Appendix D:

Emergency Response Plan (BAF-PH1-840-P16-0002)

Baffinland Iron Mines Corporation

Emergency Response Plan

BAF-PH1-840-P16-0002

Rev 4

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Date: September 25, 2018
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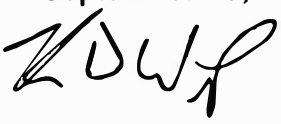

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DOCUMENT REVISION RECORD

Issue Date MM/DD/YY	Revision	Prepared By	Approved By	Issue Purpose
03/03/15	0	GH	EM	Use
03/03/16	1	SP	EM	USE: updated roles and responsibilities, contact information, titles and maps
31/03/17	2	TN	TB	USE: update of contacts and telephone numbers
30/03/17	3	KDW	TRS	USE: updated roles and responsibilities, contact information and titles, added sections on evacuation and loss of critical infrastructure
25/09/18	4	KDW KDW	TS	USE: Updated Glossary of Terms, Acronyms, Contacts, Distribution List, Document References

TABLE OF CONTENTS

1 INTRODUCTION 9

1.1 Purpose and Scope 9

1.2 Guiding Principles 9

1.3 Regulatory Framework 9

1.4 Update of this Management Plan 10

1.5 Glossary of Terms 10

1.6 Acronyms 11

2 ORGANIZATION 12

2.1 Level of Emergency 12

2.2 Response Plans 14

2.2.1 Spill Contingency Plan 14

2.2.2 Polar Bear Safety Plan 14

2.2.3 Oil Pollution Emergency Plan 15

2.2.4 Spill at Sea Response Plan 15

2.2.5 Aerodrome Operations Manual 16

2.3 Incident Control Centre 16

2.3.1 Incident Control Centre Equipment/Supplies 17

3 ROLES AND RESPONSIBILITIES 18

3.1 Emergency Management Team Lead 18

3.2 Incident Commander 19

3.3 Health and Safety Coordinator 20

3.4 Environmental Coordinator 21

3.5 Security 21

3.6 Emergency Management Team 22

3.7 Environmental Superintendent/Manager 22

3.8 Health and Safety Superintendent 23

3.9 Front-Line Supervisor 23

3.10 Medic Personnel 23

3.11 Muster Station Coordinator 24

3.12 IT Support Technicians 24

3.13 Employees 25

4 EMERGENCY RESPONSE 26

4.1 Notification and Communication 26

4.1.1 Code 1 Notification 26

4.1.2 Communication 26

4.2 Probable Emergencies and Response Actions 27

4.2.1 Serious Injury 27

4.2.2 Fatality 28

4.2.3 Missing Employee 29

4.2.4 Missing Member of the Public 30

4.2.5 Person Overboard 30

4.2.6 Extreme Weather Condition 31

4.2.7 Fires and Explosions 31

4.2.8 Ground Instability 32

4.2.9 Vehicle Incidents 32

4.2.10 Airplane/Helicopter Incidents 33

4.2.11 Bomb Threat 33

4.2.12 Fuel and Other Chemical Spills 34

4.2.13 Site or Camp Evacuation 35

4.2.14 Major Power Failure 35

4.3 End of Emergency 36

5 CONTACTS LIST 37

5.1 Internal Contacts 37

5.2 External Contacts 38

6 EMERGENCY RESPONSE TRAINING 41

6.1 Emergency Rescue Team 41

6.2 Qualifications 41

6.3 Training Content 41

6.4 Drills and Exercises 42

6.4.1 Preparations 43

6.4.2 Debrief 43

7 RESOURCES 44

7.1 Emergency Response Equipment 44

7.1.1 Medical Response 44

7.1.2 Fire Response Equipment 44

7.1.3 Ambulatory Equipment 44

7.2 Spill Response Equipment 44

8 REPORTING 45

8.1 Mines Health and Safety Reportable Incidents 45

8.2 Spill Reporting 45

Level I (Low) 55

Level II (Medium) 55

Level III (High) 55

List of Tables

Table 2-1 - Levels of Emergency Response Chart 13

List of Appendices

Appendix A - Concordance Table and Regulatory Framework

Appendix B - Mine Site and Milne Port Layouts

Appendix C - Emergency Response Activation Flowchart

Appendix D - Protocol for Baffinland-Provided Evacuation to GN Health Services

Appendix E - Protocol for GN-provided Medevac (Air Ambulance Medical Evacuation)

Appendix F - Flowchart for External Requests for Search and Rescue and Emergency Services

Foreword

The Emergency Response Plan is the overarching emergency plan which is supported by and references more detailed and specific response plans including:

Spill Contingency Plan;

Polar Bear Safety Plan;

Oil Pollution Emergency Plan (OPEP);

Spill at Sea Response Plan (SSRP); and,

Aerodrome Operations Manual (Appendix – Emergency Response Plan)

In addition to Baffinland's plans, Canadian regulations require every vessel transiting in Canadian waters to have Transport Canada approved Shipboard Oil Pollution Emergency Plan (SOPEP). SOPEPs are proprietary documents specific to each vessel. For Canadian flagged vessels, SOPEPs are reviewed and approved by Transport Canada.

For the external distribution list of this Plan, refer to Table A. Internal distribution is provided in Table B. Additional copies of this Plan may be obtained from:

Baffinland Iron Mines Corporation

2275 Upper Middle Road East, Suite 300

Oakville, Ontario L6H 0C3

Tel: (416) 364-8820 Fax: (416) 364-0193

Future revisions to the Emergency Response Plan will include references to the Railway Emergency Plan.

Table A: External Distribution List for the Emergency Response Plan

Department of Environment - Environmental Protection Division PO Box 1000 Station 1300 Iqaluit, NU, Canada X0A 0H0 Tel: (867) 975-7700, 1-866-222-9063 Fax: (867) 975-7742	**Department of Fisheries and Oceans** - Central and Arctic Region 520 Exmouth Street Sarnia, ON N7T 8B1 Tel: (519) 383-1813, (866) 290-3731 Fax: (519) 464-5128
Qikiqtani Inuit Association Igluvut Building, 2nd floor PO Box 1340 Iqaluit, NU X0A 0H0 Tel: (867) 975-8400, 1-800-667-2742 Fax: (867) 979-3238	**Crown-Indigenous Relations and Northern Affairs Canada** – Field Operations Division Qimugjuk Building PO Box 2200 Iqaluit, NU X0A 0H0 Tel: (867) 975-4295 (Director, Lands and Field Operations: Erik Allain) Fax: (867) 979-6445
Crown-Indigenous Relations and Northern Affairs Canada - Water Resources Division Building 918 PO Box 100 Iqaluit, NU X0A 0H0 Tel: (867) 222-9278 (Manager, Water Resources: Ian Parsons) Fax: (867) 975-4585	**Mittimatalik Hunters and Trappers Organization** PO Box 189 Pond Inlet, NU, Canada X0A 0S0 Tel: (867) 899-8856 Fax: (867) 899-8095
Nunavut Impact Review Board PO Box 1360 Cambridge Bay, NU, Canada X0B 0C0 Tel: (867) 983-2574, 1-866-233-3033 Fax: (867) 983-2594	**Nunavut Water Board** PO Box 119 Gjoa Haven, NU, Canada X0B 1J0 Tel: (867) 360-6338 Fax: (867) 360-6369
Mine Safety – Prevention Services Workers Safety & Compensations Services (WSCC) Northwest Territories & Nunavut Box 669 Iqaluit, Nunavut X0A 0H0 Tel: 1-800-661-0792Fax: 867-979-8501	**Royal Canadian Mounted Police** Pond Inlet Detachment PO Box 210 Pond Inlet, Nunavut Tel: 867-899-1111 Fax: 867-899-8832
Hamlet of Pond Inlet (867) 899-8934	**Hamlet of Hall Beach** (867) 928-8829 ext 211

Hamlet of Cape Dorset (867) 897-8943	**Hamlet of Arctic Bay** (867) 439-9917
Hamlet of Igloolik (867) 934-8940	**Hamlet of Clyde River** (867) 924-6220
Hamlet of Kimmirut (867) 939-2247	

Table B: Internal Distribution List for the Emergency Response Plan

Copy #	Recipient	Copy #	Recipient
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02	Michael Anderson	23	Steve Janknegt
03	Sylvain Proulx	24	Vanessa Bryan
04	Stephanie Anderson	25	David Soares
05	Todd Burlingame	26	JP Provencher
06	Richard Matthews	27	Andrew Esak
07	Tim Butler	28	Al Wertz
08	Gerald Rogers	29	Deon Pope
09	Francois Gaudreau	30	Michael Sullivan
10	Lee Dixon	31	Drew Blais
11	Tim Sewell	32	Ray Poulin
12	Rodney Fagan	33	Shawn Parry
13	Lyle Hemmerling	34	Remi Pelletier
14	Gordon Mudryk	35	Jeff Bush
15	William Bowden	36	James Martin
16	Keith Winship	37	D. Demers
17	Ted Bajno	38	Cody Gagne
18	Connor Devereaux	39	Rinaldo Stefan
19	Steve Dew	40	
20	Shawn Stevens	41	
21	Harold Audet	42	

1 INTRODUCTION

1.1 PURPOSE AND SCOPE

This Emergency Response Plan identifies potential environmental, health and safety emergencies that could arise during the construction and operational phases of Baffinland's Mary River Project (the Project). This Plan establishes the framework for responding to these situations and applies to all aspects of the operation. All Baffinland employees and contractors are required to comply with the requirements of the Emergency Response Plan.

1.2 GUIDING PRINCIPLES

Emergency events or situations are characterized by immediate threat to life, health, safety, environment, and/or property. The Emergency Response Plan and its supporting Plans are designed to address these characteristics using the following principles:

- Ensure safety and well-being of personnel, the environment, and/or property;
- The potential for asset loss is mitigated;
- Identify the types of emergencies that may occur and the procedures to respond, intervene, stop, or limit the emergency situation;
- Ensure effective communication between personnel and the Emergency Response Team;
- Ensure that personnel responding to emergencies are trained and have appropriate resources for the response; and,
- Business continuity and recovery are assured.

The information contained in this document has been prepared to act as a guide only and may require some additional actions and responses, depending on the circumstances of the emergency situation.

1.3 REGULATORY FRAMEWORK

The Plan, herein, also addresses specific terms and conditions of:

- Baffinland Iron Mines Corporation,
- Baffinland HSE Policy and Procedure,
- Sustainable Development Policy,
- Project Certificate No. 005 (Amended No. 1),
- Type A Water Licence 2AM-MRY1325 (Amendment No. 1),
- Commercial Lease signed with the Qikiqtani Inuit Association, and
- Federal and Territorial Government Legislation

1.4 Update of this Management Plan

Reviews of the ERP and all supporting documents will occur annually, and/or:

- Whenever enhancements have been identified during the normal course of business;
- Following a Baffinland incident/issue, to incorporate any lessons learnt;
- Whenever any lessons have been learnt from other sources (i.e. mock emergencies or internal training exercises);
- After an employee change which would have a significant effect on an emergency-related team's capability;
- Whenever details on stakeholder contact lists change; and
- After an organizational restructure.

1.5 Glossary of Terms

Incident:	An unplanned event that can or does result in ill health, injury, property damage or loss, adverse environmental impact, or business interruption.
Emergency:	A sudden, urgent, usually unexpected occurrence or occasion requiring immediate action.
Crisis:	A sudden event or set of circumstances that could significantly impact Baffinland's ability to carry out our business, damages our reputation and/or threatens the environment, the health, safety and well-being of employees, neighbouring communities or the public at large.
Code 1:	A "Code 1" announcement signifies an emergency situation requiring activation of the Emergency Response Team.
Incident Control Centre (ICC):	Designated location where the emergency response management team gathers to coordinate and support the response to the emergency.
Incident Commander (IC):	Person responsible for the management of incident activities at the site of the emergency. This role is filled by the Emergency Rescue Coordinator or in his/her absence on site the Mine Rescue Captain and reports to the emergency management team leader (EMTL) at the Incident Control Centre.
Emergency Management Team Lead (EMTL):	Person responsible for the overall coordination and support for the emergency response activities at the operation. This role is filled by the on-site senior manager or designated senior manager for Operations.

Emergency Response Team (ERT):	A group of employees trained in mine rescue and emergency response that provide the field response activities to an emergency.
Emergency Management Team (EMT):	A group consisting of department managers and/or supervisors that provide internal resources (people, equipment, materials) to support the emergency response activities.
Corporate Emergency Management Team (CEMT):	Senior corporate management group responsible for providing corporate coordination and support during a crisis or emergency.
Crisis Management Plan (CMP):	A plan that defines the roles and responsibilities of the EMT and CEMT in the event of a crisis.
Muster Station:	A designated gathering area for the purpose of identifying and recording all occupants/evacuees present during an emergency and ensuring their safety until the emergency has ended
Muster Station Coordinator:	A designated individual appointed by the EMTL to direct occupants/evacuees to the Muster Station and to coordinate identification of any missing personnel to the Incident Command.

1.6 ACRONYMS

CEMT	Corporate Emergency Management Team
CMP	Crisis Management Plan (BAF-PH1-830-P16-001)
EMTL	Emergency Management Team Lead
EMT	Emergency Management Team
ERT	Emergency Response Team
ER	Emergency Response
IC	Incident Commander
ICC	Incident Control Centre
MSC	Mine Site Complex
OPEP	Oil Pollution Emergency Plan (BAF-PH1-830-P16-0013)
PSC	Port Site Complex
SCP	Spill Contingency Plan (BAF-PH1-830-P16-0036)
SSRP	Spill at Sea Response Plan (BAF-PH1-830-P16-0042)

2 ORGANIZATION

2.1 LEVEL OF EMERGENCY

In order to effectively manage emergency response, Baffinland has adopted a classification system that includes three levels of emergencies. Each level of emergency, based on the significance of the event, requires varying degrees of response, effort and support. The impact on normal business operations will also differ as will the requirements for investigation and reporting.

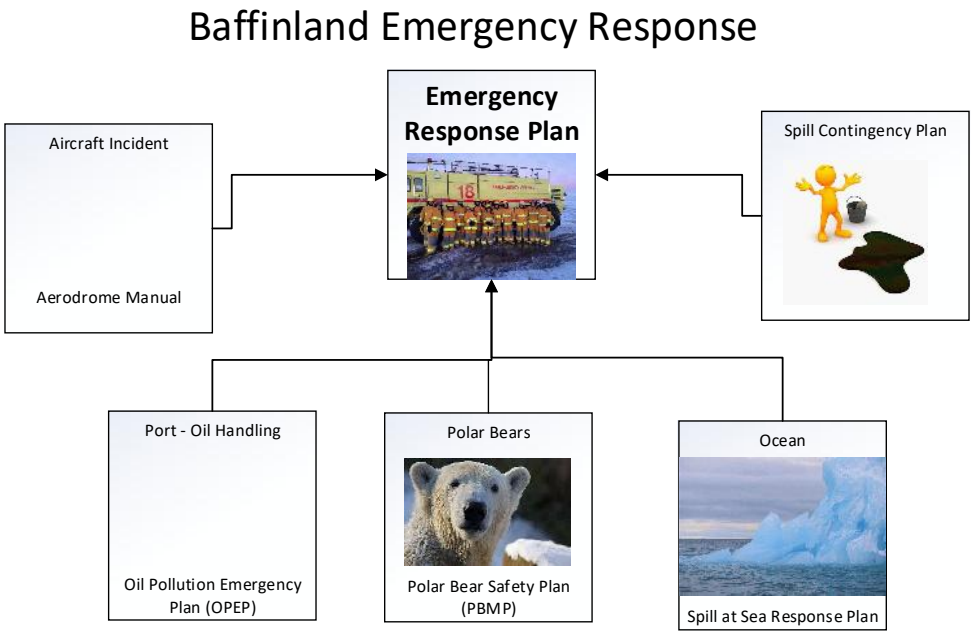
Refer to Appendix C and Table 2.1 below for the process and flowchart used at the Project to determine which emergency response(s) will need to be activated in the case of an emergency.

TABLE 2-1 - LEVELS OF EMERGENCY RESPONSE CHART

Level	Personnel	Asset Damage Downtime	Environmental Impact	Company Reputation	Management Impact	NOTIFICATION AND ACTIVATION REQUIRED
Level III	Single or Multiple Fatalities	Uncontrolled Hazard Major Fire	Uncontrolled hazard Polar Bear or wolf in camp or work area	Adverse media campaign. Investigation from external authorities. National or International impact on reputation.	Requires significant senior management attention	The Emergency Management Team and Crisis Management Team Are Activated The situation is not under control.
Level II	Serious or Multiple Injuries	Fire in a facility or uncontrolled fire involving equipment	Major reversible environmental impact. No threat to land tenure. Polar Bear or wolf within 1.5 km of camp or work area	Local/regional media interest/coverage Local impact on reputation	Can be managed by targeted senior management attention.	Activation of the ICC required by the EMTL
Level I	Medical Treatment Injury that may require Medivac	Minor fire that is not growing in size or has been controlled Loss of Generators (Less than 4) or power	Extreme weather conditions force shutdown of activities Minor accidental spill or release Wildlife interaction with minor risk, aggressive fox, Polar Bear within 8km of camp/worksite	Short term (1 media cycle) negative media articles or internet activity resulting in minor changes in key stakeholder perceptions.	Can be managed by targeted management attention. Impact of event can be absorbed into normal activities.	The Emergency Response Team and Emergency Management Team at the site and may be required to respond Emergency Management Team meets to review plans and procedures for events that could cause the emergency Level to increase Emergency Response may be required with notification of line management.

2.2 Response Plans

The Emergency Response Plan is the overarching document to describe the organization, roles, responsibilities and resources for responding to emergencies at the Project. However, in some cases specific regulatory requirements require separate emergency response plans. Baffinland has prepared the following supporting response plans which layout specific actions to be followed in the event of specific emergency situations at the Project:



2.2.1 Spill Contingency Plan

Land-based environmental emergencies that may occur are addressed by the Spill Contingency Plan (SCP). Credible spill scenarios are identified and protocols and procedures for effectively dealing with these emergencies are in place at the Project. A specific plan for preventing, responding to, and recovering from an environmental emergency involving hazardous substances is provided in the SCP.

2.2.2 Polar Bear Safety Plan

Baffinland's Polar Bear Safety Plan (PBSP) has been developed to provide specific procedures to ensure the safety and well-being of Baffinland personnel, the environment, and property during polar bear encounters at or near work or accommodation areas. The PBSP provides information pertaining to polar bear behavior and the types of polar bear emergencies that may occur at the Project.

The PBSP also provides specific procedures for the effective communication between personnel and the Emergency Response Team. The PBSP also ensures that personnel responding to emergencies are trained and have appropriate resources to respond, intervene, stop, or limit a polar bear encounter.

2.2.3 Oil Pollution Emergency Plan

The Canada Shipping Act and Oil Handling Facilities Regulations stipulates that operators of designated Oil Handling Facilities must have an onsite Oil Pollution Emergency Plan (OPEP – standards, TP12402 applies). As such, Baffinland has developed the Oil Pollution Emergency Plan (OPEP) for Milne Port to meet the requirements of TP12402.

The OPEP provides instructions to guide all personnel in emergency spill response situations, the related exercise and evaluation program, and the mechanism for regular updates to the Plan. The OPEP addresses all environmental emergencies associated with the oil handling facility at Milne Port, as well as environmental emergencies resulting in marine fuel spills of less than 7,000 L (7 m^3) of fuel.

2.2.4 Spill at Sea Response Plan

Baffinland has developed the following three tiered approach for spill response at sea:

Tier	Risk	Action
1	Moderate	Response will rest with the ship operator. The ship itself is the primary responder for any incident occurring at sea in which the ship is involved. This is the purpose of the Shipboard Oil Pollution Emergency Plan which outlines the sequence of actions and procedures to be implemented should the ship be responsible for a fuel spill. Refer to Section 4 and 5 of the SSRP for specifics related to Tier 1 response.
2	Serious	Baffinland's Emergency Response Team will support the ship operator and their Shipboard Oil Pollution Emergency response activities. Spill response equipment located at Milne Port would be made available for the response. Refer to Section 4 and 5 of the SSRP for specifics related to Tier 2 response.
3	Major	Baffinland will call (see the SSRP for contact information) upon the services of Oil Spill Response Limited (OSRL) an industry-owned cooperative which exists to respond effectively to fuel spills wherever in the world they may occur. OSRL membership consists of over 160 corporations which are mostly oil majors, national / independent oil companies, and energy-related companies operating in the oil supply/transportation chain. The services provided by OSRL include technical advisory,

		provision of specialist personnel, equipment hire and maintenance, and training. As an associate member of the OSRL cooperative, Baffinland can draw on OSRL's expertise for spill response preparedness and response for spills which go beyond the ship operator and Baffinland's response capability. Refer to Section 4 and 5 of the SSRP for specifics related to Tier 3 response.

The Spill at Sea Response Plan requires the deployment of specialized services, close cooperation with the Canadian Coast Guard, and the involvement of multiple organizations. Therefore, the stand-alone response plan was developed early in 2015 in consultation with the Canadian Coast Guard, Transport Canada and Environment Canada.

2.2.5 Aerodrome Operations Manual

The Aerodrome Operation Manual sets out the standards that are met, and the services that are provided by the aerodrome operations. Included in this manual is an emergency response plan for aerodrome operations. The possible scenarios identified included an overdue and/or missing aircraft; precautionary and forced landings; and an aircraft crash. In the event of an aircraft incident, the Emergency Response Plan within the Aerodrome Operations Manual would be consulted to guide emergency response and notification requirements.

2.3 Incident Control Centre

The Incident Control Centre (ICC) functions to provide a place for the coordination and direction of response efforts during an emergency. In the event of no senior operations managers being available at the Project site experiencing the emergency, the location of the senior operations manager will host the ICC.

The conference room at the main office in the Mine Site Complex (MSC) is the primary ICC for incidents occurring at the Mine Site. The conference room is also used for ICC activities at the Port Site Complex (PSC). Both ICCs may be activated during a crisis emergency, or in response to an emergency along the Tote Road where both ERT would respond. In this case, the Mine Site ICC will be the primary centre unless changed by the direction of the EMTL. Alternative ICCs are properly stocked and available should the primary location be unavailable due to the emergency. The secondary ICC is the maintenance garage boardroom for both sites. For incidents where the ICC must be established in the Corporate Office, Mary River Conference Room shall be designated for use.

2.3.1 Incident Control Centre Equipment/Supplies

The ICC has all the necessary tools for organizing response to an emergency - dispatching internal/external emergency services, directing strategic deployment of emergency resources and equipment, monitoring response efforts and establishing critical communications with the Baffinland Corporate Office.

The ICC contains:

- The most current version of the Emergency Response Plan along with supporting response plans,
- Log book,
- Stationary,
- Emergency site maps and current site plans (Appendix C),
- Emergency contact information (ERP),
- 2-way radio communication (base station or handheld),
- Satellite phone system,
- VOIP phone system, and
- Network connections.

3 ROLES AND RESPONSIBILITIES

The initial stage of any emergency is critical. An effective and timely response is essential to prevent an emergency situation from escalating to a higher level. Therefore, all personnel must be fully aware of their individual duties and responsibilities as presented in this Plan.

The objectives of the Baffinland Emergency Management Team are to:

- Protect Baffinland's employees, assets and the environment;
- Enable Baffinland's ERT to conduct response and recovery;
- Support Baffinland's community;
- Protect Baffinland's reputation; and
- Keep Baffinland's employees and contractors informed and updated on the emergency situation.

Specific responsibilities and duties inherent to personnel involved in emergency response are outlined below.

3.1 EMERGENCY MANAGEMENT TEAM LEAD

The Emergency Management Team Lead (EMTL) will be the most senior operations manager present at the site where the emergency is declared. When both sites ERT resources are utilized, both command centres shall be established, with control given to the most senior operations manager (EMTL). During a Level I Code 1, a trained management representative may assume the role of the EMTL.

Duties during an Emergency

- The EMTL will ensure coordination of ERT support systems from the ICC.
- Upon being notified of a Code 1 or a Level II or III emergency by the IC or Security, the EMTL will initiate activities in the ICC and assess the situation based on current information from the IC.
- Activate the ICC system and escalate according to severity of incident.
- Coordinate all activities in the ICC. In the event the EMTL leaves the ICC, the EMTL will designate an individual to coordinate the ICC, notifying the IC.
- Ensure that the appropriate area manager(s) has been notified.
- Appoint a Muster Station Coordinator to conduct a roll call of all evacuated personnel.
- Advise the IC of the number of missing personnel and the room number or area of their last known location.
- Dispatch the medical personnel when requested by the IC.
- Provide internal notification as applicable based on the level of emergency.
- Advise IC on aspects of internal/external support as they are received.
- Notify the Corporate Emergency Management Team (CEMT) representative for level II or III emergencies.

- Provide regular updates to the CEMT throughout the response effort, up to and including external agencies (RCMP, Government agencies, etc.) coming to site to perform investigations related to the incident.
- Provide instruction to ensure that appropriate External Resources are notified.
- Receive information from the IC and ensure appropriate resources are made available.
- Ensure at least one Log Keeper, preferably two, is or are present in the ICC at all times to maintain a log of all events, actions and outcomes.

Duties Post Emergency

- Notify site personnel and CEMT of the "all clear".
- Ensure the coordination and establishment of an emergency debriefing session.
- Review ICC incident log and post-response incident report.
- Post-incident debrief with IC.
- Provide necessary information to Corporate Affairs for a media statement release if required.
- Coordinate a report on the events surrounding the incident.
- Coordinate collection of all incident notes, reports, statements and log of events.
- Ensure the responsible department completes an investigation into the event.

3.2 INCIDENT COMMANDER

The Emergency Rescue Coordinator is the site lead administrator for the ERT, responsible for ensuring the necessary emergency response equipment is available and on scene and that ERT members have received an appropriate level of training. The Emergency Rescue Coordinator directs the Emergency Response Team (ERT) at the scene, however the Emergency Rescue Coordinator reports to the EMTL at the ICC. In the absence of the Emergency Rescue Coordinator, the Emergency Rescue Captain will be designated as the IC. The following duties are performed by the IC at an emergency scene:

Duties during an emergency

Upon being notified of an emergency, the IC will:

- Will respond to the scene of the incident and direct responding ERT members in regards to the equipment and personnel required to respond.
- Take charge of the scene.
- Evaluate the details of the emergency as presented by the first person on-scene. Assess the immediate situation, confirm the level of emergency and notify the Emergency Management Team Lead (EMTL) via radio.
- Maintain contact with the EMTL and provide support in coordination of the response.
- Request internal/external resources from the EMTL as required.

- Obtain results of muster station head counts and direct the ERT accordingly to ensure full evacuation.

Duties Post Emergency

- Account for all ERT members.
- Announce the 'all clear' to the EMTL when the emergency has ended.
- Inform external resources that the emergency has ended (if external resources were mobilized during the emergency).
- Lead the emergency debriefing session.
- Ensure that all ERT equipment is returned to original order and/or replaced to ensure future rapid response.
- Ensure that the ERT Garage and equipment response ready.
- Develop a written log of events indicating instructions given, action taken and outcomes achieved.
- Provide assistance with ongoing investigation.
- Prepare a written report on response activities.

3.3 Health and Safety Coordinator

Duties during an Emergency

- Respond to the ICC and assist with duties as assigned by the EMTL.
- At the direction of the EMTL, respond to the scene and make contact with the IC.
- Establish perimeters around the area of the emergency and direct appropriate resource personnel responsible for traffic flow.
- Assist with identifying and assessment of potential hazards of the ERT response and notify the IC
- Carries out field safety duties as assigned by the IC, including surveillance of activities such as general field activities, identification of health safety equipment needs, etc.
- Ensure appropriate personal protective equipment for involved non ERT personnel.
- Note pertinent information that may be relative to the investigation.

Duties Post Emergency

- Secure the area with red "DANGER" tape and sufficient tags. Post guards if necessary.
- Participate in post-emergency debriefing.
- Assist in the accident/incident investigation report.

3.4 Environmental Coordinator

In the event of an environmental incident involving accidental release of a hazardous substance, the Environmental Coordinator shall liaise with IC to direct environmental response efforts once the scene has been assessed by the IC and all medical and/or fire emergencies are under control.

Duties during an Emergency

- Proceed to the scene of the incident as directed by the EMTL or IC
- Coordinate internal resources during spill clean-up.
- Request additional resources through the IC as necessary.
- Maintain a log of events, actions, and outcomes.

Duties Post Emergency

- Secure the area with red "DANGER" tape and sufficient tags. Post guards if necessary.
- Participate in post-emergency debriefing.
- Assist in the accident/incident investigation report.

3.5 Security

Security personnel or their designate are key in an emergency response in that they will receive an initial notification of an emergency and provide first communications to essential personnel.

Duties during an Emergency

- Receive initial emergency call and document vital information used to plan response. All logged information will be given to the IC.
- Provide appropriate notification of the employees and emergency responding group (including management) through the use of the radio system and Code 1 announcement.
- If evacuation is necessary, notify all PSC or MSC personnel of emergency evacuation.
- Assist in controlling access to the emergency area.
- Maintain open radio communication (via radio or telephone intercom system).
- Keep a written record of events throughout incident.
- Assist in the coordination of support and internal services as directed by the EMTL and IC.
- Document all actions, decisions and communications.

Duties Post Emergency

- Relay notification of ‘all clear” order when directed by EMTL
- Provide a summary of all documentation to the IC and EMTL.
- Maintain Security of the scene as directed by the IC or EMTL.

- Direct all off-site inquiries regarding the emergency to the EMTL or designate.
- Participate in a debriefing session for the emergency response.

3.6 Emergency Management Team

Duties during an Emergency

- Upon notification of a Level II or III emergency, report to the ICC.
- Work closely with the EMTL to determine appropriate response strategy for their respective work area.
- Provide supplies and resources as requested by the EMTL.
- Contact departmental resources via radio as required during the emergency response.
- Confirm that effective evacuation of the work area occurred.
- Confirm that the shift supervisor has contacted the IC.
- If trained management representation is low at one site of an emergency, the other sites management team will activate the ICC for support.

Duties Post Emergency

- Participate in an emergency debriefing session.
- Review recommendations from the accident/incident investigation.
- Ensures follow up on remedial action to prevent or mitigate possibility of reoccurrence of emergency.

3.7 Environmental Superintendent/Manager

Duties during an Emergency

- For Level II and III emergencies report to the ICC.
- At the direction of the EMTL, notify the required external agencies.
- Provide additional supplies and resources as requested by the EMTL
- Contact departmental resources via radio as required during the emergency response.
- Document all actions and decisions.

Duties Post Emergency

- Participate in post-emergency debriefing.
- Assist in the accident/incident investigation process.
- Complete Government and Stakeholder Agencies notification process.

3.8 Health and Safety Superintendent

Duties during an Emergency

- Report to the ICC for Level I emergencies and act as the EMTL
- For Level II and III emergencies report to the ICC.
- At the order of the EMTL, notify the required external agencies.
- Provide additional supplies and resources as requested by the EMTL
- Contact departmental resources via radio as required during the emergency response.
- Document all actions and decisions.

Duties Post Emergency

- Participate in post-emergency debriefing.
- Assist in the accident/incident investigation process.
- Complete government agencies notification process.

3.9 Front-Line Supervisor

Duties during an Emergency

- Pre-investigate alarms if in work structure without harm to self, activate “Code 1”
- Ensure evacuation or stand down of their work area.
- Assist to ensure accountability of evacuees at muster station.
- Report to supervisor and identify self and location, acting as a direct resource to the EMT as requested.
- Ensure restricted access allowing only authorized personnel.
- Direct the isolation, de-energizing and lock-out of systems if required.

Duties Post Emergency

- Confirm that work area is safe to return to after an “all clear” has been called by the IC.
- Ensure that area of incident is secure until all investigations are completed.
- Participate in an emergency debriefing session.
- Ensure witness statements are completed by any personnel involved in the incident
- Ensure that the incident investigation is completed.

3.10 Medic Personnel

Medical personnel will consist of the physician assistant provided by the contracted medical services provider. Responsibilities in the event of an emergency include:

Duties during an Emergency

- Respond to Code 1's as directed by the IC.
- Responsible for all decisions of medical-related situations on site.
- Assess, administer and delegate emergency medical care.
- Advise the IC of the number and condition of ill/injured personnel.
- Advise the EMTL of off-site resources that may be required, contact their Medical Director for direction, and if agreed contact these off-site resources (e.g. Medi-vac, Iqaluit hospital, etc.)
- Maintain a log of events, actions and outcomes.

Duties Post Emergency

- Participate in an emergency debriefing session.

3.11 Muster Station Coordinator

During an evacuation of any area that is designated to evacuate, the EMTL will designate a person responsible to assume the role of Muster Station Coordinator.

Duties during an Emergency

- Provide direction (traffic control) for workers and visitors to find the muster station
- Direct supervisors in the muster station to document the names of employees reporting to them and located in the muster station
- Documents the names of workers and visitors with no supervisor in the muster station
- Relay missing person's name, room number, or work area to EMTL
- Log time of events at muster station.

Duties Post Emergency

- Notify evacuees once the "all clear" has been called by the EMTL and instruct employees to return to work or accommodations.

3.12 IT Support Technicians

IT technicians are responsible to aiding the EMT in ensuring that communication lines do not fail during an emergency.

Duties during and Emergency

- Limiting internet and phone access to the ICC in the event of a level II or III emergency.
- Repairing or assisting with internet and phone issues during an emergency.
- Assisting with radio issue troubleshooting as needed.

Duties Post Emergency

- Once instructed by the EMTL, restore internet and phone lines.
- If requested by the EMTL, participate in the debriefing session.

3.13 EMPLOYEES

Employees perform an integral part of emergency response because often times they are the first to witness an incident and provide initial reporting that an emergency has occurred.

Any person involved in, or witnessing an incident should follow the emergency notification procedure and immediately initiate a required emergency response.

- As first person on the scene and after notifying that an incident has occurred, attempt to provide as much information as possible to assist in the initial response (e.g. type of incident, number of people injured and location).
- Assess and attempt to control the scene only without causing self-harm or harm to others.
- Upon hearing a site fire alarm, proceed to the designated muster area and await instruction from security personnel.
- Cooperate with instruction and assist only when requested.
- Once the all clear has been called, make yourself known to Safety and complete a witness statement for the investigation.

4 EMERGENCY RESPONSE

4.1 NOTIFICATION AND COMMUNICATION

4.1.1 CODE 1 NOTIFICATION

In order for an emergency response to occur, notification has to reach the Emergency Response Team. This initial notification should occur quickly and provide essential information. Most often, the First Person On-Scene is the individual that provides this information.

An individual involved in, or witnessing, as First Person On-Scene, shall make every effort to quickly initiate the emergency "Code 1" notification procedure as follows:

1. Employ the site radio or call site Security at extension 6911 (MSC) or 4911 (PSC) and announce:

   "Code 1, Code 1, Code 1"

   Nature of the emergency (Fire/Rescue, Medical, Environmental)

   Location of the emergency

   Your name

   Pause and repeat

   - Remain calm and in a safe location
   - Stay on channel/phone
   - Give all requested information
   - Follow instructions given by Security personnel

2. The site security department will initiate their Code 1 protocol, announcing Code 1 on the main radio channels and calling out the ERT and EMT.

4.1.2 COMMUNICATION

Effective communication systems are critical to the success of emergency responses. Personnel involved, from first person on scene to the IC and EMTL rely on the ability to quickly relay accurate information.

During an emergency, the primary communications link between all emergency response personnel is through radio communication. ERT members are issued radios. Additionally, other individuals involved in emergency response will also carry hand-held radios as part of their regular work requirement.

During an emergency, radio communications should be kept to a minimum. If radio silence is requested on other channels, Security personnel, upon receiving instruction by the EMTL or IC will announce this. This ensures open and free communications among personnel involved in the actual response. For example, if resources have to be requested on any channel other than the designated emergency channel, then this request will be unaffected by other unnecessary conversation.

Additionally, only authorized persons are permitted to release the following information:

- Names of third parties who may have been involved in the incident.
- Identification of fatalities or injured personnel.
- Cause of the incident and liability; and
- Statements that may infer negligence.

During an emergency, other site radio channels may be used to:

- Locate ERT personnel.
- Obtain additional internal resources.
- Emergency notification.
- Evacuation of employees from work areas.
- Maintain communications with aircraft/marine vessels.

During an emergency, telephone communications will be used to:

- Notify internal personnel and resources.
- Notify external personnel and resources.

To supplement radio communications, the site telephone system may be used to alert site personnel during an emergency response. Communications links with the Corporate Emergency Management Team (CEMT) will also be required during some emergency situations. Constant communications links will be established by telephone where offsite assistance is required.

4.2 Probable Emergencies and Response Actions

4.2.1 Serious Injury

In the event of an incident involving personal injury, the degree of treatment and response will depend on the severity of the occurrence. However, in the event of an emergency involving personal injury, the following general actions will be initiated.

- Assessment of the emergency situation. Ensure personal safety and the safety of people near emergency location.
- Identify yourself to the injured person(s) and attempt first aid only if safe to do so.
- Activate a Code 1 yourself, or designate it to a bystander, stating your Name, Nature and Location of the incident.

- Obtain names of all witnesses to the incident and any pertinent information required for investigation purposes.
- All material and equipment involved in the incident is to remain untouched until cleared for use by the IC or EMTL.
- Provide all pertinent information to the IC once they arrive on scene

In the event of medical or related emergencies, any person who discovers someone injured will implement initial response and identify back-up assistance, preferably the dedicated onsite medical professionals or the ERT will respond.

The onsite medical professionals will implement their protocols to address medical emergencies, providing further care, coordinating uninjured personnel to assist in the response, and arrange transfer to other health care facilities in adjacent hamlets or Iqaluit as necessary.

If the victim(s) will require facilities and services beyond that which can be given onsite, the victim(s) could be evacuated from site to receive further medical treatment in adjacent hamlets or Iqaluit as per agreement. A fixed-wing aircraft will be available at Mine for non-emergency medical evacuation. Where emergency medical evacuation is required or where the on-site aircrafts are unavailable for evacuation, the Government of Nunavut (GN) medical evacuation will be implemented. Appendix D describes the protocol for notification for Baffinland provided medical evacuations to GN medical facilities while Appendix E provides the protocol of GN Air Ambulance medical evacuations.

4.2.2 FATALITY

In case of a fatal incident, the following procedures will be carried out:

- Assessment of the emergency situation. Ensure personal safety and the safety of people near emergency location.
- Shut down/turn off any equipment/machinery that may cause additional safety hazard.
- The first person on-scene activate a Code 1, stating your Name, Nature and Location of the incident.
- Once identified as a scene of a fatal accident/incident, the ERT will secure all material and equipment involved at the scene to preserve evidence until required investigations are complete and cleared by all regulatory agencies.
- Internet and telephone services to be limited by the authority of the EMTL.
- External services such as the Pond Inlet RCMP detachment and the hospital shall be contacted as required by the EMTL.
- The WSCC Mines Inspector shall be immediately contacted in the event of a work related fatality incident.
- The EMTL will be responsible for subsequent communication to the CEMT and initiation of the CMP.

- Any reporting to the public or media regarding Emergency Response events or actions will be made directly by or on authority of the CEMT.
- Notification to next-of-kin shall be conducted under the direction of the CEMT.
- Only the RCMP is permitted to release the victim's name. This shall be done only after the employee's next-of-kin have been notified.

In the event of a fatality at a work site, Baffinland will exercise discretion for, offer counselling to, and consult with family and/or community members as well as meet all regulatory requirements for notification and scene preservation. Critical incident stress management services will be organized.

4.2.3 Missing Employee

The remoteness of the project site, and sometimes-unfavourable weather conditions, necessitates that a person's whereabouts should be known at all times while on the site during their work rotation. However, there may be instances where workers may inadvertently wander from the project area without properly notifying security personnel, fellow workers or supervisors.

If an individual does not report to work on their next scheduled work shift, the supervisor responsible for the worker shall contact Security personnel to conduct a preliminary search of their personal accommodations area, and the area surrounding. A person may be declared missing if they cannot be accounted for by their supervisor or fellow workers, and cannot be located in other areas of the PSC or MSC by Security personnel.

Once a person is declared missing, Security personnel will notify the IC and subsequently the EMTL. The IC will assess the situation, and initiate and assign responsibility for the following actions, where required:

- Mobilize the ERT and security personnel to conduct a property-wide search.
- The IC shall determine the requirement to conduct a ground search outside of the property footprint.
- The Pond Inlet RCMP shall be notified as instructed by the EMTL.
- The ERT shall formulate search patterns and assign priority areas based on information obtained from Security personnel.
- When the EMTL deems that local efforts to locate a missing person are unsuccessful or not possible, outside assistance will be requested through the RCMP.

To reduce the potential for missing persons, personnel will check-in regularly and execute proper remote work practices. Resources such as personnel, equipment, land vehicles, and aircraft will be mobilized to aid search and rescue operations. Additional resources and services from local communities will be drawn upon as needed and if available access external Search and Rescue (SAR).

4.2.4 Missing Member of the Public

Baffinland recognizes the moral and ethical responsibility to support SAR activities in the event of a missing member of the public. This responsibility is balanced against the abilities of Baffinland to provide support without risking the safety of Baffinland personnel or ability to respond should an emergency occur at the operation. The decision flowchart for external SAR requests is depicted in Appendix F and summarized below:

- Requests for SAR assistance must originate from the responsible government agency leading the SAR. This is necessary to ensure Baffinland response is properly coordinated with the government resources.
- In the event of a Good Samaritan request, not originating from SAR authorities, Baffinland will direct the person to the appropriate authorizing agency to contact Baffinland for SAR resources if required.
- Should a formal request for SAR assistance be made by the authorizing agency the EMTL will contact the CEMTL for authorization to provide support. A formal request should be accompanied by a warrant number for invoicing purposes. The Vice President of Sustainable Development will be notified of the request and CEMTL response.
- The EMTL will lead the coordination of support resources with SAR. The use of fixed wing aircraft or helicopter resources are resources that have been applied in past SAR requests. Prior to mobilizing resources an assessment of risks associated with the response will be performed and reasonable mitigating controls implemented.
- Upon completion of the SAR activities the EMTL shall notify the CEMTL. The cost for SAR services provided by Baffinland will be determined by the EMTL and provided to Baffinland Accounts Payable to invoice the SAR authorizing agency.

4.2.5 Person Overboard

Work in and around the marine environment could potentially result in a person overboard situation. Upon initial notification of a person overboard by a first person on-scene, primary response will involve an attempt to retrieve the victim using locally available water rescue equipment. Areas that involve work in or near water will be equipped with life rings, and adequate rescue rope. Additionally, if workers are required to work on or near water they will be required to wear a personal flotation device.

For emergency situations the ERT will have access to an emergency response boat or zodiac boats designated for both water rescue and environmental emergency response. Rescue equipment available includes dry suits, life jackets, life-rings and throw ropes.

For emergency situations involving equipment submersion in water, additional resources may be required including heavy equipment such as dozers and excavators used for retrieval of submersed unit and diving services to establish secure attachment points for equipment retrieval.

Additional resources may be required at the discretion of the IC and the EMTL.

4.2.6 Extreme Weather Condition

Baffin Island experiences extreme weather conditions nearly year-round and snow is possible during any month of the year. This, by necessity, requires the operation to develop health and safety plans tailored to these conditions. These extreme weather conditions will be considered emergencies when prolonged and affecting the safety of employees, equipment or facilities.

When prolonged extreme weather conditions such as cold or poor visibility presents health and safety concerns, risk will be assessed and activities will be curtailed or modified, as appropriate. If white-out conditions persist, communications with the EMTL or designate might be necessary to decide the course of action and if travel or rescue is necessary. Work activities that are affected by severe winds, such as aircraft departures/arrivals and work at height, will be curtailed as appropriate.

Individuals travelling by vehicles between camps during the months of October and May are required to follow the directives provided in the Tote Road Safety Travel Procedure.

Further response will involve moving personnel to other onsite facilities or evacuation to offsite facilities.

4.2.7 Fires and Explosions

A fire/explosion emergency is “any uncontained fire that requires an on-site response greater than an individual using a hand-held portable extinguisher”. In providing initial response to a fire/explosion emergency, the cause of the fire and remedial action necessary must be immediately identified and controlled by on-site personnel to prevent escalation of the hazard level, including the possibility of further injury and/or damage to the environment, structures or equipment.

The emulsion plant is an area of the Mine site that does present potential concern for fire or explosion. This plant is managed in accordance with the Explosives Management Plan. Should an emergency situation occur, the contractor of this facility shall enact an emergency evacuation and response plan as primary response to ensure the safety of the facility workers. Notification and response of the ERT shall occur for emergencies in this area.

In the event of a fire or explosion, the emergency response will involve:

- Assessing the situation and determining emergency response needs.
- Directing and ensuring evacuation, and accountability of personnel.
- Identifying the requirement for additional internal resources such as heavy equipment, water truck, and others.
- Securing area to prevent unauthorized access and protecting equipment, facilities and records; and
- Taking other actions as required and controlling the emergency situation.

The office/accommodation complex at the Mine (MSC) and Port (PSC) are critical support infrastructure and the most frequently occupied buildings at each site. These facilities are equipped with a fire alarm

system including automatic smoke and heat detectors, sprinkler system, fire hoses and manual fire pull stations. Security personnel upon activation of a fire alarm shall adhere to the following chronological procedures:

- Activate the full fire alarm for the accommodations complex to activate the evacuation and muster of accommodations personnel.
- Call a Code 1 to alert the ERT via radio that an alarm has sounded.
- Verify from the annunciation panel, the location of the alarm and provide that information to the ERT.
- Announce the fire emergency on all radio channels to all personnel.
- Assist with evacuation if necessary.
- Contact the muster station to ensure the roll call is being conducted.
- Inform IC of persons not accounted for at Muster Station and when all employees have been accounted for.
- Once the "all clear" has been issued by the EMTL, relay the message to the muster station.

Any scheduled burning onsite, such as incineration, will follow regulatory requirements and control procedures. Fire extinguishers will be stationed at work areas including shops, fuel farms and dispensing areas, kitchens, incinerators, generators, etc. Personnel will be evacuated from site if a fire cannot be immediately controlled or impacts necessities of life or personnel issues. Trained onsite personnel will respond to fires using onsite equipment and notify regulatory authorities as needed. All on-site personnel will be trained in the use of fire extinguishers.

4.2.8 Ground Instability

Incidents relating to ground instability could involve road embankment, pit wall, waste rock or ore stockpile embankment, leading to injuries or damage to equipment or facilities. There will be a focus on incorporating geo-technical knowledge, adequate design and quality installation into all project facilities. If a qualified professional feel there is a risk of geotechnical failure proactive preventative measures will be taken to address the problem and ensure geotechnical stability of the area in question. In such emergencies, the EMTL or designate will be notified so that necessary response action can be implemented. A qualified professional will inspect the suspected area of failure and will ensure that the area is properly secured and isolated. The incident will be documented and appropriate mitigation and preventative programs developed to limit or minimize subsequent incidents and risks. In the event of an incident pre-existing preventative measures will be revaluated and updated/adjusted to ensure similar.

4.2.9 Vehicle Incidents

Potential for vehicle incidents at the project site exist with activities such as:

- Passenger vehicle movement carrying people and freight throughout the project site.
- Ore haul from the mine site to the port site.
- Ore/waste load-haul-dump operations; and

- Heavy equipment travel and transport on access roads throughout the project site.

The potential risk of vehicle incident varies according to changing conditions. These conditions may include:

- Road conditions (including dust, loose roadbed or unstable road shoulders, ice/snow cover);
- Mechanical failure in vehicle systems; and/or
- Operator error.

Where vehicle upset presents risk of injury, environmental spill, preservation of life and health will be first priority.

If the operator is not injured, but the vehicle is causing a spill, it is unstable or resting in a waterway, request the ERT to assist with protecting the environment and stabilizing the vehicle.

In case of an incident involving vehicle and operator, the following steps will be taken after the emergency notification procedure has been initiated:

- ERT will secure the scene.
- Assess the situation and determine if the vehicle is stable.
- If fuels are apparent (signs of leaks or odor) eliminate any ignition sources by turning off engines.
- If the vehicle is stable determine if personnel can be immediately extricated from the vehicle without injury or immediate first aid requirements.
- If the vehicle is unstable the ERT must secure it with blocking for stability if required.
- If medical condition is unknown or serious, the ERT will extricate the individual.
- Attempt to secure any leak or spill of hazardous substance that may be leaking from the vehicle (internal storage systems or cargo) and contain any spilled substance if possible.
- Once the vehicle has been stabilized and person(s) extricated, begin spill recovery of accidentally released substances.

Incidents involving vehicles and other equipment will be reported to a supervisor as soon as possible to initiate the Emergency Response Plan. If a fuel spill has occurred, the underlying Spill Contingency Plan will be initiated.

4.2.10 Airplane/Helicopter Incidents

Contracted commercial air carriers will be equipped with standard operating procedures to address specific response actions to be taken in airplane emergency situations. Baffinland has developed emergency response procedures for aircraft incidents occurring on the airstrip. In the event of an incident the actions/procedures outlined in the Mary River Aerodrome Operations Manual shall be followed.

4.2.11 Bomb Threat

A bomb threat is always considered an emergency situation and cannot be regarded as false until proven otherwise. During operations there will be a requirement to store large amounts of petroleum products,

explosives, and hazardous chemicals. Any bomb threat will be considered real until gathered information confirms otherwise. If a bomb threat is received, primary responsibility for further action and investigation will rest with the RCMP. Since the Pond Inlet RCMP detachment is nearest the project site, notification and request for support during the initial stages of the response will be directed there. Until RCMP officers are available to offer on-site support, site personnel will strictly follow the following procedures.

Threat Received

When receiving a bomb threat, the person in receipt of the initial call or notification should adhere to the following protocol:

- Listen.
- Be calm and courteous.
- Do not interrupt the caller.
- Concentrate on recording the exact wording of the message.
- Obtain as much information as possible.

When Caller Hangs Up

- Report all details of threat to immediate Supervisor.
- Unless ordered to evacuate immediately, provide as many details as possible that may aid in further determining the origin/realism of the threat.

Roles and Responsibilities

Responsibilities during receipt of a bomb threat will focus on securing the safety of workers and minimizing potential damage to infrastructure. The conduct of site search and surveillance shall be the responsibility of the RCMP and their supporting resources that have been highly trained in responses of this nature. Prior to site arrival of external resources, the primary action plan for the site would focus on minimizing risk of injury to site workers and damage to existing infrastructure.

- Notify all site personnel to cease activity and report to the muster station. If the location of the bomb threat is known, immediately remove all personnel from the area.
- Secure fuel systems, equipment and other infrastructure that may have the potential to cause additional safety hazards.
- Maintain contact with the RCMP, providing period updates of site status. Ensure all instruction from the RCMP are communicated and followed.

4.2.12 Fuel and Other Chemical Spills

A Spill Contingency Plan has been developed specifically to address fuel and hazardous materials land-based spills, and releases or discharges to freshwater sources. The Spill Contingency Plan provides possible spill situations and the methods and resources to be employed in response to the spill. While

the Spill Contingency Plan provides the methodology for spill response and cleanup, the overall response to the emergency, including the IC, EMTL and ICC, will follow the procedures outlined in the Emergency Response Plan.

Baffinland has also developed an OPEP (BAF-PH1-830-P16-0013) for marine spills that result from fuel offloading activities at Milne Port and a Spill at Sea Response Plan (BAF-PH1-830-P16-0042) for marine spills that result from Project shipping activities. Transport Canada and Environment and Climate Change Canada were consulted during the development these plans.

4.2.13 Site or Camp Evacuation

In an event requiring partial or total evacuation of a site, several options are available and must be considered depending on the time of year and the availability of transportation. With the exception of medical aid incidents, site evacuations (including evacuation arrangements and external resources) will be authorized by the General Manager or his designate. Options for evacuation include road or air transportation, depending on the time of year and reason for the evacuation. Transportation is dependent on weather and availability of aircraft. Early communication with airlines is critical for the preparation of staff and aircraft. Accurate weather assessment by flight operations from site is critical to incoming aircraft.

- Transportation by bus to the unaffected camp or area for all non-essential employees
- Transportation by air – Arrangements made by the Surface Works Superintendent for transportation of all non-essential personnel to safe havens, such as local communities, Iqaluit, southern cities that can assist with an influx of 300+ people

4.2.14 Major Power Failure

In the event of a major power failure affecting any portion of the operating facilities at Baffinland, the employees within the working areas need to be aware of the hazards of unexpected loss of power and safely retreat to the nearest control room, lunch room or office to be accounted for by their supervisor.

Supervisor of the area of concern shall notify Health and Safety at onset of power outage.

Electrical supervisor needs to be contacted as soon as reasonably possible to assess the reason for the outage, provide alternate power if able. There are several satellite phones available for this reason.

Minimizing radio traffic is essential during a Power failure so the bulk of communication related to accountability should be done face to face.

Supervisors will attempt to locate and account for all workers under their control and be available to report the accountability check to EMTL

When weather permits, fire hall doors shall be manually opened by ERT personnel.

Muster Station Coordinator will make contact with area supervisor to confirm accountability of the respective workers.

Any missing or identified as injured workers will require search and rescue efforts. This would require initiation of Code 1.

Once all personnel are accounted for and it has been confirmed that there is no risk to life by the power outage, operating supervisors will be advised and work can continue or reassigned depending on the job and the location of power failure.

Once the power has been restored safe start up procedures must be followed and all work must be directed by the supervisor in charge of the affected areas.

4.3 End of Emergency

Activation of the ERT occurs when an emergency has been declared through the announcement of a Code 1, as indicated in the emergency response activation procedure. However, declaring a stand-down and denoting the end of an emergency is left to the discretion of the IC in consultation with the EMTL. In determining when an emergency has ended consideration will be given for the following:

- Stability of the affected area.
- Requirement for further action by the ERT or assisting external resources; and
- Potential risk of further injury or damage to people, property or the environment.

Through detailed assessment of the emergency response efforts, the area affected, and affected people and/or property the EMTL and IC may determine that there are no existing circumstances that present potential risk for further injury or property damage if the normal course of activities resume. The EMTL will direct Security to announce the Code 1 has been stood down.

5 CONTACTS LIST

5.1 INTERNAL CONTACTS

Position	Name	Phone*
Chief Executive Officer	Brian Penney	5038 416-427-6907
Chief Operating Officer	Sylvain Proulx	6091 416-970-6983
Chief Technology Officer	Michael Anderson	6030 416 526 0004
Executive Vice President Corporate Development	Stephanie Anderson	5001 416-200-6744
Executive Vice President, General Counsel	Mark O'Brien	5114 416-364-8820
Vice President, Sustainable Development and HR	Grant Goddard	5104 416-996-5523
Vice President, Technical Services	Richard (Dick) Matthews	5172 647-938-8147
General Manager	Gerald Rogers	6114 416-886-7348
General Manager	Francios Gaudreau	6072 418-297-0736
Mine Manager	Simon Fleury	6099 289-937-9699
Mine Superintendent	Trevor Brisco	6064 647-253-0596
Site Services Manager	Gordon Mudryk	6065 416-557-7843
Chief Procurement Officer	Sandeep Kumar	5181 416-919-4377
Logistics Superintendent – Mine Site	Deon Pope Al Wertz	6009 905-483-0261 647-709-4029
Logistics Superintendent – Port Site	Michael Sullivan Andrew Esak	4115 289-834-0930 647-456-1131
Maintenance Manager	Lee Dixon	6038 416 526 7785
Primary Control Centre – Mine Site		6078 6074
Primary Control Centre – Port Site		4902 4905
Secondary Control Centre – Mine Site		6119 6146
Secondary Control Centre – Port Site		4904 4906
Ore Handling Manager	Sangjin Yun-ore	5181 647-278-4842

Ore Handling Superintendent	Lyle Hemmerling J-P Provencher	6105 289 795 8689 418-455-9789
Road Maintenance Manager Road Maintenance Superintendent	Shawn Parry Remi Pelletier	6057 416-209-6444 406-919-1735
HR Manager	Brenda Roberts	6027 437-344-7342
Human Resources Advisor	Vanessa Bryan	4505
Environment Superintendent	William Bowden Connor Devereaux	6016
Head of Health, Safety and Environment	Tim Sewell	6054 647-828-3432
Health and Safety Superintendent	Shawn Stevens Keith Winship	6006 647-710-5974
Health and Safety Coordinator - PORT	Darryl Finlay Wayne LeDrew	4122
Health and Safety Coordinator - MINE	Mario Vottero Blaine Taylor	6052
Emergency Rescue Team Trainer I/C	Steve Janknegt Vacant	4145
Medic – Mine	Michel Gagnon Claudine Daigle	6008
Medic - Milne	Sylvie Seward Charles Briggins	4107

* To reach an extension dial 416-364-8820 followed by the extension

5.2 EXTERNAL CONTACTS

Y – Required	N – Not Required						M – More information required to determine reporting – refer to notes	
	Serious Injury	**Fatality**	**Fire**	**SAR**	**Dangerous Occurrence**	**Spill – Reportable**	**Spill - Ocean**	**Telephone/Fax Numbers**
Workplace Safety and Compensation Commission (WSCC)								
24 – hour phone line Mines Inspector Chief Mines Inspector	Y	Y	Y	N	Y	N	N	(800) 661-0792 (24hr) (867) 979-8527 (867) 669-4430
Royal Canadian Mounted Police								
Iqaluit – Headquarters Iqaluit Arctic Bay	N	Y	Y	Y	N	M[1]	M	(867) 975-4409 (867) 979-0123 (867) 439-0123

Y – Required	N – Not Required						M – More information required to determine reporting – refer to notes	
	Serious Injury	Fatality	Fire	SAR	Dangerous Occurrence	Spill – Reportable	Spill - Ocean	Telephone/Fax Numbers
Clyde River								(867) 924-0123
Hall Beach								(867) 928-0123
Pond Inlet								(867) 899-0123
Igloolik								(867) 934-0123
Spill Reporting								
Qikiqtani Inuit Association (QIA)	Y	Y	Y	Y	M	Y	Y	(867) 975-8422
NT-NU 24-hour Spill Report Line	N	N	N	N	N	Y	Y	(867) 920-8130
AANDC Water Resources Officer	N	N	N	N	N	Y	Y	(867) 975-4555
AANDC-Field Operations								(867) 975-4289 Cell (867) 222-8462
DFO-Iqaluit	N	N	N	N	N	Y	Y	(613) 925-2865 Ext. 131
Environment Canada - Iqaluit								(867) 975-4644
GN- DOE								(867) 975-5907
Nunavut Emergency Services						M[1]	M	1-800-693-1666
Canadian Coast Guard (Arctic region)							Y	1-800-265-0237 (24-hr)
Medical Services								
Medical Director – Advanced Medical Solutions (Dr. Rahul Khosla)	Y	Y	N	N	N	N	N	(867)-445-7225
VP Medical Operations – Kara Livy	M	M						(867)-446-2000
Qikiqtani General Hospital – Iqaluit Emergency Room	Y[2]							(867) 975-8600 ext. 1539

Y – Required	N – Not Required						M – More information required to determine reporting – refer to notes	
	Serious Injury	Fatality	Fire	SAR	Dangerous Occurrence	Spill – Reportable	Spill - Ocean	Telephone/Fax Numbers
Pond Inlet Health Clinic								(867) 899-7500 (867) 899-7538 (fax)
Iqaluit								(867) 975-4800 (867) 975-4830 (fax)
Igloolik								(867) 934-2100 (867) 934-2149 (fax)
Hall Beach								(867) 928-8827 (867) 928-8847 (fax)
Arctic Bay								(867) 439-8816 (867)439-8315 (fax)
Clyde River								(867) 924-6377 (867) 924-6244 (fax)
Transport Canada								
National 24 hour number – Duty officer Canadian Transportation Emergency Centre								(613) 996-6666 (24hr) (613) 954-5101 (fax) (613) 996-9439 (fax)
Search and Rescue								
Nunavut Emergency Services								1 800 693-1666 (24hr) (867) 975-5403
RCMP								(867) 979-1111
Joint Rescue Coordination Centre (CFB Trenton)								1 800 267-7270 (24hr) (613) 965-3870

1. In the event of a spill of hazardous materials (exceeding the quantities listed in Part 8.1 (1) of the TDGR) during transport, the shipping company will immediately report the incident to the RCMP and the Nunavut Emergency Services. The immediate report must include as much of the information listed in Part 8.2, TDGR, as is known at the time of the report. A follow-up report must be made, in writing, to the Director General within 30 days after the occurrence of the accidental release, the "dangerous goods accident" or the "dangerous goods incident". The follow-up report must include the information listed in Part 8.3, TDGR

2. In the event of an injury requiring Baffinland provided evacuation to Government of Nunavut (GN) Health Services or GN provided Medevac (air ambulance medical evacuation) the on-site medical professional shall contact the Emergency Department at the Qikiqtani General Hospital in Iqaluit. The protocols provided in Appendix D and E shall be used in communicating with the GN.

6 EMERGENCY RESPONSE TRAINING

The Emergency Rescue Coordinator will identify training needs and resources needed to provide the necessary skills to those personnel tasked with various duties in emergency response at Baffinland. This responsibility includes development of training materials and implementation of training is to ensure training:

- meets or exceeds the requirements of NWT/Nunavut Mines Health and Safety Regulations;
- Follows the WSCC NT NU Mine Rescue Training Standards
- enables ERT and EMT members to competently operate the equipment employed for emergency response purposes; and
- includes practices, drills and full scale exercises for responding to the types of emergencies that are reasonably predictable for the operation.

6.1 EMERGENCY RESCUE TEAM

The Emergency Response Team (ERT) is comprised of volunteers from the on-site employees and contractors. With different work schedules, it is necessary to have enough team members to maintain sufficient numbers of responders at site at all times.

6.2 QUALIFICATIONS

All active ERT members must have:

- been certified within the last 12 months, by a physician or by a nurse in charge of a nursing station, to be fit to work in breathing apparatus under arduous conditions;
- a valid mine rescue certificate issued by the chief inspector;
- a valid standard first aid certificate; and
- taken part in the practice sessions as identified in the WSCC NT NU Mine Rescue Training Standards

The Emergency Rescue Coordinator will establish and maintain a process to submit to WSCC proof of qualification for each ERT Member. The Emergency Rescue Coordinator will maintain the training records and the WSCC mine rescue certificate issued for each team member.

6.3 TRAINING CONTENT

Emergency response personnel, as members of the ERT, have response requirements which may include administering first aid, firefighting, performing work at height or in confined spaces, handling and transferring hazardous/controlled substances, working in/around water. Each of these demands must be supported with adequate training that will allow members to safety and effectively conduct their tasks.

Additional training requirements may be provided for specific roles within the emergency response plan and for specific functions to be performed during response including:

- Aircraft Rescue Fire Fighting (ARFF) training
- Incident command training
- Cold water rescue and Small vessel operators proficiency (SVOP) Certificate.
- Boom Deployment
- High Angle Rescue

Ongoing ERT training shall be scheduled as necessary to accommodate ERT members with different work rotations. Training time shall be a minimum of five – 11 hour refresher training sessions yearly. Training content will include:

- Mine rescue organization
- Care and use of respiratory protective equipment
- The properties of normal air and gases encountered in a contaminated mine atmosphere
- Oxygen therapy
- Gas detection methods and use of gas detection equipment
- Rope rescue
- Environmental conditions
- Electrical hazards
- Rescue tools
- Fire
- Mine operations
- Operation skills

6.4 Drills and Exercises

While drills and exercises can be used for training purposes, their primary function for this plan is to provide the means of testing the adequacy of the plans provisions and the level of readiness of response personnel.

The Emergency Rescue Coordinator is responsible for coordinating the development of and assisting in conducting drills and exercises. The following types of drills and exercises are to be used:

- Tabletop Exercises involve presenting to key emergency personnel a simulated emergency situation in an informal setting to elicit constructive discussion as the participants examine and resolve problems based on the plan. These exercises will be routinely performed during the ERT training throughout the year.
- Functional Drills are practical exercises designed to test the capability of personnel to perform a specific function (i.e. communications, first aid, and rescue). Functional drills will be performed at least annually with both shift rotations.
- Full-Scale Exercises are intended to evaluate the operational capability of Baffinland's emergency organization and the adequacy of this Plan. Full-Scale Exercises are to be conducted annually with sufficient notice to allow the correct exercise preparation.

6.4.1 PREPARATIONS

Preparations for a drill or exercise will vary depending on the type and scope involved, however the planning should include:

- Plan review and identification of possible problem areas.
- Establishing objectives.
- Identifying resources to be involved including personnel.
- Develop exercise scenarios, a major sequence of events list, and expected action checklists.
- Assigning and training controllers and evacuators.

The scenarios used will be realistic and based upon current operating conditions. The primary event (fire, spill, etc.) is to be determined based on the objective of the exercise, and in accordance with regulatory requirements.

6.4.2 DEBRIEF

Results of drills, exercises and emergency response activations are to be reviewed by the participants, evaluators and the IC and EMTL to identify problem areas such as deficiencies in the plan, training, personnel or equipment. Debriefing will commence immediately after the incident or drill / exercise has been resolved.

The IC will prepare a report which will include the following:

- A summary of the exercise, including a review of the purpose, objectives and scenario used or summary of the emergency;
- A summary of the major discrepancies/deficiencies.
- Recommendations and corrective measures.
- A proposed schedule for the completion of these corrective measures.

These reports and recommendations will then be evaluated by the Health and Safety Superintendent for a decision on the merits of all recommendations.

7 RESOURCES

7.1 EMERGENCY RESPONSE EQUIPMENT

7.1.1 MEDICAL RESPONSE

Baffinland has equipped the Mine and Port sites with medical clinics capable of providing advanced life support (ALS) support in the event of a medical emergency. The clinics are resourced by physician assistants (PAs) working under the direction the Medical Director (physician) of our contracted medical services contractor. The PAs are able to provide advanced cardiac life support, basic trauma life support, administration of pain medication and narcotics, prescribe antibiotics, cardiac defibrillation and monitoring, intubation, cast application, and audiometry testing.

7.1.2 FIRE RESPONSE EQUIPMENT

Located at the Port is an Oshkosh TI3000 Aircraft Rescue Fire Fighting (ARFF) truck with 3000 Gallon water tank, 420 Gallon foam tank, 450 lb dry chemical tank and ARFF snozzle. At the Mine is the Oshkosh T1500 ARFF with 1500-gallon water tank, 750 litre foam capacity, 450 lb dry chemical tank with an ARFF snozzle.

The ERT is equipped with Avon Deltair 4500, Scott Air Pack 75 SCBA and associated turn-out gear for responding to emergencies and fires. Equipment is also available to support vehicle accidents such as hydraulic cutters, spreaders and rams, reciprocating saws, high pressure air lifting bags.

7.1.3 AMBULATORY EQUIPMENT

In the event of a medical emergency at the Port or the requirement to move an injured person to the Mine, an ambulance is stationed at both facilities. Each of these ambulances are 4x4 Wheeled Coach models fitted with equipment to facilitate emergency medical care while in transit. A third ambulance is also available for backup purposes.

7.2 SPILL RESPONSE EQUIPMENT

The ERT is equipped and trained to respond to spills using the following equipment:

- Rescue and spill response truck at both the Mine Site and Milne Port;
- Pumps and containment structures;
- Floating booms, spill pads and containers;
- Diking and damming supplies;
- Spill kits; and,
- Safety equipment for working on or near water and/or specific hazardous materials.

8 REPORTING

8.1 MINES HEALTH AND SAFETY REPORTABLE INCIDENTS

Under Section 16.02(1) in the event of a fatality or serious injury (reportable incident) the corporate crisis management team will be initiated and the CEMT shall without delay notify a WSCC inspector and OHC Committee co-chairs. Reporting to WSCC shall be directly to the mines inspector (867-979-8527), chief mines inspector (867-669-4412), or to the 24-hour reporting phone line (800) 661-0792. A written report must be provided to the inspector within 72-hours of the occurrence.

8.2 SPILL REPORTING

Quantities of hazardous substances spilled that require reporting are listed in Schedule B of the Nunavut Spill Contingency and Reporting Regulation. After the initial field emergency response to the spill event, a spill report is filled out and reported to the 24-hour Spill Report Line:

24-Hour Spill Report Line
spills@gov.nt.ca
Tel. (867) 920-8130 or
Fax (867) 873-6924

Failure to report a spill can lead to fines. The Qikiqtani Inuit Association (QIA) Lands Administrator will also be promptly notified at (867) 975-8422 or via e-mail. Similarly, the CIRNAC Water Resources Officer will be promptly notified of the spill event at (867) 975-4295 or via e-mail. In the event of a spill on the ocean, the incident will be reported to the Canadian Coast Guard (Arctic region) 1-800-265-0237 (24 hour).

It is the responsibility of the Environmental Superintendent on behalf of the Operations Manager to prepare the proper reports and transmit them to regulatory authorities. The Environmental Superintendent will determine on a spill by spill basis whom in addition to those above, should be contacted.

QIA requests that Baffinland produce a site map(s) listing the location in UTM coordinates, date, amount, and nature of the substance spilled. The map(s) should be updated annually and will be provided along with annual report requirements. The map(s) will also detail major project components and relevant water-bodies.

In the event of a spill involving the marine carrier delivering bulk fuel, Baffinland will notify the subcontractor that a spill report must be made under its responsibility.

APPENDIX A

Concordance Table and Regulatory Framework

Appendix A.1: Project Certificate Terms and Conditions Applicable to Emergency Response

Accidents and Malfunctions

No.	Term and Condition	Comments	Reference
173	The Proponent shall employ full containment booms during all ship-to-shore and other marine-based fuel transfer events.		Please refer to Appendix D of the OPEP (BAF-PH1-830-P16-0013).
174	The Proponent and the Canadian Coast Guard are required to provide spill response equipment and annual training to Nunavut communities along the shipping route to potentially improve response times in the event of a spill.		Please refer to the OPEP (BAF-PH1-830-P16-0013).

Appendix A to NIRB Decision Report

No.	Subject	Commitment	Action	Reference
8	Fuel Transport (Overwintering of Fuel Vessel)	As part of standard operation procedures, Baffinland is committed to avoiding ship-to-shore transfer of fuel during freeze-up or break-up periods.	This will be applicable for refuelling of tug boats at Milne Port.	
9	Fuel Transfer	Baffinland is committed to undertaking fuel transfer from vessels to shore under good weather conditions. Once the ore dock is constructed at Steensby, fuel transfer will be carried out at the freight dock.	Not applicable until Steensby Port is constructed.	Refer to the OPEP (BAF-PH1-830-P16-0013).
10	Fuel (Spill / Leak Detection)	Baffinland is committed to installing leak detection instrumentation on the overwintering fuel vessel and to conduct ongoing monitoring in the vicinity of the vessel, in accordance with relevant guidelines and regulations. Baffinland is committed to using best management practices to reduce the possibility of spills.	Not applicable until construction at Steensby Port becomes underway.	Not applicable.
11	Spill Contingency Planning	Baffinland is committed to maintaining an up to date Spill Contingency Plan and will distribute copies of the Plan to stakeholders.	Completed regularly to ensure SCP reflects current operations.	Refer to Spill Contingency Plan (BAF-PH1-830-P16-0036).
12	Disaster Management Plan	Baffinland is committed to developing and implementing a Security Plan in accordance with regulatory requirements.		The Emergency Response Plan and Crisis Management Plans provides for response to emergency and disaster (crisis) events.

No.	Subject	Commitment	Action	Reference
26	Marine (Safety Officer)	Baffinland is committed to appointing one of its personnel to act as a Marine Safety Officer during the construction, operation, and closure phases of the Mary River Project.	Marine Safety Officer needs to be Identified	Refer to the OPEP (BAF-PH1-830-P16-0013).
57	Management Plans	Baffinland is committed to updating its management plans to reflect new information, new practices and changes to operating conditions.		Management plans, including the Emergency Response Plan are updated to reflect new information, practices and conditions.
99	Medical Facilities (Design)	Baffinland is committed to working with the Government of Nunavut to provide details on the design of medical facilities for the Mary River Project during the regulatory phase of the project.		Medical facilities are described in Section 7.1.1 of the Emergency Response Plan. In addition a MOA was signed with the GN that included a medical plan by our medical contractor.
100	Medical Facilities (Staffing)	Baffinland is committed having an on-site medical facility staffed by a registered nurse or certified paramedic in order to attend to any injury that workers might experience on-site, and is further committed to providing medi-vac services as may be required from the mine site to Iqaluit.		Refer to Sections 3.10, 4.2.1. and 7.1.1. of the Emergency Response Plan.
106	Emergency Response Plans	Baffinland is committed to seeking and utilizing external expertise to assist them with the development of emergency response planning and to provide formal training specific to accidents and emergency response for the Emergency Response Team, which will be stationed at site at all times. This training would include responding to Railway specific emergencies.		Refer to the OPEP (BAF-PH1-830-P16-0013).
107	Spill Training/Spill Exercises	Baffinland is committed to conducting routine training exercises and strategically placing resources and equipment on site for spill response.		Refer to Section 6.3 of the Emergency Response Plan.
108	Spill Training/Spill Exercises	Baffinland is committed, during operations, to conducting regular and annual spill response exercises and training in known and effective techniques for responding to spills and invite the relevant communities		Refer to Section 6.3 of the Emergency Response Plan as well as Section 9 of the OPEP (BAF-PH1-830-P16-0013).

No.	Subject	Commitment	Action	Reference
		of the North Baffin Region to participate.		
109	Emergency Response	Baffinland is committed to meeting on a regular basis with the emergency response and preparedness working group to review emergency preparedness.		Refer to the OPEP (BAF-PH1-830-P16-0013).
110	Emergency/Spill Response Planning	Baffinland is committed to ensuring that adequate resources are allocated to the development and deployment of emergency and spill response capabilities.		Refer to Section 6 of the Emergency Response Plan as well as the OPEP (BAF-PH1-830-P16-0013).
111	Marine Regulatory (Spill Prevention Plans)	Baffinland is committed to requiring that all project vessels have Shipboard Oil Pollution Emergency Plans (SOPEPs) in place which meets or exceeds the international standards set out in the Port State Control Memorandum of Understanding, as well as trained personnel on board to respond to spills. Baffinland will be self-sufficient for spill response and will contract the services of an established Response Organization to enable the Company to escalate response capabilities to deal with spills of up to 10,000 tonnes. This Response Organization will have expertise in recovery and cleanup of spills along coast line and involving wildlife.		Refer to the Spill at Sea Response Plan (BAF-PH1-830-P16-0042).
112	Spills (Fuel)	Baffinland is committed to ensuring that all spills are reported in accordance with the relevant spill contingency planning and reporting regulations and guidelines.		Refer to Section 8.0 of the Emergency Response Plan as well as the OPEP (BAF-PH1-830-P16-0013).
113	Spills (Fuel)	Baffinland is committed to exploring and implementing measures designed to recover residual fuel from spills under the surface of sea ice.		Refer to the OPEP (BAF-PH1-830-P16-0013).

Appendix A.2: Regulatory Framework

The regulatory and government documents that constitute an integral part of this Plan are listed below:

General

- Environmental Emergency Regulations (E2 Regulations) under the Canadian Environmental Protection Act, 1999 (CEPA 1999).
- Environmental Code of Practice for Aboveground and Underground Storage Tanks Systems Containing Petroleum and Allied Petroleum Products, 2003, CCME.
- National Fire Code 2016
- Territorial Lands Act 1985.
- Territorial Land Use Regulations 1524.
- Canada Oil and Gas Operations Act 1985.
- Canadian Environmental Protection Act 1991.
- Fisheries Act 1986.
- Transportation of Dangerous Goods Act and Regulations.
- Storage Tanks Systems for Petroleum Products and Allied Petroleum Products Regulation 2008.
- TP12402 – Oil Handling Facilities Standards, 1995, Transport Canada.
- Canadian Building Code 2016

Shipping

- Canada Shipping Act Response Organizations and Oil Handling Facilities Regulations.
- Arctic Waters Pollution Prevention Act.
- Marine Liability Act.
- Environmental Protection Act.
- Spill Contingency Planning and Reporting Regulations, 1993.
- Mine Site Reclamation Policy for Nunavut.

Territorial Acts and Regulations

- Nunavut Waters and Nunavut Surface Rights Tribunal Act 2002.
- Nunavut Environmental Protection Act.
- Nunavut Spill Contingency Planning and Reporting Regulations.
- Nunavut Mine Health and Safety Act and Regulations.
- Nunavut Coroners Act.

Site Specific

- Canada National Parks Act 2000.
- Canada Wildlife Act 1985.
- Migratory Birds Convention Act 1994.

APPENDIX B

Mine Site and Milne Port Layouts

SAVED: I:\1\02\00181\44\A\Acad\FIGS\B02 R0, 3/22/2018 2:48:14 PM, MDEMERS PRINTED: 3/22/2018 2:49:21 PM, Layout1, MDEMERS
XREF FILE(S): x-C-TOPO-MILN-INDEX, MILNE SITE LAYOUT, x-B-SI---MOIN-LOCA-2015, X-N-TOPO-BASE-LAND-USE--CLAS IMAGE FILE(S): GIS Baffinland Logo mine_inlet_wo3745_wv2_wv3_aug2016_ptr01

502 500 E
503 000 E
503 500 E
504 000 E
504 500 E
7 977 000 N
7 976 500 N
7 976 000 N
7 975 500 N
7 975 000 N

MOORING BUOY
ORE DOCK
SETTLING POND
EFFLUENT DISCHARGE LOCATION
FUEL TANK FARM
SEALIFT BARGE LANDING AREA
EXISTING HTO CABIN
MP-06
MP-05
MP-C-E
MP-C-H
MP-C-F
MP-HWB-1
MP-03
MP-02
RAMP TO BEACH
LAYDOWN AREA
FUEL CONTAINMENT BERM
ORE STOCKPILE
PWSP-No. 1
MP-01a
MP-01
MP-HWB-3
MP-HWB-4
POWER GENERATORS
POLISHING WASTE STABILIZATION POND
HAZARDOUS WASTE BERM
PORT SITE WEATHERHAVEN
MP-C-B
MP-C-B01
LAND FARM MP-04
LAND FARM
SNOW DUMP
MP-04
MP-04a
MAINTENANCE BUILDING
MP-MRY-2
POTABLE WATER INTAKE LOCATION
MOBILE REFUELING MODULE TEMPORARY CONTAINMENT BERM
50 PERSON CAMP (FROM STEENSBY PORT)
MP-Q1-02
APPROXIMATE EXTENT OF QUARRY Q1 DEVELOPMENT
CAMP PAD (CONSTRUCTED IN 2017)
TOTE ROAD(NEW ALIGNMENT)
PERMITTED OPEN BURN PIT AREA
MP-Q1-01
BORROW SOURCE NO.1
BORROW PITS
MARINE MANIFOLD BUILDING
WELDING SHOP
SHIPPING CONTAINERS
ACCOMMODATION COMPLEX
WASTE MANAGEMENT BUILDING
WASTE MANAGEMENT FACILITY
MP-HWB-2
TOTE ROAD (OLD ALIGNMENT)

SERVICE AREA PAD SITE FACILITIES, INCLUDING:
- MAINTENANCE/WAREHOUSE BUILDING
- WELDING SHOP BUILDING
- WORKSHOP OFFICE BUILDING

CAMP SITE INFRASTRUCTURE PAD SITE FACILITIES, INCLUDING:
- ACCOMMODATION COMPLEX
- EMERGENCY RESPONSE OFFICE / GARAGE
- SEWAGE TREATMENT PLANT
- POTABLE WATER TREATMENT PLANT
- WASTE MANAGEMENT FACILITY

NOTES:
1. COORDINATE GRID IS UTM NAD83 ZONE 17N.
2. TOPOGRAPHY PROVIDED BY EAGLE MAPPING (2005).
3. PLAN/SECTION BASED ON INFORMATION PROVIDED BY HATCH, DATED (JAN 31,2014).
4. CONTOUR INTERVAL IS 10 METRES.

LEGEND:
- WATER
- BORROW AREAS (2013 UNDER Q10C3001)
- QUARRY AREA (EXISTING UNDER Q13C301)
- INUIT OWNED LAND - SURFACE ONLY EXCLUDING MINERALS
- WASTE STORAGE AREA
- RIVER/STREAM/DRAINAGE
- ROAD
- QIA SURFACE COMMERCIAL LEASE IMPACT BOUNDARY
- WATER LICENCE WATER QUALITY MONITORING LOCATION

SCALE A 100 50 0 100 200 300 400 500 m

REV	DATE	DESCRIPTION	DESIGNED	DRAWN	REVIEWED
0	22MAR'18	ISSUED WITH 2017 QIA AND NWB ANNUAL REPORT	AV	MMD	AK

Baffinland

MARY RIVER PROJECT

MILNE PORT SITE LAYOUT AND WATER LICENCE MONITORING LOCATIONS

Knight Piésold CONSULTING

P/A NO. NB102-181/44 | REF NO. NB18-00172 | REV 0

Figure 1

HATCH BUILDING
ACCOMMODATION COMPLEX
EMERGENCY RESPONSE OFFICE
WELDING SHOP
MAINTENANCE BUILDING
MS-03
FUEL TANK FARM
MS-01
MS-C-F
TRUCK WASH BUILDING
TOROMONT SHOP
POWER HOUSE
MS-C-C
WATER BUILDING
SEWAGE TRUCK BUILDING
TRUCK WEIGH SCALE
LUMPS STOCKPILE
MS-06
RUN OF MINE
FINE STOCKPILE
CRUSHER AND ORE LOADING PAD

560 000 E
561 500 E
563 000 E
564 500 E
N

WASTE ROCK SEDIMENTATION POND
WASTE ROCK FACILITY (ERP)
DEPOSIT NO.1 MINING LEASE 2484
MS-08
WASTE ROCK DUMP BOUNDARY AT THE END OF OPERATION (RAIL PHASE)
PROPOSED FINAL OPEN PIT OUTLINE
110 KM LAYDOWN AREA
MINE HAUL ROAD
QUARRY D1Q1
OPEN PIT DEVELOPMENT
QUARRY D1Q2
TRUCK WEIGH SCALE
ORE CRUSHING AND LOADING
MINE OPERATIONS OFFICE
MQ-C-E
EXPLOSIVE MAGAZINE
ORE CRUSHING SEDIMENTATION POND
EFFLUENT DISCHARGE POINT

KM 97 BORROW LOCATIONS
WASTE MANAGEMENT FACILITY
EXISTING LAYDOWN AREA
SITE SERVICES GARAGE
RAW WATER INTAKE
RAW WATER PUMP HOUSE
MS-MRY-1
MS-HWB-1
MS-HWB-2
MS-HWB-4
MS-HWB-5
MS-HWB-6
MS-HWB-3
MS-MRY-6
MS-MRY-4
MS-MRY-4a
PWSP No. 2
PWSP No. 3
PWSP No. 1
BULK FUEL STORAGE FACILITY (BLADDER FARM)
AERODROME APRON
MQ-C-A
QUARRY QMR2
MQ-C-D
NEW ROAD ALIGNMENT
CONSTRUCTION LAYDOWN AREA
MQ-C-B
EXPLORATION CAMP FACILITIES
WASTE WATER TREATMENT FACILITY
HELIPAD
POLISHING WASTE STABILIZATION PONDS (PWSPs)
CAMP INFRASTRUCTURE
AERODROME RUNWAY
NEW ACCOMMODATIONS CAMP
NEW ACCOMMODATIONS CAMP PAD
POLISHING WASTE STABILIZATION PONDS TREATED WATER DISCHARGE POINT
MS-C-C
MS-C-A
MS-03
MS-01
MS-C-B
MS-C-F
MS-C-E
MS-C-D
MS-06
MS-MRY-13b
MS-MRY-13a
EXISTING LANDFILL
EXISTING LANDFILL ROAD
MS-C-H
MS-C-G
EMULSION PLANT

UTILITIES, INCLUDED:
- POWER GENERATION MODULE
- FUEL TANK FARM & DYKE
- SEWAGE TREATMENT PLANT
- POTABLE WATER TREATMENT PLANT

SITE SERVICE FACILITIES, INCLUDING:
- MAINTENANCE BUILDING
- WELDING WORKSHOP
- TRUCK WASH STATION
- TOROMONT SHOP
- EMERGENCY RESPONSE OFFICE

7 914 500 N
7 913 000 N
7 911 500 N

LEGEND:

- INUIT OWNED LAND - SURFACE ONLY EXCLUDING MINERALS
- INUIT OWNED LAND - SURFACE AND SUBSURFACE INCLUDING MINERALS
- WATER
- BORROW AREAS (2013 UNDER Q10C3001)
- QUARRY AREA (EXISTING UNDER Q13C301)
- WASTE STORAGE AREA
- RIVER/STREAM/DRAINAGE
- ROAD
- QIA SURFACE COMMERCIAL LEASE BOUNDARY
- WATER LICENCE WATER QUALITY MONITORING LOCATION

NOTES:

1. COORDINATE GRID IS UTM NAD83 ZONE 17N.
2. TOPOGRAPHY PROVIDED BY EAGLE MAPPING (2005).
3. PLAN BASED ON INFORMATION PROVIDED BY HATCH, DATED (JAN 13, 2015).
4. CONTOUR INTERVAL IS 2.5 METRES.

SCALE A: 300 150 0 500 1000 1500 m

REV	DATE	DESCRIPTION	DESIGNED	DRAWN	REVIEWED
0	22MAR'18	ISSUED WITH 2017 QIA AND NWB ANNUAL REPORT	AV	MMD	AK

Baffinland

MARY RIVER PROJECT

MINE SITE LAYOUT AND WATER LICENCE MONITORING LOCATIONS

Knight Piésold CONSULTING

PIA NO. NB102-181/44 | REF NO. NB18-00172

Figure 2 | REV 0

APPENDIX C

Emergency Response Activation Flowchart

LEVEL I (LOW)

A Level I emergency is defined as an incident where any or all of the following has occurred:

- Minor personal injury
- Minor fire that is not growing in size or has been controlled
- Minor accidental release of a deleterious substance with:
  - No threat to public safety; and/or
  - Negligible environmental impact
- Wildlife interaction with minor risk
- Polar Bear within 8 km of a camp or worksite
- Wolf within 8 km of a camp or worksite
- Fox with unusually aggressive behaviours
- Extreme weather conditions force shutdown of work activity in an area
- No impact on reputation
- Loss of generators (less than four (4) operable generators at powerhouse)
- Report to government after the fact

Activation of ICC at the discretion of the Emergency Management Team Lead (EMTL).

LEVEL II (MEDIUM)

A Level II emergency is defined as an incident where any or all of the following has occurred:

- Serious injury
- Major accidental release of a deleterious substance with:
  - Some threat to public safety; and/or
  - Moderate environmental impact.
- Fire to a facility or uncontrolled fire involving equipment
- Wildlife interaction with potential risk to employees / contractors
- Polar bear within 1.5 km of the accommodation complex or worksite
- Wolf within 1.5 km of the accommodation complex or worksite
- Extreme weather conditions or malfunctions threaten life safety systems such as building heat
- Protesters approaching with the threat of occupation or attack
- Local impact on reputation.
- Local/regional media interest/coverage.
- Government involvement.

Activation of ICC required by Emergency Management Team Lead (EMTL).

LEVEL III (HIGH)

A Level III emergency is defined as an incident where any or all of the following has occurred:

- Uncontrolled release of a deleterious substance which:

- Jeopardizes personnel safety; and/or
- Jeopardizes public safety; and/or
- Significant environmental impacts.

- Single or multiple fatalities
- Major fire to a Production, Accommodations complex, waste storage or multiple pieces of equipment
- Wildlife interaction with serious risk to employees or contractors
- Polar bear in a camp or worksite
- Wolf in a camp or worksite
- Weather conditions or malfunctions result in loss of life safety systems such as building heat
- Uncontrolled explosion
- Attack or occupation by protesters
- Negative impact on reputation
- National/international media

Activation of ICC and Corporate Emergency Management Team required by the EMTL.

APPENDIX D

Protocol for Baffinland-Provided Evacuation to GN Health Services

D.1 Protocol for Baffinland-Provided Evacuation to GN Health Services

STEP 1:

The on-site Medical Professional will contact his or her on-call Medical Director for direction regarding the need to evacuate the patient to a higher level of care.

STEP 2:

If the Medical Director determines that the patient requires evacuation to the Qikiqtani General Hospital (QGH) and can be safely transported using BIMC contracted transportation, the on-site Medical Professional will contact the on-call Physician of the Emergency Department at the QGH in Iqaluit. The contact phone number is:

(867) 975 – 8600, Ext. 1539

BIMC's on-site Medical Professional and the QGH on-call Physician will discuss the patient assessment, clinical management and the need to refer the patient to a higher level of care. The on-call Physician may speak to the Medical Director if he or she determines Physician-to-Physician consultation is required.

For 3-way consultation between BIMC's on-site Medical Professional, the Medical Director and QGH's on-call Physician, the following dedicated telephone conference number can be used:

Step 1: Dial your Access Number 1-866-251-3220

Step 2: Enter your participant PIN - 96399876#

STEP 3:

The BIMC on-site Medical Professional will provide the following information to the on-call Physician at the QGH:

1. Name of person calling and the phone number
2. Patient's Name
3. Sex of the Patient
4. Date of birth
5. Health care number
6. Allergies
7. Relevant Medical History
8. Language spoken
9. Diagnosis

STEP 4:

BIMC will arrange for transportation of the patient to the Emergency Department at the QGH. This will include making all arrangements and paying for the patient's transportation from the Iqaluit Airport to the QGH.

Upon discharge from the QGH, BIMC will arrange and pay for any further required transportation and accommodation for the patient, including transportation back to the work site or to the patient's home community.

Exceptions:

In a small number of cases, there may be reason for a patient to be transported to the Pond Inlet Health Centre instead of being treated on-site or in the patient's home community or at the QGH.

In such cases, BIMC's on-site Medical Professional will call the on-call Physician at QGH before contacting the Pond Inlet Health Centre. If there is agreement that evacuation to the Pond Inlet Health Centre is required, BIMC should contact the Nurse-in-Charge at the Pond Inlet Health Centre to discuss the patient transfer.

APPENDIX E

Protocol for GN-provided Medevac

(Air Ambulance Medical Evacuation)

E.1 Protocol for GN-provided Medevac (Air Ambulance Medical Evacuation)

STEP 1:

The on-site Medical Professional will contact his or her on-call Medical Director for direction regarding the need to medevac the patient to a higher level of care.

STEP 2:

If the Medical Director agrees that a medevac is required, the Medical Professional will contact the on-call Physician of the Emergency Department at the Qikiqtani General Hospital (QGH) in Iqaluit. The contact phone number is:

(867) 975 – 8600, Ext. 1539

BIMC's Medical Professional and the QGH on-call Physician will discuss the need to medevac the patient to a higher level of care. The on-call Physician may speak to the Medical Director if he or she determines Physician-to-Physician consultation is required.

For 3-way consultation between BIMC's on-site Medical Professional, the Medical Director and QGH's on-call Physician, the following dedicated telephone conference number can be used:

Step 1: Dial your Access Number 1-866-251-3220

Step 2: Enter your participant PIN - 96399876#

If the QGH on-call Physician agrees that a medevac is necessary, he or she will initiate QGH's normal medevac process.

STEP 3:

BIMC's on-site Medical Professional or Medical Director must provide the following information to the on-call Physician at the QGH:

1. Name of person calling and the phone number
2. Patient's Name
3. Sex of the Patient
4. Date of birth
5. Health care number
6. Allergies
7. Relevant Medical History
8. Language spoken
9. Diagnosis

10. Patient's Location (coordinates - latitude and longitude)

STEP 4:

Once the Medevac Provider receives the warrant for transport from QGH, the medevac provider will contact BIMC's on-site Medical Professional in order to provide an expected time of arrival.

Any changes in the patient's condition must be communicated to both the medevac provider and the accepting Physician at the medevac's destination hospital.

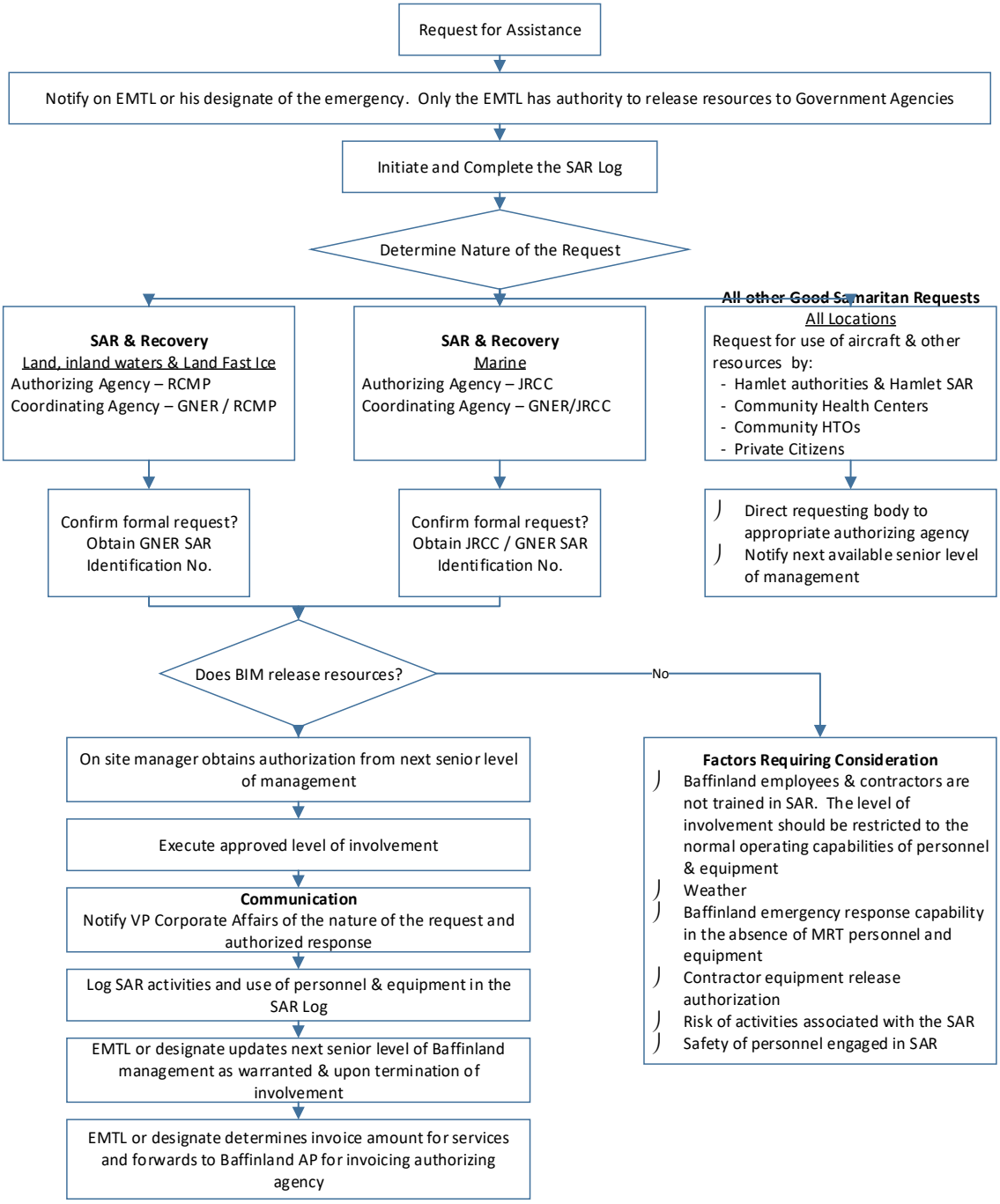
STEP 5:

DH will invoice BIMC for all costs related to the medevac including, but not limited to, charter costs, medical transportation crew, standby fees, ground transportation, physician consultation fees and administration fees.

APPENDIX F

Flowchart for External Requests for Search and Rescue and Emergency Services

FLOWCHART FOR EXTERNAL REQUESTS FOR SAR AND EMERGENCY SERVICES



Contacts – 24 hrs

GNER – Government of Nunavut Emergency Response	(800) 693-1666
RCMP – Royal Canadian Mounted Police	(867) 979-1111
JRCC – Joint Rescue Coordination Centre (CFB Trenton)	(800) 267-7270

Appendix E:

Spill Contingency Plan (BAF-PH1-830-P16-0036)

Baffinland Iron Mines Corporation

SPILL CONTINGENCY PLAN

BAF-PH1-830-P16-0036

Rev 4

Prepared By: Andrew Vermeer
Department: Sustainable Development
Title: Regulatory Reporting Specialist
Date: September 25, 2018
Signature:

Approved By: Tim Sewell
Department: Health, Safety and Environment
Title: Head of Health, Safety and Environment
Date: September 25, 2018
Signature:

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03/07/2016	2	LW	JM	Issued for Use
03/30/2017	3	KB	WM	Issued for Use
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Index of Major Changes/Modifications in Revision 4

Item No.	Description of Change	Relevant Section
1	Updated to reflect the increased fuel storage capacity at Milne Port and the operation of a 15 ML fuel tank at the Milne Port Fuel Storage Facility.	Section 7.0

TABLE OF CONTENTS

1 INTRODUCTION 6

1.1 Purpose and Scope 6

1.2 Approach to Spill Response 6

2 BAFFINLAND POLICIES 8

2.1 Health, Safety, and Environment Policy 8

2.2 Sustainable Development Policy 9

3 LEVELS OF EMERGENCY SPILL RESPONSE 11

4 EMERGENCY SPILL RESPONSES PROCEDURES 13

4.1 Spills on Land 13

4.2 Spills on Freshwater 13

4.3 Spills on Snow and Ice 14

4.4 Wildlife Protection Procedures 15

5 DISPOSAL OF CONTAMINATED MATERIAL 17

5.1 Milne Port Soil Landfarm and Contaminated Snow Containment Facility 17

6 TRAINING REQUIREMENTS 18

6.1 Qualifications 18

6.2 Training Content 18

6.3 Drills and Exercises 19

6.3.1 Tabletop Exercises 19

6.3.2 Functional Drills 19

6.3.3 Full-Scale Exercises 19

6.4 Preparation 20

7 POTENTIAL SPILL ANALYSIS 21

7.1 Fuel Spills on Land 21

7.1.1 Potential Fuel Spill Scenarios 22

7.2 Explosives Transport and Storage 26
7.2.1 Ammonium Nitrate Storage and Handling 26
7.2.2 Emulsion Storage and Handling 26
7.2.3 Potential Spill Scenarios Related to Explosives 27

7.3 Untreated Sewage 30
7.3.1 Potential Spills Scenarios Related to Sewage 30

7.4 Lubricants and Oils 31
7.4.1 Potential Spill Scenarios Related to Lubricants and Oils 32

8 REPORTING REQUIREMENTS 36

List of Tables

Table A: External Distribution List for the Spill Contingency Plan 5
Table 4-1: Emergency Contacts in Case of Spills Affecting Wildlife 16
Table 7-1: Maximum Fuel Storage Capacities for Permanent Fuel 21
Table 7-2: Maximum Cumulative Quantities of Explosives and Ammonium Nitrate at Project Sites 26
Table 8-1: General Spill Reporting and Clean-up Requirements 36

List of Figures

Figure 3-1 – Emergency Spill Response Levels 12

List of Appendices

Appendix A – Site Layouts – Milne Port and Mine Site

Appendix B – Emergency Spill Kit Supplies and Locations and Emergency Response Truck Inventory

Appendix C – MSDS Inventory

Appendix D – NT-NU Spill Report

Appendix E – Dyno Nobel Baffin Island Inc. – Emergency Assistance Response Plan

This Plan is required for use in conjunction with Baffinland's Emergency Response Plan (BAF-PH1-830-P16-0007). Table A provides a list of external contacts to which this Plan shall be distributed. Additional copies of this Plan may be obtained from:

Baffinland Iron Mines Corporation
2275 Upper Middle Road East, Suite 300
Oakville, ON L6H 0C3
Tel: (416) 364-8820
Fax: (416) 364-0193

Table A: External Distribution List for the Spill Contingency Plan

Department of Environment - Environmental Protection Division PO Box 1000 Station 200 Iqaluit, Nunavut X0A 0H0 Tel : (877) 212-6638, (867) 975-6000 Fax : (867) 975-6099	**Department of Fisheries and Oceans** Central and Arctic Region 520 Exmouth Street Sarnia, Ontario N7T 8B1 Tel : (519) 383-1813, 1-866-290-3731 Fax : (519) 464-5128
Qikiqtani Inuit Association Igluvut Building, 2nd Floor PO Box 1340 Iqaluit, Nunavut X0A 0H0 Tel : (867) 975-8400, 1-800-667-2742 Fax : (867) 979-3238	**Crown-Indigenous Relations and Northern Affairs Canada** – Field Operations Division Qimugjuk Building PO Box 2200 Iqaluit, NU X0A 0H0 Tel: (867) 975-4295 (Director, Lands and Field Operations: Erik Allain) Fax: (867) 979-6445
Crown-Indigenous Relations and Northern Affairs Canada - Water Resources Division Building 918 PO Box 100 Iqaluit, NU X0A 0H0 Tel: (867) 222-9278 (Manager, Water Resources: Ian Parsons) Fax: (867) 975-4585	**Mittimatalik Hunters and Trappers Organization** PO Box 189 Pond Inlet, Nunavut X0A 0S0 Tel : (867) 899-8856 Fax : (867) 899-8095
Nunavut Impact Review Board 29 Mitik Street PO Box 1360 Cambridge Bay, Nunavut X0B 0C0 Tel : 1-866-233-3033 Fax : (867) 983-2594, (867) 983-2574	**Nunavut Water Board** PO Box 119 Gjoa Haven, Nunavut X0B 1J) Tel : (867) 360-6338 Fax : (867) 360-6369
Hamlet of Pond Inlet PO Box 180 Pond Inlet, Nunavut X0A 0S0 Tel : (867) 899-8934, (867) 899-8935 Fax : (867) 899-8940	

1 INTRODUCTION

1.1 PURPOSE AND SCOPE

As required by Baffinland Iron Mines Corporation's (Baffinland) Type 'A' Water Licence No. 2AM-MRY1325 Amendment No. 1 (Type 'A' Water Licence) for the Mary River Project (Project), a review of Project Environmental Management and Monitoring Plans (EEMPs) was completed. This Spill Contingency Plan (Plan) was updated to meet the requirements of the Type 'A' Water Licence.

Further and continual modifications and revisions to this Plan shall be completed based on future work scope modifications, emergency and spill response procedures, and associated approvals. Updates to this Plan shall be completed in accordance to the terms and conditions of Baffinland's Type 'A' Water Licence, Commercial Lease with the QIA (Commercial Lease), Project Certificate No. 005 – Amendment No. 1 (Project Certificate), and any subsequent requirements which may be issued.

The purpose of this Plan is to identify the potential for an accidental release (spill) of a hazardous material to the environment (land, ice, or freshwater) throughout the lifecycle of the Project. This Plan provides spill scenarios and identifies protocols for their prevention, response to, and recovery and is required for use in conjunction with Baffinland's Emergency Response Plan (ERP; BAF-PH1-840-P16-0002).

Baffinland's ERP identifies potential environmental, health, and safety emergencies that could arise during the construction and operational phases of the Project. The ERP establishes the framework for responding to these situations and applies to all aspects of the Project. All Baffinland employees and contractors are required to comply with the requirements of the ERP.

The ERP also defines Baffinland's organizational roles and responsibilities, internal and external contact information, training, resources, and reporting requirements, to which all site personnel are directed.

1.2 APPROACH TO SPILL RESPONSE

A spill is defined as the release of a hazardous product out of its containment and into the environment. Such releases result in potential hazards to humans, vegetation, water resources, fish and wildlife which vary in severity, depending on several factors including the nature of the material, quantity spilled, location and season. Diesel and Jet Fuel (Arctic Diesel/P50 and Jet A) are the primary products at risk for potential releases to the environment due to its abundance and frequency of use. As a result, additional levels of spill response have been developed for these products. Other products with the potential for release include sewage water, anti-freeze, methanol, lubricants, oils, and ammonium nitrate (AN).

Baffinland requires all site personnel to be trained on the specific procedures required for spill response initiation and reporting. All site personnel must comply with the following procedure upon initiation of a spill involving a regulated substance:

1. Immediately warn other personnel working near the spill area;
2. Evacuate the area if the health and safety of personnel is threatened;
3. In the absence of danger, and before the spill response team arrives at the scene, take any safe and reasonable measure to stop, contain and identify the nature of the spill; and
4. Notify the Environmental Supervisor, who will initiate spill response operations.

Upon initiation of spill response, as determined by the Environmental Supervisor, the following procedure shall be completed by the spill response team:

Source Control – If safe to do so, reduce or stop the flow of product. This may include simple actions such as turning off a pump, closing a valve, or sealing a puncture with something nearby (e.g., a rag, piece of wood, tape), raising a leaking or discharging hose to a level higher than the product level inside the tank, or transferring the product from leaking containers.

Contain and Control the Free Product – If safe to do so, prevent or minimize the spread of the spilled product. Accumulate/concentrate spilled product in an area to facilitate recovery. Barriers positioned down-gradient of the spill will slow or stop the progression of the spill. Barriers can consist of absorbent booms, dykes, berms, or trenches (dug in the ground or in snow/ice).

Protection – Evaluate the risk of the impacted area to the surrounding environment. Protect sensitive ecosystems and natural resources at risk by isolating the area and/or diverting the spilled material away from sensitive receptors. Protection may be achieved by the effective use of various types of barriers.

Spill Clean-up – Recover and contain as much free product as possible.

Report the Spill – Provide basic information such as date and time of the spill, type and amount of product discharged, photographic records, location and approximate size of the spill, actions already taken to stop and contain the spill, meteorological conditions and any perceived threat to human health or the environment. Reports shall be completed as per Baffinland's Incident Investigation Form (BAF-PH1-810-FOR-0005).

2 BAFFINLAND POLICIES

2.1 HEALTH, SAFETY, AND ENVIRONMENT POLICY

This Baffinland Iron Mines Corporation Policy on Health, Safety and Environment 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 goals.

We implement 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 Environmental 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.
- Reclamation of lands to a condition acceptable to stakeholders.

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

- As evidenced by our motto “Safety First, Always” and our actions Health and Safety of personnel and protection of the environment are values not priorities.
- All injuries, occupational illnesses and environmental impacts can be prevented.
- Employee involvement and active contribution through courageous leadership is essential 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 health and safety of all people working at our operation and responsible management of the environment are core values to Baffinland. In ensuring our overall profitability and business success every Baffinland and business partner employee working at our work sites is required to adhere to this Policy.

Brian Penney
Chief Executive Officer
April 2018

2.2 SUSTAINABLE DEVELOPMENT POLICY

At Baffinland Iron Mines Corporation (Baffinland), we are committed to conducting all aspects of our business in accordance with the principles of sustainable development & corporate responsibility and always with the needs of future generations in mind. Baffinland conducts its business in accordance with the Universal Declaration of Human Rights and ArcelorMittal's Human Rights Policy which applies to all employees and affiliates globally.

Everything we do is underpinned by our responsibility to protect the environment, to operate safely and fiscally responsibly and with utmost respect for the cultural values and legal rights of Inuit. We expect each and every employee, contractor, and visitor to demonstrate courageous leadership in personally committing to this policy through their actions. The Sustainable Development and Human Rights Policy is communicated to the public, all employees and contractors and it will be reviewed and revised as necessary on a regular basis. These four pillars form the foundation of our corporate responsibility strategy:

1. Health and Safety
2. Environment
3. Upholding Human Rights of Stakeholders
4. Transparent Governance

1.0 HEALTH AND SAFETY

- We strive to achieve the safest workplace for our employees and contractors; free from occupational injury and illness, where everyone goes home safe everyday of their working life. Why? Because our people are our greatest asset. Nothing is as important as their health and safety. Our motto is "Safety First, Always".
- 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.
- We foster and maintain a positive culture of shared responsibility based on participation, behaviour, awareness and promoting active courageous leadership. We allow our employees and contractors the right to stop any work if and when they see something that is not safe.

2.0 ENVIRONMENT

- Baffinland employs a balance of the best scientific and traditional Inuit knowledge to safeguard the environment.
- Baffinland applies the principles of pollution prevention, waste reduction and continuous improvement to minimize ecosystem impacts, and facilitate biodiversity conservation.
- We continuously seek to use energy, raw materials and natural resources more efficiently and effectively. We strive to develop more sustainable practices.
- Baffinland ensures that an effective closure strategy is in place at all stages of project development to ensure reclamation objectives are met.

3.0 UPHOLDING HUMAN RIGHTS OF STAKEHOLDERS

- We respect human rights, the dignity of others and the diversity in our workforce. Baffinland honours and respects the unique cultural values and traditions of Inuit.
- Baffinland does not tolerate discrimination against individuals on the basis of race, colour, gender, religion, political opinion, nationality or social origin, or harassment of individuals freely employed.
- Baffinland contributes to the social, cultural and economic development of sustainable communities in the North Baffin Region.

- 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.
- We expect our employees and contractors, as well as community members, to bring human rights concerns to our attention through our external grievance mechanism and internal human resources channels. Baffinland is committed to engaging with our communities of interest on our human rights impacts and to reporting on our performance.

4.0 TRANSPARENT GOVERNANCE

- Baffinland will take steps to understand, evaluate and manage risks on a continuing basis, including those that may impact the environment, employees, contractors, local communities, customers and shareholders.
- Baffinland endeavours to 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.
- We measure and review performance with respect to our safety, health, environmental, socio-economic commitments and set annual targets and objectives.
- Baffinland conducts all activities in compliance with the highest applicable legal & regulatory requirements and internal standards.
- We strive to employ our shareholder's capital effectively and efficiently and demonstrate honesty and integrity by applying the highest standards of ethical conduct.

4.1 FURTHER INFORMATION

Please refer to the following policies and documents for more information on Baffinland's commitment to operating in an environmentally and socially responsible manner:

Health, Safety and Environment Policy
Workplace Conduct Policy
Inuktitut in the Workplace Policy
Site Access Policy
Hunting and Fishing (Harvesting) Policy
Annual Report to Nunavut Impact Review Board

If you have questions about Baffinland's commitment to upholding human rights, please direct them to contact@baffinland.com.

Brian Penney
Chief Executive Officer
March 2016

3 LEVELS OF EMERGENCY SPILL RESPONSE

To effectively manage emergency response, Baffinland has adopted a tiered emergency classification scheme. Each level of emergency, based on the significance of the event, requires varying degrees of response, effort and support. The impact on normal business operations will also differ as will the requirements for investigation and reporting. The ERP details each level of emergency; however, emergency spill response classifications are defined by the following three (3) levels:

Level 1 (Low) – Minor accidental release of a deleterious substance with:

- No threat to public safety; and/or
- Negligible environmental impact to receiving environment.

Level 2 (Medium) – Major accidental release of a deleterious substance with:

- Some threat to public safety; and/or
- Moderate environmental impact to receiving environment.

Level 3 (High) – Uncontrolled hazard which:

- Jeopardizes Project personnel safety; and/or
- Significant environmental impacts to receiving environment.

Emergency response levels are determined by the specific substance released, quantity spilled, receiving environment impacted, and risk to human health. This assessment also includes specific consideration given to spills occurring within engineered secondary containment. The following matrix provides guidance for Project personnel with regard to the level of response that is assigned to spill classifications.

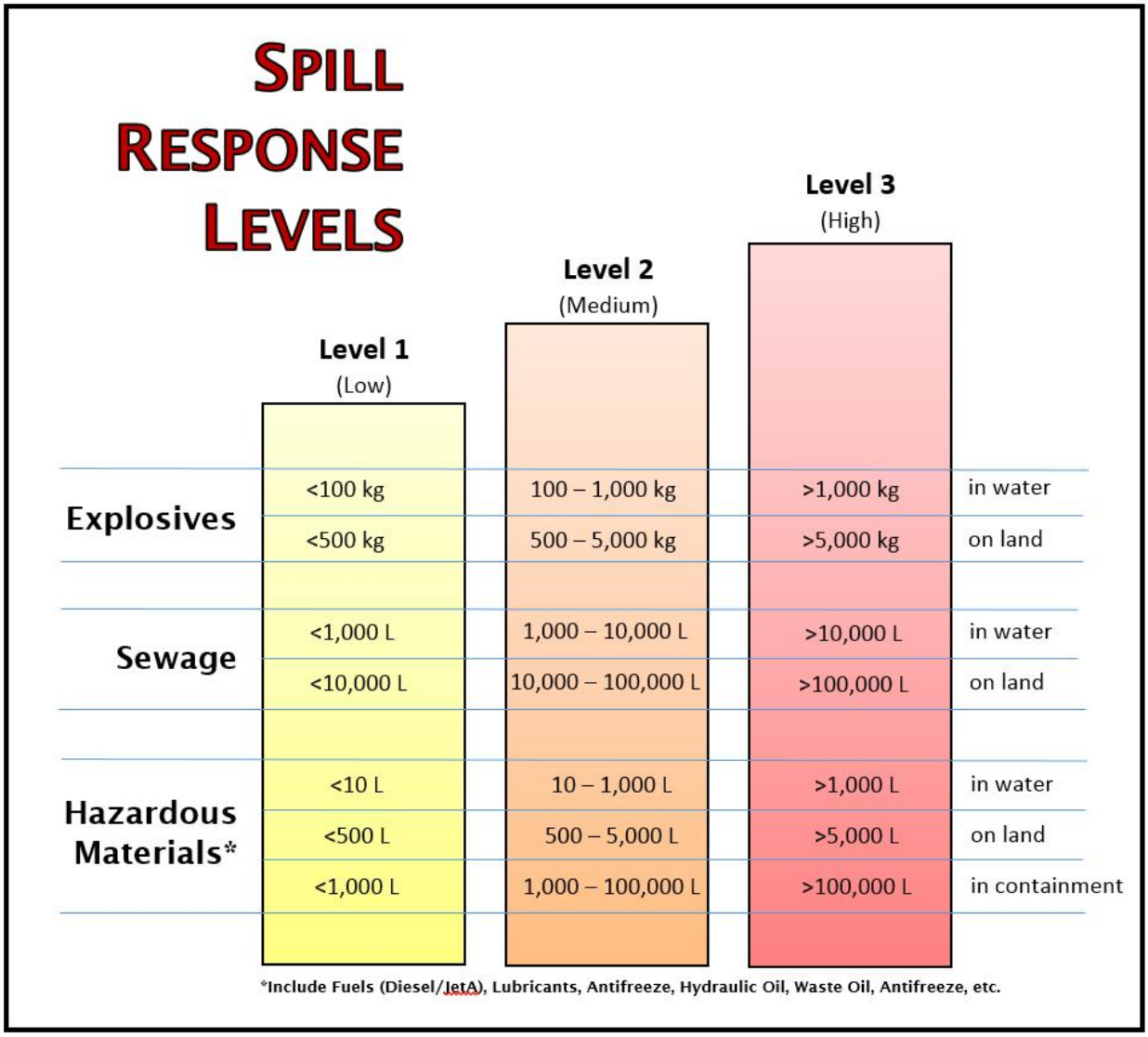

FIGURE 3-1 – EMERGENCY SPILL RESPONSE LEVELS

4 EMERGENCY SPILL RESPONSES PROCEDURES

4.1 SPILLS ON LAND

Response to spills on land will include the general procedures detailed in the Project's ERP.

The main spill control techniques involve the use of two types of barriers: dykes and trenches. Barriers should be placed down gradient (down-slope) from the source of the spill, and as close as possible to the source of the spill. Barriers slow the progression of the spill and also serve as containment to allow for the recovery of the spill.

Depending on the volume spilled, the site of the spill as well as available material, a dyke may be built with soil, booms, lumber, snow, etc. A plastic liner should be placed at the foot of and over the dykes to protect the underlying soil or other material and to facilitate recovery of the spill. Construct dykes in such a way as to accumulate a thick layer of free product in a single area (V-shaped or U-shaped).

Trenches are useful in the presence of permeable soil and when the spilled product is migrating below the ground surface. A plastic liner should be placed on the down-gradient edge of the trench to protect the underlying soil. Liners should not be placed at the bottom of the trench to allow water to continue flowing underneath the layer of floating oil (if applicable).

The use of large quantities of absorbent materials to recover large volumes of spilled fluids should be avoided. Large volumes of free-product should be recovered and containerized, as much as possible, by using vacuums and pumps appropriate to the material. Mixtures of water and fuel may be processed through the use of an oil-water separator. Absorbent sheets should be used to soak up residual fuel on water, on the ground (soil and rock), and on vegetation.

4.2 SPILLS ON FRESHWATER

Responses to spills on freshwater include the general procedures previously detailed. Various containment, diversion and recovery techniques are discussed in the following sections. The following elements must be considered when conducting response operations:

- Type of water body or water course (lake, stream, river);
- Water depth and surface area;
- Wind speed and direction;
- Type of shoreline; and
- Seasonal considerations (open-water, freeze-up, break-up, frozen).

Containment of a hydrocarbon slick on water requires the deployment of mobile floating booms to intercept, control, contain and concentrate (i.e., increase thickness) the floating substance. For a large

lake, typically, one end of the boom is anchored to shore while the other is towed by a boat and use to circle the slick and return it close to shore for recovery using a skimmer. Reducing the surface area of the slick increases its thickness and thereby improves recovery. Mechanical recovery equipment (i.e., skimmers and oil/water separators) will be mobilized to site if required.

If fuel is spilled in a smaller water body such as a small lake or pond, it may not be possible to deploy booms using a boat. In this case, measures are taken to protect sensitive and accessible shoreline (spills resulting from traffic incidents). The hydrocarbon slick is monitored to determine the direction of migration. In the absence of strong winds the oil will likely flow towards the discharge of the lake. Measures are taken to block and concentrate the oil slick at the lake discharge using booms where it will limit spatial migration and subsequently allow for recovery using a portable skimmer, a vacuum, or sorbent materials.

In small slowly-flowing rivers, streams, channels, inlets or ditches, inverted weirs (i.e., siphon dams) are used to stop and concentrate moving diesel fuel for collection while allowing water to continue to flow unimpeded. In the case of floating fuel, in a stream, heading for a culvert (i.e., at a road crossing), a culvert block is used to stop and concentrate moving fuel for collection while allowing water to continue to flow unimpeded. In both cases fuel would then be recovered using a portable skimmer or sorbent materials.

In the case of spills in larger rivers, with fast moving currents, diversion booming is used to direct the oil slick ashore for recovery. Single or multiple booms (i.e., cascading) may be used for diversion. Typically, the booms are anchored across the river at an angle. The angle will depend on the current velocity. Choosing a section of a river that is both wider and shallower makes boom deployment easier. Diversion booming may also be used to direct an oil slick away from a sensitive area to be protected.

4.3 Spills on Snow and Ice

In general, snow and ice will slow the movement of hydrocarbons. The presence of snow may also hide the fuel slick and make it more difficult to follow its progression. Snow is generally a good natural sorbent, as hydrocarbons have a tendency to be soaked up by snow through capillary action.

However, the use of snow as absorbent material is to be limited as reasonably practical. Snow and frozen ground also prevent hydrocarbons from migrating down into soil or at least slow the migration process. Ice prevents seepage of fuel into the underlying water body.

Response to spills on snow and ice includes the general procedures previously detailed. Most response procedures for spills on land may be used for spills on snow and ice. The use of dykes (i.e., compacted snow berms lined with plastic sheeting) or trenches (dug in ice) slow the progression of the fuel and also serve as containment to allow for the recovery of the fuel.

Free-product is recovered by using a vacuum, a pump, or sorbent materials. Contaminated snow and ice is scraped up manually or using heavy equipment depending on volumes. The contaminated snow and ice is placed in containers or within lined berms on land. The contaminated water and product will be treated on site utilizing available oily water treatment systems. Free phase product that is recovered will be utilized as a source of fuel onsite if possible or shipped offsite for processing.

4.4 Wildlife Protection Procedures

When required, the following audible and visual techniques shall be used to prevent wildlife from interacting with spilled product or a contaminated area(s) following a spill:

- Pyrotechnics, i.e. shell crackers, screamers, propane cannons for shore based spills;
- Visual scare tactics, i.e.: helicopters, emergency response vessels or other water vessels;
- Broadcast sounds, i.e. Breco Bird Scarer designed to float with an oil spill; and
- Exclusion, i.e. netting applied in smaller contaminated areas such as settling or evaporation ponds.

To minimize environmental impact, these devices are most effective when initiated immediately.

The size of the spill and location in relation to sensitive wildlife areas must be assessed at the time of the event as to correctly apply the appropriate level of deterrence. Only workers trained in the safe and proper use of certain hazing equipment will be permitted to haze wildlife. Personal protective equipment (PPE) will be worn by all personnel using deterrent equipment, as per manufactures instructions, with the minimum PPE requirements consisting of eye and ear protection. Other workers in the vicinity of such devices should also use ear protection or remain a safe distance away. Hazing through the use of pyrotechnics should not be used too close to dry vegetation or flammable spill materials due to fire hazard.

Hazing should be administered in such a way as to prevent wildlife from entering an area where they may become endangered. It is also important to ensure that hazing efforts do not cause already contaminated animals to scatter away before they are able to receive treatment. Techniques should be applied as soon as possible to prevent wildlife from interacting with spilled product or contaminated areas and becoming oiled or contaminated.

All emergency response vessels shall be equipped with deterrent devices to ensure timely response in case of a spill occurrence off-shore. To prevent habituation, variation of hazing techniques will be used such as changing the location, appearance and types of hazing or using a combination of hazing techniques.

Efforts shall be made to collect alive or dead oiled wildlife. In the event of a spill occurring in or around a water body, shorelines and beaches shall be inspected for contaminated wildlife to be collected. Emergency response vessels shall be equipped with dip-nets, large plastic collecting bags for dead wildlife,

and cardboard boxes or cloth bags for live oiled wildlife. To ensure that live oiled wildlife are dealt with humanely, capture and handling of wildlife shall only be done by trained individuals. Gloves shall be worn when handling contaminated wildlife (leather gloves for raptors and mammals, latex/rubber gloves for ducks and small shorebirds). Wildlife will be kept individually within cloth bags or ventilated cardboard boxes and label the date and time animal was found, name of finder, location and name of species, if known. Wildlife treatment facilities will then be contacted for advisement on treatment. All contaminated wildlife will be held in a warm quiet place until treatment. The Canadian Wildlife Services (CWS) will be consulted to determine the most humane treatment method (i.e. rehabilitation or euthanasia) to be implemented for live oiled wildlife.

For wildlife mortalities, all carcass are required to be bagged and labelled individually. The date and time animal was found, name of finder, location and name of species, if known shall be documented. CWS is required to be consulted and approval shall be obtained prior to disposing of any dead wildlife. Contact information for experts in bird hazing and bird exclusion, oiled bird rehabilitation, and, permits needed to haze, salvage, hold and clean, or euthanize birds, are provided in Table 4-1.

TABLE 4-1: EMERGENCY CONTACTS IN CASE OF SPILLS AFFECTING WILDLIFE

Name	Location	Phone Number	Purpose
Canadian Wildlife Services (CWS) Prairie and Northern Region	Eastgate Offices 9250 - 49th Street Edmonton, Alberta T6B 1K5	1-780-951-8600	Providing information on migratory bird resource and species at risk (under CWS jurisdiction) in the area of a spills (this includes damage assessment and restoration planning after the event); Minimizing the damage to birds by deterring unoiled birds from becoming oiled; and Ensuring the humane treatment of captured migratory birds and species at risk by determining appropriate response and treatment strategies (i.e. Euthanasia or cleaning and rehabilitation).
Nunavut Emergency Management	P.O. Box 1000, Station 700 Iqaluit, NU X0A 0H0	1-800-693-1666	Responsible for developing territorial emergency response plans, coordinating general emergency operations at the territorial and regional levels, and supporting community emergency response operations.
International Bird Rescue	International	1-888-447-1743	Wildlife rehabilitation specialists, that manage various aspects of wildlife response.

5 DISPOSAL OF CONTAMINATED MATERIAL

Quatrex bags, overpack drums, or other appropriate containers as approved by the Environmental Department will be used to contain and transport contaminated soil for treatment. Depending on the nature of the spilled contaminant (hydrocarbon based spills), the soil may be treated for remediation at Baffinland's Landfarm and Contaminated Snow Containment Facility (Landfarm Facility) at Milne Port (refer to Section 5.1 below). Soil, contaminated from the spill of other hazardous chemicals will be treated as a hazardous waste and shipped offsite to a licensed facility for treatment and/or disposal. For additional information, refer to Baffinland's Hazardous Materials and Hazardous Waste Management Plan (BAF-PH1-830-P16-0011).

Used sorbent material is burned in Project incinerators as per incinerator standard operating procedures and contaminated snow from sewage releases are disposed in Polishing and Waste Stabilizations Ponds for treatment during the summer months.

5.1 MILNE PORT SOIL LANDFARM AND CONTAMINATED SNOW CONTAINMENT FACILITY

The Milne Port Landfarm Facility consisting of two geomembrane lined containment cells. The larger (3,383 m^3) west cell (landfarm) was constructed for the containment and bio treatment of hydrocarbon contaminated soils. Treated soils that meet the appropriate criteria will be used as landfill cover material or other purposes following approval from the appropriate regulators and stakeholders.

The smaller (929 m^3) east cell was constructed for the containment of hydrocarbon contaminated snow generated during the winter months. Contaminated snow collected will be treated during the summer months using an onsite mobile Oily Water Treatment Facility (OWTF). During treatment, monitoring will be completed to ensure compliance with prescribed water quality guideline criteria outlined in Baffinland's Type 'A' Water Licence.

6 TRAINING REQUIREMENTS

Emergency spill response training subject to the requirements of this Plan shall be completed in conjunction with Baffinland's ERP, whereby Baffinland's Emergency Response Lead (i.e. Emergency Rescue Coordinator), with support from the Environmental Superintendents, will identify Project training needs and the resources required to provide the necessary skills to personnel tasked with duties in emergency and spill response. Circumstantially, emergency spill responses often occur in parallel with emergency responses (i.e. an overturned fuel tanker accident along the Tote Road not only causes imminent hazards to site personnel, but also to the surrounding environment); to facilitate efficient response to overall emergency response and preparedness, Project personnel trained to respond to health and safety emergencies (Emergency Response Team) shall also receive sufficient training to effectively respond to accidental releases of hazardous materials. Emergency and spill response training shall be developed and implemented throughout the lifecycle of Project to ensure the following requirements are fulfilled:

- Meets or exceeds the requirements of NWT/Nunavut Mines Health and Safety Regulations;
- Enables responders to competently operate the equipment employed for emergency and spill response purposes; and
- Includes practices, drills and full scale exercises for responding to the types of emergencies that are reasonably predictable for the operation.

6.1 QUALIFICATIONS

All active MRT members must obtain:

- Certification within 12 months, by a physician or by a nurse in charge of a nursing station, to be fit to work in a breathing apparatus under arduous conditions;
- A valid Mine Rescue Certificate issued by the Chief Inspector;
- A valid Standard First Aid Certificate;
- Participation in training requirements subject to the direction of the Chief Mines Inspector; and
- Emergency Spill Response training; land based response training programs in addition to those completed as part of Baffinland's Oil Pollution Emergency Plan (OPEP) - Doc. No. BAF-PHI-830-0013.

6.2 TRAINING CONTENT

Emergency response personnel, as members of the ERT, have response requirements which may include administering first aid, firefighting, performing work at heights or in confined spaces, handling and transferring hazardous/controlled substances, and working in/around water. Each of these demands

must be supported with adequate training that will allow members to safety and effectively conduct their tasks.

Additional training requirements may be provided for specific roles within the ERP and for specific functions to be performed during an emergency response including:

- Aircraft Rescue Fire Fighting (ARFF) training;
- Incident command training;
- Cold water rescue and boat operators safety; and
- Boom deployment.

6.3 Drills and Exercises

While drills and exercises can be used for training purposes, their primary function for this plan is to provide the means of testing the adequacy of the plan's provisions and the level of readiness of response personnel.

The Emergency Rescue Coordinator and Environmental Superintendents are responsible for coordinating the development of and assisting in conducting drills and exercises. The following types of drills and exercises shall be practiced:

6.3.1 Tabletop Exercises

Tabletop exercises shall be completed and will involve presenting to key emergency personnel simulated emergency situations in informal settings to elicit constructive discussions as the participants examine and resolve problems based on this Plan. These exercises will be routinely performed during ERT training sessions conducted throughout the year.

6.3.2 Functional Drills

Functional drills are practical exercises designed to evaluate the capability of personnel to perform a specific function (i.e. communications, first aid, and spill response). Functional drills will be required to be performed at a minimum of twice annually. Deficiencies and competencies identified during functional drills are documented, and used as effective development tools in the preparation of response procedures required for full-scale exercises.

6.3.3 Full-Scale Exercises

Full scale exercises are intended to evaluate the operational capability of Baffinland's emergency response and preparedness. Full-Scale Exercises will be required to be conducted annually with sufficient notice to allow for the preparation of effective emergency response procedures and to identify and correct deficiencies in advance.

6.4 PREPARATION

Preparation for emergency and spill response exercises will vary depending on the type and scope involved; however, planning for these events shall include:

- Plan review and identification of possible problem areas;
- Establishing objectives;
- Identifying resources to be involved including personnel;
- Develop exercise scenarios, a major sequence of events list, and expected action checklists; and
- Assigning and training controllers and evacuators.

Baffinland has committed to engaging local community representatives, the Government of Nunavut and the Canadian Coast Guard as applicable in training drills and exercises.

All scenarios shall be realistic and based upon current operating conditions. The primary event (i.e. fire, spill, etc.) shall be determined based on the objective of the exercise, and completed in accordance with the prescribed regulatory requirements.

Emergency Response Trucks are maintained at both the Milne Port and the Mine Site for immediate response to all emergencies. The Emergency Response Trucks are equipped with a comprehensive list of response equipment which include, back-up power supply, hydraulic power tools, fire-fighting and spill response equipment, containment and medical response supplies. In the event of an emergency, the Emergency Response Trucks will be immediately deployed carrying the necessary equipment responders will require upon arriving at the scene of the incident. For the complete Emergency Response Truck inventory, refer to Appendix B.

7 POTENTIAL SPILL ANALYSIS

To prepare for emergency spill response, potential spill analysis was conducted on various worst-case scenarios. The exercise serves to identify potential risk areas, as well as to determine the fate of spilled products and their environmental effects. This section examines spill scenarios as they relate to the types of Project activities.

Several types of materials have been identified as capable of causing environmental, health, and safety concerns should a spill occur while being transported, used, stored and/or handled. These include: fuel, explosives, untreated sewage and effluent, emulsion (ammonium nitrate-diesel), lubricants, and oils. These materials are planned to be utilized daily during Project operations, often in sufficiently large quantities, warranting the evaluation of potential spill scenarios. All other hazardous materials, chemicals or wastes are handled/used/stored in smaller quantities and packaged/transported in small containers that limit the magnitude of the spills that could occur at the Project.

7.1 FUEL SPILLS ON LAND

Fuel represents the greatest volume of hazardous material located onsite. For locations of the tank farms, temporary fuel depots and approximate spill kit locations at each of the Project sites, refer to Appendix B. Table 7-1 provides the maximum fuel storage capacities of permanent fuel storage infrastructure (i.e. tanks, tank farms) at Project sites.

TABLE 7-1: Maximum Fuel Storage Capacities for Permanent Fuel Storage Infrastructure at Project Sites

Location	Fuel Type	Total Fuel Inventory*
Milne Port	Jet- A	67.0 ML
	Diesel	
Mine Site	Jet- A	2.1 ML
	Diesel	

*Does not include day (iso) tanks servicing buildings and accommodation complexes

At Milne Port the fuel dispensing systems consist of two prefabricated fuel dispensing modules: the Arctic Diesel Fuel Module, and the Jet-A1 Fuel Module, located on the east and west side of the tank farm, respectively. Both modules are insulated and heated 40 foot ISO shipping containers, complete with piping, fuel transfer equipment, temperature corrected delivery systems, electrical and control components, and code compliant fire suppression systems.

An additional, prefabricated diesel fuel dispending module has also been installed at Milne Port to facilitate the fueling of Ore Haul Trucks leaving Milne Port. The prefabricated diesel dispensing module is situated within lined engineered containment and is comprised of a heated 20 foot ISO shipping container, with a 27,000 L double-walled diesel storage supply tank and associated fuel transfer equipment.

At the Mary River Mine Site, the fuel dispensing system consists of one prefabricated Arctic diesel fuel dispensing module located on the west side of the tank farm. The module is an insulated and heated 40 foot ISO shipping container, complete with piping, fuel transfer equipment, temperature-corrected delivery system, electrical and control components, and code compliant fire suppression system.

Baffinland has constructed and continues to operate its fuel storage/dispensing facilities in accordance with applicable guidelines and regulations such as the CCME "Environmental Code of Practice for Aboveground and Underground Storage Tank Systems Containing Petroleum and Allied Petroleum Products (2003)", Storage Tank Systems for Petroleum Products and Allied Petroleum Products Regulations (Canadian Environmental Protection Act, 1999 SOR/2008-197 June 12, 2008) and National Fire Code of Canada as provided in Part D, Item 24 of Baffinland's Type 'A' Water Licence. At all Project sites, drummed fuel is placed within engineered lined containment areas.

All bulk fuel storage areas are equipped with spill kits for emergency response (see Appendix A for approximate locations). Each spill kit contains the appropriate type, size and quantity of equipment for the volume/type of product present in the storage location as well as the environment likely to be affected by a spill (i.e., ground, river, lake or ocean). Refer to Appendix B for a list of emergency and spill response supplies.

Standard Operating Procedures (SOP's) have been developed for each method of fuel storage and transfer. Proper containment and emergency response equipment shall be provided to meet or exceed regulatory requirements.

The ERP and SCP govern land-based and freshwater operations, the Spill at Sea Response Plan (BAF-PH1-830-P16-0042) governs marine spills and the OPEP - (BAF-PHI-830-0013) defines ship to shore fuel transfers procedures and protocols at Milne Port.

7.1.1 Potential Fuel Spill Scenarios

The tank farms located at Milne Port and the Mine Site are constructed in an impermeable secondary containment structure (lined and bermed containment area). The construction is in compliance with building codes and best practices for tank farm facilities. The low point of the secondary containment areas are fitted with sumps for the collection and disposal of runoff. The secondary containment areas have been designed to a capacity to contain the complete volume of the largest tank, as well as 10% of the volume of all the remaining tanks.

Due to the capacities of the secondary containments, fuel spills outside these containment areas are unlikely to occur. Adequate procedures (site wide application) and work instructions (task specific) are in place as well as the Environmental Protection Plan (EPP) to deal with equipment and machinery entering and exiting the tank farms as well as dealing with contamination resulting from traffic in and out of the secondary containment areas.

SCENARIO 1: TANK FARM AREA SPILL

Description of Incident	Rupture or spill from 15 ML tank into containment area
Potential Causes	Tank or associated equipment failure. This may include failure as a result of human error, mechanical failure, inadequate maintenance, geotechnical issues, sabotage, etc...
Product Spilled	Diesel
Maximum Volume Spilled	15 ML
Estimated Time to Spill Entire Volume	1.5 hour
Immediate Receiving Medium	Lined containment area
Most Probable Direction of Spill Migration	The fuel will flow into the sump of the containment area.
Distance and Direction to Closest Body of Water	N/A
Resources to Protect	Must ensure fuel does not breach/overtop containment
Emergency Response Level	Level 3 (high) – Refer to ERP
Estimated Emergency Spill Response Time	20 minutes
Spill Response Procedures	If the spill is still occurring the hole/breach will be plugged or stopped, if possible. The lined containment will be inspected to ensure that it is safely containing the spill; if not it will be reinforced with temporary berms. Recoverable fuel will be collected via a vacuum truck and deposited in a suitable site (i.e. fuel storage tanks). Oily water generated by the spill will be processed onsite using an oily-water treatment facility or shipped offsite for disposal/treatment at a licenced facility.

SCENARIO 2: DAY TANK/TEMPORARY STORAGE AREA SPILL

All stand-alone day storage facilities, whether temporary (construction period) or permanent (mine pit), will be double-walled iso-tanks. There are approximately 30 double-walled day tanks at Milne Port and Mine Site camps with a capacity ranging from 5,000L to 20,000L. The iso-tanks will be contained in a restricted area so as to avoid collision from mobile equipment and placed such that they should not be damaged as a result of works.

Detailed procedures (site-wide application) and work instructions (task-specific) are in place, along with the EPP to deal with refuelling operations. The most likely source of spills is during refuelling or refilling of the day tanks with fuel. Only personnel trained in proper refuelling will have access to these tanks. The fuel transfer operation will be halted whenever a leak is detected; all dispensing will be done with auto shut off fuel dispensers, and drip trays will be utilized during all fuel transfers. In light of the robust nature of the day tanks and their built in secondary containment, and the use of proper refuelling techniques and drip trays, fuel spills are unlikely to occur. In the event that a spill does occur, a spill kit, containing adequate supplies given the volume of the tank it accompanies, will be available in close proximity. Given the volume of these tanks, access to readily available spill clean-up materials and trained personnel, it is anticipated that staff will be able to identify, contain and mitigate any potential spills in an effective and time sensitive manner. The table below details the most severe incident that could occur.

Description of Incident	Puncture or rupture of Iso-tank
Potential Causes	Equipment failure due to faulty manufacturing or collision with mobile equipment.
Product Spilled	Diesel fuel.
Maximum Volume Spilled	20, 000 L
Estimated Time to Spill Entire Volume	10 minutes
Immediate Receiving Medium	Soil or surrounding environment. It is important to note that no iso-tank will be located within 100m of a water body.
Most Probable Direction of Spill Migration	As iso-tanks will be utilized around the Project, the direction of spill migration will depend on the specific location. Iso tanks will be placed on relatively flat laydown areas, where the potential flow of spills will be readily managed.
Distance and Direction to Closest Body of Water	Varies
Resources to Protect	Varies
Emergency Response Level	Level 2 (medium) or 3 (high) – Refer to ERP (depends on quantity and whether there is a potential to impact nearby water bodies and/or public safety)
Estimated Emergency Spill Response Time	15 minutes
Spill Response Procedures	In the event that both walls of an iso-tank are ruptured and a spill occurs the Emergency Response Team will be immediately notified. Personnel in the immediate area will act as first responders making every effort to plug the puncture point. Temporary berms, ditches, trenches and sumps will be set up downstream of the spill. The downstream wall of trenches will be lined with plastic material to ensure that exposed soil does not come in contact with the fuel. Absorbent material will be utilized where required. Once the spill has been contained it will be removed by a vacuum truck and brought to an appropriate storage/treatment facility. If necessary, contaminated soil will be removed and brought to the Project's landfarm facilities for treatment. New, uncontaminated soil will be laid down in the exposed area.

SCENARIO 3: TOTE ROAD ACCIDENT TANKER TRUCK SPILL

Description of Incident	**Spill of the contents of a tanker truck or fuel re-supply truck to ground or stream. Spill occurs in an isolated area along the Tote Road between Milne Port and the Mine Site.**
Potential Causes	Human error, vehicle mechanical failure, traffic accident, poor weather or visibility.
Product Spilled	1. Tote Road: Diesel fuel, Jet-A Fuel 2. Ice Road: Diesel fuel
Maximum Volume Spilled	20 000 to 50 000 L (content of a tanker truck) This would require the rupture of the tanker.
Estimated Time to Spill Entire Volume	Spillage can be limited depending on severity of incident/accident 10 minutes to 48 hours – depending on severity of rupture or piping/valves associated with the tanker truck.
Immediate Receiving Medium	Soil, streams, lakes
Most Probable Direction of Spill Migration	Varies with specific location of spill.
Distance and Direction to Closest Body of Water	1. Tote Road - Downstream and into Phillips Creek; the road between the Mine Site and Milne Port follows Phillips Creek, and crosses many streams (that discharge into Phillips Creek) over a distance of approximately 50 km. Phillips Creek eventually discharges into the ocean at Milne Port. 2. Ice Road – depends on location of accident.
Resources to Protect	1. Tote Road: Streams, Phillips Creek and the ocean via Milne Inlet. 2. Ice Road: various water ways and lakes along the ice road.
Emergency Response Level	Level 2 (medium) or 3 (high) – Refer to ERP (depends on quantity and whether there is potential for impact to nearby water bodies and to public safety)
Estimated Emergency Spill Response Time	60 minutes after spill is reported to site personnel (assuming worst case scenario where the truck driver is injured and cannot commence spill response procedures).
Spill Response Procedures	1. Contain and recover diesel slick downriver and protect shorelines using sorbent booms. Collect free-product for temporary storage. Clean-up soiled shorelines. If the response crew arrives before the tanker/fuel truck has released all its contents, seal the leak where feasible, contain and recover spill on ground using dykes, trenches and spill berms. If the truck driver is not injured, he will act as a first responder and immediately initiate the Spill Contingency Plan, as defined in Section 1 of this Plan, by using the spill kit kept in the fuel trucks. 2. Once the initial cleanup is completed, free product captured during response, as well as product still contained within the tanker/fuel truck bulk tank(s) will be pumped using a vacuum truck to be discharged at an approved facility/containment berm. Oily water captured during the response would be pumped into a vacuum truck and transported to a containment facility for treatment using the oily-water treatment facility. Impacted soils (if any) would be excavated and placed within the Project's landfarm facilities.

SCENARIO 4: MARINE RESUPPLY SPILL – MILNE PORT

Refer to Milne Port OPEP (BAF-PH1-830-P16-0013).

7.2 Explosives Transport and Storage

For an overview of the maximum cumulative quantities of explosives and ammonium nitrate Baffinland is permitted to store at the Mary River Project, refer to Table 7-2. For the location of the explosives storage facilities at Milne Port, and the Mine Site, see the site layout drawings in Appendix A. For additional information on the storage locations, handling procedures and supportive emergency procedures for Ammonium Nitrate (AN), Dyno Nobel Baffin Island Inc. has prepared an Emergency Response Assistance Plan for the Project, provided as Appendix F.

7.2.1 Ammonium Nitrate Storage and Handling

The AN used at the Project is stored in containers in two locations; the KM 97 laydown and smaller quantities at the Mine Site Dyno Nobel Emulsion Plant. The AN prill is stored in 1,000 kg tote bags, 20 of which are stored double-stacked in each of the 20 foot shipping containers. AN (in any amount) shall not be stored outside at any time and shall only be withdrawn from the containers when required by plant production. The AN is loaded directly into the AN Handling Module of the plant to minimize any exposure of the product to the environment.

7.2.2 Emulsion Storage and Handling

Emulsion is stored in a single, 36,000 kg capacity tank within the emulsion loading garage at the Dyno Nobel Emulsion Plant. Smaller quantities may be stored in the two bulk emulsion trucks (10,000 kg capacity each) which are parked in the garage when not in use.

Small spills shall be scooped up with non-sparking shovels, placed in bags and stored at the magazine site at km 105.5 until the spilled emulsion can be disposed of in blast holes. Large spills will be dealt with on an individual basis depending upon the size of the spill. Efforts shall be made to contain spills and secure the surrounding area before clean-up begins. The clean-up of large spills may involve pumping spilled emulsion into tanks or totes and/or scooping up product with shovels and storing it in approved containers/bags.

In addition, smaller quantities of AN emulsion pre-packaged explosives will be used to begin development of the quarry sites. Pre-packaged AN emulsions pose minimal risk to the environment given the hydrophobic nature of the emulsion explosives.

TABLE 7-2: **Maximum Cumulative Quantities of Explosives and Ammonium Nitrate at Project Sites**

Material	Purpose	Storage Type	Max. Quantity at Site at any time
Pre-Packaged Explosives	Explosive agent	Magazines and Shipping Containers	800,000 kg
Ammonium Nitrate	Polymer	20,000 kg per Shipping Container	2,000,000 kg

7.2.3 Potential Spill Scenarios Related to Explosives

Scenario 1: Spill of Ammonium Nitrate

AN dissociates readily in water to form ammonia, which in its un-ionized form, is toxic to aquatic organisms and fish. Storage on land, away from water sources largely eliminates the risk of ammonia losses to water bodies.

All partially full, contaminated or ripped bags of prill, spilled prill and used empty bags are collected and stored in a dedicated contained location for reuse onsite or shipment offsite for disposal. Spills within the storage facility are completely contained and will be cleaned up by personnel trained in explosives management. All spills will be recorded on a spill report and all tote bags will be inspected regularly by the explosives contractor.

AN is expected to be used to produce explosives emulsion onsite and will be transported to various areas at the Project. Therefore the greatest potential for an AN spill to occur is during transport along the Tote Road due to mechanical failure, weather conditions or human error.

Description of Incident	**Explosives transport truck rolls over or collides with another vehicle or object. Transport container(s) as well as individual tote bags rupture resulting in a spill.**
Potential Causes	Collision, poor driving conditions or visibility, equipment error, operator error.
Product Spilled	AN
Maximum Volume Spilled	1 tonne
Estimated Time to Spill Entire Volume	Instantaneous
Immediate Receiving Medium	Depending on the location either on land or in a water body.
Most Probable Direction of Spill Migration	Depending on location
Distance and Direction to Closest Body of Water	Depending on location
Resources to Protect	Nearby water bodies
Emergency Response Level	Level 1 (low) or Level 2 (medium) – Refer to ERP (depends on quantity and whether there is potential for impact to water bodies and/or to public safety)
Estimated Emergency Spill Response Time	15 – 60 minutes

Spill Response Procedures	a) In the event that a spill occurs on land the Emergency Response Team will be contacted immediately. If the driver is unharmed he will act as the spill response first responder. All spilled prills will be contained, with the use of berms if required. Once the spill has been contained the prills will be cleaned up by a trained crew and transported and stored in a dedicated contained location until they can be shipped offsite. b) In the event that a spill occurs in water the Emergency Response Team will be contacted immediately. Spill containment devices (i.e. diking and/or pumping water into bladder(s)) will be constructed downstream and undissolved prills will be removed from the water body. Recovered material will be stored in a dedicated containment area before it can be shipped offsite.

For an AN spill to occur during transportation, the explosives transport truck would need to be in a significant collision/incident since both the AN prill tote bags and shipping container would need to rupture for AN prill to be released into the environment. If this did occur, the spill would pose minimal risk to the surrounding environment unless the AN prill was deposited directly into a stream/water body. Due to limited open-water season at the Project, the risk of spills that would involve the deposition of AN prill directly into a stream/water body are anticipated to be low.

Accidental spills of AN from an explosives truck shall be immediately cleaned-up, reported to the Environment Department, and logged as required by regulations. A copy of a Standard NT-NU Spill Report Form is provided in Appendix D. Clean-up shall be completed by personnel licensed to handle explosives and the contaminated material will be handled and stored in a designated area until the contaminated material can be shipped offsite.

SCENARIO 2: SPILL OF EMULSION

Emulsion materials are acutely toxic to aquatic life and therefore could have adverse impacts on fish and other aquatic life if released to surrounding water bodies and streams. Because of this, emulsion material is stored in either the form of pre-packaged explosives in an explosives magazine or at the Project's emulsion plant where spills can be completely contained within the confines of the plant. Spills within the emulsion plant would be cleaned up by employees and contractors licensed to handle explosives. Clean-up materials will be segregated in an appropriate area; incompatible materials will not be stored together, pursuant to material MSDSs and WSCC regulations.

In the event of an emulsion spill, a spill report will be completed by the explosives contractor with the support of the Environment Department. If a spill exceeds reportable quantities, notification shall be made under the spill reporting regulations applicable to Nunavut.

SCENARIO 3: SPILL OF PRE-PACKAGED EMULSION DURING TRANSPORT

Given the precautions taken in the design of the explosives storage facilities and the suitability of containers used for storage and transport, major spills are most likely to be caused by traffic incidents during the transportation of the pre-packaged explosives by transport truck. If such an incident occurs, explosive materials will be recovered by employees or contractors licensed to handle explosives and the contaminated material will be handled and disposed of in a designated area until it can be shipped offsite.

Description of Incident	**Emulsion transport truck rolls over or collides with another vehicle or object. Transport container as well as pre-packaged explosives.**
Potential Causes	Collision, poor driving conditions or visibility, equipment error, operator error.
Product Spilled	AN emulsion
Maximum Volume Spilled	10,000 L
Estimated Time to Spill Entire Volume	Instantaneous
Immediate Receiving Medium	Depending on the location either on land or in a water body.
Most Probable Direction of Spill Migration	Depending on location
Distance and Direction to Closest Body of Water	Depending on location
Resources to Protect	Nearby water bodies
Emergency Response Level	Level 2 (medium) or Level 3 (high) – Refer to ERP (depends on quantity and whether there is potential for impact to water bodies and to affect public safety)
Estimated Emergency Spill Response Time	15 – 60 minutes
Spill Response Procedures	a) In the event that a spill occurs on land, the Emergency Response Team will be contacted immediately. If the driver is unharmed he/she will act as the spill response first responder. All spilled prills will be contained, with the use of berms if required. Once the spill has been contained the emulsion will be cleaned up by a trained crew and stored in a dedicated contained location until the cleanup materials can be shipped offsite. b) In the event that a spill occurs in water, the Emergency Response Team will be contacted immediately. Spilled materials will be contained and recovered using booms and other spill control devices. Recovered material will be stored in a dedicated containment area until it can be shipped offsite.

SCENARIO 4: SPILL OF EMULSION DURING BLAST HOLE LOADING

Emulsion spills are unlikely to occur during blast hole loading given the nature of emulsion explosives. Pre-packaged explosives are in self-contained tubes that are simply dropped into the hole. Emulsion from the emulsion plant is pumped into blast holes via hose lines on the emulsion pump truck.

Description of Incident	Emulsion spilled while loading emulsion in blast holes.
Potential Causes	Operator error, mechanical failure or malfunction
Product Spilled	AN emulsion
Maximum Volume Spilled	<10 kg
Estimated Time to Spill Entire Volume	Instantaneous
Immediate Receiving Medium	Land
Most Probable Direction of Spill Migration	Not expected to migrate due to its high viscosity.
Distance and Direction to Closest Body of Water	Depending on location
Resources to Protect	Nearby water bodies
Emergency Response Level	Level 1 (low) – Refer to ERP.
Estimated Emergency Spill Response Time	5 minutes
Spill Response Procedures	In the event that a spill occurs on land, the blasting technician will respond. The spilled emulsion will immediately be cleaned up and stored in a dedicated contaminated explosives area until it can be shipped offsite.

7.3 UNTREATED SEWAGE

The Mine Site and Milne Port are equipped with dedicated sewage treatment plants (STP; Refer to Baffinland's Fresh Water Supply, Sewage and Wastewater Management Plan; BAF-PH1-830-P16-0010) equipped with Membrane Bio Reactor (MBR) technology. Sewage produced at Steensby Port will be treated using a latrine system or transported to Milne Port or the Mine Site for treatment.

7.3.1 POTENTIAL SPILLS SCENARIOS RELATED TO SEWAGE

SCENARIO 1: SEWAGE SPILL AT MILNE PORT

Description of Incident	Spill from MBR holding tank.
Potential Causes	Pipe or mechanical failure, human error.
Product Spilled	Raw sewage
Maximum Volume Spilled	48,000 L
Estimated Time to Spill Entire Volume	60 minutes
Immediate Receiving Medium	Milne Port
Most Probable Direction of Spill Migration	Milne Port or nearby stream east of camp pad.
Distance and Direction to Closest Body of Water	150 m
Resources to Protect	Milne Port
Emergency Response Level	Level 1 (low) or 2 (medium) – Refer to ERP (depends on quantity and whether there is potential for impact to a nearby water body and to public safety)
Estimated Emergency Spill Response Time	15 minutes after spill is identified.
Spill Response Procedures	Contain with berms or sumps/ditches. Direct spill to the desired location and remove recoverable sewage with a vacuum truck. Transport recovered sewage to PWSP or return to the STP for treatment. Resurface area with fresh soil.

SCENARIO 2: MINE SITE SEWAGE SPILL

Description of Incident	Spill from STP.
Potential Causes	Piping and/or tank failure.
Product Spilled	Raw sewage
Maximum Volume Spilled	48,000 L
Estimated Time to Spill Entire Volume	60 minutes
Immediate Receiving Medium	Soil
Most Probable Direction of Spill Migration	Downstream and into a local depression east of the Mine Site STP. This local depression dries up in the summer and intercepts the maximum spilled volume.
Distance and Direction to Closest Body of Water	200 m
Resources to Protect	One stream (West of STP) and Sheardown Lake.
Emergency Response Level	Level 1 (low) or 2 (medium) – Refer to ERP (depends on quantity and whether there is potential for impact to a water body and/or to public safety)
Emergency Spill Response Time	15 minutes after spill.
Spill Response Procedures	Contain with berms or sumps/ditches. Direct spill to the desired location and remove recoverable sewage with a vacuum truck. Transport recovered sewage to PWSP or return to the STP for treatment. Resurface area with fresh soil.

SCENARIO 3: SEWAGE TRANSPORT TRUCK SPILL

Description of Incident	Spill from the tanker truck transporting raw sewage from temporary camp to Project STP.
Potential Causes	Road incident
Product Spilled	Raw sewage
Maximum Volume Spilled	10,000 L
Estimated Time to Spill Entire Volume	Depends on severity of accident and damage sustained by the tanker truck.
Immediate Receiving Medium	Soil
Distance and Direction to Closest Body of Water	Depends on location of accident
Resources to Protect	Soil and nearby lakes, rivers and streams
Emergency Response Level	Level 1 (low) or 2 (medium) – Refer to ERP (depends on quantity and whether there is potential for impact to water body and /or to public safety)
Estimated Emergency Spill Response Time	Immediate if driver is not injured; up to 60 minutes for ERT Team to arrive.
Spill Response Procedures	Report spill and contain with berms or sumps/ditches. Direct spill to the desired location and remove recoverable sewage with a vacuum truck. Transport recovered sewage to PWSP or return to the STP for treatment. Resurface area with fresh soil.

7.4 LUBRICANTS AND OILS

Lubricants and machinery oils will be used on site throughout the life of the Project. Lubricants and oils have the ability to contaminate waterways and soils if exposed to the environment. However, the risk of a lubricant or oil spill on site is expected to be minimal. Lubricants and oils shall be handled by trained personnel following established procedures and guidelines. Lubricants are stored and transported in small

quantities. In the event of a spill, appropriate spill response equipment and procedures, as outlined in this Plan, will be readily available and utilized to minimize the impact of the spill.

7.4.1 Potential Spill Scenarios Related to Lubricants and Oils

Scenario 1: Containment puncture during transport

The most likely spill scenario to occur with regards to lubricants and oils is a puncture of an individual storage unit during transport. Lubricants and oils are typically stored in 1 cubic metre containers (1,000 L totes). When lubricants or oils are required, single totes are removed from their storage location with a forklift. In the event that the container/tote is punctured by the forklift, a maximum spill volume of 1,000 L could potentially occur. The likelihood of this occurring is minimal as all equipment operators will be trained in proper lubricant and oil transfer procedures (i.e. use of spotter). In the unlikely event that a tote is punctured, the operator will identify the puncture and will immediately proceed to contain the spill and implement mitigation procedures.

Description of Incident	**Lubricant or oil container is punctured by a forklift during transport**
Potential Causes	Operator error. Equipment failure.
Product Spilled	Lubricant or oil.
Maximum Volume Spilled	1,000 L
Estimated Time to Spill Entire Volume	5 minutes
Immediate Receiving Medium	Land
Most Probable Direction of Spill Migration	Depends on area
Distance and Direction to Closest Body of Water	Depends on area
Resources to Protect	Any nearby water bodies.
Emergency Response Level	Level 1 (low) or 2 (medium) – Refer to ERP (depends on quantity and whether there is potential for impact to a nearby water body)
Estimated Emergency Spill Response Time	>5 minutes
Spill Response Procedures	If the forklift driver is not injured, he will act as a first responder and immediately initiate the spill response utilizing the spill kit kept in the work area. The spill will be contained through the use of temporary berms and ditches until it can be removed and transported to an appropriate storage facility. Contaminated soil will be removed and transported to the Project's landfarm facilities for remediation.

SCENARIO 2: SPILL DURING EQUIPMENT ROLLOVER

It is possible that the mobile equipment carrying a container of lubricant or oil could rollover or have a collision causing a spill of the entire 1 cubic metre tote. In the event that this occurs, the spill will be managed the same way as detailed above. The event of a rollover is unlikely given the safe driving procedures, speed limits, road signage and training procedures established and enforced at the Project. In addition to this, all lubricant and oil containers will be securely fastened inside the vehicle in which they are being transferred, when applicable, making a spill unlikely.

Description of Incident	Spill during equipment rollover
Potential Causes	Operator error. Equipment failure. Poor visibility or adverse weather. Collision.
Product Spilled	Lubricant or oil.
Maximum Volume Spilled	1,000 L
Estimated Time to Spill Entire Volume	Instantaneous
Immediate Receiving Medium	Land
Most Probable Direction of Spill Migration	Depends on area
Distance and Direction to Closest Body of Water	Depends on area
Resources to Protect	Any nearby water bodies.
Emergency Response Level	Level 1 (low) or 2 (medium) – Refer to ERP (depends on quantity and whether there is potential for impact to a nearby water body)
Estimated Emergency Spill Response Time	15 – 60 minutes
Spill Response Procedures	If the driver is not injured, he/she will act as the first responder and immediately initiate the Spill Contingency Plan as defined in Section 1, utilizing the spill kit kept in the work area or on the mobile equipment. The spill will be contained through the use of temporary berms and ditches until it can be removed and transported to an appropriate storage facility. Contaminated soil will be removed and transported to the Project's landfarm facilities for treatment. In the event a spill occurs in a water body, the lubricants and oils will be contain and recovered downstream as described in Section 4, with shorelines protected using sorbent booms. All free-product will be collected for temporary storage and soiled shorelines cleaned-up. If the mobile equipment operator is not injured, he will act as a first responder and immediately initiate the Spill Contingency Plan as defined in Section 1, utilizing the spill kit kept in the work area or on the mobile equipment. Once the spill is contained, contaminated water and recoverable free product will be removed by vacuum truck and transported to an appropriate storage facility for shipment offsite or treatment using the Project's onsite oily-water treatment facilities.

SCENARIO 3: SPILLS DURING TRANSFER

It is possible that a minor spill may occur during the transfer of lubricants or oil to equipment. This will most likely be the result of equipment failure, such as pumps or hoses, or operator error.

As proper maintenance procedures will be in place to reduce the chance of equipment malfunctions, along with proper training procedures, it is unlikely a spill will occur in this event. Additionally, the use of spill trays will be mandatory during all oil and lubricant transfers.

Description of Incident	Spill during transfer
Potential Causes	Operator error. Pump failure. Hose failure.
Product Spilled	Lubricant or oil.
Maximum Volume Spilled	1,000 L
Estimated Time to Spill Entire Volume	5 – 15 minutes
Immediate Receiving Medium	Land
Most Probable Direction of Spill Migration	Depends on location
Distance and Direction to Closest Body of Water	Depends on location
Resources to Protect	Nearby water bodies.
Emergency Response Level	Level 1 (low) or 2 (medium) – Refer to ERP (depends on quantity and whether there is potential for impact to water body)
Estimated Emergency Spill Response Time	5 -15 minutes
Spill Response Procedures	If the spill occurs in a maintenance building it will be contained as maintenance buildings are lined or equipped with concrete floors, preventing any contaminants from reaching the natural environment. The spill will be cleaned up by qualified personnel and disposed of as a hazardous material. If a spill occurs during transfer, all transfer activities will be halted immediately and clean-up of the spill with the available spill kit will commence. The spill will be contained using berms, ditches, sumps and booms where necessary. The downstream wall of trenches will be lined with plastic material to ensure unexposed soil does not come in contact with the lubricant or oils. Absorbent material will be utilized where required. Once the spill has been contained, spilled materials will be removed by a vacuum truck and brought to an appropriate storage/treatment facility. Contaminated soil will be removed and brought to the Project's landfarm facilities for treatment.

SCENARIO 4: SPILLS DURING CRUSHING OPERATIONS

It is possible that spills will occur during crushing operations at the Mine Site Crushing Facility. This will most likely be the result of equipment failure such as ruptured hoses or a rupture to the oil reservoir.

Preventative maintenance, in addition to proper equipment warm-up procedures will reduce the likelihood of spills. Several spill kits are located at the Crushing Facility and shall be maintained at all times. The spill kits are equipped with absorbent pads, booms, and PPE to effectively respond to a spill.

Description of Incident	Release of Hydraulic Fluid from Cone Crusher
Potential Causes	Hose failure. Rupture of oil reservoir
Product Spilled	Lubricant Oil
Maximum Volume Spilled	600 L
Estimated Time to Spill Entire Volume	5 minutes
Immediate Receiving Medium	Land
Most Probable Direction of Spill Migration	Ore pad is a level surface of medium to fine grain gravel/crushed ore.
Distance and Direction to Closest Body of Water	Depends on location - > 31 m
Resources to Protect	Nearby water bodies - > 31 m
Emergency Response Level	Level 1 (low) or 2 (medium) – Refer to ERP (depends on quantity and whether there is potential for impact to nearby water bodies)
Estimated Emergency Spill Response Time	5 – 15 minutes

Spill Response Procedures	Hydraulic fluid/oil will spill to the medium – fine gravel/crushed iron ore ground surface below the ore crusher, at the ore pad. In the event of a release of lubricant fluid from the cone-crusher tank, (max volume of 600L) crushing activities will be halted immediately and clean-up of the spill with available spill kit(s) will commence. The spill will be contained using absorbent booms where necessary. The ore crushing pad is a level surface of medium – fine grain gravel/ore fines, therefore contaminant migration is not of great concern. Absorbent material (pads) will be also be used where required. When the spill is contained, the layer of contaminated gravel/crushed ore fines will be excavated and brought to an appropriate storage facility for eventual shipment offsite or treatment at the Project's landfarm facilities. New gravel will then be placed over the exposed area.

8 REPORTING REQUIREMENTS

Internal spill reports are written by the department responsible for the spill and are provided to the Environment Department through Baffinland's Incident Reporting System. However, all external reporting requirements (i.e. CIRNAC, NWB, NIRB, ECCC) shall be the responsibly of the Environment Department.

Table 8-1 provides guidance pertaining to spill reporting and and associated clean-up procedures for site personnel. Departments responsible for the spill are required to complete clean-up activities using the resources required. In the event of a Level 2 or 3 spill response, initial assistance and resources shall be provided by the ERT.

TABLE 8-1: GENERAL SPILL REPORTING AND CLEAN-UP REQUIREMENTS

Spill on Land		
Volume	**Required Documentation**	**Spill Clean-up**
Less than 1 L	Verbal or email report	Environment Department will advise if needed.
Greater than 1 litre and less than 100 litres	- Photos of Spill and Clean-up - Baffinland Incident Investigation Report	Spills greater than 30 litres will have an Environmental Monitor present to advise clean-up efforts.
Greater than 100 L	- Photos of Spill and Clean-up - Baffinland Incident Investigation Report - NT-NU Spill Report - Notification to regulators and the Spill Line	Environmental Superintendent or his/her designate will lead and advise clean-up efforts.
Spill on Water Body or Watercourse		
Volume	**Required Documentation**	**Spill Clean-up**
Any volume	- Photos of Spill and Clean-up - Baffinland Incident Investigation Report - NT-NU Spill Report - Notification to regulators and the Spill Line	Environmental Superintendent or his/her designate will lead and advise clean-up efforts.

Appendix A

Site Layouts

Milne Port and Mine Site

SAVED: I:\1\02\00181\44\A\Acad\FIGS\B02 R0, 3/22/2018 2:48:14 PM, MDEMERS PRINTED: 3/22/2018 2:49:21 PM, Layout1, MDEMERS
XREF FILE(S): x-C-TOPO-MILN-INDEX, MILNE SITE LAYOUT, x-B-SI---MOIN-LOCA-2015, X-N-TOPO-BASE-LAND-USE--CLAS IMAGE FILE(S): GIS Baffinland Logo mine_inlet_wo3745_wv2_wv3_aug2016_ptr01

502 500 E
503 000 E
503 500 E
504 000 E
504 500 E
7 977 000 N
7 976 500 N
7 976 000 N
7 975 500 N
7 975 000 N

MOORING BUOY
ORE DOCK
SETTLING POND
EFFLUENT DISCHARGE LOCATION
FUEL TANK FARM
SEALIFT BARGE LANDING AREA
EXISTING HTO CABIN
MP-06
MP-05
MP-C-E
MP-C-H
MP-C-F
MP-HWB-1
MP-03
MP-02
RAMP TO BEACH
LAYDOWN AREA
FUEL CONTAINMENT BERM
ORE STOCKPILE
PWSP-No. 1
MP-01a
MP-01
MP-HWB-3
MP-HWB-4
POWER GENERATORS
POLISHING WASTE STABILIZATION POND
HAZARDOUS WASTE BERM
PORT SITE WEATHERHAVEN
MP-C-B
MP-C-B01
LAND FARM MP-04
LAND FARM
SNOW DUMP
MP-04
MP-04a
MAINTENANCE BUILDING
MP-MRY-2
POTABLE WATER INTAKE LOCATION
MOBILE REFUELING MODULE TEMPORARY CONTAINMENT BERM
50 PERSON CAMP (FROM STEENSBY PORT)
MP-Q1-02
APPROXIMATE EXTENT OF QUARRY Q1 DEVELOPMENT
CAMP PAD (CONSTRUCTED IN 2017)
TOTE ROAD(NEW ALIGNMENT)
PERMITTED OPEN BURN PIT AREA
MP-Q1-01
BORROW SOURCE NO.1
BORROW PITS
MARINE MANIFOLD BUILDING
WELDING SHOP
SHIPPING CONTAINERS
ACCOMMODATION COMPLEX
WASTE MANAGEMENT BUILDING
WASTE MANAGEMENT FACILITY
MP-HWB-2
TOTE ROAD (OLD ALIGNMENT)

SERVICE AREA PAD SITE FACILITIES, INCLUDING:
- MAINTENANCE/WAREHOUSE BUILDING
- WELDING SHOP BUILDING
- WORKSHOP OFFICE BUILDING

CAMP SITE INFRASTRUCTURE PAD SITE FACILITIES, INCLUDING:
- ACCOMMODATION COMPLEX
- EMERGENCY RESPONSE OFFICE / GARAGE
- SEWAGE TREATMENT PLANT
- POTABLE WATER TREATMENT PLANT
- WASTE MANAGEMENT FACILITY

NOTES:
1. COORDINATE GRID IS UTM NAD83 ZONE 17N.
2. TOPOGRAPHY PROVIDED BY EAGLE MAPPING (2005).
3. PLAN/SECTION BASED ON INFORMATION PROVIDED BY HATCH, DATED (JAN 31,2014).
4. CONTOUR INTERVAL IS 10 METRES.

LEGEND:
- WATER
- BORROW AREAS (2013 UNDER Q10C3001)
- QUARRY AREA (EXISTING UNDER Q13C301)
- INUIT OWNED LAND - SURFACE ONLY EXCLUDING MINERALS
- WASTE STORAGE AREA
- RIVER/STREAM/DRAINAGE
- ROAD
- QIA SURFACE COMMERCIAL LEASE IMPACT BOUNDARY
- WATER LICENCE WATER QUALITY MONITORING LOCATION

SCALE A 100 50 0 100 200 300 400 500 m

REV	DATE	DESCRIPTION	DESIGNED	DRAWN	REVIEWED
0	22MAR'18	ISSUED WITH 2017 QIA AND NWB ANNUAL REPORT	AV	MMD	AK

Baffinland

MARY RIVER PROJECT

MILNE PORT SITE LAYOUT AND WATER LICENCE MONITORING LOCATIONS

Knight Piésold CONSULTING

P/A NO. NB102-181/44 | REF NO. NB18-00172 | REV 0

Figure 1

HATCH BUILDING
ACCOMMODATION COMPLEX
EMERGENCY RESPONSE OFFICE
WELDING SHOP
MAINTENANCE BUILDING
MS-03
FUEL TANK FARM
MS-01
MS-C-F
TRUCK WASH BUILDING
TOROMONT SHOP
POWER HOUSE
MS-C-C
WATER BUILDING
SEWAGE TRUCK BUILDING
TRUCK WEIGH SCALE
LUMPS STOCKPILE
MS-06
RUN OF MINE
FINE STOCKPILE
CRUSHER AND ORE LOADING PAD

560 000 E
561 500 E
563 000 E
564 500 E
N

WASTE ROCK SEDIMENTATION POND
WASTE ROCK FACILITY (ERP)
DEPOSIT NO.1 MINING LEASE 2484
MS-08
WASTE ROCK DUMP BOUNDARY AT THE END OF OPERATION (RAIL PHASE)
PROPOSED FINAL OPEN PIT OUTLINE
110 KM LAYDOWN AREA
MINE HAUL ROAD
QUARRY D1Q1
OPEN PIT DEVELOPMENT
QUARRY D1Q2
TRUCK WEIGH SCALE
ORE CRUSHING AND LOADING
MINE OPERATIONS OFFICE
MQ-C-E
EXPLOSIVE MAGAZINE
ORE CRUSHING SEDIMENTATION POND
EFFLUENT DISCHARGE POINT

KM 97 BORROW LOCATIONS
WASTE MANAGEMENT FACILITY
EXISTING LAYDOWN AREA
SITE SERVICES GARAGE
RAW WATER INTAKE
RAW WATER PUMP HOUSE
MS-MRY-1
MS-HWB-1
MS-HWB-2
MS-HWB-4
MS-HWB-5
MS-HWB-6
MS-HWB-3
MS-MRY-6
MS-MRY-4
MS-MRY-4a
PWSP No. 2
PWSP No. 3
PWSP No. 1
BULK FUEL STORAGE FACILITY (BLADDER FARM)
AERODROME APRON
MQ-C-A
QUARRY QMR2
MQ-C-D
NEW ROAD ALIGNMENT
CONSTRUCTION LAYDOWN AREA
MQ-C-B
EXPLORATION CAMP FACILITIES
WASTE WATER TREATMENT FACILITY
HELIPAD
POLISHING WASTE STABILIZATION PONDS (PWSPs)
CAMP INFRASTRUCTURE
AERODROME RUNWAY
NEW ACCOMMODATIONS CAMP
NEW ACCOMMODATIONS CAMP PAD
POLISHING WASTE STABILIZATION PONDS TREATED WATER DISCHARGE POINT
MS-C-C
MS-C-A
MS-03
MS-01
MS-C-B
MS-C-F
MS-C-E
MS-C-D
MS-06
MS-MRY-13b
MS-MRY-13a
EXISTING LANDFILL
EXISTING LANDFILL ROAD
MS-C-H
MS-C-G
EMULSION PLANT

UTILITIES, INCLUDED:
- POWER GENERATION MODULE
- FUEL TANK FARM & DYKE
- SEWAGE TREATMENT PLANT
- POTABLE WATER TREATMENT PLANT

SITE SERVICE FACILITIES, INCLUDING:
- MAINTENANCE BUILDING
- WELDING WORKSHOP
- TRUCK WASH STATION
- TOROMONT SHOP
- EMERGENCY RESPONSE OFFICE

7 914 500 N
7 913 000 N
7 911 500 N

LEGEND:

- INUIT OWNED LAND - SURFACE ONLY EXCLUDING MINERALS
- INUIT OWNED LAND - SURFACE AND SUBSURFACE INCLUDING MINERALS
- WATER
- BORROW AREAS (2013 UNDER Q10C3001)
- QUARRY AREA (EXISTING UNDER Q13C301)
- WASTE STORAGE AREA
- RIVER/STREAM/DRAINAGE
- ROAD
- QIA SURFACE COMMERCIAL LEASE BOUNDARY
- WATER LICENCE WATER QUALITY MONITORING LOCATION

NOTES:

1. COORDINATE GRID IS UTM NAD83 ZONE 17N.
2. TOPOGRAPHY PROVIDED BY EAGLE MAPPING (2005).
3. PLAN BASED ON INFORMATION PROVIDED BY HATCH, DATED (JAN 13, 2015).
4. CONTOUR INTERVAL IS 2.5 METRES.

SCALE A: 300 150 0 500 1000 1500 m

REV	DATE	DESCRIPTION	DESIGNED	DRAWN	REVIEWED
0	22MAR'18	ISSUED WITH 2017 QIA AND NWB ANNUAL REPORT	AV	MMD	AK

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MARY RIVER PROJECT

MINE SITE LAYOUT AND WATER LICENCE MONITORING LOCATIONS

Knight Piésold CONSULTING

PIA NO. NB102-181/44 | REF NO. NB18-00172

Figure 2 | REV 0

Appendix B

Emergency Spill Kit Supplies and Locations and Emergency Response Truck Inventory

H349000-4000-00-015-0021

TOM RIVER

CAMP LAKE

SHEARDOWN LAKE

MARY RIVER

STORAGE AREA

Km 97 BORROW SOURCE

RAW WATER PUMP HOUSE

RAW WATER INTAKE

EXPLORATION WORKSHOPS

EXPLORATION SOFT-WALL CAMP

EXISTING POLISHING WASTE STABILIZATION PONDS (PWSPs)

AERODROME APRON AND FUEL STORAGE

AERODROME RUNWAY

HAZARDOUS WASTE CONTAINMENT BERM (EXISTING)

BARRELED FUEL LINED CONTAINMENT

WASTE MANAGEMENT BUILDING

HAZARDOUS WASTE CONTAINMENT AREA NEW

LAYDOWN AREA

CONCRETE BATCH PLANT BUILDING

Waste Management Building Spillkit

Surface Works Spillkit

Camp Lake Spillkit

Enviro alley Spillkit

Old Genset Spillkit

Genset Bladder Spill Chest

Hazardous Waste Berm 2 Spillkit

HWB 3 Spillkit

HWB 4 Spillkit

Old Bladder Farm Spill Chest

Old Bladder Farm Spillkit

Heli-pad Spillkit

HELIPAD

Jet A Spillkit

Jet A Spillkit

Aerodome Spillkit

Aerodome Spillkit

Warehouse Spillkit

QUARRY QMR2

RAW WATER INTAKE PIPELINE

Ore Truck Laydown Spillkit

CONSTRUCTION LAYDOWN AREA

MSC Spillkit

MSC Spillkit

Fuel Tank Spillkit

Maintenance Spillkit

Maintenance Spillkit

Crusher Spillkit

Fuel Tank Spillkit

Powerhouse Spillkit

Power House Spillkit

MBR Spillkit

PIT OFFICE

KM 104 QUARRY

KM 105 Spillkit

Crusher Spillkit

Crusher Spillkit

Crusher Trailer Spillkit

ORE CRUSHING AND LOADING PADS

ORE CRUSHING SEDIMENTATION POND

UTILITIES INCLUDING:
- POWER GENERATION
- SEWAGE TREATMENT PLANT
- POTABLE WATER TREATMENT PLANT
- BULK FUEL STORAGE FACILITY

LANDFILL AND LANDFARM (FUTURE)

Emulsion Plant Spillkit

Emulsion Plant Spillkit

EMULSION PLANT

EFFLUENT DISCHARGE POINTS No.1, No.2 & No.3

CAMP INFRASTRUCTURE:
- ACCOMMODATION COMPLEX
- EMERGENCY RESPONSE
- MEDICAL CENTRE

SITE SERVICE FACILITIES INCLUDING:
- MAINTENANCE BUILDING
- WELDING SHOP
- TRUCKWASH
- TOROMONT BUILDING

QUARRY D1Q2

WASTE ROCK SEDIMENTATION POND

WASTE ROCK DUMP

DEPOSIT NO.1 MINING LEASE 2484

WASTE ROCK DUMP BOUNDARY AT THE END OF OPERATION

PROPOSED LIFE OF MINE OPEN PIT OUTLINE

OPEN PIT DEVELOPMENT (ERP)

KM 110 Spillkit

PIT 1 HAUL ROAD

EXPLOSIVE MAGAZINE

MILNE PORT

MINE SITE

KEYPLAN

FOR INFORMATION

NOTES:

1. COORDINATE GRID IS SHOWN IN UTM (NAD83) ZONE 17 AND IS IN METRES.
2. 2016 WORK SHOWN IN RED TEXT.

0 200 400 600 800 1000
SCALE IN METRES

LEGEND:

WATER
QUARRY
BORROW AREA
ROAD
RIVER/STREAM/DRAINAGE
RAW WATER INTAKE PIPELINE
COMMERCIAL LEASE
PROJECT DEVELOPMENT AREA

REV.	ISSUE FOR	AUTH. BY	DATE
C	ISSUED FOR USE	M.B.	J.B. 2015-10-15
B	ISSUE FOR USE	S.M.	T.M. 2014-12-10
A	ISSUE FOR USE	C.L.	A.G. 2014-10-30

ISSUE AUTHORIZATION

HATCH

DESIGNED BY: C. FEISTNER DATE 2014-10-21	DRAWN BY: J. BAJAGIC DATE 2014-10-21
CHECKED BY: G. POTTER DATE 2014-10-21	DISCIP. ENGR.: A. GRZECZKOWSKI DATE 2014-10-21
PROJ. DES. COORD.: T. THEPTELL DATE 2014-10-21	PROJ. ENGR.: J. CLELAND DATE 2014-10-21
PROJ. MGR.: J. CLELAND DATE 2014-10-21	

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MARY RIVER PROJECT

MINE SITE
INFRASTRUCTURE FOOTPRINT
WORK PLAN 2016

SCALE	DWG. NO.	REV.
1:15000 UNLESS NOTED	H349000-4000-00-015-0021	C

ORIGINAL SHEET SIZE: ISO A1 (841 x 594)

baja15703
10/15/2015 8:40:01 AM
C:\Users\bajagic\Desktop\15703\arc_jobs_data\acad\arcgis\arcmap\55R60\H349000-4000-00-015-0021.dgn

H349000-2000-00-015-0021

MILNE INLET

AANDC NUNAVUT LEASE 47H/16-1-2

SEALIFT BARGE LANDING AREA

SHIPLOADER

ORE DOCK

OPEP Spill Response Sea Cans

RAMP TO BEACH

ORE STOCKPILE SETTLING PONDS

FUEL TANK FARM

Project Office Spill Kit

HWB Kit #1 and 2

Jet-A Spill Chest

EFFLUENT DISCHARGE LOCATION
N 7976341
E 503639

EXISTING HTO CABIN

HAZARDOUS WASTE BERMS

LAYDOWN AREA

Tank Farm Spill Kit

Fixed Plant spill kit

Kitchen Spill Kit

MBR Spill Kit

BA/BC Spill Kit

FUTURE AIRSTRIP

SERVICES AREA PAD
SITE FACILITIES, INCLUDING:

- MAINTENANCE BUILDING
- WELDING SHOP BUILDING
- WORKSHOP OFFICE BUILDING
- TOROMONT MAINTENANCE BUILDING

POWER GENERATORS

INCINERATOR, HAZARDOUS WASTE BERM

POLISHING WASTE STABILIZATION POND

BB/BD Spill Kit

Incinerator Spill Kit

ORE STOCKPILE PAD

EXISTING HAZARDOUS WASTE BERM

Ash Berm Spill Kit

MATRIX CAMP

Berm Spill Kit

CAMP INFRASTRUCTURE PAD
SITE FACILITIES, INCLUDING:

- ACCOMMODATION COMPLEX
- EMERGENCY RESPONSE OFFICE
- EMERGENCY RESPONSE GARAGE
- SEWAGE TREATMENT PLANT
- POTABLE WATER TREATMENT PLANT
- WASTE MANAGEMENT FACILITY

ADDITIONAL LAYDOWN AREA ⚠

LAND FARM

ROCK QUARRY N0.1 BOUNDARY

Ore Handling Refueling Spill Kit #1 and 2

FUTURE POLISHING WASTE STABILIZATION POND

TOTE ROAD

CONVERT EXISTING CONCRETE BATCH PLANT BUILDING TO MAINTENENACE BUILDING ⚠

POTABLE WATER SUPPLY

PHILLIPS CREEK

EXTENT OF QUARRY Q1

PERMITTED OPEN BURN PIT AREA

KM2 BORROW AREAS

FOR INFORMATION

NOTES:

1. COORDINATE GRID IS SHOWN IN UTM (NAD83) ZONE 17 AND IS IN METRES.
2. 2016 WORK SHOWN IN RED TEXT.

0 50 100 150 200 250
SCALE IN METRES

LEGEND:

- WATER
- QUARRY
- COMMERCIAL LEASE
- AANDC LEASE 47H/16-1-2
- RIVER/STREAM/DRAINAGE
- ROAD
- PROJECT DEVELOPMENT AREA
- BORROW AREAS

REV	ISSUE FOR	AUTH. BY	DATE
D	ISSUED FOR USE	M.B.	J.B. 2015-10-15
C	ISSUE FOR USE	S.M.	T.M. 2014-12-10
B	ISSUE FOR USE	C.L.	T.M. 2014-10-31
A	ISSUE FOR USE	C.L.	A.G. 2014-06-19

ISSUE AUTHORIZATION

HATCH

DESIGNED BY: C. LEISTNER DATE 2014-10-20
DRAWN BY: J. BAJAGIC DATE 2014-10-20
CHECKED BY: S. POTTER DATE 2014-10-20
DISCIP. ENGR: A. GRZEGORCZYK DATE 2014-10-20
PROJ. DES. COORD: T. THERRELL DATE 2014-10-20
PROJ. ENGR: J. CLELAND DATE 2014-06-19
PROJ. MGR.: J. CLELAND DATE 2014-06-19

Baffinland

MARY RIVER PROJECT

MILNE PORT
INFRASTRUCTURE FOOTPRINT
WORK PLAN 2016

SCALE: 1:5000 OR AS NOTED

DWG. NO. H349000-2000-00-015-0021

REV. D

APPENDIX B: MRT Emergency Response Truck

Right Side:

Left Side:

Table B-1 – Inventory of Emergency Response Trucks

Compartment	Amount	Items
Cabin	**1**	Safety Glasses clear box
	1	Safety glasses Darks box
	1	Binoculars
	1	Rolls of duck tape
	1	Emergency Road kit
	1	First Aid kit
	2	Care Flare
	1	Thermal Imaging Camera
	2	Caution Tape
	1	2.5 pound fire extinguisher
1 Left Compartment	**7**	SCBA
	18	SCBA Cylinder
	25	SCBA Face masks
	1	RIT pack
	2	Wheel Chock
2 Left Compartment	**2**	Shovel (Spade, Shovel)
	2	Rakes
	1	Cable power puller
	1	Saws all (reciprocating saw)
	2	Saws all blades (kits)
	3	Drill bit set
	2	Cordless drill
	1	Socket set
	1	Tool box
	2	bolt cutters (Large/Small)
	1	D size 12 pack batteries
	1	C Size 12 pack Batteries
	3	9 Volt Batteries
	1	4 AAA Batteries
	6	Led head liters with 4AAA Batt
	1	4 AA batteries
	1	sledge hammer
	1	Haligan bar
	3	Big axe
	4	Winter Gloves
	1	Steel jerry can (gas)
	1	Plastic jerry can (gas)
	1	Portable fan
	1	Power pack for jaws of life
	1	Miscellaneous oils
	1	Airstar Light
	2PG	Balaclava
	1	Standard set wrenches
		work gloves
3 Left Compartment	**1**	Portable fan (electric)
	4	Tarps
	3	Various Valves and adaptors
	1	hydraulic air hammer

	1	Spreader
	1	Cutter
	1	Pincher
	1	Brace bar (hydraulic brace)
	2	Air Bags Hoses
	1	Chainsaw
	1	Chop saw
	1	1/2 Impact gun
	1	Gloves
	1	Grizzly Strots
	3	Hydraulic Hoses
4 Left Compartment	**2**	1.5 inch hose (yellow)
	4	1.5 inch hose (red)
	2	2.5 inch hose (white)
	2	Pistol Grip 2.5 hose nozzle
	1	Rubber hose
	1	Splitter 2.5" to 1.5"
	1	Y valve with adaptor
	3	Pistol Grip 1.5 inch nozzle
	4	Mustang Suits
	4	Rollgliss R550 Kit
	4	1.5 inch portable spray nozzle
	1	Victaulic coupler
		Wood (cribbing)
5 Left Compartment	**2**	Black Mustang Survivor Vest
	1	Pulley's carabineers, bag
	1	Prusik
	2	Mini 4:1
	3	Bag Carbiner
	4	Climbing harness
	1	Bag webbing &slings
	4	Beam Clamps
	8	Helmets & Gloves
	2	400' Rope Bags
	5	HH Life Vests
	2	Mustang Survival Suits
	3	Mustang Self Inflatable
	6	Orange PFD Vest
	3	Petzl AVAO Harness
	4	Boots (pairs)
	2	Rescue rope (200 foot bags)
	1	Rescue Rope 4:1 (200')
	2	Rope abrasion protection
	3	Teraphrene Boots
	2	Rescue ring
	4	"Confined space" SCBA
	2	Telescopic reach pole
1 Right Compartment	**2**	Back Boards
	2	Ferno Head Immobilizers
	2	Ked Extrication Kits

	1	Trauma Kit
	3	Blankets
	6	Insulated Coveralls
	4	Raguler Coveralls
	6	Hih-viz Vests
	4	Granola bars Box
	5	ferno spider straps
	3	Ferno CPR masks
	1	IC Command Center Board
	2	Box Safety Glasses
	1	Misc. rigid splints
	1	RsQmax Kit
	2	Padded Split Kits
	7	Folding stretchers
	2	Basket Stretcher kits
2 Right Compartment	**6**	Pylons
	2	padded splint
	5	Pails
3 Right Compartment	**3**	Grey Spill Pads (Bag)
	3	White Spill Pads (Bag)
	3	Box Absorbent Socks
	1	Plug & dyke
	1	20L Pail Gap Seal
	2	Lithium fire extinguisher
	2	15000 liter Onion bladder
	1	Ferno Stair chair
	4	Magnesium fire extinguisher
4 Right Compartment	**1**	15000 VSG Bladder
	4	Quatrex bags (white)
	1	Stair Chair
	3	Bladder repair kits
	3	Bladder fitting kit
	1	Mazar Rescue Board
5 Right Compartment	**5**	Quatrex Bags(white)
	1	spill response generator
	2	Medical disaster kits
	2	Arctic soft extension cords
	2	Chicken wire (roll)
	3	Tarps
	2	2X2 Duck Pond
	5	EXO Fit Harness
	1	Helmet Face Sheild
	15	Long gloves (pair)
	1	Honda GX 270 trash pump
	4	hip wader steel toe
		Tyvek coveralls suits
	1	Funnel
	3	rubber suits
	2	mag Lite Flash lights

Table B-2 – Inventory of Typical Spill Kits

Amount	**Description**
1	30 Gallon Drum with Lid
50	Sorbent Pads
4	Sorbent Socks
2	Sorbent Booms
1	Shaker of Safety Sorb
1	Neoprene Drain Cover
1	Disposable Bag
2 Pair	Safety Goggles
2 Pair	Nitrile Gloves

* Best efforts are made to ensure spill kits remain fully stocked at their designated locations.

Appendix C

MSDS Inventory

Name	Manufacturer	Synonyms	Revision Date
EYEWASH	Niagara Pharmaceuticals Inc		07/03/2015
MOLYKOTE 55 O-RING GREASE	The Dow Chemical Company		09/24/2015
AeroShell Grease 7	Shell Canada Products		06/22/2015
CLEANER BLEND 300	ITW Professional Brands		09/10/2015
Flake Calcium Chloride	Sel Warwick	Powdered Calcium Chloride; Calcium Chloride Dihydrate	06/01/2012
MOBIL JET OIL II	Exxon Mobil Corporation		07/09/2015
IFB 23 Tile, Insalcor, JM-20, JM-23, JM-26, JM-28, JM-30, JM-32, K-20, K-23, K-24, K-25, K-26 , K-28, K-30, SR-90, SR- 99, SR-99-LS, TC-23, TC-26, TJM-26, TJM-28	Morgan Advanced Materials	INSULATING REFRACTORY BRICK	06/01/2015
LIMESTONE	Teichert Aggregates	Aggregate, Aglime, Barn Lime, Coverstone, Flexible Base, Fluxing Agent, Manufactured Sand, Mineral Filler, Screenings, Calcium Carbonate, Calcium Carbonate, LimeRock, Limestone CaC03	06/01/2015
Antiseptic Skin Cleanser	Canadian Custom Packaging Company		10/05/2012
Black Dashboard Cleaner	Kleen-Flo Tumbler Industries Ltd	Dashboard polish	01/02/2015
SILICA GEL, TLC	Selecto Scientific, Inc.	BIO-SIL* KIESELSAURE (GERMAN) * METASILICIC ACID *	01/22/2011
Uvex Clear Lens Cleaner	Sperian Eye & Face Protection, Inc.	Lens cleaner	10/21/2013
JET A/A-1 AVIATION TURBINE FUEL	Petro-Canada	Jet A-1; Jet A-1-DI; Aviation Turbine Kerosene (ATK); JP-8; NATO F-34; Jet F-34; Aviation Turbine Fuel, Kerosene Type (CAN/CGSB 3.23 & CAN/CGSB 3.24)	05/14/2015

Name	Manufacturer	Synonyms	Revision Date
LPS 2 (Aerosol)	LPS LABORATORIES	An industrial lubricant designed to displace moisture from equipment, provide heavy-duty lubrication and rust prevention	10/25/2014
LOCTITE 565 PST PIPE SEALANT THREAD SEALANT	Henkel Canada Corporation		10/20/2014
LePage Heavy Duty Contact Cement	Henkel Canada Corporation	Adhesive	11/19/2014
Shell Corena S4 R 46	Shell Canada Products	Compressor oil	12/18/2014
Bulab 5361P	Buckman Laboratories of Canada, Ltd.		12/01/2014
3M AUTO BEDDING AND GLAZING COMPOUND (BLACK) PN 08509	3M Corporation	Sealant	04/06/2015
LOCTITE 510 known as LOCTITE 510 GASKET ELIMINAT	Henkel Canada Corporation	Sealant	03/16/2015
50% Isopropyl Alcohol	Vi-Jon		05/05/2008
TRAXON E SYNTHETIC CD-50	Petro-Canada Lubricants Inc.		02/17/2015
TRAXON E SYNTHETIC 75W-90	Petro-Canada Lubricants Inc.		01/07/2015
HYDREX EXTREME	Petro-Canada Lubricants Inc.		02/12/2015
HEAVY DUTY SYNTHETIC BLEND ATF	Petro-Canada Lubricants Inc.		02/02/2015
Lock-De-Icer	Kleen-Flo Tumbler Industries Ltd	Spray de-icer	01/02/2015
Expo	Dustbane Products Limited		06/01/2015
Shell Gadus S2 V30KXD 1	Shell Canada Products	Automotive and industrial grease	12/18/2014
Shell Air Tool Oil S2 A 32	Shell Canada Products	Machine oil	12/18/2014
PRECISION XL RAIL CURVE GREASE	Petro-Canada Lubricants Inc.		02/27/2015
0.2 NTU RATIO TURBIDITY STANDARD	Reagecon Diagnostics Ltd		08/05/2015
LOCTITE SF 7063 known as Loctite 7063 - GERMAN	Henkel AG & Co. KGaA		06/15/2015
Isopropyl Alcohol 99%	Vi-Jon		03/04/2014

Name	Manufacturer	Synonyms	Revision Date
Alcohol 70% Isopropyl	Vi-Jon	First Aid	11/04/2014
Formaldehyde solution 37%	Thermo Fisher Scientific	Formalin; Methanal; Methylene oxide; Oxymethane; Formic aldehyde; Methyl aldehyde, Laboratory chemicals	10/29/2014
Formaldehyde solution 37%	Thermo Fisher Scientific	Formalin; Methanal; Methylene oxide; Oxymethane; Formic aldehyde; Methyl aldehyde, Laboratory chemicals	10/29/2014
Clorox Disinfecting Wipes - Fresh Scent	Clorox Company of Canada, Ltd.	Moistened disinfecting wipes	01/05/2015
LPS 3 (Aerosol)	LPS LABORATORIES		11/10/2014
Formaldehyde, 37 wt% solution	Thermo Fisher Scientific	Formalin; Formol; Methanal (Molecular Biology), Laboratory chemicals	03/06/2015
FLEETCOOL EG PREMIX (Ethylene glycol based coolant)	Cummins Filtration	Premixed antifreeze / coolant	02/27/2015
804AA 91% Isopropyl Alcohol	Vi-Jon	First-Aid	07/07/2015
SmokeCheck 25S (Smoke Alarm Tester)	HSI Fire & Safety Group		03/17/2015
S-316	HORIBA, Ltd.		12/25/2014
Stoko Gel Instant Hand Sanitizer	Deb-STOKO USA LLC		06/01/2015
Stoko Gel Free	Deb-STOKO USA LLC		06/01/2015
Iron Ore (Baffinland Iron Mines Corporation)	BAFFINLAND IRON MINES CORPORATION	BAFFINLAND MARY RIVER IRON ORE MARY RIVER LUMP ORE (LUMP: grain size - less than 31.5mm greater than 6.3mm) MARY RIVER FINE IRON ORE (FINES: grain size - less than 6.3mm) BAFFINLAND MARY RIVER IRON ORE, MARY RIVER LUMP ORE (LUMP: grain size - less than 31.5mm greater than 6.3mm), MARY RIVER FINE IRON ORE (FINES: grain size - less than 6.3mm)	07/13/2015
NO. 1 DIESEL FUEL	Exxon Mobil Corporation	Hydrocarbons and Additives, Fuel	06/08/2015
CONSAV 1GL 5600 Floor Paint Safety Yellow	Rust-Oleum Corporation		06/30/2015

Name	Manufacturer	Synonyms	Revision Date
# OMC99290 & OMC99291 OFFICE MAX DUSTER 10OZ	EXPONENT MICROPORT INC.	#OMC99290-OMC99291 OFFICE MAX 10OZ PRODUCT	01/01/2015
Sodium Hexametaphosphate (SHMP)	ICL PERFORMANCE PRODUCTS LP	Glass H, Hexaphos, Sodaphos, SHMP; glassy Sodium Phosphate; Sodium Polyphosphate, glassy; Metaphosphoric Acid, Sodium Salt; P60; Graham's Salt	05/18/2015
SODIUM SULFATE	Anachemia Canada	Disodium sulfate, Sodium sulfate anhydrous, Salt cake, Sulfuric acid disodium salt, Sodium sulphate, Thenardite, Mirabilite, AC-8515, AC-8515T, 85330, 85376	03/10/2015
LOCTITE 565 PST PIPE SEALANT h PTFE THREAD SEALANT	Henkel Corporation		09/08/2014
COD TNTPlus, LR (3-150 MG/L)	Hach Company		01/12/2015
Sodium Bicarbonate	Tronox Specialty Alkali Corporation	Baking Soda, Bicarbonate of Soda	04/07/2015
Shell Air Tool Oil S2 A 100	Shell Canada Products		01/12/2015
EL 2007 Non-Flammable Duster Aerosol	Sprayon Products		03/13/2015
Shell Omala S4 GX 150	Shell Canada Products		01/12/2015
3V PRIMER (PVC & CPVC Primer)	SLUYTER CO LTD		05/07/2015
Armor All Original Protectant	The Armor All/STP Products Company		01/31/2015
PURELL Alcohol Hand Sanitizing Wipes	GOJO Industries, Inc.		02/10/2015
Iodine Solution, 5%, Lugol	Thermo Fisher Scientific	Laboratory chemicals	08/18/2014
Fantastik All Purpose Cleaner	Sealed Air Corporation		06/11/2014
Wet Ones Citrus Scent Antibacterial Wipes	Playtex Manufacturing Inc		09/04/2012
Sunlight Liquid Dish - Lemon	Sealed Air Corporation	Dish soap	09/09/2014
BACTOL DISINFECTANT AND SANIT	AVMOR		07/10/2014

Name	Manufacturer	Synonyms	Revision Date
CALCIUM HYDROXIDE (LIME WATER)	Anachemia Canada	R-1430, 19195	11/06/2014
Digestion Solution for COD 20-1500 mg/l Range	Hach Company		01/12/2015
SULPHURIC ACID 50%	KENCRO CHEMICALS LIMITED		06/01/2014
HYDROCHLORIC, 0.50 NORMAL	REAGENTS, INC.	Muriatic acid solution, 0.5 Molar	04/23/2015
AmVer High Range Ammonia Test ´N Tube Reagent	Hach Company	Laboratory Use Determination of ammonium nitrogen	08/02/2014
NitraVer X Nitrogen, Nitrate Reagent B	Hach Company		02/02/2015
TOTAL PHOSPHATE TEST KIT	CHEMETRICS, INC.		01/31/2013
Hach One Reference Electrolyte Solution	Hach Company		08/07/2014
Rhodamine WT, 20% solution in water	Thermo Fisher Scientific	Laboratory chemicals	02/10/2015
Buffer Powder Pillows pH 10.01 ± 0.02 @ 25°C	Hach Company		05/29/2014
Buffer Powder Pillows pH 4.01 (+/-) 0.02 @ 25 Degree C	Hach Company	Buffer	07/29/2014
pH 7.00 Buffer Solution	Hach Company		10/23/2014
HI 6031 1413 (Micro)S/cm Standard Solution	HANNA INSTRUMENTS INC		06/13/2013
AMCO CLEAR TURBIDITY STANDARD, 0.0 NTU	GFS Chemicals, Inc.	Reagent for determination of turbidity of liquids	12/16/2014
AMCO CLEAR TURBIDITY STANDARD, 1.0 NTU	GFS Chemicals, Inc.	Reagent for determination of turbidity of liquids	12/17/2014
AMCO CLEAR TURBIDITY STANDARD, 10 NTU	GFS Chemicals, Inc.	Reagent for determination of turbidity of liquids	12/17/2014
AMCO CLEAR TURBIDITY STANDARD, 1000 NTU	GFS Chemicals, Inc.		01/20/2012
Shell Tellus S4 VX 32	Shell Canada Products		12/22/2014
WD-40 Specialist Penetrant	WD-40 Products (Canada) LTD.		01/23/2015

Name	Manufacturer	Synonyms	Revision Date
Shell Spirax S6 AXRME 75W-90	Shell Canada Products		01/29/2015
Aluminum potassium sulfate dodecahydrate	Sigma-Aldrich Corporation	Potassium aluminum sulfate dodecahydrate, Alum, Potassium alum	02/27/2015
ICWB LSPR 12PK CAUTION BLUE MARK	Rust-Oleum Corporation		08/26/2014
pr88 – The Wash-Off Hand Protection	URSULA RATH GMBH		04/01/2015
Anti-seize Sealing Compound	Kleen-Flo Tumbler Industries Ltd		01/02/2015
NEW RAPID TAP PASTE	Relton Corporation		03/30/2015
Calcium Chloride 2.5 M	Bio-Rad Laboratories		01/13/2015
Sodium Hypochlorite 12%	Univar Canada Ltd.	Sodium oxychloride; Soda bleach liquor; Javel water; Clorox; Javex	04/03/2014
Shell Donax TC Multiseason	Shell Canada Products		02/09/2015
Air1 Diesel Exhaust Fluid	Yara Belle Plaine, Inc		05/31/2013
HERTEL PLUS DISINFECTANT	Lavo Inc.		10/04/2013
Sulphuric Acid 93%	Benson Chemicals Ltd.	Sulfuric acid, Battery acid, Dihydrogen sulfate, Electrolyte acid, Hydrogen sulfate, Mattling acid, Oil of vitriol, Spirit of sulfur	11/15/2014
PROPANE	Exxon Mobil Corporation	Paraffinic Hydrocarbons, Gas or Liquefied Gas, Chemical feedstock	12/04/2014
Regular Gasoline	Irving Oil Refining G.P.	Natural gasoline, Automotive gasoline, Fuel	10/15/2014

Name	Manufacturer	Synonyms	Revision Date
Methanol	INTERSTATE CHEMICAL CO	4Z0A reagent#5/acetone alcohol/AI3-00409/alcohol C1 /alcohol, methyl /carbinol/ caswell No 552 / coat-B1400 / colonial spirit / colonial spirits / Columbian spirit / Columbian spirits / EPA pesticide chemical code 053301 / eureka products criosine	11/24/2014
Ammonium Nitrate	CAROLINA BIOLOGICAL SUPPLY COMPANY	Nitric Acid, Ammonium Salt	09/03/2014
Shell Rotella T Triple Protection 15W-40	Shell Canada Products		12/18/2014
Safe -T-Brake	Kleen-Flo Tumbler Industries Ltd		01/02/2015
EP61 GLASS & SURFACE CLEANER	AVMOR		09/25/2014
FRIENDLY AIR	Dustbane Products Limited		09/01/2014
CITRANET LEMON LAUND.POWD.DET.	NORCHEM DIVISON DE AVMOR		07/16/2014
TIP TOP SOLUTION STL-RF	REMA TIP TOP AG		04/01/2014
TIP TOP SOLUTION HL-T	REMA TIP TOP AG		04/01/2014
International Thinner-Eqpt Cleaner	International Paint Limited		02/20/2013
International Thinner-Eqpt Cleaner	International Paint Limited	Thinner	05/15/2013
Interplus 356 Aluminium Part A	International Paint Limited		02/04/2014
Interplus 356 Part B	International Paint Limited		05/02/2014
Interthane 990 Base Light Part A	International Paint Limited		12/03/2014
INTERTHANE 990 PART B	International Paint Limited		06/18/2014
Loctite 7063	Henkel Limited	Solvent based cleaner	06/27/2014
Loctite 7063 - FRENCH	Henkel Technologies France SAS	Dégraissant à base de solvants	06/27/2014
Loctite 586 - GERMAN	Henkel AG & Co. KGaA		02/04/2014

Name	Manufacturer	Synonyms	Revision Date
404 Quick Set Instant Adhesive	Henkel Corporation		08/28/2014
LPS ChainMate	LPS LABORATORIES		06/29/2014
LePage PL9000 Heavy Duty Construction Adhesive	Henkel Canada Corporation		06/02/2014
LOCTITE 242 THREADLOCKER	Henkel Corporation		08/21/2014
Toner WorkCentre 7525, WorkCentre 7530, WorkCentre 7535, WorkCentre 7545, WorkCentre 7556	Xerox Corporation		08/20/2013
Drum Cartridge for WorkCentre 7525, WorkCentre 7530, WorkCentre 7535, WorkCentre 7545, WorkCentre 7556	Xerox Corporation		10/17/2013
Expo White Board (Care) Cleaner, Expo White Board (Care) Cleaning Wipes	Newell Rubbermaid		03/05/2013
EP70 WASHROOM CLEANER	AVMOR		01/10/2014
XIRTEC 11 GRY Low VOC PVC Plastic Pipe Cement	IPS Corporation		06/12/2013
MAGIC FOG-BE-GONE LENS CLEANING ANTI-STAT, ANTI-FOG FLUID	MAGIC SAFETY PRODUCTS		05/04/2013
Formazin Turbidity Standard, 4000 FNU	Hach Company		04/17/2014
SUPER DOUCET MOUSSE	Groupe Savon Olympic Inc.	White antibacterial foam hand and body soap	03/18/2013
SBS 40 Medicated Skin Cream	Deb USA, Inc.		12/31/2013
DOW CORNING 736 HEAT RESISTANT/SEALANT	The Dow Chemical Company		06/26/2013
DOW CORNING 732 MULTI -PURPOSE SEALANT CLEAR	The Dow Chemical Company		04/05/2013
DEVCON Flexane High Performance Putty - KIT	ITW Professional Brands		12/30/2012
262 Threadlocker Permanent Strength	Henkel Canada Corporation		01/09/2014
LOCTITE 262 THREADLOCKER HIGH STRENGTH	Henkel Canada Corporation		01/09/2014
LPS 1	LPS LABORATORIES	Petroleum Distillates	10/07/2013
LOCTITE SUPERFLEX RED HIGH TEMP RTV V Silicone Adhesive Sealant Silicone Adhesive Sealant	Henkel Canada Corporation		04/01/2014
Quickstix 268 Threadlocker High Strength	Henkel Canada Corporation		04/25/2014

Name	Manufacturer	Synonyms	Revision Date
660 Quick Metal Retaining Compound	Henkel Canada Corporation		02/14/2014
MASTERS PRO-DOPE	G.F. THOMPSON CO. LTD.		12/01/2012
Master Appliance Ultratane Butane Fuel (Petroleum Gases, Liquefied)	Master Appliance Corporation		03/14/2014
LPS QB Duster	LPS LABORATORIES		06/13/2013
Worthington Petroleum Based Soldering Flux	Worthington Industries Inc		06/18/2013
All Season Windshield Washer	Recochem Inc.		03/20/2014
BASICS Pressurized Duster	Falcon Safety Products, Inc		05/14/2012
3M Windo-Weld Super Fast Urethane PN 08608, 08609	3M Corporation		03/19/2014
Eberhard Faber Dry Erase Markers	Newell Rubbermaid		03/05/2013
Berol, Expo Low Odor , Expo Click, Expo Original, Eberhard Faber - Dry Erase Markers, Sharpie Whiteboard Markers	Newell Rubbermaid		04/01/2014
DOW CORNING 832 MULTI-SURFACE ADHESIVE SEALANT, OFF-WHITE	The Dow Chemical Company		01/27/2014
OFF! DeepWoods Spray Insect Repellent 5	S.C. Johnson and Son, Limited		01/10/2014
LYSOL Brand III All Purpose Cleaner 4 in 1 - Trigger - (All Scents, All Sizes)	Reckitt Benckiser (Canada) Inc.		04/25/2012
KRYLON Industrial TOUGH COAT Fluorescent Acrylic Enamel, Electric Green Fluorescent	THE SHERWIN-WILLIAMS COMPANY- KRYLON Products Group		05/24/2014
KRYLON Industrial QUIK-MARK Water-Based Inverted Marking Paint, Chalk-Line Clear	THE SHERWIN-WILLIAMS COMPANY- KRYLON Products G		05/21/2014
WINDEX MULTI-SURFACE DISINFECTANT TOUCH-UP CLEANER - FRESH SCENT	S.C. Johnson and Son, Limited		07/19/2012
WINDEX MULTI-SURFACE CLEANER - VINEGAR	S.C. Johnson and Son, Limited		05/21/2014
PRECISION SYNTHETIC MOLY	Petro-Canada Lubricants Inc.		02/14/2013
DURON-E SYNTHETIC 5W-40	Petro-Canada Lubricants Inc.		10/28/2013

Name	Manufacturer	Synonyms	Revision Date
PC FAST ORANGE LOTION WITH PUMICE 3.78 L	ITW Permatex Canada		05/17/2013
prDry Hands - Skin Protection Gel	URSULA RATH GMBH		04/01/2014
PURELL Instant Hand Sanitizer	GOJO Industries, Inc.		04/29/2013
PURELL Advanced Moisturizing Foam Hand Rub	GOJO Industries, Inc.		06/04/2014
Sharpie Fine Point Marker, Sharpie Ultra Fine Point Marker, Sharpie Extra Fine Marker, Sharpie Chisel Tip Marker, Sharpie Twin Tip Marker, Super Sharpie Marker, Super Sharpie Twin Tip Marker, Sharpie Mini Fine Point Marker, Sharpie Micro Marker	Newell Rubbermaid	Sharpie Grip Marker, Sharpie Retractable Fine Point Marker, Sharpie Magnum Marker, Sharpie King Size Marker, Sharpie Liquid Tip Marker. Sharpie Premium, Sharpie CD Marker, Sharpie Pro, Sharpie Pro King Size, Sharpie Pro Magnum, Sharpie Aluminum Barrel	04/02/2014
Shell Gadus S2 V220 2	Shell Canada Products		12/09/2013
Shell Gadus S5 V100 2	Shell Canada Products		12/09/2011
Shell Gadus S5 U100KD 1	Shell Canada Products		12/09/2011
Spray Nine 4L	ITW Professional Brands		10/04/2012
Shell Spirax S3 TLV	Shell Canada Products		12/09/2011
CAT FINAL DRIVE AND AXLE OIL SYNTH (FDAO-SYN)	Exxon Mobil Corporation		04/08/2013
Monitor Cleaning Wipes, 100ct SKU 775488 (model 16982) [STP08002]	Kleinmann GmbH	Staples Monitor Cleaning Wipes Tub of 100	01/01/2014
CONSTANT CHLOR PLUS BRIQUETTES	Arch Chemicals, Inc.		04/16/2014
PGP Comet Deoderizing Cleanser with Chlorinol	Procter & Gamble		10/15/2013
Belkin Air Duster 10/12 oz r134a	Kleen Concepts		12/04/2012
Braze Core Silver, Copper, Tin, Zinc	Lucas Milhaupt, Inc.		05/09/2014

Name	Manufacturer	Synonyms	Revision Date
Shell Spirax S6 ATF A295	Shell Canada Products		06/10/2013
KEYSTONE ANTIBACTERIAL LIQUID HAND SOAP	Ecolab Inc.		04/07/2014

Appendix D

NT-NU Spill Report

NT-NU SPILL REPORT

OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

NT-NU 24-HOUR SPILL REPORT LINE
TEL: (867) 920-8130
FAX: (867) 873-6924
EMAIL: spills@gov.nt.ca

REPORT LINE USE ONLY

A	REPORT DATE: MONTH – DAY – YEAR	REPORT TIME	☐ ORIGINAL SPILL REPORT, OR	REPORT NUMBER
B	OCCURRENCE DATE: MONTH – DAY – YEAR	OCCURRENCE TIME	☐ UPDATE # _____ TO THE ORIGINAL SPILL REPORT	____-____

C	LAND USE PERMIT NUMBER (IF APPLICABLE) **IOL - Commercial Lease No.: Q13C301**	WATER LICENCE NUMBER (IF APPLICABLE) **2AM-MRY-1325 Type "A"**
D	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION	REGION ☐ NWT ☒ NUNAVUT ☐ ADJACENT JURISDICTION OR OCEAN
E	LATITUDE DEGREES MINUTES SECONDS	LONGITUDE DEGREES MINUTES SECONDS
F	RESPONSIBLE PARTY OR VESSEL NAME **Baffinland Iron Mines Corp.**	RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION **2275 Middle Road East, Suite 300, Oakville, ON L6H 0C3**
G	ANY CONTRACTOR INVOLVED	CONTRACTOR ADDRESS OR OFFICE LOCATION

H	PRODUCT SPILLED	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES	U.N. NUMBER
	SECOND PRODUCT SPILLED (IF APPLICABLE)	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES	U.N. NUMBER
I	SPILL SOURCE	SPILL CAUSE	AREA OF CONTAMINATION IN SQUARE METRES
J	FACTORS AFFECTING SPILL OR RECOVERY	DESCRIBE ANY ASSISTANCE REQUIRED	HAZARDS TO PERSONS, PROPERTY OR EQUIPMENT
K	ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS		

L	REPORTED TO SPILL LINE BY	POSITION	EMPLOYER	LOCATION CALLING FROM	TELEPHONE
M	ANY ALTERNATE CONTACT	POSITION	EMPLOYER	ALTERNATE CONTACT LOCATION	ALTERNATE TELEPHONE

REPORT LINE USE ONLY

N	RECEIVED AT SPILL LINE BY	POSITION STATION OPERATOR	EMPLOYER	LOCATION CALLED YELLOWKNIFE, NT	REPORT LINE NUMBER (867) 920-8130

LEAD AGENCY ☐ EC ☐ CCG ☐ GNWT ☐ GN ☐ ILA ☐ INAC ☐ NEB ☐ TC | SIGNIFICANCE ☐ MINOR ☐ MAJOR ☐ UNKNOWN | FILE STATUS ☐ OPEN ☐ CLOSED

AGENCY	CONTACT NAME	CONTACT TIME	REMARKS
LEAD AGENCY			
FIRST SUPPORT AGENCY			
SECOND SUPPORT AGENCY			
THIRD SUPPORT AGENCY			

Appendix E

Dyno Nobel Baffin Island Inc. – Emergency Response Assistance Plan

BAFFIN ISLAND

DYNO

Dyno Nobel

Baffin Island

EMERGENCY RESPONSE ASSISTANCE PLAN

DYNO NOBEL Baffin Island INC.
EMERGENCY RESPONSE ASSISTANCE PLAN
Emergency Response Notification

1. In the event of an emergency Mary river Site Security/MRT will be notified first at:

Radio:

- Radio Channel: EMERGENCY and or SS TAC (Site Services/Security)
- Call "Code 1, Code 1, Code 1"
- State Name
- Emergency Details
- Location
- **Phone:**
- Security 647-253-0596 Ext 6047

2. Dyno Nobel Baffin island on site plant will be contacted at:
   (647) 253 0596. Ext 6067
3. Off-Site notification:

	NAME	HOME	CELL
1.	NFLD Hardrok (24hr emergency)	(709) 754-4900	
2.	Jim Kasemets	(709) 632-4007	(709) 632-4007
3.	Roland Walsh	(709) 699-8987	(709) 765-6031
4.	Mark Gillis	(709) 634-2993	(709) 640-7969
5.	Kevin McDonald	(902) 341-2181	(902) 848-6849

Revision and Distribution

An updated copy of this ERAP must be kept in the following locations. Revisions to this ERAP must be reviewed and signed-off on by all who possess a copy:

Emulsion Plant Office	Mary River Site Security
DNBI Pick-ups – LTP040 & LTP043	Mary River MRT
DNBI Loader – LDR020	NHR Office – Corner Brook, NL
Emulsion Trucks – RC913 & RC914	NHR Office – St. John's, NL

Contents

EMERGENCY ACTION 4
Fire 4
Fire not involving explosives or ammonium nitrate (AN) **4**
Fire involving explosives or AN **4**
Detonation 4
Lightning 4
Spills 5
Ammonium Nitrate **5**
Emulsion **5**
Oils, fuels, etc **5**
PLANT EVACUATION PROCEDURES 6
Evacuation 6
Guarding 6
Response 6
RESOURCES 7
APPENDIX A: FIRE FIGHTING INFORMATION 8
APPENDIX B: ENVIRONMENTAL RELEASE PROCEDURES 11
APPENDIX C: EMULSION PLANT LAYOUT 14

EMERGENCY ACTION

Fire

Fire not involving explosives or ammonium nitrate (AN)

In the event of a fire not involving explosives or ammonium nitrate, Mary River Site Security will be notified of a "CODE ONE" on either the "Emergency" or "SS TAC" channel, or by phone at (647) 253-0596 ext. 6047**.** Fires which do not involve explosives or ammonium nitrate will be extinguished using normal fire-fighting procedures.

Fire involving explosives or AN

No attempt will be made to fight fires involving explosives or equipment containing explosive residue (AN included). The plant will be shut down and evacuated to the muster station (shown in Appendix C). After a verified head count all individuals will evacuate and blockade the main gate as shown on map to ensure no one enters. When all employees are out of harm's way, personnel will call a "CODE 1" on radio channel "Emergency" or "SS TAC" or call Security by phone at 647-253-0596 (extension number 6047).

The procedure for plant site evacuation is given in the Plant Evacuation Procedures section (page 6). In all cases, keep away from the gases and smoke released by the fire.

Detonation

In the event of a detonation at the plant, the emergency plan will go into effect immediately, starting with complete evacuation of the plant site. See page 6 of this ERAP.

Lightning

If lightning approaches the plant, remove all personnel to the main gate until all clear. See page 6 of this ERAP. If lightning approaches while the explosives truck is in pit, the truck should return to plant, time permitting, and follow the evacuation procedure. If there is no time to return to plant, leave the truck in the pit and notify the pit supervisor. Evacuate all pit personnel from the pit until the lightning passes.

Spills

Ammonium Nitrate

Ammonium nitrate for use at the Mary River Project is stored in containers in two locations; the KM 97 laydown and smaller quantities at the emulsion plant. The AN prill is stored in 1,000 kg tote bags, 20 of which are stored double-stacked in each of the 20' containers. No AN is stored outside at any time. AN is only withdrawn from the containers when required by plant production. It is loaded directly into the AN Handling Module of the plant to minimize any exposure of the product to the environment (See Appendix C)

Small spills will be swept up with plastic dust pan and broom and emptied in plastic cans marked AN only, to be either recycled in the plant or disposed of in blast holes. Large spills will be dealt with on an individual basis depending upon size of spill. Efforts will be made to contain spill and area will be secured before clean up begins.

Emulsion

Emulsion is stored in a single, 36,000 kg capacity tank within the emulsion loading garage (see the site plan in Appendix C). Smaller quantities may be stored in the two bulk emulsion trucks (10,000 kg capacity each) which are parked in the garages when not in use in the mine.

Small spills will be scooped up with non-sparking shovels and placed in bags, transported to magazine site at KM 105.5, to be stored until ready for disposal in blast holes. Large spills will be dealt with on an individual basis depending upon size of spill. Efforts will be made to contain spills and an area will be secured before clean-up begins. This may involve pumping of large spills into a tanker or scooping up product with shovels.

Oils, fuels, etc.

Methods of spill containment in all fuel/lubricant storage areas within the plant are is use to ensure spills are adequately contained before they occur. However, in the event of a spill outside of the designated storage areas, spills will be diked and absorbent pads used to collect the spill. Residual product not capable of being reused will be contained, collected with adequate amounts of soil absorbent to solidify the material and render it inert.

PLANT EVACUATION PROCEDURES

Evacuation

In the event that a fire involving explosives/AN, or a detonation occurring at the plant, the site must be immediately evacuated. Personnel must report to the muster point (noted on the site plan in Appendix C) where a head-count is to be conducted. When all personnel are accounted for, personnel must proceed to the main gate.

A "Code 1" alert must be broadcast on radio channel "Emergency" or "SS TAC" as soon as it is safe to do so. After repeating "code one, code one, code one", state your name, location and nature of the emergency. Indicate that there is a fire/detonation at the emulsion plant and no firefighting measures are to be taken. Security will re-broadcast this message to ensure all personnel on site are aware. Inbound or outboard air traffic must be halted or redirected.

As the landfill area is within the danger radius of a fire/detonation at the plant, plant personnel should sweep the landfill on their way out the emulsion plant road to ensure all personnel are clear of this area.

Guarding

The road to the emulsion plant must be guarded at the location given on the overall site plan in Appendix C. **NO ONE IS PERMITTED TO RE-ENTER THE AREA UNTIL AN "ALL-CLEAR" IS GIVEN.** If BIM employees are required to stand guard, Dyno Nobel Baffin Island (DNBI) employees will provide direction.

Response

It is the responsibility of Dyno Nobel Baffin Island management to direct the emergency response to a fire involving explosives/detonation at the plant. If no management personnel are on site, this will be coordinated through by the most senior DNBI employee on site. As previously stated, **the only response to a fire involving explosives/detonation**

at the plant is evacuation of the plant and guarding of all access points until the danger has passed.

RESOURCES

Milne Inlet - Port Site Complex			
For Outside caller - Main line # 647-253-0598 then Dial the Extension			
Name	**Position/Department**	**Phone Number**	**Internal Ext**
MRT	MRT	647-253-0598	4219
Health and Safety Coordinator	Health and Safety	647-253-0598	4122

Mary River			
For Outside caller - Dial 647-253-0596 +ext.			
Name	**Position/Department**	**Phone Number**	**Internal Ext**
Security Lead	Scarlet Security	(647) 253-0596	6047
MRT	MRT	(647) 2	6020
Environment Manager	Environment	(647) 253-0596	6016
Health and Safety Superintendent	Health and Safety	(647) 253-0596	6006

Outside resources include:

Emergency Services Dispatch	(867) 979-5662
R.C.M.P	1 (800) 979-1111
CANUTEC	(613) 996-6666
NRCAN Explosives Regulatory Division	(613) 948-5200
Environment Canada	1 (866) 283-2333

APPENDIX A: FIRE FIGHTING INFORMATION

MATERIAL	RECOMMENDED FIRE-FIGHTING METHODS	SPECIAL CONSIDERATION
Ammonium Nitrate - 83% solution colourless	Use flooding amounts of water in early stages of fire. Keep upwind. This is an oxidizing agent which supports combustion and is an explosive hazard if heated under confinement that allows high pressure buildup. Evacuate to designated area if fire cannot be controlled.	Toxic oxides of nitrogen are given off during combustion. Fire-fighters require positive pressure self-contained breathing apparatus. Avoid contaminating with organic materials.
Ammonium Nitrate Prill - odourless white to light tan crystalline solid	Use flooding amounts of water in early stages of fire. Keep upwind. This is an oxidizing agent which supports combustion and is an explosive hazard if heated under confinement that allows high pressure buildup. Evacuate to designated area if fire cannot be controlled.	Toxic oxides of nitrogen are given off during combustion. Fire-fighters require positive pressure self-contained breathing apparatus. Avoid contaminating with organic materials. Many powdered metals such as Al, Sb, Si, Cd, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, Sn Zn and brass react violently and explosively with fused AN below 200 degrees C. Sensitivity to detonation increases when heated.
N-17	Flash Point: Not applicable Extinguishing Media: Not applicable	Wear self-contained breathing apparatus and protective clothing. No unusal fire explosion hazard.
L-2 Clear to pale yellow liquid. Very little if any odor.	Use water, CO_2, or Dry chemical	Fire fighters must be equipped to prevent breathing vapors or fumes of combustion. Highly toxic gases may result from exposure to fire or high temperatures.

APPENDIX A: FIRE FIGHTING INFORMATION

MATERIAL	RECOMMENDED FIRE-FIGHTING METHODS	SPECIAL CONSIDERATION
Citric Acid Odourless, white or opaque crystals	Use water, Dry chemical, Alcohol or carbon dioxide	When heated to decomposition, citric acid emits acrid smoke. Fire fighters must wear self-contained breathing apparatus with full piece operated in positive pressure mode.
Fuel Oil (No. 2 diesel) dyed or pale yellow liquid with petroleum odour	Use water spray to cool fire exposed surfaces and to protect personnel. Shut off fuel from fire. Use foam, dry chemical or water spray to extinguish fire. Avoid spraying water directly into storage container due to danger of boilover.	Avoid strong oxidizing agents.
5168D Emulsifier dark viscous liquid with hydrocarbon odour Sodium Thiocyanate Colourless crystals with slight ammoniacal odour	Use carbon dioxide or dry chemicals on small fires. Use foam (alcohol, polymer or ordinary) and water spray for large fires. Use dry chemical, water spray, water fog, carbon dioxide, foam or sand/earth to extinguish fire.	May form oxides of nitrogen upon thermal decomposition. Positive pressure self-contained breathing apparatus is required for fire-fighters. Contact with strong acids or oxidizing agents or combustion may generate toxic concentrations of sulphur dioxide, oxides of nitrogen, cyanides or hydrogen sulphide.
Sodium Nitrite white or slightly yellow solid	Apply aqueous film forming foam (AFFF) according to manufactures instructions or water in the form of fog for large fires. Use carbon dioxide or dry chemical media for small fires.	Thermal decomposition products include toxic oxides of nitrogen. Sodium nitrite promotes combustion. May explode if heated above 537 degrees Celsius.
Acetic Acid clear colourless liquid with sharp vinegar odour	Use water spray, dry chemical, carbon dioxide or alcohol foam to extinguish fire. Eliminate all nearby sources of ignition since flammable hydrogen gas will be liberated upon contact with some active metals.	Avoid alkalis, oxidizing or reducing materials and nitric acid.

APPENDIX A: FIRE FIGHTING INFORMATION

MATERIAL	RECOMMENDED FIRE-FIGHTING METHODS	SPECIAL CONSIDERATION
Nitric Acid water white to slightly yellow liquid with nitrogen dioxide odour	Use an all purpose type AFFF foam according to manufacturers instructions. Carbon dioxide or dry chemical media for small fires. If only water is available, use it in the form of a fog.	Combustibles can have an increased flammability after contact with nitric acid. Nitric acid reacts with metals to liberate flammable hydrogen gas. Toxic oxides of nitrogen may also be liberated.
Caustic Soda, Anhydrous Odourless, white granular solid	Do not use water, foam, Carbon Dioxide, Dry Chemical. Use media appropriate for surrounding fire and or materials. Remove containers from fire zone wherever possible.	Avoid direct contact of this product with water as this can cause a violent exothermic reaction. Use self-contained breathing apparatus and protective clothing.
Ethylene Glycol Colourless liquid with mild odour	Extinguish fire with water fog, carbon dioxide or dry chemical. Direct application of water or foam into container may cause violent frothing and boilover.	Never use welding or cutting torch on or near drum (even empty or with small residue) because product can ignite spontaneously.

APPENDIX B: ENVIRONMENTAL RELEASE PROCEDURES

MATERIAL	SPILL AND LEAK PROCEDURES	WASTE DISPOSAL
Ammonium Nitrate - 83% solution colourless	- Prevent spills from entering water courses. Contain by dyking with earth or other inert material. Allow to freeze. Shovel into clean, non-combustible container. Wash remaining trace residues with water. Wear rubber gloves and chemical goggles to minimize contact with the skin and eyes. - Refer to Ekati Spill Contingency plan – section V page 55 for details on procedures for spills resulting from fuelling of equipment at fuel stations.	- Dispose of recovered material in approved landfill or other waste disposal facility.
Ammonium Nitrate Prill - odourless white to light tan crystalline solid	- Remove source of heat and ignition. Sweep or shovel spill into a clean, non-combustible container. Wash remaining trace residues with water. Wear rubber gloves and safety glasses to minimize contact with skin and eyes.	- Re-use if possible or dispose of as is in approved facility. Otherwise, dissolve in large amount of water. Add soda ash and mix and neutralize with 6M HCl to produce neutralized sludge. Sludge can then be buried in approved landfill. Sludge incineration requires scrubbing capability for oxides of nitrogen.
N-17 Clear to light blue liquid, sharp vinegar odor	Wear appropriate protective clothing and respiratory protection. Contain spills and avoid discharging into sewer or streams. Neutralize small spills with soda ash or lime. Absorb with vermiculite or other inert material.	- Re-use if possible, otherwise dispose of in approved landfill or other waste disposal facility
Citric Acid Odourless, white or opaque crystals	Sweep up material and place in tightly closed container in a cool, dry and well ventilated area. Avoid discharge into sewer and surface water. Spills to waterways will cause PH depression.	In accordance with Provincial and Federal regulations

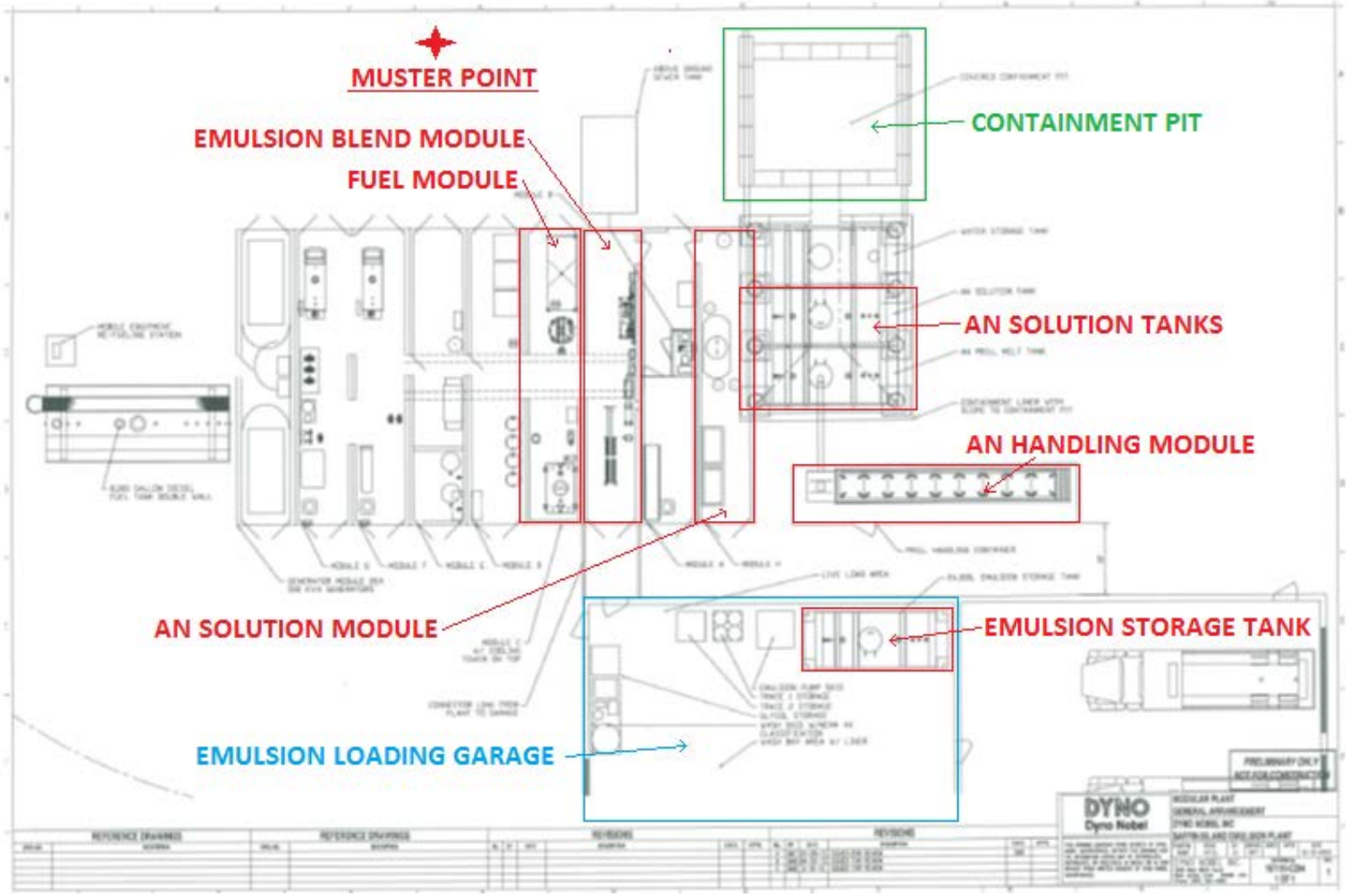
APPENDIX B: ENVIRONMENTAL RELEASE PROCEDURES

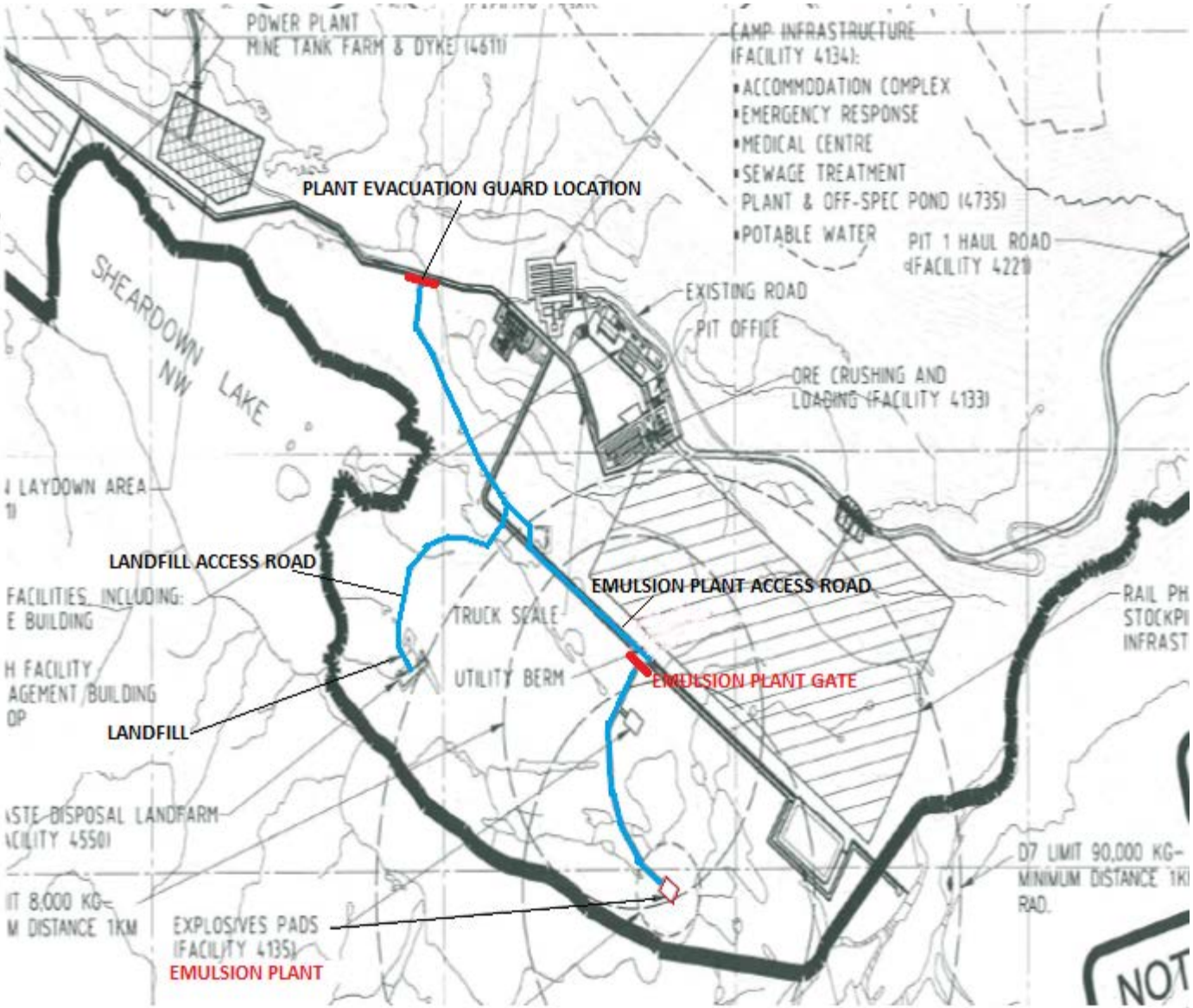
MATERIAL	SPILL AND LEAK PROCEDURES	WASTE DISPOSAL
L-2 Clear to pale yellow liquid. Very little if any odor	Wear appropriate chemical resistant clothing including rubber gloves, rubber boots. Contain spill and keep out of sewer, storm draines, surface water and soil. Keep away from incompatible materials.	- Dispose of recovered material in approved landfill or other waste disposal facility. Check with Provincial and Federal regulation.
Fuel Oil (No. 2 diesel dyed or pale yellow liquid with petroleum odour.	- Eliminate any source of ignition. Prevent spills from entering water courses. Contain with sand or earth. Recover with pump or inert adsorbent material into clean container. Wear safety glasses and rubber gloves to prevent contact with the eyes and skin.	- Dispose of recovered material in approved landfill or other waste disposal facility.
5168D Emulsifier dark viscous liquid with hydrocarbon odour	- Contain with sand or earth. Recover with inert adsorbent material and transfer into clean container. Wear chemical goggles and rubber gloves to prevent contact with the eyes and skin. Wash area with suitable detergent and rinse with water.	- Dispose of recovered material in approved landfill or other waste disposal facility.
Sodium Thiocyanate Colourless crystals with slight ammoniacal odour	- Sweep or shovel spill into a clean container. Prevent spills from entering any water courses. Wash remaining trace residues with water. Wear rubber gloves and chemical goggles to minimize contact with skin and eyes.	- Dispose of recovered material in approved landfill or other waste disposal facility.
Sodium Nitrite white or slightly yellow solid	- Sweep or shovel into clean, non-combustible drum. Remove any flammable materials and sources of ignition. Flush remaining trace residues with water. Wear chemical goggles and rubber gloves to minimize contact with the eyes and skin.	- Dispose of recovered material in approved landfill or other waste disposal facility.

APPENDIX B: ENVIRONMENTAL RELEASE PROCEDURES

MATERIAL	SPILL AND LEAK PROCEDURES	WASTE DISPOSAL
Acetic Acid clear colourless liquid with sharp vinegar odour	- Eliminate any source of ignition. Prevent spills from entering water courses. Contain with sand, earth or other inert adsorbent material. Transfer into clean, non-combustible container. Wash remaining trace residues with water. Wear chemical goggles and rubber gloves to prevent contact with the eyes and skin.	- Neutralize with soda ash or lime. Dispose of recovered material in approved landfill or other waste disposal facility.
Nitric Acid water white to slightly yellow liquid with nitrogen dioxide odour	- Eliminate any source of ignition. Prevent spills from entering water courses. Contain with sand, earth or other inert adsorbent material. Transfer into clean, non-combustible container. Wash remaining trace residues with water. Wear chemical goggles and rubber gloves to prevent contact with the eyes and skin.	- Neutralize with soda ash or lime. Dispose of recovered material in approved landfill or other waste disposal facility.
Caustic Soda, Anhydrous Odourless, white granular solid	- Sweep or shovel into clean, non-combustible drum. Neutralize the area carefully with weak acid to PH of 6 to 9. Neutralization is expected to be exothermic. Effervescence may result.	Neutralize the area carefully with weak acid to PH of 6 to 9. - Dispose of recovered material in approved landfill or other waste disposal facility
Ethylene Glycol Colourless liquid with mild odour	- Prevent spills from entering water courses. Contain with sand, earth or other inert adsorbent material. Transfer into clean, non-combustible container. Wash remaining trace residues with water. Wear chemical goggles and rubber gloves to prevent contact with the eyes and skin.	- Dispose of recovered material in approved landfill or other waste disposal facility.

APPENDIX C: EMULSION PLANT LAYOUT




POWER PLANT
MINE TANK FARM & DYKE (4611)
CAMP INFRASTRUCTURE
(FACILITY 4134):
•ACCOMMODATION COMPLEX
•EMERGENCY RESPONSE
•MEDICAL CENTRE
•SEWAGE TREATMENT
PLANT & OFF-SPEC POND (4735)
•POTABLE WATER
PLANT EVACUATION GUARD LOCATION
PIT 1 HAUL ROAD
(FACILITY 4221)
EXISTING ROAD
PIT OFFICE
ORE CRUSHING AND
LOADING (FACILITY 4133)
SHEARDOWN
NW
LAKE
LAYDOWN AREA
LANDFILL ACCESS ROAD
EMULSION PLANT ACCESS ROAD
FACILITIES, INCLUDING:
E BUILDING
TRUCK SCALE
H FACILITY
AGEMENT BUILDING
OP
UTILITY BERM
EMULSION PLANT GATE
LANDFILL
STE DISPOSAL LANDFARM
CILITY 4550)
IT 8,000 KG-
M DISTANCE 1KM
EXPLOSIVES PADS
(FACILITY 4135)
EMULSION PLANT
D7 LIMIT 90,000 KG-
MINIMUM DISTANCE 1K
RAD.
RAIL PH
STOCKPI
INFRAST
NOT