information affecting the cost estimate for each individual task.
- Inclusion of a management reserve amount to cover the cost of modifications or additions to the scope of work included in this A&R Plan.
- Updated labour and equipment rates.
- Inclusion of engineering not included in the 2009 A&R Plan.

#### Site Description

The Mary River Project is an advanced exploration project. Programs and activities are designed to support exploration and advancing the Project to full-scale development. In summary, project-related activity areas and infrastructure related to the existing Mary River Project include:

#### Camps and Related Facilities

- A 100-person winterized exploration tent camp and a 100-person all-season tent camp, and ancillary facilities (e.g. washroom/dry, firehall, workshop, sea containers for storage, camp generators, incinerator, sewage tanks/treatment plants/ponds, mobile equipment, etc) at Mary River.
- An all-season 55 person fully serviced trailer camp, associated facilities and related infrastructure at Milne Inlet constructed to support the Milne Inlet Tote Road construction activities, seasonal re-supply, and barge loading of the bulk sample.
- A temporary tent camp, associated facilities and related infrastructure for approximately 40 people part way along the potential future railway alignment north of Cockburn Lake referred to as the Mid Rail camp constructed to support the geotechnical drill program between Mary River and Steensby Inlet, as well as environmental studies based in the area.
- A temporary tent camp, associated facilities and related infrastructure for approximately 50 people with associated facilities and related infrastructure was constructed to support environmental studies, seasonal re-supply, on-ice port site drilling and geotechnical drilling in the general southern area of the rail alignment. A sea-lift in 2008 delivered a trailer camp (12 trailer units still in storage at laydown area) to Steensby Inlet to replace or supplement the tent camp for use in the future field programs.
- Two temporary refuge stations along the Milne Inlet Tote Road.
- Two communication towers and repeater stations positioned along the Milne Inlet Tote Road and an additional repeater is installed on Deposit No. 1 during the field season
- Weather stations located at Mary River and both Milne Inlet and Steensby Inlet.

#### Bulk Sample Pit and Stockpiles

- A bulk sample pit on Deposit No. 1 consisting of a single side hill cut approximately 10 m deep.
- A stockpile containing approximately 28,000 tonnes of surficial weathered ore excavated from the surface of Deposit No. 1 remains on the deposit.
- Approximately 6,000 tonnes of representative (i.e. ore grade) material in the bulk sample pit.
- Stockpiles containing approximately 25,000 tonnes of non-representative ore (i.e. separate lump and fine stockpiles) at the Mary River crusher site.

- An ore stockpile pad containing approximately 24,000 tonnes of non-representative ore at Milne Inlet.
- Approximately 12,000 tonnes of representative (i.e. ore grade) material is stockpiled on the ore pad at Milne Inlet.

#### Roads and Borrow Sources

- A 105 km road between the Mary River Site and Milne Inlet referred to as the Milne Inlet Tote Road.
- Three main sand and gravel borrow sources, a rock quarry at Mary River, and sand and gravel sources from within the road alignment.
- Mine haulage road from the ridgeline on Deposit No. 1 to the crusher location.
- Two gravel airstrips, one at Milne Inlet and one at Mary River with temporary lighting.

#### Fuel Storage

- A lined bulk fuel storage facility with a capacity of 1.5 million litres, consisting of eleven 114,000 litre bladders in a lined containment plus a double walled 75,000 litre tank in lined containment and lined re-fuelling stations at the Mary River camp.
- A lined bladder tank farm with an approximate capacity of 8.25-million litres as well as a lined re-fuelling station and re-supply pipeline at the Milne Inlet camp.
- Drum caches in lined containment situated at Milne Inlet, Mary River, Steensby Inlet and Mid Rail Camps.

#### Abandonment Scenarios

Two abandonment scenarios have been described in this A&R Plan: temporary suspension, and final abandonment. A temporary suspension of activities means the temporary cessation of the current program operations, either as planned or due to unforeseen circumstances, typically lasting for weeks to months but could conceivably last for a year or longer. All facilities would be secured in a manner similar to the seasonal shutdown of the existing Mary River camp that has occurred in past years.

Final closure would be undertaken if a decision was made to cease all activities at Mary River due to unforeseen circumstances or if there were no immediate or pending plans to advance the project towards mine development.

Final closure and reclamation will include removing all equipment and materials either off-site or into an on-site landfill at Mary River (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 Mid 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 closure and reclamation is largely governed by site access and weather. It is estimated that a total of five months will be required to remove equipment and materials from Mary River with a crew of about 40 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 closure and reclamation report with photographs will be prepared, documenting the reclamation work completed and the site conditions following closure.

During the follow-up and monitoring period, sand and gravel contaminated with petroleum products will be managed in a land farm at Milne Inlet. This land farm will be decommissioned near the end of the monitoring period.

Monitoring and follow-up inspections will be conducted at the Mary River Project area in order to assess the physical and chemical stability of the various components after closure and reclamation of the facilities. Annual inspections of the affected sites will be carried out for up to five years following the final closure to demonstrate that conditions have not changed and remain both physically and chemically stable.

### Estimated Cost

The A&R Plan and cost estimate is based on Baffinland's operating and progressive reclamation experience in North Baffin Island. It is supported by contributions from its consultants, particularly Knight Piésold and EBA which have extensive Canadian and international closure experience in Arctic and other environments.

The total cost estimate is made up of a detailed direct cost estimate for each of approximately 200 individual tasks supported by detailed material and fuel balances and detailed estimation of indirect costs such as helicopter and fixed wing aircraft support, camp operations, sealifts, supervision, engineering and post-closure environmental monitoring.

The cost estimate includes the progressive reclamation activity planned in 2010 as well as closure costs assuming a planned shut-down by Baffinland as of January 1, 2011. This is a hypothetical date as actual closure timing is currently unknown.

Contingency amounts have also been estimated for each of the individual tasks based upon the quality of the scope, productivity, and other information affecting the cost estimate for that particular task.

Assuming a planned shutdown by Baffinland, the estimated abandonment and reclamation cost is \$10,700,000. Salvage value for equipment, materials and fuel removed from site has been included in this estimate.

A financial security estimate has also been included based upon the requirements of the QIA Abandonment and Reclamation Policy for Inuit Owned Lands (QIA A&R Policy). As per the QIA A&R Policy, the security estimate assumes a worst case scenario where QIA assumes authority over project components on Inuit Owned Land (IOL). Under these worst case conditions, the security amount is estimated to be \$13,200,000.











**BAFFINLAND IRON MINES CORPORATION  
MARY RIVER PROJECT**

**2010 ABANDONMENT AND RECLAMATION PLAN**

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**BAFFINLAND IRON MINES CORPORATION  
MARY RIVER PROJECT**

**2010 ABANDONMENT AND RECLAMATION PLAN**

**SECTION 1.0 - INTRODUCTION**

The Mary River Project is an advanced iron ore 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 has released a Definitive Feasibility Study (DFS) demonstrating the robust potential of full-scale development and has initiated the regulatory approval process for full-scale development.

This updated A&R Plan will become the closure document that Baffinland would follow if there were no immediate or pending plans to advance the project towards mine development, subject to any future revisions required to reflect material changes. The A&R Plan provides a full cost of implementing closure that addresses all project-related activity areas and infrastructure related to the Mary River Project assuming a planned shut-down by Baffinland as of January 1, 2011. This is a hypothetical date as actual closure timing is currently unknown.

This Abandonment and Reclamation Plan (A&R Plan) was prepared to address closure and reclamation in accordance with best corporate governance practices and as a condition of the surface lease held by Baffinland with the Qikiqtani Inuit Association.

Earlier versions of this A&R Plan were prepared to support environmental screening and permitting activities for the bulk sampling program as well as to reflect the outcome of the environmental screening and changes to the scope of the work as provided by Amendment No. 2 to the Nunavut Water Board (NWB) water licence and associated comments made by the NWB (Knight Piésold Ref. No. NB102-00181/6-7, Rev. 2, dated 31-March-2008).

This document is an update to the March 2009 version of the A&R Plan in order to reflect changes in reclamation requirements caused by operations and reclamation activities since the last version and to reflect continued improvement in cost estimation accuracy.

Key differences in the assumptions of the 2010 A&R Plan, compared to the 2008 A&R Plan include:

- Changes in site conditions from that which was assumed in the 2009 A&R Plan due to actual operations and actual progressive reclamation activities performed during 2009.
- Improved task definition, productivity and cost estimates due to actual experience gained during 2009 operations and reclamation activities.
- Costs for planned progressive reclamation activities during 2010 have been included.
- Improved estimation of helicopter and fixed wing aircraft support requirements due to actual experience gained during 2009 operations and reclamation activities.
- Inclusion of a contingency amount which was estimated by applying a unique contingency amount to each of approximately 200 individual tasks according to the quality of the scope, equipment and labour productivity assumptions and other information affecting the cost estimate for each individual task.

- Inclusion of a management reserve amount to cover the cost of modifications or additions to the scope of work included in this A&R Plan.
- Updated labour and equipment rates.
- Inclusion of engineering not included in the 2009 A&R Plan.

## 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 closure 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	Permit No.	Authorizing Agency	Period Valid
Prospector's Licence	33455	NMR	to March 31, 2011
Water License (Type B)	2BB-MRY0710	NWB	July 16, 2007 to February 28, 2010
Water License Amendment (Type B)	2BB-MRY0710	NWB	February 13, 2008 to December 31, 2010
Letter of Advice (July 25, 2007)	File No. NU-06-0084	DFO	N/A
Authorization under S.35(2) of <i>Fisheries Act</i>	File No. NU-06-0084	DFO	No expiry; reporting required through 2009
Approvals under S.5(1) of Navigable Waters Protection Act	8200-09-10415 8200-09-10425 8200-09-10414 8200-09-10424	Transport Canada	June 22, 2009 to June 30, 2015
Inuit Land Use Lease and Aggregate Concession	Q07L3C001	QIA	August 1, 2007 to October 31, 2010
Land Use Permit (Crown Land)	N2007F0004	INAC	July 5, 2009 to July 4, 2010 <sup>2</sup>
Land Use Permit (Crown Land)	N2006C0036	INAC	April 3, 2009 to April 3, 2010 <sup>2</sup>
Explosives Magazine Permit	2007-0186	Mine Health and Safety	November 27, 2009 to December 31, 2012 (being renewed)
Explosives Magazine Permit	2007-0187	Mine Health and Safety	November 27, 2009 to December 31, 2012

Explosives Magazine Permit	2007-0188	Mine Health and Safety	November 27, 2009 to December 31, 2012
Explosives Magazine Permit	2007-0208	Mine Health and Safety	November 27, 2009 to December 31, 2012
Explosives Magazine Permit	2007-0209	Mine Health and Safety	November 27, 2009 to December 31, 2012
Explosives Magazine Permit	2007-0210	Mine Health and Safety	November 27, 2009 to December 31, 2012
Explosives Magazine Permit	2007-0211	Mine Health and Safety	November 27, 2009 to December 31, 2012
Explosives Magazine Permit	2007-0213	Mine Health and Safety	November 27, 2009 to December 31, 2012
Explosives Magazine Permit	2007-0215	Mine Health and Safety	November 27, 2009 to December 31, 2012
Quarry Permit (Crown Land)	2009QO0071	INAC	June 25, 2009 to June 24, 2010 <sup>2</sup>

NOTES:

1. Q05L2C14 includes an extension provision that Baffinland intends to exercise in 2009.
2. At the time of this Plan, an application is being submitted to INAC requesting an extension to the land use permit and the issuance of a new quarry permit, all likely to expire December 31, 2010.

## 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 Site Reclamation Policy for Nunavut*, by Indian and Northern Affairs Canada, 2002
- *Mine Site Reclamation Guidelines for the Northwest Territories*, by Indian and Northern Affairs Canada, January 2007
- *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



- *Abandonment and Reclamation Policy for Inuit Owned Lands*, issued in draft Version 3.0 by Qikiqtani Inuit Association - Department of Lands and Resources, not dated, received by Baffinland May 2009.

The Mary River Project is not a mine site but rather an advanced exploration project. Programs and activities are designed to support advancing the Project to full-scale development. Although most of the above listed policies and guidelines do not apply to exploration or advanced exploration stages of the development of a mineral property, and only apply to new and developed mines and their mining-related activities, they have been considered when preparing this A&R Plan.

## **SECTION 2.0 - CLOSURE & RECLAMATION PLAN OBJECTIVES**

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

- Provide for the long-term physical, chemical and biological stability of the Project areas so as to protect the public's health and safety
- Enhance natural recovery of the disturbed areas to a state that is compatible with surrounding land uses and to allow for future use by people and wildlife
- Implement reclamation designs that limit the need for long-term maintenance and monitoring

This A&R Plan is written with a view to address all project-related activity areas and infrastructure.

Specific closure criteria for each A&R Plan component are detailed in Appendix A. The closure criteria are sufficiently detailed to provide a measure of success or failure of the closure objective.

## SECTION 3.0 - SITE DESCRIPTION

### 3.1 OVERVIEW

#### 3.1.1 Brief Overview of Past Project Activities

Baffinland resumed mineral exploration activities in 2004 after a 40-year hiatus in activity at Mary River. Baffinland has since continued to undertake programs and activities in support of advancing its Mary River Project.

Initially, a camp and support facilities was established at Mary River, adjacent to an existing airstrip, temporary facilities were constructed at Milne Inlet for receiving materials and supplies, equipment was off-loaded at Milne Inlet by sea-lift and moved into the site over winter road, and drilling on Deposit No. 1 recommenced. Investigatory geotechnical drilling programs at potential infrastructure sites associated with a full-scale mining development also commenced.

Additional exploration drilling and resource evaluation on Deposit No's. 1, 2 and 3, geotechnical drilling at Project development areas, environmental baseline and monitoring studies, a Bulk Sample Program with the addition of a new camp along the proposed rail alignment and upgrades and expansions to the existing camps, related infrastructure and the Tote Road to support the different programs has followed.

Figures 3.1 to 3.5 shows the location of activity areas related to the Mary River Project.

In March 2008, Baffinland initiated the NIRB regulatory review of the Project by the submission of the Development Proposal and associated applications. On February 11, 2009, the Minister of Indian and Northern Affairs Canada referred the Project to a Part 5 review under Article 12 of the Nunavut Land Claims Agreement. This referral was made in response to the recommendations of the NIRB Screening Report. On November 16, 2009, Baffinland received the Final Environmental Impact Statement Guidelines: NIRB File No. O8MN053. Baffinland acknowledged receipt of the Guidelines in a letter dated December 14, 2009 and is currently proceeding with the preparation of the Draft Environmental Impact Statement.

#### 3.1.2 2010 Work Plan

At the time of writing, planning of the 2010 work program is still underway. The 2010 exploration drilling program at Mary River is expected to be larger than that undertaken in 2009, with three diamond drills to operate at Deposit Nos. 4 and 5 and 3. Baffinland will continue demobilizing equipment and material used during the bulk sample program that contributes to the site's environmental liability.

During 2010, the engineering studies required for the Draft Environmental Impact Statement will progress, and portions of the draft environmental impact statement will be prepared.

Baffinland may increase filed activities in 2010 over what is currently planned, depending on the need for additional environmental and/or engineering data.

### 3.2 BULK SAMPLE PIT AND STOCKPILES

#### 3.2.1 Bulk Sample Pit

A single bulk sample side hill cut across the crest and east side of the North Limb of Deposit No. 1 was constructed in 2008. Two 5 m high benches were blasted using explosives and excavated down the east slope of the deposit (680 and 685 benches, respectively). The pit was designed and constructed to be free-draining (i.e. side hill cut) so that no water is impounded. The approximate location of the bulk sample pit is shown on Figure 3.2.

#### 3.2.2 Stockpiles

Stockpiles created during the bulk sampling program at Deposit No. 1, Mary River and Milne Inlet include:

**Deposit No. 1** - A stockpile containing approximately 28,000 tonnes of surficial weathered ore excavated from the surface of Deposit No. 1 remains on the deposit. The weathered ore stockpile location is shown on Figure 3.2. The roadbed between the stockpile and the pit was also constructed from weathered ore. Approximately 6,000 tonnes of representative (i.e. ore grade) material was left in the bulk sample pit.

**Mary River** - Stockpiles containing approximately 25,000 tonnes of non-representative ore (i.e. separate lump and fine stockpiles) remain at the Mary River crusher site. The approximate location of the two stockpiles at the crusher are shown on Figure 3.2.

**Milne Inlet** - The ore stockpile pad containing approximately 24,000 tonnes of non-representative ore remains at Milne Inlet. Approximately 12,000 tonnes of representative (i.e. ore grade) material is stockpiled on this pad at Milne Inlet. The approximate stockpile locations at Milne Inlet are shown on Figure 3.3.

#### 3.2.3 Geochemistry

In addition to metallurgical testing of the bulk sample ore, an environmental geochemical testing program was undertaken in 2008 to assess the potential for waste rock, residual ore and the exposed pit to leach metals and/or acidity that could potentially degrade the quality of receiving surface waters (appended to Baffinland Iron Mines Corporation Mary River Project, 2008 Annual Report to the Nunavut Water Board). This testing program was carried out according to the general requirements recommended by Price, 1979.

In general, mine wastes have the potential to degrade surface water quality when they contain sulphide minerals, which oxidize when exposed to the atmosphere and release soluble acidity and

metals, or when they contain soluble minerals, which will leach metals when they dissolve in contact water.

In planning for the bulk sample program, the risk for poor quality run-off was predicted to be low, based upon existing knowledge gained from testing of samples collected elsewhere from Deposit No. 1. The 2008 environmental geochemical testing program was developed to test representative samples of the materials and landforms generated from the bulk sample program in order to validate these predictions.

Representative geological samples were collected and submitted to the analytical laboratory of SGS Lakefield Research Ltd. for major elements content characterization, modified acid-base accounting (ABA) to assess acid generating characteristics, and short-term leach testing (modified synthetic precipitation leaching procedure) to assess susceptibility to leach metals. Representative samples were collected from the i) weathered ore stockpiled on the Deposit No. 1, ii) non-representative ore stockpiled at the Mary River crusher site and the stockpile pad at Milne Inlet, and iii) representative ore left exposed in the bench walls of the pit and stockpiled at Milne Inlet.

The results from this program validated predictions that were made during the environmental screening. Test results showed low to non-detectable levels of sulphide-sulphur. All samples contained sulphide-sulphur at concentrations below the laboratory analytical detection limit of 0.01% (by weight) except for one sample of representative ore (measured at 0.01% sulphide-sulphur) and one sample of nonrepresentative ore (measured at 0.02% sulphide-sulphur).

The mean ratio of neutralization potential (NP) to acid potential (AP) of samples of; i) the weathered ore stockpiled on the Deposit No. 1, ii) non-representative ore stockpiled at the Mary River crusher site and the stockpile pad at Milne Inlet, and iii) representative ore left exposed in the bench walls of the pit and stockpiled at Milne Inlet were measured at 6.2, 5.9, and 8.1, respectively. These measurements compare to commonly referenced screening criteria by Price, 1997 which classifies samples with an NP/AP ratio greater than 4 as being non-acid generating.

Short -term leach test results indicated a low risk of significant metal leaching. This risk is likely to be further diminished by the dry arid climate at the site. Metal concentrations from short-term leach tests were all below concentration limits established for: i) the bulk sample water license (Section 3.2.1), and ii) concentration limits listed under Schedule 4 of the Metal Mines Effluent Regulations (MMER).

### 3.3 CAMPS AND RELATED FACILITIES

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

Mary River camp is a 100-person winterized exploration tent camp and a 100-person all-season tent camp, with ancillary facilities. Specifically there are 26 Weatherhaven tents, 11 Norseman tents, 3 Weatherhaven washroom/dry tents, 1 Weatherhaven firehall tent, 1 Weatherhaven kitchen (old) tent, 3 Weatherhaven

workshop tents, 40 sea containers used for storage, three main camp generators, incinerator, 3 concrete sewage tanks, 1 plastic sewage tank, 1 sewage treatment plant, 3 sewage ponds, 13 fuel bladder tanks, mobile equipment along with laydown areas. The existing all-season exploration camp, primary ancillary facilities and related infrastructure at Mary River are shown on Figure 3.2.

The Milne Inlet camp is an all-season fully serviced trailer camp for approximately 60 people, associated facilities and related infrastructure. Specifically there are 10 accommodation trailers, 9 work tents, 1 large Weatherhaven workshop tent, two main generators, incinerator, oil/water separator, 1 sewage treatment plant, 1 sewage pond, 73 fuel bladder tanks, mobile equipment along with a laydown area. Milne Inlet camp will remain unoccupied during the winter of 2010-2011 assuming progressive reclamation of the Milne Inlet fuel farm is completed in 2010 as planned. The existing site layout at Milne Inlet is shown on Figure 3.3.

The Mid Rail camp used to support the geotechnical drill program between Mary River and Steensby Inlet, as well as environmental studies based in the area is a temporary seasonally occupied tent camp for approximately 40 people part way along the potential future railway alignment north of Cockburn Lake. There are 18 wooden structure accommodation/working tents for the kitchen and dining, living quarters, washrooms, laundry and water storage, generator, etc along with a small laydown area. The camp will be unoccupied in 2010. The existing site layout at Mid Rail camp is shown on Figure 3.4.

The Steensby Inlet camp is a seasonally occupied tent camp for approximately 50 people with associated facilities and related infrastructure used to support environmental studies, on-ice port site drilling and geotechnical drilling in the general southern area of the rail alignment. Specifically there are 16 wooden structure accommodation/working tents (for the kitchen and dining, living quarters, washrooms, laundry and water storage, generator), two main generators, incinerator, 200 fuel drums, mobile equipment (2 pieces) along with a laydown area. The 12 trailer camp delivered to Steensby Inlet in 2008 to replace or supplement the tent camp for use in the future field programs remains in storage at the laydown area. The existing site layout at Steensby Inlet is shown on Figure 3.5.

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.

An emergency survival trailer is parked at the crusher location near Deposit No. 1

Communication towers and repeater stations are positioned at Milne Inlet, Mary River and two along the Milne Inlet Tote Road. Weather stations are located at Mary River and both Milne Inlet and Steensby Inlet.

### 3.4 EQUIPMENT

A portion of the equipment and materials used for the Bulk Sample Program and no longer required was backhauled to southern Canada in 2008. More equipment was included in the 2009 backhaul.

A list of equipment on-site as of January 1, 2010 includes the following:

Item	No. of Units	Item	No. of Units
Snowmobile/ATV	11	Excavators	4
Camp	6	Fork Lifts (ZoomBooms)	4
Incinerator	7	Fuel Tanks (steel)	2
Airstrip Lights	1	Rescue Boat	1
Sewage Treatment Facilities	3	Emergency Trailers	2
Camp Gensets	10	Radio Towers	4
Aux Gensets	10	Rigsmats	48
Haul Road Trucks	9	Office Trailers	7
Haul Road Truck Pups	9	Graders	1
Dozers	6	Water Tanks	2
Loaders	5	Waste Tank	1
Supervisor Vehicles	4	Drills	6
Light Plants	2	Maintenance Vehicles	2
Fuel Truck	1	Emergency Vehicles	1

Some of this equipment will be removed from site during 2010 and the remainder will be removed at closure.

### 3.5 ROADS AND AIRSTRIPS

There are two existing gravel airstrips used for the project. Temporary lighting is installed at the Mary River airstrip.

The Milne Inlet Tote Road is an existing 105 km road between the Mary River Site and Milne Inlet. The existing road was upgraded in 2007 and 2008 and generally included 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 where required and installing crossing structures of various sizes (mainly culverts) at watercourses and drainages.

In 2009 the road was maintained with minor enhancements.

Subject to future permitting, it is planned that the road will continue to be used to provide all-season access throughout construction of the mine. Figure 3.1 shows the existing road alignment and the borrow sources identified for quarrying. There are smaller access roads to Deposit No. 1, the salt station and explosives storage area.

### 3.6 BORROW SOURCES

Fill materials needed for upgrade of the Tote Road, the mine haul road and other site civil works were obtained from within the road alignment and from three main borrow sources and one quarry, at locations shown on Figure 3.1. Approximately 1,111,060 m<sup>3</sup> of sand and gravel have been excavated from within the road alignment and these main borrow sources and quarries to support the project.

Recontouring of borrow areas commenced in 2008 and continued in 2009.

### 3.7 FUEL STORAGE

Fuel storage facilities are located at the camp and crusher area at Mary River, at Milne Inlet, Refuge Stations, Mid Rail Camp and at Steensby Inlet Camp.

Bulk fuel storage facilities include:

- An 8.25-million litre capacity bulk fuel storage facility at Milne Inlet, consisting of seventy three 114,000 L fuel bladders in a lined containment as well as a lined re-fuelling station and resupply pipeline
- Bulk fuel bladder tank farm near the Mary River Camp with a capacity of 1.5 million litres, consisting of eleven 114,000 L bladders in lined containment. A double walled 75,000 litre tank in lined containment.

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

In addition, drum caches in lined containment are also situated at Milne Inlet, Mary, River, Steensby Inlet and Mid Rail Camps. The total number of 200 L drums currently stored on-site is approximately 1,740 drums.

Most of the barrel fuel currently stored at Steensby Inlet was demobilized in 2009 by a sea-lift from Steensby Inlet. Two hundred barrels of fuel remain at Steensby Inlet.

### 3.8 CHEMICALS

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

- Oils, greases, lubricants, and drilling additives for mining and heavy equipment
- Calcium chloride flakes for drill water for exploration drilling
- 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. Calcium chloride flakes are stored in designated locations remote from water at Milne Inlet and Mary River.

Hazardous and non-landfillable wastes generated from current and historic activities at Mary River was sea-lift backhauled to licensed disposal and recycling facilities in 2008 and 2009. The 2009 backhaul removed all remaining hazardous and non-landfillable waste generated until that time.



### 3.9 EXPLOSIVES

A portion of the pre-packaged emulsion and high explosives (Class A) required for the Bulk Sample Program remains and are stored in the 3 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.

### 3.10 WASTE AND WATER MANAGEMENT

Water is supplied to each camp as follows:

- The water supply and treatment system (heated intake, ultra-violet disinfection) at Mary River supplies water to the combined population at the camp site
- Water supply at the Milne Inlet site consists of holding tanks that are filled by truck from a nearby lake and treated using an ultra-violet (UV) disinfection system
- Drinking water at the Mid Rail Camp comes 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, is sourced from the unnamed in-land freshwater lake and treated using an ultra-violet (UV) disinfection system

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

- Sewage and grey water at Mary River is treated using a pre-engineered rotating biological contractor sewage treatment plant followed by ultraviolet disinfection. Three polishing waste storage ponds (PWSP) are in place to receive treated sewage not meeting criteria for direct discharge via a 2 km heat traced pipeline into Sheardown Lake. Two of these ponds were partially decanted in 2009. A Tanks-A-Lot sewage treatment system exists but is no longer used.
- There is a rotating biological contractor sewage treatment plant followed by ultraviolet disinfection at Milne Inlet camp to treat the sewage and grey water. A polishing waste stabilization pond is in place to receive treated sewage not meeting criteria for direct discharge to the receiving environment. Treated effluent is discharged by truck to a surface drainage channel discharging to Milne Inlet. During 2010 Milne Inlet camp will remain at a low occupancy level and latrine toilets (commercially purchased "Pacto" systems) will be used. Any toilet waste will be collected from the outhouses and incinerated in a dual-stage, forced air incinerator.
- Toilet wastes collected from the outhouses at Steensby Inlet and Mid Rail Camp is incinerated in a dual-stage, forced air incinerator at each of the camps. Greywater is disposed of in a sump established at each camp. During 2010 the Mid Rail Camp will be unoccupied.

Solid wastes are stored and disposed of as follows:

- Camp incinerators exist at each of the Mary River, Milne Inlet, Steensby Inlet and Mid Rail camps for disposal of inert combustible non-hazardous solid wastes. Ash is collected in containers to help prevent wind distribution.
- Inert non-combustible wastes such as scrap metal, plastic, rubber, metals, wood that is not burned and ashes from the incinerator are collected and stored in preparation for disposal in the landfill at Mary River or hauled to Milne Inlet for disposal off site.
- Wastes generated at the refuge stations are stored in containers or ore sacks and backhauled to Mary River for disposal by incineration or eventual landfilling, as appropriate or to Milne Inlet for shipment off site.
- Waste oil and other hazardous and recyclable wastes are 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 are collected in sealed containers and transported off site. Empty fuel drums are crushed and packaged and temporarily stored on-site in preparation for transport off-site by sealift where they will be recycled.
- The planned access road and landfill at Mary River as approved by the Nunavut Water Board is planned to be constructed during 2010 and landfill operations will also begin during 2010.

## **SECTION 4.0 - TEMPORARY SUSPENSION**

A temporary suspension of activities means the temporary cessation of the current 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 cessation of current operations at the project sites. Temporary suspension typically could last for a period of weeks to several months but could conceivably last for a year or longer. 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**

Mining from the side-hill cut bulk sample pit was completed in 2008. The bulk sample pit was confirmed by land survey at its completion in 2008 and by visual observation during the 2009 freshet to be free-draining. 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 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 at top of Deposit No. 1, including the weathered ore roadbed between the stockpile and the pit has been progressively reclaimed and is expected to be physically stable in the long term. Inspection will be carried out to verify this. Side slopes of the non-representative ore at the crusher location and residual ore stockpiles at Milne Inlet will be re-graded if temporary suspension exceeds 8 months. Any seepage observed from the stockpiles will be sampled and tested for general chemistry and metals during the semi-annual (twice per year) site visits (discussed below).

### **4.3 CAMP AND RELATED FACILITIES**

The following measures have been performed at the Milne Inlet, Steensby and Mid Rail camps and will be undertaken at the Mary River 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

#### 4.4 EQUIPMENT

Heavy equipment and vehicles will be consolidated at the Mary River and 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

Progressive reclamation of borrow areas as part of operations has commenced, including stabilization of side slopes and grading for natural drainage. Active borrow areas will be left in a stable condition prior to temporary suspension.

#### 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 any non-combustible inert wastes will be stored securely at their respective remote locations to be eventually landfilled.

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 CLOSURE

Final closure would be undertaken if a decision was made to cease all activities at Mary River due to unforeseen circumstances or if there were no immediate or pending plans to advance the project towards mine development.

Final closure and reclamation will include removing all equipment and materials either off-site or into an on-site landfill at Mary River (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 Mid 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.

Some 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 or sealifted to another exploration site or could possibly be donated to the local communities.

This section outlines the final closure and reclamation plan for all aspects of the project. Greater detail on a task-by-task basis is included in Appendix B.

### 5.1 BULK SAMPLE PIT

As described in Section 3.3.2, there is virtually no potential for enhanced release of acidity or metals in response to oxidative weathering of the material in the ore left exposed in the bench walls of the pit. 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 metal leaching, and any seepage that collects in or downstream of the bulk sample pit will be sampled and tested for general chemistry and metals during the site visits (discussed below).

The shallow side-hill cut pit area created on Deposit No. 1 will be inspected for any physically unstable surfaces and to validate that the pit is draining properly. The bulk sample pit was confirmed by land survey at its completion in 2008 and by visual inspection during the 2009 freshet to be free draining and will be left open. There were no stability issues noted by the Mine Inspector during his inspection in September of 2008 and no further concerns noted by Baffinland in 2009. Rehabilitation measures will be undertaken if necessary to ensure that unstable areas do not remain. This may include additional blasting, excavation or backfilling using weathered ore.

### 5.2 STOCKPILES

It has been demonstrated from the 2008 environmental geochemical testing program that there is virtually no potential for enhanced release of acidity or metals in response to oxidative weathering of the material in the i) weathered ore stockpiled on the Deposit No. 1, ii) non-representative ore stockpiled at the Mary River crusher site and the stockpile pad at Milne Inlet, and iii) representative ore left exposed in the bench walls of the pit and stockpiled at Milne Inlet. Any seepage observed below the weathered ore 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 weathered ore stockpiled at top of Deposit No. 1, including the weathered ore roadbed between the stockpile and the pit has been progressively reclaimed and is expected to be physically stable in the long term. Inspection will be carried out to verify this.

The representative (i.e. ore grade) material left in the bulk sample pit was contoured and left in a stable and free draining state at the end of the 2008 field season and remained free draining in 2009.

The non-representative ore stockpiled at the Mary River crusher site will be re-graded as required to ensure the area is physically stable.

The stockpile of representative ore at Milne Inlet will be re-graded as required over the non-representative ore pad to ensure the area is physically stable and covered in 0.3 m of locally available borrow material for aesthetics purposes and to prevent dusting of the beach head.

The contingency plan involving mixing of neutralizing material with potentially ARD/ML material that was included in the 2008 A&R Plan is no longer required. The results from the 2008 environmental geochemical testing program and short term leach tests have demonstrated that there is virtually no potential for enhanced release of acidity or metals in response to oxidative weathering of the material sampled.

### 5.3 CAMP AND RELATED FACILITIES

Most materials found at the camp sites are either control burned, landfilled at the Mary River landfill, or backhauled for disposal or salvage. Some materials at the camp sites will have residual value and may be salvaged for resale and relocated off-site by sea-lift. Tent facilities and Quonset buildings will be dismantled and, with the pre-fabricated trailers, will be transported overland to Milne Inlet, landfilled at the Mary River landfill, or control burned. 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. Exploration drill core will be transferred to sea containers for long term storage adjacent to the airstrip. Geotechnical core will be stored in the same manner or disposed of in the landfill.

#### 5.4 ROADS AND AIRSTRIPS

Airstrips will remain to allow for future access to the site for exploration, site inspections and other monitoring activities. Temporary airstrip lighting at Mary River will be removed.

The temporary roads including Milne Inlet Tote Road, access road to Deposit No. 1, landfill, salt station, and explosives access will be inspected and any areas of significant erosion will be re-graded to improve stability and minimize sediment run-off to receiving waters. 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 at closure. 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

Progressive reclamation of borrow and quarry areas has commenced as part of operations, including maintaining stable side slopes and grading for natural drainage to minimize ponding, erosion and sediment run-off to receiving waters.

In 2009 Baffinland engaged EBA to complete a comprehensive inspection of all borrow pits along the Tote Road and develop objectives and practical guidelines for reclamation. The scope of the study included the following:

- Develop generally accepted criteria for physical reclamation of sites where material was excavated for road construction
- Identify the primary factors that must be addressed during planning and implementing the borrow pit reclamation program
- Visit and document conditions at sites along the route
- Develop reclamation recommendations

Priorities were established for each of the approximately 100 sites and all of the high priority work was addressed by end 2009 with some remaining fill to be placed during 2010 as progressive reclamation continues.

The three primary borrow sites and one quarry will require reclamation at final closure. Final re-grading will be completed as required for drainage control and to limit the potential for excessive erosion.

Borrow and quarry areas will be revisited as part of the post-closure monitoring program, to confirm and 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 crushed and sealifted off-site for steel recycling or, if suitable for reuse, transported by sealift off-site where they will be returned to the vendor. Fuel could also be burned at site assuming that any necessary permits are secured.

The Milne Inlet fuel farm is planned to be decommissioned during 2010. Bladders will be drained and stored in containers, fuel will be removed from site by bulk fuel carrier, the liner will be removed and placed in containers for removal from site and the protective soil layer will be treated in a land farm. At the time of writing this report, EBA had commenced the design of the land farm.

At closure, fuel bladders at Mary River will be drained, 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. Fuel could also be burned at site assuming that any necessary permits are secured.

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 eight explosives magazines located at Mary River will be transported to Milne Inlet and sent offsite via sealift to a licensed recipient for proper disposal or re-use.

## 5.9 WASTE AND WATER MANAGEMENT

An access road and landfill as approved by the Nunavut Water Board will be constructed and operated at Mary River as described in the Bulk Sampling Program Landfill Design and Operations (Baffinland Iron Mines Corporation, Submission of an Addendum to the Landfill Site Design Report for the Mary River Project. NWB File: 2BB-MRY0710/Part D19, October 27, 2008) for the disposal of bulky inert wastes,

including wood, 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.

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.

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 will be backfilled and contoured to grade. Sewage treatment plants will be decommissioned in accordance with manufacturer procedures/recommendations, 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 either be buried in situ or disposed of at the on-site landfill upon confirmation as non-hazardous waste. Liners will be removed and the polishing/waste stabilization ponds will be contoured. This material could also serve as a contingency for use in contouring other areas, if required, without triggering borrow royalty fees. 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 or disposed of at site in the landfill. The concrete tanks associated with Tanks-A-Lot treatment facility will be broken-up and disposed of in the inert landfill at Mary River.

The access to the landfill and the landfill itself will be constructed in 2010 and landfill operations will also begin in 2010.

#### 5.10 CONTAMINATED SOILS

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

During the follow-up and monitoring period, sand and gravel contaminated with petroleum products will be managed in a land farm at Milne Inlet. This land farm will be decommissioned near the end of the monitoring period. Design of the landfarm is planned to be completed during 2010.

#### 5.11 TIMING AND SCHEDULE OF FINAL CLOSURE

The timing of closure and reclamation is largely governed by weather. Activities such as removal of lined containment facilities and the testing and excavation of affected soils are better completed during summer months when the ground surface is not frozen. Overland access can be year-round until the ten (10) navigable crossings are removed from the Milne Inlet Tote Road which will occur upon final retreat

from Mary River camp. Timing of shipping off-site for proper disposal will be governed by sealift schedule, which is possible only during the open water period of August to October.

The reclamation activities are expected to be undertaken primarily during the months between March and October under favourable weather conditions although most reclamation can occur through the winter period.

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

It is estimated that a total of five months will be required to complete closure and reclamation activities with a crew of about 40 people. The current Mary River Camp will be scaled down to a 50-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 and Mid Rail to complete reclamation at these camps.

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

## **SECTION 6.0 - FOLLOW-UP MONITORING**

Monitoring and follow-up inspections will be conducted at the Mary River Project area in order to assess the physical and chemical stability of the various components after closure and reclamation of the facilities. Annual inspections of the affected sites will be carried out for up to five years following the final closure to demonstrate 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.

During the follow-up and monitoring period, sand and gravel contaminated with petroleum products will be managed in a land farm at Milne Inlet. This land farm will be decommissioned near the end of the monitoring period.

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 to document that its quality is not adversely affected by the closed Project components. The monitoring plan will continue through closure and post-closure periods.

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 closure and reclamation report with photographs will be prepared, documenting the reclamation work completed and the site conditions following closure.

## SECTION 7.0 - ESTIMATED CLOSURE COSTS

The A&R Plan and cost estimate is based on Baffinland's operating and progressive reclamation experience in North Baffin Island. It is supported by contributions from its consultants, particularly Knight Piésold and EBA which have extensive Canadian and international closure experience in Arctic and other environments.

The total cost estimate is made up of a detailed direct cost estimate for each of approximately 200 individual tasks described in the A&R Plan supported by detailed material and fuel balances and detailed estimation of indirect costs such as helicopter and fixed wing aircraft support, camp operations, sealifts, supervision, engineering and post-closure environmental monitoring.

The cost estimate includes the progressive reclamation activity planned in 2010 as well as closure costs assuming a planned shut-down by Baffinland as of January 1, 2011. This is a hypothetical date as actual closure timing is currently unknown.

Contingency amounts have also been estimated for each of the individual tasks based upon the quality of the scope, productivity, and other information affecting the cost estimate for that individual task.

The state at the time of closure is different from the 2009 A&R Plan due to changes in reclamation requirements caused by operations and reclamation activities since its writing.

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

- Reclamation is carried out by the third-party contractor currently on site according to the terms of the existing contract.
- Updated labour and equipment rates have been used.
- Demobilisation activities will be coordinated with the numerous community sealifts performed each year in the area.
- Both direct and indirect costs have been included.
- Direct and indirect cost estimates are based upon actual productivities, consumption rates and costs experienced by Baffinland during 2008 and 2009 operations and progressive reclamation activities; existing contracts and quotations.
- There is sufficient fuel on site to complete all closure activity and the cost for this fuel has not been included in the cost estimate because it has already been paid for and will be available for use. The fuel was re-certified in January 2010.
- Two backhaul sealifts will be used to remove the surplus bulk fuel from the project, one sealift in 2010 during progressive reclamation and one sealift at closure.
- Progressive reclamation planned to be completed in 2010 is included in the cost estimate.
- Baffinland corporate office costs during abandonment, reclamation and post-closure monitoring are excluded from the cost estimate.
- Contingency has been applied to the cost estimate on a detailed task-by-task basis.
- A management reserve has been included to cover the cost of modifications or additions to the scope of work.
- Salvage value has been included.

- No cost escalation or inflation is applied to the cost estimate.
- All significant work is assumed to be completed in 2010 and 2011 with land farming and post-closure environmental monitoring taking place beyond 2011.

Assuming a planned shutdown by Baffinland, the estimated abandonment and reclamation cost is \$10,700,000. Salvage value for equipment, materials and fuel removed from site has been included in this estimate.

Details of the cost estimate are appended as Appendix B. A comparison to the cost estimate for the 2009 A&R Plan is also included with a detailed variance analysis.

## **SECTION 8.0 - ESTIMATED CLOSURE COSTS USING RECLAIM**

As required by the Nunavut Water Board (NWB) General Conditions of the water licence, a supplemental reclamation cost assessment for an assumed closure and reclamation of Baffinland's Mary River project in 2011 was completed using the RECLAIM model (version 5.1). The RECLAIM modelling was based on the Abandonment and Reclamation Plan described in this report.

The prescribed methodology of assessing the full cost for closure and reclamation 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 closure work using the RECLAIM model less salvage is \$6,700,000. A summary of the estimated cost using RECLAIM is shown on Table 8.1. The results of the RECLAIM model are attached in Appendix C.

The estimated cost less salvage to complete the final closure work included in the A&R Plan was \$13,000,000.

The costs presented in the A&R Plan are higher than those calculated using the RECLAIM model.

## **SECTION 9.0 - ESTIMATED FINANCIAL SECURITY**

A financial security estimate has been included based upon the requirements of the QIA Abandonment and Reclamation Policy for Inuit Owned Lands (QIA A&R Policy). As per the QIA A&R Policy, the security estimate assumes a worst case scenario where QIA assumes authority over project components on Inuit Owned Land (IOL) and reclamation is completed by a third party contractor. Under these worst case conditions, the security amount is estimated to be \$13,200,000 as summarized in Table 7.1

The key differences between the financial security estimate and the estimated closure cost by Baffinland under planned conditions are:

- Baffinland site supervision of closure activity would not be incurred under the worst case where QIA assumes authority for closure. Baffinland supervision would be replaced by third party management and the cost of this service has been included in the financial security estimate.
- Under a planned closure by Baffinland, some detailed planning will be completed as a corporate cost which has not been included in the cost estimate. Under worst case conditions, this same planning would be completed by a third party and the cost for this service is included in the security estimate.
- Royalty fees for borrow material used during closure are payable by Baffinland if closure is executed by Baffinland and these royalties have been included in Baffinland's planned closure cost estimate. However, the royalty fees are not relevant under the worst case where QIA assumes authority for closure.

Details of the cost estimates for both the planned closure by Baffinland as well as the worst case closure scenario (which is the basis for the security estimate) are attached as Appendix B.



## SECTION 10.0 - CONCORDANCE TABLE

The following table has been prepared to comply with QIA's requirement that A&R Plans be submitted with a completed concordance table. The concordance table is consistent with the principals of QIA's Abandonment and Reclamation Policy for Inuit Owned Lands.

Item	QIA Draft Policy	Baffinland Response
1	Have all reports and plans that support the Policy, including addendums and responses been submitted?	Yes
2	Are the submitted reports and plans executable standalone documents with adequate rational and detail?	Yes, in most cases. In other cases, a cost allowance has been included to complete execution planning.
3	Has an A&R plan been provided with a financial security estimate?	Yes
4	Do all reports and plans contain appropriate referencing (document name, author, section, and page number) to all supporting information?	Yes
5	Do the reports and plans demonstrate a firm understanding, of QIA's Guiding Principles on Reclamation and provide rationale on how these principles have been satisfied?	Yes
6	Does each component of the project have an abandonment and reclamation objectives and criteria?	Yes
7	List the components that are considered in the abandonment and reclamation plan.	Bulk Sample Pit Mineral Exploration Areas Remote Sites Stockpiles Camps and Related Facilities Roads and Airstrips Borrow & Quarry Areas Fuel Storage Facilities Explosives Waste Management Hydrocarbon Impacted Soil General Site Area Sea Lift Camp Operation Environmental Monitoring Management Reserve
8	Has a comprehensive summary of the project security estimate, as well as, individual project component justification been provided?	Yes
9	For each project component, has a breakdown of cost, which includes unit rates, quantities, supporting evidence, limitations, and contingencies for each line item, been provided?	Yes
10	Did the Proponent use the Policy's Table 1, 2, and 3 to aid in completing the financial security estimate?	Similar tables were used.
11	Has evidence been provided to support the Policy assumptions for all reports and plans?	Yes

## SECTION 11.0 - REFERENCES

1. Indian and Northern Affairs Canada. Mine Site Reclamation Policy for Nunavut. Ottawa, 2002.
2. Indian and Northern Affairs Canada. Mine Site Reclamation Policy for Nunavut. Indian and Northern Affairs Canada, 2007.
3. Knight Piesold. Bulk Sampling Program Abandonment and Reclamation Plan. Ref. No. NB102-00181/6-7, Rev. 2, dated 31-March-2008).
4. Northwest Territories Water Board. Guidelines for Abandonment and Restoration Planning for Mines in the Northwest Territories. September 1990.
5. Martin van Rooy. Report of an Inspector of Mines - Mary River Project. Nunavut Workers' Safety and Compensation Commission, September 22/23, 2008.
6. 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.
7. 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.
8. Knight Piesold. 2009 Abandonment and Reclamation Plan. Ref No. NB102-181/15-1, Rev 0, dated March 26, 2009.
9. Baffinland Iron Mines Corporation. 2009 Abandonment & Reclamation Plan, dated March 2009.
10. Qikiqtani Inuit Association - Department of Lands and Resources. Abandonment and Reclamation Policy for Inuit Owned Lands, Version 3.0, not dated (received from QIA May 13, 2009).
11. EBA. Borrow Site Reclamation Overview. Ref No. E14101074, dated December 2009.
12. Knight Piesold. Milne Inlet Tote Road - Summary of As-Built Water Crossing Installations and Borrow Area Locations for 2009, dated December 2009.

## SECTION 12.0 - CERTIFICATION

This report was approved for distribution by the undersigned.

Approved by:

A handwritten signature in dark ink, appearing to read "Dave McCann", is positioned above a horizontal line.

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Dave McCann, P.Eng.  
Operations Manager

**Table 7.1**  
**Estimated Costs for Final Closure by Baffinland**

	2010 Total	2010 A & R Plan Annual Expenditures			2010 Total Contingency(\$)	2010 Total Contingency (%)
		2010	2011	>2011		
Bulk Sample Pit	\$ -	\$ -	\$ -		\$ 10,000	
Mineral Exploration Areas (Deposits No. 1, 2, 3)	\$ 76,870	\$ 32,068	\$ 44,802	\$ -	\$ 9,299	12%
Remote Sites	\$ 101,984	\$ 58,100	\$ 43,884	\$ -	\$ 5,805	6%
Stockpiles	\$ 52,243	\$ -	\$ 52,243	\$ -	\$ 2,612	5%
Camps & Related Facilities	\$ 1,689,090	\$ 244,863	\$ 1,444,226	\$ -	\$ 237,852	14%
Roads & Airstrips	\$ 779,410	\$ -	\$ 779,410	\$ -	\$ 134,753	17%
Borrow Quarry Areas	\$ 563,131	\$ 280,842	\$ 282,289	\$ -	\$ 126,062	22%
Fuel Storage Facilities (Bulk and Drums)	\$ 223,079	\$ 122,044	\$ 92,697	\$ 8,338	\$ 25,033	11%
Explosives	\$ 7,044	\$ 7,044	\$ -	\$ -	\$ 1,409	20%
Waste Management	\$ 583,405	\$ 136,349	\$ 447,056	\$ -	\$ 141,297	24%
Hydrocarbon Impacted Soil	\$ 460,773	\$ 4,200	\$ 230,633	\$ 225,940	\$ 124,242	27%
General Site Area	\$ 540,000	\$ -	\$ 515,000	\$ 25,000	\$ 54,000	10%
Sealift	\$ 2,861,265	\$ 1,394,761	\$ 1,466,504	\$ -	\$ 167,489	6%
Camp Operation	\$ 2,760,453	\$ -	\$ 2,760,453	\$ -	\$ 281,709	10%
Environmental Monitoring	\$ 505,210	\$ -	\$ -	\$ 505,210	\$ 129,052	26%
<b>Subtotal - cash costs excluding contingency &amp; reserve</b>	<b>\$ 11,203,956</b>	<b>\$ 2,280,271</b>	<b>\$ 8,159,198</b>	<b>\$ 764,488</b>		
<b>Contingency</b>	<b>\$ 1,450,614</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 1,450,614</b>	<b>13%</b>
<b>Management reserve</b>	<b>\$ 365,569</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>		
<b>Total Cash Cost</b>	<b>\$ 13,020,139</b>	<b>\$ 2,280,271</b>	<b>\$ 8,159,198</b>	<b>\$ 764,488</b>		
<b>Salvage (FOB Montreal)</b>	<b>\$ (2,288,227)</b>	<b>\$ (788,214)</b>	<b>\$ (1,500,013)</b>	<b>\$ -</b>		
<b>Total Cash Costs net of salvage</b>	<b>\$ 10,731,912</b>	<b>\$ 1,492,057</b>	<b>\$ 6,659,185</b>	<b>\$ 764,488</b>		
<b>Fuel - consumption from inventory at book value (non cash cost)</b>	<b>\$ 1,309,419</b>					
<b>Total Cost (Cash &amp; Non Cash)</b>	<b>\$ 12,041,330</b>					

### Security Estimate As Per QIA A&R Policy

<b>Total- Cash Costs Excluding Contingency &amp; Reserve</b>	<b>\$ 11,203,956</b>
Contingency	\$ 1,450,614
Management Reserve	\$ 365,569
<b>Total Cash Cost Including Contingency &amp; Reserve</b>	<b>\$ 13,020,139</b>
Elimination of Borrow Royalty Fees	\$ (53,000)
Eliminate Baffinland site management of closure activity	\$ (270,000)
Add QIA/Third Party Site Management	\$ 270,000
Eliminate Execution Planning by Baffinland Corporate	\$ -
Add Execution Planning by QIA/Third Party	\$ 200,000
<b>Total Security Estimate</b>	<b>\$ 13,167,139</b>

Table 8.1

## Summary of Estimated Costs for Final Abandonment Based Upon the Reclaim Model (version 5.1)

**Capital Costs**

<b>COMPONENT TYPE</b>	<b>COMPONENT NAME</b>	<b>TOTAL COST</b>	<b>Land Liability</b>	<b>Water Liability</b>
OPEN PIT	Bulk Sample Pit	\$78,000.00	\$78,000	\$0
<del>UNDERGROUND MINE</del>	0	<b>NO UNDERGROUND MINE</b>		
<del>TAILINGS</del>	0	<b>NO TAILINGS FACILITY</b>		
ROCK PILE	0	\$31,994.00	\$31,994	\$0
BUILDINGS AND EQUIPMENT	0	\$1,404,131.20	\$1,278,208	\$125,923
CHEMICALS AND SOIL MANAGEMENT	0	\$600,367.00	\$560,991	\$39,376
WATER MANAGEMENT	0	\$1,507.50	\$0	\$1,508
POST-CLOSURE SITE MAINTENANCE		\$155,829.33	\$71,860	\$83,969
<b>SUBTOTAL</b>		<b>\$2,271,829</b>	<b>\$2,021,054</b>	<b>\$250,775</b>
<b>Percentages</b>				
MOBILIZATION/DEMOBILIZATION	0	\$5,015,816		
MONITORING AND MAINTENANCE	0	\$569,000		
SALVAGE		\$1,459,203		
PROJECT MANAGEMENT - Project Management costs have already been included in the Monitoring and Maintenance costs				
ENGINEERING	3 %	\$68,155		
CONTINGENCY	12 %	\$272,619		
<b>TOTAL</b>		<b>\$6,738,216</b>		

**BAFFINLAND IRON MINES CORPORATION**  
**MARY RIVER PROJECT**  
**2010 ABANDONMENT AND RECLAMATION PLAN**

**Appendix A**  
**Closure Criteria**

## Bulk Sample Pit

TOTALS		Closure Criteria
Decommission bulk sample pit		
Remedial blasting for stability		<p>The Bulk Sample Pit is a misnomer in that the area where the bulk sample was removed consists of two benches, the lowest of which is open at grade to the South face of the mountain. Providing for the public safety:</p> <p>1. The pit walls or rock faces are stable .</p> <p>2.. Berms are constructed restricting vehicle access beyond the lowest bench over the edge of the mountain</p> <p>4. The pit or bench floor is graded and sloped such that it is free draining</p> <p>Water quality on any effluent discharges from the pit are in compliance with the water license effluent criteria and below the concentration limits listed under Schedule 4 of the Metal Mines Effluent Regulations (MMER),</p>
Remedial excavation for stability		
Runoff diversion around top of pit		
Decommission explosives magazine		

Mineral Exploration Areas (Deposits No. 1, 2, 3)

TOTALS		Closure Criteria
Decommission mineral exploration areas		
Drills are removed from exploration areas		Not Applicable - It is an operations policy that all drills are removed from the exploration areas and stored at Mary River outside of the drill season.
Remove water lines from exploration areas		1. The aluminum victaulic water lines and residual hose on #1 deposit are removed. 2. Materials is either control burned, land filled at the Mary River landfill, or backhauled for disposal or salvage.
Drill holes filled and residual casings cut		1. Exploration drill holes residual casing is cut at surface and the hole filled. 2. All drill cuttings not required to fill the hole are spread evenly over the ground surrounding the hole
Level pads, backfill sumps and grade to natural contours		1. Drill pads created during the 1960s are to be left in their current state. After 40 years, the historical access roads and pads are stable and the natural recovery of vegetation is well established with low susceptibility to erosion. 2. Drill pads created during exploration activity in the 2000s are leveled, sloped and contoured to the surrounding topography 3. Sumps are backfilled and contoured to the surrounding topography. 4. Surface configuration - Where contouring of above grade earthworks, slopes, where practical, should be graded to no steeper than 3 horizontal: 1 vertical. Slopes should usually be graded in a configuration that allows for even, unconcentrated drainage.
Old drill camp & access road material removed		1. All equipment and material from the historic 1960s camp and access road located on #1 deposit are removed. 2. After 40 years, the 1960 historical access road and camp area are stable and the natural recovery of vegetation is well established with low susceptibility to erosion. No contouring or grading required.
Prepare core for long-term site storage adjacent to airstrip		1. Exploration drill core transferred to sea containers for long term storage. 2. Containers welded closed and stored on the North side of the Mary River airstrip on dry, flat stable ground for long term storage
Inspection and final reclamation of exploration drill hole locations		1. Final inspection of all exploration areas to confirm completion of all work breakdown structure tasks listed above
Miscellaneous Exploration decommissioning		
Decommission salt mixing stations		1. Salt mixing stations and water pump stations are dismantled and removed from site.



Remote Sites

TOTALS		Closure Criteria
Remote Sites		
Inspection and final reclamation of geotechnical drill holes and test pit locations		1. Geotechnical drill holes are filled, residual casing is cut at surface, and sumps are graded to natural contours
Removal of casing/thermistors		Thermocouple cable is removed, residual casing is cut at surface and sumps are graded to natural contours.
Decommissioning of meteorological stations (3)		Meteorological station equipment & material is removed from each site and the disturbed land graded to natural contours.
Decommissioning of hydrology stations (4)		Hydrology equipment & materials are removed from hydrology sites.
Removal of current meter in Steensby Inlet		Current meter is removed from Fox Basin.
Decommissioning of wind tower		All wind tower equipment and materials removed and disturbed land graded to natural contours.

Stockpiles

TOTALS		Closure Criteria
Stockpiles		
Contour weathered ore stockpile and pit access road on Deposit No. 1		Weathered Ore stockpile at top of Deposit No.1, including the weathered ore roadbed between stockpile and pit is in a physically stable condition. 1. Weathered ore piles are knocked down, contoured and regraded. 2. Weathered ore pad and road are contoured 3. Both the pad and road are located on a crest withing a saddle at the top of #1 deposit where surface water flow is minimal with limited potential for erosion. 4. The road and bed sit amongts exposed natural outcrops of iron ore along the spine of the mountain. The contoured pad and road to remain uncovered.
Grade weathered ore stockpiles at crusher area		Grade weathered ore stockpiles at crusher area 1. Non-representative ore at crusher location is spread across existing ore pad and sloped to natural contours & topography. 2. Contoured ore remains uncovered.
Grade residual ore stockpiles at Milne Inlet		Residual ore stockpile is spread on non-representative ore pad and covered in 1.0m of locally available borrow material 1. Non-representative ore stockpile is spread across existing ore pad and graded in to natural contours with maximum side slopes of 3:1. 2. All of the non-representative ore is capped with 1 meter of locally available borrow and graded in to natural contours with a maximum side slopes of 3:1
Haul and place cover on ore pad area at Milne Inlet		

Camps & Related Facilities

		Closure Criteria
GRAND TOTAL		
	Decommissioning Mary River camp	
	Decommission 100 man Weatherhaven camp	All buildings & material re of temporary construction and are to be removed and disposed of in the Mary River Landfill 1. All hazardous materials and chemicals are removed prior to demolition and packaged as specified in the Waste Management worksheet. 2. Remove equipment designated as salvage in the Sealift In worksheet 3. Dispose of remaining buildings & material in the landfill.
	Decommission/Package stand alone accommodation/work tent camp (26 Weatherhaven tents)	
	Decommission/Package stand alone accommodation/work tent camp (11 Norseman tents)	
	Decommission concrete sewage tanks	1. Remove buried buried tanks to prevent subsidence. 2. Backfill all excavations to existing natural contours. 3. Dispose of concrete and plastic tanks in landfill
	Decommission/Package mobile equipment	Mobile equipment is decommission and packaged for sealift backhaul.
	Burn appropriate materials or Landfill	All material not scheduled for backhaul to the south will be either landfilled or burned in compliance with existing permit requirements

Camps & Related Facilities

	Closure Criteria
Ship material by land to Milne Inlet for shipment	Transportation Support for execution of A & R Plan
Nuna light truck support for all decommissioning work	Transportation Support for execution of A & R plan
Electrical Support for all decommissioning work	Electrical Support for execution of A & R plan
Organize material for shipment	
Boart	All equipment and material removed and backhauled to the South.
Springdale	All equipment and material removed and backhauled to the South.
Nuna	All equipment and material removed and backhauled to the South.
Package BIM sea cans for backhaul	All equipment and material removed and backhauled to the South.

Camps & Related Facilities

	Closure Criteria
Decommission/Package 3 shops	<p>Shops are of temporary construction and are to be removed and disposed of in the Mary River Landfill.</p> <p>1. All hazardous materials and chemicals are removed prior to demolition and packaged as specified in the Waste Management worksheet.</p> <p>2. Remove equipment designated as salvage in the Sealift In worksheet</p> <p>3. Dispose of remaining buildings &amp; material in the landfill.</p>
Decommission/Package related infrastructure (lines, piping, associated small buildings)	<p>All remaining infrastructure is of temporary construction and is to be removed and disposed of in the Mary River Landfill.</p> <p>1. All hazardous materials and chemicals are removed prior to demolition and packaged as specified in the Waste Management worksheet.</p> <p>2. Remove equipment designated as salvage in the Sealift In worksheet</p> <p>3. Dispose of remaining buildings &amp; material in the landfill.</p>
General site cleanup	
Loader use for redirecting coarse clean up streams	All foreign material is collected and removed from the surface of the ground
Clean up residual fine waste on ground	All residual foreign material is collected and removed from the surface of the ground
Contouring & grading	

Camps & Related Facilities

	Closure Criteria
Coarse contouring - Dozer	All disturbed land associated with the camp including pads, staging & laydown areas and accesses shall be reclaimed as follows: 1. Complete removal of all drainage structures. 2. Contour & grading of all disturbed areas to the natural topography 2. Application of armouring in areas of high erosion potential where slope & grade are inadequate for erosion control 5. Roadblocks to prevent vehicular access, where earthworks may create a hazard for motor vehicles
Coarse contouring - loader & excavator	
Final grading	
<b>Decommission Refuge Sites</b>	
Decommission refuge sites	All equipment & material is disposed of in the landfill or backhauled south.
Package refuge sites	Contract Services to support execution of A & R plan
Organize material for shipment	Contract Services to support execution of A & R plan
Ship material by land to Milne Inlet for shipment	Transportation services to support execution of A & R plan
<b>Decommission Milne Inlet camp (4 month operation @ Avg 4 person/day)</b>	

Camps & Related Facilities

	Closure Criteria
Decommission/Package Shanco Camp (10 trailers)	All equipment and material disposed of in the landfill or removed and backhauled to the South.
Decommission/Package 1 shop (1 large Weatherhaven)	Shops are of temporary construction and are to be removed and disposed of in the Mary River Landfill. 1. All hazardous materials and chemicals are removed prior to demolition and packaged as specified in the Waste Management worksheet. 2. Remove equipment designated as salvage in the Sealift In worksheet 3. Dispose of remaining buildings & material in the landfill.
Decommission/Package other stand alone work tents (9 wood structure tents)	All buildings & material re of temporary construction and are to be removed and disposed of in the Mary River Landfill 1. All hazardous materials and chemicals are removed prior to demolition and packaged as specified in the Waste Management worksheet. 2. Remove equipment designated as salvage in the Sealift In worksheet 3. Dispose of remaining buildings & material in the landfill.
Milne Inlet - Operate Oil water separation	N/A

Camps & Related Facilities

	Closure Criteria
Decommission/Package genset and incinerator	Equipment and material removed and backhauled to the South for salvage.
Decommission remaining mobile equipment	Equipment and material removed and backhauled to the South for salvage or for delivery to contractor
Truck waste from Milne Inlet Camp to Mary River Camp for land filling	Transportation service to support execution of A & R plan
Organize material for shipment	
Nuna	All equipment and material removed and backhauled to the South.
BIM Barge Loader	Equipment and material removed and backhauled to the South for salvage
Decommission/Package 1 shops	<p>Shops are of temporary construction and are to be removed and disposed of in the Mary River Landfill.</p> <p>1. All hazardous materials and chemicals are removed prior to demolition and packaged as specified in the Waste Management worksheet.</p> <p>2. Remove equipment designated as salvage in the Sealift In worksheet</p> <p>3. Dispose of remaining buildings &amp; material in the landfill.</p>



Camps & Related Facilities

	Closure Criteria
Decommission/Package related infrastructure (lines, piping, associated small buildings)	All remaining infrastructure is of temporary construction and is to be removed and disposed of in the Mary River Landfill. 1. All hazardous materials and chemicals are removed prior to demolition and packaged as specified in the Waste Management worksheet. 2. Remove equipment designated as salvage in the Sealift In worksheet 3. Dispose of remaining buildings & material in the landfill.
General site cleanup	
Loader use for redirecting coarse clean up streams	All foreign material is collected and removed from the surface of the ground
Clean up residual fine waste on ground	All residual foreign material is collected and removed from the surface of the ground
Contouring & grading	
Coarse contouring - Dozer	All disturbed land associated with the camp including pads, staging & laydown areas and accesses shall be reclaimed as follows: 1. Complete removal of all drainage structures. 2. Contour & grading of all disturbed areas to the natural topography 2. Application of armouring in areas of high erosion potential where slope & grade are inadequate for erosion control 5. Roadblocks to prevent vehicular access, where earthworks may create a hazard for motor vehicles
Coarse contouring - loader & excavator	
Final grading	
Decommission Mid-Rail Camp	

Camps & Related Facilities

	Closure Criteria
Decommission/Package stand alone accommodation/work tent camp	<p>All buildings, material &amp; equipment is of temporary construction and is to be relocated to Mary River and disposed of in the Mary River Landfill or backhauled to the south.</p> <p>1. All hazardous materials and chemicals are removed prior to demolition and packaged as specified in the Waste Management worksheet.</p> <p>2. Remove equipment designated as salvage in the Sealift In worksheet</p> <p>3. Dispose of remaining buildings &amp; material in the landfill.</p>
Decommission/Package genset and incinerator	
Decommission tent camp and related infrastructure (lines, piping, associated buildings)	
Decommission lay down areas	
General site cleanup	All residual foreign material is collected and removed from the surface of the ground
Fly waste from Mid Rail Camp to Mary River Camp for lanfilling	Transportation services to support execution of A & R plan
<b>Decommission Steensby Inlet Camp (14 Days @ 6 man camp)</b>	
Decommission/Package stand alone accommodation/work tent camp (25 wood structure tents)	<p>All buildings, material &amp; equipment is of temporary construction.</p> <p>1. All hazardous materials and chemicals are removed prior to demolition and packaged as specified in the Waste Management worksheet. These materials will be backhauled south for disposal in an approved recycling or disposal facility on the Steensby sealift</p> <p>2. Remove equipment designated as salvage in the Sealift In worksheet. This material will be backhauled on the Steensby sealift</p> <p>3. Dispose of remaining buildings &amp; material in the Mar River landfill or backhauled to the South.</p>
Decommission/package genset and incinerator	
Decommission related infrastructure (lines, piping, associated buildings)	
Decommission lay down areas	

Camps & Related Facilities

	Closure Criteria
Decommission fuel storage (200 drums of fuel)	All piping, bladders and other material having contained hydrocarbons are considered hazardous material and will be backhauled for disposal in approved disposal facilities in the South as described in the Waste Management worksheet
General site cleanup	All residual foreign material is collected and removed from the surface of the ground
Decommission remaining mobile equipment (4 pieces)	Remove equipment designated as salvage in the Sealift In worksheet. This material will be backhauled on the Steensby sealift
Organize material for shipment and sealift support	<ul style="list-style-type: none"><li>- Coordinate sealift with charter company</li><li>- All reclamation work to be completed and no material, equipment or any other unnatural thing remains at the Steensby Camp</li><li>- Use Loader to back blade &amp; countour land disturbed by camp infrastructure &amp; sealift activity</li><li>- Upon completion of sealift, all reclamation work is complete at Steensby</li></ul>
Steensby Port resupply by Helicopter	Transportation services to support execution of the A & R plan

Roads & Airstrips

	Closure Criteria
GRAND TOTAL	
Roads	
Freshet Management	Operational requirement to maintain integrity of the Road infrastructure during the reclamation year.
Operate Tote road for shipments	Permanent abandonment of gravel roads generally entails leaving the existing roads and road bed alignments in place. However, the rights-of-way must be reclaimed in a manner that ensures landforms are compatible with the surrounding landscape and where required to achieve a stable post-reclamation configuration. 1. All drainage and crossing structures on the roads to be removed completely and areas reclaimed, including the stabilization of stream banks where required. 2. Complete removal of crossing structure abutments 3. Application of rip rap in areas of high erosion potential where slope & grade controls are inadequate for erosion control 4. Contouring & grading of roads with cross falls to minimize erosion. 5. Roadblocks to prevent vehicular access, where, upon removal of drainage & crossing structures or other earthworks, a hazard would exist to motor vehicles
Inspect and repair any erosion on Tote Road	
Inspect and repair any erosion on #1 Deposit Rd.	
Re-grade pad & repair any erosion at #1 deposit salt station	
Remove navigable water crossings and crossing fill. Re-grade.	
Grade and contour road surfaces (tote road, haul road, landfill road, salt station road, explosives road)	
Airstrips	
Remove Mary River airstrip lighting (there is currently no lighting present at Milne Inlet)	1. All equipment & material is removed and disposed of in the landfill.
Fill in airstrip lighting ditches & regrade at Milne Inlet and Mary River	1. Backfill and grade all remaining excavations to existing natural contours 2. Airstrip is at or slightly below grade in some areas and follows the natural contour of the existing land. Sections of the airstrip above surrounding grade will be graded with cross fall to promote good drainage. Sections below grade and already part of the natural contours will be left in its current state.

Borrow/Quarry Areas

	Closure Criteria
Total	
2010-2011 Geotechnical monitoring of permitted & road side borrow area reclamation	Engineering Task - No reclamation required
Grade and contour primary borrow sites at Milne Inlet, Mary River, Midway and quarry	Borrow areas are graded and contoured to minimize ponding and prevent erosion and sediment run-off to receiving waters - Slopes are graded to a maximum of 3:1. - Borrow area graded and contoured to prevent ponding. - Drainage is directed away from water sources where possible and armored to prevent erosion. - All borrow areas are physically & geotechnically stable in the long term
Grade and contour road side borrow areas within alignment	
Borrow materials from permitted borrow areas (m3)	Task is a material cost - No closure criteria

Fuel Storage Facilities (Bulk and Drums)

	Closure Criteria
GRAND TOTAL	
Mary River Fuel Farm	
Return excess fuel at Mary River to Milne Inlet	Transportation Support for execution of A & R Plan
Drain, fold, and containerize Mary River bladder tanks	All piping, bladders and other material having contained hydrocarbons are considered hazardous material and will be backhauled for disposal in approved disposal facilities in the South as described in the Waste Management worksheet
Remove all geomembrane fuel liners, package and transport to Milne Inlet for sea-lift backhaul	1. Sample soil covering geomembrane for presence of hydrocarbon. 2. Soils above the acceptable criteria diverted to landfarm for treatment. 3. All geomembrane liners are considered to hazardous material and will be backhauled for disposal in approved disposal facilities in the South as described in the Waste Management worksheet

Fuel Storage Facilities (Bulk and Drums)

		Closure Criteria
	Recontour surface	1. Recontour and regrade to approximate the surrounding topography as closely as possible to enhance stability, reduce susceptibility to erosion, and facilitate efforts to establish vegetation. 2. Restoration of the pre-disturbance surface water regime, if appropriate. 3. The area is at grade with no surface water flow - No other method of erosion control is required in this area 4. Natural revegetation of disturbed areas is the preferred method given the latitude of the project.
	Milne Inlet Fuel Farm	
	Milne Inlet Bulk Fuel Sealift Backhaul Support	Contract Service for support of execution of A & R Plan
	Drain, fold, and containerize Milne bladder tanks	All piping, bladders and other material having contained hydrocarbons are considered hazardous material and will be backhauled for disposal in approved disposal facilities in the South as described in the Waste Management worksheet
	Remove Piping from fuel farm	All piping and other material having contained hydrocarbons are considered hazardous material and will be backhauled for disposal in approved disposal facilities in the South as described in the Waste Management worksheet

Fuel Storage Facilities (Bulk and Drums)

	Closure Criteria
Remove all hazardous material/fuel storage geomembrane fuel liners and package for sea-lift backhaul. (All lined berms except Milne Inlet Fuel Farm)	<div>1. Sample soil covering geomembrane for presence of hydrocarbon.</div> <div>2. Soils above the acceptable criteria diverted to landfarm for treatment.</div> <div>3. All geomembrane liners are considered to hazardous material and will be backhauled for disposal in approved disposal facilities in the South as described in the Waste Management worksheet</div>
EBA engineering to develop soil remediation criteria and landfarm design	Engineering services to support the execution of the A & R plan
Execute civil works to convert the fuel farm to hydrocarbon impacted soil landfarm	EBA engineering retained to establish remediation criteria, land farm design & civil works plan and operations manual.
Recontour surface	<div>1. Recontour and regrade to approximate the surrounding topography as closely as possible to enhance stability, reduce susceptibility to erosion, and facilitate efforts to establish vegetation.</div> <div>2. Restoration of the pre-disturbance surface water regime, if appropriate.</div> <div>3. The area is at grade with no surface water flow - No other method of erosion control is required in this area</div> <div>4. Natural revegetation of disturbed areas is the preferred method given the latitude of the project.</div>



Explosives

	Closure Criteria
Total	
Prepare explosives for shipping	Safe disposal of explosives & detonators: 1. Explosives and detonators are packaged for shipment by qualified personnel in compliance with regulatory requirement and shipped to a licensed recipient in Sourthern Canada.
Ship explosives to Milne Inlet	N/A
Ship explosives via land to Milne Inlet	Explosives are shipped by qualified personnel in compliance with regulatory requirements.

Waste Management

	Closure Criteria
GRAND TOTAL	
Construct landfill and access road	
Construct Access Road to Landfill including haulage	<p>Permanent abandonment of gravel roads generally entails leaving the existing roads and road bed alignments in place. However, the rights-of-way must be reclaimed in a manner that ensures landforms are compatible with the surrounding landscape and where required to achieve a stable post-reclamation configuration.</p> <p>1. All drainage and crossing structures on the roads to be removed completely and areas reclaimed, including the stabilization of stream banks where required.</p> <p>2. Complete removal of crossing structure abutments</p> <p>3. Application of rip rap in areas of high erosion potential where slope &amp; grade controls are inadequate for erosion control</p> <p>4. Contouring &amp; grading of roads with cross falls to minimize erosion.</p> <p>5. Roadblocks to prevent vehicular access, where, upon removal of drainage &amp; crossing structures or other earthworks, a hazard would exist to motor vehicles</p>
Construct Landfill Berms including haulage	<p>Landfill constructed according to approved engineering drawings and approved regulatory permits. Landfill operated and closed out in compliance with regulatory permit.</p>
Borrow Haulage required for operation of land fill to capacity	<p>Landfill operated and closed out in compliance with regulatory permit.</p>

Waste Management

	Closure Criteria
Borrow Haulage required for capping landfill	Landfill operated and closed out in compliance with regulatory permit.
Ship waste by land Mary River to Milne Inlet	
Prepare chemicals for shipping	All hazardous materials and chemicals requiring treatment or disposal off site are prepared and packaged for shipment in compliance with the requirements of the Transportation of Dangerous Goods Act.
Disposal cost of hazardous material in the South (except bulk contaminated soil)	All hazardous materials & chemicals are to be backhauled by sealift to Montreal and then to approved recycling or disposal facilities in the south.
Sewage - Mary River	

# Waste Management

	Closure Criteria
Decant sewage lagoons	Discharge sewage lagoon liquor in compliance with regulatory permits
Sludge removal & transfer to landfill	Sludge disposed in compliance with regulatory permits.
Liner removal & berm reclamation	1. Recycle clean fill for use on other reclamation tasks. 2. Backfill and grade all remaining excavations to existing natural contours.
Liner disposal	Liner disposed in landfill in compliance with regulatory permit requirements
Sewage - Milne	

Waste Management

	Closure Criteria
Decant sewage lagoons	Discharge sewage lagoon liquor in compliance with regulatory permits
Sludge removal & transfer to landfill	Sludge disposed in compliance with regulatory permits.
Liner removal & berm reclamation	1. Recycle clean fill for use on other reclamation tasks. 2. Backfill and grade all remaining excavations to existing natural contours.
Liner disposal	Liner disposed in landfill in compliance with regulatory permit requirements
Communities	
Hazardous material removal from Pond Inlet	1. Hazardous Material packaged for sealift 2. Material transported by sealift to the South 3. Material disposed in an approve facility 4. Hamlet of Pond Inlet satisfied with clean up.

# Contaminated Soil

		Closure Criteria
	Total	
	Collect and test soil samples including Milne Inlet fuel storage area	1. Soil in compliance with maximum hydrocarbon limits used for other reclamation tasks or contoured and graded to existing natural contours. 2. Soil out of compliance with maximum hydrocarbon limits redirected to landfarm for treatment
	Milne Inlet - Operate Oil water separation/activated carbon barrels	1. Water is treated and discharged in compliance with regulatory permits and limits
	Milne Inlet - Till hydrocarbon impacted soil each year for 3 years.	EBA engineering retained to develop closure criteria in 2010.

Contaminated Soil

	Closure Criteria
Vessel Costs Milne - 1 freight backhaul sealift in 2014 to remove liner, tilling equipment (i.e. loader with tiller drag), and trailer	Transportation services to support execution of A & R plan
Land freight cost for 2014 backhaul sealift	Transportation services to support execution of A & R plan
food & accommodations	Logistics & operations services to support execution of A & R plan
Post 2011 commercial flights for labour	Transportation services to support execution of A & R plan
Fixed wing support (note: equip hrs refer to statute miles)	Transportation services to support execution of A & R plan
Third Party Consultant to verify site land farm cleanup completion	Contract service to determine if landfarm operation meets the closure criteria to be established by EBA engineering in 2010

General Site Area

	Closure Criteria
Total	
Civil contractor - Admin & supervisory manpower	Contract services so support execution of the A & R plan
Baffinland Supervision	Baffinland site supervision to support execution of the A & R plan



Sealift Materials

	Closure Criteria
GRAND TOTAL	
From Milne Inlet to Montreal	
Shipment, loading and off loading	
Vessel Costs Milne - 2 freight backhaul sealifts, one in 2010 & 1 in 2011	
Vessel Cost Milne - 1 Bulk fuel backhaul sealift in 2010 and a 2nd in 2011	
From Steensby Port to Montreal	
Shipment, loading and off loading	Demobilization of all material, equipment and wastes not otherwise disposed of to the landfill are backhauled to Montreal for transportation to final destination as described in individual worksheet tasks.

Sealift Materials

	Closure Criteria
Vessel Costs Steensby - 1 freight backhaul sealift in 2011 (note: the units under Equip Hrs actually refer to revenue tonnes)	
Land Freight	

Camp Operations

	Closure Criteria
GRAND TOTAL	
Mary River Camp Operation	
Helicopter support	Transportation services to support execution of A & R plan
Fixed wing support (note: units under Equip Hrs refers to statue miles)	Transportation services to support execution of A & R plan

Camp Operations

	Closure Criteria
Fixed wing fuel purchase in Iqaluit	Material to support transportation services to support execution of A & R plan
Commercial flights for 35 person camp (MR & MI)	Transportation services to support execution of A & R plan
35 person camp operation	Logistics and operation to support execution of A & R plan
Camp Operating Overhead	Logistics and operation to support execution of A & R plan

Camp Operations

	Closure Criteria
Food	Logistics and operation to support execution of A & R plan
Standby costs for equipment	Potential cost incurred waiting for execution of A & R plan to start
Steensby Inlet Camp Operation	
6 person camp operation - Decommissioning	Logistics and operation to support execution of A & R plan
2 person camp operation - Sealift	Logistics and operation to support execution of A & R plan
Camp Operating Overhead	Logistics and operation to support execution of A & R plan
Food	Logistics and operation to support execution of A & R plan

# Camp Operations

	Closure Criteria
Milne Inlet - Operate avg 5 -person camp (16 person peak for 2 weeks)	
6 person camp operation (Support Labour)	Logistics and operation to support execution of A & R plan
Camp Operating Overhead	Logistics and operation to support execution of A & R plan
Food	Logistics and operation to support execution of A & R plan
MidRail - Operate 7-person camp	
6 person camp operation (Support Labour)	Logistics and operation to support execution of A & R plan
Camp Operating Overhead	Logistics and operation to support execution of A & R plan

Camp Operations

	Closure Criteria
Food	Logistics and operation to support execution of A & R plan

Environmental Monitoring

	Closure Criteria
Total	One annual site visit is undertaken for 5 years and remedial measures are undertaken as required
Environmental supervision & reporting during ongoing monitoring	Evaluation to determine whether physical and chemical objectives & closure criteria meet the criteria established by this A & R plan for project closeout
Annual site visits - preparation/consumables	
Annual site visits - water sampling (note: units under Equip Hrs refers to # samples)	
Annual site visit - site overview	



Environmental Monitoring

	Closure Criteria
Post 2011 commercial flights for labour	Transportation services to support execution of A & R plan
Annual site visit - helicopter support	Transportation services to support execution of A & R plan

Management Reserve

	Closure Criteria
Total	
Management Reserve	N/A

**BAFFINLAND IRON MINES CORPORATION**  
**MARY RIVER PROJECT**  
**2010 ABANDONMENT AND RECLAMATION PLAN**

**Appendix B**

**Cost Summary for Closure by Baffinland and Security Estimate**

**Variance Analysis – 2010 versus 2009 Cost Estimate**

**Cost Estimation Details for Closure by Baffinland**

2010 A & R Plan Summary

	Labor	Equipment	Total	2009 A & R Total	Difference	% Difference	2010 A & R Plan Annual Expenditures			2010		2009	
							2010	2011	>2011	Contingency(\$)	Contingency (%)	bond Contingency	Contingency (%)
Bulk Sample Pit	\$ -	\$ -	\$ -	\$ -			\$ -	\$ -		\$ 10,000		\$ 10,000	
Mineral Exploration Areas (Deposits No. 1, 2, 3)	\$ 16,930	\$ 59,940	\$ 76,870	\$ 146,800	\$ (69,930)	-48%	\$ 32,068	\$ 44,802	\$ -	\$ 9,299	12%	\$ -	0%
Remote Sites	\$ 14,096	\$ 87,888	\$ 101,984	\$ 535,500	\$ (433,516)	-81%	\$ 58,100	\$ 43,884	\$ -	\$ 5,805	6%	\$ 53,550	10%
Stockpiles	\$ 15,703	\$ 36,540	\$ 52,243	\$ 46,200	\$ 6,043	13%	\$ -	\$ 52,243	\$ -	\$ 2,612	5%	\$ 2,310	5%
Camps & Related Facilities	\$ 769,388	\$ 919,702	\$ 1,689,090	\$ 1,812,284	\$ (123,194)	-7%	\$ 244,863	\$ 1,444,226	\$ -	\$ 237,852	14%	\$ 271,843	15%
Roads & Airstrips	\$ 501,170	\$ 278,240	\$ 779,410	\$ 855,600	\$ (76,190)	-9%	\$ -	\$ 779,410	\$ -	\$ 134,753	17%	\$ 256,680	30%
Borrow Quarry Areas	\$ 189,893	\$ 373,238	\$ 563,131	\$ 504,910	\$ 58,221	12%	\$ 280,842	\$ 282,289	\$ -	\$ 126,062	22%	\$ 151,473	30%
Fuel Storage Facilities (Bulk and Drums)	\$ 161,891	\$ 61,188	\$ 223,079	\$ 99,600	\$ 123,479	124%	\$ 122,044	\$ 92,697	\$ 8,338	\$ 25,033	11%	\$ 9,960	10%
Explosives	\$ 3,828	\$ 3,216	\$ 7,044	\$ 7,800	\$ (756)	-10%	\$ 7,044	\$ -	\$ -	\$ 1,409	20%	\$ 1,560	20%
Waste Management	\$ 148,767	\$ 473,894	\$ 583,405	\$ 534,475	\$ 48,930	9%	\$ 136,349	\$ 447,056	\$ -	\$ 141,297	24%	\$ 160,343	30%
Hydrocarbon Impacted Soil	\$ 321,562	\$ 139,211	\$ 460,773	\$ 398,890	\$ 61,883	16%	\$ 4,200	\$ 230,633	\$ 225,940	\$ 124,242	27%	\$ 118,180	30%
General Site Area	\$ 540,000	\$ -	\$ 540,000	\$ 495,000	\$ 45,000	9%	\$ -	\$ 515,000	\$ 25,000	\$ 54,000	10%	\$ 49,500	10%
Sealift	\$ 15,765	\$ 2,845,500	\$ 2,861,265	\$ 3,372,149	\$ (510,884)	-15%	\$ 1,394,761	\$ 1,466,504	\$ -	\$ 167,489	6%	\$ 168,607	5%
Camp Operation	\$ 575,452	\$ 2,185,002	\$ 2,760,453	\$ 4,037,080	\$ (1,276,627)	-32%	\$ -	\$ 2,760,453	\$ -	\$ 281,709	10%	\$ 403,708	10%
Environmental Monitoring	\$ 250,600	\$ 254,610	\$ 505,210	\$ 567,100	\$ (61,890)	-11%	\$ -	\$ -	\$ 505,210	\$ 129,052	26%	\$ 170,130	30%
Subtotal - cash costs excluding Contingency & Reserve	\$ 3,525,044	\$ 7,718,169	\$ 11,203,956	\$ 13,413,388	\$ (2,209,432)	-16%	\$ 2,280,271	\$ 8,159,198	\$ 764,488				
Contingency			\$ 1,450,614	\$ -	\$ 1,450,614		\$ -	\$ -	\$ -	\$ 1,450,614	13%	\$ 1,827,844	13.6%
Management reserve			\$ 365,569	\$ -	\$ 365,569		\$ -	\$ -	\$ -				
Total Cash Cost	\$ 3,525,044	\$ 7,718,169	\$ 13,020,139	\$ 13,413,388	\$ (393,249)	-3%	\$ 2,280,271	\$ 8,159,198	\$ 764,488				
Salvage (FOB Montreal)			\$ (2,288,227)	\$ (2,247,416)	\$ (40,811)	2%	\$ (788,214)	\$ (1,500,013)	\$ -				
Total Cash Costs net of salvage			\$ 10,731,912	\$ 11,165,972	\$ (434,061)	-4%	\$ 1,492,057	\$ 6,659,185	\$ 764,488				
Fuel - consumption from inventory at book value (non cash cost)			\$ 1,309,419	\$ 1,050,000	\$ 259,419	25%							
Total Cost (Cash & Non Cash)			\$ 12,041,330	\$ 12,215,972	\$ (174,642)	-1%							

Security Estimate As Per QIA A&R Policy

						Description of Major Variances between 2010 & 2009 Security Estimates
Total- Cash Costs Excluding Contingency & Reserve	\$ 11,203,956	\$ 13,413,388	\$ (2,209,432)	-16%		See'Summary with Variances' worksheet for detailed variance analysisis.
Contingency	\$ 1,450,614	\$ 1,827,844	\$ (377,230)	-21%		Contingency - The amount of funds, budget or time needed above the estimate to reduce the risk of overruns of project objectives for a defined scope to a level acceptable to the organization. Contingency is reduced from 2009 due to: a) reduced closure activity due to progressive reclamation completed in 2009 b) improved quality of scope, productivities and cost estimtes for individual tasks within each A&R Plan component, increasing accuracy c) improved contingency estimation methodology by estimating contingency for each individual task of each A&R Plan component, rather than the 2009 method of estimating contingency on a global basis for each plan component. d) Management reserve removed from contingency and costed as a seperate line item
Management Reserve	\$ 365,569	\$ 365,569	\$ -			Management reserve is budgeted for unplanned, but potentially required changes to project scope and cost. The 2010 Management Reserve was removed from the 2009 contingency and costed as separate line item to 3% of the Total Cash Cost Excluding Contingency .
Total Cash Cost Including Contingency & Reserve	\$ 13,020,139	\$ 15,606,801	\$ (2,586,662)	-17%		
Elimination of Borrow Royalty Fees	\$ (53,000)	\$ (53,000)	\$ -	0%		This is the cost of borrow royalty fees payable by Baffinland if closure is executed by Baffinland and is included in Baffinland's closure cost estimate. However, the royalty fees are not relevant under the worst case where QIA assumes authority for closure.
Eliminate Baffinland site management of closure activity	\$ (270,000)	\$ (225,000)	\$ (45,000)	20%		The Baffinland Supervisors labour rate has been increased in the 2010 estimate (see General Site Area). This cost would not be incurred under the worst case where QIA assumes authority for closure. It would be replaced by third party management - see below.
Add QIA/Third Party Site Management	\$ 270,000	\$ 270,000	\$ -	0%		Cost of a third party to manage site closure activity, rather than Baffinland, under the worst case where QIA assumes authority for closure.
Eliminate Execution Planning by Baffinland Corporate	\$ -	\$ -				Corporate costs are not included in the A&R Plan which is based upon a planned closure by Baffinland
Add Execution Planning by QIA/Third Party	\$ 200,000	\$ 200,000	\$ -	0%		Cost of a third party to complete execution planning, rather than Baffinland, under the worst case where QIA assumes authority for closure.
Total Security Estimate	\$ 13,167,139	\$ 15,798,801	\$ (2,631,662)	-17%		
Value of Security Bond		\$ 16,500,000				Baffinland - QIA negotiated value of security bond

Notes:

1. Fuel for execution of the A & R Plan - No allowance required. Quantity of fuel necessary for A & R plan execution maintained at site. USLD and Jet A recertified in January, 2010 as meeting CGSB specifications for both products. Under the worst case where QIA assumes authority for closure, this fuel would be available for use by a third party.

## 2010 Security Estimate Summary with Variances from 2009

2010 Security EstimateSummary with Variances from 2009							Cash Contingency (\$)			% Contingency (%)			Description of Major Variances between 2010 & 2009 Plans
2010 Total	2009 Total	Variance (\$)	Variance (%)	2010	2009 Security Bond	2010-2009 Variance	2010	2009 Security Bond	2010-2009 Variance				
												<b>Cost:</b> - None <b>Contingency:</b> 0% - None	
Bulk Sample Pit	\$ -	\$ -	\$ -	0%	\$ 10,000	\$ 10,000	\$ -	0%	0%	0%	<b>Cost:</b> - Drill removal from exploration sites to be conducted annually in operations(-28K) - Material removed from old drill camp & access road in 2009 (-11K) - 80% of core moved to long term storage (-10K) - Updated Labour & Equipment rates (+9K) - Miscellaneous exploration decommissioning task removed and appropriate contingency applied to remaining tasks. <b>Contingency:</b> - Increased based on line item contingency assessment. Major contributing item was the application of contingency to all tasks to address the removal of "miscellaneous exploration decommissioning" task.		
Mineral Exploration Areas (Deposits No. 1, 2, 3)	\$ 76,870	\$ 146,800	\$ (69,930)	-48%	\$ 9,299	\$ -	\$ 9,299	12%	0%	12%	<b>Cost:</b> - 50% of geotech hole reclamation completed in 2009. Remaining helicopter hours reduced to reflect actual helicopter use/hole reclaimed. (-307K) - Thermistor helicopter hours reduced to reflect actual 2009 use/hole for geotechnical hole reclamation(-68K) - Hydrology station removal helicopter hours reduced to based on actual flight distances (-33K) - Current meter removal helicopter hours eliminated as 2 of the 3 meters are no longer recoverable (-10) - Updated labour & equipment rates (Balance) <b>Contingency:</b> - Accuracy of estimate improved based on partial reclamation in 2009 and actual equipment productivity		
Remote Sites	\$ 101,984	\$ 535,500	\$ (433,516)	-81%	\$ 5,805	\$ 53,550	\$ (47,745)	6%	10%	-4%	<b>Cost:</b> - Updated Labour & Equipment rates (+6K)		
Stockpiles	\$ 52,243	\$ 46,200	\$ 6,043	13%	\$ 2,612	\$ 2,310	\$ 302	5%	5%	0%	<b>Cost:</b> - Nuna mobile equipment Decommissioning/packaging hours reduced b 20% to reflect 20% demobilization of Nuna equipment in 2009 (-31K) - Drilling equipment organized for shipment (-18K) - Equipment hours on MR fine clean up incorrectly costed (-12K) - Refuge site reclamation task revised (-7K) - Decommissioning execution plan revised to include only one oil water separation season (planned for 2010) prior to conversion to land farm (-36K) - Total of improved accuracy applied to miscellaneous tasks(-22K) - Updated labour & equipment rates (Balance) <b>Contingency:</b> - Decrease based on line item contingency assessment. Major contributing item was a reduction associated with electrical labour based on 2009 actual contract costs.		
Camps & Related Facilities	\$ 1,689,090	\$ 1,812,284	\$ (123,194)	-7%	\$ 237,852	\$ 271,843	\$ (33,991)	14%	15%	-1%	<b>Cost:</b> - Freshet management broken out of "tote road operation" task because 2009 actual cost for activity well defined. (+356K). - Tote road operation reduced due the removal of "freshet management" which was costed separately in 2010 and the 2009 actual maintenance productivity applied to the A & R plan (-211K) - Grading & contouring of roads estimate reduced to reflect 2009 actual grading productivity (-229K) - Mary River airstrip removal scope & accuracy of estimate upgraded (-10K) - Updated labour & equipment rates (+20K) <b>Contingency:</b> - Decrease based on line item contingency assessment. Major contributing item was application of 2009 actual freshet management costs to freshet estimate.		
Roads & Airstrips	\$ 779,410	\$ 855,600	\$ (76,190)	-9%	\$ 134,753	\$ 256,680	\$ (121,927)	17%	30%	-13%	<b>Cost:</b> - Geotechnical monitoring for two years (+20K) - Updated labour & equipment rates (+38K) <b>Contingency:</b> - Decrease based on line item contingency assessment. Major items contributing to the reduction include 2009 actual costs for geotechnical assessment applied to future years and road side borrow scope definition based on 2009 geotechnical assessment.		
Borrow Quarry Areas	\$ 563,131	\$ 504,910	\$ 58,221	12%	\$ 126,062	\$ 151,473	\$ (25,411)	22%	30%	-8%	<b>Cost:</b> - New task - engineering to convert Milne Inlet fuel farm to Land farm (+70K) - New task - civil works to convert fuel farm to land farm (+46K) - Updated labour & equipment rates (Balance)		
Fuel Storage Facilities (Bulk and Drums)	\$ 223,079	\$ 99,600	\$ 123,479	124%	\$ 25,033	\$ 9,960	\$ 15,073	11%	10%	1%	<b>Contingency:</b> - increased based on line item contingency assessment		
Explosives	\$ 7,044	\$ 7,800	\$ (756)	-10%	\$ 1,409	\$ 1,560	\$ (151)	20%	20%	0%	<b>Cost:</b> - A task was costed twice and removed in 2010 (-4K) <b>Contingency:</b> - None		
Waste Management	\$ 583,405	\$ 534,475	\$ 48,930	9%	\$ 141,297	\$ 160,343	\$ (19,046)	24%	30%	-6%	<b>Cost:</b> - Chemical preparation & disposal costs reduced to reflect completion of disposal of historical waste in 2009. Estimate based on budgeted production & actual disposal costs (-75K) - Sewage & sludge disposal costs increased based on 2009 actual treatment costs and projected volumes ((+100K) - Hazardous waste disposal in Pond Inlet completed in 2009 (-9K) - Updated labour & equipment rates (+33K) <b>Contingency:</b> - Decrease based on actual treatment cost incurred in 2009 - Disposal of all historical hazardous waste to current inventory levels		
Hydrocarbon Impacted Soil	\$ 460,773	\$ 398,890	\$ 61,883	16%	\$ 124,242	\$ 118,180	\$ 6,062	27%	30%	-3%	<b>Cost:</b> - Oil water separation task cost increased to cover additional treatment time due to increased water storage inventory (+28K) - Reduced the cost of Land farm tilling post 2011 by using Baffinland heavy equipment (-15K) - Land freight component of backhaul included in 2010 (+29K) - Food cost rates reduced to reflect 2009 actual food & shipping costs (-15K) - Commercial flights for post 2011 land farm maintenance costed separately as a line item task (+24K) <b>Contingency:</b> - Decreased based on line item contingency assessment. Major items contributing include sealift a bakchaul and land freight		
General Site Area	\$ 540,000	\$ 495,000	\$ 45,000	9%	\$ 54,000	\$ 49,500	\$ 4,500	10%	10%	0%	<b>Cost:</b> - Baffinland supervision labour rate increased to reflect 2010 actual costs <b>Contingency:</b> - None		
Sealift	\$ 2,861,265	\$ 3,372,149	\$ (510,884)	-15%	\$ 167,489	\$ 168,607	\$ (1,118)	6%	5%	1%	<b>Cost:</b> - Milne Inlet freight sealift cost reduced based on volume reduction from 2009 sealift backhaul and sealift supplier rate reductions. (-350K) - Bulk fuel sealift backhaul estimate reduced based reduced volume backhaul requirements and improved quality of estimate(-20K) - Steensby Inlet sealift backhaul estimate reduced based on volume reduction from 2009 sealift backhaul and sealift supplier rate reductions (-275K) - Land freight estimate revised on based on 2009 actual costs (+144) <b>Contingency:</b> - None		
Camp Operation	\$ 2,760,453	\$ 4,037,080	\$ (1,276,627)	-32%	\$ 281,709	\$ 403,708	\$ (121,999)	10%	10%	0%	<b>Cost:</b> - Helicopter hours reduced based on 2009 actual helicopter utilization for camp operation and a reduction in the length of the seasonal requirement (-529K). - Accuracy of fixed wing estimate improved based on 2009 actual operating (-249K) - Fixed wing fuel purchase estimate increased based on detailed mileage estimate and updated rates (+30K) - Food estimate reduced based on revised on updated A & R Plan Labour requirements and 2009 actual food purchase price and shipping unit costs (-442K) - Miscellaneous camp operations tasks updated based on reduce requirements resulting from the completion of 2009 progressive reclamation, (+160K) - Updated labour & equipment rates (balance) <b>Contingency:</b> - Decrease based on line item contingency assessment. Major items contributing to the reduction include camp operation and food person day task that already include a 25% allowance.		
Environmental Monitoring	\$ 505,210	\$ 567,100	\$ (61,890)	-11%	\$ 129,052	\$ 170,130	\$ (41,078)	26%	30%	-4%	<b>Cost:</b> - Post 2011 annual site visit strategy revised. Annual helicopter requirements reduced by 14 hours (-95K) - Post 2011 commercial aircraft flights to Pond Inlet included as a line item task (+23K) - Post 2011 site visit time requirements increased by 100% annually (+10K) <b>Contingency:</b> - Decrease based on line item contingency assessment. Major items contributing to the reduction include 100% increase in annual site visit time based on improved quality of estimated work and an improvement in the quality of the corresponding helicopter hours required to support the annual inspection.		
Subtotal - cash costs excluding contingency	\$ 11,203,956	\$ 13,413,388	\$ (2,209,432)	-16%								<b>Contingency:</b> - Removal of the Management Reserve from the contingency (-365K) - Remaining contingency reduction based on reduced cost and line item contingency estimate as described above (-378K) - 2010 overall contingency of 12.9% reduced from 2009 value of 13.6% (net of management reserve)	
Contingency	\$ 1,450,614	\$ 2,193,413			\$ 1,450,614	\$ 2,193,413	\$ (742,799)	12.9%	16.4%	-3.4%	<b>Cost:</b> - Management reserve to cover potential changes in project scope. Reserve extracted from 2009 Contingency value and costed separately. (+365K) <b>Contingency:</b> - None		
Management Reserve	\$ 365,569	\$ -	\$ 365,569										

Bulk Sample Pit

Bulk Sample Pit																	
Total Labour 0																	

Mineral Exploration Areas (Deposits No. 1, 2, 3)

Mineral Exploration Areas (Deposits No. 1, 2, 3)					Total Labour		36																			
					Labor				Equipment																	
					Units	# Units	Unit Rate	Cost	Units	# Units	Unit Rate	Cost	Total cost	2010 Cost	2011 Cost	>2011 Cost	Check	Contingency (%)	Contingency	Basis for 2010 Contingency	Basis for 2010 Estimate					
TOTALS								\$ 16,930				\$ 59,940	\$ 76,870	\$ 32,068	\$ 44,802	\$ -	\$ -	12%	\$ 9,299							
Decommission mineral exploration areas								\$ 16,930				\$ 59,940	\$ 76,870	\$ 32,068	\$ 44,802	\$ -	\$ -		\$ 9,299							
Drills are removed from exploration areas					Person Day	0	\$0	\$ -	Hours	0	\$0	\$ -	\$ -		\$ -		\$ -	0%	\$ -	Reclamation task no longer required.	2011 Cost reduced from \$18,900 to \$0. Effective 2010, it is Baffinland's policy to remove drills from the exploration sites at the end of each drill season.					
Remove water lines from exploration areas					Person Day	12	\$431	\$ 5,172	Hours	6	\$1,590	\$ 9,540	\$ 14,712		\$ 14,712		\$ -	15%	\$ 2,207	Quantities and scope are well defined	2010 estimate same as 2009 -4 person crew - 3 days. 6 hours helicopter time to sling down					
Drill holes filled and residual casings cut					Person Day	4	\$431	\$ 1,724	Hours	18	\$1,590	\$ 28,620	\$ 30,344	\$ 30,344			\$ -	10%	\$ 3,034	Quantities and scope are well defined. Equipment hours assigned to task at double the historical rate for holes spaced closely together.	Work not completed in 2009. #1 deposit holes to be completed in 2010. Geotech hole reclamation helicopter utilization in 2009 = 0.27 hours/hole with holes spread out across 130miles of railway. Assume same as 2009 Estimate - 18 holes at Deposit 1. Assume 1 hour per hole, 2 man crew with helicopter support					
Level pads, backfill sumps and grade to natural contours					Person Day	5	\$714	\$ 3,569	Hours	60	\$204	\$ 12,240	\$ 15,809		\$ 15,809		\$ -	15%	\$ 2,371	Quantities and scope are well defined	Work Not completed in 2009. Cost moved to 2011 with the assumption that sumps are of value for future drilling on #1 Deposit. Assume excavator used to backfill. 18 holes with sumps. Assume 3 hours dozer time/hole - sumps are 3m x 10m x 1.5m = 45m3 each					
Old drill camp & access road material removed					Person Day	0	\$0	\$ -	Hours	0	\$0	\$ -	\$ -	\$ -			\$ -	0%	\$ -	Reclamation task no longer required.	Work completed in 2009. 2010 cost reduced from \$11K to \$0					
Prepare core for long-term site storage adjacent to airstrip					Person Day	4	\$431	\$ 1,724	Hours	15	\$0	\$ -	\$ 1,724	\$ 1,724			\$ -	15%	\$ 259	80% of the task complete. Quantities and scope are well defined	80% of the core was moved in to containers for permanent storage. The remaining core will be containerized in 2010. Estimate based on 20% of 2009 cost. Cost reduced from \$12K to \$2,400.					
Inspection and final reclamation of exploration drill hole locations					Person Day	1	\$431	\$ 431	Hours	4	\$1,590	\$ 6,360	\$ 6,791		\$ 6,791		\$ -	10%	\$ 679	Quantities and scope are well defined	Same as 2009 Estimate -Deposit 1 - 45; Deposit 2&3 - 23 holes					
Miscellaneous Exploration decommissioning					Person Day	0	\$0	\$ -	Hours	0	\$0	\$ -	\$ -		\$ -		\$ -	0%	\$ -		2010 Estimate - Task removed as it is a contingency and not a specific task. Contingency for Mineral exploration areas worksheet revised to compensate for the removal of this task. 2010 estimate reduced from \$29K in 2009					
Decommission salt mixing stations					Person Day	10	\$431	\$ 4,310	Hours	2	\$1,590	\$ 3,180	\$ 7,490		\$ 7,490		\$ -	10%	\$ 749	Quantity & access well defined.	Partial reclamation of area completed in 2009. 2010 Estimate same as 2009 -Estimate 2 hours helicopter time to remove salt station from mineral exploration area					

Remote Sites

Remote Sites		Total Labour		28															
		Labor				Equipment													
		Units	# Units	Unit Rate	Cost	Units	# Units	Unit Rate	Cost	Total cost	2010 Cost	2011 Cost	>2011 Cost	Check	Contingency (%)	Contingency	Basis for 2010 Contingency	Basis for 2010 Estimate	
TOTALS					\$ 14,096				\$ 87,888	\$ 101,984	\$ 58,100	\$ 43,884	\$ -	\$ -	6%	\$ 5,805			
Remote Sites					\$ 14,096				\$ 87,888	\$ 101,984	\$ 58,100	\$ 43,884	\$ -	\$ -		\$ 5,805			
	Inspection and final reclamation of geotechnical drill holes and test pit locations	Person Day	10	\$431	\$ 4,310	Hours	33	\$1,590	\$ 52,470	\$ 56,780	\$ 56,780			\$ -	5%	\$ 2,839	Quantities & scope are well defined including the location & number of drill holes. 50% were reclaimed in 2009 and unit costs are well established.	2010 Estimate based on actuals labour & helicopter hours to complete exactly half of the holes in 2009 (See 2009 reclamation report). 10 additional helicopter hours added to the 23 hours required to cover additional mobilization time to the south end of the rail alignment. Estimate reduced from \$365K in 2009	
	Removal of casing/thermistors	Person Day	6	\$431	\$ 2,586	Hours	16.2	\$1,590	\$ 25,758	\$ 28,344		\$ 28,344		\$ -	10%	\$ 2,834	Quantities & scope are well defined including the location & number of thermistors. Scope is the same as geotechnical holes and actual unit costs were derived geotech hole reclamation in 2009.	2010 Estimate revised based on 2009 geotech hole actual reclamation costs. Helicopter hours = 0.27 hours/hole * 60 holes = 16.2 hours. Labour 1.08 Man hrs/hole* 60 = 65 hours = 6 man days. Cost reduced from 2009 estimate of \$96K.	
	Decommissioning of meteorological stations (3)	Person Day	6	\$ 600	\$ 3,600	Hours	3	\$1,590	\$ 4,770	\$ 8,370		\$ 8,370		\$ -	0%	\$ -	Stations are located adjacent to the camps - no contingency necessary.	2010 Estimate remains unchanged from 2009. Assume 2 persons /day/station and 1 hour helicopter time support for each.	
	Decommissioning of hydrology stations (4)	Person Day	4	\$ 600	\$ 2,400	Hours	3	\$1,590	\$ 4,770	\$ 7,170		\$ 7,170		\$ -	0%	\$ -	Stations are small units that fit inside the aircraft. Locations are well established. Helicopter hours 50% larger than calculated. No contingency necessary	2010 Estimate revised. Labour budget 2 persons for 2 days to remove all the hydrology stations. Helicopter hour budget revised based on detailed analysis of flying distance from MR to meters back to MR. Estimated distance is 227knots. Avg Helicopter speed is 120 k/hr. Total flying time is 227 Kn/120kn/hr = 1.9 hrs, therefore assume 3 hours of helicopter time. Cost reduced from 2009 estimate of \$40K.	
	Removal of current meter in Steensby Inlet	Person Day	2	\$ 600	\$ 1,200	Hours	12	\$ 10	\$ 120	\$ 1,320	\$ 1,320			\$ -	10%	\$ 132	Exact location of potentially recoverable meter is known. Contingency applied due uncertainty of work on water.	The battery for the buoy release mechanism on both units no longer has power. The two units located in deep water are no longer retrievable. The second unit located in shallow water off the Steensby camp is retrievable by dragging the bottom with an anchor from a zodiac. The meter will either be retrievable or not within a couple of hours. Assume 2 persons for one day. Equipment owned by Baffinland. 2010 estimate reduced from 2009 estimate of \$12K	
	Decommissioning of wind tower	Person Day	0	0	\$ -	Hours	0	\$0	\$ -	\$ -	\$ -			\$ -	0%	\$ -		Cost reduced from \$21K in 2009 to 0. Reclamation objectives met in 2009.	



Stockpiles

Stockpiles		Total Labour		22																		
		Labor				Equipment																
		Units	# Units	Unit Rate	Cost	Units	# Units	Unit Rate	Cost	Total cost	2010 Cost	2011 Cost	>2011 Cost	Check	Contingency	Contingency	Basis for 2010 Contingency	Basis for 2010 Estimate	Basis for 2009 Estimate			
TOTALS					\$ 15,703				\$ 36,540	\$ 52,243	\$ -	\$ 52,243	\$ -	\$ -	5%	\$ 2,612	\$ -					
Stockpiles					\$ 15,703				\$ 36,540	\$ 52,243	\$ -	\$ 52,243	\$ -	\$ -		\$ 2,612	\$ -					
	Contour weathered ore stockpile and pit access road on Deposit No. 1	Person Day	0	\$0	\$ -	Hours	0	\$0	\$ -	\$ -		\$ -		\$ -	0%	\$ -		Objectives met in 2008	Completed in 2008			
	Grade weathered ore stockpiles at crusher area	Person Day	7	\$714	\$ 4,996	Hours	84	\$165	\$ 13,860	\$ 18,856		\$ 18,856		\$ -	5%	\$ 943	Stockpile volumes and disturbance areas have been surveyed, hence scope of work is accurately defined. Productivities are based upon recent operating experience. It has been demonstrated from the 2008 environmental geochemical testing program that there is virtually no potential for enhanced release of acidity or metals in response to oxidative weathering of the stockpiled material. A contingency of 5% is considered adequate.	2010 estimate same as 2009 - 27,000 tonnes of non-representative ore exist at crusher pad location. Estimate 7 days of D8 dozer to level and contour the stockpiles.	27,000 tonnes Assume 7 days of D8 dozer to level the stockpiles			
	Grade residual ore stockpiles at Milne Inlet	Person Day	6	\$714	\$ 4,283	Hours	72	\$124	\$ 8,928	\$ 13,211		\$ 13,211		\$ -	5%	\$ 661		Basis for 2010 estimate same as 2009. Lump stockpile is 2900 cubes and fines 1060. Dozer the stockpiles across pad area will increase pad height by 0.44m (2900+1060/8674 [area of pad]). Maximum height of pad will be 2.44 meters. Assume 3 days dozer & loader operation.	Lump stockpile is 2900 cubes and fines 1060. Dozer the stockpiles across pad area will increase pad height by 0.44m (2900+1060/8674 [area of pad]). Maximum height of pad will be 2.44 meters. Assume 3 days dozer & loader operation.			
	Haul and place cover on ore pad area at Milne Inlet	Person Day	9	\$714	\$ 6,424	Hours	108	\$127	\$ 13,752	\$ 20,176		\$ 20,176		\$ -	5%	\$ 1,009		Basis for 2010 estimate same as 2009. Assume .3m cover. Stockpile will be graded to maximum height of 4m with side slopes of 2:1.. Volume fill required = 8674 m [surface area]* .33 meter + (551 m [perimeter length]*1.7 meter wide face on slope (2:1 slope with avg height = .3 meter)* .33 meter fill=3202 cubes fill required to cap ore pads. Man days =3202 cubes/32.52 cubes/truck= 296 trips/17 trips /day (@ 40 minutes trip)= 6 man days + Assume 1 loader & dozer support with 4 trucks running = 3 man days for a total of 9	Assume .3m cover. Stockpile will be graded to maximum height of 4m with side slopes of 2:1.. Volume fill required = 8674 m [surface area]* .33 meter + (551 m [perimeter length]*1.7 meter wide face on slope (2:1 slope with avg height = .3 meter)* .33 meter fill=3202 cubes fill required to cap ore pads. Man days =3202 cubes/32.52 cubes/truck= 296 trips/17 trips /day (@ 40 minutes trip)= 6 man days + Assume 1 loader & dozer support with 4 trucks running = 3 man days for a total of 9			

Camps & Related Facilities

Camps & Related Facilities		Total Labour	1239																
		Labor				Equipment													
		Units	Person Days	Unit Rate	Cost	Units	Equip Hrs	Unit Rate	Cost	Total cost	2010 Cost	2011 Cost	>2011 Cost	Check	Contingency	Contingency	Basis for 2010 Contingency	Basis for 2010 Estimate	
GRAND TOTAL					\$ 769,388				\$ 919,702	\$ 1,689,090	\$ 244,863	\$ 1,444,226	\$ -	\$ -	14%	\$ 237,852			
Decommissioning Mary River camp			607		\$ 416,188				\$ 556,202	\$ 972,390	\$ 179,100	\$ 793,290	\$ -	\$ -					
	Decommission 100 man Weatherhaven camp	Person Day	42	\$714	\$ 29,978	Hours	504	\$138	\$ 69,552	\$ 99,530		\$ 99,530		\$ -	15%	\$ 14,929	Individual facilities were identified at the Mary River camp and cost estimates developed. Although the scope of work is very well defined, there is some risk to the estimate in terms of the productivity estimate (time requirements). Hence a 15% contingency is warranted to cover a potentially larger number of hours to complete the work.	Assume land filled - excavator, loader & 4 trucks 7 days. 6 men * 7 days = 42 man days * 12 hours equipment =504	
	Decommission/Package stand alone accommodation/work tent camp (26 Weatherhaven tents)	Person Day	12	\$714	\$ 8,565	Hours	144	\$138	\$ 19,872	\$ 28,437		\$ 28,437		\$ -	15%	\$ 4,266		Assume land filled - excavator, loader & 4 trucks 2 days. 6 men* 2 days =12 man days * 12 hours equipment =144	
	Decommission/Package stand alone accommodation/work tent camp (11 Norseman tents)	Person Day	12	\$714	\$ 8,565	Hours	144	\$143	\$ 20,520	\$ 29,085		\$ 29,085		\$ -	15%	\$ 4,363		Assume land filled - excavator, loader & 4 trucks 2 days. 6 men* 2 days =12 man days * 12 hours equipment =144	
	Decommission concrete sewage tanks	Person Day	4	\$714	\$ 2,855	Hours	48	\$167	\$ 7,992	\$ 10,847		\$ 10,847		\$ -	5%	\$ 542	Scope well defined and time requirement is short	Assume 2 men for 2 days with excavator & Kenworth truck	
	Decommission/Package mobile equipment	Person Day	160	\$714	\$ 114,202	Hours	80	\$131	\$ 10,496	\$ 124,698	\$ 35,000	\$ 89,698		\$ -	15%	\$ 18,705	Individual equipment & material were estimated based on detailed material balance of volumes shipped to, consumed at and backhauled from Mary River camp and cost estimates developed. Although the scope of work is very well defined, there is some risk to the estimate in terms of the productivity estimate (time requirements). Hence a 15% contingency is warranted to cover a potentially larger number of hours to complete the work.	2010 basis - 20% of Nuna Mobile equipment removed in 2009. 2010 estimate reflects this reduction in labour & equipment. Assume 45 man days for Nuna equipment demob in 2010 2010 estimate reduced from 2009 cost of \$155K	
	Burn appropriate materials or Landfill	Person Day	120	\$714	\$ 85,651	Hours	1420	\$124	\$ 175,725	\$ 261,376	\$ 100,000	\$ 161,376		\$ -	15%	\$ 39,206		Volume balance & corresponding labour & equipment requirements used to determine costs - See electronic resource file "Burn & landfill costs"	
	Ship material by land to Milne Inlet for shipment	Person Day	107	\$714	\$ 76,372	Hours	1284	\$124	\$ 158,895	\$ 235,267	\$ 44,100	\$ 191,167		\$ -	15%	\$ 35,290		2010 Basis same as 2009. Revised equipment rates to reflect actual utilization. 75% truck & 25% loader.	
	Nuna light truck support for all decommissioning work					Monthly Lease	30	\$3,105	\$ 93,150	\$ 93,150		\$ 93,150		\$ -	10%	\$ 9,315	Estimate based on Nuna 2010 contract rates and number of Trucks remaining at site for A & R	Assume 6 trucks * 5 months during peak operation	

Camps & Related Facilities

Total Labour		1239															
Labor				Equipment													
	Units	Person Days	Unit Rate	Cost	Units	Equip Hrs	Unit Rate	Cost	Total cost	2010 Cost	2011 Cost	>2011 Cost	Check	Contingency	Contingency	Basis for 2010 Contingency	Basis for 2010 Estimate
Electrical Support for all decommissioning work	Person Day	150	\$600	\$ 90,000					\$ 90,000		\$ 90,000		\$ -	5%	\$ 4,500	Estimate based on contract Labour rate for 1 person continuously employed through the A & R Plan	Assume 1 electrician 5 months
Organize material for shipment		106		\$ 58,789				\$ 42,120	\$ 100,909	\$ -	\$ 100,909	\$ -	\$ -				
Boart	Person Day	28	\$600	\$ 16,800	Hours	48	\$10	\$ 480	\$ 17,280		\$ 17,280		\$ -	15%	\$ 2,592	Individual equipment & material were estimated based on detailed material balance of volumes shipped to, consumed at and backhauled from Mary River camp and cost estimates developed. Although the scope of work is very well defined, there is some risk to the estimate in terms of the productivity estimate (time requirements). Hence a 15% contingency is warranted to cover a potentially larger number of hours to complete the work.	2010 Basis same as 2009. Revised equipment rate to reflect equipment is owned by Baffinland
Springdale	Person Day	0	\$0	\$ -	Hours	0	\$0	\$ -	\$ -		\$ -		\$ -	15%	\$ -		3 of 5 drills demobilized from site. Remaining 2 drills are packaged and ready for demobilization. Springdale no longer required at site. Equipment requires 1 flight out. 2010 Estimate reduced from \$13K in 2009
Nuna	Person Day	14	\$726	\$ 10,164	Hours	72	\$125	\$ 9,000	\$ 19,164		\$ 19,164		\$ -	15%	\$ 2,875		Package Nuna containers, & miscellaneous material for shipping . Assume two warehousemen * 2 weeks & mobile hours part time
Package BIM sea cans for backhaul	Person Day	10	\$431	\$ 4,310	Hours	12	\$10	\$ 120	\$ 4,430		\$ 4,430		\$ -	15%	\$ 665		2010 Basis same as 2009. Revised equipment rate to reflect equipment is owned by Baffinland . 2010 Estimate reduced from \$\$5.8K in 2009
Decommission/Package 3 shops	Person Day	24	\$431	\$ 10,344	Hours	72	\$125	\$ 9,000	\$ 19,344		\$ 19,344		\$ -	15%	\$ 2,902		2010 Basis same as 2009.
Decommission/Package related infrastructure (lines, piping, associated small buildings)	Person Day	30	\$572	\$ 17,171	Hours	180	\$131	\$ 23,520	\$ 40,691		\$ 40,691		\$ -	15%	\$ 6,104		2010 Basis same as 2009. Labour updated to reflect 50% general labourer & 50% Operators.
General site cleanup		73		\$ 33,725				\$ 8,064	\$ 41,789	\$ -	\$ 41,789	\$ -	\$ -				
Loader use for redirecting coarse clean up streams	Person Day	8	\$714	\$ 5,710	Hours	96	\$84	\$ 8,064	\$ 13,774		\$ 13,774		\$ -	15%	\$ 2,066	Individual facilities were identified at the Mary River camp and cost estimates developed. Although the	Use loader to clean up coarse waste streams (burn/landfill). Assume 8 days of loader time to clean up coarse waste

Camps & Related Facilities

	Total Labour	1239															
	Labor				Equipment												
	Units	Person Days	Unit Rate	Cost	Units	Equip Hrs	Unit Rate	Cost	Total cost	2010 Cost	2011 Cost	>2011 Cost	Check	Contingency	Contingency	Basis for 2010 Contingency	Basis for 2010 Estimate
Clean up residual fine waste on ground	Person Day	65	\$431	\$ 28,015	Hours	0	\$0	\$ -	\$ 28,015		\$ 28,015		\$ -	15%	\$ 4,202	scope of work is very well defined, there is some risk to the estimate in terms of the productivity estimate (time requirements). Hence a 15% contingency is warranted to cover a potentially larger number of hours to complete the work.	2010 Basis same as 2009. Equipment hours zeroed to reflect actual equipment utilization (hours incorrectly costed in 2009)
Contouring & grading		25		\$ 17,844				\$ 39,648	\$ 57,492	\$ -	\$ 57,492	\$ -	\$ -				
Coarse contouring - Dozer	Person Day	10	\$714	\$ 7,138	Hours	120	\$140	\$ 16,800	\$ 23,938		\$ 23,938		\$ -	15%	\$ 3,591	Individual facilities were identified at the Mary River camp and cost estimates developed. Although the scope of work is very well defined, there is some risk to the estimate in terms of the productivity estimate (time requirements). Hence a 15% contingency is warranted to cover a potentially larger number of hours to complete the work.	Dozer work for uncounted gray water pits, excavations at the south end of the airstrip, 100 man camp pad. (assume entire tote road, & landfill road to remain in operating condition)
Coarse contouring - loader & excavator	Person Day	8	\$714	\$ 5,710	Hours	96	\$140	\$ 13,440	\$ 19,150		\$ 19,150		\$ -	15%	\$ 2,873		Loader & excavator hours road to camp lake & other minor work. Assume 4 man days each
Final grading	Person Day	7	\$714	\$ 4,996	Hours	84	\$112	\$ 9,408	\$ 14,404		\$ 14,404		\$ -	15%	\$ 2,161		Assume 7 days of grader operation
Decommission Refuge Sites		2		\$ 1,428				\$ 848	\$ 2,276	\$ -	\$ 2,276	\$ -	\$ -				
Decommission refuge sites	Person Day	2	\$714	\$ 1,428	Hours	8	\$106	\$ 848	\$ 2,276		\$ 2,276		\$ -	5%	\$ 114	Scope well defined and time requirement is short	Basis same as 2009. Equipment rate updated to reflect use of haul truck and Loader.
Package refuge sites	Person Day	0	\$0	\$ -	Hours	0	\$0	\$ -	\$ -				\$ -	0%	\$ -		Reassessment of specific activities associated with reclamation of refuge sites indicates packaging not required. Refuge trailer ready for sealift as is. 2010 cost reduced from 2009 \$2.2K
Organize material for shipment	Person Day	0	\$0	\$ -	Hours	0	\$0	\$ -	\$ -				\$ -	0%	\$ -		Reassessment of specific activities associated with reclamation of refuge sites indicates Organizing material for shipment is accounted for in "Decommissioning refuge sites". Refuge trailer ready for sealift as is. 2010 cost reduced from 2009 \$2.2K
Ship material by land to Milne Inlet for shipment	Person Day	0	\$0	\$ -	Hours	0	\$0	\$ -	\$ -				\$ -	0%	\$ -		Activity required, however, there will be hundreds of truck travelling to Milne Inlet empty over the course of decommissioning that can tow the two trailers to Milne. Cost covered in MI waste haul to MR. 2010 cost reduced form 2009 \$2.2K
Decommission Milne Inlet camp (4 month operation @ Avg 4 person/day)		113		\$ 83,229				\$ 71,384	\$ 154,613	\$ 58,763	\$ 95,850	\$ -	\$ -				

Camps & Related Facilities

Camps & Related Facilities	Total Labour	1239																
	Labor				Equipment													
	Units	Person Days	Unit Rate	Cost	Units	Equip Hrs	Unit Rate	Cost	Total cost	2010 Cost	2011 Cost	>2011 Cost	Check	Contingency	Contingency	Basis for 2010 Contingency	Basis for 2010 Estimate	
Decommission/Package Shanco Camp (10 trailers)	Person Day	40	\$657	\$ 26,275	Hours	48	\$156	\$ 7,488	\$ 33,763	\$ 33,763			\$ -	15%	\$ 5,064	Individual facilities were identified at the Milne Inlet camp and cost estimates developed. Although the scope of work is very well defined, there is some risk to the estimate in terms of the productivity estimate (time requirements). Hence a 15% contingency is warranted to cover a potentially larger number of hours to complete the work.	Basis same as 2009. Labour rate updated to reflect 50/50 shanco tech & Nuna HEO. Equip. rate reflects 75/25 use of D7 & excavator. Equip. hrs updated based on revised estimate reduced from 120 to 48. Entire camp was installed in 2 days with a dozer & a crane. Upon completion of labour, skidding of camp to beach lay down area can be accomplished in less time than assembly. Assume 36 hours D7 and 12 excavator. Reduced from 39K in 2009.	
Decommission/Package 1 shop (1 large Weatherhaven)	Person Day	0	\$0	\$ -	Hours	0	\$0	\$ -	\$ -				\$ -	0%	\$ -		2010 review found the task was double counted. This line item costed at \$0 as it fully counted in "organize material for shipment" 8 tasks below. Reduced from 2009 estimate of \$4K	
Decommission/Package other stand alone work tents (9 wood structure tents)	Person Day	4	\$572	\$ 2,290	Hours	24	\$154	\$ 3,696	\$ 5,986		\$ 5,986		\$ -	15%	\$ 898	Individual facilities were identified at the Milne Inlet camp and cost estimates developed. Although the scope of work is very well defined, there is some risk to the estimate in terms of the productivity estimate (time requirements). Hence a 15% contingency is warranted to cover a potentially larger number of hours to complete the work.	2010 basis same as 2009. Equipment rates updated to reflect 50/50 use of excavator & haul truck	
Milne Inlet - Operate Oil water separation	Person Day	0	\$600	\$ -	Hours	0	\$0	\$ -	\$ -		\$ -		\$ -	0%	\$ -		Decommissioning execution plan revised to include only one oil water separation season (planned for 2010) prior to conversion to land farm - The task is costed in the "hydrocarbon impacted soil" worksheet . Estimate reduced from \$36K in 2009	
Decommission/Package genset and incinerator	Person Day	8	\$600	\$ 4,800	Hours	4	\$155	\$ 620	\$ 5,420		\$ 5,420		\$ -	5%	\$ 271	Scope well defined and time requirement is short	Labour requirements same as 2009. Re-assessment of equipment requirement as follows: Incinerator and genset only require lift to beach lay down area for sealift once packaged = assume 4 hours. Equipment reduced from \$3K in 2009.	
Decommission remaining mobile equipment	Person Day	30	\$925	\$ 27,738	Hours	90	\$131	\$ 11,808	\$ 39,546		\$ 39,546		\$ -	15%	\$ 5,932	Individual equipment & material were estimated based on detailed material balance of volumes shipped to. consumed at and	2010 estimate reduced by 20%, reflecting the quantity of equipment demobilized in 2009. 2010 estimate reduced from 2009 cost of \$39K.	

Camps & Related Facilities

Shops & Related Facilities	Total Labour	1239																
	Labor				Equipment													
	Units	Person Days	Unit Rate	Cost	Units	Equip Hrs	Unit Rate	Cost	Total cost	2010 Cost	2011 Cost	>2011 Cost	Check	Contingency	Contingency	Basis for 2010 Contingency	Basis for 2010 Estimate	
Truck waste from Milne Inlet Camp to Mary River Camp for land filling	Person Day	31	\$714	\$22,127	Hours	372	\$128	\$47,772	\$69,899	\$25,000	\$44,899		\$-	15%	\$10,485	backhauled from Milne Inlet camp and cost estimates developed. Although the scope of work is very well defined, there is some risk to the estimate in terms of the productivity estimate (time requirements). Hence a 15% contingency is warranted to cover a potentially larger number of hours to complete the work.	Basis same as 2009. Labour rate and equipment rates updated. 1080 cubes (from 'Material Balance' worksheet*1.5 bulking factor/32.52 cubes truck load @ 2 trips /day = 25 man days * 1.5 for loader support=31. Corresponding equipment hours * 12= 372	
Organize material for shipment		108		\$65,477				\$20,688	\$86,165	\$7,000	\$79,165	\$-	\$-					
Nuna	Person Day	42	\$726	\$30,492	Hours	72	\$73	\$5,256	\$35,748	\$7,000	\$28,748		\$-	15%	\$5,362	Individual equipment & material were estimated based on detailed material balance of volumes shipped to, consumed at and backhauled from Milne Inlet camp and cost estimates developed. Although the scope of work is very well defined, there is some risk to the estimate in terms of the productivity estimate (time requirements). Hence a 15% contingency is warranted to cover a potentially larger number of hours to complete the work.	Basis for 2010 same as 2009. Labour & Equipment rates updated. Equipment assumes 50/50 use of bobcat & 930 loader	
BIM Barge Loader	Person Day	12	\$600	\$7,200	Hours	24	\$166	\$3,984	\$11,184		\$11,184		\$-	15%	\$1,678		Basis for 2010 same as 2009. Requires Vendor to supply 2 persons for 4 days + 1 mobile equipment operator & Crane	
Decommission/Package 1 shops	Person Day	20	\$600	\$12,000	Hours	48	\$35	\$1,656	\$13,656		\$13,656		\$-	15%	\$2,048		Basis same as 2009. Equipment rate revised to reflect use of Baffinland zoom boom and skid steer for disassembly and 12 hours use of Nuna loader to remove sand cover & liner. Reduced from 2009 estimate of \$18K	
Decommission/Package related infrastructure (lines, piping, associated small buildings)	Person Day	34	\$464	\$15,785	Hours	48	\$204	\$9,792	\$25,577		\$25,577		\$-	15%	\$3,837		Basis for 2010 same as 2009. There was a mismatch between hours costed and the description in the 2009 Basis. Labour revised to 3 labourers for 10 days and equipment remains the same as costed, description changed to match costing - 4 days excavator	
General site cleanup		31		\$14,775				\$6,480	\$21,255	\$-	\$21,255	\$-	\$-					
Loader use for redirecting coarse clean up streams	Person Day	5	\$714	\$3,569	Hours	60	\$108	\$6,480	\$10,049		\$10,049		\$-	15%	\$1,507	Individual facilities were identified at the Milne Inlet camp and cost estimates developed. Although the scope of work is very well defined, there is some risk to the estimate in terms of the productivity estimate (time requirements). Hence a 15% contingency is warranted to cover a potentially larger number of hours to complete the work.	Basis same as 2009. Use loader to clean up coarse waste steams (burn/landfill). Assume 5 days of loader time to clean up coarse waste.	
Clean up residual fine waste on ground	Person Day	26	\$431	\$11,206	Hours	0	\$0	\$-	\$11,206		\$11,206		\$-	15%	\$1,681		2010 Basis same as 2009. Equipment hours zeroed to reflect actual equipment utilization (hours incorrectly costed in 2009)	
Contouring & grading		12		\$8,110				\$20,208	\$28,318	\$-	\$28,318	\$-	\$-					

Camps & Related Facilities

	Total Labour	1239															
	Labor				Equipment												
	Units	Person Days	Unit Rate	Cost	Units	Equip Hrs	Unit Rate	Cost	Total cost	2010 Cost	2011 Cost	>2011 Cost	Check	Contingency	Contingency	Basis for 2010 Contingency	Basis for 2010 Estimate
Coarse contouring - Dozer	Person Day	4	\$714	\$ 2,855	Hours	48	\$140	\$ 6,720	\$ 9,575		\$ 9,575		\$ -	15%	\$ 1,436	Individual facilities were identified at the Mary River camp and cost estimates developed. Although the scope of work is very well defined, there is some risk to the estimate in terms of the productivity estimate (time requirements). Hence a 15% contingency is warranted to cover a potentially larger number of hours to complete the work.	2010 Basis same as 2009. Labour & Equipment rates updated.
Coarse contouring - loader & excavator	Person Day	4	\$714	\$ 2,855	Hours	48	\$156	\$ 7,488	\$ 10,343		\$ 10,343		\$ -	15%	\$ 1,551		2010 Basis same as 2009. Labour & Equipment rates updated.
Final grading	Person Day	4	\$600	\$ 2,400	Hours	48	\$125	\$ 6,000	\$ 8,400		\$ 8,400		\$ -	15%	\$ 1,260		
Decommission Mid-Rail Camp		76		\$ 32,756				\$ 95,400	\$ 128,156	\$ -	\$ 128,156	\$ -	\$ -				
Decommission/Package stand alone accommodation/work tent camp	Person Day	36	\$431	\$ 15,516	Hours			\$ -	\$ 15,516		\$ 15,516		\$ -	15%	\$ 2,327	Individual facilities were identified at the Milne Inlet camp and cost estimates developed. Although the scope of work is very well defined, there is some risk to the estimate in terms of the productivity estimate (time requirements). Hence a 15% contingency is warranted to cover a potentially larger number of hours to complete the work.	2010 Basis same as 2009 - (18 wood structure tents) Assumes 6 man crew 6days to completely decommission the camp. Assume 1 working supervisor & 5 labourers.
Decommission/Package genset and incinerator	Person Day	4	\$431	\$ 1,724	Hours			\$ -	\$ 1,724		\$ 1,724		\$ -	15%	\$ 259		2010 Basis same as 2009 - Labour & equipment to complete work
Decommission tent camp and related infrastructure (lines, piping, associated buildings)	Person Day	8	\$431	\$ 3,448	Hours			\$ -	\$ 3,448		\$ 3,448		\$ -	15%	\$ 517		2010 Basis same as 2009 - Labour & equipment to complete work
Decommission lay down areas	Person Day	2	\$431	\$ 862	Hours			\$ -	\$ 862		\$ 862		\$ -	15%	\$ 129		2010 Basis same as 2009 - Labour & equipment to complete work
General site cleanup	Person Day	6	\$431	\$ 2,586	Hours			\$ -	\$ 2,586		\$ 2,586		\$ -	15%	\$ 388		2010 Basis same as 2009 - Labour & equipment to complete work
Fly waste from Mid Rail Camp to Mary River Camp for lanfilling	Person Day	20	\$431	\$ 8,620	Hours	60	\$1,590	\$ 95,400	\$ 104,020		\$ 104,020		\$ -	15%	\$ 15,603		2010 Basis same as 2009 - Labour & equipment to complete work
Decommission Steensby Inlet Camp (14 Days @ 6 man camp)		86		\$ 37,066				\$ 58,660	\$ 95,726	\$ -	\$ 95,726	\$ -	\$ -				
Decommission/Package stand alone accommodation/work tent camp (25 wood structure tents)	Person Day	48	\$431	\$ 20,688	Hours	36	\$10	\$ 360	\$ 21,048		\$ 21,048		\$ -	15%	\$ 3,157		2010 Basis same as 2009 - Assume 6 man operation for 8 days .
Decommission/package genset and incinerator	Person Day	4	\$431	\$ 1,724	Hours	4	\$10	\$ 40	\$ 1,764		\$ 1,764		\$ -	15%	\$ 265		2010 Basis same as 2009 -Assume Labour and equipment cost. Equipment owned by Baffinland
Decommission related infrastructure (lines, piping, associated buildings)	Person Day	6	\$431	\$ 2,586	Hours	0	\$10	\$ -	\$ 2,586		\$ 2,586		\$ -	15%	\$ 388		2010 Basis same as 2009 - Assume Labour and equipment cost. Equipment owned by Baffinland
Decommission lay down areas	Person Day	12	\$431	\$ 5,172	Hours	36	\$10	\$ 360	\$ 5,532		\$ 5,532		\$ -	15%	\$ 830		2010 Basis - Labour days reduced to 12 from 24 due to fuel decommissioning in 2009. Equipment owned by Baffinland. 2010 Estimate reduced from \$10K in 2009.



Camps & Related Facilities

Total Labour		1239															
Labor					Equipment												
	Units	Person Days	Unit Rate	Cost	Units	Equip Hrs	Unit Rate	Cost	Total cost	2010 Cost	2011 Cost	>2011 Cost	Check	Contingency	Contingency	Basis for 2010 Contingency	Basis for 2010 Estimate
Decommission fuel storage (200 drums of fuel)	Person Day	2	\$431	\$ 862	Hours	12	\$10	\$ 120	\$ 982		\$ 982		\$ -	15%	\$ 147	Individual facilities and materials were identified at the Steensby camp and cost estimates developed. Although the scope of work is very well defined, there is some risk to the estimate in terms of the productivity estimate (time requirements). Hence a 15% contingency is warranted to cover a potentially larger number of hours to complete the work.	Updated to reflect fuel demobilized in 2009. 6100 drums of fuel were removed from Steensby in 2009. Only 200 drums remain at the camp. Labour reduced from 12 to 2 man days, & equipment reduced from 96 to 12 hours.
General site cleanup	Person Day	6	\$431	\$ 2,586	Hours	24	\$10	\$ 240	\$ 2,826		\$ 2,826		\$ -	15%	\$ 424		2010 Basis same as 2009 -Assume Labour and equipment cost to complete task. Equipment owned by Baffinland
Decommission remaining mobile equipment (4 pieces)	Person Day	2	\$431	\$ 862	Hours	6	\$10	\$ 60	\$ 922		\$ 922		\$ -	15%	\$ 138		2010 Basis same as 2009 - Assume Labour and equipment cost to complete task. Equipment owned by Baffinland
Organize material for shipment and sealift support	Person Day	6	\$431	\$ 2,586	Hours	24	\$10	\$ 240	\$ 2,826		\$ 2,826		\$ -	15%	\$ 424		2010 Basis -Assume 2 person for sealift support for 3 days. Assume Labour and equipment cost. Equipment owned by Baffinland. 2010 Estimate reduced from \$7K in 2009 due to 2009 fuel sealift backhaul
Steensby Port resupply by Helicopter	Person Day	0	\$0	\$ -	Hours	36	\$1,590	\$ 57,240	\$ 57,240		\$ 57,240		\$ -	15%	\$ 8,586		2010 Basis same as 2009 - Hours are for removal of the floating dock and water line (12) + 12 hours/week *2 week demob+sealift support



Roads & Airstrips

Total Labour	209																
Labor				Equipment													
Units	Person Days	Unit Rate	Cost	Units	Equip Hrs	Unit Rate	Cost	Total cost	2010 Cost	2011 Cost	>2011 Cost	Check	Contingency	Contingency	Basis for 2010 Contingency	Basis for 2010 Estimate	
			\$ 501,170				\$ 278,240	\$ 779,410	\$ -	\$ 779,410	\$ -	\$ -	17%	\$ 134,753			
			\$ 491,285				\$ 269,120	\$ 760,405	\$ -	\$ 760,405	\$ -	\$ -		\$ 132,852			
Lot	1	\$356,384	\$ 356,384	Hours	0	\$0	\$ -	\$ 356,384		\$ 356,384		\$ -	5%	\$ 17,819	The 2010 estimate was based on 2009 actual cost which included significant culvert and road upgrades completed during the freshet period to reduce future maintenance requirements thus contains significant contingency. A 5% contingency has been applied	Freshet Management is an A & R task added to the 2010 A & R Plan and is based on 2009 Actual costs. Although the 2009 actual cost included significant culvert and road upgrades to reduce maintenance requirements, the entire 2009 actual expenditure of the road during Freshet has been budgeted. This budget covers the period from the road being opened May 1 until Freshet ended on June 15 and will be updated in 2010 based on a freshet only maintenance.	
Person Day	20	\$714	\$ 14,275	Hours	240	\$112	\$ 26,880	\$ 41,155		\$ 41,155		\$ -	15%	\$ 6,173	The tote road operating grading requirements are based on 2 years of well established maintenance. A moderate contingency has been applied.	Basis for 2010 Estimate revised based on 2009 operating experience. Assume Road maintenance required for 10 weeks from June 15 until Sept 1 which is the latest date navigable waters crossings removal should start. 24 hours grading/week for 10 weeks. 2010 estimate reduced from 2009 budget of \$252K	
Person Day	30	\$714	\$ 21,413	Hours	320	\$131	\$ 41,984	\$ 63,397		\$ 63,397		\$ -	30%	\$ 19,019	The road quantities are well understood – length, type and number of culverts and, annual road maintenance ensures no unexpected A&R work would be expected. Productivities are based upon recent operating experience. However, road conditions can change from year to year resulting in some uncertainties related to forecasting road repair and armouring requirements. Hence, a relatively large contingency of 30% is warranted.	Basis for 2010 Estimate same as 2009 - Assume Tote road includes road from Milne to base of mountain. Assume A & R scope is the remaining work to bring road construction in to permit compliance. 2010 equip. hours reduced from 360 to reflect error in 2009 estimate	
Person Day	30	\$714	\$ 21,413	Hours	320	\$131	\$ 41,984	\$ 63,397		\$ 63,397		\$ -	30%	\$ 19,019		Basis for 2010 Estimate same as 2009 - Assume minor road maintenance will be required. 2010 equip. hours reduced from 360 to reflect error in 2009 estimate	
Person Day	4	\$714	\$ 2,855	Hours	48	\$140	\$ 6,720	\$ 9,575		\$ 9,575		\$ -	30%	\$ 2,873		Basis for 2010 Estimate same as 2009 - Assume Labour & dozer to complete task.	
Person Day	90	\$714	\$ 64,238	Hours	1080	\$131	\$ 141,696	\$ 205,934		\$ 205,934		\$ -	30%	\$ 61,780		Basis for 2010 Estimate same as 2009 - Assume removal & re-grading of 4 box culverts & six round culvert crossings. 2010 estimate increased from 2009 budget of \$189K.	
Person Day	15	\$714	\$ 10,706	Hours	88	\$112	\$ 9,856	\$ 20,562		\$ 20,562		\$ -	30%	\$ 6,169		Basis for 2010 estimate revised from 2009 based on industry benchmarking of Cat grader productivity and analysis of 2009 actual road grading requirements. 2010 equip. & Labour reduced from 2009 cost of \$250K.	
			\$ 9,886				\$ 9,120	\$ 19,006	\$ -	\$ 19,006	\$ -	\$ -		\$ 1,901			
Person Day	15	\$469	\$ 7,031	Hours	24	\$100	\$ 2,400	\$ 9,431		\$ 9,431		\$ -	10%	\$ 943	The airstrip lighting & cable system is surveyed and the scope for removal well understood. A moderate contingency has been applied.	Basis for 2010 Estimate same as 2009. - 2 days of excavator work & labor crew to remove cable, pulpits & lights. 2010 equipment hours reduced because there was double counting of dozer to refill & grade. 2010 cost reduced from 2009 total of \$19K	
Person Day	4	\$714	\$ 2,855	Hours	48	\$140	\$ 6,720	\$ 9,575		\$ 9,575		\$ -	10%	\$ 958	The airstrip lighting & cable system is surveyed and the scope for removal well understood. A moderate contingency has been applied.	Basis for 2010 Estimate same as 2009. - 2 days of dozer to refill & grade	

Borrow/Quarry Areas

Total Labour		248															
Labor				Equipment													
Units	Person Days	Unit Rate	Cost	Units	Equip Hrs	Unit Rate	Cost	Total cost	2010 Cost	2011 Cost	>2011 Cost	Check	Contingency	Contingency	Basis for 2010 Contingency	Basis for 2010 Estimate	
			\$ 189,893				\$ 373,238	\$ 563,131	\$ 280,842	\$ 282,289	\$ -	\$ -	22%	\$ 126,062			
Person Day	45	\$1,000	\$ 45,000				\$ -	\$ 45,000	\$ 20,000	\$ 25,000		\$ -	10%	\$ 4,500	Estimate based on Geotechnical assessment completed in 2009 - cost assessments is well understood. A moderate contingency has been applied.	Assume a geotechnical inspection in 2010 post completion of EBA recommendations and in subsequent year to confirm feature stability.	
Person Day	120	\$714	\$ 85,651	Hours	1440	\$131	\$ 188,928	\$ 274,579	\$ 50,400	\$ 224,179		\$ -	30%	\$ 82,374	A geotechnical assessment has been included in the A&R Plan to confirm the estimates made for final reclamation of borrow and quarry areas. A conservative estimate has been made and a further contingency of 30% is justified.	Geotechnical inspection and report completed by EBA engineering in 2009 established scope to meet reclamation Objectives and Criteria. Areas requiring immediate attention were addressed in 2009. The 2010 estimate addresses the remaining areas to be reclaimed.	
Person Day	83	\$714	\$ 59,242	Hours	1000	\$131	\$ 131,200	\$ 190,442	\$ 190,442			\$ -	15%	\$ 28,566	A geotechnical assessment completed in 2009 provided a definitive civil scope and estimates for final reclamation of road side borrow areas from that scope was developed. A conservative contingency of 15% has been applied to cover potential shortfalls in equipment productivity.		
					21,244	2.5	\$ 53,110	\$ 53,110	\$ 20,000	\$ 33,110		\$ -	20%	\$ 10,622	Quantities are well understood as they are derived from surveyed volumes & as built drawings. A moderate contingency has been applied	See "Borrow Material" Worksheet for detailed estimate	

Fuel Storage Facilities (Bulk and Drums)

Fuel Storage Facilities (Bulk and Drums)		Total Labour		142															
		Labor				Equipment													
		Units	Person Days	Unit Rate	Cost	Units	Equip Hrs	Unit Rate	Cost	Total cost	2010 Cost	2011 Cost	>2011 Cost	Check	Contingency	Contingency	Basis for 2010 Contingency	Basis for 2010 Estimate	
GRAND TOTAL					\$ 161,891				\$ 61,188	\$ 223,079	\$ 122,044	\$ 92,697	\$ 8,338	\$ -	11%	\$ 25,033			
Mary River Fuel Farm					\$ 16,834				\$ 19,140	\$ 35,974	\$ -	\$ 35,974	\$ -	\$ -		\$ 3,597			
Return excess fuel at Mary River to Milne Inlet		Person Day	5	\$714	\$ 3,569	Hours	60	\$129	\$ 7,740	\$ 11,309		\$ 11,309		\$ -	10%	\$ 1,131	Fuel quantity and fuel truck productivity well established based on balances and historical performance. Although the scope of work is very well defined, there is some risk to the estimate in terms of the productivity estimate (time requirements). Hence a 10% contingency is warranted to cover a potentially larger number of hours to complete the work.	Assume excess fuel return occurs during June-Sept period when volumes would be at lowest levels after winter ~ 300,000 l to back haul. Haul hours = 300000 l / 30,000 l/trip / 2 trips/shift * 12 hours/shift = 60	
Drain, fold, and containerize Mary River bladder tanks		Person Day	9	\$600	\$ 5,400	Hours	36	\$10	\$ 360	\$ 5,760		\$ 5,760		\$ -	10%	\$ 576	Scope is well defined and manufacturer productivity based on same task completed in 2008 at Milne Inlet. A 10% contingency has been applied in the event of lower productivity.	11 bladders at Mary is one seventh the number at Milne. Assume cost is 1/7 Milne * Estimate from manufacturer: 7 man crew for 3 days (fold) = 21 man days + 3 man crew for 12 days (drain, remove pipe & package) =9 man days. Bob cat Equipment hours = 3 days* 12 hours = 36	
Remove all geomembrane fuel liners, package and transport to Milne Inlet for sea-lift backhaul		Person Day	10	\$572	\$ 5,724	Hours	60	\$128	\$ 7,680	\$ 13,404		\$ 13,404		\$ -	10%	\$ 1,340	All secondary containment has been surveyed. Productivities are based upon recent operating experience. A contingency of 10% is considered adequate.	Assume 4 days of dozer work to expose all the liner and package for shipping and 1 day to ship it to Milne Inlet by flat deck. Assume 5 labour days to prepare & package. All lined berms are indicated on the MR as-built drawing.	
Recontour surface		Person Day	3	\$714	\$ 2,141	Hours	24	\$140	\$ 3,360	\$ 5,501		\$ 5,501		\$ -	10%	\$ 550	All secondary containment has been surveyed. Productivities are based upon recent operating experience. A contingency of 10% is considered adequate.	Assume e 3 dozer days recontour all lined berms. All lined berms are indicated on the MR as-built drawing.	
Milne Inlet Fuel Farm					\$ 145,057				\$ 42,048	\$ 187,105	\$ 122,044	\$ 56,723	\$ 8,338	\$ -		\$ 21,435			
Milne Inlet Bulk Fuel Sealift Backhaul Support		Person Day	14	\$600	\$ 8,400	Hours	0	\$0	\$ -	\$ 8,400	\$ 8,400			\$ -	15%	\$ 1,260	Fuel transfer rate is well defined based on two previous bulk fuel transfers at Milne Inlet. Fuel inventory is projected based on budgeted consumptions. A contingency of 15% is applied in the event of below planned fuel consumption.	Assume Jan 1 2010 bulk fuel volume for the purpose of estimating = 4.5 MM liters. Fuel transfer rate = 60 cubes/hour. Total transfer time = 81 hours - Assume 3.5 days to transfer fuel from fuel farm to tanker. Requires 2 persons/shift.	

Fuel Storage Facilities (Bulk and Drums)

Total Labour		142															
Labor				Equipment													
Units	Person Days	Unit Rate	Cost	Units	Equip Hrs	Unit Rate	Cost	Total cost	2010 Cost	2011 Cost	>2011 Cost	Check	Contingency	Contingency	Basis for 2010 Contingency	Basis for 2010 Estimate	
Person Day	57	\$600	\$ 34,200	Hours	144	\$10	\$ 1,440	\$ 35,640	\$ 35,640			\$ -	10%	\$ 3,564	Scope is well defined and manufacturer productivity based on same task completed in 2008 at Milne Inlet. A 10% contingency has been applied in the event of lower productivity.	Estimate from manufacturer: 7 man crew for 3 days (fold) = 21 man days + 3 man crew for 12 days (drain, remove pipe & package) = 36 man days. Equipment hours = 12 days* 12 hours = 143 hrs of skid steer owned by BIM	
Person Day	12	\$431	\$ 5,172	Hours	48	\$59	\$ 2,832	\$ 8,004	\$ 8,004			\$ -	10%	\$ 800	Scope is well defined and estimate if based on manufacturer quotation. A 10% contingency has been applied in the event of lower productivity.	2010 estimate same as 2009 - Estimate from manufacturer: 3 man crew for 4 days to disassemble all piping. Requires a loader/skid steer for 48 hours.	
Person Day	10	\$516	\$ 5,158	Hours	36	\$140	\$ 5,040	\$ 10,198		\$ 10,198		\$ -	10%	\$ 1,020	All secondary containment has been surveyed. Productivities are based upon recent operating experience. A contingency of 10% is considered adequate.	Assume 3 days of dozer work to expose all four of the hazardous material lined berms and 3 days x 2 person labour to package for shipping. All lined berms are indicated on the MI as-built drawing.	
Lot	1	\$70,000	\$ 70,000	Hours	0		\$ -	\$ 70,000	\$ 70,000			\$ -	0%	\$ -	Estimate based on maximum upset price	EBA engineering design proposal maximum upset price of \$70K	
Person Day	21	\$714	\$ 14,989	Hours	252	\$125	\$ 31,536	\$ 46,525		\$ 46,525		\$ -	30%	\$ 13,957	Although the scope will not be confirmed until completion of the EBA design in 2010, a worse case scenario has been used for the estimate. A 30% contingency has been applied against the potential for additional civil work resulting from a change in scope.	Estimate of civil work requirements based on worse case scenario of entire fuel farm base requiring land farming and to be moved to a location 300 meters from water. Suitable location 1.5 km from fuel farm. Assume Milne Inlet fuel farm base above liner = 250 m x 50m x 0.30m = 3500 m3. Labour & equipment estimates = 3500 cubes /27 cubes/truck W no pup = 110 Trips 110 trips/20trips/day(10 hr@30 min/trip)= 7 truck days @ 4 trucks hauling =3 days required for other equipment including 2 Dozers 1 loader = 7 pieces of equipment * 3 days = 21 person days.	
Person Day	10	\$714	\$ 7,138	Hours	120	\$10	\$ 1,200	\$ 8,338			\$ 8,338	\$ -	10%	\$ 834	Scope is well defined and Productivities are based upon recent operating experience. A contingency of 10% is applied in the event additional hours are required to complete the work	BIM owned Loader and dozer remain at Milne Inlet site for the purposes of post 2011 hydrocarbon impacted soil tilling and completion of this task. Assume entire Milne Inlet fuel farm base above liner = 250 m x 50m x 0.30m = 3500 m3 land farm requires final contouring.	

Explosives

Explosives		Total Labour																		
		Labor				Equipment														
		Units	Person Days	Unit Rate	Cost	Units	Equip Hrs	Unit Rate	Cost	Total cost	2010 Cost	2011 Cost	>2011 Cost	Check	Contingency	Contingency	Basis for 2010 Contingency	Basis for 2010 Estimate		
Total				\$ 3,828				\$ 3,216	\$ 7,044	\$ 7,044	\$ -	\$ -	\$ -	20%	\$ 1,409					
Prepare explosives for shipping	Person Day	4	\$ 600	\$ 2,400	Hours	12	\$ 10	\$ 120	\$ 2,520	\$ 2,520			\$ -	20%	\$ 504	The scope of work is well defined based on current explosives inventory and historical trucking productivity. Some contingency is warranted for potential additional effort for permitting requirements beyond the management effort included in General Site Area.	Basis for 2010 Estimate same as 2009. 2 men for2 days to prepare explosives with the use of the Baffinland skid steer for 12 hours			
Ship explosives to Milne Inlet	Person Day	0		\$ -				\$ -	\$ -			\$ -	\$ -	0%			This task was double counted in 2009 (See line item task below). 2010 estimate reduced from \$4.2K			
Ship explosives via land to Milne Inlet	Person Day	2	\$714	\$ 1,428	Hours	24	\$129	\$ 3,096	\$ 4,524	\$ 4,524			\$ -	20%	\$ 905		Basis for 2010 Estimate same as 2009. Estimate a total 5 containers will be used for shipping explosives.			

Waste Management

Total Labour11

	Labor				Equipment				Total cost	2010 Cost	2011 Cost	>2011 Cost	Check	Contingency	Contingency	Basis for 2010 Contingency	Basis for 2010 Estimate
	Units	Person Days	Unit Rate	Cost	Units	Equip Hrs	Unit Rate	Cost									
GRAND TOTAL				\$ 148,767				\$ 473,894	\$ 583,405	\$ 136,349	\$ 447,056	\$ -	\$ -	24%	\$ 141,297		
Construct landfill and access road				\$ 96,358				\$ 212,544	\$ 308,902	\$ 136,349	\$ 172,553	\$ -	\$ -				
Construct Access Road to Landfill including haulage	Person Day	23	\$714	\$ 16,416	Hours	276	\$131	\$ 36,211	\$ 52,628	\$ 52,628			\$ -	20%	\$ 10,526	Scope is well defined and design drawings completed. Equipment estimates based on historical productivity. Nevertheless, a 20% contingency has been applied for potential reduced civil work productivity.	2010 basis same as 2009 - 3200 cubes / 18 cubes/truck W no pup = 178 Trips. 178 trips/16 trips/day(11 hr@40 min/trip)== 12 truck days @ 4 trucks hauling = 4 days required for other equipment including Dozer, loader, grader 2 days & excavator 1 day for culvert installation
Construct Landfill Berms including haulage	Person Day	32	\$714	\$ 22,840	Hours	384	\$131	\$ 50,381	\$ 73,221	\$ 73,221			\$ -	30%	\$ 21,966	Scope is well defined and design drawings completed. Equipment estimates based on historical productivity. Nevertheless, a 30% contingency has been applied against the potential for additional civil work required due to larger than calculated waste volumes and lower civil work productivity.	2010 basis same as 2009 - 9216 cubes /32.52 cubes/truck W no pup = 283Trips. 283 trips/16 trips/day(11 hr@40 min/trip)== 17 truck days @ 4 trucks hauling =5 days required for other equipment including Dozer, loader, excavator = 15 equipment days
Borrow Haulage required for operation of land fill to capacity	Person Day	27	\$714	\$ 19,272	Hours	324	\$131	\$ 42,509	\$ 61,780	\$ 10,500	\$ 51,280		\$ -	30%	\$ 18,534	Scope is well defined and design drawings completed. Equipment estimates based on historical productivity. Nevertheless, a 30% contingency has been applied against the potential for additional civil work required due to larger than calculated waste volumes and lower civil work productivity.	2011 basis same as 2009 - 8668 cubes /32.52 cubes/truck W no pup =555Trips. 555 trips/16 trips/day(11 hr@40 min/trip)== 34 truck days @ 4 trucks hauling =9 days required for other equipment including Dozer, loader = 19 equipment days
Borrow Haulage required for capping landfill	Person Day	53	\$714	\$ 37,829	Hours	636	\$131	\$ 83,443	\$ 121,272		\$ 121,272		\$ -	30%	\$ 36,382	Scope is well defined and design drawings completed. Equipment estimates based on historical productivity. Nevertheless, a 30% contingency has been applied against the potential for additional civil work required due to larger than calculated waste volumes and lower civil work productivity.	2012 basis same as 2009 - 18060 cubes /32.52 cubes/truck W no pup = 283 trips. 283 trips/16 trips/day(11 hr@40 min/trip) = 17 truck days @ 4 trucks hauling =5 days required for other equipment including Dozer, loader, excavator = 15 equipment days
Ship waste by land Mary River to Milne Inlet				\$ 5,286				\$ 37,663	\$ 42,949	\$ -	\$ 42,949	\$ -	\$ -				
Prepare chemicals for shipping	Person Day	9	\$587	\$ 5,286	Hours	3	\$10	\$ 30	\$ 5,316		\$ 5,316		\$ -	20%	\$ 1,063	The scope is well defined - All of the historical waste has been demobilized and individual waste type production has been estimated from recent site generation rates. The preparation estimate rates is based on 2009 contractor invoiced rates & productivity . A 20% contingency has been applied to cover potential excess hazardous waste generation upon completion of A & R plan.	See 'Contaminated Matl' worksheet for details of 70 m3 estimate. 70 m3 based on 2009 productivity require 3 days of QE representation and 2 labourers with the use of a skid steer for 12 hours/day. 2010 Estimate reduced from 2009 cost of \$66K

Waste Management

Total Labour11

	Labor				Equipment				Total cost	2010 Cost	2011 Cost	>2011 Cost	Check	Contingency	Contingency	Basis for 2010 Contingency	Basis for 2010 Estimate
	Units	Person Days	Unit Rate	Cost	Units	Equip Hrs	Unit Rate	Cost									
Disposal cost of hazardous material in the South (except bulk contaminated soil)	Person Day		\$0	\$ -	Cube	70	\$538	\$ 37,633	\$ 37,633		\$ 37,633		\$ -	20%	\$ 7,527	The scope is well defined - All of the historical waste has been demobilized and individual waste type production has been estimated from recent site generation rates. Disposal estimates are based on 2009 invoiced rates. A 20% contingency has been applied to cover potential excess hazardous waste disposal that would occur upon completion of a final A & R plan.	See 'Contaminated Matl' worksheet for details of calculation of average weighted Hazardous material disposal cost from 2009. 2010 Estimate reduced from 2009 \$51K
Sewage - Mary River				\$ 3,212				\$ 218,360	\$ 221,571	\$ -	\$ 221,571	\$ -	\$ -				
Decant sewage lagoons	Person Day	0	\$0	\$ -	Lot	1	\$192,504	\$ 192,504	\$ 192,504		\$ 192,504		\$ -	20%	\$ 38,501	The technical treatment process of lagoon sewage was confirmed and executed in 2009. The operating and maintenance unit cost are well defined based on invoiced cost. The quantity of sewage requiring treatment is based on surveyed inventory and estimated production based on budgeted person days through to planned execution date for A & R. A 20% estimate has been applied to cover potential increase in person days and the resulting increase in sewage.	Basis for 2010 estimate based on actual 2009 invoiced unit treatment costs, surveyed sewage inventory post 2009 treatment, actual historical average water consumption/person/day and estimated sewage production based on budgeted person days from January 2010 through to the beginning of the execution of the A & R plan in May 2011. See detailed worksheet for calculation. 2010 estimate increased from 2009 value of \$108K.
Sludge removal & transfer to landfill	Person Day	0.5	\$714	\$ 357	Hours	6	\$106	\$ 20,636	\$ 20,993		\$ 20,993		\$ -	20%	\$ 4,199	The estimate is based upon well defined sewage and sludge quantities and treatment and disposal process are technically well understood. A 20% estimate has been applied to cover potential increase in person days and the resulting increase in sewage.	Basis for 2010 Estimate same as 2009 - Sludge removal from 1 & 2 & 3 Lagoon( Assume filtering of sludge added to task of decanting the sewage lagoons) followed by loader/truck removal to landfill. Sludge estimate based on current measured solids of 0.5% and projected A & R sewage inventory of 6520 m3 = 32.6 m3 solids. This is equivalent to 2 Kenworth truck load to the landfill - Assume half day An allowance of \$20,000 has been made for the sewage filter. 2010 estimate increased from \$5K in 2009
Liner removal & berm reclamation	Person Day	3	\$714	\$ 2,141	Hours	36	\$126	\$ 4,536	\$ 6,677		\$ 6,677		\$ -	20%	\$ 1,335	All civil work requiring the lagoon fill for A & R is estimated in those tasks. Final grading & contouring civil work is minor. Assume a 20% contingency.	Basis for 2010 Estimate same as 2009 . Assume berm fill is used in reclamation projects and haulage estimates are included in those tasks. Labour & equipment is for liner removal and final grading and contouring of areas with a dozer & grader.
Liner disposal	Person Day	1	\$714	\$ 714	Hours	12	\$57	\$ 684	\$ 1,398		\$ 1,398		\$ -	0%	\$ -	Scope is well defined and Labour & Equipment productivity well established. No contingency necessary.	Assume 2 persons for half a day with BIM skid steer and flat deck for transporting liner for disposal in landfill.
Sewage - Milne				\$ 4,655				\$ 5,328	\$ 9,983	\$ -	\$ 9,983	\$ -	\$ -				3
Decant sewage lagoons	Person Day	3	\$600	\$ 1,800	Hours	0	\$0	\$ -	\$ 1,800		\$ 1,800		\$ -	20%	\$ 360	The technical treatment process of lagoon sewage was confirmed and executed in 2009. The operating and maintenance unit cost are well defined based on invoiced cost. The quantity of sewage requiring treatment is based on surveyed inventory and estimated production based on budgeted person days through to planned execution date for A & R. A 20% estimate has been applied to cover potential increase in person days and the resulting increase in sewage.	Basis for 2010 Estimate - Sewage Lagoon current in compliance with discharge criteria and was partially discharged in 2009. Remaining sewage inventory of 114m3. At a discharge rate of 30 l/m, 3 days is required to decant the treated sewage.
Sludge removal & transfer to landfill	Person Day	1	\$714	\$ 714	Hours	12	\$129	\$ 1,548	\$ 2,262		\$ 2,262		\$ -	0%	\$ -	The estimate is based upon well defined sewage and sludge quantities and treatment and disposal process are technically well understood. No contingency applied as estimate is 100% of normal truck productivity.	Sludge removal from MI Lagoon( Assume filtering of sludge added to task of decanting the sewage lagoons) Assume natural decantation followed by loader/truck removal to landfill . Based on 0.5% solids, it is expected less that 1 truck load sludge required for disposal to landfill. The one time cost of the sludge filter was included in the Mary River sludge removal cost

Waste Management

Total Labour11

	Labor				Equipment				Total cost	2010 Cost	2011 Cost	>2011 Cost	Check	Contingency	Contingency	Basis for 2010 Contingency	Basis for 2010 Estimate
	Units	Person Days	Unit Rate	Cost	Units	Equip Hrs	Unit Rate	Cost									
Liner removal & berm reclamation	Person Day	2	\$714	\$1,428	Hours	24	\$129	\$3,096	\$4,524		\$4,524		\$-	20%	\$905	All civil work requiring the lagoon fill for A & R is estimated in those tasks. Final grading & contouring civil work is minor. Assume a 20% contingency.	Basis for 2010 Estimate same as 2009 . Assume berm fill is used in reclamation projects and haulage estimates are included in those tasks. Labour & equipment is for liner removal and final grading and contouring of areas with a dozer & grader.
Liner disposal	Person Day	1	\$714	\$714	Hours	12	\$57	\$684	\$1,398		\$1,398		\$-	0%	\$-	Scope is well defined and Labour & Equipment productivity well established. No contingency necessary.	Assume 2 persons for half a day with BIM skid steer and flat deck for transporting liner for disposal in landfill. Based on current truck haulage productivity between Milne Inlet and Mary River
Communities				\$-				\$-	\$-	\$-	\$-	\$-	\$-				
Hazardous material removal from Pond Inlet	Person Day	0	\$0	\$-	Hours	0	\$0	\$-	\$-				\$-	0%	\$-		Objectives & criteria met in 2009. Work completed by Qikiqtaaluk Environmental and Report prepared by QE certifying reclamation work completed. Storage area reviewed with Hamlet of Pond Inlet, Senior Administrative Officer satisfied with condition of area Cost reduced from 2009 cost of \$9K



Contaminated Soil

Total Labour		442																
Labor				Equipment														
Units	Person Days	Unit Rate	Cost	Units	Equip Hrs	Unit Rate	Cost	Total cost	2010 Cost	2011 Cost	>2011 Cost	Check	Contingency	Contingency	Basis for 2010 Contingency	Basis for 2010 Estimate		
			\$ 321,562				\$ 139,211	\$ 460,773	\$ 4,200	\$ 230,633	\$ 225,940	\$ -	27%	\$ 124,242				
Person Day	4	\$600	\$ 2,400	Hours	48	\$125	\$ 6,000	\$ 8,400	\$ 4,200	\$ 4,200		\$ -	10%	\$ 840	Scope of sampling and historical analysis cost well established. A 10% contingency has been applied in the event additional sampling is required.	Assume one technician to sample & equipment hours reflect the cost of analysis.		
Person Day	180	\$714	\$ 128,477	Lot	1	\$20,000	\$ 20,000	\$ 148,477		\$ 148,477		\$ -	30%	\$ 44,543	The estimate is based upon Historical labour & material requirements for operation of the oil-water separation process. However, it is possible that technical support or that the volume requiring treatment may be under estimated. A contingency of 30% is included to cover these possibilities.	2010 estimate based on a single season of treatment prior to converting the fuel farm to a soil remediation land farm. Once converted to a land farm, no further treatment is required. Assume 45 days of operation of oil water separation/activated carbon prior to starting tilling of soil. Labour based on 2 person/shift operation for 45 days and consumables (absorbent material and activated carbon) of \$20,000 season. 2010 estimate increased from \$115K in 2009.		
Person Day	252	\$714	\$ 179,868	Hours	432	\$30	\$ 12,960	\$ 192,828		\$ 77,956	\$ 114,872	\$ -	30%	\$ 57,848	Land farming technology for treating hydrocarbon impacted soil in the arctic is proven and the techniques and scope well established. Contingency has been applied for another potential year of treatment and an underestimation of total soil volume. A 30% Contingency has been applied to cover these possibilities.	2010 same as 2009 estimate. Conversion for fuel farm to land farm estimated in 'fuel storage facilities' worksheet. Assume - mechanic/laborer performs work. 6 weeks of season for tilling - till once a day for first week and once every three days thereafter - cost out 2 people on site for 6 weeks per year for 3 years) Assume Milne Inlet fuel farm base above liner = 250 m x 50m x 0.30m = 3500 m3. Task will require a dozer & loader. Assume a BIM owned loader & dozer will remain post 2011. BIM equipment rates increased three fold to cover increased maintenance requirements for stand alone equipment. 2010 estimate increased from \$205K in 2009.		
Person Day			\$ -	Rev Tonne	175	\$185	\$ 32,375	\$ 32,375			\$ 32,375	\$ -	10%	\$ 3,238	Scope is well defined and volume is very small. The average shipping rate has an above average 3% inflation rate over 4 years applied to it. A 10% contingency has been applied in the event additional volume is left at Milne Inlet.	2010 same as 2009 estimate - Assume approx 150 revenue tonne to remove loader( 85 m3), Dozer (101), tiller attachment, trailer(60m3), packaged liner, miscellaneous items(129 m3) at \$185/Rev tonne. The average rate includes annual 3% inflation increase over 4 years from the 2009 price of 165\$.		
Person Day			\$ -	Cubic meters	375	\$78	\$ 29,176	\$ 29,176			\$ 29,176	\$ -	10%	\$ 2,918	Scope is well defined and volume is very small. The average land freight rate has an above average 3% inflation rate over 3 years applied to it. A 10% contingency has been applied in the event additional volume is left at Milne Inlet.	2010 estimate based on 375 m3 of sealift freight at the average 2010 land freight quotes. The land freight rate was increased to include an annual 3% inflation for 3 years.		

Contaminated Soil

Total Labour		442																
Labor				Equipment														
Units	Person Days	Unit Rate	Cost	Units	Equip Hrs	Unit Rate	Cost	Total cost	2010 Cost	2011 Cost	>2011 Cost	Check	Contingency	Contingency	Basis for 2010 Contingency	Basis for 2010 Estimate		
Person Day	252	\$19	\$ 4,818					\$ 4,818			\$ 4,818	\$ -	30%	\$ 1,445	Food unit cost/person day based on based on 2009 actual invoice costs including shipping. A 30% contingency has been applied in the event an additional year of treatment is required.	2010 estimate for Food rate/person revised as per food worksheet. Assume 1 accommodation trailer currently owned by BIM will remain at Milne Inlet will remain post 2011 for use by personnel. 2010 estimate reduced from \$19K in 2009.		
Person Day		\$0	\$ -	Person Flights	9	\$2,700	\$ 24,300	\$ 24,300			\$ 24,300	\$ -	30%	\$ 7,290	Estimate based on quoted twin otter prices. A 30% contingency has been applied in the event an additional year of treatment is required.	2010 estimate based avg. person flight cost to Pond Inlet from Southern Canada = \$2700/person and the number of person flights .		
Person Day		\$600	\$ -	statute miles	1800	\$8	\$ 14,400	\$ 14,400			\$ 14,400	\$ -	30%	\$ 4,320	Estimate based on quoted twin otter prices. A 30% contingency has been applied in the event an additional year of treatment is required.	2010 same as 2009 estimate. Assume 1 roundtrip flight from pond inlet = 2 *150 statute miles/round trip*\$8 statute mile = \$2400. 2 flights per year for 3 years = 1800 miles		
Person Day	6	\$1,000	\$ 6,000	hours			\$ -	\$ 6,000			\$ 6,000	\$ -	30%	\$ 1,800	Estimate based on quoted twin otter prices. A 30% contingency has been applied in	2010 estimate based on typical day rate for third engineering consultant. Assume 2 day visits each year		

General Site Area

General Site Area		Total Labour		900													
		Labor				Equipment											
		Units	Person Days	Unit Rate	Cost	Units	Equip Hrs	Unit Rate	Cost	Total cost	2010 Cost	2011 Cost	>2011 Cost	Check	Contingency	Contingency	Basis for 2010 Contingency
Total				\$ 540,000				\$ -	\$ 540,000	\$ -	\$ 515,000	\$ 25,000	\$ -	10%	\$ 54,000		
Civil contractor - Admin & supervisory manpower	Person days	450	600	\$ 270,000	Hours			\$ -	\$ 270,000		\$ 245,000	\$ 25,000	\$ -	10%	\$ 27,000	General Site Area includes management effort by Baffinland and the contractor (3 staff from each organization). This level of management effort is considered appropriate and a contingency of 10% is sufficient.	Basis for 2010 Estimate same as 2009 - Assume 3 persons (admin, surveyor, supervisor) for 5 months.
Baffinland Supervision	Person days	450	600	\$ 270,000	Hours			\$ -	\$ 270,000		\$ 270,000		\$ -	10%	\$ 27,000		Basis for 2010 Estimate - 3 x Baffinland Staff for 5 months. Labour rate upgraded to \$600/day. 2010 estimated increased from \$255K in 2009

Sealift Materials

lift Materials

Total Labour24

Labor				Equipment													
Units	Person Days	Unit Rate	Cost	Units	Equip Hrs	Unit Rate	Cost	Total cost	2010 Cost	2011 Cost	>2011 Cost	Check	Contingency	Contingency	Basis for 2010 Contingency	Basis for 2010 Estimate	
GRAND TOTAL																	
From Milne Inlet to Montreal																	
Shipment, loading and off loading	Person Day	12	\$714	\$8,565	Hours	144	\$108	\$15,552	\$24,117		\$24,117		\$-	10%	\$2,412	Ship loading times are based on historical Milne Inlet ship loading times. A 10% contingency has been applied in the event of weather delays.	Basis for 2010 same as 2009 - Loading from beach to ship & ship to dock included in vessel cost. 6 days to load ship. Support provided by Nuna 1 operator two shifts/day to feed the beach with loader support.
Vessel Costs Milne - 2 freight backhaul sealifts, one in 2010 & 1 in 2011	Person Day			\$-	Rev Tonne	6732	\$167	\$1,126,455	\$1,126,455	\$600,991	\$525,464		\$-	5%	\$56,323	Volumes are based upon detailed material balance estimates and freight rates are based upon recent invoices increased 1.5% for inflation. Accordingly, Baffinland considers a 5% contingency to be an appropriate allowance for any uncertainties associated with the sealift estimate.	2010 Estimate volume estimate comes from the "Material Balance" worksheet. 2010 rate is \$165/Revenue Tonne and a 1.5% increase for 2011. 2010 rate reduced from 2009 cost of \$1.475MM
Vessel Cost Milne - 1 Bulk fuel backhaul sealift in 2010 and a 2nd in 2011	Person Day	12	\$600	\$7,200	2 Sailings	1	\$225,000	\$225,000	\$232,200	\$160,000	\$72,200		\$-	15%	\$34,830	Estimate contains significant allowances due to the method used for the basis of the estimate. An additional 15% contingency has been applied	Estimate based on partial demobilization of 1.6 million liters of fuel in 2010 and, if the plan A & R Plan has to be executed in 2011, a maximum remaining quantity of bulk fuel for demobilization would be 0.65 million letters. Direct quote not available from Woodward's. Estimate based on Government of Nunavut sealift freight cost of shipping fuel to Pond Inlet of \$0.07/liter. Backhaul sealift cost expected to be <50% of the cost hauling North. However, for purpose of estimate and smaller volume assume 140% of full cost for backhaul or \$0.10/liter. Discussions with Eastern Seaborne refineries indicates they will take all fuel. 2010 freight cost = \$160,000 & 2011 freight cost = \$65,000. Labour costed for 2011 backhaul. 2010 Labour costed in fuel storage worksheet. 2010 estimate reduced from 2009 estimate of \$257 K.
From Steensby Port to Montreal																	
Shipment, loading and off loading	Person Day	0	\$600	\$-	Hours	0		\$-	\$-		\$-		\$-	0%	\$-		This task is already costed in the "camp & related facilities" demobilization of Steensby
Vessel Costs Steensby - 1 freight backhaul sealift in 2011 (note: the units under Equip Hrs actually refer to revenue tonnes)	Person Day		\$0	\$-	Rev Tonne	1965	\$170	\$334,016	\$334,016		\$334,016		\$-	5%	\$16,701	Volumes are based upon detailed material balance estimates and freight rates are based upon recent invoices increased 1.5% for inflation. Accordingly, Baffinland considers a 5% contingency to be an appropriate allowance for any uncertainties associated with the sealift estimate.	Sealift executed in 2009. See 'Material Balance' worksheet for revised total Steensby sealift volume calculations. Next scheduled sealift is in 2011. Steensby Sealift scheduled for 2011 and volume required to backhaul = 4916 cubes / 2.5 = 1966 Revenue Tonnes. Rate is based on 2009 NEAS quote + 3% =\$170/rev Tonne. 2010 estimate reduced from 2009 cost of \$609K

Sealift Materials

Total Labour24																	
	Labor				Equipment				Total cost	2010 Cost	2011 Cost	>2011 Cost	check	Contingency	Contingency	Basis for 2010 Contingency	Basis for 2010 Estimate
	Units	Person Days	Unit Rate	Cost	Units	Equip Hrs	Unit Rate	Cost									
Land Freight					Lot	1	\$ 1,144,477	\$ 1,144,477	\$ 1,144,477	\$ 633,770	\$ 510,707		\$ -	5%	\$ 57,224	Volumes are based upon detailed material balance estimates. The majority of large pieces have quotes for land freight shipping and a unit cost developed from 2009 invoices have been applied to the remainder of the freight. . Accordingly, Baffinland considers a 5% contingency for excess volume to be appropriate.	Estimate revised based on updated A & R Plan sealift requirements. See 2011 sealift Estimate. 2010 cost increased from 2009 value of \$1MM

Camp Operations

Total Labour		898															
	Labor				Equipment				Total cost	2010 Cost	2011 Cost	>2011 Cost	Check	Contingency	Contingency	Basis for 2010 Contingency	Basis for 2010 Estimate
	Units	Person Days	Unit Rate	Cost	Units	Equip Hrs	Unit Rate	Cost									
GRAND TOTAL				\$ 575,452				\$ 2,185,002	\$ 2,760,453	\$ -	\$ 2,760,453	\$ -	\$ -	10%	\$ 281,709		
Mary River Camp Operation				\$ 477,016				\$ 2,181,002	\$ 2,658,018	\$ -	\$ 2,658,018	\$ -	\$ -				Based on A& R plan man days/160 days during 4 months= 24 Helicopter pilot & engineer = 2 Fixed wing 2 pilots + engineer = 3 Camp support 2 cooks + 3 dishwashers/labourers
Helicopter support	Person Day		\$0	\$ -	Hours	92	\$1,590	\$ 146,280	\$ 146,280		\$ 146,280		\$ -	10%	\$ 14,628	Helicopter estimates for the entire A & R plan have been recalculated based on known task productivity derived from 2009 work or distances. In addition to the helicopters hours costed for each task, an allowance of 62 hours of miscellaneous helicopter support (27% of task costed hours) has been included. Given the high certainty of the cost estimate and the large helicopter allowance already included, a contingency of 10% is considered adequate. This is a very conservative as it is a contingency on contingency.	2010 Estimate revised based the following: - Maximum 4 month operating requirement - All task requiring helicopter use already budgeted elsewhere - As a comparison - In 2009, entire ops, drill, reclamation program and general helicopter support only averaged 3 hrs/day Therefore undefined general helicopter support reduced to 0.30 hrs/day + 15 hrs mobilization from Goose Bay and 15 hrs demobilization to Goose Bay Reduced from \$675K in 2009
Fixed wing support (note: units under Equip Hrs refers to statue miles)	Person Day		\$0	\$ -	statute miles	111,400	\$8	\$ 891,200	\$ 891,200		\$ 891,200		\$ -	15%	\$ 133,680	The fixed wing estimate is very conservative and already has built in contingency as described in the basis for the estimate. Given the detailed historical costs experience for complete seasonal operation of similar scope and the conservative estimate, a 10% contingency is considered adequate.	Basis for 2010 estimate revised to reflect actual fixed wing mileage in 2009. This mileage was for an avg 36 man camp over 5 months (with peaks of over 60 for two months). Although the average budgeted manpower for execution of the A & R plan is 29 persons for 5 months, the actual 2009 mileage for 36 person was used because the mileage/person is not linear, thus a very conservative estimate has been applied. The rate of \$8 /statute mile is based on a rates held for three years provided by Summit Air for use of the Dornier 228 - the best all around aircraft for general service to remote sites. This rate is the highest of other typical aircraft used for similar service. 2010 estimator reduced from \$1.148MM
Fixed wing fuel purchase in Iqaluit	Person Day		\$0	\$ -	liters	84,500	\$1	\$ 117,582	\$ 117,582		\$ 117,582		\$ -	10%	\$ 11,758	The Fixed wing flight distances are conservative estimates and the price of fuel reflects 2010 pricing. A 10% contingency is deemed adequate to cover potential rate increases and mileage accuracy estimates.	Basis for 2010 estimate revised to reflect revised fixed wing mileage -Assume fuel for MR-Iqaluit leg supplied from site. Fuel purchase in Iqaluit = 50% of mileage fueled from Iqaluit*114,400 NM* 220 NM/hour* 325l/hour= 84500liters @\$1.3915/liter fuel. 2010 estimate increased from 2009 value of \$87K
Commercial flights for 35 person camp (MR & MI)	Person Day		\$0	\$ -	Flights	93	\$2,300	\$ 213,440	\$ 213,440		\$ 213,440		\$ -	5%	\$ 10,672	Commercial flights estimate was based on a 35 person when total budgeted Labour indicates 28 person is required. Rates have been increased to reflect 2009 average invoiced cost for all southern Canada flights. Given that a 25% allowance has already been included to address the short rotation of a number of specialist contractors and potential for additional labour, a conservative contingency of 5% is applied .	2010 estimate revised to reflect updated A & R Plan requirements - Although total Manpower requirements average is 29 person days over the entire plan, Assume 35 person camp operating for 20 weeks on # & 3 or 4 & 2 crew rotation. =5 months* 4 weeks/month/6 weeks/flight*35 persons= 116 flights. The average travel expense including flight cost from Southern Canada to Iqaluit in 2009 was \$2300/rotation. Assume conservative estimate that 80% of contractors are from southern Canada. Estimate increased from \$180K in 2009.

Camp Operations

Total Labour		898															
Labor				Equipment													
Units	Person Days	Unit Rate	Cost	Units	Equip Hrs	Unit Rate	Cost	Total cost	2010 Cost	2011 Cost	>2011 Cost	Check	Contingency	Contingency	Basis for 2010 Contingency	Basis for 2010 Estimate	
Person Day	750	\$502	\$ 376,650	Hours			\$ -	\$ 376,650		\$ 376,650		\$ -	5%	\$ 18,833	This is the exact number of support staff used during 2009 when the camp size was 36 persons. A contingency of 5% is appropriate to compensate for additional labour.	Basis for 2010 estimate same as 2009 - Assume 5 support staff (2 cooks/3dishwashers/ labourers ) in addition to all contractors. Labour rates updated based on 2010 QL contract. 2010 estimate reduced from \$450K in 2009.	
Person Day	0	\$0	\$ -	Monthly Lot	5	\$2,500	\$ 12,500	\$ 12,500		\$ 12,500		\$ -	10%	\$ 1,250	Camp overhead budgeted based on actual invoice cost in 2009. A contingency of 10% for unspecified overhead is appropriate.	Basis for 2010 estimate (Monthly costs): - Telephone & communications = 2 HSE dish at \$500/month each + 4 satellite phones (\$400) = \$1400 - Office Supplies \$300/month - Permits & licenses - Aerodrome communication & Handheld radio frequencies = \$4000 annual = \$800/ mth - Total monthly lot cost = \$2100	
Person Day	5250	\$19	\$ 100,366					\$ 100,366		\$ 100,366		\$ -	5%	\$ 5,018	Food unit cost/person day based on 2009 actual invoice costs including shipping. The estimate already contains a 25% allowance for a larger camp than required by labour estimate. A contingency of 5% for additional potential food cost is appropriate.	Basis for 2010 estimate same as 2009 - Assume average number of 35 person/day for 5 months. Food rate/person revised as per food worksheet. 2010 Estimate reduced from 2009 Cost of \$472K.	
Person Day		\$0	\$ -	Months	4	\$200,000	\$ 800,000	\$ 800,000		\$ 800,000		\$ -	10%	\$ 80,000	The only contractor equipment that could attract standby charges in 2011 is Nuna Logistics. A 10% contingency has been applied.	Basis for 2010 estimate same as 2009 - Based on current Nuna reduced contract standby rates during 2010. Full contractor standby rates have been applied to the first four months of January when charges may be attracted..	
			\$ 17,818				\$ 200	\$ 18,018	\$ -	\$ 18,018	\$ -	\$ -					
Person Day	24	\$520	\$ 12,480	Hours			\$ -	\$ 12,480		\$ 12,480		\$ -	5%	\$ 624	Detailed camp operating labour costs have been estimated based on historical small camp requirements. A contingency of 5% is appropriate to compensate for additional labour.	Basis for 2010 estimate revised based on reduced decommissioning time = 14 days (See camp decommissioning worksheet). Requires 1 cook and a bear monitor/labourer. Last two days the camp is supported from Mary River by helicopter. 2010 estimate reduced from \$16K in 2009	
Person Day	6	\$520	\$ 3,120	Hours			\$ -	\$ 3,120		\$ 3,120		\$ -	5%	\$ 156	Detailed camp operating labour costs have been estimated based on historical small camp requirements. A contingency of 5% is appropriate to compensate for additional labour.	2010 estimate reduced to 3 days from 7 since all of the barreled fuel removed in 2009 - 3 Day temporary tent operation for sea lift support - Requires 1 cook & 1 bear monitors. Sealift labour reduced to 2 persons from 7 in 2009. Total 15 man days. Estimate reduced from \$14K in 2009	
Person Day	0	\$0	\$ -	Monthly Lot	1	\$200	\$ 200	\$ 200		\$ 200		\$ -	10%	\$ 20	Camp overhead budgeted based on actual invoice cost in 2009. A contingency of 10% for unspecified overhead is appropriate.	Basis for 2010 estimate (Monthly costs): - Telephone & communications = 1satelite phone (\$100) = \$100 - Office Supplies \$100/month - Total monthly lot cost = \$200	
Person Day	116	\$19	\$ 2,218					\$ 2,218		\$ 2,218		\$ -	10%	\$ 222	Food unit cost/person day based on 2009 actual invoice costs including shipping. A contingency of 10% for additional potential food cost is appropriate.	2010 estimate based on Total Steensby Man days @ \$19 / person day food . Food rate/person revised as per food worksheet. Person days revised to reflect updated man days. 2010 estimate reduced from \$5K.	
			\$ 73,512				\$ 3,600	\$ 77,112	\$ -	\$ 77,112	\$ -	\$ -				2010 estimate basis - Assume total labour requirements (334 man hours) over June-mid Sept = 4 man camp. However peak personnel will occur when demobing bladders at 16 for 2 weeks	

Camp Operations

Total Labour		898															
Labor				Equipment													
Units	Person Days	Unit Rate	Cost	Units	Equip Hrs	Unit Rate	Cost	Total cost	2010 Cost	2011 Cost	>2011 Cost	Check	Contingency	Contingency	Basis for 2010 Contingency	Basis for 2010 Estimate	
Person Day	109	\$609	\$ 66,381	Hours		\$0	\$ -	\$ 66,381		\$ 66,381		\$ -	5%	\$ 3,319	Detailed camp operating labour costs have been estimated based on historical small camp requirements. A contingency of 5% is appropriate to compensate for additional labour.	2010 estimate basis - Assume 1cooks/labourer support for camp = Total of 5 person avg. 2009 Estimate incorrectly costed manpower for 5 months, revised to 3.5 months. Person days reduced to 1*3.5 months*31 days = 109 days. 2010 Estimate reduced from 2009 cost of \$90K.	
Person Day	0	\$0	\$ -	Monthly Lot	4	\$900	\$ 3,600	\$ 3,600		\$ 3,600		\$ -	10%	\$ 360	Camp overhead budgeted based on actual invoice cost in 2009. A contingency of 10% for unspecified overhead is appropriate.	Basis for 2010 estimate (Monthly costs): - Telephone & communications = 1 HSE dish at \$500/month each + 2 satellite phones (\$200) = \$700 - Office Supplies \$200/month - Permits & licenses - Aerodrome communication & Handheld radio frequencies = Included in Mary River Cost - Total monthly lot cost = \$900	
Person Day	373	\$19	\$ 7,131	Hours		\$0	\$ -	\$ 7,131		\$ 7,131		\$ -	10%	\$ 713	Food unit cost/person day based on 2009 actual invoice costs including shipping. A contingency of 10% for additional potential food cost is appropriate.	2010 estimated contains revised person days based on Milne Inlet reclamation work and camp operations support. Food rate/person revised as per food worksheet. 2010 Estimate reduced from 2009 cost of \$81K.	
			\$ 7,106				\$ 200	\$ 7,306	\$ -	\$ 7,306	\$ -	\$ -					
Person Day	9	\$609	\$ 5,481	Hours			\$ -	\$ 5,481		\$ 5,481		\$ -	5%	\$ 274	Detailed camp operating labour costs have been estimated based on historical small camp requirements. A contingency of 5% is appropriate to compensate for additional labour.	2010 estimate basis - 9 days living at site requires 1 cook. Last 5 days are fly in.	
Person Day	0	\$0	\$ -	Monthly Lot	1	\$200	\$ 200	\$ 200		\$ 200		\$ -	10%	\$ 20	Camp overhead budgeted based on actual invoice cost in 2009. A contingency of 10% for unspecified overhead is appropriate.	Basis for 2010 estimate (Monthly costs): - Telephone & communications = 1satelite phone (\$100) = \$100 - Office Supplies \$100/month - Total monthly lot cost = \$200	
Person Day	85	\$19	\$ 1,625				\$ -	\$ 1,625		\$ 1,625		\$ -	10%	\$ 162	Food unit cost/person day based on 2009 actual invoice costs including shipping. A contingency of 10% for additional potential food cost is appropriate.	2010 estimated contains revised person days based on Mid-Rail reclamation work and camp operations support. Food rate/person revised as per food worksheet. 2010 Estimate reduced from 2009 cost of \$6K.	



Environmental Monitoring

Total Labour		271														
Labor				Equipment												
Units	Person Days	Unit Rate	Cost	Units	Equip Hrs	Unit Rate	Cost	Total cost	2010 Cost	2011 Cost	>2011 Cost	Check	Contingency	Contingency	Basis for 2010 Contingency	Basis for 2010 Estimate
			\$ 250,600				\$ 254,610	\$ 505,210	\$ -	\$ -	\$ 505,210	\$ -	26%	\$ 129,052		
Person Day	200	\$1,000	\$ 200,000	Hours	0	\$0	\$ -	\$ 200,000			\$ 200,000	\$ -	30%	\$ 60,000	The Environmental monitoring & reporting estimate is based upon detailed assumptions concerning analysis & reporting requirements. However, a relatively high contingency of 30% is considered appropriate to allow for possible under-estimation of monitoring effort & unit costs given the long time frame to completion of the task.	Assumes BIM staff in place during decommissioning. 40 days per year for 5 years of ongoing monitoring for professional geoscientist.
Person Day	15	\$600	\$ 9,000	Hours	5	\$1,000	\$ 5,000	\$ 14,000			\$ 14,000	\$ -	30%	\$ 4,200	Scope of work and materials developed for task. However, a relatively high contingency of 30% is considered appropriate to allow for possible under-estimation of preparation time given the long time frame to completion of the task.	3 days per year with \$1,000 consumables while at site.
Person Day	36	\$600	\$ 21,600	Samples	215	\$100	\$ 21,500	\$ 43,100			\$ 43,100	\$ -	30%	\$ 12,930	Detailed sampling scope developed. However, a relatively high contingency of 30% is considered appropriate to allow for possible under-estimation of sampling time & unit costs given the long time frame to completion of the task.	Annual samples: Milne - 8 metal, 5 hydrocarbon, 3 sewage: MR - 12 metal, 5 salt, 5 hydrocarbon, 5 sewage. 2 people, 1 sample per hour average cost of \$100/sample.
Person Day	20	\$1,000	\$ 20,000	Hours	0	\$0	\$ -	\$ 20,000			\$ 20,000	\$ -	20%	\$ 4,000	2010 basis increased by 100%. Contingency reduced to 20% unforeseen delays during site visits	2010 estimate increased to 2 person,2 days per year to complete inspection & sampling. 2010 estimate increased from 2009 cost of \$10K
Person Day		\$0	\$ -	Person Flights	10	\$2,300	\$ 23,000	\$ 23,000			\$ 23,000	\$ -	30%	\$ 6,900	Estimate based on average 2009 invoiced cost from Southern Canada. A 30% contingency has been applied given the long time frame to completion of the task and variability of rates.	2010 estimate based avg. person flight cost to Pond Inlet from Southern Canada = \$2700/person and the number of person flights .
Person Day	0	\$0	\$ -	Hours	129	\$1,590	\$ 205,110	\$ 205,110			\$ 205,110	\$ -	20%	\$ 41,022	Helicopter hours estimated based on annual site visit sampling and inspection requirements. Mobilization hours already contain a 100% allowance FOB from both Hall Beach and Resolute. A 20% contingency has been applied to cover potential increases in helicopter rates and weather delays that would require additional flying..	2010 estimate updated to reflect revised execution plan. Seasonal short term helicopter use available from Hall Beach or Resolute. Assume all visits require 5 hours each for mobilization and demobilization. Helicopter hours estimated based on annual site visit sampling and inspection requirements over two days - Given those requirements a maximum of 8 hours flying each of the two site visit days is possible to stay within legislated pilot duty days. Total helicopter hours = 26/season. 2010 estimate reduced from 2009 cost of \$318K

Management Reserve

Total Labour0

	Labor				Equipment				Total cost	2010 Cost	2011 Cost	>2011 Cost	Check	Contingency	Contingency	Basis for 2010 Contingency	Basis for 2010 Estimate
	Units	Person Days	Unit Rate	Cost	Units	Equip Hrs	Unit Rate	Cost									
Total				\$ -				\$ 365,569	\$ 365,569	\$ -	\$ 365,569	\$ -	\$ -	0%	\$ -		
Management Reserve	Person days			\$ -	Lot	1	\$ 365,569	\$ 365,569	\$ 365,569		\$ 365,569		\$ -			The Management Reserve has been included as a separate plan component in 2010, unlike 2009, because the 2010 cost estimate has been modified to include a contingency estimate for each individual task of the planned scope of work. This means that the contingency for scope change must be shown as a separate plan component.	This is a management reserve to cover potential changes in closure scope (in contrast to contingency allowances included on a task-by-task basis for the planned scope of work). The value of \$365,569 was included in the 2009 contingency estimate developed for the QIA security bond estimate.

Salvage Value

2010 A & R Plan						
	Net Book Value at end 2010	Salvage Value	2010 Salvage Value	2011 Salvage Value	>2012 Salvage Value	Basis for 2010Estimate
GRAND TOTAL	\$ 4,538,109	\$ 2,288,227	\$ 788,214	\$ 1,500,013	\$ -	
Fixed Assets	\$ 1,142,109	\$ 571,054		\$ 571,054		
AFE 6006 - CAT TH350B SLD00328	\$ 10,890					
ENS Industrial - Nissan Land Rover	\$ 7,934					
ENS Industrial - Nissan Land Rover	\$ 7,934					
Toromont CAT	\$ 6,106					
PO10034 ford f250 truck	\$ 19,545					
PO10034 ford f250 truck	\$ 19,545					
PO10012 Enviroharvest generator	\$ 13,957					
PO10001 seprotech	\$ 254,599					
PO10028 enviroharvest generator	\$ 8,094					
PO10056 Toromont-generator	\$ 407,835					
PO10007 S Huot bardge loader	\$ 197,886					
Edmonton Kubota tractors	\$ 21,750					
Westland incinerator	\$ 47,424					
2008 Ford F350 Truck	\$ 23,453					
Temiskaming - 420 Diesel generator	\$ 21,573					
Twin Deer - gensets #7 & #8	\$ 35,417					
Elastec skimmer system	\$ 12,312					
Herbs welding PO50048 sled deck	\$ 25,855					
Fuel Inventory + Barrel Deposit	\$ 3,396,000	\$ 1,717,173	\$ 788,214	\$ 928,959		- 25% Salvage Value overall for fuel. - 2009 Book value of fuel = \$1.38/l (purchase price) + \$50 drum deposit - Total number barrels at Valleyfield + Steensby = 6829 - 2009 salvage value of 6529 barrels of fuel = \$50 barrel deposit value + 25%*205 l*\$1.38* 6529 barrels= \$ 788,214. - Estimate reamaining fuel inventory Oct 1, 2010 = 3,347,601 liters (See Material Balance worksheet for estimate basis) - 2010 salvage value of fuel = 3,347,601 l *25%* \$1.11/l (bulk cost of fuel)= \$928,959

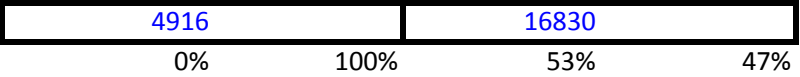
2010 Mary River Project A & R Plan Material Balance

								A & R Final Destination					
Sources						Temporary Destinations by Helicopter		Steensby Backhaul		Milne Backhaul			
	At Dec 31, 2009	Used During 2010	Remaining at Dec 31, 2010	Required to execute A&R	Remaining Sept 1, 2011	Mary River	Steensby Port	2010 Backhaul	2011 Backhaul	2010 Backhaul	2011 Backhaul	Landfill	Burn
Mary River													
Fuel - P50	823,309	0	1363500	865800	497700								
Fuel - Jet A	432,130	222,335	552130	191733	360397								
Materials (cubic meters)	25464.8	1200	24264.8							8909	1063	9820	678
Equipment (cubic meters)													
Contaminated Materials	4816	0	4816								30	2742	1600
Contaminated Soil	0												
Milne Inlet													
Fuel - P50 (l)	2,343,684	953,539	100000	0	100000								
Fuel - Jet A (l)	1,296,000	0	1296000	0	0								
Materials (cubic meters)	7340		7340								6606	734	
Equipment (cubic meters)													
Contaminated Materials	530	0	530							70	30	280	250
Contaminated Soil	3500												
Steensby													
Fuel - P50 (l)	20500	2000	18500	18500	0								
Fuel - Jet A (l)	20500	2000	18500	18500	0								
Fuel (sealift volume cube)	260		2815						55				
Materials (cubic meters)	1563	0	1563			0			1563				
Equipment (cubic meters)	3294	0	3294			0			3294				
Contaminated Materials	4	0	4			0			4				
Contaminated Soil	0												
Refuge Sites													
Fuel - P50 (l)	0												
Fuel - Jet A (l)	0												
Materials (cubic meters)	0												
Equipment (cubic meters)	0												
Contaminated Materials	0												
Contaminated Soil	0												
Remote Locations													
Fuel - P50 (l)	1000		1000										
Fuel - Jet A (l)	1000		1000										
Materials (cubic meters)	228		228			158					118	40	70
Equipment (cubic meters)	9		9			9							9
Contaminated Materials	4		4								4		
Contaminated Soil	0												
Totals						167	0	0	4916	8979	7850.6	13616.2	2607

Material balance is required to ensure all material is accounted for by burning, landfill or shipping from Milne or Steensby with no omissions or double counting.

Also, ensures there is sufficient landfill capacity and is required to estimate number of ships required and helicopter hours.

Two Year Sealift Totals



Material requiring disposal - Material referenced in "material balance" worksheet

Sources				All units are in cubic meters						
				Temporary Destinations by Helicopter		Final Destination by Truck			At Site Burn	Backhaul From Port
At Dec 31, 2009	Used During 2010	Remaining at Dec 31, 2010	Mary River	Steensby Port	Milne Port	Burn	Landfill			
Mary River										
Site 1	0									
Site 2	4193		4193				1600	2593		
Site 3	320		320					100		
Site 4	49		49					49		
Hazardous Material Berms	30		30			30		0		30
Mary River Total	4592	0	4592	0	0	30	1600	2742	0	30
Milne Inlet										
Wood/metal/scrap storage	500		500					250	250	
Hazardous Material	40		0			40				40
Scrap culverts pieces (HTO Cabin)	30		30					30		
Milne Inlet Total	570	0	530	0	0	40	0	280	250	40
Steensby										
Contaminated Materials	4	0	4	0						4
Steensby Inlet Total	4	0	4	0		0	0	0	0	4
Refuge Sites										
Contaminated Materials										
Refuge Site Total	0	0	0	0	0	0	0	0	0	0
Remote Locations										
Contaminated Materials	4	0	4	4		4				4
Remote Locations	4	0	4	4	0	4	0	0	0	4

Material balance is required to ensure all material is accounted for by burning, landfill or shipping from Milne or Steensby with no omissions or double counting. Also, ensures there is sufficient landfill capacity and is required to estimate number of ships required and helicopter hours.

QE, on behalf of Baffinland, has through 2008/2009 packaged, manifested and shipped the historical exploration & Bulk Sample hazardous material from site. As of Jan 1, 2010, there is only the current annual operational waste to be shipped off site. This quantity based on 2009 generation rate is estimated to be 70 m3.

Hazardous Material Disposal Cost in the South			
(Weighted Average Cost of Regularly Generated Materials in 2009)			
Major Products Currently Generated at the Mary River Project	Cubes	Disposal Cost \$/m3	Weighted Cost \$/m3
Waste Diesel	173	850	147050
Kitchen Grease	10	1890	18900
Contaminated Water	47	670	31490
Contaminated Soil	20	166	3320
Waste Oil	11	393	4323
Crushed Drums	140	75	10500
Average Weighted Cost	401		538



2010 A & R Plan Helicopter Hour Summary

Area/Task	Hours	Unit Rate	Cost	Basis for 2010 estimate
Mary River				
General Camp Operation & site Inspections	92	\$1,590	\$146,280	Assume Helicopter only required for 4 months and number of hours required reduced based on last years utilization (3hrs/day for entire program) and the fact that all the individual tasks are budgeted separately below. 4 mts*31 days* 0.5hr/day + 30 hours total for mob/demob from Goose Bay, Nfld.
Mineral Exploration Areas		\$1,590		
Drills are removed from exploration areas	0	\$1,590	\$0	Operational requirement for all drill to be removed form the exploration area following completion of the annual drill program
Remove water lines from exploration areas	6	\$1,590	\$9,540	See details estimate worksheet
Drill holes filled and residual casings cut	18	\$1,590	\$28,620	See details estimate worksheet
Old drill camp & access road material removed	0	\$1,590	\$0	Work completed in 2009
Inspection and final reclamation of exploration drill hole locations	4	\$1,590	\$6,360	See details estimate worksheet
Miscellaneous exploration decommissioning	18	\$1,590	\$28,620	See details estimate worksheet
Milne Inlet		\$1,590		See details estimate worksheet
Decommission Salt Mixing Station	2	\$1,590		Remove material from along Mary River
Steensby		\$1,590		See details estimate worksheet
Decommission Steensby Inlet Camp	36	\$1,590	\$57,240	See details estimate worksheet
Remote Locations		\$1,590		See details estimate worksheet
Inspection and final reclamation of geotechnical drill holes and test pit locations	33	\$1,590	\$52,470	50% of holes completed in 2009 with 23 hrs of helicopter time. Assume 50 hours required to complete remaining 50% of holes.
Removal of casing/thermistors	16.2	\$1,590	\$25,758	Estimate reduced based on Geotech hole reclamation productivity & helicopter requirements from 2009
Decommissioning of meteorological stations (3)	3	\$1,590	\$4,770	See details estimate worksheet
Decommissioning of hydrology stations (4)	3	\$1,590	\$4,770	Helicopter hour budget revised based on detailed analysis of flying distance from MR to meters back to MR. Estimated distance is 227knots. Avg Helicopter speed is 120 k/hr. Total flying time is 227 Kn/120kn/hr = 1.9 hrs, therefore assume 3 hours of helicopter time
Removal of current meters in Steensby Inlet (2)	0	\$1,590	\$0	Current meters to be removed by boat
Decommissioning of wind tower	0	\$1,590	\$0	Completed in 2009
Decommission Mid-Rail Camp	60	\$1,590	\$95,400	See details estimate worksheet
Totals	291.2	\$1,590	\$459,828	

Available helicopter hours in 4 months

Helicopter utilization

1488

20%

Avg. Hours /day

2.2

Borrow Area Material Requirements Summary

Borrow Area Material Requirements Summary				Estimate of A & R Borrow Area Material requirements												
				Labor				Equipment				Total cost	2010 Cost	2011 Cost	> 2012 Cost	Basis for 2010 Estimate
				Units	# Units	Unit Rate	Cost	Units	# Units	Unit Rate	Cost					
TOTALS							\$ -	Cubic Meters	21244		\$ -	\$ -	\$ -	\$ -	Borrow material may be available from the decommissioning of the Mary River & Milne inlet fuel farm & sewage lagoon berms. This has not been discounted at this time.	
Stockpiles							\$ -		3202		\$ -	\$ -	\$ -	\$ -		
0.3 meter cap on Milne Inlet contoured ore pads							\$ -	Cubic Meters	3202		\$ -	\$ -	\$ -		Assume .3m cover. Stockpile will be graded to maximum height of 4m with side slopes of 2:1.. Volume fill required = 8674 m {surface area}* .33 meter + (551 m {perimeter length}*1.7 meter wide face on slope (2:1 slope with avg height = .3 meter)* .33 meter fill=3202 cubes fill required to cap ore pads	
							\$ -				\$ -	\$ -				
							\$ -				\$ -	\$ -				
							\$ -				\$ -	\$ -				
							\$ -				\$ -	\$ -				
Landfill							\$ -		39144		\$ -	\$ -	\$ -	\$ -		
Borrow required for access road construction							\$ -	Cubic Meters	3200		\$ -	\$ -	\$ -		1600m from existing good quality road to landfill site including turn around area * 0.5 meter * 4 m =3200 cubes	
Borrow required for complete construction of landfill for 5000 cubes landfill							\$ -	Cubic Meters	9216		\$ -	\$ -	\$ -		See detailed landfill volume calculations file	
Borrow required for operation of land fill to capacity							\$ -	Cubic Meters	8668		\$ -	\$ -	\$ -		See detailed landfill volume calculations file	
Borrow required for capping landfill							\$ -	Cubic Meters	18060		\$ -	\$ -	\$ -		See detailed landfill volume calculations file	
							\$ -				\$ -	\$ -	\$ -			
Road maintenance							\$ -		0		\$ -	\$ -	\$ -	\$ -		
							\$ -				\$ -	\$ -	\$ -			
							\$ -				\$ -	\$ -	\$ -			
							\$ -				\$ -	\$ -	\$ -			
							\$ -				\$ -	\$ -	\$ -			
							\$ -				\$ -	\$ -	\$ -			
Borrow available from existing earthworks to be decommissioned							\$ -		-21102		\$ -	\$ -	\$ -	\$ -	Total available	
Milne - available for capping ore pads							\$ -	Cubic Meters	-3202		\$ -	\$ -	\$ -		Milne Tank Farm= 13 000m3 & Milne Lagoon 4 000m3	
Mary River - Available for operating & capping landfill							\$ -	Cubic Meters	-17900		\$ -	\$ -	\$ -		Mary Tank Farm= 4 400m3 & Mary Sewage(double pond) 13 500m3	
							\$ -				\$ -	\$ -	\$ -			
							\$ -				\$ -	\$ -	\$ -			
							\$ -				\$ -	\$ -	\$ -			



2010 A & R Plan Labour Summary by Worksheet

	Person Days	%
Bulk Sample Pit	0	0%
Mineral Exploration Areas (Deposits No. 1, 2, 3)	36	1%
Remote Sites	28	1%
Stockpiles	22	1%
Camps & Related Facilities	1,239	29%
Roads & Airstrips	209	5%
Borrow Quarry Areas	248	6%
Fuel Storage Facilities (Bulk and Drums)	142	3%
Explosives	6	0%
Waste Management	11	0%
Hydrocarbon Impacted Soil	442	11%
General Site Area	900	21%
Sealift	24	1%
Camp Operation	898	21%
Management Reserve	0	0%
Total	4,205	100%

28.0 avg number of people on site over 5 months

2010 A&R Labour & Equipment Rates

Labour	Rate	Basis for Rate	Comments
Equipment Operator	\$ 714	Avg. Nuna Equipment Operator rate = \$59.48/hour or \$883/day including weekly OT.	Based on January 2010 rates. Assume Nuna Operators used as equipment is owned by Nuna and rate is an avearage of Multipurpose HEO and turck operators
General Labourer Rate	\$ 431	Avg. QL Labourer rate = \$431/day including weekly OT	Based on January 2010 rates. Assume QL Labours used to maximize local employee content.
Certified Diesel Mechanic	\$ 925	Nuna mechanic = \$77.05/hour or \$925/day including weekly OT	Based on Nuna January 2010 rates.
Technician	\$ 600	Average technician rate for technical support at Mary River	
Warehouse man	\$ 726	Avg. Nuna warehouseman rate = \$60.57/hour	Based on Nuna January 2010 rates.
Cook	\$ 609	Avg. QL cook rate = \$609/day including weekly OT	Based on January 2010 rates. Assume QL cooks used to maximize local employee content.
Equipment			
Baffinland Equipment	\$ 10	Baffinland ownded equipment. costed at \$10/hr.	Rate is based on equipment at site is owned by Baffinland and available for any reclamation work at no cost other than maintenance at a maintenance rate of \$10/hr
Helicopter	\$ 1,590	2010 contract rate with Canadian. Price has been held for 3 consecutive years	
Cat 966 Loader	\$ 108	2010 contract rate with Nuna	
Cat 980H Loader	\$ 155	2010 contract rate with Nuna	
Cat 930G Loader	\$ 84	2010 contract rate with Nuna	
Cat D8T Dozer	\$ 165	2010 contract rate with Nuna	
Cat D7 Dozer	\$ 140	2010 contract rate with Nuna	
Cat 14H Grader	\$ 112	2010 contract rate with Nuna	
Cat 345 Excavator	\$ 204	2010 contract rate with Nuna	
Kenworth Truck (W/O pup)	\$ 104	2010 contract rate with Nuna	
Kenworth Truck (C/W pup)	\$ 129	2010 contract rate with Nuna	Same reate applies to Tractor with Scissor Deck
Bobcat	\$ 62	2010 contract rate with Nuna	
Blended Road Work Equipment Rate	\$ 131	1 dozer, 3 kenworths, 1 excavator	Calculated blended rate
Kenworth with Fuel Tanker	\$ 129	2010 contract rate with Nuna	

Note:

All labour rates include employee payroll deductoins, WCB, Insurance , overhead, Administation and Profit.

All Equipment rates include insurance, maintenance, overhead, adminstration and profit.

2009 Mary River Average Food Cost / Person Day

Week	Food Order Weight (kg/order)	Invoice cost/order (\$)	CN frieght cost (Val D'Or - Iqaluit) (\$)	BBE Freight Handling (Iqaluit) (\$)	Total Cost (\$)	Person Days	Total Food Cost per Person day (\$/Person day)
June	1,794	6,898.37	6,789.37	121.99	13,809.74	1,189	11.6145799
July	2,857	22,571.56	10,395.09	194.28	33,160.93	1,209	27.42839578
August	4,725	9,982.98	16,288.78	321.30	26,593.06	1,450	18.34003862
Total	9,376	39,452.91	33,473.24	637.57	73563.72	3848	

BBE Total fright Handling Cost/kg= 0.068

Average Food Cost/Person Day= \$ 19.12
--

**BAFFINLAND IRON MINES CORPORATION**  
**MARY RIVER PROJECT**  
**2010 ABANDONMENT AND RECLAMATION PLAN**

**Appendix C**  
**Reclaim Model Results**

## Summary of Estimated Costs for Final Abandonment Based Upon the Reclaim Model (version 5.1)

### Capital Costs

COMPONENT TYPE	COMPONENT NAME	TOTAL COST	Land Liability	Water Liability
OPEN PIT	Bulk Sample Pit	\$78,000.00	\$78,000	\$0
<del>UNDERGROUND MINE</del>	0	<b>NO UNDERGROUND MINE</b>		
<del>TAILINGS</del>	0	<b>NO TAILINGS FACILITY</b>		
ROCK PILE	0	\$31,994.00	\$31,994	\$0
BUILDINGS AND EQUIPMENT	0	\$1,404,131.20	\$1,278,208	\$125,923
CHEMICALS AND SOIL MANAGEMENT	0	\$600,367.00	\$560,991	\$39,376
WATER MANAGEMENT	0	\$1,507.50	\$0	\$1,508
POST-CLOSURE SITE MAINTENANCE		\$155,829.33	\$71,860	\$83,969
<b>SUBTOTAL</b>		<b>\$2,271,829</b>	<b>\$2,021,054</b>	<b>\$250,775</b>
<b>Percentages</b>				
MOBILIZATION/DEMOBILIZATION	0	\$5,015,816		
MONITORING AND MAINTENANCE	0	\$569,000		
SALVAGE		\$1,459,203		
PROJECT MANAGEMENT - Project Management costs have already been included in the Monitoring and Maintenance costs				
ENGINEERING	3 %	\$68,155		
CONTINGENCY	12 %	\$272,619		
<b>TOTAL</b>		<b>\$6,738,216</b>		

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								
. • Slopes were stabilized in 2008 (see Mr. Martin van Rooy - Mine Inspector with the Nunavut WSCC Report dated September 22 and 23, 2008).								
C OBJECTIVE: COVER/CONTOUR SLOPES								
. • Weathered shallow bulk sample pit will not require capping. The results from the 2008 environmental geochemical testing program and short term leach tests have demonstrated that there is virtually no potential for enhanced release of acidity or metals in response to oxidative weathering of the material sampled. Any seepage observed below the weathered ore stockpile during follow-up monitoring will be sampled and tested for general chemistry and metals during the annual post-closure site visits.								
. OBJECTIVE: SPILLWAY								
. • Spillway is not required at this site as pit is self-draining. The bulk sample pit was confirmed by land survey at its completion in 2008 to be free draining								
E OBJECTIVE: FLOOD PIT								
. • Shallow pit is self draining and thus will not be flooded.								
F RECLAIM QUARRIES								
. Recontour borrow areas and quarries as required using dozer	m3	40000	DRh	1.95	\$78,000	100%	\$78,000	\$0
H OTHER ITEMS								
.								
Subtotal					\$78,000	100%	\$78,000	\$0
					Total Pit	Percent Land	Total Land	Total Water

Underground Mine Name \_\_\_\_\_ UG Mine # 1

ACTIVITY/MATERIAL	Units	Quantity	Cost Code	Unit Cost	Cost	% Land	Land Cost	Water Cost
<b>A OBJECTIVE: CONTROL ACCESS</b>								
. 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>B OBJECTIVE: STABILIZE GROUND SURFACE</b>								
. Backfill mine			#N/A	0	\$0		\$0	\$0
. Collapse crown pillar	m3		#N/A	0	\$0		\$0	\$0
. Contour, mat'l	m3		#N/A	0	\$0		\$0	\$0
. , mat'l B	m3		#N/A	0	\$0		\$0	\$0
. Maintain decontam. (see "DECONTAM/MAINTENANCE" costing component)			#N/A	0	\$0		\$0	\$0
. Other			#N/A	0	\$0		\$0	\$0
<b>C OBJECTIVE: RECLAIM MINE</b>								
. 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
.	tonne		#N/A	0	\$0		\$0	\$0
<b>D OBJECTIVE: HAZARDOUS MATERIALS</b>								
. 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
<b>E SPECIALIZED ITEMS</b>								
.			#N/A	0	\$0		\$0	\$0
Subtotal					\$0	#DIV/0!	\$0	\$0
					Total U/G	Percent Land	Total Land	Total Water

Tailings Impoundment Name: \_\_\_\_\_ Impoundment # 1

ACTIVITY/MATERIAL	Units	Quantity	Cost Code	Unit Cost	Cost	% Land	Land Cost	Water Cost
<b>A OBJECTIVE: CONTROL ACCESS</b>								
. 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>B OBJECTIVE: STABILIZE EMBANKMENT</b>								
. 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
<b>C OBJECTIVE: COVER TAILINGS</b>								
. Soil cover	m3		#N/A	0	\$0		\$0	\$0
. Rip rap	m3		#N/A	0	\$0		\$0	\$0
. Vegetate			#N/A	0	\$0		\$0	\$0
. Other			#N/A	0	\$0		\$0	\$0
<b>D OBJECTIVE: FLOOD TAILINGS</b>								
. Ditch, mat'l A	m3		#N/A	0	\$0		\$0	\$0
. , mat'l B	m3		#N/A	0	\$0		\$0	\$0
. Raise crest	m3		#N/A	0	\$0		\$0	\$0
. Other			#N/A	0	\$0		\$0	\$0
<b>E OBJECTIVE: TAILINGS SUPERNATANT</b>								
. Supply reagents	m3		#N/A	0	\$0		\$0	\$0
. Operate treatment plant	tonne		#N/A	0	\$0		\$0	\$0
. Other	m3		#N/A	0	\$0		\$0	\$0
<b>F OBJECTIVE: UPGRADE SPILLWAY</b>								
. 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
<b>G OBJECTIVE: STABILIZE DECANT SYSTEM</b>								
. Remove	m3		#N/A	0	\$0		\$0	\$0
. Plug/backfill	m3		#N/A	0	\$0		\$0	\$0
. Other			#N/A	0	\$0		\$0	\$0
<b>H OBJECTIVE: REMOVE TAILINGS DISCHARGE</b>								
. Cyclones	m3		#N/A	0	\$0		\$0	\$0
. Pipe	m3		#N/A	0	\$0		\$0	\$0
. Other			#N/A	0	\$0		\$0	\$0
<b>I SPECIALIZED ITEMS</b>								
.			#N/A	0	\$0			\$0
Subtotal					\$0	#DIV/0!	\$0	\$0
					Total Tailings	Percent Land	Total Land	Total Water



Rock Pile Name: \_\_\_\_\_ Rock Pile #: 1

ACTIVITY/MATERIAL	Units	Quantity	Cost Code	Unit Cost	Cost	% Land	Land Cost	Water Cost
<b>A OBJECTIVE: STABILIZE SLOPES</b>								
<ul style="list-style-type: none"> <li>The surficial weathered ore stockpiled at top of Deposit No. 1 (approximately 28,000 t) and the weathered ore roadbed between the stockpile and the pit has been progressively reclaimed and is expected to be physically stable in the long term.</li> <li>The approximately 6,000 t of representative (i.e. ore grade) material left in the bulk sample pit was contoured and left in a stable and free draining state at the end of the 2008 field season.</li> <li>The non-representative ore (approx. 25,000 t) stockpiled at the Mary River crusher site will be re-graded as required to ensure the area is physically stable.</li> <li>The stockpile of representative ore (approx. 6,000t) at Milne Inlet will be re-graded as required over the non-representative ore pad (approx. 24,000 t) to ensure the area is physically stable and covered in 0.3 m of locally available borrow material for aesthetics purposes and to prevent dusting of the beach head.</li> </ul>								
Bulldoze/trim non-representative ore stockpiled at Mary River crusher site	m3	2000	DSI	0.78	\$1,560	100%	\$1,560	\$0
Bulldoze/trim stockpile of representative ore and the non-representative ore pad at Milne Inlet	m3	2300	DSI	0.78	\$1,794	100%	\$1,794	\$0
<b>B OBJECTIVE: COVER DUMP</b>								
<ul style="list-style-type: none"> <li>It has been demonstrated from the 2008 environmental geochemical testing program that there is virtually no potential for enhanced release of acidity or metals in response to oxidative weathering of the material in the i) weathered ore stockpiled on the Deposit No. 1, ii) non-representative ore stockpiled at the Mary River crusher site and the stockpile pad at Milne Inlet, and iii) representative ore left exposed in the bench walls of the pit and stockpiled at Milne Inlet.</li> <li>The stockpile of representative ore (approx. 6,000t) at Milne Inlet will be re-graded as required over the non-representative ore pad (approx. 24,000 t) to ensure the area is physically stable and covered in 0.3 m of locally available borrow material for aesthetics purposes and to prevent dusting of the beach head.</li> </ul>								
Excavate, load, haul and place 0.3m borrow cover over representative and non-representative ore at Milne Inlet	m3	3200	SB4h	8.95	\$28,640	100%	\$28,640	\$0
<b>C OBJECTIVE: RELOCATE DUMPS</b>								
<ul style="list-style-type: none"> <li>Not applicable. Stockpiles will not be relocated. It has been demonstrated from the 2008 environmental geochemical testing program that there is virtually no potential for enhanced release of acidity or metals in response to oxidative weathering of the material in the i) weathered ore stockpiled on the Deposit No. 1, ii) non-representative ore stockpiled at the Mary River crusher site and the stockpile pad at Milne Inlet, and iii) representative ore left exposed in the bench walls of the pit and stockpiled at Milne Inlet.</li> </ul>								
<b>D OBJECTIVE: COLLECT AND TREAT</b>								
<ul style="list-style-type: none"> <li>Not applicable. It has been demonstrated from the 2008 environmental geochemical testing program that there is virtually no potential for enhanced release of acidity or metals in response to oxidative weathering of the material in the i) weathered ore stockpiled on the Deposit No. 1, ii) non-representative ore stockpiled at the Mary River crusher site and the stockpile pad at Milne Inlet, and iii) representative ore left exposed in the bench walls of the pit and stockpiled at Milne Inlet. Any seepage observed below the weathered ore stockpile during follow-up monitoring will be sampled and tested for general chemistry and metals during the annual post-closure site visits.</li> </ul>								
<b>E OBJECTIVE: DEVELOP WETLAND</b>								
<ul style="list-style-type: none"> <li>Not applicable.</li> </ul>								
<b>F SPECIALIZED ITEMS</b>								
<ul style="list-style-type: none"> <li>Not applicable.</li> </ul>								
Subtotal					\$31,994	100.0%	\$31,994	\$0
					Total for Rock Pile	Percent Land	Total Land	Total Water

**Building / Equip Name: \_\_\_\_\_ Bldg / Equip #: 1**

ACTIVITY/MATERIAL	Units	Quantity	Cost Code	Unit Cost	Cost	% Land	Land Cost	Water Cost
<b>A OBJECTIVE: DISPOSE MOBILE EQUIPMENT (Decontaminate and ship)</b>								
Demobilize mobile equipment to Milne Inlet - 100km by road (cost is included in Activity G)								
Demobilize mobile equipment at Rail Camp to Mary River - by helicopter	\$/hr	3	MHEA	1500	\$4,500	100%	\$4,500	\$0
<b>B OBJECTIVE: DISPOSE STATIONARY EQUIPMENT (Decontaminate and ship)</b>								
Demobilize stationary equipment to Milne Inlet - 100km by road - generators, sewage treatment plant, etc. (cost is included in Activity G)								
Demobilize stationary equipment at Rail Camp to Mary River camp by helicopter - generators, incinerator, etc.	\$/hr	6	MHEA	1500	\$9,000	100%	\$9,000	\$0
<b>C OBJECTIVE: DISPOSE ORE CONCENTRATION EQUIPMENT (Decontaminate and ship)</b>								
• There will be no ore concentration equipment at site								
<b>D OBJECTIVE: DISPOSE WATER TREATMENT EQUIPMENT (Decontaminate and ship)</b>								
Remove plumbing	m	1300	PPSI	0.5	\$650	100%	\$650	\$0
<b>E OBJECTIVE: DECONTAMINATE BUILDINGS &amp; TANKS (and transport to Milne Inlet)</b>								
Camp (Mary River Camp, Milne Inlet, Mid-way, Rail Camp, Steensby Camp and temp. drill camps)	person-days	250	#N/A	600	\$150,000	100%	\$150,000	\$0
Drain, fold, and containerize Mary River and Milne Inlet bulk fuel bladders	L.S.	1	#N/A	75,000	\$75,000	100%	\$75,000	\$0
Remove and package geomembrane liners	m3	6000	SB2h	5.97	\$35,820	100%	\$35,820	\$0
Decontaminate buried concrete sewage system tank in A-Lot	person-days	4	#N/A	600	\$2,400	100%	\$2,400	\$0
<b>F OBJECTIVE: MOTHBALL BUILDINGS</b>								
• No buildings (mothball) will remain								
Airstrips will remain (inspect and repair any erosion) and remove temporary airstrip lighting at Mary River	m3	6000	DSI	0.78	\$4,680	100%	\$4,680	\$0
<b>G OBJECTIVE: REMOVE BUILDINGS (to Milne Inlet)</b>								
Mary River camp	m2	10000	BRW1I	21.5	\$215,000	100%	\$215,000	\$0
Truck approx. 160 containers to Milne Inlet	\$/km/160 pcs	32000	MHERI	2.81	\$89,920	100%	\$89,920	\$0
Milne Inlet camp	m2	5000	BRW1I	21.5	\$107,500	100%	\$107,500	\$0
	\$/km/50 pcs	0	MHERI	2.81	\$0	100%	\$0	\$0
Refuge stations	m2	200	BRW1I	21.5	\$4,300	100%	\$4,300	\$0
Decommission remote sites and mineral exploration areas (helicopter support included in mobilization costs)	m2	523	BRS1h	52.8	\$27,614	100%	\$27,614	\$0
Remove boneyard waste to landfill	m3	500	SB1h	4.85	\$2,425	100%	\$2,425	\$0
Rail Camp	m2	1000	BRW1I	21.5	\$21,500	100%	\$21,500	\$0
Transport material from Rail Camp to Mary River	\$/hr	51	MHEA	1500	\$76,500	100%	\$76,500	\$0
Steensby Camp	m2	1500	BRW1I	21.5	\$32,250	100%	\$32,250	\$0
<b>H OBJECTIVE: BREAK BASEMENT SLABS</b>								
• No concrete slabs are present. The camp structures are founded on wooden floor systems.								
<b>I OBJECTIVE: REMOVE BURIED TANKS</b>								
Demolish buried concrete sewage system tank in A-Lot	m3	500	RB1I	9.35	\$4,675	100%	\$4,675	\$0
Remove demolished concrete sewage system tank in A-Lot to landfill	m3	500	SB1h	4.85	\$2,425	100%	\$2,425	\$0

Building / Equip Name: \_\_\_\_\_ Bldg / Equip #: 1

ACTIVITY/MATERIAL	Units	Quantity	Cost Code	Unit Cost	Cost	% Land	Land Cost	Water Cost
J OBJECTIVE: LANDFILL FOR DEMOLITION WASTE								
Excavate, load, haul and place borrow material to construct landfill -								
. including access road, berms, operations	m3	21,000	SB3h	5.31	\$111,510	100%	\$111,510	\$0
. Placement of waste materials into landfill	m3	15400	SB3h	5.31	\$81,774	100%	\$81,774	\$0
. Apply cover over landfill	m3	18000	SB3h	5.31	\$95,580	100%	\$95,580	\$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								
. • There was an existing tote road and will remain at abandonment.								
. Remove 10 navigatable water crossings - 30 days x crew of 6	person-days	180	#N/A	600	\$108,000	0%	\$0	\$108,000
. Excavate, load and haul to landfill/Milne Inlet	m3	1702	SB11	3.2	\$5,446	0%	\$0	\$5,446
Additional cost to haul sea containters, culverts, etc 60km to								
. landfill/Milne Inlet	\$/load/km	4440	MHERI	2.81	\$12,476	0%	\$0	\$12,476
. Grade and contour road surfaces using dozer	m3	40000	DSI	0.78	\$31,200	100%	\$31,200	\$0
K SPECIALIZED ITEMS								
Borrow material royalty fees from reclamation activities net of								
. borrow material removed from existing bermed facilities	t	21244	#N/A	2.5	\$53,110	100%	\$53,110	\$0

Subtotal	\$1,404,131	91.0%	\$1,278,208	\$125,923
	Total Buildings	Percent Land	Total Land	Total Water

**Chemicals and Soil Contamination:****1**

ACTIVITY/MATERIAL	Units	Quantity	Cost Code	Unit Cost	Cost	% Land	Land Cost	Water Cost
<b>Note:</b> 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 (approx 300,000L)								
· - Road is 100km long.	\$/km/10 loads	2000	MHERI	2.81	\$5,620	100%	\$5,620	\$0
· Transfer fuel from Milne Inlet fuel farm to tanker	L.S.	1	#N/A	18,000	\$18,000	100%	\$18,000	\$0
D WASTE OIL								
· Prepare hazardous materials for shipping	L.S.	1	#N/A	67,000	\$67,000	100%	\$67,000	\$0
Oils/lubricants - transported to Milne Inlet. Progressive reclamation in 2008 has reduced volume to dispose of at abandonment.								
·	litre	200,000	ORI	0.35	\$70,000	100%	\$70,000	\$0
E PROCESS OR TREATMENT CHEMICALS								
· • None								
F EXPLOSIVES								
· Transport explosives magazines to Milne Inlet	\$/km/3 pcs	600	MHERH	8.42	\$5,052	100%	\$5,052	\$0
G CONTAMINATED SOILS								
Operate Oil water separation/activated carbon at Milne Inlets bermed/lined landfarm each year for 3 years								
·	L.S.	1	#N/A	1E+05	\$115,500	100%	\$115,500	\$0
· Till hydrocarbon impacted soil each year for 3 years.	m3	3750	CSRI	38.5	\$144,375	100%	\$144,375	\$0
Remove GM fuel lines and package for sealift backhaul (cost is included in Activity E of Bldgs & Equip worksheet)								
· Recontour surface (included in Activity K of Bldgs & Equip worksheet)								
Freight community sealift backhaul in 2013 to remove liner, tilling equipment (i.e. loader with tiller drag), and trailer								
·	L.S.	1	#N/A	30000	\$30,000		\$0	\$30,000
· MOB workers	person	24	MM<h	990	\$23,760	90%	\$21,384	\$2,376
· Operate 2-person trailer for 2 months each year for 3 years	month	6	ACCMI	1320	\$7,920	100%	\$7,920	\$0
· Third Party Consultant to verify site cleanup completion	L.S.	1	#N/A	7000	\$7,000		\$0	\$7,000
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	51500	\$51,500	100%	\$51,500	\$0
Subtotal					\$600,367	93.4%	\$560,991	\$39,376
					Total Chemical	Percent Land	Total Land	Total Water

**Water Management Project: \_\_\_\_\_ 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								
. Sludge removal	m3	150	SB1h	4.85	\$728	0%	\$0	\$728
. Regrade two sediment containment ponds with dozer	m3	1000	DSI	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								
. • No treatment plant necessary								
<b>Subtotal</b>					\$1,508 Total Water	0.0% Percent Land	\$0 Total Land	\$1,508 Total Water

Mobilization Name: _____			Mob # <u>1</u>						
ACTIVITY/MATERIAL	Units	Quantity	Cost Code	Unit Cost	Cost	% Land	Land Cost	Water Cost	
A MOBILIZE HEAVY EQUIPMENT									
Equipment to regional centre									
Community sealift for materials from Milne Inlet and Steensby Inlet to Montreal requiring off-site salvage or disposal.	L.S.	1	#N/A	1E+06	\$1,461,471	100%	\$1,461,471	\$0	
Bulk fuel backhaul sealift from Milne	L.S.	1	#N/A	602000	\$602,000	100%	\$602,000	\$0	
Land freight from regional centre	L.S.	1	#N/A	1E+06	\$1,144,477	100%	\$1,144,477	\$0	
Equipment, regional centre to site									
• Sufficient equipment on site from bulk sample program for reclamation activities - NUNA/QC/BIM									
Standby costs for equipment (during decommissioning and shipment)	L.S.	1	#N/A	800000	\$800,000	100%	\$800,000	\$0	
B MOBILIZE CAMP									
• Use existing camp for reclamation									
C MOBILIZE WORKERS									
MOB workers (212 flights accounting for rotations)	person	93	MM>h	2300	\$213,900	90%	\$192,510	\$21,390	
D MOBILIZE MISC. SUPPLIES									
• Sufficient supplies remain from bulk sample program for reclamation activities									
Helicopter Support	hours	92	#N/A	1590	\$146,280	90%	\$131,652	\$14,628	
E MOBILIZE & HOUSE WORKERS person days									
Operate 40-person camp for 5 months	month	200	ACCMI	1320	\$264,000	100%	\$264,000	\$0	
WINTER ROAD									
Operate Milne Inlet Tote Road during reclamation	km	100	WRh	2620	\$262,000	100%	\$262,000	\$0	
F BONDING									
2.5 basis points of total bond amount	0.00025	1	#N/A	1687.4	\$1,687	100%	\$1,687	\$0	
G									
	L.S.	1	#N/A	20000	\$20,000	100%	\$20,000	\$0	
H INSURANCE lump sum									
	L.S.	1	#N/A	100000	\$100,000	100%	\$100,000	\$0	
Subtotal						\$5,015,816	99.3%	\$4,979,798	\$36,018
					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	L.S.	1	#N/A	540000	\$540,000	100%	\$540,000	\$0
. 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	RPT	11000	\$11,000	80%	\$8,800	\$2,200

## B OBJECTIVE: MAINTENANCE

- Except for the landfarm (see Activity G in Chemicals worksheet) no items will remain that need to be maintained post-closure.

Subtotal	\$569,000	96.4%	\$548,800	\$20,200
	Total Pit	Percent Land	Total Land	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. The results from the 2008 environmental geochemical testing program and short term leach tests have demonstrated that there is virtually no potential for enhanced release of acidity or metals in response to oxidative weathering of the material sampled.								
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 (5 years post closure)	visit	1	Vlh	7100	\$7,100	80%	\$5,680	\$1,420
• Annual reporting (5 years post closure)	report	1	RPT	11000	\$11,000	80%	\$8,800	\$2,200
• Annual water sampling (43 samples; 5 years post closure)	year	1	WSh	4300	\$4,300	0%	\$0	\$4,300
• Additional water sampling costs per year		1	WSh	9000	\$9,000	0%	\$0	\$9,000
Subtotal, Annual post-closure costs					\$31,400		\$14,480	\$16,920
Discount rate for calculation of net present value of post-closure cost, %			0.25%				\$0	
Number of years of post-closure activity			5 years				\$0	
Present Value of payment stream					\$155,829	46.1%	\$71,860	\$83,969
					Total Post closure	Percent Land	Total Land	Total Water



**WATER TREATMENT COSTS****ANNUAL VOLUME OF WATER (m3)****Reagent addition rates**

<b>Reagent</b>	<b>kg reagent/m3 water</b>	<b>cost in \$/kg, FOB site</b>	<b>Annual reagent cost</b>
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
<b>TOTAL</b>			<b>\$0</b>

**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 maintenance & snow blowing		\$0
electrician/mechanic for treatment plant & power supply		\$0
<b>Annual cost</b>		<b>\$0</b>
labor, 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
<b>Total, labour and supplies</b>		<b>\$0</b>
<b>TOTAL ANNUAL COSTS, reagents plus labour and supplies</b>		<b>\$0</b>
<b>Average treatment cost, \$/m3</b>		<b>\$0.00</b>

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

<b>Site Access</b>	
annual site access cost	
road	\$0
air	\$0
winter road	\$0

## Unit Cost Table

ITEM	Detail	COST CODE	UNITS	LOW \$	HIGH \$	SPECIFIED \$	COMMENTS
<b>1 excavate Rock, Bulk</b>							
	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	
<b>2 excavate Rock, Controlled</b>							
	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
<b>3 excavate Soil, Bulk</b>							
	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
<b>4 excavate Soil, Controlled</b>							
	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
<b>Geo-synthetics</b>							
	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
<b>Shaft, Raise &amp; Portal Closures</b>							
	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
<b>5 Concrete work</b>							
	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	
<b>6 Vegetation</b>							
	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	
<b>7 Pumps</b>							
	Small, <	PS each		3000	6000	#N/A	
	Large, >	PL each		5000	100000	#N/A	large - 250 hp Gould w/diesel motor
<b>8 PiPes</b>							
	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
	excavate rock from waste dump, short haul, spread	RR3	m3	4.2	5.78	#N/A
	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
	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
<b>22 Buildings - Remove</b>	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
	Steel - teardown	BRS1	m2	35.2	52.8	240	SPECIFIED cost: \$/m2 to break floor slab
	Steel - salvage	BRS2	m2	55	82.5	#N/A	SPECIFIED cost: demolition shear \$/hour operating
<b>23 Power &amp; Pipe Lines</b>							
	Power lines, remove	POWR	each	20.9	4620	#N/A	
						#N/A	
<b>24 Laboratory Chemicals</b>							
	Remove from site	LCR	pallet	1750	2320	#N/A	
	Dispose on site	LCD	each	#N/A	#N/A	#N/A	
<b>25 PCB - Remove from site</b>		PCBR	litre	33	38.5	#N/A	LOW cost: shipping, handling & disposal from Yellowknife
<b>26 Fuel</b>							
	Remove from site	FR	kg	0	1.02	#N/A	
	Burn on site	FB	kg	#N/A	#N/A	#N/A	
<b>27 Oil</b>							
	Remove from site	OR	litre	0.35	1.02	#N/A	
	Burn on site	OB	litre	0.35	0.55	#N/A	
<b>28 Process Chemicals</b>							
	Remove from site	PCR	kg	0.35	2.05	#N/A	
	Dispose on site	PCD	kg	#N/A	#N/A	#N/A	
<b>29 Explosives</b>							
	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	<b>Contaminated Soils</b>						
	Remediate on site	CSR	m3	38.5	120	#N/A	LOW cost: bio-remediate on-site. HIGH cost: ship off-site to landfill as haz. waste
	consolidate & cover	Use cost code items 1 - 4					
	cover in place	Use cost code items 1 - 4					
31	<b>Mobilize Heavy Equipment</b>						
	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	<b>Mobilize Camp</b>						
	<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	<b>Mobilize Workers</b>						
	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	<b>ACCoModation</b>	ACCM	month	1320	1980	#N/A	LOW cost, accom in existing camp, per man, HIGH cost: - supply new camp
35	<b>Mobilize Misc. Supplies</b>	MMS	each	#N/A	#N/A	#N/A	LOW cost: winter road - limited use, LOW snowfall
36	<b>Winter Road</b>	WR	km	1320	2620	#N/A	
37	<b>Visual site Inspection</b>	VI	each	3520	7100	10000	
38	<b>Survey site Inspection</b>	SI	each	#N/A	#N/A	#N/A	
39	<b>Water Sampling</b>	WS	each	5500	9000	#N/A	
40	<b>site inspection RePorT</b>	RPT	each	#N/A	11000	#N/A	
41	<b>Security Guard</b>	SG	pers/mc	5500	7700	#N/A	
42	<b>Maintain Pumping</b>	MP	month	3300	#N/A	#N/A	
43	<b>Clear SpillWay</b>	CSW	each	1870	5280	#N/A	
44	<b>Build Treatment Plant</b>						
	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	<b>Operate Treatment Plant</b>	OTP	m3	0.29	1.65	#N/A	
46	<b>SCarIFY road and install water breaks</b>	SCFY	km	3525	4950	#N/A	

## Unit Cost Table

ITEM	Detail	COST CODE	UNITS	LOW \$	HIGH \$	SPECIFIED \$
<b>water treatment chemicals</b>						
	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		
<b>Typical Labour &amp; Equipment Rates</b>						
	Site manager		\$/hr	70	80	
	Mine superintendent		\$/hr		60	
	Environmental coordinator		\$/hr		60	
	welder		\$/hr	50	60	
	Equipment operator		\$/hr	45	55	
	labour - skilled		\$/hr	35	38	
	labour - unskilled		\$/hr	32	35	
	Security / first aid		\$/hr	38	48	
	Admin.		\$/hr	42	49	
	Front end loader, 900, Cat990		\$/hr		330	
	excavator, Cat230		\$/hr		175	
	dump truck - tandem		\$/hr			
	dump truck off road, Cat 777		\$/hr	265		
	dozer, D8, D10		\$/hr	170	300	