Baffinland Iron Mines Corporation

Roads Management Plan

BAF-PH1-830-P16-0023

Rev 4

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Index of Major Changes/Modifications in Revision 4

Item No.	Description of Change	Relevant Section
1	Updated regulatory framework	Section 1.2
2	Updated roles & responsibilities descriptions (Table 5-2)	Section 5.2

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Abbreviations

Baffinland ....Baffinland Iron Mines Corporation
EHS ..... Environmental, Health, and Safety
EHS Policy .....Environmental, Health, and Safety Policy
EIS .....Environmental Impact Statement
EPCM ..... Engineering, Procurement, Construction, and Management
EPP ..... Environmental Protection Plan
ERP.....Early Revenue Phase
ESIA ..... Environmental and Social Impact Assessment
HADD ..... Harmful Alteration, Disruption, or Destruction
INAC ..... Indian and Northern Affairs Canada
Mary River Project .....the Project
NLCA ..... Nunavut Land Claims Agreement
NTI .....Nunavut Tunngavik Incorporated
OH&S ..... Occupational Health and Safety
OHSAS ..... Occupational Health and Safety Management System
QIA ..... Qikiqtani Inuit Association
VEC ..... Valued Ecosystem Component
VSEC..... Valued Socio-Economic Component

1 INTRODUCTION

1.1 PURPOSE

The Roads Management Plan for the Mary River Project (the Project) has been developed to ensure the protection of people, wildlife and the environment by establishing the proper management of Project roads in recognition of applicable best practices, permits, authorizations, approvals and Inuit Knowledge. The purpose of the Roads Management Plan is to provide controls for a safe and efficient road network for use by the Project and to set out the responsibilities, policies and procedures adopted by the Project to achieve project objectives. The Roads Management Plan applies to all personnel and equipment working for or on-behalf of Baffinland Iron Mines Corporation (Baffinland) including Contractors and Sub-contractors (herein identified as "Contractors").

The Roads Management Plan is applicable to all roads that comprise the Mary River Project road network. The Mary River Project road network consists of the following:

- Service roads around Milne Port facilities.
- The road between Milne Port and Mine Site (the "Tote Road").
- Service roads around the Mine Site facilities, including the mine haul and waste rock haul roads.

The Roads Management Plan (the Plan) provides a practical way to facilitate field implementation of operational, safety or environmental related regulations, practices, and procedures required to eliminate or reduce potential risks. The Plan is a working document for use in the workplace by Project personnel and Contractors, as well as at the corporate level for ensuring commitments made in policy statements are implemented and monitored.

1.2 REGULATORY FRAMEWORK AND WORK SCOPE

A 2015 Work Plan was submitted to the Nunavut Water Board and others on October 31, 2014 by Baffinland. In order to expand the work scope, an updated version of the 2015 Work Plan, the 2015 Work Plan Addendum, was submitted to the Nunavut Water Boards as well as other regulators and stakeholders on December 12, 2014. Works and activities proposed have been screened by the NIRB, unless noted otherwise, and have been considered in the amended Project Certificate No. 005 - Amendment 1 issued by the NIRB on May 28, 2014. The general scope for the 2015 Work Plan includes:

- The construction of additional infrastructure, laydowns, pads and access roads required for site development at Milne Port and the Mine Site for launching the Early Revenue Phase of the Mary River Project.

- The continuation of Tote Road upgrades including bridge maintenance, localized road realignment, road widening, culvert modifications and the reduction of steep grades and sharp curves where necessary.
- Ongoing environmental effects monitoring and data collection
- Ongoing development of approved quarries and borrow sources to provide access to aggregate for road upgrades, construction projects and sand for winter sanding, minor fill, and routine road maintenance.
- The development and operation of the mine, ore crushing and land transportation, stockpiling and marine shipment of ore

To support the above activities, Baffinland will need to use and to further develop the Mary River Project road network as described within this Plan under authorization from the Mary River Project Certificate No. 005 - Amendment 1, Baffinland's Commercial Lease (Q13C301) with the Qikiqtani Inuit Association (QIA) and respective Water Licence(s) and Land Use Permits.

The existing Mary River Project road network infrastructure at Milne Port and the Mine Site will continue to be used as approved and designed, for with personnel levels remaining within the design capacity at each site. For 2015, this Plan will be applied as appropriate to all project sites applicable under project authorizations.

It shall be noted that given that Phase 2 of Baffinland's proposed Early Revenue Phase (ERP) is currently under review, resulting changes to activities, if any, not already considered during this revision will be captured in subsequent revisions if approval for Phase 2 of Baffinland's ERP is granted.

1.3 Baffinland Road Policy

For safety reasons, use of service roads at Milne Port and the Mine Site will be restricted to Baffinland's employees and Contractors.

The Milne Port–Mine Site road (Tote Road) is a public road. Baffinland will not restrict access to this road.

1.4 Relationship to Other Management Plans

The construction, upgrade, and maintenance of the Mary River Project road network can affect site water quality, fish habitat, vegetation and other environmental components. Therefore, this plan must be viewed in consideration with:

- Environmental Protection Plan (BAF-PH1-830-P16-0008)
- Surface Water and Aquatic Ecosystems Management Plan (BAF-PH1-830-P16-0026)
- Fresh Water, Sewage and Wastewater Management Plan (BAF-PH1-830-P16-0010)
- Interim Abandonment and Reclamation Plan (BAF-PH1-830-P16-0012)
- Air Quality and Noise Abatement Management Plan (BAF-PH1-830-P16-0002)

- Emergency Response Plan (BAF-PH1-830-P16-0007)
- Spill Contingency Plan (BAF-PH1-830-P16-0036)
- Explosives Management Plan (BAF-PH1-830-P16-0009)
- Terrestrial Environmental Management and Monitoring Plan (BAF-PH1-830-P16-0027)
- Waste Management Plan (BAF-PH1-830-P16-0028)
- Borrow Pits and Quarry Management Plan (BAF-PH1-830-P16-0004)
- Borrow Source Management Plan (BAF-PH1-830-P16-0005)
- Oil Pollution Emergency Plan - Milne Port (OPEP) (BAF-PH1-830-P16-0013)
- Cultural and Heritage Resource Protection Plan (BAF-PH1-830-P16-0006)

1.5 Update of this Management Plan

The Roads Management Plan is a "living document". The Roads Management Plan will be updated as required based on management reviews, incident investigations, regulatory changes, or other Project-related changes.

1.6 Baffinland's Commitments

Baffinland will provide the necessary human, material and financial resources to implement and maintain the Health, Safety and Environment Management System. For Baffinland's Health, Safety, and Environment Policy, see FIGURE 2-1. For Baffinland's Sustainable Development Policy, see FIGURE 2- 2.

2 BAFFINLAND POLICY

2.1 HEALTH SAFETY AND ENVIRONMENT (HSE) POLICY

Baffinland
Iron Mines Corporation

Mary River Project
Health, Safety and Environment Policy

The Baffinland Iron Mines Corporation (BIMC) Mary River Project Health, Safety and Environment Policy is a statement of our commitment to achieving a safe, healthy and environmentally responsible workplace. We will not compromise this policy for the achievement of any other organizational goal.

The Mary River Project implements this Policy through the following commitments:

- Continual improvement of safety, occupational health and environmental performance.
- Meeting or exceeding the requirements of regulations and company policies.
- Integrating sustainable development principles into our decision-making processes.
- Maintaining an effective Health, Safety and Environment Management System.
- Sharing and adopting improved technologies and best practices to prevent injuries, occupational illnesses and environmental impacts.
- Engaging stakeholders through open and transparent communication.
- Efficiently using resources, and practicing responsible minimization, reuse, recycling and disposal of waste.
- Rehabilitation of disturbed lands to a safe, acceptable, and localized state.

Our commitment to provide the leadership and action necessary to accomplish this policy is exemplified by the following principles:

- All injuries, occupational illnesses and environmental impacts can be prevented.
- Employee involvement and active contribution is essential and required.
- Management is responsible for preventing injuries, occupational illnesses and environmental impacts.
- Working in a manner that is healthy, safe and environmentally sound is a condition of employment.
- All operating exposures can be safeguarded.
- Training employees to work in a manner that is healthy, safe and environmentally sound is essential.
- Prevention of personal injuries, occupational illnesses and environmental impacts is good business.
- Respect for the communities in which we operate is the basis for productive relationships.

We have a responsibility to provide a safe workplace and utilize systems of work to meet this goal. All employees must be clear in understanding the personal responsibilities and accountabilities in relation to the tasks we undertake.

The Mary River Project has no higher priority than the health and safety of all people working on our behalf and the responsible management of the environment. In ensuring our overall profitability and business success every Baffinland and business partner employee working at one of our work sites is required to adhere to this policy.

Tom Peddon
President and Chief Executive Officer
March 2013

FIGURE 2-1: HEALTH SAFETY AND ENVIRONMENT (HSE) POLICY

2.2 BAFFINLAND SUSTAINABLE DEVELOPMENT POLICY

Baffinland Iron Mines Corporation

At Baffinland Iron Mines Corporation, we are committed to conducting all aspects of our business in accordance with the principles of sustainable corporate responsibility and always with the needs of future generations in mind. Everything we do is underpinned by our responsibility to protect the environment, to operate safely and fiscally responsibly and to create authentic relationships. We expect each and every employee, contractor, and visitor to demonstrate a personal commitment to this policy through their actions. We will communicate the Sustainable Corporate Policy to the public, all employees and contractors and it will be reviewed and revised as necessary on an annual basis. These four pillars form the foundation of our corporate responsibility strategy:

HEALTH AND SAFETY

1. We strive to achieve the safest workplace for our employees and contractors; free from occupational injury and illness from the very earliest of planning stages. Why? Because our people are our greatest asset. Nothing is as important as their health and safety.
2. We report, manage and learn from injuries, illnesses and high potential incidents to foster a workplace culture focused on safety and the prevention of incidents.
3. We foster and maintain a positive culture of shared responsibility based on participation, behaviour and awareness. We allow our workers and contractors the right to stop any work if and when they see something that is not safe.

ENVIRONMENT

1. We employ a balance of the best scientific and traditional Inuit knowledge to safeguard the environment.
2. We apply the principles of pollution prevention and continuous improvement to minimize ecosystem impacts, and facilitate biodiversity conservation.
3. We continuously seek to use energy, raw materials and natural resources more efficiently and effectively. We strive to develop pioneering new processes and more sustainable practices.
4. We understand the importance of closure planning. We ensure that an effective closure strategy is in place at all stages of project development and that progressive reclamation is undertaken as early as possible to reduce potential long-term environmental and community impacts.

INVESTING IN OUR COMMUNITIES AND PEOPLE

1. We respect human rights and the dignity of others. We honour and respect the unique culture, values and traditions of the Inuit people.
2. We contribute to the social, cultural and economic development of sustainable communities adjacent to our operations.
3. We honour our commitments by being sensitive to local needs and priorities through engagement with local communities, governments, employees and the public. We work in active partnership to create a shared understanding of relevant social, economic and environmental issues, and take their views into consideration when making decisions.

TRANSPARENT GOVERNANCE

1. We will take steps to understand, evaluate and manage risks on a continuing basis, including those that impact the environment, employees, contractors, local communities, customers and shareholders.
2. We ensure that adequate resources are available and that systems are in place to implement risk-based management systems, including defined standards and objectives for continuous improvement.
3. We measure and review performance with respect to our environmental, safety, health, socio-economic commitments and set annual targets and objectives.
4. We conduct all activities in compliance with the highest applicable legal requirements and internal standards
1. We strive to employ our shareholder's capital effectively and efficiently. We demonstrate honesty and integrity by applying the highest standards of ethical conduct.

Tom Paddon
President and Chief Executive Officer
September 2011

FIGURE 2-2: SUSTAINABLE DEVELOPMENT POLICY

3 TARGETED VECS

The targeted valued ecosystem components (VECs) and valued socio-economic components (VSECs) are:

- Water quality.
- Fish habitat.
- Terrestrial wildlife.
- Vegetation.
- Health and safety of employees.
- Cultural resources and heritage.

In addition to the VECs and VSECs, this plan considers the occasional use of the roads by residents of the neighbouring communities (Pond Inlet and Igloolik/Hall Beach residents).

4 MITIGATION MEASURES

4.1 CONSTRUCTION OF ROADS

Road design shall be based on current Best Engineering Practice, for example Design of Surface Mine Haulage Roads - A Manual (US Department of the Interior, Bureau of Mines) and shall comply with applicable federal and local laws and regulations. The wearing surface of the roads will be designed based on the loads from the specific design vehicle for the road and shall be profiled to drain water from the surface to appropriately designed swales or drainage pathways adjacent to the road. At suitable intervals along the swales or pathways, settlement ponds shall be placed to provide sediment capture prior to the water being channelled to existing water courses, as required. Swales and settlement ponds shall be designed to cope with the peak flow specified with the required return period event.

Roads are constructed for all-season use. Cut and fill locations along road alignments and excavation of sand and gravel from borrow areas exposes soil that is potentially prone to erosion. These activities can result in a change in the ground thermal regime, as a new active layer is introduced. Modification to the thermal regime can induce melting of ground ice present, resulting in thaw settlement and depressions, and therefore areas that are more prone to erosion and ponding of water and ultimately road hazards. Roads will be designed to minimize the potential for ground ice melting, erosion, and ponding of water and to enable rapid discharge of water through the road embankment via existing drainages and creeks/streams (e.g., by appropriately designed and constructed culverts).

Whenever practicable, road construction will be scheduled to minimize impacts on the receiving environment.

The Surface Water and Aquatic Ecosystems Management Plan (BAF-PH1-830-P16-0026) will be applied to road construction and operational activities in an effort to minimize erosion, sedimentation, and to ensure the protection of fish habitat along the road where there are stream crossings or nearby lakes and ponds.

4.1.1 Road Alignment

Before finalizing the alignment of a road, unique landform and archaeological resources will be surveyed. Whenever possible, the alignment of new roads will avoid unique landforms and archaeological sites. At all times activity in or around unique landforms and archaeological sites will be conducted as per the appropriate regulations and authorizations.

4.1.2 Creek and River Crossing

Construction activities at water crossings must comply with the terms and conditions of the Type "A" Water Licence (2AM-MRY1325), Department of Fisheries and Oceans (DFO) authorizations, and any other regulatory approvals. For mitigation measures related to the protection of surface water quality and fish habitat, refer to the Surface Water and Aquatic Ecosystem Management Plan (BAF-PH1-830-P16-0026).

Several operating procedures have been developed to mitigate the negative impacts of erosion and damage to creek crossing structures and fish habitat. These measures include:

- Clearing snow from roads where culverts/crossings are located.
- Excavating downstream and upstream of crossings before the onset of freshet and monitoring culverts for clearance of snow and ice.
- Where snow and ice blockage occurs, ensuring that blockage is removed to re-establish adequate flow.
- Regular monitoring of crossing conditions to ensure acceptable conditions for fish migration.
- Performing repairs/modifications to crossing structures as required based on results of monitoring and risk assessment considering fish habitat protection.
- For locations where there is a problem with culvert outlet scour and erosion, construction of rocky ramps downstream of the crossings will be considered. Occasionally, reinstalling culverts and/or installation of additional overflow culverts will be required.
- During construction of docks, for all works requiring the use of explosives (blasting) in or near water bodies, the Guidelines for Use of Explosives in or near Canadian Fisheries Water, 1998" will be followed. For any locations where the guidelines cannot be conformed with, DFO will be consulted before blasting starts.
- Fuel required for road works or water crossing works will be stored in fuel drums or double-walled day tanks within secondary containment. Drip pans will be used during refueling operations to prevent spills.
- All bridges and culvert crossings are designed for an appropriate hydraulic event return period with allowance made for ice accumulation.
- Each stream/river crossing is assessed for potential loss of fish habitat. Some crossings will result in the serious harm of fish habitat under the Fisheries Act, and an authorization will be sought from DFO.

- Refuelling stations are equipped to contain minor spills or leaks during refuelling. The liner (e.g., 40-mm hypolon liner or equivalent) is protected by sand bedding. Vehicles and mobile equipment drive onto this bedding for refuelling. All fuel transfer is done using pumps.
- Smaller temporary fuel storage consisting of double-walled iso-containers may be established at construction camps, quarries and major bridge sites. These smaller tanks will be re-supplied using tanker trucks.
- For each method of fuel storage and transfer, specific procedures related to fuel storage and transfer will be developed and proper containment and emergency response equipment will be provided to meet or exceed regulatory requirements,(refer to the EPP for more detail on the necessary fuel storage/transfer protection measures)
- The Spill Contingency Plan (BAF-PH1-830-P16-0036) will govern land-based operations, and a Transport Canada-approved Oil-Handling Facility (OHF) Plan (i.e. Milne Port OPEP) will govern ship-to-shore fuel transfers. Both plans shall be used alongside the Emergency Response Plan (BAF-PH1-830-P16-0036).

4.2 Operation

4.2.1 Road Maintenance

Roads will be regularly graded to prevent rutting (furrow creation). Active borrow sites will be maintained to secure access to sand and gravel as required (refer to Borrow Pit and Quarry Management Plan, BAF-PH1-830-P16-0004).

Snow Removal

During the winter months, drifting snow is likely to accumulate in certain areas of the road network. Roads will be designed to minimize drifting snow on the road embankment. Snow fences will be considered in those areas of unavoidable accumulation to minimize these effects if required. Roads will be cleared of snow as necessary.

Dust Control

During the summer months, road dust has the potential to become a Health, Safety and Environmental concern. Where and when appropriate, dust suppressants may be used on the roads, particularly on heavy-use sections, as per Dust Management Protocol for the Mary River Project road network (see Attachment A). During the winter months there will be no dust suppressants used on the roadways.

Road Closure and Management

Whenever unsafe conditions are identified (washout, severe rutting, vehicle breakdown, whiteout conditions, etc), the road will be closed until the required maintenance is completed or conditions have

improved. Road closure and traffic management will be the responsibility of the Mine Operations – Ore Handling Superintendent. Tote Road travel and road management will adhere to the Tote Road Travel Procedure (BAF-PH1-810-PRO-0002) as presented in Attachment B.

4.2.2 Freshet Management and Spring Thaw

High flows occurring during freshet can result in erosion and damage to road embankments, stream-crossing structures, and fish habitat. Under Baffinland's DFO authorizations and Letters of Advice for road and stream-crossing construction and ongoing operations, impacts on fish habitat must be minimized and fish passage for all life stages must be maintained. Several operating procedures have been developed to mitigate potential impacts caused by freshet events. These procedures include:

- Establishing/marking locations of all susceptible crossings.
- Clearing of snow from roads where culverts/crossings are located.
- Excavating downstream and upstream of creek crossing before the melt.
- Monitoring culverts for clearance of snow and ice.
- Where snow and ice blocks occur, ensuring that that blocks are removed to ensure free flow of water.
- Monitoring crossing conditions regularly to ensure acceptable conditions for fish migration.
- Conducting repairs/modifications to crossing structures as required.

4.2.3 Speed Control and Signs

Speed limits for Project roads have been established and communicated to all Project personnel. All project personnel who operate vehicles are required to undergo vehicle specific training sessions prior to the operation of any vehicle on-site which includes training on all traffic management procedures and restrictions. Road signs will indicate hazards and blind road curves or intersections, radio frequencies, and radio call-in requirements. Traffic Management Plans for the Mine Site and Milne Port that have been developed are presented in Attachment C.

Markers are positioned approximately each kilometre along to the Tote Road. These markers are used to identify position of incidents, in the case of emergencies, and road users. . They are also used for reporting wildlife sightings and non-Project human visitor observations.

4.2.4 Right of Way

Whenever possible, all traffic will yield to wildlife encountered on roads and the lighter vehicle will yield to heavier equipment.

4.2.5 Use of Road by the Public

The Tote Road may also be used by non-Project individuals (snowmobile, ATV) from nearby communities (e.g., Pond Inlet and Igloolik). Extreme care must be taken at all times whenever non-Project individuals

are sighted along Project roads as they might not be aware of the hazards associated with Project activities and traffic.

Sighting of non-Project personnel are reported and recorded on the Human Use logs posted at accommodation complexes. Refer to the Environmental Protection Plan (BAF-PH1-830-P16-0008), Section 2.2 for more details.

All visitors and non-Project individuals traveling near the Tote Road or visiting Project sites will adhere to the Hunter and Visitor Site Access Procedure (BAF-PH1-810-PRO-0002) as presented in Attachment E.

4.2.6 Wildlife Sighting

Wildlife sightings along roads are reported and recorded as incidental observations on posted wildlife logs at accommodations complexes. Refer to the Environmental Protection Plan (BAF-PH1-830-P16-0008), Section 2.23 for more details.

4.2.7 Communication

Baffinland vehicles are equipped with radios. Unsafe road conditions must be reported by drivers. To ensure safety and prevent accidents, drivers must radio their positions when departing or arriving at camps and when approaching blind curves or hills. These call-in locations are posted and communicated to vehicle operators during orientation and mandatory training sessions.

5 ROLES AND RESPONSIBILITIES

5.1 Maintenance and Management Responsibilities

The responsibility of the Mary River Project road network use, maintenance and management is as follows:

5.1.1 Mine Operations – Ore Handling Superintendent

The Mine Site and Milne Port Mine Operations – Ore Handling Superintendents have the lead responsibility for managing traffic on the Mary River Project road network including:

- Monitoring weather forecasts and conditions.
- Identify problem areas on the network that may impact driver safety and take appropriate action.
- Problem areas may include;
- White-out conditions
- Road wash-out
- Vehicle breakdown
- Poor roadway conditions

5.1.2 Supervisor

Baffinland Supervision is responsible for the following:

- Ensure that any worker operating a vehicle on the Mary River Project road network is trained and qualified regarding road safety and driving communication protocols.
- Ensure that any light vehicles or work equipment travelling the Tote Road in winter months, or in periods of severe weather conditions are equipped with an emergency survival kit.
- Ensure that any workers traveling on the Mary River Project road network have all the required safety equipment, and are following all PPE requirements and procedural controls.
- Ensure their work crew complies with the process for recording when vehicles enter and depart Project sites when using the Tote Road.
- Ensure weather conditions are suitable for the travel or work activity required.

5.1.3 EMPLOYEE

All personnel using the Mary River Project road network are responsible to comply with the requirements of this Plan.

5.2 ENVIRONMENTAL RESPONSIBILITIES

From an environmental standpoint, environmental impact of the Mary River Project road network construction, maintenance and use will be managed by the Baffinland Environmental Team. The Baffinland Environmental Team is organised into two parts, on site as well as off site. The organisational structure for the Mary River Project in relation to the environment discipline is shown in the Table 5 below. Communication channels are described as liaisons in the tables outlining the responsibilities and accountabilities in the following sections.

5.2.1 ENVIRONMENTAL PROJECT TEAM

5.2.1.1 THE BAFFINLAND ENVIRONMENTAL TEAM

The Baffinland Environmental Team will oversee all environmental and community works on and off site. The Baffinland Corporate Environmental Team responsibilities are summarized in TABLE 5-1.

TABLE 5-1: BAFFINLAND IRON MINES CORPORATION SENIOR MANAGEMENT

Baffinland Iron Mines Corporation Senior Management	
Position	**Responsibilities and Accountabilities**
Project Director	• Reports to Baffinland's CEO • Overall accountability for the Project execution • Allocation of resources (human and financial) for the implementation of Baffinland's commitments and objectives related to health, safety and environment during construction of the Project • Accountable for on-site environmental, health and safety performance during construction of the Project
VP Operations	• Reports to Baffinland's CEO • Overall accountability for the operation of the Project

Baffinland Iron Mines Corporation Senior Management	
Position	**Responsibilities and Accountabilities**
	• Allocation of resources (human and financial) for the implementation of Baffinland's commitments and objectives related to health, safety and environment during operation • Accountable for on-site environmental, health and safety performance during operation
VP Sustainable Development, Health, Safety and Environment	• Reports to Baffinland's CEO • Establish corporate environmental policies and objectives • Monitors and reports on Baffinland's performance related to environmental, health and safety policies and objectives • Community liaison • Liaise with regulatory authorities • Obtains necessary permits and authorizations • Monitors compliance with regards to terms and conditions of permits and licences • Routine EHS audit of contractor performance while on site
Manager Port and Logistics	• Reports to Baffinland's VP Operations • Accountable for procurement and purchasing • Ensure that environmental commitments, policies and objectives are included in all contract documents
VP Corporate Affairs	• Reports to Baffinland's CEO • Accountable for external communication (Governments, media, NGO, others) related to Baffinland's press releases and overall communication of site incidents/events

The Baffinland Environmental Team will oversee all environmental activities on site. These responsibilities on site are outlined in **TABLE 5-2**.

TABLE 5-2: BAFFINLAND IRON MINES CORPORATION ON-SITE ENVIRONMENTAL TEAM

Baffinland Iron Mines Corporation On-Site Environmental Team	
Position	**Responsibilities and Accountabilities**
Environmental Manager	• Reports directly to VP Sustainable Development, Health, Safety and Environment and Indirect reporting and coordination with Operations VP and Director Environment • Overall accountability for environmental staff and performance at site • Coordinates implementation and monitors the performance of the Environmental Management System at site • Liaises with the senior management, regulators and stakeholders • Ensures effective monitoring and auditing of environmental performance of departments and contractors on site and identifies opportunities for improvement • Monitors compliance with permits, licenses and authorizations • Ensures all regulatory environmental monitoring and reporting requirements (monthly, annual) are met • Leads and coordinates site permitting requirements. • Initiates and oversees environmental studies • Oversees investigations and reporting of environmental incidents to regulatory bodies, stakeholders and senior management • Reviews and updates environmental management plans
Environmental Superintendent	• Reports to Environmental Manager • Specific accountabilities for environmental monitoring and reporting

Baffinland Iron Mines Corporation On-Site Environmental Team	
Position	**Responsibilities and Accountabilities**
	• Leads investigations and reporting of environmental incidents onsite • Serves as the liaison for regulators during onsite inspections and visits • Provides ongoing environmental education and environmental awareness training to all employees and contract workers • Oversees environmental database management • Prepares updates for management plans
Environmental Coordinator	• Reports to the Environmental Superintendent and Manager • Specific accountabilities for environmental monitoring and reporting • Provides day to day direction to Environmental staff onsite • Serves as a liaison for regulators during onsite inspections and visits. • Provides ongoing environmental education and environmental awareness training to all employees and contract workers • Assists with environmental database management
Environmental Advisor	• Reports to the Environmental Superintendent and Manager • Specific accountabilities for environmental monitoring and reporting • Assists with environmental database management • Prepare updates for management plans
Environmental Monitor and Technician	• Reports to the Environmental Superintendent or designate • Assists with environmental database management • Assists with monitoring and sampling activities as per the Project's management plans
QIA Monitor	• Works alongside the Baffinland Environment Department to ensure the proper implementation of all environmental management and monitoring plans • Acts as the QIA liaison for onsite environmental matters
Environmental Support Groups (Consultants, etc.)	• Assists with sampling, monitoring and reporting activities as required by permits, licenses and environmental management plans • Provides technical expertise to various environmental studies

5.3 Mary River Project Organizational Charts

For further information regarding the Mary River Projects organizational structure in relation to the environment discipline, please refer to the FIGURE 5-1 below:

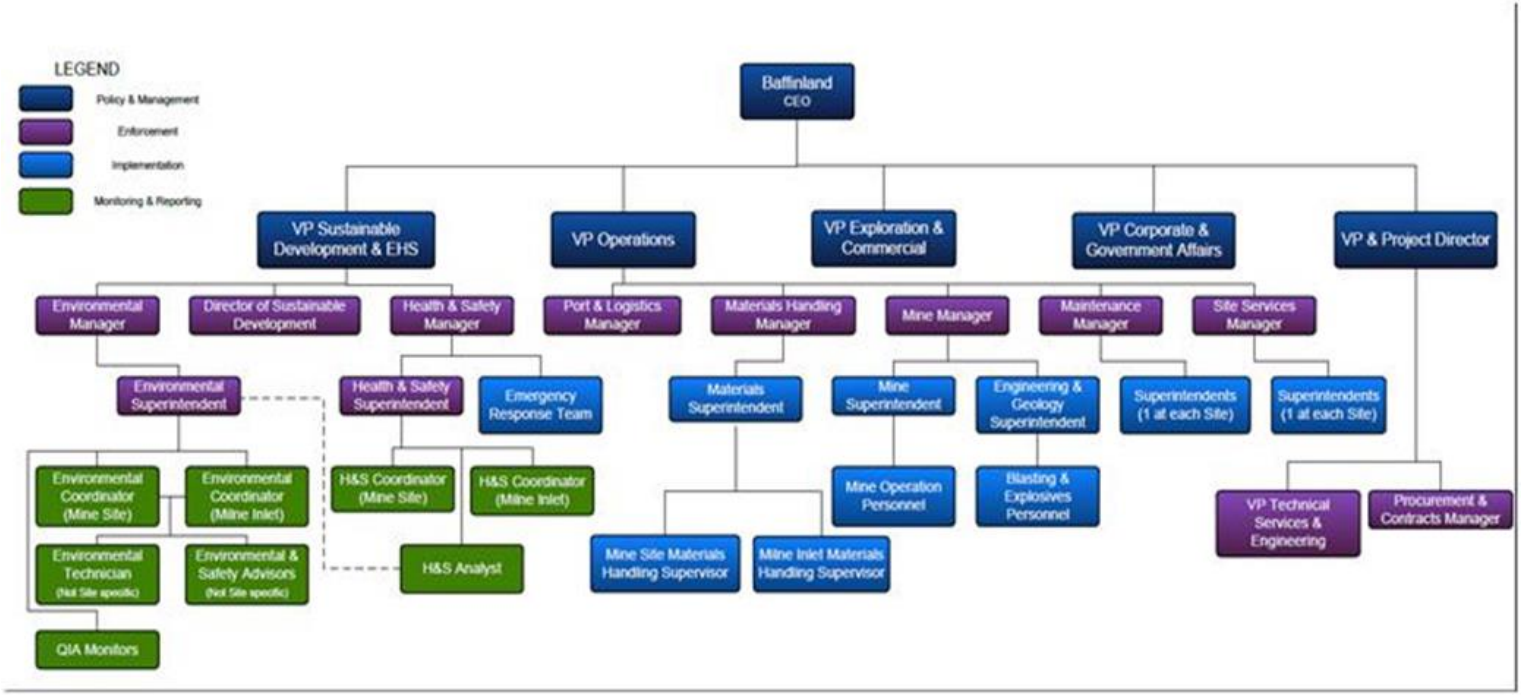


FIGURE 5-1: MARY RIVER PROJECT ORGANIZATION CHART

6 PROFORMANCE INDICATORS AND THRESHOLD

The ultimate performance indicators are the number of vehicle accidents recorded and the number of harmful vehicle-wildlife interactions (e.g., where wildlife are injured or killed). Baffinland's objectives for the Mary River Project road network are ZERO accidents and ZERO road related wildlife kills.

7 MONITORING AND REPORTING REQUIREMENTS

7.1 ROAD MAINTENANCE

Roads and water crossings are inspected regularly for signs of degradation and maintenance requirements. Periodic visual inspections will be conducted on all roads by trained personnel and will occur at regular intervals and after any vehicle collisions, heavy precipitation events or construction activities occur. The Mary River Project road network shall be continually inspected over the life of the Project. Road safety, stability and erosion are several of the main factors that will be investigated during the routine inspections.

7.2 INCIDENTS

Incidents are reported to the Health and Safety Superintendent and/or the Environmental Superintendent, depending the nature of the incident, who will in turn communicate the incident to senior management. All incidents are reported, using the Baffinland Incident Investigation Form, and investigated to determine the cause(s) of the incident as well as the corrective actions necessary to prevent the reoccurrence of the incident.

7.3 USE OF ROADS BY NON-PROJECT INDIVIDUALS

The Health and Safety Manager, in concert with the Environmental Manager, maintains a registry of sightings, locations and frequencies of non-Project-related individuals in a human use log. For reporting requirements and types of observations to be recorded, see the Environmental Protection Plan (BAF-PH1-830-P16-0008), Section 2.2. This information is used to formulate policies and initiatives for Project road use, wildlife harvesting observations, and other related matters. The information is reported annually and upon request to government agencies and stakeholders.

7.4 WILDLIFE SIGHTING

The Environmental Manager, in concert with the Health and Safety Manager, maintains a registry of wildlife sighting locations and frequencies. For reporting requirements and types of observations to be recorded, see the Environmental Protection Plan (BAF-PH1-830-P16-0008), Section 2.23. This information is used to inform terrestrial wildlife studies and to formulate mitigation measures for wildlife protection, and is included in annual (or more frequent) reports to government agencies and stakeholders.

8 ADAPTIVE STRATEGIES

Baffinland is committed to continuous improvement of its work activities with the aim of reducing risks to the environment and improving operational safety and efficiency. The strategy employed at Baffinland is regular monitoring supported by operational change and adoption of other mitigation measures when warranted.

As per the requirements of Baffinland's EHS Management Framework (BAF-PH1-830-STD-0001), Baffinland will conduct and document regular management reviews of its Road Management Plan. Such reviews will ensure monitoring results for the Road Management Plan are integrated with other aspects of the Project and that necessary adjustments are implemented as required. These reviews also provide a formal mechanism to assess effectiveness of management in achieving company objectives and maintaining ongoing compliance with Project permits and authorizations.

Attachment A - Dust Management Protocol

Baffinland Iron Mines Corporation
Mary River Project

Dust Management Protocol for the Mary River Project Roads

Revision No.:	A	**Procedure Number:**	
Revision Date:	July 31, 2013	**Date Reviewed:**	July 31, 2013
Date Revision Effective:	August 1, 2013		

1. Introduction

Under Baffinland Iron Mines Corporation (Baffinland) project approvals from the Nunavut Impact Review Board (NIRB), Baffinland has committed to "developing and implementing mitigation measures which control fugitive dust emissions" (NIRB, Final Hearing Report Terms and Conditions, Dec 28, 2012, Appendix A, #2). The objective of this Dust Management Protocol for the Mary River Project roads is to establish the operational requirements that will be implemented on the Mary River Project (the Project) to meet this commitment and the commitments established in the Mary River Project Health, Safety and Environment Policy (2013) to achieve a safe, health and environmentally responsible workplace.

Dust is an inevitable problem on all project roads and the control of dust must be a fundamental part of any environmental management plan. Dust on project roads is formed when fine particles become entrained in the atmosphere by the turbulent action of wind or by the mechanical disturbance of fine materials. Dust is a concern from safety, health, environment and operational standpoint. It can lead to:

- decreased visibility along project roads leading to increased risks of vehicle accidents.
- potentially adverse health effects for people who inhale airborne particles (especially a concern for people with prior respiratory issues).
- potentially adverse environmental effects including limiting photosynthesis levels on plants due to dust deposition and introducing contaminates to water ways.
- premature wear on engines and motor vehicles from increased inhalation of fine particles into engines on roadways.

To help mitigate the concerns, the Mary River Project will employ the following protocol to manage dust on project roads.

2. Dust Suppression Protocol

2.1 Determining When Dust Suppression is Required

Dust suppression methods may only be used on Mary River Project Site Roads when 'significant' dust generation is occurring. The determination if dust generation is significant is at the professional opinion and discretion of the Senior Construction Representative on-site with consultation with the Baffinland Environmental Department Representative on-site.

As a guideline, dust that is visibly being carried as a cloud off the roadway should be considered significant.

2.2 Primary Dust Suppression – Water

The wetting of road surfaces with water will be the primary method to mitigate dust concerns on the Mary River Project roads. If *significant* dust generation is occurring the following conditions shall be adhered to for the wetting of road surfaces with water:

- Water shall be collected only from approved sources as directed by the on-site Baffinland Environmental representative to ensure that the quality of water being used for dust suppression meets all water quality requirements for discharge under the Projects water use licenses and land use permits.
- Contaminated water shall not to be used for dust suppression.
- Water shall be applied to roads using on-site water trucks using a spray bar arrangement.
- The rate of water application should be enough to suppress dust but not sufficient to allow water to puddle or pool on the road surface.
- The frequency or rate of water application will vary depending upon the prevailing site conditions and shall be determined by the Senior Construction representative on-site with consultation with the Baffinland Environmental Department representative on-site.
- Only trained operators assigned and trained on the water truck operation shall be used to apply water on Mary River Project site roads to suppress dust on a as required basis.
- On a daily basis water volume and source used for dust suppression shall be tracked by and reported to the Baffinland Environmental Department representative on-site.

2.3 Secondary Dust Suppression – Calcium Chloride (CaCl)

The Government of the Nunavut, Environmental Protection Service, Department of Sustainable Development has a guideline, Environmental Guideline for Dust Suppression (as shown in Attachment A), that sets out requirements to be followed when using chemical dust suppressants in Nunavut. Currently there are three (3) approved dust suppressants in Nunavut: calcium chloride, Bunker C and DL10. The Mary River Project has restricted the list of approved chemical dust suppressants on project roads to calcium chloride (CaCl) only. 'Calcium Chloride' by Sel Warwick Inc. of Victoriaville, Québec is offered as an example of a commercially manufactured CaCl that can be used on Mary River Project Roads (see Attachment B for MSDS Sheet).

Calcium Chloride may be applied as a dust suppressant on Mary River Project roads if measures are needed to mitigate the safety, health, environmental and/or operational

concerns arising from dust generation on Project roads *and* if primary dust suppressant is deemed to be ineffective due to operational restrictions (e.g. equipment/operator availability), weather conditions or safety reasons.

It is at the discretion of the Senior Construction representative on-site with consultation with the Baffinland Environmental Department representative on-site if the use of CaCl as a dust suppressant is necessary.

If 'significant' dust generation is occurring and secondary dust suppression is deemed required, the following conditions shall be adhered to for the application of CaCl on Mary River Project roads. CaCl shall be applied to in a granular or brine solution.

2.3.1 Application Timing

- If possible, work should be applied to a lightly wetted road or scheduled after a light rainfall, when unpaved road surfaces and accumulated aggregate are damp and better able to absorb control measures.
- While damp surfaces are desirable, working in rain or on overly wet/saturated roadbeds shall be avoided as CaCl is more easily transported in runoff to roadside soils and nearby watercourses.

2.3.2 Granular Application

- As a guideline, 0.5 kg of CaCl shall be applied for every square meter of road area (or 1 lbs/yd)
- If possible, granular CaCl shall be applied using a spinning disk vehicle mounted system. If a vehicle mounted system is not available, CaCl shall be applied in accordance with all other requirements evenly across project roads manually.
- Granular CaCl shall be applied to a pre-wetted surface (or after a light rainfall) however, avoid applying CaCl to overly wet or saturated roadbeds where there is a high potential for chemical transportation.
- Ensure the application of granular CaCl is limited to the travelled road surface.
- Be cautious applying granular CaCl to road surfaces near watercourses or over watercourse crossings.
- Only a trained personnel shall be used to apply granular CaCl on Mary River Project Site Roads to suppress dust on a as required basis.
- Have a spill response plan in place and a functional spill kit on each applicator and/or in application area.
- On a daily basis volume of granular CaCl shall be tracked and reported to the Baffinland Environmental Department representative on-site.
- Ensure all equipment used on site is well maintained and free of fluid leaks.

2.3.3 Brine Production

- Water for brine solution shall be collected only from approved sources as directed by the on-site Baffinland Environmental representative to ensure that the quality of water being

used for dust suppression meets all water quality requirements for discharge under the mine's water use licenses and land use permits.

- Contaminated water shall not to be used for CaCl brine solution production.
- On a daily basis water volume and source used for brine production shall be tracked by and reported to the Baffinland Environmental Department representative on-site.

2.3.4 Brine Application

- CaCl brine solution shall be applied to roads using on-site water truck using spray bar arrangement.
- The rate of CaCl brine application should be enough to suppress dust but not sufficient to allow water to puddle or pool on the road surface.
- Ensure the application of CaCl brine is limited to the travelled road surface.
- Be cautious applying CaCl brine to road surfaces near watercourses or over watercourse crossings.
- The frequency or rate of CaCl brine application will vary depending upon the prevailing site conditions and shall be determined by the Senior Construction representative on-site with consultation with the Baffinland Environmental Department representative on-site
- Only a trained operator(s) assigned and trained on the water truck operation shall be used to apply water on Mary River Project Site Roads to suppress dust on a as required basis.
- Have a spill response plan in place and a functional spill kit on each applicator and/or in application area.
- On a daily basis brine volume used for dust suppression shall be tracked by and reported to the Baffinland Environmental Department representative on-site.
- Ensure all equipment used on site is well maintained and free of fluid leaks.

2.3.5 Storage

- CaCl shall be stored in accordance with applicable regulations and shall be handled with care.
- Transfer and loading of CaCl shall occur at designated sites away from watercourses.
- Care shall be taken to avoid spilling chemicals during transfer and loading.
- Equipment and tools shall be cleaned in a designated area, if possible. Any wash water generated by cleaning tools and equipment shall be managed in a manner that will prevent its direct release to watercourses.
- Ensure all equipment used on site is well maintained and free of fluid leaks.

3. References

The Government of the Nunavut, Environmental Protection Service, Department of Sustainable Development. Environmental Guideline for Dust Suppression. 2002

Agnico Eagle Mines Ltd. – Meadowbank Division. Dust Suppression Protocol for Roads. 2008

Environmental Protection Act - Spill Contingency Planning and Reporting Regulation.

Department of Government Services and Public Works, Yellowknife, NWT, Technical Services Division. Community Dust Control Program -. *Calcium Chloride as a Dust Suppressant* . 1992.

City of Albuquerque, Environmental Health Department, Air Quality Division. Fugitive Dust Control Methods. 2005

Environment Australia, Department of the Environment. Best Practice Environmental Management in Mining: Dust Control. 1998

Water, Air and Climate Change Branch, Environmental Protection Division, BC Ministry of Environment. Road salt and Winter Maintenance for British Columbia Municipalities, Best Management Practices to Protect Water Quality. 1998.

Attachment(s)/Enclosure:

Attachment A - Environmental Guideline for Dust Suppression, Government of Nunavut, Environmental Protection Service, Department of Sustainable Development (January 2002).

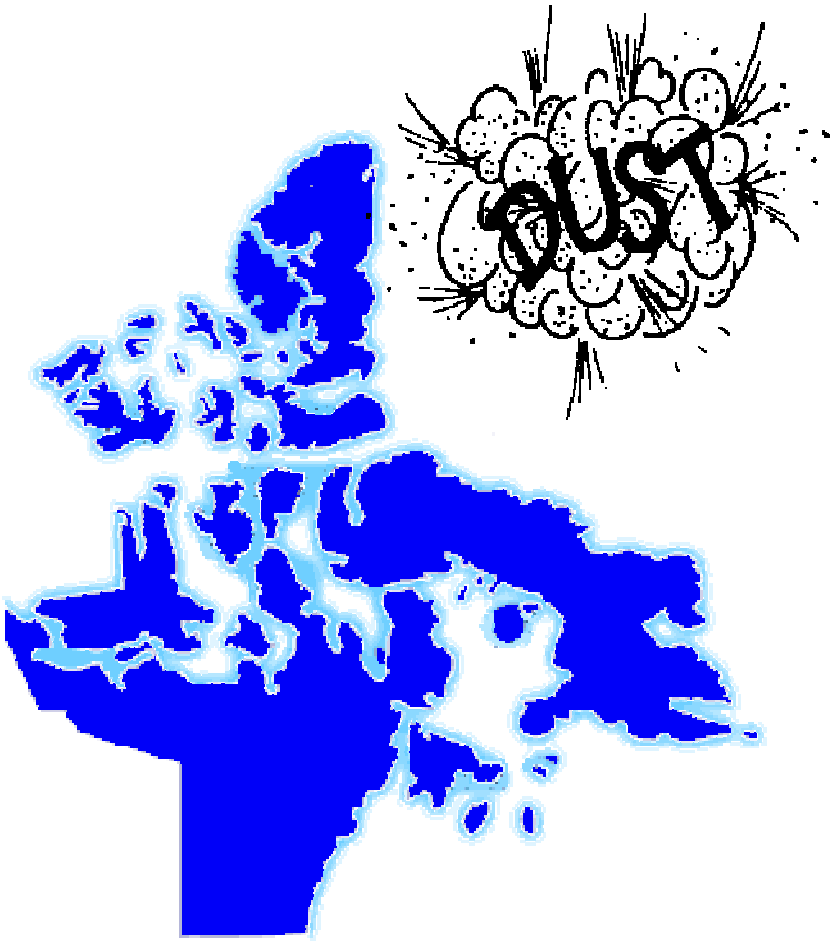
Attachment B – MSDS Sheet ‘Calcium Chloride’ by Sel Warwick Inc. of Victoriaville, Québec

Attachment A

Nunavut Environmental Guideline for Dust Suppression

Government of Nunavut, Environmental Protection Service, Department of Sustainable Development (January 2002).

ENVIRONMENTAL GUIDELINE FOR Dust suppression



Department of Sustainable Development
Environmental Protection Service

Nunavut

GUIDELINE: DUST SUPPRESSION

AS AMENDED BY:

USE OF GUIDELINE

A guideline is not law and is therefore not enforceable. It does however, assist an inspector to determine what action(s) may be required of him. Paragraph 2.2(c) of the Environmental Protection Act allows the Minister to develop co-ordinate and administer guidelines. The Act [subsection 5(1)] makes it an offence to discharge a contaminant into the environment, subject to some exceptions [subsection 5(3)]. When a discharge occurs and it is inconsistent with the guideline, the discharge is considered an unacceptable risk. The inspector may then consider issuing an order or laying an Information.

A guideline allows for some leniency in applying the law. A court would probably be inclined to consider the application of a guideline favorably because the public is aware of the standards they are expected to meet.

This Guideline is not law.
It is prepared by Environmental Protection Service,
Department of Sustainable Development
Government of the Nunavut

January, 2002

Guideline for Dust Suppression

January, 2002

GUIDELINE FOR DUST SUPPRESSION

1 Introduction

The purpose of this guideline is to make you aware of the procedures you must follow before applying a dust suppressant in Nunavut. The Department of Sustainable Development, Environmental Protection Service, (EPS) has currently approved three dust suppressants for use in Nunavut. The publication provides guidance for applying these products and a process for approving other dust suppression products.

Section 2.2 of the *Environmental Protection Act* gives the Minister of Sustainable Development the authority to develop, co-ordinate and administer these guidelines (see appendix A).

1.1 Definitions

Approved Product	A product approved by EPS for dust suppression.
Leachate Test	Leachate Extraction Procedure - Canadian General Standards Board (CGSB) #164-GP-1-MP (or as amended) or equivalent.
PCB	Polychlorinated biphenyl.
Roadway	The traveled surface of a road, from shoulder to shoulder; it does not include the side slopes or ditches.
Set	The point at which the product becomes stable, according to the manufacturer's specifications.
Used Oil	Any oil from an industrial or non-industrial source that has become unsuitable for its intended purpose due to the presence of impurities or the loss of original properties.

1.2 Why are dust suppressants used?

Reasons for using dust suppressants include:

Safety	Untreated roads may lead to more accidents. Accident potential is increased due to loss of visibility.
Health	Dust particles may become a health hazard when they become trapped in the lungs.
Vegetation	Large amounts of dust may induce changes in vegetation due to increased heat absorption and decreased transpiration.

Aquatic Resources	High levels of dustfall into aquatic systems may adversely affect aquatic plants and fish that are not adapted to high levels of sedimentation.
Aesthetics	Dust produces an immediate visual impact that may affect residents who live near dust prone roads.
Road Maintenance Costs	Treated roads can lower road maintenance costs by reducing general loss and blading time.

An Ambient Air Quality Guideline established under the Environmental Protection Act sets standards respecting the maximum desirable levels of dust in ambient air in the NWT/Nunavut. Measured as total suspended particulate (TSP), the standards for dust over 24 hours are 120 micrograms per cubic metre (µg/m^3) and averaged over a year are 60 µg/m3. These standards apply to the whole of the NWT/Nunavut. They define the long term goal for air quality to protect unpolluted parts of the Territories and for the continuing development of control options in polluted areas.

1.3 Roles and Responsibilities

Although the *Environmental Protection Act* does not require permits for the application of dust suppressants in Nunavut, all suppressants must first be approved by EPS. While general conditions are provided for approved dust suppressants, additional conditions may be required on a case by case basis.

The responsible party, being the landowner, road authority or municipal authority, must make provisions to notify the public and contact the Department of Sustainable Development before applying suppressants. The responsible party must also verify that the products are approved for use and properly applied by the applicator. If the product migrates from the roadway and is deemed to violate the *Environmental Protection Act*, the person(s) responsible must be prepared to take appropriate remedial measures.

Applicators are also accountable for their actions. Applicators are responsible for ensuring that the product is approved for use in Nunavut, is correctly applied to the designated area and does not migrate off the site. Applicators, manufacturers and retailers must provide information about new products to EPS for approval before their use in Nunavut (Section 3).

> ***It is important to remember that the responsible party (the landowner, road authority or municipal authority) is liable for any activity they authorize. Contamination of the environment and subsequent remediation of the site is ultimately their responsibility. (See Appendix A)***

2 General Dust Suppression Guidelines

There are many aspects to consider before you apply a dust suppressant in Nunavut. The following are general guidelines to be followed:

2.1 Notification for use of Approved Products

The following parties must be notified:

Property Owner	Any application of a dust suppressant should be conducted according to an agreement between the applicator and the responsible road authority or property owner. A written agreement is recommended.
Department of Sustainable Development	Before any application, provide the local Environmental Protection Officer with the following information: the location of the site, the product(s) used and a timetable for the work.
Public	Notify the affected public before any application. This can be through signs, public notices or media announcements.

2.2 Approved Products

Calcium chloride, Bunker C and DL 10 are currently the only approved dust suppressants in Nunavut. Appendix B contains a list of approved products and information regarding the application of these products.

Other products cannot be used in Nunavut until they have been approved by EPS.

> ***Used oil must not be used as a dust suppression/road stabilizing product or added to other dust suppression products.***

2.3 Application Procedures

Directions	Follow the manufacturer's specifications or other tested and approved procedures.
Roadway	The application shall be limited to the roadway, driveway or parking lot.
Rate	Carefully monitor the application rate to ensure adequate coverage without pooling or runoff of products. The amount of dust suppressant applied should not exceed the minimum amount required to effectively suppress dust.
Incorporation	Products must be bladed or incorporated into the road immediately upon application, to ensure the product does not migrate off the roadway.
Migration	The material must not migrate or run off the traveled portion of the roadway.

2.4 Environmental Concerns

2.4.1 General

Contaminants	Dust suppressants must conform with the manufacturer's specifications and must not contain concentrations of contaminants that would not normally be found in the suppressant.
PCB Concentration	Materials that contain more than 2 parts per million (ppm) of PCB are considered unacceptable and shall not be applied as a dust suppressant.

2.4.2 Water

Proximity to Water	Ensure that dust suppressants do not enter and contaminate waterbodies, including surface and groundwater. Do not allow the product to leave the roadway.
Sensitive Environments	Application rates near sensitive environments, e.g. marshes, must be closely monitored. Remember**,** environmental restoration is the responsibility of the landowner, road authority or municipal authority.
Flooding	Do not apply products to areas of roads that are subject to flooding.
Imminent Precipitation	Do not apply products if precipitation is occurring, or forecast to occur before the product sets or cures.

2.5 Spill Contingency Plan

Provide EPS with a contingency plan, if required by the *Spill Contingency Planning and Reporting Regulations*, under the *Environmental Protection Act*.

Be prepared to respond to spills, including any product that migrates off the roadway.

3 New Products

Products that have not been approved by EPS must undergo an assessment before being approved for use as a dust suppressant. The following information is required before such an assessment can be done:

Manufacturer's Information	Manufacturer's specifications and application procedures.
Laboratory Analysis	All new products must be characterized by an accredited laboratory.
Material Safety Data Sheets	Complete workplace hazardous material information system data sheets (W.H.M.I.S.).

(M.S.D.S.)	(W.H.M.I.S.).
Toxicity Tests	Toxicity tests should be provided for LC-50 and LD-50.
Leachate Tests	See section 3.1
Other requirements	Provide a proposed schedule of field tests to confirm product efficiency and appropriate application rates. Provide any other materials, tests or analysis carried out on the substance. Provide copies of approvals from other jurisdictions. Laboratory or testing costs are the responsibility of the person(s) applying for approval.

3.1 Leachate Toxicity Testing

New, non-approved dust suppressant products may be required to undergo the leachate extraction procedure to determine toxicity of the polymerized product. Testing should be carried out on a sample consisting of the polymerized material, at the standard application rate, and a representative sample of road material. Such a leachate toxicity test can be undertaken by a variety of reputable commercial laboratories. Leachate extraction procedure CGBS #164-GP-1-MP, or an acceptable equivalent, must be used. (See appendix C).

4 Conclusion

This is a brief introduction to dust suppressant application in Nunavut.

If you would like more information please contact:

Environmental Protection Service
Department of Sustainable Development
P.O. Box 1000, Station 1195
Iqaluit, Nunavut, X0A 0H0
Phone: (867) 975-5900; Fax: (867) 975-5990

Remember that this document is to inform you of the procedures you must follow before applying dust suppressants in Nunavut. If you have any questions or comments, contact the Environmental Protection Service before beginning a dust control program.

5 Bibliography

Community Dust Control Program - Technical Services Division. *Calcium Chloride as a Dust Suppressant.* Department of Government Services and Public Works, Yellowknife, NWT, (1992).

Environmental Protection Act - Spill Contingency Planning and Reporting Regulation.

Gazette officielle due Quebec. *Environmental Quality Act - Hazardous Waste Regulation -* Schedules III and IV, Quebec: Editeur officiel du Quebec, (1988).

Government of British Columbia, *British Columbia Waste Management Act - Special Waste Regulation*, Schedule 4, Queen's Printer of British Columbia, (1988).

Government of Ontario, *Regulation 347* (formerly Reg. 309) - Schedule 4, Toronto, Ontario: Queen's Printer of Ontario, (1980).

Green, L. *Public Awareness Information for Dust Control on NWT Highways*, Yellowknife NWT: Department of Transportation, (1992).

Hall, K. *Road Oiling with Bunker C*, Yellowknife, NWT: Environmental Protection Service, Renewable Resources Department, (1993).

RTAC ARTC *Guidelines for Cost Effective Use and Application of Dust Palliatives*, (1987)

Ontario Ministry of the Environment, *Draft Guidelines for the Application of Product Dust Suppressant Materials*, Toronto, Ontario: Ontario Ministry of the Environment, (1992).

Secretary of Canadian General Standards Board (CGSB). *Leachate Extraction Procedure 164-GP-IMP,* Ottawa, Ontario: CGSB, (1987).

Techman Engineering Ltd. *Road Dust Suppression in Northern and Western Canada - Manual or Recommended Procedures,* Calgary, Alberta: Environment Canada, (1982).

Thompson, N. *Use of Entac Dust Suppressant,* Yellowknife, NWT: Environmental Protection Service, Renewable Resources Department (1990).

APPENDIX A

Environmental Protection Act

The following information is a subset of the *Environmental Protection Act.* The complete Act is available for viewing at any office of the Department of Sustainable Development.

1. In this Act;

"Contaminant" means any noise, heat, vibration or substance and includes such other substances as the Minister may prescribe that, where discharged into the environment,

(a) endangers the health, safety or welfare of persons;
(b) interferes or is likely to interfere with normal enjoyment of life or property
(c) endangers the health of animal life, or
(d) causes or is likely to cause damage to plant life or to property;

"Discharge" includes, but not so as to limit the meaning, any pumping, pouring, throwing, dumping, emitting, burning, spraying, spreading, leaking, spilling or escaping;

"Environment" means the components of the Earth and includes:

(a) air, land and water;
(b) all layers of the atmosphere;
(c) all organic and inorganic matter and living organisms, and
(d) the interacting natural systems that include components referred to in paragraph (a) to (c).

2.2 The Minister may

(a) establish, operate and maintain stations to monitor the quality of the environment in the Territories;
(b) conduct research studies, conferences and training programs relating to contaminants and to the preservation, protection or enhancement of the environment;
(c) develop, co-ordinate and administer policies, standards, guidelines and codes of practice relating to the preservation, protection or enhancement of the environment;

5. **(1)** Subject to subsection (3), no person shall discharge or permit the discharge of a contaminant into the environment.

(2) REPEALED, R.S.N.W.T. 1988, c. 117 (Supp.), s. 8.

(3) Subsection (1) does not apply where the person who discharged the contaminant or permitted the discharge of the contaminant establishes that

(a) the discharge is authorized by this Act or the regulations or by an order issued under this Act or the regulations;
(b) the contaminant has been used solely for domestic purposes and was discharged from within a dwelling-house;

(c) the contaminant was discharged from the exhaust system of a vehicle;
(d) the discharge of the contaminant resulted from the burning of leaves, foliage wood, crops or stubble for domestic or agricultural purposes;
(e) the discharge of the contaminant resulted from burning for land clearing or land grading;
(f) the discharge of the contaminant resulted from a fire set by a public official for habitat management of silviculture purposes;
(g) the contaminant was discharged for the purposes of combating a forest fire;
(h) the contaminant is a soil particle or grit discharged in the course of agriculture or horticulture; or
(i) the contaminant is a pesticide classified and labeled as Adomestic≅ under the *Pest Control Products Regulations* (Canada)

(4) The exceptions set out in subsection (3) do not apply where a person discharges a contaminant that the inspector has reasonable grounds to believe is not usually associated with a discharge from the excepted activity. R.S.N.W.T. 1988, c. 75 (Supp.), s. 5; c. 117 (Supp.), s. 8.

5.1 Where a discharge of a contaminant into the environment in contravention of this Act or the regulations or the provisions of a permit or license issued under the Act or the regulations occurs or a reasonable likelihood of such a discharge exists, every person causing or contributing to the discharge or increasing the likelihood of such a discharge, and the owner or the person charge, management or control of the contaminant before its discharge or likely discharge, shall immediately:

(a) subject to any regulations, report the discharge or likely discharge to the person or office designated by the regulations;
(b) take all reasonable measures consistent with public safety to stop the discharge, repair any damage caused by the discharge and prevent or eliminate any danger to life, health, property or the environment that results or may be reasonably expected to result from the discharge or likely discharge; and
(c) make a reasonable effort to notify every member of the public who may be adversely affected by the discharge or likely discharge. R.S.N.W.T. 1988, c. 75 (Supp.), s. 5: c. 117 (Supp.), s. 9.

6. (1) Where an inspector believes on reasonable grounds that a discharge of a contaminant in contravention of this Act or the regulations or a provision of a permit or license issued under this Act or the regulations has occurred or is occurring, the inspector may issue an order requiring any person causing or contributing to the discharge or the owner or person in charge, management or control of the contaminant to stop the discharge by the date named in the order.

7. (1) Notwithstanding section 6, where a person discharges or permits the discharge of a contaminant into the environment, an inspector may order that person to repair or remedy any injury or damage to the environment that results from the discharge.

APPENDIX B

Approved Dust Suppression Products and Application Information

Application of Bunker C

Bunker C is the heaviest viscosity oil that refineries produce, with an asphalt content varying between 7 and 25%.

Purity	Bunker C must not contain contaminants not normally found within the virgin products, i.e. tank bottom sludge, other fuels or oils, used oil, PCBs or solvents.
Blading	It must be bladed or otherwise incorporated into the road immediately upon application.
Containment	Bunker C must not be applied to sections of the road that are subject to flooding. Do not allow the product to enter waterbodies. The product contains hydrocarbons that are potentially toxic.
General Guidelines	Follow all other general guidelines listed in section 2.

Application of Calcium Chloride

This is a commonly used product in the NWT/Nunavut. It is available in granular and liquid form. Because it is hygroscopic and deliquescent, it draws moisture from the air and will control dust if applied frequently enough.

Road surface conditions and traffic volume dictate the amount, timing and frequency of calcium chloride application. With normal application procedures and concentrations, it is generally non-toxic with rapid dissolution in the environment. However, calcium chloride can wash away in heavy rain. For more information read: *Calcium Chloride as a Dust Suppressant,* (see section 5).

Toxicity to plants	Calcium chloride is toxic to some plants. Keep the product on the roadway.
Application Rate	Apply minimum amounts as it can cause roads to become slippery.
Applicator Competence	Ensure application personnel are informed of corrosive nature of the product (can be harmful to eyes and skin with direct contact).
General Guidelines	Follow all other general dust suppressant guidelines listed in section 2.

APPENDIX B (cont'd)

Application of DL 10

DL 10 is an asphalt product that is mixed with water and a soap solution. DL 10 should be applied to one side of the road at a time, and then allowed to set for approximately three hours. Braking may be difficult on freshly treated road, so a pilot car may be necessary to direct traffic during the application. Vehicles should travel no faster than 20 km/hr through areas where the application has not set.

Fresh DL 10 can be washed off using soap and water. If it is allowed to dry, a solvent may be required.

General Guidelines	Follow all general dust suppressant guidelines listed in Section 2.

APPENDIX C

Leachate Extraction Procedure Test and Equivalents:

(See reference section for complete documentation).

The Environmental Protection Service may require new products to undergo the following test:

- CGSB #164-GP-1-MP *Leachate Extraction Procedure* Canadian General Standards Board (or as amended).

Or one of these equivalent tests:

- Schedules III and IV - *Environmental Quality Act - Hazardous Waste Regulation* - Gazette officielle du Quebec.
- Schedule 4 - *British Columbia Waste Management Act - Special Waste Regulation,* Government of British Columbia.
- Schedule 4 - *Regulation 347* (formerly Regulation 309), Government of Ontario.

If you would like to be placed on a mailing list to receive guideline amendments or for public consultation on Environmental Protection Service legislation please fill this out and mail or fax to:

Environmental Protection Service
Department of Sustainable Development
P.O. Box 1000, Station 1195
Iqaluit, Nunavut, X0A 0H0
Fax: (867) 979-5990

Users of this guide are encouraged to report any errors, misspellings, etc. contained within, to EPS at the above address.

Mailing List for Environmental Protection Service Information

Name: _____

Title: _____

Address : _____

_____

Phone / Fax Number: _____

Attachment B
MSDS Sheet ‘Calcium Chloride’

Sel Warwick Inc. of Victoriaville, Québec

5, Boutet Street
Victoriaville, Qc
G6P 8T6

This product is distributed by
Canada Colors and Chemicals Limited
General Inquiry: (905) 459-1232
24 Hour Emergency: (416) 444-2112
CCC: Product Code: 279213
CCC: Product Name: CALCIUM CHLORIDE FLAKE 77% -SW ML

FLAKE CALCIUM CHLORIDE

Material Safety Data Sheet

A. PRODUCT INFORMATION

TRADE NAME (PRODUCT IDENTIFIER): Flake Calcium Chloride Powdered Calcium Chloride	**CLASSIFICATION & SYMBOL** :  Class D2B	
CHEMICAL NAME AND/OR SYNONYM: Calcium Chloride Dihydrate	**FORMULA :** $CaCl_2$ 2 H_2O	**CAS NO**: 10043-52-4

BNQ Standard 2410-300 / 2009 Certificat # 1156

Canadian Standard CAN-CGSB-15.1-92

PRODUCT USE :
De-icer, Dust control, mud drilling lubricant, Freeze-proofing of ores and aggregates, thawing agent, concrete conditioner. Food Grade Calcium category is used as additive, refrigerants and heat exchange agent.

MANUFACTURER/IMPORTER: Sel Warwick Inc. 5, Boutet Street Victoriaville, Qc, G6P 8T6	**SUPPLIER/DISTRIBUTOR**: **TETRA Technologies Inc** **369, Feed Mill Road** **Eldorado, AZ 71730** **USA**
EMERGENCY TELEPHONE NO: 819-758-5229	

B. PREPARATION INFORMATION

PREPARED BY : Sel Warwick Inc. 5, Boutet Street, Victoriaville Telephone : 819-758-5229	**PREVIOUS ISSUE DATE** : December 2010
	CURRENT ISSUE DATE: June 2012

C. TOXICOLOGICAL PROPERTIES

INHALATION:
Dust or mist inhalation may irritate nose, throat and lungs

INGESTION :
Low in toxicity. May irritate gastrointestinal tract and cause nausea and vomiting

SKIN :
May cause skin irritation. Prolonged contact when moisture is present may result in superficial burns. Contact with abraded skin or cuts can cause severe necrosis

EYES:
May irritate or burn eyes

ACUTE TOXICITY: Moderate toxic LD_{50} (oral-rat) 1000 mg/kg LD_{50} (oral-mouse) 1940 mg/kg	**EXPOSURE LIMITS**: Ontario Ministry of Labour Time-Weighted Average Exposure Value (TWAEV) for Nuisance Particulate 10 mg/m^3
CHRONIC TOXICITY : Not applicable	
OTHER :	**BIOLOGICAL EXPOSURE INDICES (BEI)** : Not applicable

D. PHYSICAL DATA

MATERIAL IS AT NORMAL CONDITIONS: **Liquid** ☐ **Solid** ☒ **Gas** ☐	**APPEARANCE AND COLOR :** Small White Flakes Very hygroscopic	**ODOR THRESHOLD** : Odorless
BOILING POINT : Not available **FREEZING POINT** : ^{0}C **(MELTING POINT)** : 176^{0}C	**SPECIFIC GRAVITY :** g/cc **(H_2O =1)** Not available	**VAPOR DENSITY:** **(AIR=1)** Not applicable
SOLUBILITY IN WATER : 97.7 g/100 ml @ 0^{o}C 326 g / 100 ml @ 60^{o}C	**PH** Neutral to slightly Alkaline	**VAPOR PRESSURE:** **(mm Hg @ 20^{o}C)** Not applicable **(PSIG)**
EVAPORATION RATE : **(Ether = 1.0)** Not applicable **Slow <0.3 Fast > 3.0** **Medium 0.3 – 3.0**	**% VOLATILES BY VOLUME:** (At 20^{o}C) Not applicable	**MOLECULAR WEIGHT:** 147.02 **COEFFICIENT OF WATER/OIL DISTRIBUTION:** Not available

E. REACTIVITY DATA

STABILITY: Stable	**CONDITIONS TO AVOID :** Not applicable
INCOMPATIBILITY (MATERIALS TO AVOID): Reacts violently with bromine trifluoride (BrF_3), or a mixture of boron trioxide and calcium oxide (B_2O_3 + CaO). Sulfuric acid : yields hydrogen chloride gas, which is corrosive, irritating and reactive. Water-reactive materials, such as sodium : causes an exothermic reaction. Methyl vinyl ether : starts runaway polymerization reaction. Zinc as in galvanized iron : yields hydrogen gas with solutions, which may explode under these conditions.	
HAZARDOUS DECOMPOSITION PRODUCTS: Fumes of Chlorides (Cl) are given off at temperature above 1600 ^{o}C	
HAZARDOUS POLYMERIZATION : Will not occur ☐	**OTHER PRECAUTIONS:** Will undergo violent polymerization with methyl vinyl ether. The anhydrous, monohydrate, dihydrate and tetrahydrate forms of calcium chloride, when dissolved in water, produce considerable amounts of heat.

F. FIRE OR EXPLOSION HAZARD

CONDITIONS OF FLAMMABILITY : Not applicable	**FLASH POINT:** Not applicable **METHOD**
HAZARDOUS COMBUSTION PRODUCTS: None	
% BY VOL. IN AIR **UPPER FLAMMABLE LIMIT** : N/A **LOWER FLAMMABLE LIMIT:** N/A **AUTOIGNITION TEMPERATURE** : ^{o}C	**EXPLOSION HAZARDS** : See Section E incompatibility
SENSITIVITY TO MECHANICAL IMPACT : Not applicable	
SENSITIVITY TO STATIC DISCHARGE: Not applicable	
FIRE EXTINGUISHING PROCEDURES: Use extinguisher media appropriate for surrounding fire. For fire fighting wear NIOSH-approved self- contained breathing apparatus.	

G. HAZARDOUS INGREDIENTS (MIXTURES ONLY)

MATERIAL OR COMPONENTS/C.A.S. #	CONCENTRATION	HAZARD DATA
Not applicable		

H. PREVENTIVE MEASURES

PERSONAL PROTECTIVE EQUIPMENT：

RESPIRATORY PROTECTION：
For dusty or misty conditions, wear NIOSH approved dust or mist respirator

EYES AND FACE:
For dusty or misty conditions, or when handling solutions where there is reasonable probability of eye contact, wear chemical safety goggles and hard hat. Under these conditions, do not wear contact lenses.

HANDS, ARMS AND BODY：
As a minimum, wear long-sleeve shirt, trousers, rubber boots and gloves for routine product use. Cotton gloves permitted for dry product, impervious gloves when using solutions.

STORAGE：
Cool, dry area. Prolonged storage may cause product to cake and become wet from atmospheric moisture.

NORMAL HANDLING:
Avoid contact with eyes, skin or clothing. Avoid breathing dust. Use good personal hygiene and housekeeping

ENGINEERING CONTROLS:

Ventilation:Provide general and/or local exhaust ventilation to maintain dust or fume levels below exposure limits.

Eye wash facility should be provided in storage and general work area.

ENVIRONMENTAL:

DEGRADABILITY: Not applicable	**AQUATIC TOXICITY:** Harmful to aquatic life at concentrations greater than 500 ppm. $CaCl_2$ does not bioaccumulate $TL_m96 > 1000$ mg/1

SPILL OR LEAK (Always wear personal protective equipment):
Shovel up dry chemical and place in metal drum with cover. Cautiously spray residue with plenty of water. Keep contaminated water from entering sewers and water courses.

WASTE DISPOSAL:
Consistent with the requirements of local waste disposal authorities.

I. FIRST AID MEASURES

INHALATION:
Promptly remove to fresh air. Get medical attention.

INGESTION:
If conscious, immediately give 2 to 4 glasses of water, and induce vomiting under medical supervision.

SKIN:
Remove contaminated clothing. Wash with plenty of soap and running water. Get medical attention if irritation persists.

EYES:
Flush eyes promptly with plenty of running water, continuing for at least 15 minutes. Get medical attention.

Attachment B – Tote Road Travel Procedure

Baffinland Iron Mines Corporation

Tote Road Travel Procedure

BAF-PH1-810-PRO-0002

Rev 2

Prepared By: Hal Finely
Department: Health and Safety
Title: Health and Safety Superintendent
Date: October 23rd, 2013
Signature:

Approved By: Michael Anderson
Department: Operations
Title: Vice President - Operations
Date: October 23rd, 2013
Signature:

DOCUMENT REVISION RECORD

Issue Date MM/DD/YY	Revision	Prepared By	Approved By	Issue Purpose
06/05/13	0	G.C	S.P	Use
09/19/13	1	H.F	D.M	Use
10/23/13	2	H.F.	M.A	Use

TABLE OF CONTENTS

1 PURPOSE

The Mary River Project's roads are in excess of 100 km in length and travel through hills with elevations exceeding 500 meters. Arctic weather along these roads can change quickly over short periods of time and distance. Weather conditions at camp are not a reliable indicator of weather conditions on the tote road.

- Over the course of a year a driver on the tote road can experience a number of hazards including:
- Snow storms and whiteouts conditions that can reduce and even eliminate visibility.
- Drifting snow that could impede or in some cases prevent vehicle movement.
- Steep hills can be a challenge, especially in winter conditions
- Sharp corners limit visibility and vehicle manoeuvrability.
- Roadway washouts can occur at any time during the warm weather – but are common during freshet.
- Remote driving conditions on roads with infrequent vehicle use.
- Reduced ability to rescue stranded workers in vehicles.

These hazards require that specific controls be implemented to reduce the risk of workers being stranded on a road and will ensure that all workers are prepared to safely wait out a storm or emergency if they are stranded. This safe work procedure details the controls that are to be followed for all workers traveling on the Tote Road at all times of the year.

2 SCOPE

This procedure applies to the Tote Road running between the Mary River and Milne Inlet sites.

3 RESPONSIBILITES

3.1 MATERIAL HANDLING SUPERINTENDENT

Mary River and Milne Inlet Material Handling Superintendents have the lead responsibility for managing traffic on the tote road including,

- Monitoring weather forecasts and conditions
- Identify problem areas on the tote road that may impact driver safety and take appropriate action
- Problem area's on the tote road may include,
    - white out condition
    - road wash-out
    - vehicle breakdown
    - poor roadway condition

All person's travelling the Tote Road must to check in with the Security Office at both Mary River and Milne Inlet, complete the sign in and sign out sheets.

3.2 SUPERVISOR

Baffinland Supervision is responsible for the following:

- Ensure that any worker assigned to drive a vehicle on the tote road is trained and qualified regarding tote road safety and driving communication protocols
- Ensure that any light vehicles or work equipment travelling the Tote Road in winter months, or in periods of severe weather conditions are equipped with an emergency survival kit
- Ensure that any workers traveling the Tote Road have all the required safety equipment, and are following all PPE requirements and procedural controls identified in this SOP
- Ensure their work crew complies with the process for recording when vehicles enter and depart the Tote Road
- Ensure weather conditions are suitable for the travel or work activity required

3.3 EMPLOYEE

All personnel using the Tote Road are responsible to comply with the requirements of this procedure.

4 DEFINITIONS

4.1 MILNE INLET CAMP BOUNDARY

The Milne Inlet camp boundary is defined and bounded by the ocean to the North, the Horizon Camp to the East, the airstrip to the West and the Construction Camp to the South.

4.2 MARY RIVER CAMP BOUNDARY

The Mary River camp boundary is defined and bounded by the airstrip to the North, the East end of the runway to the East, the most southerly building of the Mary River camp to the South and the West end of the runway to the West.

4.3 WHITEOUT

The declaration of a white condition must include identification of the area impacted.

A white out is declared when deteriorating weather conditions pose a safety risk for workers. The initial risk is associated with vehicles and workers safely reaching a camp or emergency shelter. White out conditions include wind and blowing snow that can result in significantly reduced visibility and drifting snow. These conditions may offer serious or life threatening safety hazards for pedestrian and vehicle travel.

5 SEVERE WEATHER

5.1 EMERGENCY SURVIVAL KIT

The emergency survival kit is a pack containing survival material to assist a worker stranded in a vehicle on the Tote Road.

Emergency survival kits contain the following survival items: Full Length Blanket, Stove in a can, 4 fuel cells, waterproof matches, Survival Sleeping Bag, Survival Blanket, Disposable Hand Warmer, carbon monoxide monitor, 36 hour disposable candle, Emergency flares, Light-sticks, Flashlight with batteries, Metal cup, Utensils pkg, Tea bags, Dry soup mix, packets of honey, Energy Bars, MRE, Basic First Aid Kit, Weather proof bag or container, Folding shovel with pick, Multi-tool.

Every vehicle shall be equipped with a sealed “basic first-aid kit” for use in case of an injury while workers are stranded on the Tote Road.

Survival kits are for use in emergency situations only. In the event an emergency survival kit has been opened, it must be returned to your supervisor or warehouse for replacement.

Due to the harsh conditions of the Arctic and reliance on emergency survival equipment for life safety, tampering with a survival kit can result in discipline including discharge or removal from site.

5.2 WEATHER CHECK

Prior to departure onto the tote Road, check the weather report with the Materials Handling Superintendent

5.3 WINTER ROAD TRAVEL- SEPTEMBER 15TH TO MAY 30TH

Workers travelling or working on the Tote Road in winter months or in periods of severe weather conditions must have a winter survival kit for each worker in the truck, a first aid kit and a fully charged satellite phone in the vehicle. The vehicle must be equipped with a power inverter capable of powering the satellite phone in the event the worker becomes stranded in the vehicle for an extended period of time.

Wearing or transporting adequate winter gear is mandatory when working or traveling on the Tote Road during this period “winter months”.

Winter gear is the responsibility of workers and should include: a heavy winter parka, insulated pants or coveralls, insulated work boots, arctic gloves or mitts, face protection, toque or other winter headgear all suitable to keep warm if stranded in a vehicle or at an emergency shelter.

5.4 SUMMER ROAD TRAVEL- JUNE 1ST TO SEPTEMBER 14TH

Sudden Arctic storms can occur at any time of the year. Carrying additional clothing is the workers responsibility. Additional clothing should include, as a minimum, a heavy sweater or fleece jacket, a wind breaker or gore-tex jacket, bib overalls, toques, mitts or gloves. Dress appropriately. This may seem obvious but it is easy to misjudge the temperature.

5.5 FUEL AND TIRES

All vehicles should have a minimum of ½ a tank of fuel at all times. Vehicles traveling between Milne and Mary River must have full tank of fuel prior to leaving either camp. The exception to this rule will be the haul tractors they will fuel at Milne Inlet.

Small fleet vehicles equipped with a tidy tank must have those tanks filled prior to leaving either site.

Ensure spare tire and jack are available. Due to the condition of the road and vehicle loads, the frequency of tire failures on the Tote Road is higher than on public highways.

Perform a thorough vehicle circle check, including windshield washer fluid before leaving and upon returning.

5.6 EMERGENCY SHELTERS

Emergency shelters are not currently maintained along the tote road.

Emergency shelters are scheduled to be installed along the tote road in conjunction with radio repeater stations. Until this work is completed, users of the tote road must rely on emergency and communication materials located in their vehicle.

6 RULES OF THE ROAD

All personnel using the Tote Road are responsible for understanding this Safe Operating Procedure and are required to adhere to the following Rules of the Road:

6.1 SPEED RESTRICTIONS

- Drivers are required to obey all traffic signs.
- Speed restrictions will be clearly posted through signage along the Tote Road.
- Unless otherwise posted, the Tote Road speed limit is 55 kilometres per hour or as posted.
- The driver is responsible to maintain their vehicle under control at all times.
- Tote Road conditions may require the driver to operate their vehicle at less than the posted speed for a number of safety related reasons including limited visibility due to weather or poor road conditions including washboard, ruts, soft spots and washouts.
- Sharp turns in the road and steep grades on the hill also pose safety concerns and the driver of the vehicle is responsible to reduce speed in order to maintain safe operation of the vehicle.
- If the road is impassable, the driver is responsible to stop and report the dangerous condition by radio or satellite phone to their supervisor or the Material Handling Supervisor. The driver should stay at that location and communicate the hazard to vehicles in the area until all vehicles on the Tote Road are notified.
- All trucks must slow to 10km/h when travelling through standing water on the road.
- If the vehicle is immobilized as the result of a simple mechanical failure, spin out, accident or off road incident the driver must immediately communicate their situation to their supervisor or the Site Services Superintendent. Based on the situation, an appropriate plan will be developed and communicated.

- The Site Services Superintendent is responsible to instruct all vehicles on the Tote Road to stop or return to base in the event of a road blockage.

6.2 VEHICLES MEETING AND SPACING

- Drivers must maintain a minimum of ½ kilometer spacing between vehicles, travelling in the same direction on the Tote Road. Additional spacing and communication between vehicles is required for blind corners and hills
- The following rules apply when vehicles meet (travelling in opposite direction) on the Tote Road,
    - Empty haul and transport vehicles must yield to loaded haul and transport vehicles
    - The empty vehicle must stop at the side of the road and let the loaded vehicle pass
- Light vehicles including passenger and small work trucks must yield to all transport vehicles. The light vehicle must stop at the side of the road and let the loaded vehicle pass
- All vehicles must yield to a snow plough operating on the Tote Road
- When meeting on the Tote Road, Communication protocols must be followed (see section 4.7)
- Passing another vehicle headed in the same direction is not allowed on the Tote Road

6.3 PASSING CONSTRUCTION EQUIPMENT OR CONSTRUCTION ZONE

- When you approach equipment or vehicles that are working on the road or at roadside, come to a complete stop at least 50 meters back from the equipment
- Stay back 70 meters from a Grader when the blade is down. Do not attempt to pass a grader until the driver stops and signals you to pass
- To pass safely, make sure you communicate with the operator by radio. If you cannot reach the operator by radio, get his/her attention by flashing your lights or honking your horn
- Never pass until the machine operator clearly signals that it is safe to pass. Do not make the assumption that because someone looked your way that they saw you, wait for a clear radio communication to proceed
- If in doubt, DO NOT take chances. Be patient and wait for proper communication with the equipment operator

6.4 PERMISSION AND RADIO COMMUNICATION PROTOCOLS

If you plan to drive a vehicle on the Tote Road, you must,

- Have instruction to use the Tote Road as a regular part of your job or receive verbal permission from your supervisor.
- Travel with a hand held or base station radio tuned to channel 2
- Carry a functioning satellite phone and know how to use that phone. This will be in effect until the Radio System is in place
- If you do not have a radio, you must travel in a radio-controlled convoy
- Drivers must verify the truck is equipped with a radio in proper working order. That radio must be kept on channel 2 and located in a convenient location for safe access
- When using the radio drivers must be timely, courteous and brief

When passing a Tote Road/camp boundary the driver is responsible to announce the following information on the radio:

- Type of vehicle (light truck, 5 ton truck – etc.)
- Departing or entering
- The camp name (Milne Inlet or Mary River)

Steep hills and blind corners:

- Road signs prompting radio communication have been posted along the course of the Tote Road on either side of steep hills and blind curves. The purpose of these signs is to avoid potential collision between oncoming vehicles on steep hills and blind corners.
- Upon observation of the road sign prompting radio communication , the vehicle driver must make the following radio call,
    - Type of vehicle (i.e. light truck)
    - Located at Kilometre number as stated on the sign

6.5 DANGEROUS DRIVING AND UNSAFE PRACTICES

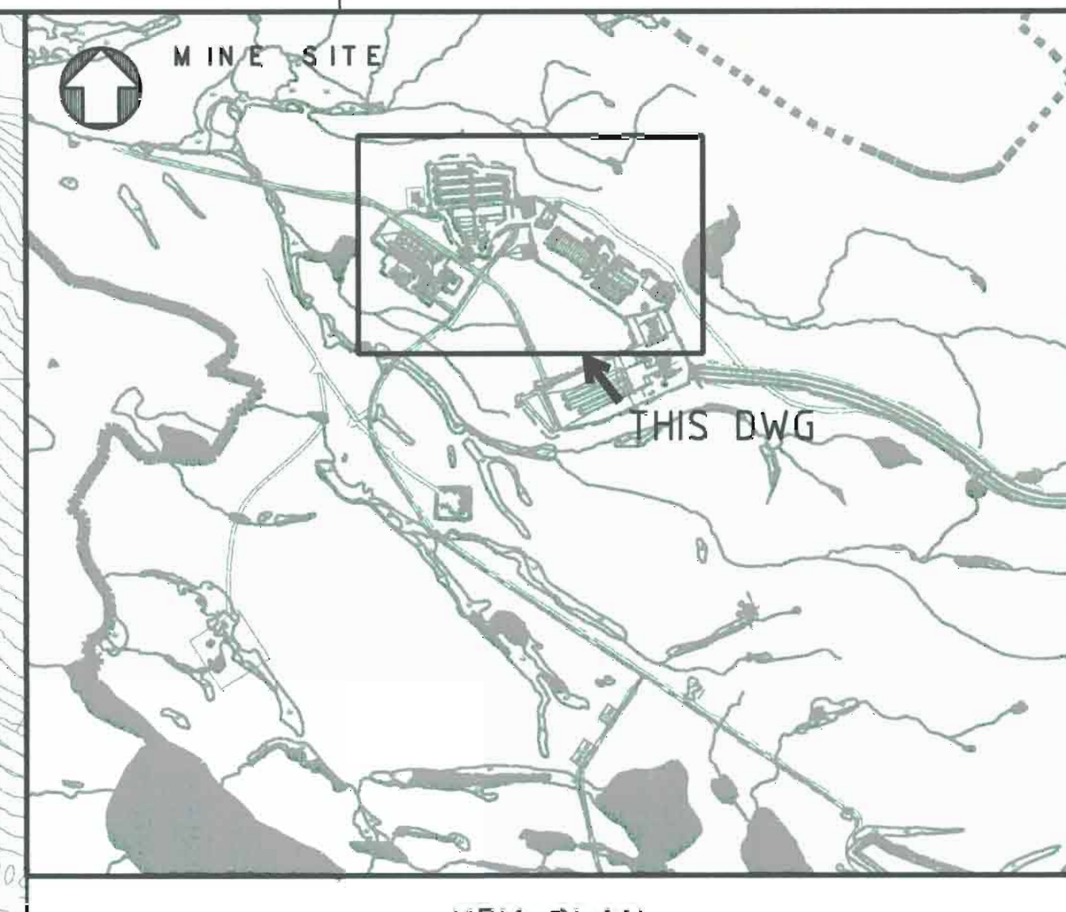
- Operating a vehicle in a dangerous or unsafe manner will result in corrective action by the supervisor. The corrective action will include coaching, discipline or discharge, depending on the seriousness of the offence.
- Dangerous driving and unsafe practices include but are not restricted to the following:
    - Failure to follow Tote Road driving and communication protocols
    - Operating a vehicle in excess of the posted speed limit
    - Passing another vehicle that is travelling in the same direction
    - Following too closely to a vehicle headed in the same direction
    - Driving a vehicle on the Tote Road without the required training and permission to drive on the Tote Road
    - Operating a vehicle in a reckless manner

7 REFERENCES AND RECORDS

- Nunavut General Safety Regulations, R.R.N.W.T. 1990.
- Nunavut Mine Health and Safety Regulations, R-125-95.
- Baffinland Standard Operating Procedure - White out Declaration and Communication Camp, Worksite and Tote Road

Attachment C – Traffic Management Plans

DWG. NO. H349000-4139-10-035-0001



KEY PLAN

LEGEND:

200	EXISTING GROUND CONTOURS
	EXISTING WATERBODY
	EXISTING MARSH
	EXISTING STREAM
	FILL SLOPE
	CUT SLOPE
Ra-1	STOP SIGN
Rb-1A	MAXIMUM SPEED SIGN (20km/hr)
Wa-2L	SHARP CURVE SIGN (LEFT)
Wa-2R	SHARP CURVE SIGN (RIGHT)
Wa-3L	CURVE SIGN (LEFT)
Wa-3R	CURVE SIGN (RIGHT)
Wa-5L	REVERSE CURVE SIGN (LEFT)
Wa-7t	ADVISORY SPEED TAB (20km/hr)
Wa-11	INTERSECTION (UNCONTROLLED) SIGN
Wa-14	T-INTERSECTION (UNCONTROLLED) SIGN
Wa-21	STEEP HILL SIGN (SLOPE %)

NOTES:

1. TOPOGRAPHY PROVIDED BY TERRAPOINT CANADA INC.
2. COORDINATE GRID IS SHOWN IN UTM (NAD83) ZONE 17 AND IS IN METRES.
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FOR CONSTRUCTION

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H349000-4139-10-012-0004	MINE SITE - INFRASTRUCTURE PADS ACCESS ROADS - PLAN

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PERMIT NUMBER: P 512
The Association of Professional Engineers, Geologists and Geophysicists of NWT/NU

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REGISTERED PROFESSIONAL ENGINEER
M. M. S. HASSAN
LICENSEE
NT/NU

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ISSUE AUTHORIZATION

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DESIGNED BY K. FALLAH DATE 2013-08-20	DRAWN BY A. COZZITORTO DATE 2013-08-20
CHECKED BY A. SAHELI DATE 2013-08-30	DISCIP. ENGR. S. HASSAN DATE 2013-08-30
PROJ. DES. COORD. T. THERTELL DATE 2013-08-30	PROJ. ENGR. J. CLELAND DATE 2013-08-30
PROJ. MGR. S. PERRY DATE 2013-08-30	

Baffinland

MARY RIVER PROJECT

MINE SITE
TRAFFIC MANAGEMENT
PLAN - SHEET 1 OF 2

SCALE	DWG. NO.	REV.
1:1000 OR AS NOTED	H349000-4139-10-035-0001	0

ORIGINAL SHEET SIZE: ISO A1 (841 x 594)

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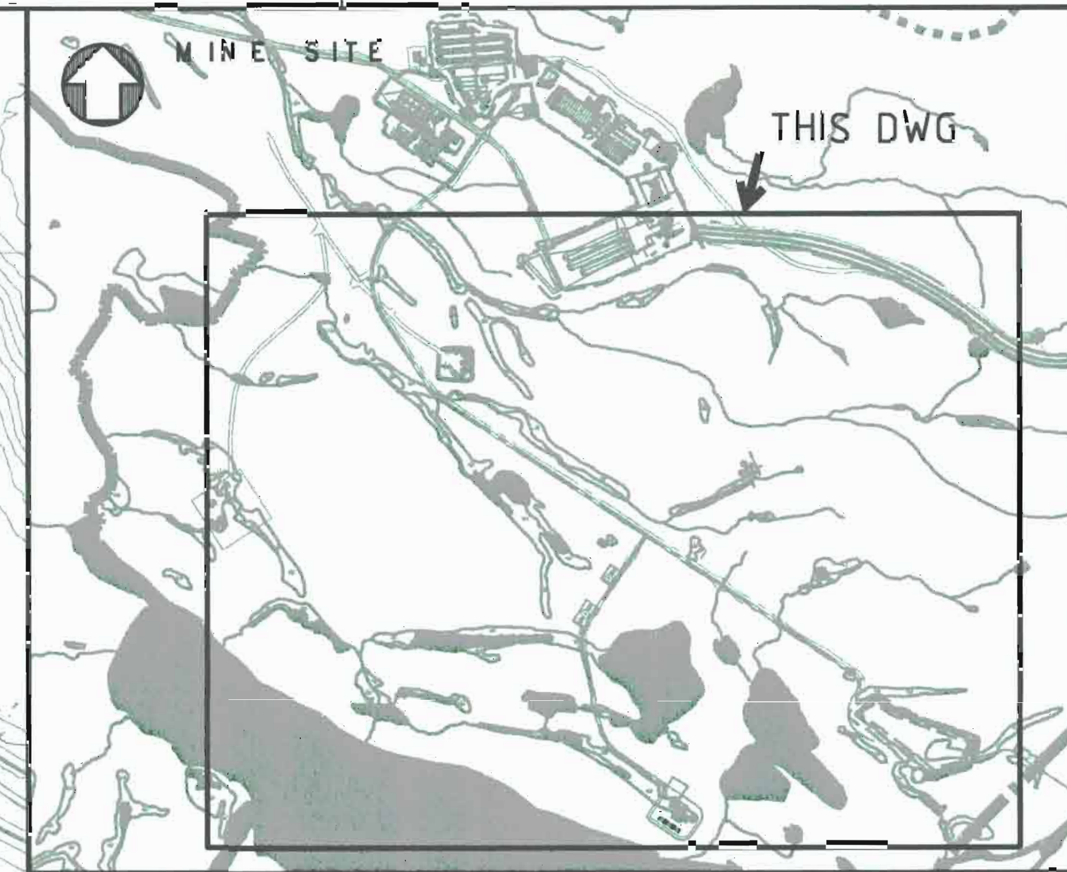

KEY PLAN

LEGEND:

200	EXISTING GROUND CONTOURS
	EXISTING WATERBODY
	EXISTING MARSH
	EXISTING STREAM
	FILL SLOPE
	CUT SLOPE
Ra-1	STOP SIGN
Rb-1A	MAXIMUM SPEED SIGN (30km/hr)
RB-91	YIELD TO ONCOMING TRAFFIC SIGN
Wa-3L	CURVE SIGN (LEFT)
Wa-3R	CURVE SIGN (RIGHT)
Wa-12	INTERSECTION (UNCONTROLLED) SIGN
Wa-13	INTERSECTION (UNCONTROLLED) SIGN
Wa-14	T-INTERSECTION (UNCONTROLLED) SIGN
Wa-21	STEEP HILL SIGN (SLOPE %)
Wa-28	ROADWAY NARROWS SIGN

NOTES:

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H349000-4139-10-D12-0003	MINE SITE - EXPLOSIVES FACILITIES ROAD - PLAN & PROFILE
H349000-4139-10-D12-0002	MINE SITE - TREATED EFFLUENT POND ACCESS ROAD - PLAN & PROFILE - SHEET 2 OF 2
H349000-4139-10-D12-0001	MINE SITE - TREATED EFFLUENT POND ACCESS ROAD - PLAN & PROFILE - SHEET 1 OF 2

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REGISTERED PROFESSIONAL ENGINEER
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30 Aug 13
NT/NU

REV.	ISSUE FOR	AUTH. BY		DATE
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PROJ. MGR. S. PERRY DATE 2013-08-30	

Baffinland

MARY RIVER PROJECT

MINE SITE
TRAFFIC MANAGEMENT
PLAN - SHEET 2 OF 2

SCALE	DWG. NO.	REV.
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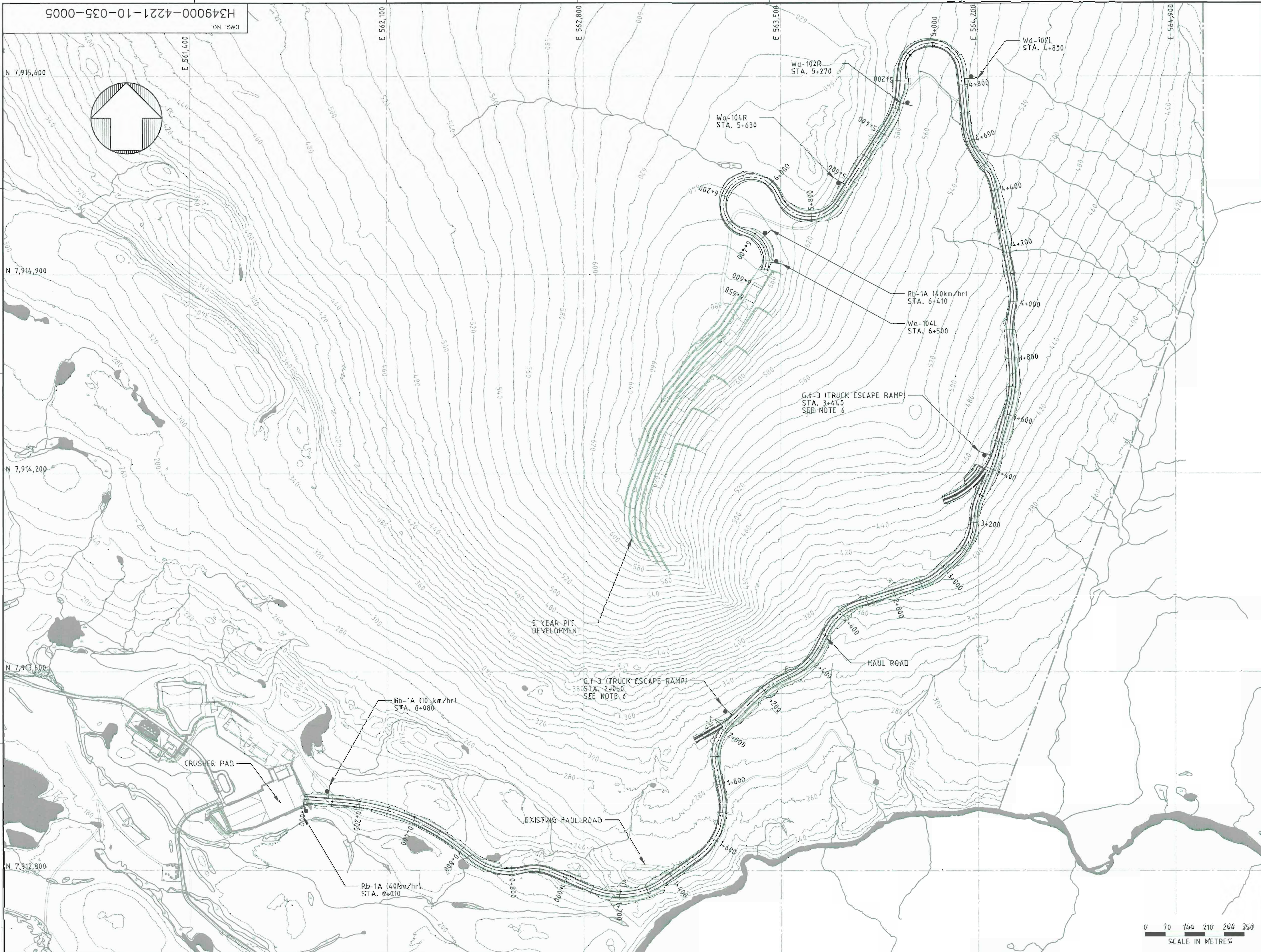

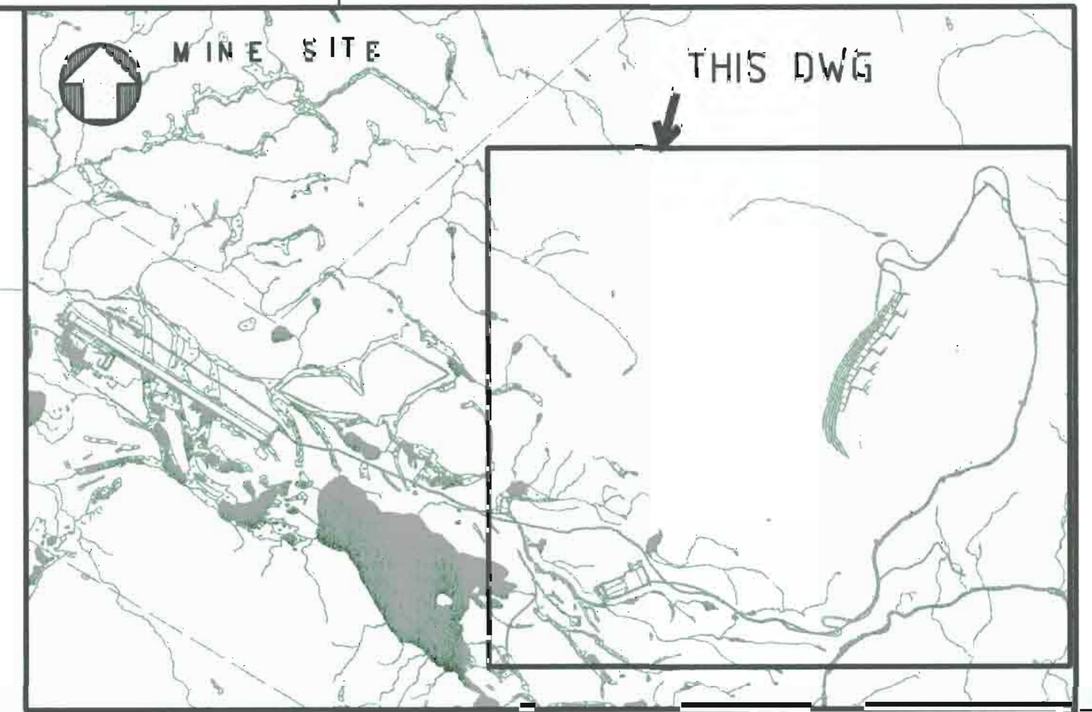

KEY PLAN

KEY PLAN

LEGEND:

480	EXISTING GROUND CONTOURS
	EXISTING WATERBODY
	EXISTING STREAM
	PROJECT DEVELOPMENT AREA (PDA)
Rb-1A	MAXIMUM SPEED SIGN (AS NOTED)
G.f-3	TURNOFF SIGN (AS NOTED)
Wa-102L	SHARP CURVE SIGN (LEFT)
Wa-102R	SHARP CURVE SIGN (RIGHT)
Wa-104L	SHARP REVERSE CURVE SIGN (LEFT)
Wa-104R	SHARP REVERSE CURVE SIGN (RIGHT)

NOTES:

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6. G.f-3 WAS RECOMMENDED, BUT CUSTOM SIZE 900mm X 600mm (3FT X 2FT) WAS PROCURED FOR USE AS PER COMPANY'S INSTRUCTION.

DRAWING NO.	DRAWING TITLE
H349000-4221-10-041-0001	MINE HAUL ROAD – OVERALL LAYOUT

REFERENCE DRAWINGS

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REVISIONS

REGISTERED PROFESSIONAL ENGINEER
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NT/NU

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PROJ. MGR. S. PERRY DATE 2013-08-30	

Baffinland

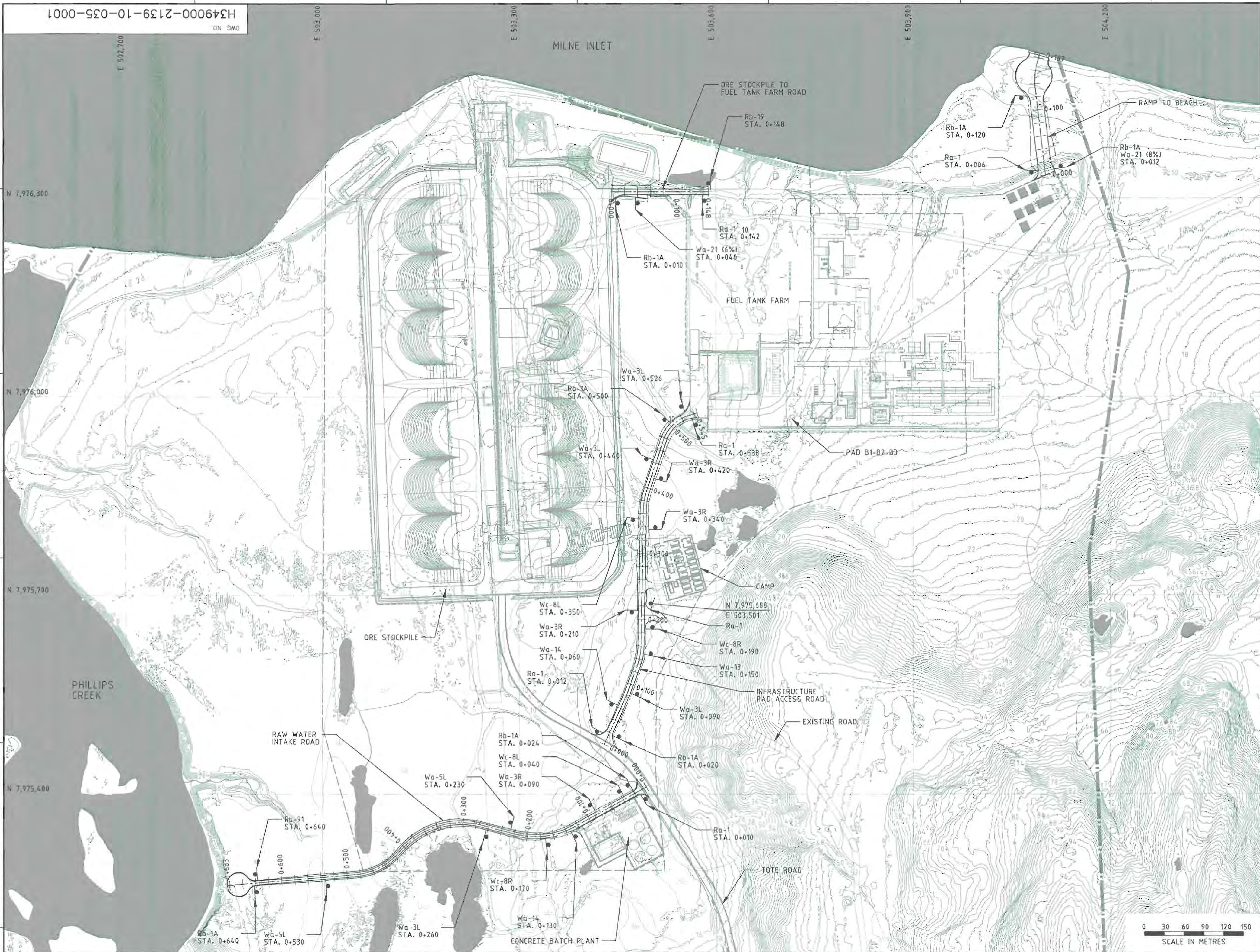
MARY RIVER PROJECT

MINE HAUL ROAD
TRAFFIC MANAGEMENT
PLAN

SCALE	DWG. NO.	REV.
1:7000 OR AS NOTED	H349000-4221-10-035-0005	0

ORIGINAL SHEET SIZE: ISO A1 (841 x 594)

H349000-4221-10-035-0005



KEY PLAN

LEGEND:

	EXISTING GROUND CONTOURS
	EXISTING WATERBODY
	EXISTING STREAM
	EXISTING MARSH
	BAFFINLAND'S COMMERCIAL LEASE ON INUIT OWNED LAND
	PROJECT DEVELOPMENT AREA (PDA)
	FILL SLOPE
	CUT SLOPE
Ra-1	STOP SIGN
Rb-1A	MAXIMUM SPEED SIGN (20km/hr)
Rb-19	DO NOT ENTER SIGN
Rb-91	YIELD TO ONCOMING TRAFFIC SIGN
Wa-3L	CURVE SIGN (LEFT)
Wa-3R	CURVE SIGN (RIGHT)
Wa-5L	REVERSE CURVE SIGN (LEFT)
Wa-13	INTERSECTION (UNCONTROLLED) SIGN
Wa-14	T-INTERSECTION (UNCONTROLLED) SIGN
Wa-21	STEEP HILL SIGN (SLOPE %)
Wc-8L	TRUCK ENTRANCE SIGN (LEFT)
Wc-8R	TRUCK ENTRANCE SIGN (RIGHT)

NOTES:

1. TOPOGRAPHY PROVIDED BY TERRAPOINT CANADA INC.
2. COORDINATE GRID IS SHOWN IN UTM (NAD83) ZONE 17 AND IS IN METRES.
3. CONTOURS ARE IN METRES. CONTOUR INTERVAL IS 2.0m.
4. ALL DIMENSIONS AND ELEVATIONS SHOWN ARE IN METRES UNLESS NOTED OTHERWISE.
5. THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH TEMPORARY SIGN LABELS DRAWING H349000-1000-10-040-0009-001, SIGNAGE DATA-SIGN LABELS AND SUMMARY DRAWING H349000-1000-10-040-0009-002, AND SIGN - BERM PULLOUTS DRAWING H349000-1000-10-041-0008.

FOR CONSTRUCTION

DRAWING NO.	DRAWING TITLE
H349000-2131-10-012-0001	MILNE PORT - RAMP TO BEACH - PLAN, PROFILE & SECTION
H349000-2139-10-012-0004	MILNE PORT - RAW WATER INTAKE ROAD - PLAN & PROFILE - SHEET 2 OF 2
H349000-2139-10-012-0003	MILNE PORT - RAW WATER INTAKE ROAD - PLAN & PROFILE - SHEET 1 OF 2
H349000-2139-10-012-0002	MILNE PORT - ORE STOCKPILE TO FUEL TANK FARM ROAD - PLAN & PROFILE
H349000-2139-10-012-0001	MILNE PORT - INFRASTRUCTURE PAD ACCESS ROAD - PLAN & PROFILE

REFERENCE DRAWINGS

PERMIT TO PRACTICE
HATCH LTD.
Signature
Date 30 Aug '13
PERMIT NUMBER: P 512
The Association of Professional Engineers, Geologists and Geophysicists of NWT/NU

NO.	DESCRIPTION	BY	CHK'D	APP'D	DATE

REVISIONS

REGISTERED PROFESSIONAL ENGINEER
M. M. S. HASSAN
LICENSEE

REV.	ISSUE FOR	AUTH.	BY	DATE
0	CONSTRUCTION	SH	AC	2013-08-30

ISSUE AUTHORIZATION

HATCH

DESIGNED BY K. FALLAHI DATE 2013-08-26	DRAWN BY A. COZZITORTO DATE 2013-08-26
CHECKED BY A. SAHELI DATE 2013-08-30	DISCIP. ENGR. S. HASSAN DATE 2013-08-30
PROJ. DES. COORD. T. THERTELL DATE 2013-08-30	PROJ. ENGR. J. CLELAND DATE 2013-08-30
PROJ. MGR. S. PERRY DATE 2013-08-30	

Baffinland

MARY RIVER PROJECT

MILNE PORT
TRAFFIC MANAGEMENT
PLAN

SCALE	DWG. NO.	REV.
1:3000 OR AS NOTED	H349000-2139-10-035-0001	0

ORIGINAL SHEET SIZE: ISO A1 (841 x 594)

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Attachment D – Steensby/ Mid-Rail Information

There will be no construction and development of Steensby and the Rail camps during 2015 and work is not planned for the immediate future. Updates to these sections of the Plan will be done when required and will be included in a future Annual Report to NWB as required by Part B, Item 4 of existing Type A Water Licence (2AM-MRY1325).

A.1 Introduction

A.1.1 Purpose

The Roads Management Plan is applicable to all roads in which comprise of the Mary River Project road network. The Mary River Project road network consists of the following:

- Railway construction road between the mine and Steensby Port.
- Service roads around Steensby Port facilities.

A.1.2 Baffinland Road Policy

The railway construction road is a temporary road. Baffinland acknowledges that this road might be used by local residents while it is in service. The road will be open for public use until it is decommissioned.

A.2 Mitigation Measures

A.2.1 Speed Control and Signs

Markers are positioned approximately each kilometre along to the railway construction road. These markers are used to identify position in case of emergencies. They are also used for reporting wildlife sightings and non-Project human visitor observations.

A.2.2 Use of Road by the Public

The railway construction road may also be used by non-project individuals (snowmobile, ATV) from nearby communities (e.g., Pond Inlet and Igloolik). Extreme care must be taken at all times whenever non-Project individuals are sighted along this road as they might not be aware of the hazards associated with Project activities and traffic.

Sighting of non-Project personnel are reported and recorded on posted logs. Refer to the Environmental Protection Plan (BAF-PH1-830-P16-0008), Section 2.2.

A.3 Monitoring and Reporting Requirements

A.3.1 Road Maintenance

Roads and creek crossings are inspected regularly for signs of degradation and maintenance requirements. The maintenance department keeps a registry of all road maintenance work. Periodic visual inspections will be conducted on all roads by trained personnel and will occur at regular intervals and after any vehicle collision, heavy precipitation event or construction activity occurs. The Railway Access Road will be continually inspected over the Project. Road safety, stability and erosion are some of the things that will be investigated during regular inspections.

Attachment E– Hunter and Visitor Site Access Procedure

Baffinland Iron Mines Corporation

HUNTER AND VISITOR SITE ACCESS PROCEDURE

BAF-PH1-830-PRO-0002

Rev 1

Prepared By: Jennifer St Paul Butler
Department: Environment
Title: Environmental Analyst
Date: February 13, 2015
Signature:

Approved By: Jim Millard
Department: Environment
Title: Environmental Manager
Date: February 13, 2015
Signature:

Approved By: Bikash Paul
Department: Site Services
Title: Site Services Manager
Date: February 13, 2015
Signature:

DOCUMENT REVISION RECORD

Issue Date MM/DD/YY	Revision	Prepared By	Approved By	Issue Purpose
02/13/15	0	J. S.P.B	J.M & B.P	Issued for Use
02/17/15	1	J.S.P.B.	J.M. & B.P.	Use

TABLE OF CONTENTS

1 PURPOSE

Baffinland Iron Mine Corporation's (Baffinland) Mary River Project Area has traditionally been, and continues to be utilized by hunters and visitors of the North Baffin Region. In accordance with Article 13 of the IIBA, Baffinland welcomes the safe arrival and visitation of beneficiaries travelling through the Project Area; however, it is critical to maintain the safety and wellbeing of all site personnel and those visiting Project sites during their stay. This document outlines the procedure for all non-employees (hunters and visitors) entering the Project Area, and identifies safe access routes to the Mary River Mine Site and Milne Port.

Baffinland recognizes that beneficiaries have a right of access under the Nunavut Land Claims Agreement for the purpose of harvesting. However, while passing through Baffinland's Project Area, *everyone* is required to comply with the Baffinland's Safety procedures and camp rules.

2 SCOPE

This Hunter and Visitor access procedure applies to Baffinland's Site Services, Security and Environmental Departments in addition to all hunters and visitors entering the Project areas in order to access the Milne Port and the Mary River Mine Site accommodation complexes. This procedure identifies safe access routes to, and within Project areas and provides specific rules that must be followed when hunters and visitors arrive at these sites.

3 RESPONSIBILITES

3.1 SITE SERVICES DEPARTMENT

Baffinland's Site Services department is responsible for project oversight pertaining to the implementation of this procedure, ensuring that the roles and responsibilities outlined in this procedure are clearly communicated to all project personnel.

The Site Services department will work with Baffinland's Environmental Department to ensure that adequate signage is posted to identify safe access routes in Project areas.

3.2 ENVIRONMENTAL DEPARTMENT

Baffinland's Environmental Department is responsible for communicating this procedure with the Mittimatalik Hunters and Trappers Organization (HTO), ensuring they are provided with, and understand safe access routes and the procedures that must be followed upon arriving at the Project Sites.

3.3 SECURITY DEPARTMENT

Baffinland's Security Department is responsible for welcoming and checking-in all hunters and visitors arriving at the Project Sites. Site security will assist the Environmental Department by documenting the

arrival and departure of site hunters and visitors in the Human Use Log at Milne Port and the Mary River Mine Site.

The Security Department will also provide appropriate information pertaining to Baffinland's Health and Safety procedures in addition to the camp rules that must be followed while visiting the Project Sites. Site Security is also responsible for enforcing these rules by providing security surveillance of project personnel and visitor activities at all times.

3.4 ELDER IN RESIDENCE

When requested and available, the Elder on-site will assist Site Security in greeting visiting parties and further inform them of the camp rules and specific Health and Safety procedures.

4 DEFINITIONS

Beneficiaries: Refers to the Inuit as defined by the Nunavut Land Claims Agreement (NLCA).

Company: Baffinland Iron Mines Corporation

Employees: Anyone in receipt of salary or wages from the Company. This includes Officers of the Company.

Hunter: A person who hunts game or other wild animals for food or in sport.

Inuit: Means Inuit as defined in Article 1 of the NLCA.

Inuit Impact and Benefits Agreement (IIBA): The agreement signed in September 2013 between Baffinland and the Qiqitani Inuit Association.

Mittimatalik Hunters and Trappers Organization: The Hunters and Trappers Organization ("the HTO") representing Pond Inlet, NU.

Nunavut Land Claims Agreement (NLCA): means the Agreement between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in Right of Canada made the 25th day of May, 1993, as ratified pursuant to a vote of the Inuit of the Nunavut Settlement Area and enacted by Canada pursuant to the *Nunavut Land Claims Agreement* Act (Canada).

Project Area: Includes all land, property, buildings, offices, facilities, accommodations, grounds, sites, equipment, vehicles, aircraft whether owned, leased, managed, or used by the Company, wherever it may be located.

Sites: Mary River Mine Site, Milne Port, Steensby Inlet Camp and the Milne Port Tote Road are workplaces of the Company.

Weapon: Tools used for wildlife harvesting and or in self-defense. This includes spears, gaff hooks, harpoons as well as non-restricted and restricted firearms.

Visitors: Any non-employee or employees who are off-rotation and accessing the Project Area from land and/or water.

5 PROTOCOL

5.1 Access to Project Facilities

Safe access routes for non-employees (hunters and visitors) travelling via land and/or water to visit the accommodations complexes at Milne Port or the Mary River Mine Site are identified in Appendix A. Adequate signage at both Milne Port and the Mine Site shall be in posted for hunters and visitors to follow when entering Project areas. All hunter and visitors must follow the identified access routes only.

5.1.1 Access to Project Facilities at Milne Port

Summer and winter access routes to Milne Port project facilities have been designated from the northeast of Milne Inlet (from the HTO Cabin). A designated safe landing zone for all hunters and visitors arriving at Milne Port is located on the north east shoreline from exiting project infrastructure. Hunters and visitors can access this landing zone via boat or snowmobile (refer to the attached map).

For hunters and visitors intending to visit the Port Site Complex during winter a snowmobile parking area has been designated northeast of the accommodations complex (refer to attached location map). Snowmobiles are restricted to this area only and are not permitted beyond the designated parking area.

5.1.2 Access to Project Facilities at the Mary River Mine Site

A safe access route has been designated to guide hunters and visitors from the new HTO cabin west of Camp Lake to the Mary River Mine Site Weatherhaven Security Building during the winter months. To avoid the dangers of project infrastructure (water pipeline) and buried high voltage power lines, all hunters and visitors indenting to visit the Mine Site accommodations complex, must first report to the Weatherhaven Security Building by travelling along the identified route (refer to attached location map). Upon their arrival at the Weatherhaven Security Building, hunters and visitors must call the Security Department and wait for instructions on how to proceed to the Mine Site accommodations complex. At this time, hunters and visitors are welcome to available refreshments (hot and/or cold) and food offered at the Weatherhaven camp. All access to, or through the Mary River Mine site via the Tote Road is prohibited (refer to Section 5.1.3 below).

5.1.3 Travel Along the Tote Road is Prohibited

As it is Baffinland's corporate and social responsibility to ensure the safety of its employees and non-employees visiting Project areas and to prevent accidents and injuries due to potential collisions with heavy equipment, unescorted travel along the Milne Port Tote Road is prohibited at all times.

Summer Travel

During the summer months, all hunters and visitors must notify the Security Department if they intend to travel between Milne Port and Mary River. At this time Baffinland will provide arrangements for a safe method of travel which shall be determined based on the resources available and size of the party requiring travel.

Winter Travel

Hunters and Visitors must advise the Security Department when Tote Road crossings are necessary during travel between the Milne Port and Mary River Project sites prior to their departure. It is asked that times and crossing locations are provided at this time. The Security Department will provide notification to Tote Road users (heavy equipment and light vehicles) to allow for safe crossings. Regardless of this notification, Hunters and visitors must always proceed with extreme caution when crossing the Tote Road. Travel *along* the Tote Road is prohibited at all times.

5.2 Checking-In with the Security Department

Upon arriving at the Project accommodation complexes all hunters and visitors (non-employees or employees who are off-rotation and accessing site from land and/or water) must report to security before proceeding to other complex facilities (cafeteria/recreation rooms).

Site Security will assist Baffinland's Environmental Department by logging the arrival and departure of site hunters and visitors in Baffinland's Human Use Log at this time.

5.3 Travelling with Weapons

Baffinland strongly encourages all hunters visiting Project accommodation complexes to safely store their weapons at the HTO cabin at which they are staying and refrain from bringing their weapons with them during their visit. All weapons are prohibited within project accommodation complexes. Should hunters have in their possession, any weapon, it must be checked-in with Security immediately upon their arrival for safe-keeping until their departure, at which time it will be released to them. Upon weapon release, hunters must immediately leave the accommodation complex.

For additional information pertaining to firearms at Mary River Project areas, please refer to Baffinland's *Weapons on Site Policy*. For additional information pertaining to recreational hunting and fishing, please refer to Baffinland's *Hunting and Fishing Policy*.

6 APPENDICES

Appendix A:

Hunter and Visitor Access Route: Mary River Mine Site - Map

Hunter and Visitor Access Route: Milne Port – Map

Mary River Hunter and Visitor Access Notification (English and Inuktitut)

7 REFERENCES AND RECORDS

Human Use Log

Alcohol and Drug Search Policy

Hunting and Fishing Policy

Weapons on Site Policy

Inuit Impact and Benefit Agreement

Appendix A:

Hunter and Visitor Access Route: Mary River Mine Site - Map

Hunter and Visitor Access Route: Milne Port – Map

Mary River Hunter and Visitor Access Notification (English and Inuktitut)

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HTO CABIN LOCATION

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Access Route to Mary River Facility

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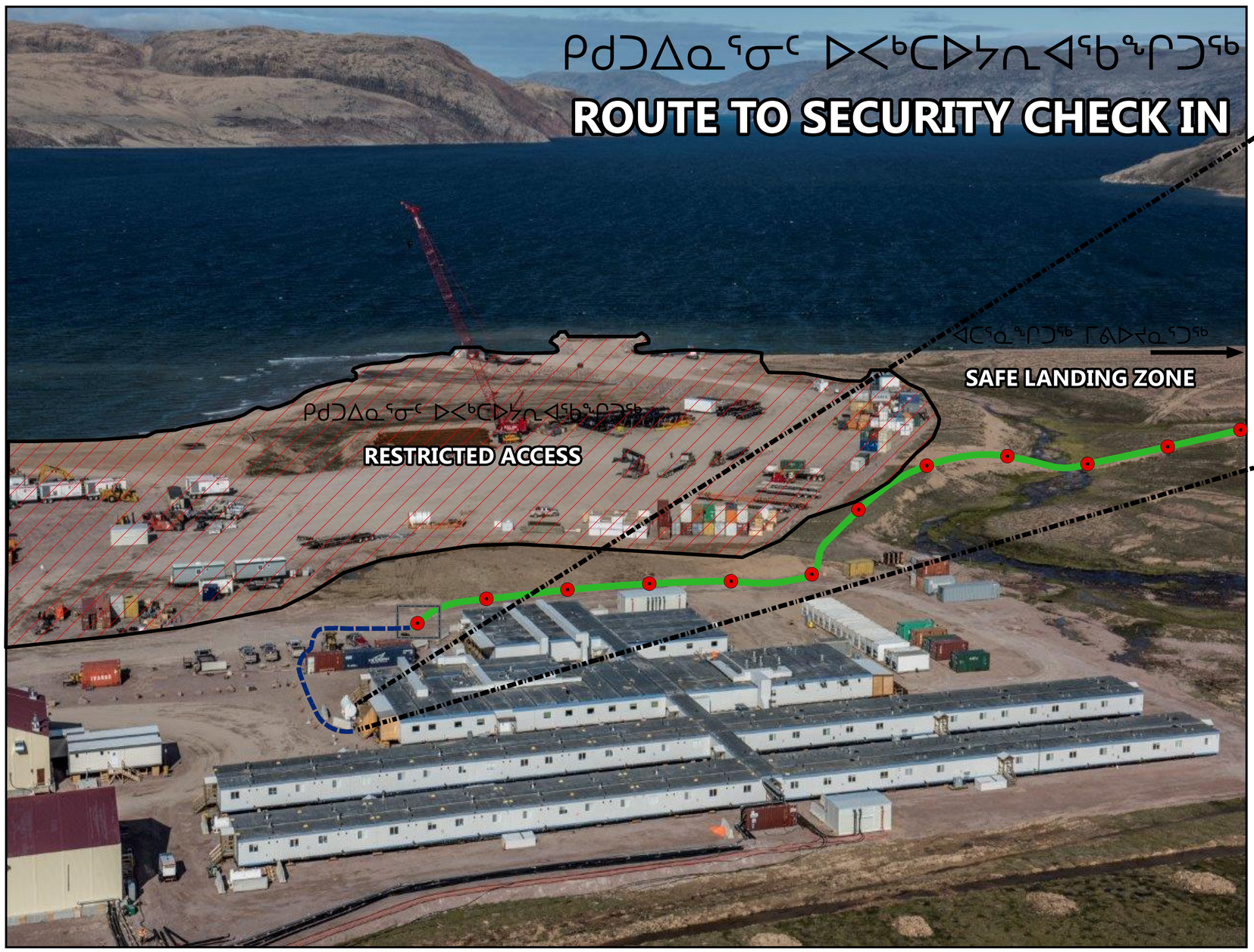
ᖅᑯᐊᖕᓴᖅᓇᖅᑐᖅ ᓴᖏᔪᖅ ᓱᑲᓇᖅᑐᖅ ᐅᐊᔭᖕᒐ ᐊᒪᓗ ᓱᓗᑯᑕᒃ ☠ High Voltage Power Line and Pipeline

ᐊᖅᑯᑎ ᐊᑕᖅᓇ ᖅᑕᐃᓂᒪᔪᑕᕆᔾᑯᓄᖕᒐᐅᖕᒐᔪᖅ
ROUTE TO SECURITY CHECK IN

ᐊᖅᑯᑎ ᑐᐱᖅᑲᖅᕕᖕᒧᑦ (Weatherhaven)
Weatherhaven Site Services Building

Baffinland



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TRAVEL ROUTE TO MILNE INLET

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TRAVEL ROUTE IN MILNE INLET

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WALKING ROUTE TO SECURITY CHECK IN

ᓄᖏᓐᓄᑦᑎᓂᐅᔪᓇᖅᑐᖅ ᓯᑭᑐᓄᑦ
DESIGNATED SNOWMOBILE PARKING AREA

Baffinland

Mary River Camp Access Procedures to Use NEW HTO Cabin

1. **Only use approved access routes to site as shown, there is a high voltage cable and water line that must be avoided.**
2. **Upon arrival proceed to the Weatherhaven camp and wait in the Site Services building (wooden structure near the front door of the Main Weatherhaven Camp). Ask someone to contact security by radio to notify them of your arrival.**
3. **Go to the Weatherhaven Cafeteria for a coffee and a snack and Security or Environment personnel will greet you with further instructions.**
4. **Do not proceed to Mine Site accommodations complex.**


New HTO Cabin


New HTO Cabin


Weatherhaven
Site Services Building

ᓄᓗᖏᓐᓂ ᐊᖕᒪᓇᓯᕎᓗᓄᑦ ᐃᓕᓴᕇᓐᓚᓄᓐᓂᐅᓗᓂᓐᓂ ᐊᕐᔪᑎ ᐊᑐᕐᑕᐅᖅᑕᖅᓂᐅᐊᖅᑐᑐᒍ

1. ᒪᓐᓂᖅᓱᒋ ᐅᐊᕐᑕᖅᕿᒪᑦ ᓯᒃᖃᓇᑐᒍᒋᐊᖅ ᐊᒪᓗ ᐃᒪᖅᐅᑎᒋᐊᖅ ᓯᓗᔪᑕᒥᑕᖅᕿᓐᓂᓐᓂ, ᑕᒪᔪᐊ ᖅᓂᑎᖃᓐᓂᖓᓂᓯᓯᒪᓂᖅ ᐅᕐᕕᕐᓂᑕᕐᓂᓯ. ᐊᒪᓗ ᐊᑕᕐᓇᕐᑐᐊᕐᑕᐃᓕᓴᕐᓗᑦ ᐊᔪᑎᑎ ᓇᓗᓇᐃᕐᓯᒪᕐᒃ ᐊᑐᖅᑕᕐᓗᐃ.

2. ᑐᐱᖅᖁᔭᓗᐊᕈᐃᖁᑦ, ᐃᓯᕐᖁᐊᑕ ᖅᓂᓪᓕᖅᓂᓐᓂ ᖃᐅᔨᒥᒃ ᐃᓕᓴᕐᑕᖅᖁᒪᑦ, ᑕᕆᓂᓕᕈᐃᖁᑦ ᐊᐱᓇᓴᑎᑦ ᐊᑕᕐᓇᕐᑕᐃᓕᒪᑎᑎᓕᑦ ᐅᖅᑕᓪᓕᐅᕐᑯᓴᑎᑦ ᑎᑎᕈᓕᕐᓴᑎᑦ ᑎᑭᑎᑦ.

3. ᐅᑕᖃᓕᕐᓴᓯ ᑐᐱᖅᖁᖁᐅᑉ ᓂᓚᖁᓂᓐᓂ ᑲᖁᑐᓴᓯ ᐊᒪᓗ ᑕᔪᐊᑲᓴᓐᓂᒃ ᓂᓚᓴᓯ ᐅᑕᖃᓂᓐᓂ ᐊᑕᕐᓇᕐᑕᐃᓕᒪᔨᓕᓚᓂᓐᓂᒃ ᐅᐸᓕᓴᑦ ᐊᖏᑎᓕᓚᔨᓐᓂᒃ ᐅᐸᑕᐅᓕᖁᓂᓐᓂ ᐊᒪᓗ ᖅᑲᐃᔪᑎᒃ ᓇᓴᓇᐃᖅᑕᖅᓂᐊᖅᑐᑦ ᑕᖏᓐᓂ ᓴᖁᓴᖅᓂᐊᖅᖁᖓᓕᒫᓂ ᐊᑕᕐᓇᕐᑕᐃᓕᒪᔨᓴᓚᐊᖅᑐᓂᒃ.

4. ᐃᓕᓴᕇᓕᔪᐊᖅᔨᐊᖅᑕᐃᓕᓴᖅᑕᓕᓴᓯ ᔨᑭᑐᔨᑦ ᐃᓕᔨᑦᓴᓯ ᐃᓕᓴᕇᓕᖅᔪᐊᖅᓚᐊᓕᐅᖏᓪᓕᓯᓐᓂ ᐅᖅᑕᓚᐃᐅᖅᑕᖅᓂᐊᖅᑐᓯ ᑕᖏᓐᓂ ᓴᖁᓴᖅᓂᐊᖅᖁᖓᓕᒫᑦ. ᐊᓪᓚᓗ ᐃᓕᓴᕐᔪᐊᔪᒍᑕᐃᓕᓴᓯ ᔨᑭᑐᑦ.