AGNICO EAGLE

HOPE BAY MINE

Spill Contingency Plan

JANUARY 2026
VERSION 19

Key Government Contacts

Organization	Contact	Location	Telephone	Fax/Email
NT-NU Spill Centre	24-hour Spill Report Line	Yellowknife	1-867-920-8130	1-(867) 873–6924 spils@gov.nt.ca
Canadian Coast Guard – Central and Arctic Region (Any discharge to the marine environment)	24-hour Spill Report Line	NWT/NU	1-867-979-5269	DFO CCG Arctic ERDO or IqaNordreg@innav.gc.ca
GN Department of Environment	Director Environmental Protection Division	Iqaluit	867-975-7748	environment@gov.nu.ca
Wildlife Office	Wildlife Officers	Cambridge Bay Kugluktuk	1- (867) 983-4164 1- (867) 982-7450	
Nunavut Water Board	Executive Director Junna Ehaloak Morgan Evaglok	Gjoa Havan Cambridge Bay Kugluktuk	1-867-360-6338 1-867-983-2458 (1020) 1-867-982-3310 (229)	aemingak@kitia.ca JEhaloak@kitia.ca mevaglok@lands.kitia.ca
Kitikmeot Inuit Association (KIA)	Sr. Lands Officer Tannis Bolt	Kugluktuk	867-982-3310 (225)	867-982-3311
CIRNAC (Crown-Indigenous Relations and Northern Affairs Canada)	Field Operations Manager	Iqaluit	867-975-4553	867-979-6445
CIRNAC (Crown-Indigenous Relations and Northern Affairs Canada)	Inspector	Iqaluit	867-975-4655	867-979-6445
ECCC (Environment and Climate Change Canada)	Manager of Enforcement	Yellowknife	867-669-4730	867-669-6831
ECCC (Environment and Climate Change Canada)	Operations Manager Lead Officer	Iqaluit	867-222-1925 867-222-3588	
DFO (Fisheries & Oceans Canada)	Habitat Team Leader	Ottawa	705-522-9909	
Transport Canada, Marine	Regional Preparedness & Response Officer	Edmonton	780-442-1945	780-495-8607

External Emergency Phone Numbers

Organization / Authority	Phone Number	Other
Medical		
WSCC Reporting 24 Hour Hotline	800-661-0792	
Med Response (Medevac)	1-844-633-9999	
Keewatin Air Ambulance (Medevac)	1-800-913-4352 or 1-204-784-6568	
Nunavut Emergency Management	800-693-1666	
Cambridge Bay Health Centre	867-983-4500	
Stanton Hospital 24-hour hotline	867-669-4100	
Canadian Association Poison Control	1-844-764-7669	
Yellowknife Coroner's Office	867-920-8713	
RCMP Cambridge Bay	867-983-1111 (24/7) or 867-983-0123 (admin)	
Environment		
A detailed list of contacts for environmental regulators is kept up to date in the Key Government Contacts Table		
On site Contracting Companies		
Geotech Drilling	250-640-5447	Noah Naylor - Project Manager
Kitikmeot Camp Services - (Andrew Desilets - Regional Operations Director)	780-690-1590	adesilets@dexterra.com
	866-305-6565	Dexterra 24hr emergency line
Acasta Helicopters	(o) 867-873-3306 or (c) 867-445-1592	Dennis Rusch
Logistics		
Air Tindi	867-669-8201	
Summit Air	867-873-4464	
Buffalo Airways	867-765-8092 or 867-446-2479	
Adlair (Cambridge Bay)	867-983-2569 or 867-983-2247	
Search and rescue – Arctic Armed Forces	800-267-7270	
Rescue Coordination Centre Trenton	613-965-3870	
NAVCAN (Flight Information Center North Bay)	866-541-4109	

Immediately Reportable Spills

Spill quantities that must be reported to the NT-NU 24-HOUR SPILL REPORT LINE [(a)]

Per GNWT-ENR Report a Spill Website (https://www.enr.gov.nt.ca/en/services/report-spill)

Any spill to Navigable Waters (any size) must be reported to the Canadian Coast Guard at:

1-867-979-5269 or DFO CCG Arctic ERDO or IqaNordreg@innav.gc.ca.

Transportation Class	Type of Substance	Compulsory Reporting Amount
1	Explosives	Any amount
2.1	Compressed gas (flammable)	Any amount of gas from containers with a capacity exceeding 100 L
2.2	Compressed gas (non-corrosive, non-flammable)	Any amount from containers with a capacity exceeding 100 L
2.3	Compressed gas	Any amount
2.4	Compressed gas (corrosive)	Any amount
3.1, 3.2, 3.3	Flammable liquid	100 L
4.1	Flammable solid	25 kg
4.2	Spontaneously combustible solid	25 kg
4.3	Water reactant solids	25 kg
5.1	Oxidizing substances	50 L or 50 kg
5.2	Organic peroxides	1 L or 1 kg
6.1	Poisonous substances	5 L or 5 kg
7	Radioactive substances	Any amount
8	Corrosive substances	5 L or 5 kg
9.1 (in part)	Miscellaneous substances	50 L or 50 kg
9.2	Environmentally hazardous	1 L or 1 kg
9.3	Dangerous wastes	5L or 5 kg
9.1 (in part)	PCB mixtures of 5 ppm or more	0.5 L or 0.5 kg
None	Other contaminants	100 L or 100 kg
None	Deleterious substances, MDMER effluent parameters, Seepage	Any amount

(a) Nunavut Environmental Protection Act. Consolidation of Spill Contingency Planning and Reporting Regulations R-068-93.

NOTE 1: Sewage and wastewater are considered deleterious substances in this plan; consistent with previous plans, any amount of spill is reportable.

NOTE 2: L = litre; kg = kilogram; PCB = polychlorinated biphenyls; ppm = parts per million

In the event that a particular material spill meets or exceeds the amount specified or conditions outlined in the above table the Environmental Superintendent or delegate will immediately report the spill by telephone to the NT-NU 24 Hour Spill Report Line, Yellowknife, Tel: 867-920-8130 (Email: spills@gov.nt.ca; Fax: 867-873-6924) using the NT-NU Spill Report.

First Responder Process

When someone on site sees an unanticipated discharge or spill, they are immediately designated as the First Responder and shall complete the following actions

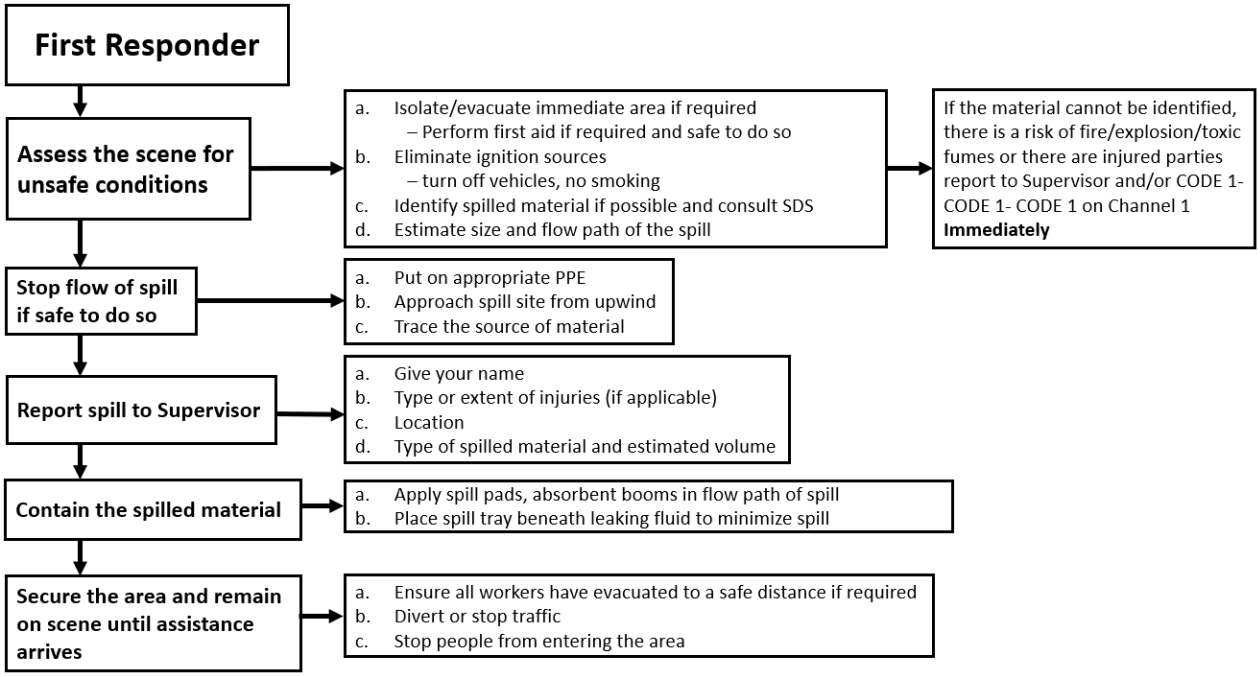

Figure 0-1 First Responder Spill Response Actions

Spill Response Activation Process

When a Supervisor receives a report of an unanticipated discharge or spill, they shall immediately complete the following actions:

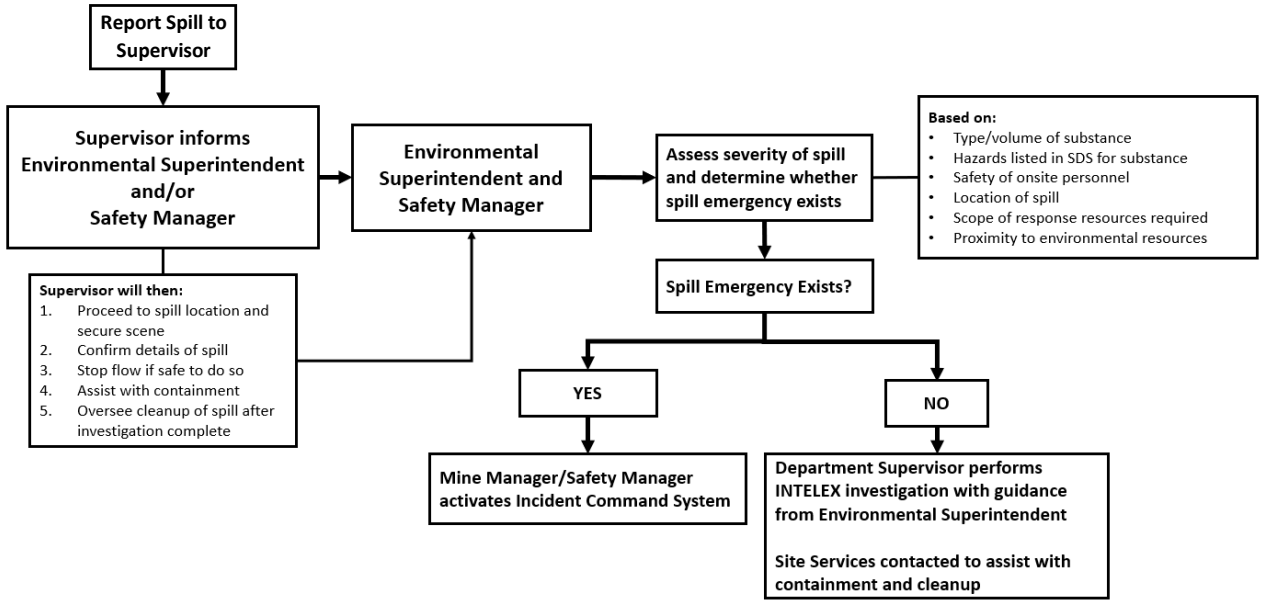

Figure 0-2 Spill Response Organizational Structure

Spill Emergency - Incident Command System (ICS) (sample)

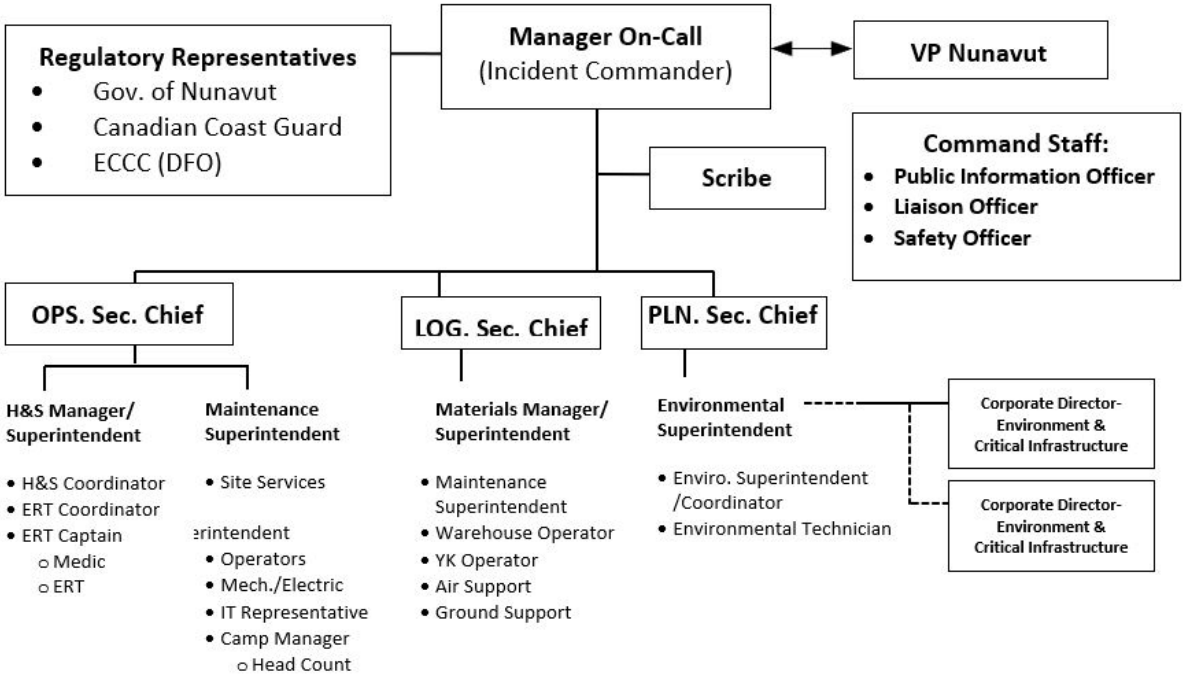

Figure 0-3 Incident Command System Organizational Structure in the Event of a Spill Emergency.

Revisions

Revision #	Date	Section	Changes Summary
1	2009		Hope Bay Project Spill Contingency Plan, August 2009
2	February 2010		Update phone numbers
3	July 2010		Update phone numbers
4	2011	Throughout	Update channels, figures, included OPPP info, updated phone numbers, revised fuel storage locations
5	2012	Throughout	Overall revision for change to Care & Maintenance. Updated roles and responsibilities, phone numbers, fuel storage, added non-hydrocarbon chemicals, updated spill response procedures
6	2014	Throughout	Overall revision to include Care & Maintenance under ownership of TMAC Resources Inc. Updated roles and responsibilities, contact information, fuel storage, updated spill response procedures
7	April 2016	Throughout	Updated to reflect comments on 2014 Plan and other stakeholder inputs. Changes to document structure and addition of license specific modules and Incident Command System response structure. Revisions to reflect Construction and Operations phases for Doris and anticipated chemical storage quantities. Inclusion of Product-specific response plans, updated contacts.
8	January 2017	Throughout	Revisions in consideration of comments on 2016 Plan, and in consideration of planned resumption of exploration activity at Boston
9	November 2017	Throughout	Revisions to emergency contact information, spill response organizational and ICS structure. Updates to fuel/chemical storage quantities/locations and spill kit location maps in all modules. Addition of Module C: Madrid as per license 2BB-MAE1727. Revisions to Module D: Boston as per license 2BB-BOS1727. Addition of Aviation fuel Product Specific Spill Response Plan to Module A.
10	March 2019	Throughout	Revisions to emergency contact information, spill response organizational and ICS structure. Updates to fuel/chemical storage quantities/locations and spill kit location maps in all modules.
11	September 2019	Throughout, Module A	Revisions to emergency contact information, addition of spill prevention measures along the Roberts Bay Discharge Pipeline in Module A
12	March 2020	Throughout, Appendix	Overall revisions to the plan
13	March 2021	Throughout Section 3.4	Updated to Agnico Eagle Mines Limited ownership and format. Updated Emergency Phone Numbers, Site Radio Channels and Offsite Resource Contacts. Clarified scenarios where monitoring of spills is required.
14	March 2022	Throughout	Overall revision to incorporate comments from ECCC for compliance with E2 regulations and Agnico Eagle internal policy on Environmental Incident
15	June 2022	Throughout	Overall revision for change to Care & Maintenance per Part H, Item 6 of the Water License.
16	January 2023	Throughout	Updates to environmental resource maps and hierarchy for sensitive areas. Revisions made as part of AEM responses to intervenor comments in the: - 2021 Annual Reports (NWB & NIRB) - Care & Maintenance Plan (NWB) CIRNAC Inspection Report (June 2022)

Revision #	Date	Section	Changes Summary
17	March 2024	Throughout Table A.1 Table A.2 Appendix 3 Appendix 5	Revisions made as part of AEM responses to intervenor comments in the - 2022 Annual Reports (NWB) Revisions include: - Specified the type of glycol used on site - Reviewed plan for a spill procedure of NaCN (Sodium Cyanide) - Updated to include emergency contacts and reporting structures - Updated E2 spill concordance table to current version of plan
18	March 2025	Throughout	Changes throughout this version of the plan relate to lessons learned and clarifications, some of which tie back to lessons from spill response exercises. These changes are not significant and represent a clean-up of existing roles, responsibilities, and processes. Additional changes include minor clarifications and updates.
		Throughout	Updated date and version number as revisions made to address site activities.
		Throughout	Incorporated all spelling mistake suggestions from 2023 Annual Report comment KIA-NWB-50.
		Key Government Contacts	Updated government contacts.
		Immediately Reportable Spills	Updated contact for Canadian Coast Guard.
		Spill Response Activation Process	Updated the process nomenclature, including a sample Spill Emergency Incident Command System to clarify roles and responsibilities during a spill emergency.
		Table 1.1	Reflected accurate guidelines for *Transportation of Dangerous Goods Act*.
		Table 1.2	Updated 'Relevance' of Emergency Response Plan, TIA OMS Manual, and the OPPP/OPEP in relation to the Spill Contingency Plan.
		Section 1.4	Roles and Responsibilities nomenclature updated and incorporated into table format for ease of navigation.
		Section 2.2	Updated Department nomenclature and contact information/usage of 'Red Button'.
		Section 2.3	Corrected references to Figures.
		Section 2.3.2	Included reference to procedure if a spill is not deemed an emergency.
			Corrected nomenclature of responsible parties and added details to ICS and ICP role to align with Figure 1-3.
		Section 2.3.3	Re-organization and categorization of ICP to more clearly identify roles and responsibilities in a spill emergency.
			Updated nomenclature of specific roles and responsibilities.
		Section 2.4	Included reference to Ultra Low Diesel Fuel as the only fuel on site that exceeds E2 regulations.
		Section 2.6.1	Updated inspection of marine spill response equipment once a year and post spill response training.
		Section 3.2	Corrected specifics of internal incident reporting, including the accurate

Revision #	Date	Section	Changes Summary
			incident reporting system (Intelex).
		Section 3.3	Corrected spill reporting reference procedure to the Canadian Coast Guard.
			Included reference to the OPPP/OPEP for marine specific spill procedures.
		Section 4.1 & Section 4.1.1	Included reference to saline water leak as per NIRB 2023 Annual Report comment and recommendation by ECCC.
		Section 4.3.1	Corrected management plan nomenclature.
		Section 4.8.1	Made correct reference to E2 Regulations.
		Section 5	Updated training consultant reference to accurately convey consultants at Agnico Eagle.
		Table A.1	Updated type of propylene used at site.
			Included reference to E2 Regulations.
		A3	Corrected details of the Roberts Bay Diffuser.
		B2 & B3	Updated to reflect decommissioning of Windy Camp and accurate fuel storage.
		C1	Added reference to underground ramp at Madrid.
		Appendix 1	Adjusted headings to align with classification of Flammable Materials.
			Correctly classified Jet A fuel as non-explosive.
			Corrected reference to E2 Regulations.
		Appendix 2	Included reference to OPPP/OPEP for marine spills of any size.
19	January 2026	Throughout	Additions to this plan are marked in the right-hand margin as follows: V19
		Section 1	Removed Section 1.5.1, related to Care and Maintenance – no longer relevant.
		Table 1.3	Updated Environmental Coordinator role to Environmental Supervisor to reflect accurate roles and responsibilities at site.
		Section 2.4	Included wording to indicate Proponent action if substances exceed E2 Regulations in the future.
		Section 4.3.1 Section 4.4.1	Included additional mitigation measures as requested in 2024 NIRB Annual Report comment ECCC-NIRB-04.
		Table A.1	Updated fuel storage locations for Doris-Madrid (amalgamated Table A.1 with previous Table A.2 as well as Table C.1 from Module C). Amalgamated table addresses request from 2024 NIRB Annual Report comment ECCC-NIRB-05.
		Plates A.1-A.5 Plate B.1 Plate C.1, C.2	Updated chemical storage and spill kit location figures. Updated flexibility for additional fuel for Plates A.1 and A.2.
		Module A4	Included contingency for two subsea diffusers.
		Appendix 3	Updated environmental resource maps to reflect watercourses/waterbodies as environnmentally sensitive areas as requested through 2024 NIRB Annual Report comment KitIA-NIRB-28 and 2024 NWB Annual Report comment KitIA-NWB-06.

Revision #	Date	Section	Changes Summary
		Appendix 4	Included comments in tracking table from 2024 Annual Reporting.

Table of Contents

Acronyms

Term	Definition
Agnico Eagle	Agnico Eagle Mines Limited
ADEC	Alaska Department of Environmental Conservation
AS	Alternate Scenario
AWCS	Alternate Worst Case Scenario
CEPA	Canadian Environmental Protection Act
CWS	Canadian Wildlife Services
CIRNAC	Crown-Indigenous Relations and Northern Affairs Canada (formerly INAC)
DFO	Fisheries and Oceans Canada
DoE	Department of Environment
ECCC	Environment and Climate Change Canada
ERT	Emergency Response Team
ERP	Emergency Response Plan
FDP	Final Discharge Point
GN	Government of Nunavut
GM	General Manager
IC	Incident Commander
ICP	Incident Command Post
ICS	Incident Command System
INTELEX	Incident Management Database System
KitIA	Kitikmeot Inuit Association
LOC	Level of Confinement
LOG	Logistics Section Chief
MDMER	Metal and Diamond Mining Effluent Regulations
NWB	Nunavut Water Board
OPPP/OPEP	Hope Bay Ocean Pollution Prevention Plan/Oil Pollution Emergency Plan
OPS	Operations Section Chief
PIO	Public Information Officer
PLN	Planning Section Chief
PSER	Product Specific Emergency Response Plan
PPE	Personal Protection Equipment
RBDS	Roberts Bay Discharge System
SDS	Safety Data Sheet
TIA	Tailings Impoundment Area
TSS	Total Suspended Solids
WCS	Worst Case Scenario
WTP	Water Treatment Plant

1 Introduction

This *Spill Contingency Plan* (the Plan) has been prepared by Agnico Eagle Mines Limited (Agnico Eagle) in accordance with various water licenses held by Agnico Eagle associated with developments throughout the Hope Bay region. This Plan has been developed to also meet the requirements of the Environmental Emergency (E2) Regulations as well as the Metal and Diamond Mining Effluent Regulations (MDMER) enacted under the Canadian Environmental Protection Act (CEPA, 1999).

The Plan is intended primarily for use by Agnico Eagle Hope Bay and its contractors to ensure that best practices for response are implemented in the event of a spill or unintentional release, and that the conditions of water licenses, permits and relevant legislations are met.

This Plan is structured in a manner such that one document pertaining to spill response is approved and implemented across all Hope Bay sites, while still addressing site- and license-specific needs: the main document outlines Agnico Eagle's approach to spill response planning and management as it pertains to all Agnico Eagle Hope Bay developments; subsequent modules provide details for each site and the associated water license. In the event of a new water license, or an existing license amendment, only the specific modules pertaining to that license and site may need to be revised. This is intended for consistency and efficiency across operations and for compliance management.

This plan has been revised to reflect the Care and Maintenance phase of the Mine and will be revised as required and prior to returning to the Operations phase.

1.1 Objectives

Agnico Eagle's vision and values strive for zero harm and protection of people and the environment. Safe work procedures and training provided to all employees promote best practices and sound environmental management; however, the potential exists for unanticipated discharges or spills to occur during the course of operations. Agnico Eagle recognizes that prompt, effective and organized responses to an unanticipated discharge or spill will enhance the health and safety of all employees, minimize the potential adverse environmental impacts resulting from such an event, and ensure effective communication with the appropriate regulatory agencies and the public. Consistent with Agnico Eagle's intent to be a responsible operator, these objectives are described as follows:

- Provide general procedures for every employee should he/she identify an unanticipated discharge or spill;
- Define roles, responsibilities and procedures for spill response actions, documentation, reporting, incident investigation and review following an event;
- Outline a process to be followed when conducting spill clean-up activities to promote safe and effective recovery of spilled materials and minimize impacts to the environment;
- Provide information on available resources and potential operational hazards/risks that may be encountered during spill response activities;
- Define methods to provide spill response training for all employees; and

- Implement a process to evaluate and continuously improve site spill response procedures.

1.2 Relevant Legislation and Guidance

Table 1.1 provides a summary of federal and territorial regulations relevant to this Plan and associated guidelines.

Table 1.1. List of Federal and Territorial Regulations Relevant the Spill Contingency Plan

Acts	Regulations	Guidelines
Federal		
Arctic Waters Pollution Prevention Act (R.S.C., 1985, c.A-12)	Arctic Shipping Pollution Prevention Regulations (C.R.C., c. 353)	
Canadian Environmental Protection Act (R.S.C.1999 c.33)	Storage Tank Systems for Petroleum Products and Allied Petroleum Products Regulations (SOR/2008-197)	Environmental Code of Practice for Aboveground and Underground Storage Tank Systems Containing Petroleum and Allied Petroleum Products (Canadian Council of the Ministers of Environment (CCME) 2003)
	Environmental Emergency Regulations (SOR/2019-51)	
	Interprovincial Movement of Hazardous Waste and Hazardous Recyclable Material Regulations (SOR/2002-301)	Canada-Wide Standards for Petroleum Hydrocarbons (PHC) in Soil (CCME2008)
	Export and Import of Hazardous Waste and Hazardous Recyclable Material Regulations (SOR/2005-149)	
Fisheries Act (1985, c.F-14)	Metal and Diamond Mining Effluent Regulations (SOR/2002-222)	
Explosives Act (1985, c.E-17)	Explosives Regulations (C.R.C., c.1516)	
Nunavut Waters and Nunavut Surface Rights Tribunal Act (2002)	Nunavut Water Regulations (2013)	
National Fire Code of Canada (2010)		
Transportation of Dangerous Goods Act (1992, C. 34)	Transportation of Dangerous Goods Regulations (SOR/2001-286)	2020 Emergency Response Guidebook (Transport Canada and U.S. Department of Transportation, 2020)
Territorial Lands Act (R. S. 1985, c.T-7)	Northwest Territories and Nunavut Mining Regulations (C.R.C., c.1516)	
	Territorial Land Use Regulations (C.R.C., c.1524)	
	Territorial Lands Regulations (C.R.C., c.1525)	
Hazardous Products Act	*Controlled Products Regulations*	*Workplace Hazardous Materials Information System (WHMIS)*
Nunavut Act (1993 c.28)		
Territorial – Nunavut		

Acts	Regulations	Guidelines
Environmental Protection Act	Spill Contingency Planning and Reporting Regulations (NWT Reg (Nu) 068-93) Used Oil and Waste Fuel Management Regulations (NWT Reg 064-2003) [The removal of hazardous materials will require the registration with the Government of Nunavut, Department of Environment (DoE) as a waste generator as well as carrier (if applicable) prior to transport]	Government of Nunavut (GN) Environmental Guidelines for the Management of: General Management of Hazardous Waste in Nunavut (GN, 2010) Waste Paint (GN, 2010) Mercury-Containing Products and Waste Mercury (GN, 2010) Industrial Waste Discharges into Municipal Solid Waste and Sewage Disposal Facilities (GN, 2011) Waste Batteries (GN, 2011) Waste Solvent (GN, 2011) Waste Antifreeze (GN, 2011) Used Oil and Waste Fuel (GN, 2012) Biomedical and Pharmaceutical Waste (GN, 2014) Canada-Wide Standards for Petroleum Hydrocarbons (PHC) In Soil (CCME 2008)
Mine Health and Safety Act (SNWT (Nu) 1994, c.25)	Mine Health and Safety Regulations (NWT Reg (Nu) 125-95)	
Workers' Compensation Act (RSNWT, 1998, c.W-6)	Workers' Compensation General Regulations (Nu Reg 017-2010)	
Explosives Use Act (RSNWT (Nu) 1988, c.E-10)	Explosives Regulations (RRNWT (Nu) 1990, c.E-27)	
Fire Prevention Act (RSNWT (Nu) 1988, c.F-6)	Fire Prevention Regulations (RRNWT (Nu) 1990, c.F-12)	
Motor Vehicles Act (RSNWT (Nu) 1988, c.M-16)	Large Vehicle Control Regulations (RRNWT (Nu) 1990, c.M-30)	
Public Health Act (RSNWT (Nu) 1988, c.P12)	Camp Sanitation Regulations (RRNWT (Nu) 1990, c.P-12)	
Safety Act (RSNWT 1988, c.S-1)	General Safety Regulations (RRNWT (Nu) 1990, c.P-16)	
	Work Site Hazardous Materials Information System Regulations (RSNWT 1988, c.81 (Supp))	
Transportation of Dangerous Goods Act (1990, RSNWT (Nu) 1988, c.81 (Supp))	Transportation of Dangerous Goods Regulations (1991, NWT Reg (Nu) 095-91)	

1.3 Related Agnico Eagle Documents

The documents listed in Table 1.2 are expected to be referenced and utilized in conjunction with the *Spill Contingency Plan*.

Table 1.2. List of Agnico Eagle documents related to the Spill Contingency Plan

Document Title	Relevance
Hazardous Waste Management Plan	Describes proper handling, storage and disposal procedures for hazardous wastes.
Non-hazardous Waste Management Plan	Describes proper handling, storage and disposal procedures for non-hazardous wastes.
Hydrocarbon Contaminated Material Management Plan	Describes process for remediating hydrocarbon contaminated soil, water and gravel and criteria for determining level of remediation.
Emergency Response and Crisis Management Plan	Describes Incident Command System and actions relating to all surface emergencies.
Doris-Madrid Tailings Impoundment Area Operations, Management and Surveillance (OMS) Plan	Describes the tailings management procedures and the aspects of the pipelines designed to reduce spills of tailings and effluent.
Oil Pollution Prevention and Oil Emergency Preparedness Plan (OPPP/OPEP)	Describes spill response actions associated with fuel transfer activities during annual sea-lift fuel offload.

1.4 Plan Management

This Plan has been prepared in accordance with various licenses held by Agnico Eagle. The Plan is reviewed annually and updated as required and submitted for review as per the Nunavut Water Board (NWB) process. Stakeholder comments that were considered in the development of this Plan are provided in Appendix 4.

Table 1.3. List of Roles and Responsibilities for the Spill Contingency Plan

Role	Responsibility
General Manager	• Overall responsibility for implementation of the Spill Contingency Plan; • Provide the on-site support and resources for spill response management; • Act as Incident Commander (IC) in the event spill occurs that requires activation of Emergency Response Plan (ERP); and • As IC, GM will coordinate the spill response effort.
Environmental Superintendent	• Responsible for reviewing and revising the Spill Contingency Plan; • Provide guidance to BM regarding implementing response actions according to the Plan and evaluating priorities for protection of sensitive habitats/species and archaeological features at risk; and • Ensure regular inspections of spill response resources conducted and documented, including an audit of the spill Seacans before and after sealift and anytime thereafter when a carseal is broken on the Seacan doors.
Environment Supervisor	• Assist in incident response and spill investigations, development of appropriate corrective actions, maintenance of records of all spill events; and • Complete appropriate reporting as required by Agnico Eagle policies and relevant regulations as identified in this Plan.

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In accordance with the requirements of the General Conditions (Part B) of the applicable water licenses, the Environmental Emergency Regulations (SOR/2019-51) and the MDMER (SOR/2002-222), this Plan will be immediately implemented following its submission, subject to any modifications proposed by the NWB or applicable regulatory agencies as a result of the review and approval process.

This Plan is reviewed annually and updated as necessary to capture changes to site operational structure/contacts, response technologies or applicable legislation and regulations. When updated, the Plan is submitted to the NWB and interested branches of the federal government (ECCC, CIRNAC, DFO) to provide recommendations at that time.

1.5 Mine Description

Hope Bay is a gold mine located in the West Kitikmeot region of Nunavut approximately 705 km northeast of Yellowknife and 153 km southwest of Cambridge Bay. The nearest settlements are Umingmaktok (Bay Chimo), located 62 km to the west, and Kingaok (Bathurst Inlet), located 130 km southwest. Umingmaktok and Kingaok are seasonal settlements, and the nearest permanently populated settlement is Cambridge Bay. These settlements are not expected to be impacted by an environmental emergency.

The various elements of the Hope Bay Mine are centered at approximately N 68° 09’ and W 106° 40’ and extend from the head of Roberts Bay (an extension of Melville Sound) at the north end of the property to south of the Boston site located approximately 60 km to the south. Two jetties extend into Roberts Bay and are located on foreshore Crown Land. The Hope Bay mineral exploration rights property comprises an area of 1078 km^2 and forms a contiguous block that is approximately 80 km long by up to 20 km wide. Descriptions of infrastructure pertinent to each license area are provided in the appended modules.

The Hope Bay area has a low Arctic eco-climate and consists of coastal lowland habitats with numerous fresh water lakes and ponds. The drainage basins are generally long and narrow and predominately oriented along the north-south axis and are separated by bedrock ridges. Continuous permafrost covers the mine area with a surficial active layer of approximately 1 m. Groundwater movement only occurs in the shallow active layer during the seasonal thaw period and within the talik zones (unfrozen ground underlying larger water bodies). Permafrost underlying the area is generally impervious to groundwater movements.

1.6 Plan Structure

Section 2 outlines the Spill Incident response including the responsibilities of the individuals involved in spill response actions. Investigation and follow up reporting requirements are presented in Section 3. Section 4 summarizes potential spill risks (worst case scenarios) and the management and mitigation measures employed to reduce the likelihood of these occurrences. Training and Spill Response simulation exercises are summarized in Section 5.

A comprehensive set of modules and appendices are included at the end of the Plan. The modules contain details pertaining to the chemical storage specific to each of the developments throughout the Hope Bay

region. Appendices 1 to 3 include substance-specific spill responses plans, spill response resources and environmental resource maps, respectively. Appendix 4 includes the stakeholder comments that were considered in the development of this Plan.

2 Spill Response and Management

2.1 Environmental Incident and Level of Confinement Definition

Agnico Eagle considers a leak or spill to be an Environmental Incident if it results in a release of a potential contaminant or substance from a confinement with higher Level of Confinement (LOC) to a lower one, whether there's a release to the environment or not. A spill that has an impact but remains below the regulatory limit, would still be considered an Environmental Incident. All environmental incidents must be reported in Agnico Eagle's internal Incident Management Database System (INTELEX).

The LOC is an important consideration for spills at Agnico Eagle. For a substance (liquid or gas) stored in a confinement infrastructure (reservoir, basin, pond, tank, etc), the LOC is the description of the confinement of this infrastructure offers to this substance. The LOC is meant to be defined in simple and clear terms referring to a reservoir (generic term) as open, enclosed, inside a building, outside a building, with or with no groundwater protection system, with or without an animal-human intrusion system, etc. For example:

- Fuel tank outside: LOC = enclosed reservoir outside;
- Open reservoir inside a building: LOC = open reservoir inside a building;
- Collecting basin around an open reservoir inside a building: LOC = open reservoir inside a building;
- Closed reservoir outside a building: LOC = enclosed reservoir outside a building;
- Collecting basin around an enclosed reservoir outside a building: LOC = open reservoir outside a building;
- A pond with a liner to protect against leakage to groundwater: LOC = open reservoir outside with groundwater protection system; and
- A sump outside a pond with no leak protection system: LOC = open reservoir outside with no groundwater protection system.

The following scenarios explain the LOC change during a spill:

- An outside fuel tank leak into its confinement reservoir would be an EI. It went LOC: enclosed reservoir outside to LOC: open reservoir outside;
- A spill from an open tank inside a mill, spilling into its open collecting reservoir would not be an EI. It went from a LOC: open reservoir inside a building to a LOC: open reservoir inside a building; and
- A spill from an outside lined pond into an unlined sump would be an EI. It went from a LOC: open reservoir with groundwater protection system to a LOC: open reservoir with no groundwater protection system.

2.2 Spill Incident Alerts

Any person on the Hope Bay mine site who observes an unanticipated discharge or spill will complete the following actions (Figure 1-1):

1. Assess the Site:
    - Isolate/evacuate immediate area if required;
    - Perform first aid if required and safe to do so;
    - Eliminate ignition sources – turn off vehicles, no smoking;
    - Identify spilled material if possible and consult product Safety Data Sheet (SDS); and
    - Estimate size and flow path of the spill.

    NOTE: If the material cannot be identified, there is a risk of fire/explosion/toxic fumes produced or there are injured parties **immediately Push the Red Button** and then if applicable (Step 3)**.**

2. Stop flow of spill if safe to do so:
    - Put on appropriate PPE;
    - Approach spill site from upwind;
    - Trace the source of material; and
    - Stop flow of spill (Section 2.4)

3. Report spill to Supervisor:
    - Give your name;
    - Type or extent of injuries (if applicable);
    - Location; and
    - Type of spilled material and estimated volume.

    NOTE: Environment can be contacted on “Environment” Radio channel.

4. Contain the spilled material:
    - Apply spill pads, absorbent booms in flow path of spill; and
    - Place spill tray beneath leaking fluid to minimize spill impact.

5. Secure the area and remain on scene until assistance arrives:
    - Ensure all workers have evacuated to a safe distance if required;
    - Divert or stop traffic; and
    - Stop people from entering the area.

Personnel receive appropriate training during their initial site orientation of what to do when he/she sees an unanticipated discharge or spill anywhere at the Hope Bay Mine site. A flow-chart summarizing the First Responder spill actions is provided in Figure 1-2 as a quick reference at the beginning of this plan and is available in all spill kits on site.

2.3 Spill Response Organizational Structure

Once a spill has been identified a spill response organizational structure will be implemented. The responsibilities of the individuals involved in spill response actions are summarized in the sections below. A flow-chart summarizing the activation structure is provided in Figure 1-2 as a quick reference at the beginning of this plan. A copy of the Response Management structure (Incident Command Post – command and control structure) is included in Figure 1.3.

2.3.1 Supervisors

In the event that a Supervisor is informed of a spill, he/she will immediately inform the Environmental Superintendent and/or Safety Manager that a spill has occurred and provide details of the spill as outlined in Section 2.1 above. The Supervisor will proceed to the spill location, secure the scene, confirm the type of material/size of the spill and assist with containment actions. Depending on the severity of the spill incident, either the General Manager (GM) or Environmental Superintendent will provide direction to the Supervisor regarding the removal, storage and disposal of the spilled material.

2.3.2 General Manager

Once notified of the spill, the GM will consult with the Environmental Superintendent and Health & Safety Manager/Superintendent to assess the severity of the spill incident and determine whether a spill emergency exists that requires activation of the Incident Command System (ICS) emergency procedures. This assessment will take into account the type and volume of the substance that has spilled, the location of the spill, safety of site personnel, scope of resources required to respond and the proximity of the spill to environmental resources at risk, including water bodies, sensitive habitat, archeological sites or sensitive species in the area.

If the spill is not deemed an emergency by the GM, the ICS will not be activated, and the Environmental Superintendent will provide direction to Site Services for containment and clean-up of the spill after an incident investigation has been completed.

The ICS is a command structure and process used in the *Emergency Response and Crisis Management Plan* (ERP) at the Hope Bay Mine site. This structure is designed to have a documented sequence of decisions that has been reviewed in advance of an emergency situation and establishes a chain of command to minimize confusion, so that employees will have no doubt who has decision-making authority.

If the ICS is activated in response to a spill emergency, the Manager on Duty becomes the Incident Commander (IC) and implements the ICS command system outlined in Figure 1-3 at the beginning of this plan. Note: the Manager on Duty is the General Manager or their designate. The IC will communicate with onsite managers and direct efforts in the spill response including evacuating personnel, identifying resources required to respond to the incident and activating the Emergency Response Team (ERT). The IC will establish the Incident Command Post (ICP) and designate roles as described in Figure 1.3. Some managers will be required to assume the ICS roles as part of the ICP as well as manage their title roles.

2.3.3 Incident Command Post (ICP) Roles and Responsibilities

2.3.3.1 Incident Commander (IC)

The IC will establish communications with the VP Nunavut and VP Health, Safety, Social & Public Affairs and regularly brief these individuals on the status of the spill emergency. A scribe will be assigned to the IC to document all communications and response actions of the spill incident.

After the spill emergency has been contained, the IC leads an incident investigation.

During an Environmental Incident or Spill, external communication is to be through the External Liaison.

All on-site and external communication will be through or at the direction of the IC. On-site communications will use portable radios on designated radio channels. Independent satellite phones are available for crews for emergency communications in the unlikely event that the radio and phone systems fail.

2.3.3.2 Operations Section Chief (OPS)

The Health & Safety Manager/Superintendent or the Maintenance Supervisor may be designated by the IC as the Operations Section Chief (OPS).

The OPS will direct the Maintenance Superintendent or designate to coordinate containment and clean-up actions based on safety of the responders and environmental protection priorities as identified by the Health & Safety Manager/Superintendent and the Environmental Superintendent.

In the event of a large spill, the OPS may request the Logistics Section Chief to direct the Materials Manager/Superintendent to secure off-site resources and facilitate transport to the Hope Bay site.

Under the ICS system, the IC does not direct the ERT. All communications and direction flows through the OPS.

2.3.3.3 Emergency Response Team Coordinator

The Emergency Response Team (ERT) Coordinator communicates/works with the OPS. The ERT Coordinator is responsible for the implementation and training of the Emergency Response/Mine Rescue Team. During an Environmental Incident or Spill, the ERT Coordinator organizes the response actions of the ERT in consultation with the OPS.

2.3.3.4 Emergency Response Team/Mine Rescue Team

The Emergency Response Team/Mine Rescue Team (ERT/MRT) are the primary responders to Environmental Emergencies and Spills depending on the severity of the incident and the requirements for containment and clean-up efforts.

2.3.3.5 Planning Section Chief (PLN)

The Environmental Superintendent may assume the role of the Planning Section Chief (PLN) and will assist the IC and operations in evaluating the severity of a spill situation to determine whether a spill emergency

exists. The PLN and team, identifies environmental resources at risk, including water bodies, sensitive habitat and species, or archeological sites in proximity to the spill based on the size/location of the spill, anticipated path of flow and weather conditions at the time.

The PLN advises the IC on the prioritization of containment and clean-up efforts. If the ICS is not triggered, the Environmental Superintendent will provide direction to Site Services for containment and clean-up of the spill after an incident investigation has been completed.

The PLN will work with the External Liaison (or assume responsibility for the role). The External Liaison is responsible for ensuring that incident reporting as outlined in Section 3 of this plan is completed and that follow-up monitoring actions deemed necessary to evaluate the extent of the spill and effectiveness of clean-up/remediation efforts are implemented.

The PLN communicates with the Corporate Director – Environment & Critical Infrastructure and the Sr Advisor – Environment & Permitting, Western Nunavut as required to consult on effective clean-up measures, discuss reporting submissions and implement environmental monitoring as necessary.

2.3.3.6 Environmental Supervisor/Coordinators

The Environmental Supervisors/Coordinators support the PLN in documenting, and investigating the cause of Environmental Incidents and spills. They work with onsite managers to develop corrective actions as required to prevent a repeat occurrence of the incident.

The Environmental Supervisors/Coordinators oversee follow-up monitoring actions deemed necessary to evaluate the extent of the spill and effectiveness of clean-up/remediation efforts at the direction of the Environmental Superintendent.

2.3.3.7 Logistics Section Chief (LOG)

In the event of an Environmental Incident or Spill, the IC may request the Materials Manager/Superintendent to assume the role of the Logistics Section Chief (LOG). The LOG is responsible for coordinating the acquisition, staging, transport, maintenance and shipping of on-site and off-site equipment and personnel resources needed at a response. The LOG ensures that all response resources are tracked, documented and dispersed to responders based on the IC's Objectives and Priorities.

2.3.3.8 Safety Officer

The Health & Safety Manager/Superintendent assumes the role of the Safety Officer when the ICP is activated. The Safety Officer is in the Command Staff, and answers directly to the IC. The Safety Officer evaluates the severity of Environmental Issues and Spills where hazardous conditions may exist for site personnel as a result of a spill.

This includes events involving injured personnel or damage to property resulting from the event, and/or situations where risk of fire, explosion or toxic fumes may be created as a result of the spill.

The Safety Officer identifies risks to site personnel and emergency responders and advises the IC on the response in conjunction with the ERP.

2.3.3.9 Liaison Officer

In the event of an Environmental Incident or Spill, an External Liaison Officer will be identified by Agnico Eagle. The External Liaison works for the IC to monitor the spill response and maintain a log of internal and external communications. Depending on the legislation implicated by the spill, the External Liaison Officer will inform and act as the link with all involved agencies. These agencies may include the KitIA, the NWB, the NIRB, ECCC, CIRNAC, the DFO and others. The External Liaison is responsible for understanding the Spill Reporting Requirements in Nunavut and the appropriate parties to inform. The communication will be in the form of a phone call and email and will include the type of material and size of the spill. The External Liaison Officer may designate alternative personnel to perform these communications. This individual will also update the Agnico Eagle Executive as required.

2.3.3.10 Public Information Officer (PIO)

In the event of a large or politically sensitive Environmental Incident or Spill, the IC may activate a Public Information Officer (PIO). The PIO is the direct link to Corporate Communications. They act as the eyes and ears on the sites and in the ICP, gathering information for Corporate Communications and disseminating speaking points, and official messaging.

2.4 Spill Response Actions

Most chemicals stored onsite are kept in small quantities and not expected to result in a major spill incident. Any chemical product which is listed under the E2 Regulations and which will be stored in quantities on site equal to or greater than that listed in Schedule 1 of these regulations will have an additional Product Specific Emergency Response (PSER) Plan detailed for that product. These PSER plans can be found in Appendix 1 of this document.

At the time of this revision, Ultra Low Diesel Fuel is the only substance on site that exceeds the limitations under the E2 Regulations. If additional substances exceed E2 Regulation limitations, this Plan will be updated accordingly. V19

Chemical containers are appropriately labelled to identify their contents in the event of a spill. The product label will be used to identify the substance and hazards, the Safety Data Sheet (SDS) will be consulted to determine the proper PPE requirements and appropriate spill response procedures. The following sections outline general spill response actions to be taken in the event of a spill in each associated environment. The basic spill response steps to be taken in the event of the spill are illustrated in Figure 2.1 below.

Note that some substances can be highly reactive in contact with water, air, or other substances and should not be addressed unless safe to do so.

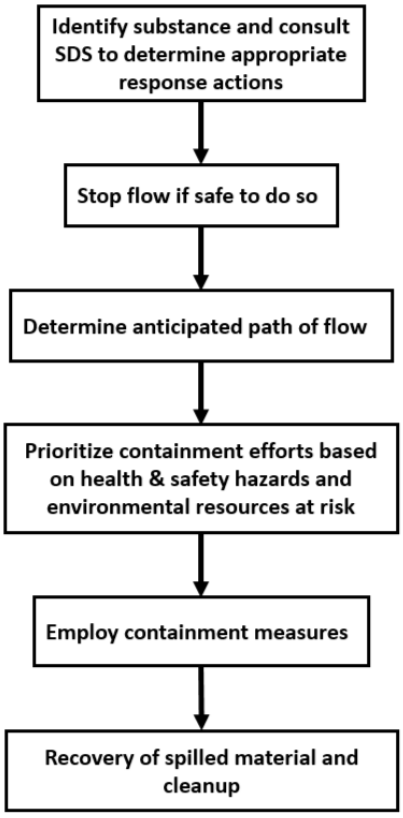

Figure 2-1. General Spill Response Actions

2.4.1 Spills on Land and Water

In the event of a liquid spill on gravel, rock, soil or vegetation, it is very important to prevent the liquid from entering any body of water where it will spread and likely have greater environmental impact. Liquid spills on land will be contained and cleaned up by:

- Covering the spill with appropriate absorbent pads and placing absorbent booms in the path of flow of the spill;
- Constructing temporary berms from soil or snow at the leading edge of the spill to minimize flow:
  - Plastic tarps can be placed over and at the foot of the berm to capture pooling liquid and facilitate recovery; and
  - Temporary berms are an interim measure and will be removed as soon as possible after the spill is contained and remedial actions complete.
- Pumping spilled material to empty drums or tanks;
- Using a vacuum truck to recover spilled material;
- Excavators and other heavy equipment may be used to excavate contaminated materials; and
- If safe to do so, blow torches (Tiger Torches) may be used to clean small hydrocarbon spills that occur on unlined areas of the camp pad to reduce waste generation and handling.

In the event of a spill on water, the response focus will be to limit the spread of the spilled material. The appropriate response to spills of substances which dissolve may solely be to limit discharge as soon as possible and safe to do so. The following steps will be taken to contain and clean-up a spill on water:

- Identify the direction and speed of the flow path of the product based on weather conditions and drainage patterns:
  - Monitor the spread of the material using a drone or from a helicopter if possible to identify the area of spread.
- Use appropriate absorbent pads, socks and similar materials to recover spilled product:
  - Granular sorbent materials are NOT to be used for spill response on water.
- Hydrophobic absorbent booms will be deployed to contain large spills and to facilitate recovery:
  - Absorbent booms will be drawn slowly in to encircle the spilled product and absorb it; and
  - High winds, waves and other factors may limit the effectiveness of these materials.
- Skimmers will be deployed in open-water areas to remove product from the water surface and boards or plywood may be used in streams or culverts to reduce the flow of spilled product on the surface and limit the area of the spill on the water;
- Use of sub-surface barriers to contain spilled product that may sink;
- Pump contaminated water into tanks or storage bladders if possible:
  - A vacuum truck may be used to recover spilled product.
- Contaminated substrate and vegetation will be removed either manually or with the use of heavy equipment if feasible;

- Chemical dispersants should not be used as a spill response technique at the Hope Bay Mine, seek direction from the Environmental Superintendent; and
- Also see Section 2.4.10 of this document for guidance related to additional spill protection, clean-up, and reporting measures for environmentally sensitive species and archaeological sites.

For saline water spills, tundra treatment guidelines from the Alaska Department of Environmental Conservation (ADEC) will be incorporated (see also Section 3.4). The following decision tree may be used specifically for recovery of saline water spills:

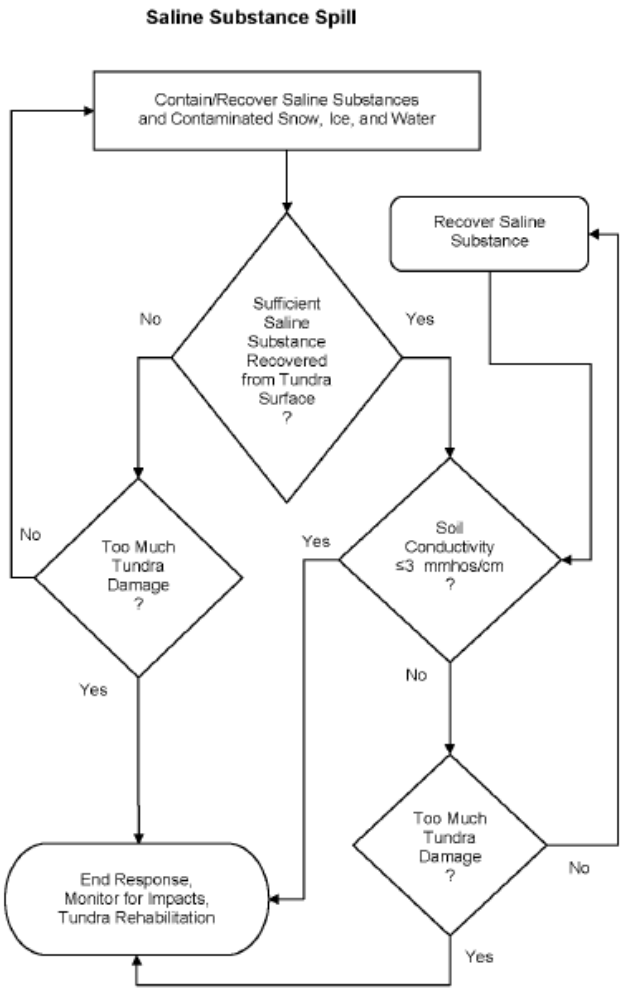

Figure 2-2. Saline Water Decision Tree (Adapted from ADEC Tundra Treatment Guidelines, 2010)

2.4.2 Spills in a Marine Environment

The most effective way to minimize environmental damage is to focus on source control and to prevent product from spreading. The following steps will be taken in the event of a spill in the marine environment:

- Identify the direction, speed and flow path of the product based on weather conditions and drainage patterns:
  - Monitor the spread of the material using a drone or from a helicopter if possible, to identify the area of spread.
- Use of appropriate absorbent pads, socks and similar materials to recover small volumes of spilled product:
  - Floating spill response booms will be used to encircle a barge prior to off-loading chemicals and fuel from the barge as a precautionary measure; and
  - Granular sorbent materials are NOT to be used for spill response on water.
- Hydrophobic absorbent booms will be deployed to contain large spills and to facilitate recovery:
  - Absorbent booms will be drawn slowly in to encircle the spilled fuel and absorb it;
  - High winds, waves and other factors may limit the effectiveness of these materials; and
  - Granular sorbent materials are NOT to be used for spill response on water.
- Skimmers will be deployed in open-water areas to remove product from the water surface;
- Use of sub-surface barriers to contain spilled product that may sink;
- Pump contaminated water into tanks or storage bladders if possible; and
- Chemical dispersants should not be used as a spill response technique at the Hope Bay Mine, seek direction from the Environmental Superintendent.

Also see Section 2.4.10 of this document for guidance related to additional spill protection, clean-up, and reporting measures for environmentally sensitive species and archaeological sites.

Spill response measures specific to bulk fuel offloads completed at Roberts Bay are detailed in the *Ocean Pollution Prevention Plan/Oil Pollution Emergency Plan* (OPPP/OPEP). The *OPPP/OPEP* is the main document of reference for spill control actions during a fuel offload at the Hope Bay Mine and is reviewed annually.

2.4.3 Spills on Snow

Spills on snow will be contained and recovered by:

- Use of appropriate absorbent pads, socks and similar materials to recover spilled product;
- Compacting the snow into snow-berms and placing a liner of plastic sheeting at the toe and over the berm to collect spilled material and facilitate recovery;

- Using the snow as a natural absorbent to collect spilled product; and
- An excavator, grader or other heavy equipment may be used to scrape up contaminated snow to be stored in a lined containment area or placed in steel drums.

2.4.4 Spills on Ice

Spills on ice will be contained and cleaned up by:

- Use of appropriate absorbent pads, socks and similar materials to recover spilled product;
- Creating snow-berms by compacting snow around the edge of the spill and placing a liner of plastic sheeting at the toe and over the berm to collect spilled material and facilitate recovery;
- Scraping contaminated snow/ice from the ice surface and placing in lined containment:
  - Snow may act as a natural absorbent to collect spilled product.
- In broken-ice conditions a skimmer may be used to collect product on the surface of open-water areas:
  - Caution must be used when conducting spill response efforts in broken-ice situations. An appropriate Task Hazard Analysis safety plan and PPE must be determined before initiating these actions.
- An excavator, grader or other heavy equipment may be used to scrape up contaminated ice to be stored in a lined containment area or placed in steel drums:
  - A vacuum truck may be employed to recover large volumes of spilled material.

2.4.5 Spills under Ice of Substances that Float

Hydrocarbon spills under ice will be addressed by:

- An appropriate Task Hazard Analysis safety plan and PPE must be determined before initiating these actions;
- Testing of the ice to ensure thickness is safe for personnel to work on the surface;
- Once ice has been deemed safe, slots will be cut in the ice surface in the area surrounding the spill and downstream of the anticipated direction of flow/spread:
  - Contaminant will rise to the surface within the slots; and
  - Determine the direction of any currents (if expected; this would not be the case in an ice-covered lake) to identify the direction of flow and conduct ice profiling beyond the extent of the spill to identify any spread of the contaminant.
- Contaminant will be skimmed/scooped out from within the slots and placed into empty pails/drums as it is recovered;
- Pockets within the ice where contaminants can pool will be identified (this applies to ice which may have buckled areas where spills may pool; largely an ocean occurrence);

- Absorbent pads and booms will be used to contain spill if there is water moving past the ice edge (if any) where the spill took place:
    - Set booms ahead of the spill based on the direction of anticipated flow.
- A vacuum truck may be employed to recover larger volumes of spilled material or utilizing an Auger and pump system to pump spilled material into containers (e.g., drums).

2.4.6 Spills under Ice of Substances that Sink

- Response to spills below ice of substances which sink will be evaluated on a quantity, substance-specific, and risk basis. In many circumstances, particularly for small releases of non-toxic substances, the appropriate response may solely be to limit discharge as soon as possible and safe to do so. Agnico Eagle will assess each individual situation and may consult a remediation specialist for advice in addition to discussions with the KitIA, CIRNAC, DFO, and ECCC;
- Allowing substance to settle with minimal disturbance to limit spread (for waterbodies without current);
- A vacuum truck may be employed to recover larger volumes of spilled material or utilizing an Auger and pump system to pump spilled material into containers (e.g., drums);
- Use of sub-surface barriers to contain spilled product if there is water moving past the ice edge (if any) where the spill took place; and
- Appropriate subsurface containment will be used to contain spilled material if there is water moving past the ice edge (if any) where the spill took place.

2.4.7 Spills under Ice of Substances that Dissolve

- Response to spills below ice of substances which dissolve will be evaluated on a quantity, substance-specific, and risk basis. In many circumstances, the appropriate response may solely be to limit discharge as soon as possible and safe to do so. Agnico Eagle will assess each individual situation and may consult a remediation specialist for advice in addition to discussions with the KitIA, CIRNAC, DFO, and ECCC, where appropriate;
- A vacuum truck or an Auger and pump system may be used to pump contaminated water into containers (e.g., drums) if rate of dissolution is slow enough/contaminated water volume is small enough to make this feasible; and
- For Sodium Cyanide spills see substance-specific ERP in Appendix 1.

2.4.8 Spills of Compressed Gas

If an accidental release of compressed gas occurs:

- Stop the source if safe to do so;
- Ventilate the area well to dilute the gas;
- Cordon off the area to prevent accidental ignition, explosion or inhalation by personnel; and
- Only employees with proper training and PPE will attempt to mitigate the release.

2.4.9 Burning Spills

Small spills of hydrocarbons (< 100 L) may be removed from unlined camp pad areas by using a propane torch (Tiger torch). This response method would reduce the waste production and handling/storage of contaminated materials associated with the spill and would reduce the risk of spreading or contaminating other areas during transport of these materials. No water would be used and no waste would be deposited to water as a result of this response method.

Extra safety precautions must be taken prior to the use of a propane torch in the event of a spill. A Task Hazard Analysis will be completed prior to undertaking this activity. The SDS for the product will be reviewed to check for the reaction of the substance to heat. PPE such as Fire-Resistant clothing and the proper gloves and respirator will also be worn and a spotter with a fire extinguisher rated for the type of spill and fire must be present during the clean-up.

Burning of larger spills may be considered on a case-by-case basis and only once Agnico Eagle has consulted with and received approval from ECCC, the KitIA, the CIRNAC Inspector and any other associated regulatory agencies. This method of response is only useful if quick action is possible, and prior to natural spill dispersal and loss of the more ignitable hydrocarbon fraction.

2.4.10 Spills Affecting Environmentally Sensitive Species or Archeological Sites

The Hope Bay Mine site contains a number of habitats, species and sites of archeological and historical importance. The possibility exists for a spill or an environmental emergency to impact these environmental and cultural resources.

Agnico Eagle and previous companies operating on the Hope Bay site have conducted numerous ecological surveys to identify these areas at risk, with the focus of identifying those areas immediately surrounding mine infrastructure which are at greatest risk of impact from a spill.

In the event that a spill enters the natural environment, the Environmental Superintendent may use maps identifying these sensitive areas to prioritize the protection of these resources. After the key priorities of ensuring personnel safety and establishing and maintaining control of the release, protecting environmental sensitivities will be the immediate focus of response.

Should decisions be required which protect some sensitive areas at the expense of others, the hierarchy of protection will attempt to favour (except as directed otherwise by regulatory agencies) in order of priority below. Sensitivity maps are provided in Appendix 3 to display features according to the hierarchy.

1. Waterbodies and watercourses: fish-bearing waterbodies and known Arctic char habitat;
2. Sensitive ecosystems: unique landscape features considered rare or sensitive, due to their scarcity on the landscape, special habitat features they provide, and/or cultural importance, as defined by Terrestrial Ecosystem Mapping features in the Final Environmental Impact Statement (Volume 4 Ch 8 Table 8.3-3);

3. Archaeological sites: not mapped due to confidential information, but available to the Environmental Superintendent in the event of a spill;
4. Rare plants: known rare plant locations based on surveys conducted for the Final Environmental Impact Statement (Volume 4 Ch 8 Figure 8.2-5); and
5. Active raptor nest or wildlife den: based on continuously updated monitoring data from monitoring and baseline surveys.

For spills in water, prioritization will attempt to avoid vegetated and finer substrate shoreline areas (sand, gravel and cobble) from which recovery is most difficult and which may be of high value to fish.

All of the communications outlined in this section would occur in addition to any appropriate spill reporting outlined in Section 3.

2.4.10.1 Mitigation of Impacts to Wildlife and Birds

In the event that a contaminant is released to a body of water, initial wildlife response measures will be exercised in alignment with the Birds and Oil-CWS Response Plan Guidance document if migratory birds are or may be impacted.

All reasonable measures will be taken to deter wildlife from coming into contact with any spilled material. Deterrence methods are outlined in Table 2.4-1, based on recommendations from the *Bird Hazing Manual: Techniques and Strategies for Dispersing Birds from Spill Sites* (Gorenzel and Salmon 2008; available to download online from https://eurowa.eu/resource/bird-hazing-manual-techniques-and-strategies-for-dispersing-birds-from-spill-sites/). The Wildlife Response Team is in charge of wildlife responses.

In the event that wildlife contacts a spilled material, Environment and Climate Change Canada's Canadian Wildlife Service (ECCC-CWS), the KitIA, and the GN Wildlife Officers will be consulted to determine response strategies including the most appropriate humane treatment of oiled wildlife. Agnico Eagle may also engage contract response agencies specialized in wildlife response actions during a spill event. In cases where wildlife can be rescued, wildlife spill response experts will be contacted for assistance and guidance.

Table 2.4-1. Deterrence Methods for Preventing Wildlife Contact at a Spill

Deterrent Type	Applicable Wildlife	Considerations for Use
Watercraft	Mammals, Birds	• Requires operator, only useful in open water.
Helicopter	Mammals, Birds	• Requires authorization from ECCC-CWS prior to use as deterrent; • May not be available onsite; and • Extremely effective, but expensive and requires operator. Ideal as a short-term deterrent.
Drone	Mammals, Birds	• Can be widely deployed regardless of terrain; and • May not be consistently effective.

Deterrent Type	Applicable Wildlife	Considerations for Use
Bangers/Screamers, Horns, Whistles	Mammals, Birds	• Easy to use, readily available; and • Short range applicability.
Propane Cannon	Birds	• Appropriate for congregation points such as shorelines, creek mouths; • Birds may habituate after a few days; • Cannot be used near flammable spill materials; and • Requires purchase, not immediately available onsite.
Mylar Strips and/or flags	Birds	• Visual deterrent that repels birds, made from shiny mylar or plastic bags strung on poles/strings; and • Does not work at night or in low wind.

Monitoring will be conducted to assess the spill area and possible effects on wildlife. This will include:

- Assessment surveys for oiled and unoiled wildlife;
- Assessment surveys for oiled shoreline vegetation that may be consumed by either terrestrial or marine wildlife;
- Assessment surveys for oiled nests and eggs;
- Wildlife observers will be on vessels and aircraft if possible; and
- Wildlife collection (with authorization from ECCC-CWS):

  To collect dead and live wildlife within the spill area and adjacent. All response vessels should be equipped with dip nets, large plastic collecting bags to hold dead birds, and cloth bags or cardboard boxes to hold live oiled birds.

2.4.10.2 Mitigation of Impacts to Archeological Features and Sensitive Habitats

If a spill is determined to have impacted any archeological or historic resources, prior to removing soil or vegetation, Agnico Eagle will immediately contact the Project Archaeologist. The Project Archaeologist will provide advice on next steps and may travel to site to mitigate the archeological site. Surveys may also be conducted to assess impacts to Culturally important vegetation. The Archeologist will also coordinate permits and communications with the Government of Nunavut Territorial Archaeologist.

In the event that shoreline substrates or aquatic vegetation have been impacted, Agnico Eagle will contact ECCC and the DFO for advice prior to initiating removal. Agnico Eagle will also seek advice and approval from the KitIA prior to removal of shoreline substrate or aquatic vegetation.

2.5 Disposal of Contaminated Materials

Contaminated materials generated during a spill event will be contained and disposed of as per the product-specific SDS and as outlined in the *Hazardous Waste Management Plan* and *Non-hazardous Waste Management Plan*. Empty drums, barrels, mega-bags and storage tanks are available to store contaminated materials for disposal.

Hydrocarbon contaminated soil, snow and water may be remediated in landfarm facilities if these materials meet the requirements for remediation as per the *Hydrocarbon Contaminated Material Management Plan* or may be placed within the underground mine.

2.6 Spill Response Resources

2.6.1 On-Site Resources

Spill Response Kits will be available near (within 200 m) areas where chemicals are stored and used on site, including near all bulk fuel berms and smaller fuel tanks. Spill response kits will be accessible for personnel responding to a spill. As mine activities evolve, and new locations of chemical storage and use are identified new spill kits will be added as needed. Active construction areas where equipment is operating will also have a spill kit located within 200 m.

Additional spill response equipment is maintained for response in an aquatic environment. This equipment is stored in ten moveable containers that can be relocated for rapid response to a spill in a stream, lake or marine environment.

Agnico Eagle maintains an on-site supply of appropriate PPE compatible with the chemical products used on site, including chemical resistant suits, gloves and boots, face shields/goggles and respirators. In the event of a spill, this equipment is used by spill responders as outlined in the product SDS. Specialty equipment, such as Self-Contained Breathing Apparatus, air quality monitors and fire-retardant clothing are available and used as needed to ensure a safe response to a spill incident.

All fuel transfer vehicles are also equipped with a spill kit designed to address smaller spills of hazardous fluids (< 40 L). Personnel are trained in proper fueling procedures and spill trays are used during all fueling activities to minimize the potential of an unintentional release.

A list of supplies contained in each spill kit type, supplies in the aquatic spill response containers, and PPE/specialized equipment for spill response is provided in Appendix 2.

Agnico Eagle also maintains an on-site supply of roll, pad and mat absorbents, plug and dyke kits, mini booms, absorbent socks, peat moss, crushed corn cobs, coconut mats, hand tools, empty storage tanks and various pieces of heavy equipment including a vacuum truck, grader, dozers, loaders, excavators and haul trucks that would be used in the event of a large spill.

Spill kits are replenished as needed after use and inspected at least once per quarter. The purpose of the inspection is to evaluate the location of spill kit proximity to associated work activities, inspect the condition of the spill kit, and check that all required contents are available and in good condition.

The marine spill response supplies and equipment are inspected annually prior to fuel offloading and after use of the Seacans for training or in response to usage for a spill.

2.6.2 Off-Site Resources

The Hope Bay Mine is a remote location that is only accessible by plane for the majority of the year, with a short open-water ship access season. The *Spill Contingency Plan* does not rely on off-site resources to successfully respond to anticipated upset conditions. The Plan has been developed such that the resources required to respond to spills have been positioned on site. It is anticipated that the Hope Bay Mine will have sufficient resources and trained personnel to respond to most types/sizes of spills that could potentially occur on site.

Additional off-site resources would be procured and flown to site as needed if onsite resources were exhausted.

3 Spill Investigation, Documentation and Reporting

3.1 Spill Investigation

A spill investigation will be completed for all significant spill events that occur at the Hope Bay Mine. Investigations will determine the direct and root causes of a spill and will identify corrective actions that may reduce the risk of a repeated incident.

For spills that exceed the volume thresholds outlined in the Immediately Reportable Spills table at the beginning of this plan, an Intelex Investigation will be completed. The investigation will be completed by the departmental Supervisor with support from the departmental Manager/Superintendent and the Environmental Superintendent within 7 days of the spill occurrence. The Safety Manager/ Safety Superintendent and GM may participate in the investigation and assist in developing corrective actions.

For spills that do not exceed the volume thresholds outlined in the Immediately Reportable Spills table, an Intelex Investigation will be completed. The investigation will be completed by the departmental Supervisor within 48 hours of the event and forwarded to the Environmental Supervisor/Coordinator.

Records of all spill events and investigations will be maintained by the Environmental department and documented in the Intelex. Any corrective actions that are identified will be entered into the Environmental Incident Register and implemented by the departmental Supervisor and/or Manager/Superintendent.

3.2 Agnico Eagle Internal Reporting

An Incident Event notification will be sent via automated email to the Environmental Superintendent once the incident has been entered. This notification will provide a brief description of the spill, consequences of the spill, root cause of the event if identified and a brief description of the response including containment and cleanup actions. All Environmental Incidents are documented in Agnico Eagle's Incident Management Database System (Intelex). For more significant or ongoing events, the department supervisor will contact the Environment Superintendent or designate as soon as possible.

All incidents that have a consequence ≥ 3 are communicated to the Environmental Corporate representative within 24 hours. If the incident has a consequence of level 5, the investigation lead will be the VP of Environment, otherwise the investigation lead is the Environmental Superintendent. The investigation has a deadline of 14 days. Results of the investigation will be communicated to appropriate site Supervisors, Superintendents and Managers, as well as offsite Environmental personnel. Corrective actions generated by these investigations will be discussed with personnel at the Hope Bay Mine through email communications and/or discussions at departmental safety meetings. Details of the spill investigation and implementation of corrective/preventative actions will be documented in the Intelex by the Environmental Department. The investigation report is attached to the incident report in Intelex and communicated in the weekly update report.

3.3 External Reporting Requirements

In the event that a particular material spill meets or exceeds the amount specified in the Immediately Reportable Spills Table (located at https://www.enr.gov.nt.ca/en/services/report-spill, and at the beginning of this plan), the Environmental Coordinator will complete the NT-NU Spill Report form (available through the preceding link) and report the spill to the NT-NU 24 Hour Spill Report Line by phone (867-920-8130) or e-mail (spills@gov.nt.ca) as soon as possible within 24 hours of the event. The CIRNAC Inspector and the KitIA will be copied on these submissions. The submission of the report will not be delayed even if not all information is available at the time of submission.

In the event that a spill or an unauthorized deposit of a deleterious substance has occurred to the marine environment, the GM and/or Environmental Superintendent will notify the Canadian Coast Guard immediately and provide details on the time and location of the discharge, type and quantity of pollutant, description of assistance and salvage measures employed and any other relevant information. A written report will also be submitted within 24 hours. A copy of this report will be submitted to a Transport Canada Marine Safety Inspector if required.

Note: Response specific procedures for Marine Spills of petroleum products are addressed in the Hope Bay *OPPP/OPEP* (Oil Handling Facility Plan).

The Environmental Superintendent will communicate with the VP Environment and Critical Infrastructure during the incident to determine additional notifications to be submitted to regulatory agencies during the event.

In the unlikely event that an environmental emergency occurs which may adversely affect members of the public (closest community is located >120km away) the GM will work with the External Liaison to provide notification to the public during and after the event. The communication will initially be in the form of a phone call but will be expanded as necessary to protect the safety of the community members. This may include a press release and/or social media posts.

Within 30 days of the event, the Environmental Superintendent or delegate will submit a detailed written spill report to the appropriate regulatory agencies. This report will include a description of the spill location, type and quantity of spilled material, associated causes that led to the incident, details of actions taken to remediate affected areas and potential effects of the spill, measures undertaken to reduce the potential for a reoccurrence of a similar incident, results of monitoring activities undertaken and details of any further actions required. Other applicable details such as the names of agencies on the scene, persons or agencies advised concerning the spill, a chronological sequence of events including internal/external notifications, and lessons learned from events leading up to the spill and the response actions taken may be included in this report. Additional follow-up engagement may occur as deemed appropriate by the appropriate Corporate Director based on the specific spill and stakeholder input.

A list of spills reported to the NT-NU Spill Report Line will be provided in the annual NWB report.

3.4 Monitoring and Restoration

Specific monitoring requirements for spills will be determined on a case-by-case basis dependent on the nature of the spill. Monitoring will be conducted in the event that:

- Spilled material cannot be removed;
- Spill to water of substances that dissolve, sink or where substance recovery is unlikely; and
- Externally reportable spills to land for which recovery is unlikely or incomplete.

Details of follow-up monitoring conducted in response to a spill will be detailed in the 30-day follow-up spill report submitted to the NT-NU Spills Hotline, the CIRNAC Inspector and the KitIA.

Monitoring activities will be conducted to assess the impacts of the spill and the effectiveness of associated cleanup/remediation efforts in the event spilled material cannot be removed. This may include a number of monitoring techniques and collection of samples for laboratory analysis. The monitoring program will be developed by the Environmental Superintendent in consultation with the Environmental Affairs Department and associated regulatory agencies and expertise.

In the event of spills to water of substances that dissolve or sink or where substance recovery is unlikely. Samples will be collected and analyzed by a commercial laboratory to characterize

- The material discharged (if not of known characteristics);
- The water at the location of entry into the waterbody as soon after the discharge as possible; and
- Water at a ‘reference’ location, preferably within the same waterbody but outside of the area of potential impact and collected at approximately the same time as the sample collected at the point of entry.

Sample collection will be decided on a case-by-case basis and may include downstream and upstream (of the spill) locations. Sediment sampling may be necessary for substances that are removed from the water column.

Monitoring will also be triggered in the event of externally reportable spills to land for which recovery of spilled material is unlikely or may be incomplete. Samples will be collected from locations of suspected highest remaining contamination, or as a composite sample from the remediated area. Samples will be compared to soil remediation criteria and background soil concentration data to verify appropriate clean-up has occurred.

The Environmental Supervisor/Coordinators will be responsible for overseeing the implementation of these monitoring activities at the direction of the Environmental Superintendent. No person will be permitted to sample spilled materials unless that person has received adequate training in the identification of the hazards associated with the spilled material, the selection and use of appropriate personal protective equipment, and safe sampling procedures.

The final required clean-up, remediation (or mitigation) and on-going monitoring will be conducted as needed, and where appropriate in consultation with, and to the satisfaction of, the CIRNAC Inspector and the KitIA. Consultation may include a follow-up with the CIRNAC Inspector and the KitIA to review the final cleanup, restoration/mitigation, and continuing/on-going monitoring for areas that will not be further amended at project closure. Continued monitoring may be required for spills where the collection of all the spilled material may not be completed and is suspected to have migrated further downstream causing an impact. For example, a spill in a water body or an undetected spill occurring over several days. Site specific studies may be required to determine the appropriate final clean-up criteria. For saline water spills, treatment guidelines from the ADEC will be consulted.

If required, reporting on continuing and progressive sample collection/analysis will occur until completion of all prescribed remedial activities.

3.5 Incident Review and Root Cause Analysis

A review of incidents and causal analysis will be conducted by the Environmental Superintendent quarterly. The purpose of this review will be to identify trends in direct and root causes. Lessons learned from this exercise will be used to develop additional corrective actions including awareness campaigns for site personnel, improvements to operational equipment and spill response resources.

4 Spill Management and Mitigation

Site supervisors and managers are responsible for ensuring work area inspections and risk assessments are conducted for their respective work areas. Risk assessments include evaluation of hazardous materials available and in use in the work area, and likelihood and potential consequences of various spills. Where appropriate based on likelihood and potential severity, mitigation, management and/or substance-specific spill response plans will be developed.

The following section outlines currently identified potential spill risks with potential for high severity and/or probability of occurrence and the management and mitigation measures employed to reduce the likelihood and/or the potential severity of these occurrences. Additional scenarios, as well as appropriate management and mitigation actions, may be added to this section through time as they are identified.

4.1 Issue: Spill from a Chemical Storage Tank or Other Containment

A fuel storage tank, containment area, sump, emergency catch basin or other product container may release its contents for a number of reasons, such as damage due to puncture, openings developed over time due to degradation (such as rusting), or overfilling.

Equipment malfunction or facility failure may cause a spill event to occur, particularly during extreme winter temperature conditions experienced at the Hope Bay Mine site.

Saline water releases may occur from drilling operations, waste management facilities or transfer pipelines.

4.1.1 Management Response

This risk is minimized through the use of secondary containment and spill containment. All bulk fuel facilities are located in secondary containment (i.e., tank farms which have containment designed to contain volumes equivalent or greater than 110% of the aggregate or total volume of the largest container in the containment – whichever is greater).

Smaller chemical storage tanks are either double walled (have built-in secondary containment), or are located in spill trays such that leakage from hoses or lines are further contained or are located in secondary containment berms.

It is industry practice not to use secondary containment in the case of inventory Seacans received from a sealift operation. Since the inventory Seacans are not in use, the probability of a spill is minimized as the containers inside the Seacans are protected from the elements and from collision. These would be the primary causes of a spill from a container.

Spill trays designed to contain volumes equivalent or greater than 110% of the aggregate or total volume of the largest container in the containment are used under fuel drums and other smaller chemical containers that are in use around the camp and not within an inventory Seacan.

Inspections of all containment structures will be conducted weekly to ensure concerns are noted and are addressed promptly.

In the event that a spill exceeded the capacity of a containment berm (for example, if more than one container in a berm was breached) or a containment berm became compromised, the spill response actions outlined in Section 2 would be implemented. Containment measures would be deployed to prevent the spread of the chemical into the natural environment. This would include deploying absorbent materials or booms and constructing diversion trenches or sumps to intercept the spilled product. The vacuum truck and all available pumps would be deployed to transfer spilled product into empty storage tanks or alternative containment berms if necessary.

Saline spills to the surface during drilling operations can be difficult to detect unless directly observed or detected by monitoring devices. If a spill is detected, excess saline water can be collected by a vacuum truck or other means for storage in the TIA. In cases where saline spills are detected because of vegetation damage, a key aspect of the investigation is to determine whether the spill is ongoing, historical or a recent single event. If an ongoing release can be intercepted and the spilled saline water recovered, further spread of the spill can be minimized or prevented. If the saline spill reaches tundra, monitoring and evaluating the progress of natural recovery is often the preferred rehabilitation approach. In some cases, active treatment may be appropriate to increase the rate of recovery of the affected tundra. Significant effort is taken to prevent saline water spills.

4.2 Issue: Spill during Transport

Spills may occur during the transport of chemicals from one site location to another.

4.2.1 Management Response

As new chemicals, fuels and hazardous materials are brought to site, standard operating procedures are developed that outline the process for safely transporting or transferring these products between locations at site. Experienced operators transport these materials and are familiar with site road conditions. Traffic right-of-way procedures are established that reduce the risk of an accident between two vehicles and all vehicles are equipped with radio communication to ensure operators can remain in contact at all times. A spotter is used to direct operators loading and off-loading these materials from transport vehicles to reduce the risk of damage to chemical storage containers during transport and loading. Spill trays are used when chemicals are transferred to equipment or secondary containers for use.

4.3 Issue: Spill during Transfer

Spills have an increased likelihood of occurring during transfer of chemicals. This may be the case during equipment refuelling, transfer of chemicals between containers, or transfer of wastewater or tailings in pipelines. Such spills may result from human error (overfilling, inaccurate filling) or equipment malfunction (such as a break in the transfer line/pipe due to wear or freeze/thaw cycles).

4.3.1 Management Response

As new chemicals, fuels and hazardous materials are brought to site, standard operating procedures are developed that outline the process for safely using these chemicals during operations. Workers who use chemicals or fuels during daily operational activities receive training in the proper handling, storage and disposal of these materials prior to commencement of work. Applicable SDS sheets are reviewed by all workers using these chemicals to identify potential hazards. Workers are encouraged to plan work activities before beginning a task to reduce the potential for inadvertent errors.

Fueling of mobile equipment typically occurs at designated fueling stations, which are located within secondary containment berms and equipped with adequate lighting to reduce environmental risk. Remote fueling must never take place within 31 meters of the normal high-water mark. When remote fueling is required, a spill kit must be readily accessible, and spill trays should be used. V19

Fuel tanks are not filled to full capacity, to reduce the possibility of overflow during fueling or due to expansion.

Workers are provided with on-site training in spill response techniques and are familiar with the response resources available in the event of a spill.

Wastewater transfer pipelines, for sewage as well as other wastewaters, are constructed to reduce breakage due to freeze/thaw cycles and are routinely inspected to ensure they are functioning. Delineators are used to mark pipelines to ensure vehicle and equipment operators are aware of pipeline locations when travelling on site roads.

Additional design features of the tailings lines which reduce the risk of spills are outlined in the *Operations, Maintenance and Surveillance Manual: Hope Bay Doris Tailings Impoundment Area*.

Should any of the above measures fail, spill response would be undertaken as outlined in this document.

4.4 Issue: Spills from Equipment

Spills can occur from mobile or stationary equipment during routine maintenance or as a result of equipment malfunction or wear, especially under extreme weather conditions.

4.4.1 Management Response

All equipment at site undergoes routine preventative maintenance, and mobile equipment is subject to daily pre-operational inspections to identify specific issues for mechanical resolution. Where possible, all equipment maintenance is performed in designated maintenance areas. During equipment maintenance, spill trays are used as needed. Spill trays are also used for stationary equipment, or those parked for extended periods of time. The use of biodegradable fluids should be considered when equipment operates near or in water. Additionally, parked vehicles and equipment should be positioned at least 31 meters from the normal high-water mark of any water body. V19

4.5 Issue: Health and Safety of Spill Responders

Some products and chemicals used at the Hope Bay Mine may pose a risk to the health and safety of personnel responding to a spill. Spilled materials may create toxic, explosive or flammable hazards that must be considered during response efforts.

4.5.1 Management Response

Personnel working at the Hope Bay Mine are provided on-site training in the proper handling, storage and disposal of chemicals related to their tasks. The product SDS is reviewed by personnel prior to using these chemicals to identify potential hazards related to handling these materials.

The SDS for each chemical outlines the specific personal protective equipment (PPE) required when handling each product and provides information on methods for clean-up in the event of an accidental release to the environment. SDS sheets are maintained at site for all chemicals stored and used at the Hope Bay Mine.

In the event that a spill poses toxic, explosive, flammable or other hazards that endanger personnel or the environment, the ERT will be activated through the ICS. Members of the ERT are equipped with additional PPE that allows them to safely respond to hazardous situations and receive additional training in response techniques for these scenarios.

Site chemicals are reviewed annually and compared to the E2 Regulations. If any chemicals are anticipated to be stored in quantities exceeding the quantity thresholds outlined in these regulations a Product Specific ERP will be developed and submitted as an addendum to this Plan. Product Specific ERPs identified as necessary for products stored at the Hope Bay Mine are located in Appendix 1 of this Plan.

4.6 Issue: Spills to Water

Spills to water are of particular concern due to the sensitivity of water environments and potential of rapid spread of spills into water.

4.6.1 Management Response

No chemicals are stored within 31 m of water. When storing chemicals within 100 m of a waterbody, they are kept in secondary containment, and spill kits are located nearby which contain small booms and absorbent pads. In the event of a large spill to water, additional itemized and audited Aquatic Spill Response Equipment is located at Roberts Bay in movable Seacans. Response actions protective of wildlife are outlined in Section 2.4.10 Spills Affecting Environmentally Sensitive Species or Archeological Sites.

4.7 Issue: Operational Considerations for Spill Response

Hope Bay is a remote mine site that experiences extreme weather conditions and seasonal daylight variations which may impact the effectiveness of spill response actions. The Hope Bay Mine is only accessible by plane for the majority of the year, with a short open-water ship access season.

4.7.1 Management Response

This Plan has been developed such that the resources required to respond to spills have been positioned on site. It is anticipated that the Hope Bay Mine will have sufficient resources and trained personnel to respond to most types/sizes of spills that could potentially occur on site.

The majority of activities conducted at the site occur on the project infrastructure roads and camp pads. In the event that a spill occurs off the site infrastructure, helicopters and off-road tundra (low impact) vehicles, such as the Rim-pull, will be used to mobilize spill response resources. The impact from these vehicles will be monitored and damage to the surrounding tundra minimized to the extent possible.

Extreme weather conditions, such as sub-zero temperatures, that may impact the response capabilities of personnel will be mitigated by rotating personnel from response activities to break areas as needed. This may include using heated vehicles, portable shelters or heated buildings.

Portable light plants are available on-site and will be used in seasonal darkness to aid in spill response containment, clean-up and remedial actions.

4.8 Risk Identification Matrix

As part of Environmental Incident Management, a risk assessment exercise using the Agnico Eagle RMMS risk quantification and classification methodologies and risk criteria for Critical Infrastructures was completed. The risk assessment was also used to identify the Worst-Case Scenario (WCS) and Alternative Worst-Case Scenario (AWCS) as defined by reporting requirements of the E2 Regulations. The matrix defines the level of risk (low risk ≤ 3, high risk ≥ 12) by considering likelihood and consequence severity. The exercise increases the visibility of risks and identifies potential risk areas, as well as determines the fate of spilled products and their environmental effects. The risk assessment exercise is documented in Intelex.

4.8.1 Worst-Case Scenario (WCS)

Under Section 4(2)(e) of the E2 Regulations, the WCS is the release of the greatest quantity of a hazardous substance, contained in the largest container or not in a container system, irrespective of the impact distance to an endpoint being inside or outside the boundary of a facility. The scenario does not need to be reasonable.

A diesel spill from a 5 ML storage tank at the Roberts Bay Laydown Facility would be the WCS at Hope Bay. In this scenario, the entire storage tank contents are emptied, the containment berm fails, and diesel is released to the surrounding area. The maximum quantity of diesel that can be released from a single tank is 5 ML. At this volume, the spill is expected to follow topography and reach Roberts Bay (< 1 km away). Potential receptors from the spill include the waterbody, fish, and wildlife habitat. Given the isolation of the site, there is no potential for impact on communities.

4.8.2 Alternate Worst-Case Scenario (AWCS)

The Alternate Worst Case Scenario is described in Section 4(2)(f) of the E2 Regulations. This scenario is more likely to occur than the WCS and has the longest impact distance to an endpoint outside the boundary of the facility.

A spill during the transport of fuel at Roberts Bay is considered the Alternate Worst-Case Scenario at Hope Bay. In this scenario the spill occurs during a fuel tanker truck accident while transporting fuel from the Roberts Bay tank farm. The spill is between 10,000 – 15,000 L (which represents ~ 20-30% of the tankers storage). At this volume, the spill is expected to reach Roberts Bay (>1 km away). Potential receptors from the spill include the waterbody, fish, and wildlife habitat. Given the isolation of the site, there is no potential for impact on communities. The impact distance is outside the boundary of the facility and is controlled by sea conditions in Roberts Bay.

4.8.3 Alternate Scenario (AS)

The Alternate Scenario (AS) is an E2 environmental emergency scenario, that has not been assigned as the WCS or AWSC. It is a scenario that could reasonably be expected to occur at a facility and that would likely cause harm to the environment or constitute a danger to human life or health. A spill during the transfer of fuel at fueling stations is considered an AS at Hope Bay. In this scenario the spill occurs while workers fuel vehicles/equipment at fueling stations, or when transferring fuel into portable tanks for use. The worker is distracted and responds within 5 minutes to stop the spill. In this case the spill is between 1000 – 5,000 L. Potential receptors from the spill include the tundra environment, the waterbody (Doris Lake), fish and/or wildlife habitat. Given the isolation of the site, there is no potential for impact on communities.

5 Training

All personnel working at the Hope Bay Mine receive onsite training through the initial site orientation. At that time, every employee is informed that he/she is potentially a First Responder to any spill or unanticipated discharge event and is provided a brief explanation of the actions expected of every First Responder and where to find the First Responder SOP (flow chart) which is included in the site spill kits. Spill response plans are also located in accessible public locations on site.

Supervisors provide task-specific training to workers using chemicals onsite which includes appropriate handling, storage, disposal, and where to find guidance on spill response for these chemicals. Workers are provided with information on spill response requirements and the locations of spill kits in their immediate work area. Spill response techniques are reviewed in departmental safety meetings by representatives of the Environmental department on an annual basis as part of a tool-box session. The lessons learned from spill investigations are communicated to all workers as corrective actions are developed.

Additionally, more detailed training is provided to workers involved in fuel offloading activities, through consultants having expertise in spill response and prevention. The instructional sessions include site safety, materials properties and strategies as well as tactics for containment and recovery in-facility, on land (brief) and on water spills. This training also includes the performance of mock spill response practical exercises (tabletop and field drills) in years of fuel offload, including deployment of spill response equipment under typical operating conditions.

Members of the ERT receive frequent training regarding a variety of incident scenarios and response techniques applicable at the Hope Bay Mine. This training includes response to fire, explosive or toxic incidents, including spill of materials that could result in these conditions.

As per the E2 Regulation, a yearly simulation exercise is conducted, and a full-scale exercise will occur every five years. Supervisory training of the *Spill Contingency Plan* occurs annually prior to the yearly simulation exercise. Debriefing of the simulation exercise will allow to determine the aspect of the current plan (training, prevention, communication) that will need to be improved. This *Spill Contingency Plan* is updated to reflect any key findings on improvements needed.

These training programs ensure that personnel understand the procedures in the *Spill Contingency Plan*, the hazards of the materials stored on-site, who is responsible for what activities, how to initiate a response, where to find and use response equipment, and how to obtain off-site resources. Training is delivered by the Health & Safety and Environment Groups. Supervisors are responsible to ensure that their employees are trained for the tasks.

5.1 Spill Response Simulation Exercises

A spill response simulation exercise will be conducted annually in coordination with Agnico Eagle Management and the ERT. The exercise will simulate one of the environmental emergencies identified in Appendix 1 for an E2 Schedule 1 listed hazardous chemical or product stored on site. The exercise will

simulate the release of one of these products to the environment and will test the response actions of the ICS and ERTs.

Every 5 years, a full-scale simulation exercise will be conducted which will test the response actions of the ICS and ERTs, and will include deployment of personnel, resources and equipment during the simulation.

Each annual exercise will simulate the release of a different E2 Schedule 1 listed product stored on site until all environmental emergencies identified in the Product Specific ERPs have been tested, at which point the cycle will begin again. ERPs for E2 Schedule 1 listed products stored on site are provided in Appendix 1 of this Plan.

Details of spill response simulation exercises will be documented and improvements identified will be incorporated into updates to the *Spill Contingency Plan* and ERPs. A record of these exercises, results and modifications to these plans will be maintained on file for 7 years per Section 21 of the E2 Regulations and available for inspection upon request.

Once completed, a notice regarding the simulation exercise will be submitted to the Minister as outlined in Schedule 5 of the E2 Regulations.

6 References

2010. *Consolidation of Environmental Protection Act* (R.S.N.W.T 1988, c.E-7). Current to August 29, 2010, Government of Nunavut.

2011. *Nunavut Waters and Nunavut Surface Rights Tribunal Act* (S.C.2002, c.10) Current to May 5, 2011, Aboriginal Affairs and Northern Development Canada.

Consolidation of Environmental Emergency Regulations (S.O.R. 2019-51). Current to November 19, 2019, Environment and Climate Change Canada.

Consolidation of Regulation R-068-93 Spill Contingency Planning and Reporting Regulations as provided by the Government of Nunavut website.

Contingency Planning and Spill Reporting in Nunavut, A Guide to the New Regulations. Environmental Protection Service, Department of Sustainable Development, Government of Nunavut.

Implementation Guidelines for Environmental Emergency Regulations. 2011. Environment and Climate Change Canada.

Canadian Wildlife Services. 2012. *Birds and oil-CWS Response Plan*.

INAC. 2007. *Guidelines for Spill Contingency Planning*. Water resource Division, Indian and Northern Affairs Canada, April 2007.

International Council on Metals and the Environment. 1999. *The Management of Cyanide in Gold Extraction.*

Mudder, T.I. *Cyanide Spills Prevention and Response.*

AGNICO EAGLE
HOPE BAY

SPILL CONTINGENCY PLAN

HOPE BAY, NUNAVUT

Module A: Doris

Module A: Doris

Conformity Table

License	Part	Item	Topic	Report Section
2AM-DOH1335	H	1.	The Licensee shall implement the following plans as approved by the Board: *Surface Emergency Response Plan*, *Underground Emergency Responses Plan*, and *Hope Bay Project Spill Contingency Plan*. The Licensee shall comply with the Plan(s) and any changes deemed significant shall require the submission and subsequent approval of the Board in writing.	This Plan
		2.	All sumps and fuel caches shall be located at a distance of at least thirty-one (31) metres from the ordinary High-Water Mark of any adjacent Water body and inspected on a regular basis.	Section 2 Section 4.6
		3.	The Licensee shall prevent any chemicals, petroleum products or wastes associated with the project from entering Water.	Section 2 Section 4.6
		4.	The Licensee shall provide secondary containment for fuel and chemical storage as required by applicable standards and acceptable industry practice.	Section 4.1
		5.	The Licensee shall perform weekly inspections of petroleum products storage and containment facilities, fuel tanks and connectors, for leaks and settlement and shall keep a written log of inspections to be made available to an Inspector upon request. More frequent inspections may be requested by an Inspector.	Section 4.1
		8.	The Licensee shall conduct emergency maintenance and servicing on equipment, in designated areas, and shall implement measures to collect motor fluids and other Waste to prevent and contain spills.	Section 4.4
		9.	The Licensee shall, subject to Section 16 of the Regulations, report any unauthorized deposits or foreseeable unauthorized deposits of waste and/or discharges of Effluent, and:	See below
		9a.	• employ the Spill Contingency Plan;	Section 2
		9b.	• report the incident immediately via the 24-Hour Spill Reporting Line *[see pg. iii Key Government Contact List]*, to the Inspector at [see pg. iii Key Government Contact List] and to the Kitikmeot Inuit Association at *[see pg. iii Key Government Contact List]*; and	Section 3.3
		9c.	• for each spill occurrence, submit a detailed report to the Inspector, no later than thirty (30) days after initially reporting the event, which includes the amount and type of spilled product, the GPS location of the spill, and the measures taken to contain and clean up the spill site.	Section 3.3
		10.	The Licensee shall, in addition to Part H, Item 9, regardless of the quantity of releases of harmful substances, report to the NWT/NU Spill Line if the release is near or into a Water body.	Section 3.3

License	Part	Item	Topic	Report Section
	I	11.	The Licensee shall submit to the Board for review, at least sixty (60) days prior to operation of the Roberts Bay Discharge System, an addendum to the Spill Contingency Plan detailing spill prevention measures along the pipeline.	A4
	Schedule B		The Annual Report referred to in Part B, Item 2 shall include the following:	See below
		8.	A list and description of all reportable unauthorized discharges including volumes, spill report line identification number and summaries of follow-up action taken	Section 3.3

A1 Introduction

The Type A Water License No. 2AM-DOH1335 issued by the NWB requires the development of a *Spill Contingency Plan* in accordance with Part I. The *Spill Contingency Plan* has been prepared and is being submitted by Agnico Eagle to address this requirement, and also includes the plan for spill response throughout the Hope Bay belt.

The 2AM-DOH1335 License area includes the Doris Camp and the necessary infrastructure to support surface exploration, underground mining and development activities, and ore processing. Refer to Module C of this plan for details and description of chemical storage related to Madrid infrastructure under this license.

A2 Chemical Storage at Doris

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A list of fuel and chemical storage facilities, containment capacity, products stored and maximum expected quantity to be stored within each facility for the Doris area is provided in Table A.1 below. Table A.1. is a comprehensive list of the chemical storage at Doris, exclusions under the E2 regulations have not been considered. Chemical storage locations are also depicted on the photographs provided below, in addition to the default spill kit locations. As mine activities evolve, chemical storage and use will be added as needed.

At the time of this revision, Ultra Low Diesel Fuel is the only substance on site that exceeds the maximum quantity limits for a container system, as specified under the E2 Regulations in column 4 of Part 1 or Part 2 of Schedule 1 for that substance. If additional substances exceed E2 Regulation limitations, this Plan will be updated accordingly.

Table A.1. Doris and Madrid Fuel and Chemical Storage and locations

Storage location	Facility Description / Storage facility	Container Description	Containment Capacity	Products Stored (Name)	SKU	Quantity stored	Max. Quantity per location	Maximum expected quantity per product	E2 Regs. Quantity	E2 Item / Cas#	E2 Hazard
Roberts Bay Bulk Fuel Storage Facility (Quarry 1 / ST-6a)	1 @ 5,000,000 L Tank	Field-erected	Gravel/HDPE, 6,270,000 L	Diesel Fuel	----	5,000,000L	5,000,000 L (1)	31,000,000 L	2,500,000 L	68334-30-5	Pool fire
Roberts Bay Bulk Fuel Storage Facility (ST-6b)	4 @ 5,000,000 L	Field-erected, individual tanks	Gravel/HDPE, 9,190,000 L	Diesel fuel	----	20,000,000 L	20,000,000 L				
Doris Camp Site Fuel Storage Facility (ST-5)	4 @ 1,500,000 L	Field Erected tanks interconnected with double manual valves and electrically interlocked motor actuated valve	Gravel/HDPE 2,976,000 L	Diesel fuel	----	6,000,000 L	6,000,000 L				
Batch Plant / equipment storage	4 @ 1240 L	Pre-fabricated double-walled, portable	Spill containment	Diesel Fuel	----	4 @ 1116 L (2)	4 @ 1116 L (2)				
Doris Helipad (office, washcar, coreshack)	3 @ 1240 L	Pre-fabricated double-walled, portable	Insta-berm, spill containment	Diesel Fuel	----	3 @ 1116 L (2)	3@ 1116 L (2)				
Doris Powerhouse	4 @ 5,000 L	Pre-fabricated double-walled, portable	4 @ 5,000 L each, Concrete	Diesel Fuel	----	20,000 L (1)	20,000 L (1)				
Roberts Bay Waste Management Facility	Internal tank @ 1,374 L	Pre-fabricated double-walled	Internal steel spill containment	Diesel Fuel	----	1,374 L (2)	1,374 L (2)				
Roberts Bay incinerator	1 @ 1,500 L (inactive) 1 @ 1,000 L (inactive)	Pre-fabricated double-walled Pre-fabricated double-walled	Steel Spill containment	Diesel Fuel	----	------	------				
Roberts Bay - Waste Management Facility Waste Oil Burner	1 @ 850 L	Pre-fabricated double-walled	Spill Containment	Diesel Fuel	----	850 L (2)	850 L (2)				
Roberts Bay Muster station	1 @ 1240 L	Pre-fabricated double-walled, portable	Steel Spill containment	Diesel Fuel	----	1,116 L (2)	1,116 L (2)				
Quarry 2 incinerator	1 @ 4,500 L	Pre-fabricated double-walled	Steel Spill containment	Diesel Fuel	----	4,500 L (1)	4,500 L (1)				
Doris Vent Raise	1 @ 70,000 L	Pre-fabricated double-walled, portable	Gravel/HDPE, 77,000 L	Diesel Fuel	----	70,000 L (1)	70,000 L (1)				
Doris Pump House	1 @1,240 L	Pre-fabricated double-walled, portable	HDPE/Wood spill containment	Diesel Fuel	----	1,116 L (2)	1,116 L (2)				
720 Water Treatment Plant	1 @ 1240 L	Pre-fabricated double-walled, portable	Steel Spill containment	Diesel Fuel	----	1@ 1116 L (2)	1@ 1116 L (2)				
740 Water Treatment Plant	1 @ 1240 L	Pre-fabricated double-walled, portable	Steel Spill containment	Diesel Fuel	----	1@ 1116 L (2)	1@ 1116 L (2)				
Effluent Water Treatment Plant	1 @ 4,633 L	Pre-fabricated double-walled	Steel Spill containment	Diesel Fuel	----	4,633 L (3)	4,633 L (3)				
Geotech Shop	3 @1,240 L	Pre-fabricated double-walled, portable	Steel spill containment	Diesel Fuel	----	1,116 L (2)	1,116 L (2)				

Storage location	Facility Description / Storage facility	Container Description	Containment Capacity	Products Stored (Name)	SKU	Quantity stored	Max. Quantity per location	Maximum expected quantity per product	E2 Regs. Quantity	E2 Item / Cas#	E2 Hazard
Main Shop	2 @1,240 L	Pre-fabricated double-walled, portable	Steel spill containment	Diesel Fuel	----	2 @ 1,116 L (2)	2 @ 1,116 L (2)				
1 @ 1,116 L (2)Windy pump house	1 @1,240 L	Pre-fabricated double-walled	Steel spill containment	Diesel Fuel	----	1 @ 1,116 L (2)	1 @ 1,116 L (2)				
Nuna shop	1 @ 5,000 L	Pre-fabricated double-walled,	Steel spill containment	Diesel Fuel	----	1 @ 5,000 L (3)	1 @ 5,000 L (3)				
Madrid communication tower	1 @ 2,275 L	Pre-fabricated double-walled,	Steel spill containment	Diesel Fuel	----	1 @ 2,275 L (3)	1 @ 2,275 L (3)				
Madrid – old portal	1 @ 2,275 L	Pre-fabricated double-walled,	Steel spill containment	Diesel Fuel	----	1 @ 2,275 L (3)	1 @ 2,275 L (3)				
Naartok portal	1 @ 5,000 L	Pre-fabricated double-walled,	Steel spill containment	Diesel Fuel	----	1 @ 5,000 L (3)	1 @ 5,000 L (3)				
Naartok vent raise	1 @ 10,000 L	Pre-fabricated double-walled,	Steel spill containment	Diesel Fuel	----	1 @ 2,275 L (3)	1 @ 2,275 L (3)				
Naartok UG garage	4 @ 4,600 L	Pre-fabricated double-walled,	Steel spill containment	Diesel Fuel	----	4 @ 4,600 L (3)	4 @ 4,600 L (3)				
Naartok tank farm	2 @ 45,500 L	Pre-fabricated double-walled,	Gravel/HDPE, 430,000 L		----	2 @ 45,500 L (3)	2 @ 45,500 L (3)				
Roberts Bay Bulk Fuel Storage Facility	1 @ 400,000 L Tank	Field-erected, individual tanks	Gravel/HDPE, 9,190,000 L	Jet-A – Fuel	----	400,000 L (1)	400,000 L (1)	1,900,000 L	NA	8008-20-6	NA
Doris Camp Site Fuel Storage Facility (ST-5)	1 @ 1,500,000 L tank	Field Erected tanks interconnected with double manual valves and electrically interlocked motor actuated valve	Gravel/HDPE 2,976,000 L	Jet-A - Fuel	----	1,500,000 L	1,500,000 L				
Lower Laydown	Seacan	Drums 205L	Seacan	Jet-A Fuel	332859	360 x 205L = 73,800L	73,800 L	73,800 L	NA	NA	NA
Roberts Bay	Seacan	Bags 20 kg	Seacans	Silica Sand	334085	31 x 20 kg = 620 kg	1,000kg	1,000kg	NA	NA	NA
	Seacan	Bags 25 kg	Seacans	Sodium Benzoate	334078	2,720 x 25 kg = 68,000kg	68,000kg	68,000 kg	NA	NA	NA
	Seacan	Mega bag 1,000kg (120 Lower laydown and 1,320 RB)	Seacan	Calcium Chloride	334280	1414 x 1,000kg = 1,414,000kg	1,414,000 kg	1,414,000 kg	NA	NA	NA
	Seacan	Bags 20kg	Seacan	Calcium salt 94%	333427	43,035 x 20kg = 86,700 kg	86,700kg	86,700kg			
	Seacan	Bags of 25 kg	Seacans	Flocculant High pH (Polyclear A650L)	334082	100 x 25 kg =2,500 kg	NA	NA	NA	NA	NA
Lower laydown	Seacan	NA	Seacans	Borax	334086	0 kg	NA	NA	NA	NA	NA
	Seacan	NA	Seacans	Caustic Soda (Sodium hydroxide)	334074	0 kg	NA	NA	NA	NA	NA
	Seacan	NA	Seacans	Copper Sulphate	334075	0 kg	NA	NA	NA	NA	NA
	Seacan	Bags of 25 kg	Seacans	Flocculant High pH (PolyClear N103)	335034	1,370 x 25 kg = 34,250 kg	NA	NA	NA	NA	NA
	Seacan	25 kg bags	Seacans	Flocculant Low pH (Magnafloc 10)	334083	576 x 25 kg = 14,400kg	14,400kg	14,400kg	NA	NA	NA
	Seacan	1000 kg tote	Seacans	Frother (Vanfroth 250)	334080	11 x 1000kg = 11 000 kg	11,000kg	11,000kg	NA	NA	NA
	Seacan	4 L bottles	Seacans	Hydrochloric Acid Bags 4L	195872	70 x 4L = 280 L	280 kg	280 kg	6.80 tonnes	7647-01-0	Inhalation hazard
	Seacan	Drums 240 kg	Seacans	Hydrochloric Acid	247158	0 kg	NA	NA			
	Seacan	1050 kg totes	Seacans	Promoter (Danafloat 245)	334081	11 x 1050 kg = 11,550 kg	11,550 kg	11,550 kg	NA	NA	NA
	Seacan	NA	Seacans	Sodium Metabisulphate (SMBS 1000kg bags)	334076	0 kg	NA	NA	NA	NA	NA
	Seacan	Bags 25 kg	Seacans	Soda Ash (Soda ash dense)	334347	849 x 25 kg = 22,225 kg	30,000kg	30,000kg	NA	NA	NA
	Seacan	Bags 25 kg	Seacans	Potassium Nitrate (44 bags at RB and 40 LL)	334087	84 x 25 kg = 2,100kg	5,000kg	5,000kg	NA	NA	NA

Storage location	Facility Description / Storage facility	Container Description	Containment Capacity	Products Stored (Name)	SKU	Quantity stored	Max. Quantity per location	Maximum expected quantity per product	E2 Regs. Quantity	E2 Item / Cas#	E2 Hazard
	Seacan	Totes 1000L	Seacans	Propylene Glycol (Coolant Glycol Propylene 60/40)	333640	22 x 1000L = 22,000L	22,000L	22,000L	NA	NA	NA
	Seacan	Totes 1040 L	Seacans	Glycol inhibited green	335163	72 x 1040L = 74,880L	74,880L	100,000L	NA	NA	NA
	Seacan	TW size cylinder (15kg)	Seacans	Acetylene	333326	105 x 15kg = 1,575 kg	1,815kg	4,000kg	4.5 tonnes	74-86-2	Explosion hazard
	Seacan	TW size cylinders (15kg)	Seacans	Acetylene (lab grade)	128211	16 x 15kg = 240kg					
	Seacan	100 pounds cylinder (45kg)	Seacans	Propane	333835	41 x 45 kg = 1,845 kg	1,845 kg	1,845 kg	4.5 tonnes	74-98-6	Explosion hazard
	Seacan	M size cylinders (7kg)	Seacans	Nitrogen	333729	48 x 7 kg = 336 kg	720 kg	720 kg	1.13 tonnes	10102-44-0	Inhalation hazard
	Seacan	S size cylinders (10kg)	Seacans	Argon C-25	338773	64 x 10kg = 640kg	640 kg	1,000 kg	NA	NA	NA
	Seacan	T size cylinder (25kg)	Seacans	Argon regular	134721	16 x 25kg = 400kg	400 kg	1,000 kg	NA	NA	NA
	Seacan	K size cylinders (15kg)	Seacans	Medical Oxygen	130386	29 x 15 kg = 435 kg	435 kg	435 kg	NA	NA	NA
	Seacan	K size cylinders (15kg)	Seacans	Cylinder oxygen	333760	194 x 15kg = 2,910 kg	2,910 kg	2,910kg	NA	NA	NA
	Seacan	Bags 22.68 kg	Seacans	Silica sand (Actisand, 7E-3003)	133552	10 x 22.68kg = 226,8 kg	3,000kg	3,000kg	NA	NA	NA
	Seacan	Totes 1,000 kg	Seacans	Sulfuric Acid 93% (Hydrex 9554) CAS 7664-93-9	249404	10 x 1,000 kg= 10,000kg	10 t	10 t	NA	NA	NA
	Seacan	Bags 25 kg	Seacans	Anionic Polymer (Hydrex 6105)	248717	640 x 25kg = 16,000kg	16t	16t	NA	NA	NA
TLR Reagent pad	Seacan	Drum 340kg	Seacans	Sulfuric Acid CAS 7664-93-7	335658	503 x 340kg = 171,020 kg	171 t	171 t	NA	NA	NA
	Seacan	Mega bags 1000kg	Seacan	Coagulant (Hydrex 3266)	346700	368 x 1,000kg = 368,000 kg	368t	368t	NA	NA	NA
	Seacan	NA	Seacans	Sodium Cyanide	334070	0 kg	NA	10 t	10t	10048-95-0	Aquatically toxic
Surface and Underground	Powder magazines	Individual bags of 25kg, 450kg and 500kg	NA	Ammonium Nitrate	NA	1,207,738 kg	NA	1,207,738 kg	20 tonnes	6484-52-2	Oxidizer that may explode

(1) Maximum Capacity of Container System
(2) Safe Fill Zone Capacity
(3) Normal quantity stored in container

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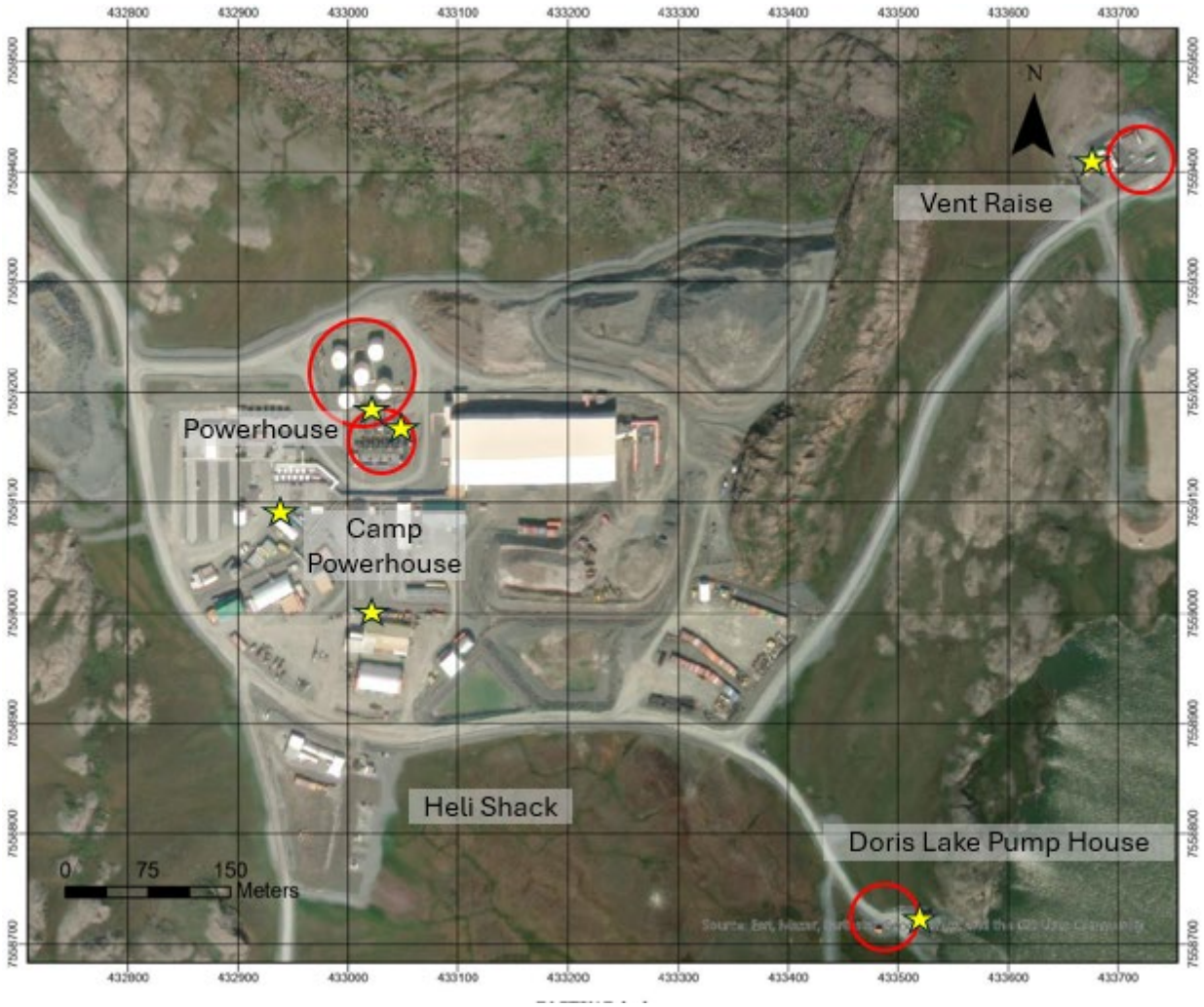
Plate A.1. Roberts Bay Laydown (Note: Red outlines are fuel or chemical storage locations, smaller containment locations may vary. Yellow stars [or a yellow circle in the case of the aquatic mobile response spill response equipment] indicate default spill kit locations.)



V19

Plate A.2. Doris Camp (Note: Red circles are fuel or chemical storage locations; smaller containment locations may vary. Yellow stars indicate default spill kit locations.) Additional fuel may be added at Doris in the future. The Plan will be updated accordingly at that time.

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Plate A.3. Effluent Water Treatment Plant and TLR Reagent Pad (Note: Red circles are fuel or chemical storage locations; smaller containment locations may vary. Yellow stars indicate default spill kit locations.)

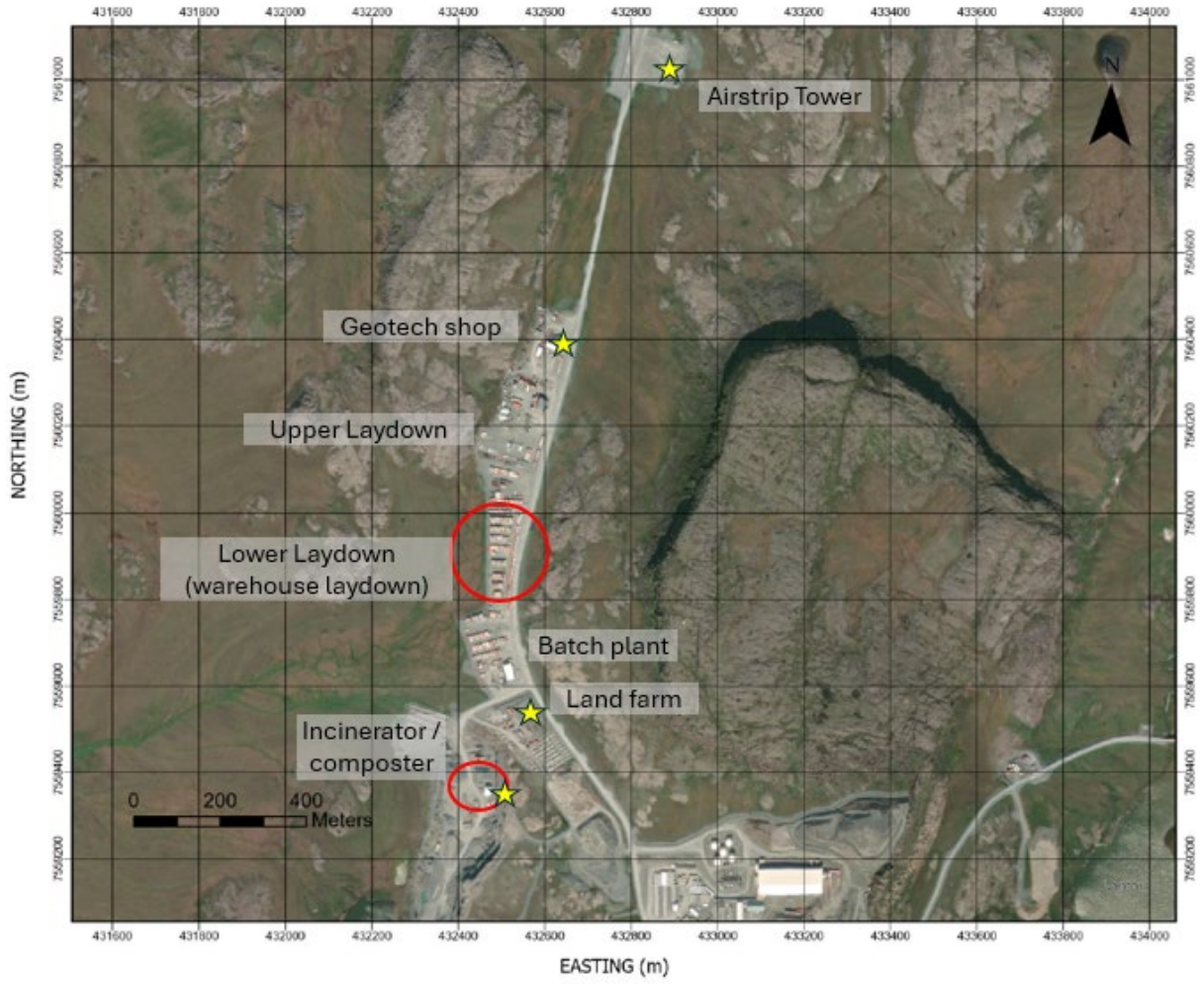

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Plate A.4. Quarry 2, Laydowns, Airstrip (Note: Red circles are fuel or chemical storage locations, smaller containment locations may vary. Yellow stars indicate default spill kit locations.)

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Plate A.5. Explosive Magazine (Note: Yellow star indicate default spill kit locations.)

A3 Water Treatment Process

Underground mine water is pumped from a settling sump system to a Water Treatment Plant (WTP) on surface designed to provide Total Suspended Solids (TSS) removal from the effluent stream prior to being pumped to the Roberts Bay Discharge System (RBDS) Water Management Facility and to final discharge to Roberts Bay. The multi-stage process consists of coarse suspended solids removal via a lamella clarifier and the addition of a polymer flocculent and coagulant followed by fine suspended solids removal utilizing multimedia filters. This treatment process is capable of meeting the authorized limits for TSS outlined in Schedule 4 of the MDMER.

Agnico Eagle plans to install an additional WTP to treat TSS, in the vicinity of the reclaim pond at the TIA, that utilizes the Veolia Actiflo® technology. The WTP will have the capacity to treat both underground and reclaim water streams prior to discharge to Roberts Bay. The Veolia system consists of a flocculation and sedimentation process with patented micro sand. The WTP will also have capability to be expanded to treat metals and ammonia when required.

A4 Roberts Bay Discharge System

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The RBDS is designed to transport compliant effluent from the Doris underground mine and excess water from the TIA to one or two subsea diffusers extending into Roberts Bay. The RBDS consists of an insulated pipeline, the Roberts Bay Discharge Pipeline, which runs from the RBDS Water Management Facility, along to the Primary Road and the airstrip to the Roberts Bay Laydown Areas. At Roberts Bay the pipeline runs in front of the fuel tank farm, along the south side of the Roberts Bay Jetty Access Road and laydown pads, to the Roberts Bay shoreline along the south side of the Roberts Bay Discharge Access Road.

A5 Spill Prevention

All pipelines in the system are constructed from HDPE material resistant to wear. Each pipe connection has been fuse-welded to remove the risk introduced by Victaulic clamp installations which are susceptible to expansion during freeze/thaw conditions and wear resulting in leaks. The number of elbow joints on the pipelines has been minimized to the extent possible; elbow joints are more susceptible to wear over time due to increased force/pressure of effluent travelling through the joint. The system will operate at relatively low pressures, therefore leakage from normal operating modes is highly unlikely.

Flow meters have been installed between the TIA Intake Pump station and the RBDS Water Management Facility, and between the RBDS Water Management Facility and the Marine Outfall Berm Pump station to monitor flow within the pipeline. These flow meters are connected by fibre optic communication lines linked to a PLC system which communicates real-time flow measurements to the Admin server room. The Admin Server room allow for continuous monitoring of the discharge pipeline. An unanticipated drop in flow registered on these flow meters will trigger an immediate inspection of the pipeline to investigate cause. If a leak is detected during this inspection, discharge from the pipeline will be immediately shut down minimizing the volume of the release.

Inline instrumentation has been installed to measure TSS in each effluent stream prior to being combined. TSS is also measured after the effluent streams have been combined to determine compliance with the authorized limits for TSS outlined in Schedule 4 of the MDMER prior to discharge from the Final Discharge Point (FDP) to the environment. Low and high level alarms have been established to provide early notification of an increase in TSS to the Process Plant Control Room. If the low level alarm is triggered, the Water Treatment Operator is notified and is able to respond to any potential treatment upsets. If the high level alarms are triggered for either effluent stream, the system is automatically placed into recirculation back to the TIA until effluent streams are determined to be in compliance with the authorized discharge limits, and discharge to the environment may then be resumed. This real time monitoring significantly reduces the likelihood of non-compliant effluent being discharged to the environment.

The pipeline connecting the Underground sump system to the RBDS Water Management Facility is located upstream of the Doris Contact Water Ponds. Any leak from this system is designed to report to these water management ponds and be transferred to the TIA.

Delineators are used to mark pipelines to ensure vehicle and equipment operators are aware of pipeline locations when travelling on site roads. Pipelines in this system have been aligned adjacent to roadways to the extent possible to allow for thorough inspections and to reduce the risk of vehicle and equipment interaction with the pipelines.

Pipeline inspections are conducted during each 12hr shift. This inspection includes driving the entire length of the pipeline and visually assessing the line for signs of leaks or spills.

AGNICO EAGLE
HOPE BAY

SPILL CONTINGENCY PLAN

HOPE BAY, NUNAVUT

Module B: Windy

Module B: Windy

Conformity Table

License	Part	Item	Topic	Report Section
2BE-HOP2232	B	2.	The Licensee shall file an Annual Report on the appurtenant undertaking with the Board no later than March 31st of the year following the calendar year being reported which shall contain the following information:	See below
		2.e	• an update to the Spill Contingency Plan, if required, including contact information in the form of an addendum.	This report
	H	1.	The Licensee has submitted, September 23, 2011, a Spill Contingency Plan entitled Hope Bay Mine Spill Contingency Plan, for the Hope Bay Mine, which encompasses the Hope Bay Belt projects including Roberts Bay, the Doris, Boston and Windy camps. This Plan covers the Windy Camp with respect to Care & Maintenance of the site. The Licensee shall submit to the Board for approval in writing, within ninety (90) days of issuance of this License, a revised Plan that takes into consideration the status of the entire Hope Bay Belt project as it influences the activities, environmental and safety issues of the Windy Camp and the Hope Bay Regional Exploration Project.	This report
		2.	Licensee shall submit to the Board for approval in writing, sixty (60) days prior to the resumption of exploration activity at the Hope Bay Regional Exploration Project, a revised Spill Contingency Plan that is specific to the scope of this License and prepared in accordance with the *Spill Contingency Planning and Reporting Regulations* developed under Section 34 of the *Environmental Protection Act*.	Plan filed in March 2014, updated here. Sections 2 and B2
		3.	The Licensee shall, if not approved by the Board, revise the Plan referred to in Part H, Item 1, and resubmit to the Board for approval within thirty (30) days of receiving notification of the Board's decision.	Section 1.5
		4.	The Licensee shall implement the Plan specified in Part H, Item 1 as and when approved by the Board.	Section 1.5
		5.	The Licensee shall review the Plan referred to in this Part as required by changes in operation and/or technology and modify the Plan accordingly. Revisions to the Plan are to be submitted in the form of an Addendum, to be included with the Annual Report unless directed otherwise by an Inspector.	Section 1.4
		6.	The Licensee shall ensure that any chemicals, petroleum products or wastes associated with the project do not enter water. All sumps and fuel caches shall be located at a distance of at least thirty one (31) metres from the ordinary high water mark of any adjacent water body and inspected on a regular basis.	Section 2 Section 4.6
		7.	The Licensee shall ensure that any equipment maintenance and servicing be conducted only in designated areas and shall implement special procedures (such as the use of drip pans) to manage motor fluids and other waste and contain potential spills.	Section 4.4
		8.	If during the term of this License, an unauthorized discharge of waste occurs, or if such a discharge is foreseeable, the Licensee shall:	See below
		8a.	• employ the Spill Contingency Plan;	Section 2
		8b.	• report the spill immediately to the 24-Hour Spill Line and to the Inspector at *[see pg. iii Key Government Contact List]*; and	Section 3.3
		8c.	• for each spill occurrence, submit to the Inspector, no later than thirty (30) days after initially reporting the event, a detailed report that will include the amount and type of spilled product, the GPS location of the spill, and the measures taken to contain and clean up the spill site.	Section 3.3

B1 Introduction

The Type B Water License No. 2BE-HOP2232 issued by the NWB requires the development of a *Spill Contingency Plan* in accordance with Part H. The *Spill Contingency Plan* has been prepared and is being submitted by Agnico Eagle to address this requirement, and also includes the plan for spill response throughout the Hope Bay belt.

The vacant Windy Camp at Windy Lake has been dismantled and decommissioned.

B2 Chemical Storage at Windy

Windy Camp was located 10km south of Doris Camp at N 68° 03.715' W 106° 37.109' and is now decommissioned. Fuel storage at Windy Camp area is limited to one tank (double-walled Tidy Tank) containing a maximum of 1240L of diesel fuel. The fuel tank is inside the pumphouse and has spill containment. This tank is located more than 31 m from any waterbody and fuels a generator used to heat a pump house structure located at the potable freshwater intake south of Windy Camp. Water is used to supply Doris Camp with potable water, and regular inspection of this facility occurs as per the requirements of the Doris water licence. In case of a potential spill involving the Tidy Tank, there is a spill kit located at the pump house (at the shoreline).

In case of exploration drilling on land and on ice, chemicals will be brought in to assist with the drilling process and stored within secondary containment. Each drill will have its own fully stocked spill kit and chemicals stored will be kept to an amount needed for each shift.

One permitted facility for explosives materials is located at Quarry A on the west side of the Doris-Windy all-weather road. This facility can store a maximum of 40,800 kg of explosive materials containing ammonium nitrate. In the event of a spill of this material, the spill response actions would be completed as outlined in the Product Specific ERP in Appendix 1 of this document.

B3 Windy Potable Water Pumphouse Location

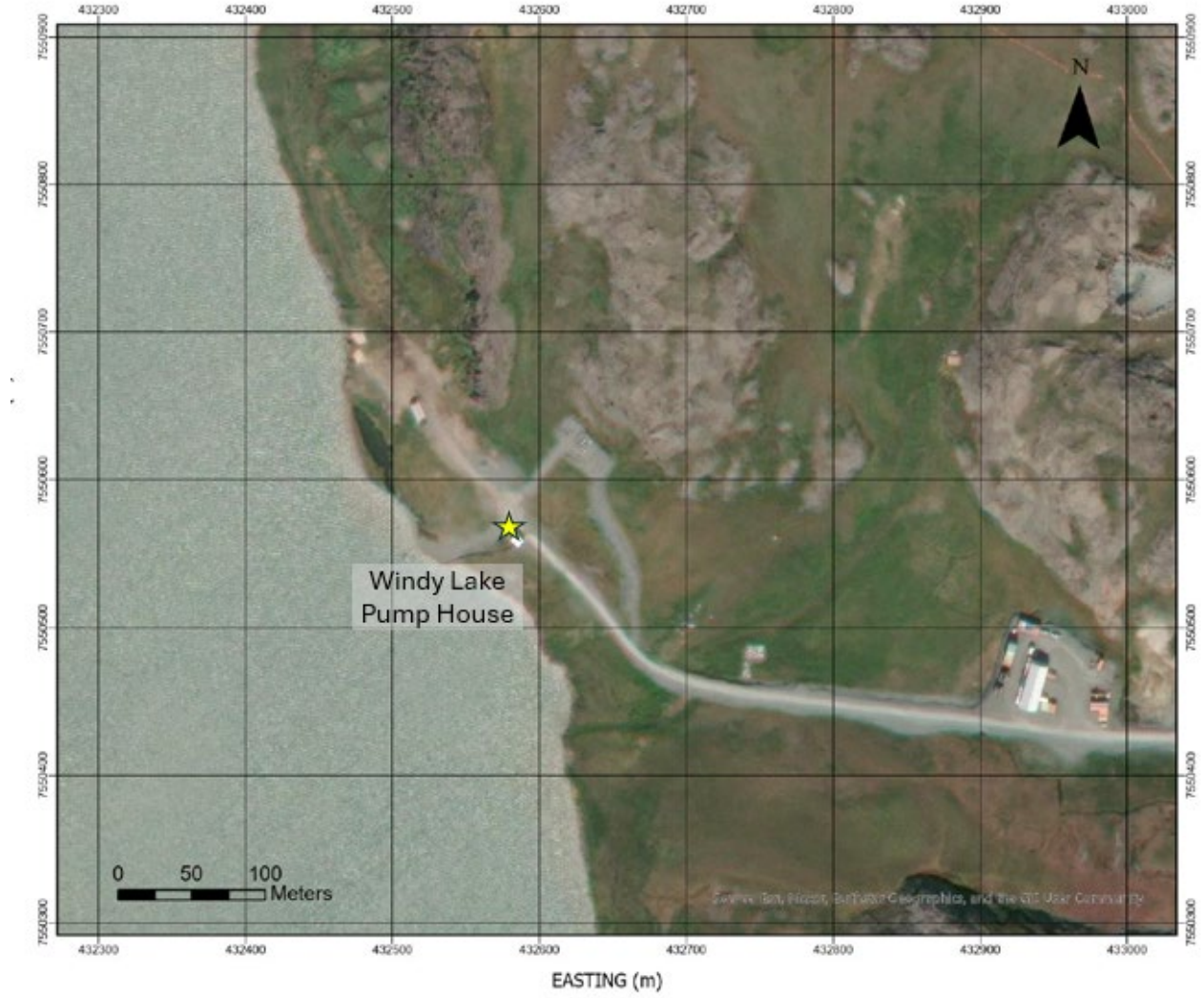

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Plate B.1. Former Windy Camp (Note: Red circle is fuel storage location. Yellow star indicates spill kit location.)

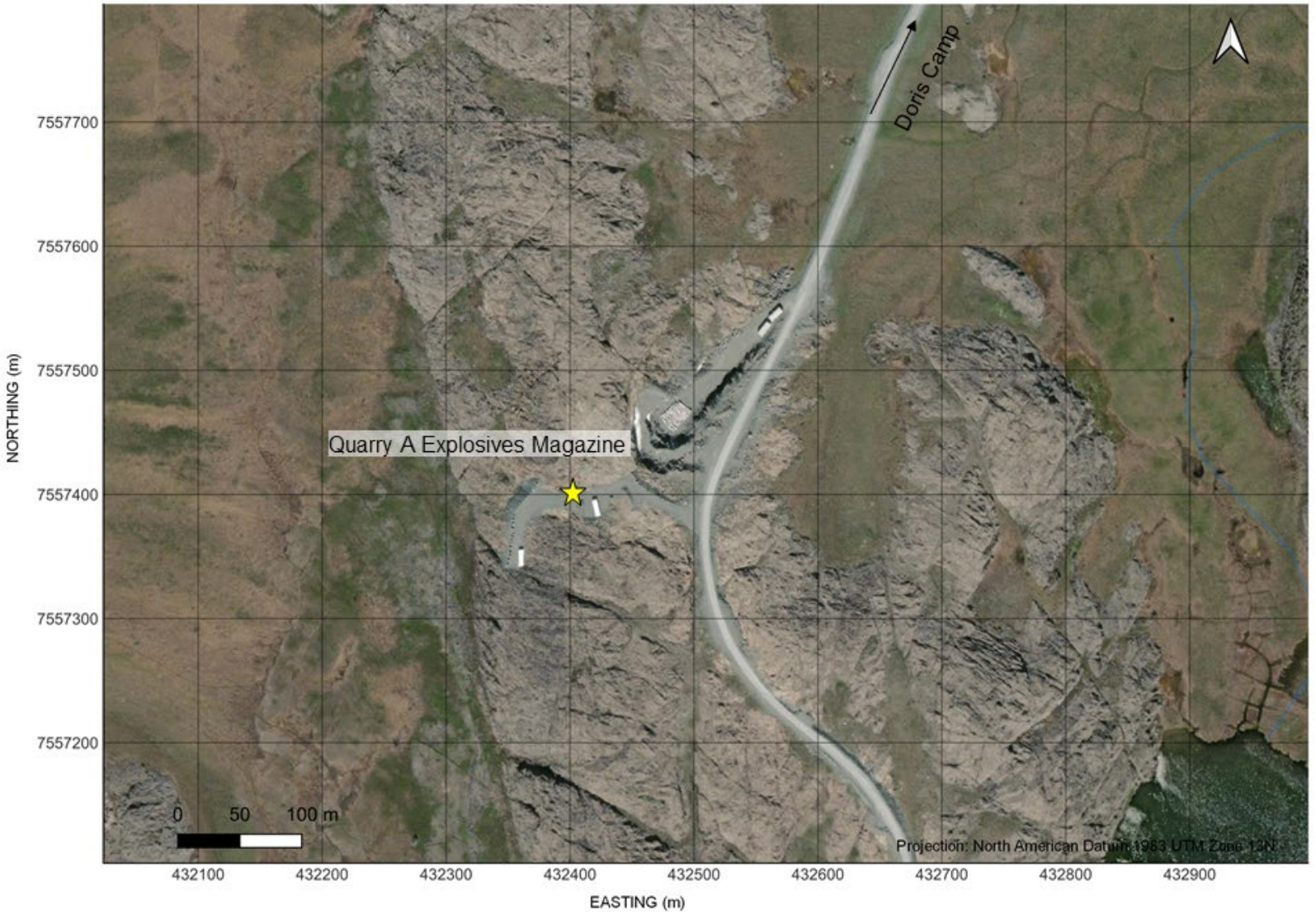

Plate B.2. Quarry A Explosives Magazine (Note: Yellow star indicates spill kit location.)

AGNICO EAGLE
HOPE BAY

SPILL CONTINGENCY PLAN

HOPE BAY, NUNAVUT

Module C: Madrid
(Exploration and Operations)

Module C: Madrid

Conformity Table

License	Part	Item	Topic	Report Section
2AM-DOH1335	H	1.	The Licensee shall implement the following plans as approved by the Board: Surface Emergency Response Plan, Underground Emergency Responses Plan, and Hope Bay Mine Spill Contingency Plan. The Licensee shall comply with the Plan(s) and any changes deemed significant shall require the submission and subsequent approval of the Board in writing.	This Plan
		2.	All sumps and fuel caches shall be located at a distance of at least thirty one (31) metres from the ordinary High Water Mark of any adjacent Water body and inspected on a regular basis.	Section 2 Section 4.6
		3.	The Licensee shall prevent any chemicals, petroleum products or wastes associated with the project from entering Water.	Section 2 Section 4.6
		4.	The Licensee shall provide secondary containment for fuel and chemical storage as required by applicable standards and acceptable industry practice.	Section 4.1
		5.	The Licensee shall perform weekly inspections of petroleum products storage and containment facilities, fuel tanks and connectors, for leaks and settlement and shall keep a written log of inspections to be made available to an Inspector upon request. More frequent inspections may be requested by an Inspector.	Section 4.1
		8.	The Licensee shall conduct emergency maintenance and servicing on equipment, in designated areas, and shall implement measures to collect motor fluids and other Waste to prevent and contain spills.	Section 4.4
		9.	The Licensee shall, subject to Section 16 of the Regulations, report any unauthorized deposits or foreseeable unauthorized deposits of waste and/or discharges of Effluent, and:	See below
		9a.	• employ the Spill Contingency Plan;	Section 2
		9b.	• report the incident immediately via the 24-Hour Spill Reporting Line [see pg. iii Key Government Contact List], to the Inspector at [see pg. iii Key Government Contact List] and to the Kitikmeot Inuit Association at *[see pg. iii Key Government Contact List]*; and	Section 3.3
		9c.	• for each spill occurrence, submit a detailed report to the Inspector, no later than thirty (30) days after initially reporting the event, which includes the amount and type of spilled product, the GPS location of the spill, and the measures taken to contain and clean up the spill site.	Section 3.3
		10.	The Licensee shall, in addition to Part H, Item 9, regardless of the quantity of releases of harmful substances, report to the NWT/NU Spill Line if the release is near or into a Water body.	Section 3.3
	I	11.	The Licensee shall submit to the Board for review, at least sixty (60) days prior to operation of the RBDS, an addendum to the Spill Contingency Plan detailing spill prevention measures along the pipeline.	A4
	Schedule B		The Annual Report referred to in Part B, Item 2 shall include the following:	See below
		8.	A list and description of all reportable unauthorized discharges including volumes, spill report line identification number and summaries of follow-up action taken	Section 3.3

License	Part	Item	Topic	Report Section
2BB-MAE1727	B	2.	The Licensee shall file an Annual Report on the Appurtenant Undertaking with the Board no later than 31st of March, of the year following the calendar year being reported, containing the following information:	See below
		2j.	• Updates or revisions to the Water Management Plan, Abandonment and Restoration Plan, QA/QC, Waste Rock and Ore Storage Plan, and Spill Contingency Plan and/or any other management plan.	This Plan
	H	1.	The Licensee shall submit for Board approval in writing, within ninety (90) days following issuance of the License, a spill contingency Plan that is specific to the scope of this License, addresses comments received by the parties, and is prepared in the format set out by the Consolidation of Spill Contingency Planning and Reporting Regulations, R-068-93.	This Plan
		2.	The Licensee shall prevent any chemicals, petroleum products or wastes associated with the project from entering water. All Sumps and fuel caches shall be located at a distance of at least thirty-one (31) metres from the ordinary High Water Mark of any adjacent water body and inspected on a regular basis.	Section 2 Section 4.1
		3.	The Licensee shall conduct any equipment maintenance and servicing in designated areas and shall implement special procedures (such as the use of drip pans) to manage motor fluids and other waste and contain potential spills.	Section 4.4
		4.	If during the term of this License, an unauthorized discharge of waste occurs, or if such a discharge is foreseeable, the Licensee shall:	See below
		4a.	• employ the Spill Contingency Plan;	This plan
		4b.	• report the spill immediately to the 24-Hour Spill Line at *[see pg. iii Key Government Contact List]* and to the Inspector at *[see pg. iii Key Government Contact List]*; and	Section 3.3
		4c.	• for each spill occurrence, submit to the Inspector, no later than thirty (30) days after initially reporting the event, a detailed report that will include the amount and type of spilled product, the GPS location of the spill, and the measures taken to contain and clean up the spill site.	Section 3.3
		5.	The Licensee shall, in addition to Part H, Item 4, regardless of the quantity of releases of harmful substances, report to the NWT/NU Spill Line if the release is near or into a Water body.	Section 3.3

C1 Introduction

The Type A Water License No. 2AM-DOH1335 and the Type B Water License No. 2BB-MAE1727 issued by the NWB requires the development of a *Spill Contingency Plan* in accordance with Part H. The *Spill Contingency Plan* has been prepared and is being submitted by Agnico Eagle to address this requirement, and also includes the plan for spill response throughout the Hope Bay belt.

The 2AM-DOH1335 License Area includes the Madrid North and Madrid South sites. Work at the Madrid North site began in 2019 and includes the necessary infrastructure to support surface mining at the Naartok East Crown Pillar trench and underground mining at the Madrid North portal.

Agnico Eagle is developing an underground ramp at Madrid for exploration purposes. Exploration activities are also conducted in the area of Madrid South.

C2 Chemical Storage at Madrid North and Madrid South

See Table A1 for a list of fuel and chemical storage facilities, containment capacity, products stored and maximum *expected quantity* to be stored within each facility for the Madrid North. The Madrid/Naartok ramp development and exploration plan are being constructed in accordance with the FEIS and associated permits. Currently (subject to change within permitted scopes) fuel volumes are on site and are illustrated in Table A1. With mobile equipment, generators and similar, locations are subject to change within regulatory requirements.

C3 Madrid Fuel and Chemical Storage Locations

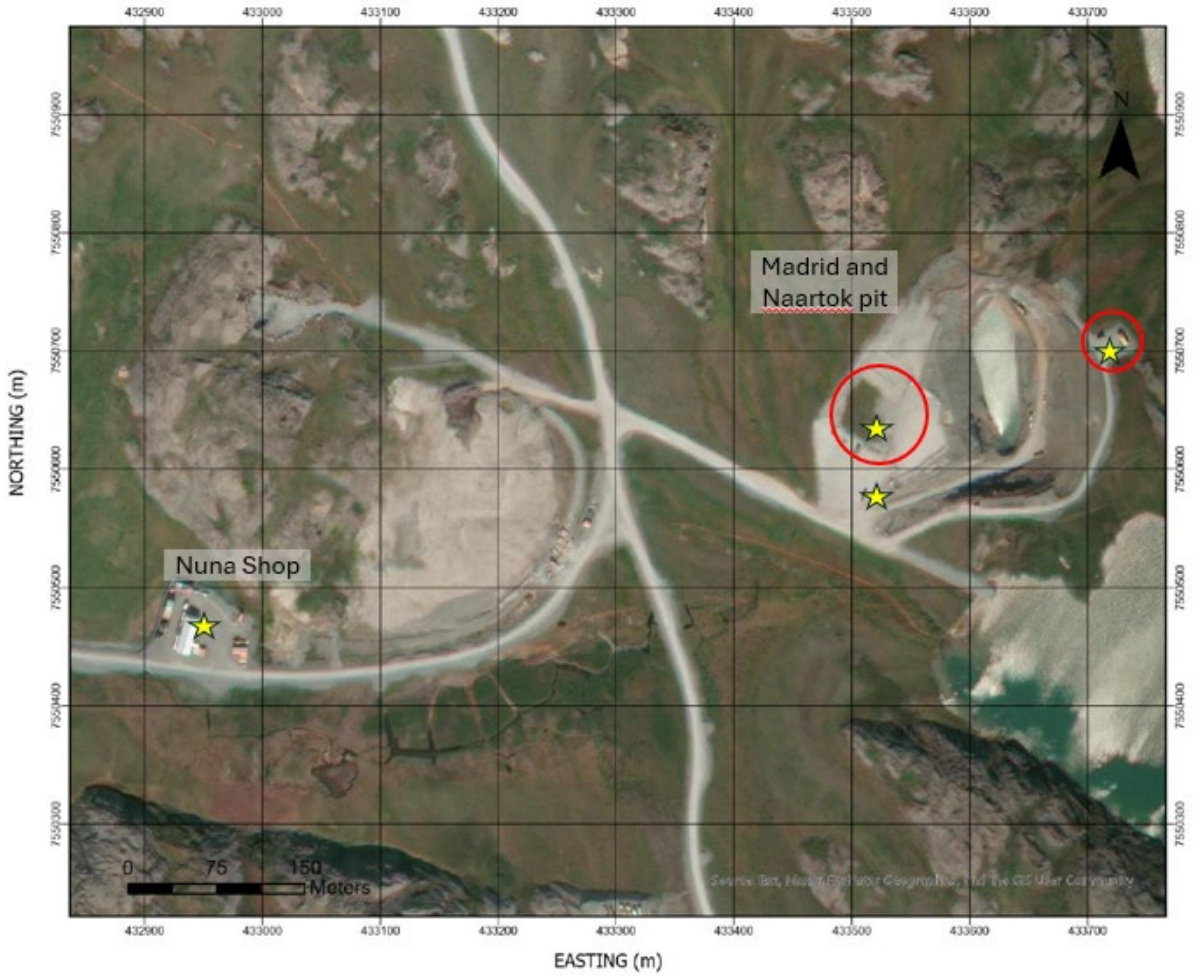

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Plate C.1. Surface Equipment Shop and Naartok East Crown Pillar Recovery Trench (Note: Red circles are fuel or chemical storage locations, smaller containment locations may vary. Yellow stars indicate default spill kit locations.)

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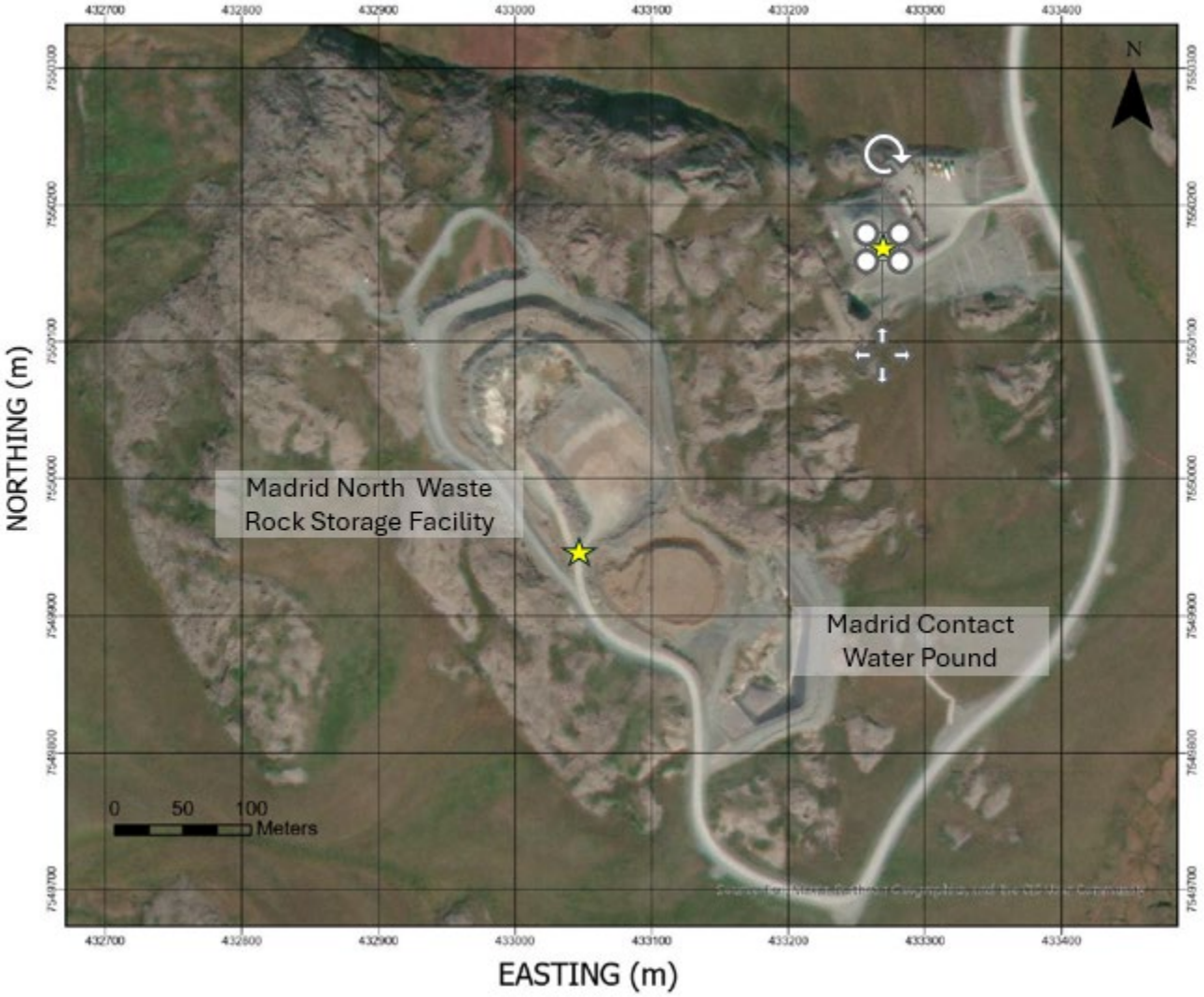

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Plate C.2. Madrid North Contact Water Pond and Waste Rock Pad (Note: Yellow stars indicate default spill kit locations.)

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SPILL CONTINGENCY PLAN

HOPE BAY, NUNAVUT

Module D: Boston
(Exploration and Operations)

Module D: Boston

Conformity Table

License	Part	Item	Topic	Report Section
2BB-BOS1727	B	9.	The Licensee shall file an Annual Report on the appurtenant undertaking with the Board no later than March 31st of the year following the calendar year being reported which shall contain the following information:	See below
		9l.	• updates or revisions to the Abandonment and Restoration Plan, QA/QC, Waste Rock and Ore Storage Plan, Spill Contingency Plan, and Landfarm Plan.	This Plan
	H	2.	The Licensee shall prevent any chemicals, petroleum products or wastes associated with the project from entering Water. All Sumps and fuel caches shall be located at a distance of at least thirty-one (31) metres from the ordinary High Water Mark of any adjacent Water body and inspected on a regular basis.	Section 2 Section 4.1
		3.	The Licensee shall conduct any equipment maintenance and servicing in designated areas and shall implement special procedures (such as the use of drip pans) to manage motor fluids and other waste and contain potential spills.	Section 4.4
		4.	If during the term of this License, an unauthorized discharge of waste occurs, or if such a discharge is foreseeable, the Licensee shall:	See below
		4a.	• employ the Spill Contingency Plan;	This plan
		4b.	• report the spill immediately to the 24-Hour Spill Line at *[see pg. iii Key Government Contact List]* and to the Inspector at *[see pg. iii Key Government Contact List]*; and	Section 3.3
		4c.	• for each spill occurrence, submit to the Inspector, no later than thirty (30) days after initially reporting the event, a detailed report that will include the amount and type of spilled product, the GPS location of the spill, and the measures taken to contain and clean up the spill site.	Section 3.3
		5.	The Licensee shall, in addition to Part H, Item 4, regardless of the quantity of releases of harmful substances, report to the NWT/NU Spill Line if the release is near or into a Water body.	Section 3.3
2AM-BOS1835	H	1.	The Licensee shall implement the following plans as approved by the Board: *Surface Emergency Response Plan*, *Underground Emergency Responses Plan*, and *Hope Bay Mine Spill Contingency Plan*. The Licensee shall comply with the Plan(s) and any changes deemed significant shall require the submission and subsequent approval of the Board in writing.	This Plan
		2.	All sumps and fuel caches shall be located at a distance of at least thirty one (31) metres from the ordinary High Water Mark of any adjacent Water body and inspected on a regular basis.	Section 2 Section 4.6
		3.	The Licensee shall prevent any chemicals, petroleum products or unauthorized Wastes associated with the project from entering Water.	Section 2 Section 4.6
		4.	The Licensee shall provide secondary containment for fuel and chemical storage as required by applicable standards and acceptable industry practice.	Section 4.1
		5.	The Licensee shall perform regular inspections of Fuel Storage and Containment Facilities, Sumps, Emergency Dump Catch Basins, other fuel tanks and connectors for leaks and movement and shall keep a written log of inspections to be made available to an Inspector upon	Section 4.1

License	Part	Item	Topic	Report Section
			request. More frequent inspections may be required at the request of an Inspector	
		8.	The Licensee shall conduct emergency maintenance and servicing on equipment, in designated areas, and shall implement measures to collect motor fluids and other Waste to prevent and contain spills.	Section 4.4
		9.	The Licensee shall, subject to Section 16 of the Regulations, report any unauthorized deposits or foreseeable unauthorized deposits of waste and/or discharges of Effluent, and:	See below
		9a.	• employ the Spill Contingency Plan;	Section 2
		9b.	• report the incident immediately via the NT-NU 24-Hour Spill Reporting Line *[see pg. iii Key Government Contact List]* and to the Inspector at *[see pg. iii Key Government Contact List]*; and	Section 3.3
		9c.	• for each spill occurrence, submit a detailed report to the Inspector, no later than thirty (30) days after initially reporting the event, which includes the amount and type of spilled product, the GPS location of the spill, and the measures taken to contain and clean up the spill site.	Section 3.3 Section D3.2
		10.	The Licensee shall, in addition to Part H, Item 9, regardless of the quantity of release of harmful substance, report to the NT-NU 24-Hour Spill Report Line if the release is near or into a Water body.	Section 3.3
		11.	The Licensee shall submit to the Board for review, at least sixty (60) days prior to operation of the Aimaokatalok Lake Discharge System, an addendum to the Spill Contingency Plan detailing spill prevention measures along the pipeline.	To be provided 60 days prior to operation of Aimaokatalok Lake Discharge System
	Schedule B		The Annual Report referred to in Part B, Item 2 shall include the following:	See below
		8.	A list and description of all reportable unauthorized discharges including volumes, spill report line identification number and summaries of follow-up action taken.	Section 3.3

D1 Introduction

The Type A Water License No. 2AM-BOS1835 and Type B Water License No. 2BB-BOS1727 issued by the NWB require the development of a *Spill Contingency Plan* in accordance with Part H. The *Spill Contingency Plan* has been prepared and is being submitted by Agnico Eagle to address this requirement, and also includes the plan for spill response throughout the Hope Bay belt.

The 2BB-BOS1727 License Area includes the current Boston Camp site, which is opened seasonally to support exploration activities.

Facilities outlined in the 2AM-BOS1835 License have not yet been constructed and there is no activity occurring at Boston Camp under this license at this time.

D2 Chemical Storage at Boston

Photos of current chemical storage locations and a list of current fuel and chemical storage facilities, containment capacity, products stored and maximum expected quantity to be stored within the facility for the Boston License area is provided below. All storage facilities are located at a distance greater than 31m from any water body.

Photos of anticipated fuel and chemical storage locations associated with facilities identified in the license 2AM-BOS1835 for the Boston Project will be provided when these facilities are constructed.

The current and anticipated fuel and chemical storage facilities, containment capacity, products stored and maximum expected quantity to be stored within each facility associated with development of Boston are provided in Table D.1 below. Table D.1 is a comprehensive list of the chemical storage at Boston, exclusions under the E2 regulations have not been considered.

D3 Additional Spill Contingency Management at Boston

D3.1 Issue: Bulk Fuel Tank Farm

Eight fuel tanks are currently located in a lined fuel berm covered with crush material at the Boston Site. The berm was constructed on permafrost and the crush pad is thin in some areas which may lead to permafrost degradation beneath the berm over time. Foundation settlement of the tanks due to permafrost degradation could potentially occur over time and could cause the fuel tank to destabilize creating risk of one or more of the fuel tanks to destabilize and tip.

D3.2 Management Response

Fuel tanks are visually monitored for differential settlement during seasonal visits when the Boston site is accessible and during annual geotechnical inspections. Measurements of tank movement may also be collected if visual monitoring indicates a potential issue with one or more of the tanks. This may involve

measuring the vertical angle of the fuel tank sidewall. A comparison of these values over time will indicate if differential settlement is occurring.

If settlement of the fuel tanks at the Boston site are detected beyond an acceptable limit, Agnico Eagle will discontinue the use of the tank(s) that are affected by settlement and engage the Engineer of Record for guidance and recommendations for correcting the settlement issue.

Table D.1. Boston Fuel and Chemical Storage Total Quantities

Products Stored	Max. Stored	E2 Quantity	E2 Item / Cas#	E2 Hazard	Notes and Comments
Diesel Fuel	**7,884 KL**	**2,500 KL per tank**	**221 / 68334-30-5**	**Pool Fire**	**Under E2 Minimums**
Jet Fuel	**53 KL**	**Undersized Tanks**	**221 / 68334-30-5**	**Pool Fire**	**Under E2 Minimums**
Gasoline	**1.236 KL**	**Undersized Tanks**	**225 / 86290-81-5**	**Pool Fire**	**Under E2 Minimums**

Table D.2. Boston Fuel and Chemical Storage Locations

Location*	Facility Description/ Storage Capacity	Tank Description	Containment Capacity	Products Stored	Expected Quantity Stored
Camp Bulk Fuel Storage Facility	6 @ 77,000L Tanks 2 @ 33,500L Tanks	Pre-fabricated	Gravel/HDPE, 84,700 L	Diesel Fuel	377,127 L (1)
Fuelling Stations (tidy tank beside bulk storage)	1 @ 1374 L	Pre-fabricated, double-walled, portable	Gravel/HDPE spill containment	Diesel Fuel	1236 L (2)
Fuelling Stations (fly tank beside bulk storage)	1 @ 785 L	Pre-fabricated, double-walled, portable	Gravel/HDPE spill containment	Gasoline	628 L (2)
Helipad	Drum storage (8 drums)	Drums	Plastic spill pallets, 220 L each	Jet A Fuel	1,640 L (1)
Jet A fuel storage	Drum storage (Portable Insta-Berm)	Drums	2 x 25,500 L	Jet A Fuel	51,250 L (1)
Generator Day tanks	2 @ 1240 L	Pre-fabricated, double-walled	Gravel/HDPE spill containment (2)	Diesel Fuel	2232 L (2)
Tent Heaters Day tank	1 @ 1374 L	Pre-fabricated, double-walled	Gravel/HDPE spill containment	Diesel Fuel	1236 L (2)
Day tank (inside)	1 @ 350 L	Pre-fabricated, double-walled	Steel floor and kickplate	Diesel Fuel	315 L (2)
Camp Daytank (NE side of camp between main camp and tents	1 @ 1374 L	Pre-fabricated, double-walled	Gravel/HDPE spill containment	Diesel Fuel	1236 L (2)
Incinerator	1 @ 400 L	Pre-fabricated, double-walled	Steel spill containment	Diesel Fuel	360 L (1)
Secondary Fuel Storage	8 – 50,000 L	Pre-fabricated, double-walled	HDPE, Arctic-shield Insta-Berm	Diesel Fuel	360,000L (2)
Bulk Fuel Storage Facility**	5 @ 1,500,000	Field erected	Gravel/HDPE spill containment	Diesel Fuel	7,500,000

(1) Maximum Capacity of Container System
(2) Safe Fill Zone Capacity
(3) Normal quantity stored in container

** Additional portable storage facilities may be used depending on Project activity.*

*** Anticipated fuel storage as part of proposed Phase 2 Boston development outlined in Type A Water License 2AM-BOS1835. Facility not constructed at this time.*

D4 Boston Fuel and Chemical Storage Locations

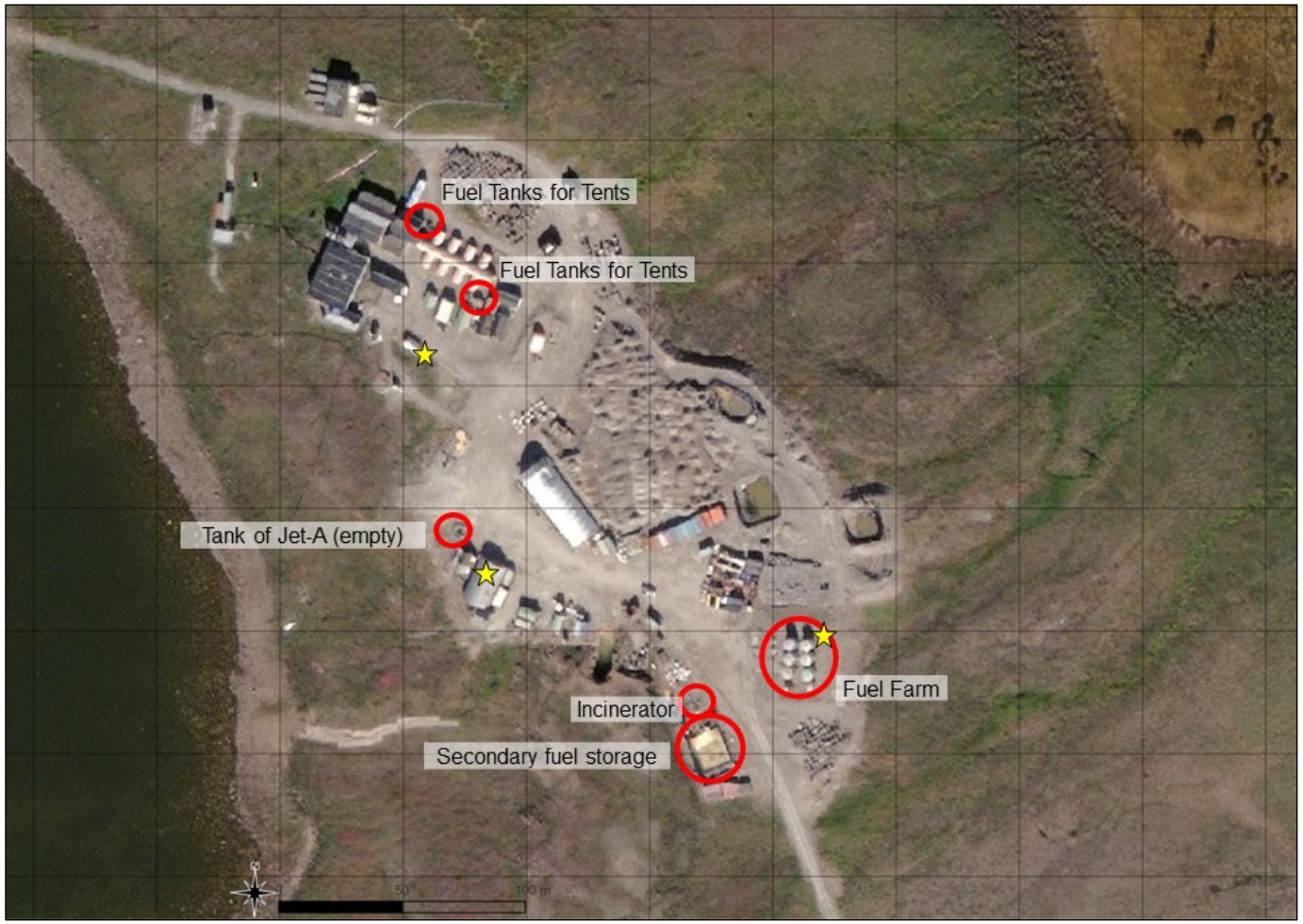

Plate D.1. Boston Camp (Note: Red circles are fuel or chemical storage locations, smaller storage locations may vary. Yellow star indicates spill kit locations.)

Plate D.2. Boston Airstrip (Note: Red circles are fuel or chemical storage locations, smaller storage locations may vary. Yellow star indicates spill kit locations.)

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SPILL CONTINGENCY PLAN

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Appendix 1: Hazardous Materials and Product Specific Emergency Response Plans

Poisonous and Toxic Substances

Sodium Cyanide Specific Spill Response Plan

Note: Sodium cyanide is not currently listed in Schedule 1 of the E2 regulations. However, a Product Specific Emergency Response Plan has been developed for this product based on the environmental and health and safety impacts of a potential spill. Hydrogen cyanide is produced when sodium cyanide reacts with water, acids or oxidizing agents. Hydrogen cyanide is listed in Schedule 1 of the E2 regulations.

CAS No: 143-33-9 (Sodium cyanide)

Hazards Identification:

Physical State: Solid (granular), White
Odor: Almond-like

Emergency Overview: DANGER. MAY BE FATAL IF INHALED, ABSORBED THROUGH SKIN OR SWALLOWED

Potential Acute Health Effects: Very hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, and of inhalation. Corrosive to eyes and skin. Cyanide is classified as extremely toxic.

Environmental Effects: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Usage: Sodium cyanide is used in gold recovery process within the process plant.

Storage: Sodium cyanide briquettes will be packaged in 1,000 kg bags. These bags must be kept dry, away from heat and sources of ignition. Keep away from oxidizing agents, acids and moisture. Bags will be stored on pallets in lined Seacans or located in a lined containment berm or inside the Mill building as used. Do not store above 24°C. Avoid exposure to acid, water or weak alkalines which can react to form a toxic hydrogen cyanide (HCN) gas.

Personal Protective Equipment for Spill Response

- Self-contained breathing apparatus (SCBA) while conducting air quality monitoring to confirm HCN levels prior to initiating response and clean-up;
- SCBA required for response activities if HCN levels >2.5ppm;
- Full face respirator with vapor or dust cartridges, half face respirator with vapor or dust cartridges and splash goggles or safety glasses with face shield may be worn if HCN levels <2.5ppm;
- Full body chemical resistant suit (rubber);
- Rubber boots (chemical resistant); and
- Rubber gloves (chemical resistant).

Emergency response for a Sodium Cyanide Spill

- Isolate and evacuate the spill area if HCN has potentially been released.
    - Evacuation of other site locations may be required (large spills in water may require protection of personnel up to 5 km downwind).
- Report spill to Supervisor immediately. Provide location, estimated quantity, physical nature of the spilled material (e.g., solid or solution) and other substances/conditions that may create hazardous conditions during response (e.g., exposure of substance to water, acids, oxidizing agents).
- Supervisor will report the spill immediately to the Environmental Superintendent or Safety Coordinator.
- Mine GM will activate ICS and ERT if required for response:
    - Based on size, location of spill and potentially hazardous conditions/environmental impacts; and
    - SDS will be consulted to confirm appropriate response measures and associated hazards.
- Ventilate the area of the spill or leak and eliminate all ignition sources.
    - Air quality monitoring will be conducted in enclosed spaces to determine concentration of hazardous vapours prior to initiating spill response efforts.
- Stop the flow of spill.
- Contain the spill by placing spill booms or constructing interception dikes ahead of the flow (prioritizing prevention of release to waterways or onto ice).
- Protect the spill area from water runoff by constructing dike/berm. If raining, use tarps to cover the area to minimize water contact and spread of contamination.
- For spill to land:
    - Recover spilled solid material by shoveling into drums or containers free from impurities, seal container with lid and clearly label per WHMIS guidelines.
    - Minimize dust generated to the extent possible. Use water spray to reduce vapours; avoid contact of water spray with spilled material. Use tarps to cover spill area if water spray is used to reduce vapours.
    - Recovered solids, if free from impurities, may be suitable for its intended use. In this case, material is to be placed into containers with lid, and clearly labeled as per WHMIS guidelines.
    - Recovered material which cannot be used will be packaged into drums for offsite disposal at an approved waste management facility.
    - Neutralize residual spill material with appropriate agent as recommended by the SDS (sodium or calcium hypochlorite solution) or continue to excavate area until no visible spilled solid remains. Use suitable spill absorbent or soil to absorb the neutralized residue.
- For spill to water:
    - NaCN dissolves in water producing highly toxic hydrogen cyanide gas – use extreme caution.

  - Pump contaminated water to drums, tanks or lined containment berms if possible. Isolate/confine the spill by damming or diversion if feasible.
  - Water treatment is only effective if it can be accomplished in conjunction with the spill.
  - Treatment chemicals (sodium or calcium hypochlorite) must not be added to surface waters (e.g., streams, lakes) as these are not generally effective and could result in additional environmental impacts.
  - Hydrogen peroxide for treatment of solution spills or a sulfur dioxide/air process for treatment of slurry spills may be considered. This measure may only be used as a last resort if containment is not achievable and the spill can be treated directly at the point of release.
- For indoor spills:
  - Recover spilled solid material by shoveling into drums or containers free from impurities, seal container with lid and clearly label per WHMIS guidelines.
  - Minimize dust generated to the extent possible. Use water spray to reduce vapours; avoid contact of water spray with spilled material. Use tarps to cover spill area if water spray is used to reduce vapours.
  - Recovered solids, if free from impurities, may be suitable for its intended use. In this case, material is to be placed into containers with lid, and clearly labeled as per WHMIS guidelines.
  - Recovered material which cannot be used will be packaged into drums for offsite disposal at an approved waste management facility.
  - Neutralize residual spill material with appropriate agent as recommended by the SDS (sodium or calcium hypochlorite solution) or continue to excavate area until no visible spilled solid remains. Use suitable spill absorbent or soil to absorb the neutralized residue and package into drums for offsite disposal at an approved waste management facility.
  - Mop the affected area using detergent and water.
  - Place this water in labeled waste drums for offsite disposal at an approved waste management facility
- Remove, bag and label personal protective equipment for offsite disposal.
- Thoroughly wash skin with soap.

Ammonium Nitrate Specific Spill Response Plan

Notes: Ammonium Nitrate is a substance listed on Schedule 1 of the E2 Regulations, with a threshold of 20 tonnes. Ammonium nitrate is part of the Amex explosives (UN No 0082) mixture used at site.

CAS No: 6484-52-2 (Ammonium Nitrate)

UN No: 0082 (Amex)

Hazards Identification:

Physical State: Solid, pale oil-covered prills
Odour: Fuel oil

Emergency Overview: DANGER. STRONG OXIDIZER. CONTACT WITH OTHER MATERIALS MAY CAUSE FIRE OR EXPLOSION

Environmental Effects: Cause release of nitrogen compounds (nitrate, nitrite, ammonia) into aquatic environments. Potential effects include algal blooms, reduced oxygen and eutrophication of surface water bodies.

Usage: Amex is used for surface and subsurface blasting associated with quarrying and subsurface blasting related to mine development and mining.

Storage: Ammonium Nitrate is found in mixture form on site, in the form of Amex. Amex is stored in locked Seacans located within the explosives berms or storage magazines, as well as temporary use locations during blasting preparation both underground and surface sites. The magazines and explosives berm locations are established and permitted through NRCan or the Ministry of Mines as appropriate.

The explosives storage areas are constructed and located so as to minimize risk to personnel and as permitted by the Ministry of Mines. The expected quantity to be stored on site is 1350 tonnes of Amex. The maximum allowed capacity of the largest container in which the substance is stored is 40,800 kgs.

Spill Response

Personal Protective Equipment for Spill Response:

- Chemically resistant gloves;
- Protective glasses or chemical safety goggles;
- Chemically resistant coveralls or tyvek coveralls; and
- Dust mask if spill is in confined space.

Emergency response for an Ammonium Nitrate Spill

- Isolate and evacuate the spill area if potential for explosion.

- Report spill to Supervisor immediately. Provide location and estimate of spill quantity.
- Supervisor will report the spill immediately to the Environmental Superintendent or Safety Coordinator.
- Mine GM will activate ICS and ERT if required for response.
    - Based on size, location of spill and potential hazardous conditions/environmental impacts.
- Remove all sources of heat and ignition (there is to be no smoking or use of any flames within the area). Remove all uncontaminated combustible materials or organic compounds from spill area.
- Stop flow if safe to do so.
    - Ventilate space prior to entering, if indoors.
- For spills to land, snow or ice:
    - Protect spill area from storm water runoff and prevent entry into surface waters by constructing a ditch or dike using suitable absorbent materials, soil or other appropriate barriers.
    - Vacuum or sweep the spilled residue using non-metal, non-sparking tools.
    - Avoid shock, friction and contact with grit. Wet spillage with water to prevent dust generation.
    - Place the residue in a plastic container, label as per WHMIS Guidelines and transport to waste management for offsite disposal.
    - Recovered solids, if free from impurities, may be suitable for its intended use. In this case, material is to be placed into suitable containers with lid, and clearly labelled as per WHMIS Guidelines.
- For spills to water:
    - Ammonium nitrate sinks and mixes with water.
    - Isolate/confine the spill from spreading by damming or diversion if feasible.
    - Pump contaminated water to drums, tanks or lined containment berms if possible.
    - Label drums for offsite disposal at an approved waste management facility.
- Remove, bag and label personal protective equipment for offsite disposal.
- Thoroughly wash skin with soap.

Flammable Materials

Aviation Fuel (Jet-A) Specific Spill Response Plan

Notes: Aviation fuel is a substance listed in Schedule 1 of the E2 regulations. The quantities of Aviation fuel currently stored at the Hope Bay Mine do not exceed the Schedule 1 thresholds; however, a Product Specific Emergency Response Plan has been developed for this product based on the environmental and health and safety impacts of a potential spill. If spilled, aviation fuel could be immediately harmful to humans and/or the environment and has the potential to cause pool fires (dependent on manufacturer specific additives).

CAS No: 8008-20-6 (kerosene)

UN No: 1223 (Kerosene)

Hazards Identification:

Physical State: Liquid, pale yellow
Odor: Petroleum/solvent
Flash Point: > 38˚C

Emergency Overview: HIGHLY COMBUSTIBLE. FLASH FIRE POTENTIAL. MATERIAL IS STATIC ACCUMULATOR.

Potential Acute Health Effects: Highly Explosive when vapour meets the air. Causes combustion and explosion. Hazardous if ingested or inhaled. May cause irritation to the eyes and respiratory tract. Reacts with oxidizing agents. Hazardous decomposition product: Carbon monoxide.

Environmental Effects: Toxic to aquatic organisms, may cause long-term adverse effects in aquatic environments.

Usage: Jet-A is used to fuel aircraft operating at the Hope Bay site (helicopters, airplanes).

Storage: Jet-A is stored in steel fuel tanks or manufactured fuel bladders within the secondary containment berm. Smaller quantities are stored in steel drums within ventilated Seacans or within lined containment facilities at the location of use.

The expected quantity to be stored on site is 775 tonnes of Jet-A fuel. The maximum allowed capacity of the largest container in which the substance is stored is 400,000 L.

Spill Response

Personal Protective Equipment for Spill Response:

- Chemical-resistant gloves (e.g., nitrile);
- Protective glasses or chemical safety goggles;

- Chemically resistant coveralls or Tyvek coveralls;
- Half face respirator with organic vapour cartridges or self-contained breathing apparatus; and
- Anti-static clothing.

Emergency response for a Jet-A Spill

- Isolate and evacuate the spill area if potential for explosion or combustion.
- Report spill to Supervisor immediately. Provide location and estimate of spill quantity.
- Supervisor will report the spill immediately to the Environmental Superintendent or Safety Coordinator.
- Mine GM will activate ICS and ERT if required for response.

  Based on size, location of spill and potential hazardous conditions/environmental impacts.
- Remove all sources of heat and ignition (there is to be no smoking or use of any flames within the area).
- Stop flow if safe to do so.
  - Air quality monitoring will be conducted in enclosed spaces to determine concentration of hazardous vapours prior to initiating spill response efforts.
  - Ventilate space prior to entering, if indoors.
  - Restrict access to area and approach upwind of spill.
- For spills to land, snow or ice:
  - Protect spill area from storm water runoff and prevent entry into surface waters by constructing a ditch or berm using suitable non-combustible absorbent materials (e.g., sand, diatomaceous earth).
  - Be cautious of containing spill in low lying areas if there is any chance of igniting vapours.
  - Cover small spills with non-combustible absorbent materials.
  - Use non-metal, non-sparking tools to collect absorption materials.
  - Place the residue in a steel container, clearly labeled as per WHMIS guidelines. Close tightly.
  - Ground tools and containers when collecting absorption material.
  - Transport to waste management for offsite disposal. Store in ventilated areas away from incompatible materials.
- For spills to water:
  - Jet-A fuel floats on surface of water.

  - Light hydrocarbon with narrow boiling range and low viscosity. Will evaporate or naturally disperse within a day or less in open water (NOAA Office of Response & Restoration, 2019).
  - If ambient temperature is < 28˚C, use containment booms and remove from the surface by skimming.
  - If ambient temperature is >= 28˚C, use booms as a barrier to protect shorelines and allow the material to evaporate.
  - Use booms to prevent spread of spill. Protect spread to shoreline where fuel can penetrate quickly into porous sediments.
- Remove, bag and label personal protective equipment for offsite disposal.
- Thoroughly wash skin with soap.

Diesel Fuel Specific Spill Response Plan

Notes: Diesel Fuel is a substance listed in Schedule 1 of the E2 regulations, with a threshold of 2500 tonnes. Diesel fuel is used on site to for power and to fuel various pieces of light/heavy equipment. A diesel fuel spill is characterized as the Worst-Case and Alternate Worst-Case Scenario Spill under the E2 Regulations. The details of these spills are presented in section 4.8 of the Plan.CAS No: 68334-30-5 (Diesel)

UN No: UN1202

Hazards Identification:

Physical State: Liquid, clear to yellow
Odor: Petroleum/solvent
Flash Point: >= 40.0˚C

Emergency Overview:

Potential Acute Health Effects: Flammable liquid and vapour. Harmful if swallowed. May be fatal if swallowed and enters airways. Causes skin and serious eye irritation. Harmful if inhaled.

Environmental Effects: Toxic to aquatic life with long lasting effects, as well as terrestrial wildlife and vegetation.

Usage: Diesel is used for power generation and to fuel various pieces of light/heavy equipment operating at site.

Storage: Diesel is stored in steel fuel tanks within secondary containment berm or double walled fuel tanks.

The expected quantity to be stored on site is 30,000,000 L of diesel fuel. The maximum allowed capacity of the largest container in which the substance is stored is 5,000,000 L.

Spill Response

Personal Protective Equipment for Spill Response:

- Chemical-resistant gloves (e.g., nitrile);
- Protective glasses or chemical safety goggles;
- Chemically resistant coveralls or Tyvek coveralls;
- Full face respirator with organic vapour cartridges or self-contained breathing apparatus

Emergency response for a Diesel Spill

- Isolate and evacuate the spill area if potential for explosion or combustion. Stay upwind of spill/leak.

- Eliminate ignition sources.
- Report spill to Supervisor immediately. Provide location and estimate of spill quantity.
- Supervisor will report the spill immediately to the Environmental Superintendent or Safety Coordinator.
- Mine GM will activate ICS and ERT if required for response.
    - Based on size, location of spill and potential hazardous conditions/environmental impacts.
- Remove all sources of heat and ignition (there is to be no smoking or use of any flames within the area).
- Stop flow if safe to do so.
    - Air quality monitoring will be conducted in enclosed spaces to determine concentration of hazardous vapours prior to initiating spill response efforts.
    - Ventilate space prior to entering, if indoors.
    - Restrict access to area and approach upwind of spill.
- For spills to land, snow or ice:
    - Protect spill area from storm water runoff and prevent entry into surface waters by constructing a ditch or berm using suitable non-combustible absorbent materials (e.g., sand, diatomaceous earth).
    - Cover small spills with non-combustible absorbent materials, appropriate absorbent pads and placing absorbent booms in the path of flow of the spill.
    - Constructing temporary berms from soil or snow at the leading edge of the spill to minimize flow
    - Plastic tarps can be placed over and at the foot of the berm to capture pooling liquid and facilitate recovery
    - Pumping spilled material to empty drums or tanks
    - Excavators and other heavy equipment may be used to excavate contaminated materials
    - Use non-metal, non-sparking tools to collect absorption materials.
    - Place the residue in a steel container, clearly labeled as per WHMIS guidelines. Close tightly.
    - Ground tools/equipment and containers when collecting absorption material.
    - Transport to waste management for offsite disposal. Store in ventilated areas away from incompatible materials.
- For spills to water:
    - Diesel fuel floats on surface of water.
    - Identify the direction and speed of the flow path of the product based on weather conditions and drainage patterns

  - Monitor the spread of the material using a drone or from a helicopter if possible to identify the area of spread
  - Use appropriate absorbent pads, socks and similar materials to recover spilled product
  - Granular sorbent materials are NOT to be used for spill response on water
  - Hydrophobic absorbent booms will be deployed to contain large spills and to facilitate recovery
  - Absorbent booms will be drawn slowly in to encircle the spilled product and absorb it
  - Skimmers will be deployed in open-water areas to remove product from the water surface and boards or plywood may be used in streams or culverts to reduce the flow of spilled product on the surface and limit the area of the spill on the water
  - Pump contaminated water into tanks or storage bladders if possible
- Remove, bag and label personal protective equipment for offsite disposal.
- Thoroughly wash skin with soap.

Acetylene Specific Spill Response Plan

Notes: Acetylene is a substance listed in Schedule 1 of the E2 regulations, with a threshold of 4.5 tonnes. Acetylene is used on site for welding on site.

CAS No: 74-86-2 (Acetylene)

UN No: UN1001

Hazards Identification:

Physical	State:	Dissolved	gas,	colourless
Odor:				Garlic-like
Flash		Point:		-18˚C
Lower Flammable Limit: 2.4%				

Emergency Overview: EXTREMELY FLAMMABLE GAS. CHEMICALLY UNSTABLE. STORED UNDER PRESSURE. CAN CAUSE RAPID SUFFOCATION. IMMEDIATE FIRE AND EXPLOSION HAZARD EXISTS WHEN CONCENTRATIONS EXCEED LOWER FLAMMABILITY LEVEL.

Potential Acute Health Effects: Extremely flammable gas. May react explosively even in absence of air at elevated pressure and/or temperature. Contains gas under pressure. May explode if heated. May form explosive mixtures in air.

Environmental Effects: No known eco-toxicological effects.

Usage: Acetylene is used for welding on site.

Storage: Acetylene is stored in steel compressed gas cylinder secured in cages or racks in Seacans.

The expected quantity to be stored on site is 175 tonnes of Acetylene gas. The maximum allowed capacity of the largest container in which the substance is stored is 242 cubic ft.

Spill Response

Personal Protective Equipment for Spill Response:

- Self-contained breathing apparatus when entering confined spaces

Emergency response for an Acetylene Spill:

- Isolate and evacuate the spill area. Suffocation potential.
- Report spill to Supervisor immediately. Provide location and estimate of spill quantity.
- Supervisor will report the spill immediately to the Environmental Superintendent or Safety Coordinator.

- Mine GM will activate ICS and ERT if required for response.
    - Based on size, location of spill and potential hazardous conditions/environmental impacts.
- Remove all sources of heat and ignition (there is to be no smoking or use of any flames within the area).
- Never enter confined space or other area where flammable gas concentration is > 10% of its lower flammable limit.
- Ventilate area and monitor concentrations.
- Stop flow if safe to do so.

Hydrochloric Acid Specific Spill Response Plan

Notes: Hydrochloric Acid is a substance listed in Schedule 1 of the E2 regulations, with a threshold of 6.8 tonnes. Hydrochloric acid is used within the process plant.

CAS No: 7647-01-0 (Hydrochloric Acid)

UN No: UN1789

Hazard Identification:

Physical State: Liquid, clear to pale yellow
Odor: Pungent

Emergency Overview: MAT BE FATAL IF INHALED. CAUSES RESPIRATORY TRACT, DIGESTIVE TRACT, EYE AND SKIN BURNS

Potential Acute Health Effects: Very toxic by inhalation. Corrosive to eyes, skin, respiratory system and digestive tract. Causes burns. Do not breathe vapor or mist. Do not ingest. Do not get in eyes or on skin or clothing.

Environmental Effects: Toxic to aquatic organisms, may cause long term adverse effects in the aquatic environment.

Usage: Hydrochloric acid is used within the process plant.

Storage: Hydrochloric acid is stored plastic totes inside Seacans.

The expected quantity to be stored on site is 140 tonnes of hydrochloric acid. The maximum allowed capacity of the largest container in which the substance is stored is 240 kg.

Spill Response

Personal Protective Equipment for Spill Response:

- Chemical-resistant gloves (e.g., nitrile);
- Protective glasses or chemical safety goggles;
- Chemically resistant coveralls or Tyvek coveralls;
- Self-contained breathing apparatus.

Emergency response for a Hydrochloric Acid Spill

- Isolate and evacuate the spill area.
- Report spill to Supervisor immediately. Provide location and estimate of spill quantity.

- Supervisor will report the spill immediately to the Environmental Superintendent or Safety Coordinator.
- Mine GM will activate ICS and ERT if required for response.
    - Based on size, location of spill and potential hazardous conditions/environmental impacts.
- Do not touch or walk through spilled material.
- Do not breathe vapor or mist. Provide adequate ventilation.
- Stop flow if safe to do so.
- For spills to land, snow or ice:
    - Protect spill area from storm water runoff and prevent entry into surface waters by constructing a ditch or berm using suitable non-combustible absorbent materials (e.g., sand, diatomaceous earth).
    - Neutralize with soda ash or lime. Use caution neutralization reaction can cause splashes, fumes and yield large amounts of heat resulting in boiling.
    - Dilute with water and mop up or absorb with inert dry material
    - Place in appropriate waste disposal container and seal tightly
    - Keep away from alkalis
    - Transport to waste management for offsite disposal. Store in ventilated areas away from incompatible materials.
- For spills to water:
    - Hydrochloric acid is soluble in water.
    - Do not attempt to contain or remove spills (high explosion potential).
- Remove, bag and label personal protective equipment for offsite disposal.
- Thoroughly wash skin with soap.

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Additional E2 Reg. Schedule 2 Materials that May be Stored Onsite in future

The hazardous materials that may be stored onsite and listed in the E2 Regulations may include the following substances throughout the duration of the project:

- Formalin;
- Unleaded Gasoline;
- Ethyl Mercaptan
- Propane; and
- Nitric acid.

The quantities of these products are not anticipated to meet the thresholds under the E2 Regulations for the development of a product specific spill response plan. However, if at any time the quantities of these materials stored onsite reach the threshold volume identified in these regulations a product specific spill plan will be developed and submitted as an addendum to this Plan. Additionally, if quantities of these materials stored onsite reach the threshold volume identified within these regulations, a notice under the E2 Regulations is required.

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Appendix 2: Spill Response Resources

Mobile Equipment

Any mobile equipment present on site may be used as a resource for spill response or spill clean-up. This includes pick-ups, skid steers, excavators, loaders, dozers, vacuum trucks, haul trucks, and flatbed trucks.

Spill Kit Contents

Each Spill Kit contains:

- 1 roll absorbent or bundle of spill pads;
- 2 plug and dyke kits;
- 1 – 3 m x 4 m tarpaulin;
- 2 pairs of disposable coveralls;
- 4 mini booms;
- 1 bag of corncob and/or peat moss absorbent;
- 1 bag of gravel type fire retardant granular for aviation stations (helipad and airstrip);
- 2 pair of neoprene gloves (i.e., POL [petroleum/oil/lubricants] resistant);
- 2 sets of splash proof POL resistant goggles;
- 1 shovel;
- 10 disposable 6mm waste bags and ties; and
- A copy of the First Responder diagram (Figure 1-1 at the beginning of this Plan).

Spill kits are replenished as needed after use and inspected at least once per quarter. The purpose of the inspection is to evaluate the location of spill kit proximity to associated work activities, inspect the condition of the spill kit, and check that all required contents are available and in good condition. The Environmental Supervisor/Coordinators are required to check the contents quarterly and the results of the inspections are stored locally with other inspection documents.

Marine Environment Response Equipment

Response equipment available in the event of a spill to the aquatic environment is stored in ten moveable Seacans, with the exception of the boats. This equipment includes:

- 450 feet of 24" solid floatation boom;
- 70 lb, 43 lb, 25 lb, and 17 lb Danforth anchors;
- 8 lb Grapnel Anchors;
- 36" sea anchors;

- Anchor pins;
- Anchor Buoys;
- Anchor lines;
- 150 feet Towline;
- Boom towing bridles;
- 1250 feet of skirted booms (preassembled with tow lines, bridles and floats);
- 200 feet of inflatable Shore Saver booms (with inflation kit);
- 1TDS-118 Drum Skimmer;
- 1 P10E Power Pack;
- 2 Pump;
- 175 L Drum Response Kits c/w lids;
- Disposable coveralls (i.e., Tyvek suits);
- POL (petroleum/oil/lubricants) resistant gloves;
- POL resistant goggles;
- Toolbox c/w assorted tools;
- 45 Gallon containers c/w lids;
- Pails and Rubbermaid tubs;
- 300 foot Nylon rope (3/8);
- Bags of Oclansorb™ Peat Moss or crushed corn cobs;
- Bundles of oil sorbent pads;
- Bundles of universal sorbent pads;
- Oil Sorbent booms;
- Oil snares;
- Universal sorbent booms;
- Bag of Sorbent scraps (spaghetti);
- Containment tanks and berms;
- Plug and dyke kits;
- HAZMAT Disposal Bags and Garbage bags;
- Portable fuel bladders;
- Ice scrapers;

- A net for capturing seabirds/oiled wildlife;
- An 18-foot landing craft boat (with boat safety kit); and
- An 18-foot Zodiac (with boat safety kit and repair kit).

The above marine response equipment is considered more than necessary for the potential spills covered under this Plan. Spills to the aquatic environment are limited in potential scale as all fuel storage tanks are located in secondary containment and most are located away from water. The Roberts Bay multiple tank fuel farm berm also has significant excess capacity to contain failure of more than one tank.

As a consequence, spills that may reach water are expected to be limited in size, manageable and recoverable using the aquatic response equipment available on site. If for any reason additional resources are needed, the Materials Manager/Superintendent would immediately begin procuring additional supplies to be flown to site.

Large spills or spills from marine transfer operations of any size to the marine environment are addressed through the *OPPP/OPEP*. As outlined therein, shipping contractors provide all necessary equipment needed to appropriately respond to a fuel-offload spill, with Agnico Eagle supplies serving as additional resources available.

Specialized Response Equipment

A stock of specialized spill response equipment is maintained on site and available for use if a product spill as outlined in a Product Specific Spill Response plan occurs. All of the specialized equipment is maintained in the Mine Rescue Bays which are located in the Mine Ops area. The Health & Safety Manager is responsible for maintaining and ensuring the availability of this equipment. The equipment includes:

- Full body chemical resistant suits (Tyvek);
- Rubber chemical resistant jackets, pants;
- Chemical resistant boots and gloves;
- Splash goggles and full-face shields;
- Full and half face respirators with appropriate filters (e.g. organic vapour cartridges);
- Drager Self-contained breathing apparatus;
- Fire retardant coveralls and firefighting bunker gear;
- Drager BG-4 breathing apparatus (not to be used if product has explosive potential);
- Air quality monitors equipped with HCN, CO and O2 sensors;
- Non sparking tools, such as plastic shovels; and
- Sodium hypochlorite solution.

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Appendix 3:
Environmental Resource Maps

Environmental Resource Maps

Shown in the following resource maps are areas of particular vegetation meaningful to the local wildlife and ecosystems which surround the project as well as raptor nests, rare plants and fish habitat. Additional detailed information may be found in baseline and monitoring reports available from the Environmental Superintendent and publicly available on the NIRB and NWB websites. Information regarding archeological sites that have been identified on the Hope Bay belt is available to the Environmental Superintendent in the event of a spill. At the requirement of the Territorial Archaeologist, the locations of these sites are strictly confidential and information on these locations is only shared on an as needed basis. Spill containment will attempt to minimize impacts to sensitive habitats and archaeological sites.

Figure 3.1. Environmental Sensitivity Mapping-Map A

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FIGURE 3-1 ENVIRONMENTAL SENSITIVITY MAPPING - MAP A

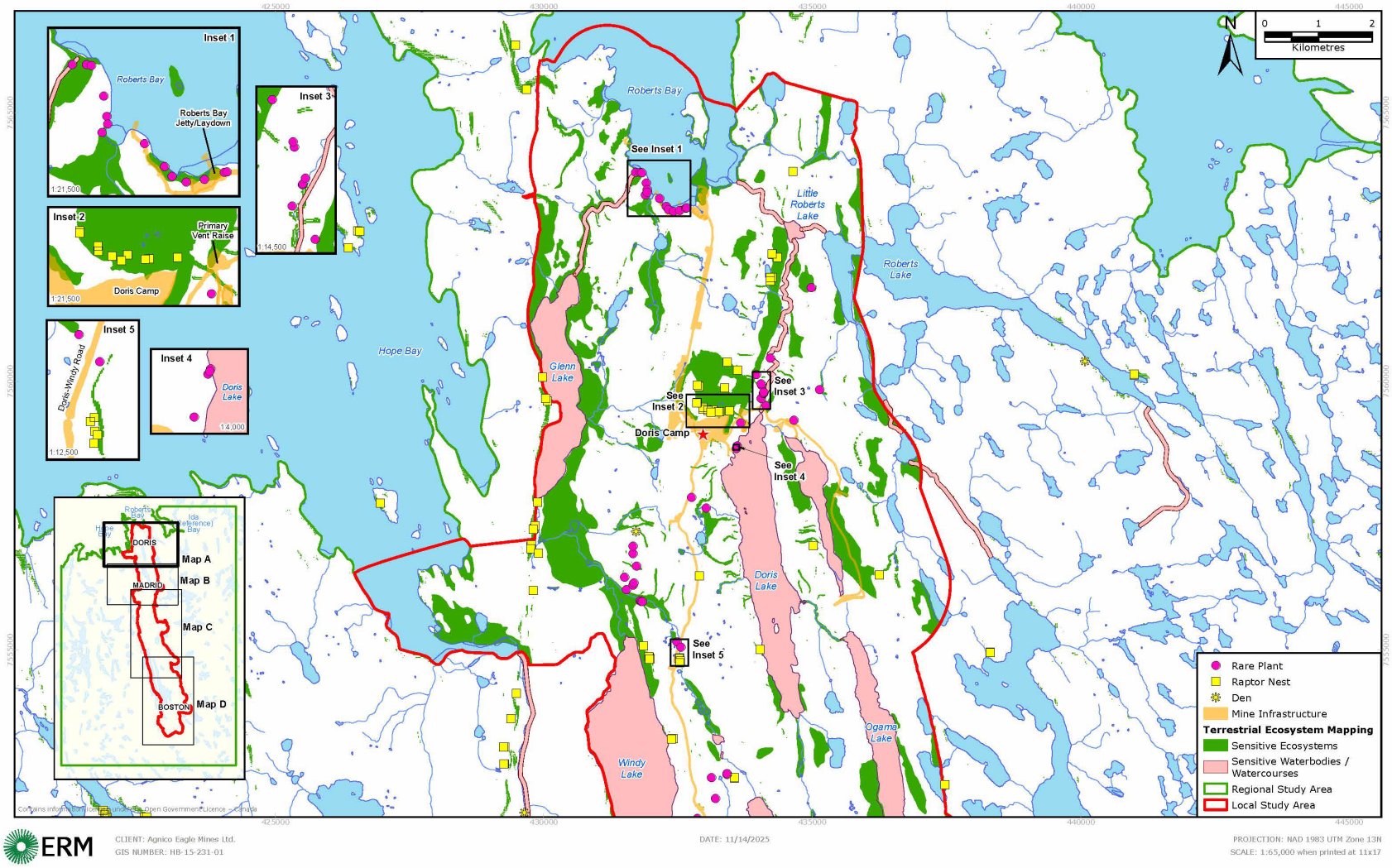

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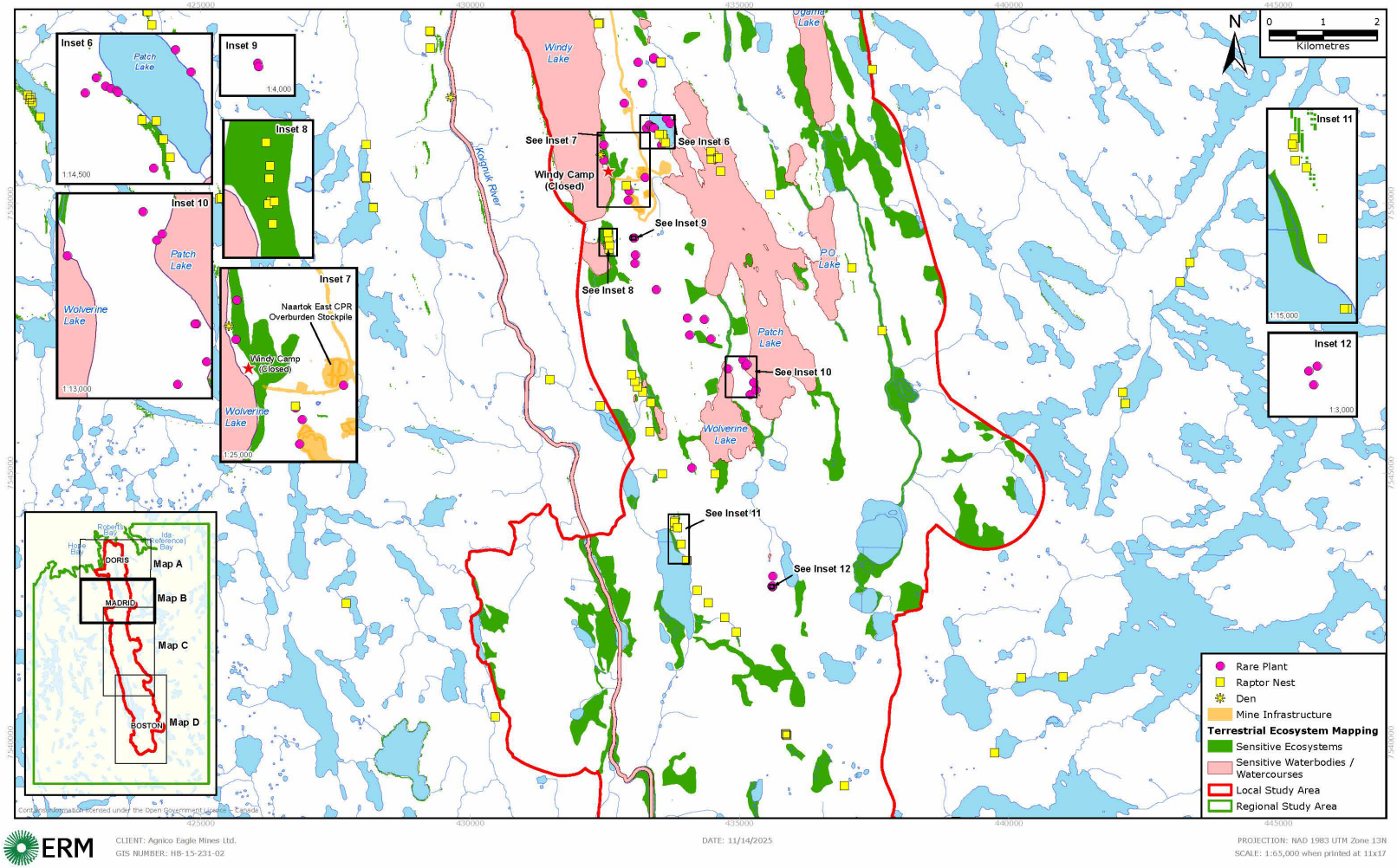
Figure 3.2. Environmental Sensitivity Mapping-Map B

FIGURE 3-2 ENVIRONMENTAL SENSITIVITY MAPPING - MAP B



ERM CLIENT: Agnico Eagle Mines Ltd. GIS NUMBER: HB-15-231-02 DATE: 11/14/2025 PROJECTION: NAD 1983 UTM Zone 13N SCALE: 1:65,000 when printed at 11x17

Figure 3.3. Environmental Sensitivity Mapping-Map C

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FIGURE 3-3 ENVIRONMENTAL SENSITIVITY MAPPING - MAP C

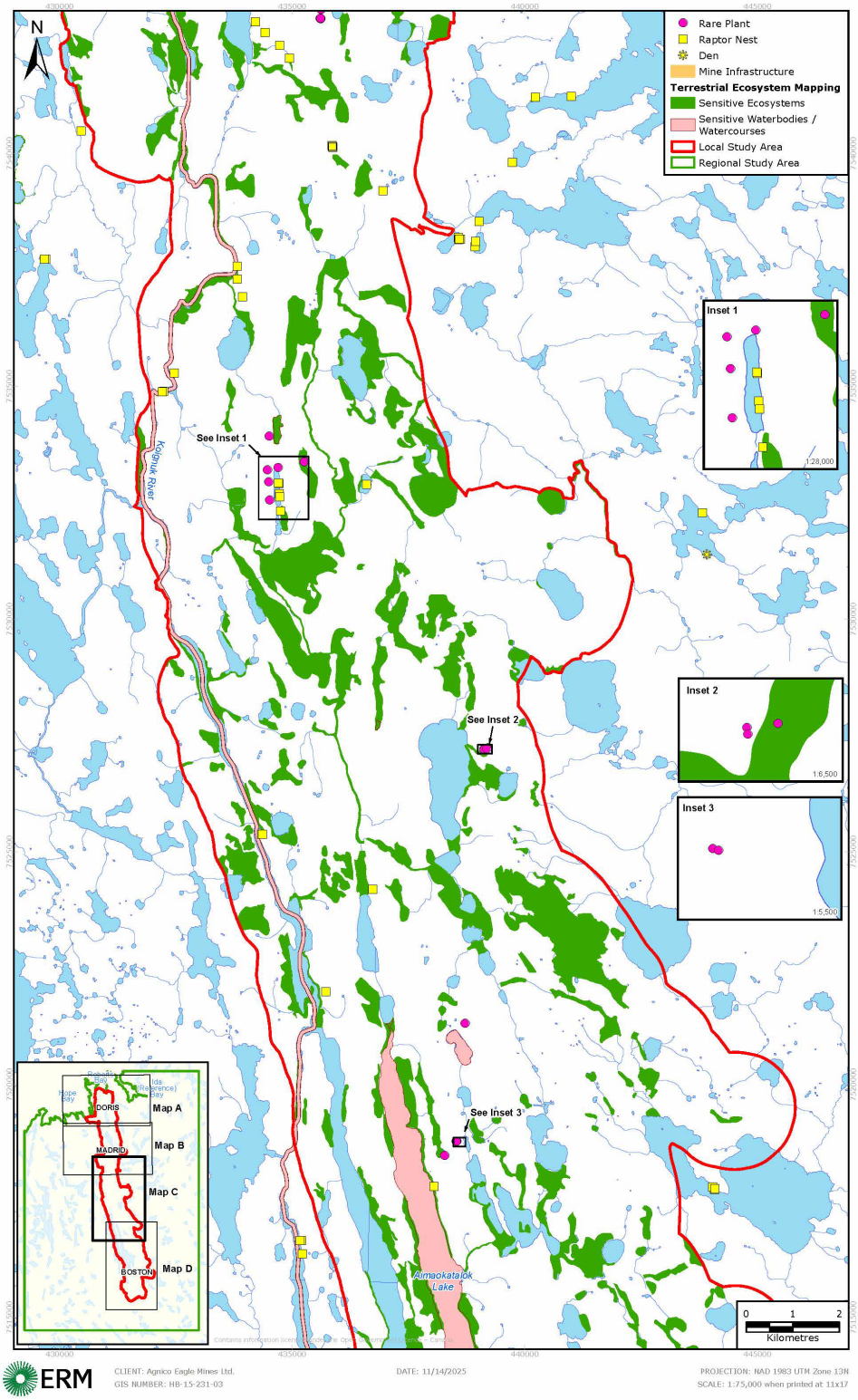

Figure 3.4. Environmental Sensitivity Mapping - Map D

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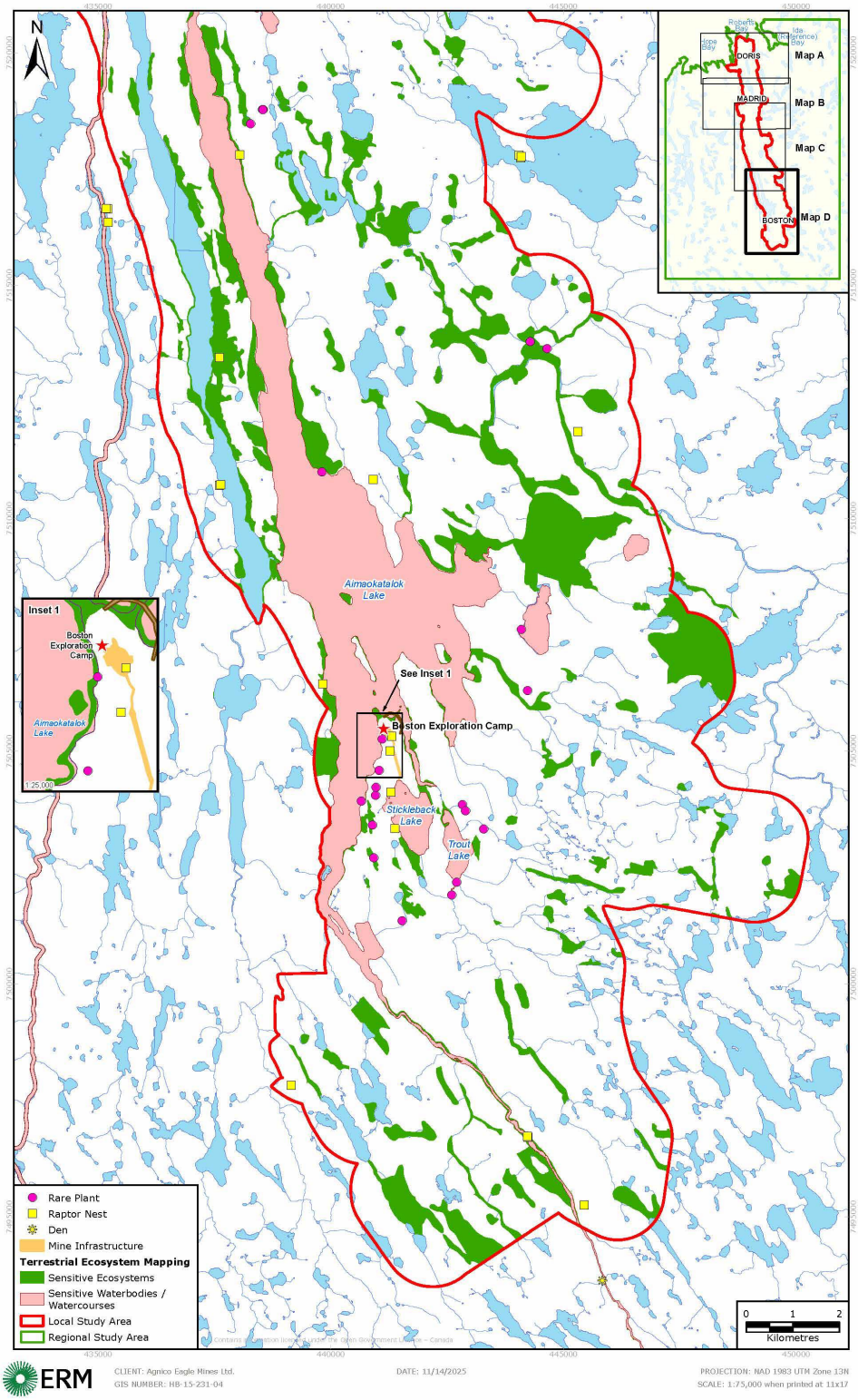
FIGURE 3-4 ENVIRONMENTAL SENSITIVITY MAPPING - MAP D



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Appendix 4: Responses to Comments on Previous Plan Versions

Comment Responses and Revision References

Table 4.1 below outlines the comments received on previous versions of this Plan and Agnico Eagle's responses.

Table 4.1. Comments Received on Previous Versions of this Plan and Agnico Eagle's responses

Version	Reviewer	Comment #	Comment	Recommendation	Response
2016	INAC	1	Module A of the Spill Contingency Plan provides details on spill kit contents and aquatic environment response equipment, but the information on mobile equipment (machinery) to be used for spill response is not available.	INAC recommends that the licensee include the list of mobile equipment to be used for spill management, as well as the spill containment equipment on each piece of equipment.	Any mobile equipment present on site may be used as a resource for spill response or spill clean-up. This includes pick-ups, skid steers, excavators, loaders, vacuum trucks, haul trucks, and flatbed trucks. This has been made clear in revised text in Module A.
2016	INAC	2	Section 2.5.1 of the spill contingency plan states that spill response kits will be available within 200 m of any areas where chemicals are stored and used. Aquatic spill response kits are available in moveable containers. The spill response kit locations are described as being easily accessible, but it is not clear if there will be adequate signage to identify them. As well, the modules at the end of the plan include pictures on which chemical storage locations are circled, but there is no indication where to find the spill kits beside them. The Guidelines for Spill Contingency Planning recommend including a plan with many features including storage locations of hazardous materials and locations of spill response kits.	INAC recommends that spill kit locations be identified on the ground and, on a site map or indicated in the pictures included in the plan. Default storage locations for the mobile aquatic response spill kits should be included so that a person consulting the plan would quickly know where to look for them.	Default spill kit locations, including the mobile aquatic response spill kits, have been now indicated on the site photographs provided in the site-specific modules.
2016	INAC	3	The section on spill response actions (2.3) outlines actions to be taken in event of different spill scenarios. Two of the scenarios for spills in water outline actions to be taken in event of a hydrocarbon spill, but do not speak to what should be done if other materials are spilled. These are sub-sections 2.3.5, spills under ice, and mitigation of impacts to birds. Some of the materials listed as on site including sodium cyanide would not disperse in the same way as petroleum products and would require different action responses.	INAC recommends that the licensee include action responses for materials that might sink or dissolve in water for spills under ice and mitigation of impacts to birds.	Information addressing spill sunder ice of substances that sink and dissolve is now presented in Sections 2.3.6 and 2.3.7, respectively. Mitigation of impacts to birds is addressed under 2.3.10.1.
2016	INAC	4	Table 1 of Section 1.2 includes regulations and guidelines governing the spill contingency plan. Other regulations are referenced in the text and included in Section 7 of the plan.	INAC suggests that other material to be considered might include: - Federal Transportation of Dangerous Goods Act and regulations; and - NWT Used Oil and Waste Fuel Management Regulations	Waste material generated during spill response is managed as per the Hazardous Waste Management, Non-Hazardous Waste Management Plan, and/or the Landfarm Management Plan as indicated in Section 2.4 of the Plan. TMAC's Hazardous Waste Management Plan includes consideration of/reference to the Federal Transportation of Dangerous Goods Act and regulations and NWT Used Oil and Waste Fuel Management Regulations, as well as many other materials which may apply to management and disposal of spill response wastes, such as GN's Environmental Guideline for Used Oil and Waste Fuel.

Version	Reviewer	Comment #	Comment	Recommendation	Response
2016	ECCC	1	Reference: Page 18 of the revised Spill Contingency Plan, EC #2 Comment: As noted in the table ECCC requested that TMAC undertake and incorporate hazardous substance identification and risk assessment into the Spill Contingency Plan in order to provide the required basis for accident scenario characterization and response planning.	It is expected that the risk assessment process will incorporate consideration of the likelihood of various spills and their potential consequences, which will determine appropriate mitigation/response strategies according to the resulting matrix rankings.	TMAC has provided further clarification of the risk assessment process to be undertaken for all work areas in the revised Plan, in Section 4.
2016	ECCC	2	Reference: Pages 18-19 of the revised Spill Contingency Plan, EC #4 Comment: ECCC reiterates recommendation EC #4 which requests that TMAC document and provide information on worst case accident scenarios for each hazardous product stored and handled onsite.	While the TMAC has indicated that the appropriate sections of the SCP “will continue to be refined in future revisions to capture additional scenarios as operational activities evolve and corrective actions/lessons learned are developed through incident investigations” ECCC is of the opinion that by identifying worst case accident scenarios now, TMAC will be better placed to determine actual required response capacities and develop adequate preparedness and response plans.	During the 2016 revision of the Plan, and based on ECCC's recommendation # 4 cited in the 2016 Plan, TMAC identified worse case scenarios and appropriate responses and included this information in the 2016 SCP as Section 4 "Spill Response Management Issues and Contingencies". TMAC's text indicating that worst case scenarios and responses 'will continue to be refined in future' was an acknowledgement of the continual improvement process loop employed at the Hope Bay Project including the risk assessment process, and recognition that additional scenarios may be identified and added to this Plan in future as a result.
2017	KIA	1 (KIA-6)	The Spill Contingency Plan provides a solid outline of reporting and mitigation measures in the event of a spill. Although specific mitigation of impacts to wildlife, including birds, and sensitive habitats is outlined, there is no specific detail associated with a spill into fish habitat. It is noted that no chemicals are stored with 31 m of water, but there are no specific response actions protective of fish, as is outlined for other wildlife in the ‘environmentally Sensitive Species’ section. Environmental Resource Maps are provided in Module C, but the focus is on vegetation and terrestrial features.	TMAC should include additional maps and detail be provided for freshwater and marine fish habitat, so that sensitive features can be avoided, and if a spill were to occur near or in water, that the sensitivity of the habitat would be easily found and appropriate mitigation measures taken.	Fish are addressed and protected under the Plan by the management actions addressing spills to water. Fish habitat (sites which have been sampled for fish and within which fish have been found) are also indicated on the Environmental Resource Maps presented in Module C. TMAC has also included a fish habitat map of Roberts Bay in the revised Plan to allow identification of sensitive intertidal and shallow subtidal habitat for avoidance where possible.
2017	KIA	2 (KIA-7)	The Spill Contingency Plan states in section 1.4, “In the event that a spill requires activation of the Emergency Response Plan, the Environmental Coordinator will provide guidance to the Surface Manager regarding implementing response actions according to this plan and evaluating priorities for protection of sensitive habitats/species and archeological features at risk.” A decision tree for use by the Surface Manager/Incident Commander or Environmental Coordinator has not been provided for the reviewer to evaluate how sensitive habitats/species and archeological features are prioritized in the event of potential impact to multiple priority areas.	TMAC should include a decision tree outlining how various sensitive or high value locations are prioritized. This will ensure of these locations are prioritized in the event of a spill or unplanned discharge in a manner satisfactory to KIA.	A prioritization hierarchy has been proposed for the environmental sensitivities and is now included in Section 2.3.10.

Version	Reviewer	Comment #	Comment	Recommendation	Response
2017	KIA	3 (KIA-8)	In Section 2.3.8, the Plan states, “TMAC and previous companies operating on the Hope Bay site have conducted numerous ecological surveys to identify [environmentally sensitive habitats or archeological sites] at risk, with the focus of identifying those areas immediately surrounding Project infrastructure which are at greatest risk of impact from a spill. In the event that a spill enters the natural environment, the Environmental Coordinator will use maps identifying these sensitive areas to prioritize the protection of these resources.” In the event of an unplanned spill or discharge, these sites will only become a mitigation priority after the Environmental Coordinator has had a chance to review the pertinent maps and provide guidance to the response team. A delay in First Responders becoming aware of these priority locations may limit the effectiveness of mitigation measures, permit more significant adverse impacts than necessary, or even damage those locations through the application of mitigation measures. We understand that, Environmental Resource Maps outlining archeological sites are kept confidential by TMAC. However, the need to keep the locations of these sites confidential must be weighed against the risk of potential spills and unplanned discharges.	TMAC should ensure that the Environmental Coordinator has a-priori knowledge of high priority environmentally sensitive habitats and archeological sites and how to respond in these areas and provide all first responders with instruction on the locations of high priority environmentally sensitive habitats and archeological sites so that First Responders are immediately aware of them in the event of a spill or unplanned discharge. This would allow these locations to be prioritized and/or avoided when applying mitigation measures.	TMAC wishes to clarify that environmentally sensitive habitat maps are included in the Plan, which is available to all staff including the Environmental Coordinator. These maps identify locations of sensitive habitat, raptor nests, den sites, and fish habitat. Only archaeological site locations are kept confidential, at the requirement of the GN's Territorial Archaeologist. However, the Environmental Coordinator has ready access to archaeological site maps. of all locations which may be designated high priority.
2017	KIA	4 (KIA-9)	In Section 3.4 the Plan states, "Monitoring activities may be conducted to assess the impacts of the spill and the effectiveness of associated cleanup/remediation efforts in the event a spill cannot be completely removed." The KIA notes that spills reaching watercourses or waterbodies will eventually disperse as a result of natural hydrology such that they are "completely removed" from the environment even if impacts have occurred. The language included in the Plan does not require monitoring in the event of a spill or unplanned discharge to water nor other habitat types. The KIA’s right to compensation for damages to their lands and waters makes prompt and effective monitoring important to both TMAC and the KIA in the event of a spill or unplanned discharge.	TMAC should include triggers which require monitoring activities, and provide details of the type of monitoring that will be undertaken as part of adaptive management to spills and unplanned discharges in the Plan. This discussion should be specific to the type of spill, volume, mobility of the spilled material and proximity to various habitat features. Triggered monitoring should be implemented as quickly as possible such that it would characterize the impact of a spill to the receiving environment as well as the effectiveness of mitigation.	TMAC has provided more detail on spill related monitoring in Section 3.4.

Version	Reviewer	Comment #	Comment	Recommendation	Response
2017	KIA	5 (KIA-10)	TMAC specifies in Module B that the Windy Camp is "no longer occupied". TMAC further specifies that "Fuel storage at Windy Camp is limited to one tank (double-walled Tidy Tank) containing a maximum of 1240L of diesel fuel." This tank is located more than 31 m from any waterbody and has been placed in "a secondary portable berm capable of containing the full volume of this tank in the event that the double-walled system failed". However, no schedule for regular inspections of the tank or secondary containment has been included. A breach in the double-walled Tidy Tank may persist within the secondary containment for an unknown period of time placing the receiving environment and wildlife at potential risk.	TMAC should include the frequency fuel storage structures will be inspected at the Windy Camp, and increase the capacity of the secondary portable berm to 110% the total volume of the 1240L Tidy Tank.	TMAC has clarified in the revised Plan that the tank at Windy is a double-walled enviro tank (i.e. it possesses 110% secondary containment in its design and construction), and is also located inside of tertiary containment, with a capacity > 110 % of the volume of the tank. Although this tank is located at Windy camp, it is there to support Doris activities (it is the fuel supply tank for the potable water pump used to collect all potable water for Doris Camp), as such it is inspected on a regular basis as required under the Doris Water License (Part I Items 2 and 4).
2017	CIRNAC	8		Section 2.4.1 of the Hope Bay Spill Contingency Plan indicates that spill response kits will be available near (within 200 m) areas where chemicals are stored and used on site, on fuel transfer vehicles, in moveable containers, and that additional kits will be added as project activities evolve and new locations of chemical storage and use are identified. Reference is made to Module B for a list of supplies in each spill kit and aquatic spill response container. This reference is incorrect – contents of spill kits and the aquatic spill response container are provided in Appendix 2: Spill Response Resources. CIRNAC recommends this error be corrected to eliminate confusion.	Corrected in this version of the Plan.
2017	CIRNAC	9		Sections 2.3.12 and 2.2.13 of the Hope Bay Spill Contingency Plan make reference to substances that will sink or dissolve if spilled under ice, indicating that response to these substances will be decided on a case-by-case basis, with consultation with regulatory agencies and remediation specialists as necessary. CIRNAC recommends that the plan should include an indication of whether these categories of materials are present on site, what they are, as well as where and how they are stored and/or utilized.	TMAC keeps on file Safety Data Sheets (SDS) for all chemicals and materials on-site. The information provided in the SDS and by the manufacturer define what they are, as well as where and how they are stored and/or utilized. SDS are made available to all employees on site and help define spill response activities for any material, including any substances that will sink or dissolve if spilled under ice.
2017	CIRNAC	10		Appendix 2 of the Hope Bay Project Spill Contingency Plan provides information on spill response resources including mobile equipment, spill kit contents, and aquatic environment response equipment, however no mention is made of specialized equipment and material to cleanup/handle spills, for example, the respirators/self-contained breathing apparatus, fire retardant clothing, sodium or calcium hypochlorite solution, etc. identified in Appendix 1 as required to clean up/neutralize spilled sodium cyanide. CIRNAC recommends Appendix 2 should be enhanced to include all equipment and material referenced in the plan for spill response and the Proponent ensures the equipment is available on site.	Appendix 2 in this version of the Plan has been revised to include specialized equipment required for spill response.

Version	Reviewer	Comment #	Comment	Recommendation	Response
2017	CIRNAC	15	Multiple references (e.g. in Section 2.2.6, 2.2.24 and 4.5.1) incorrectly state that Product Specific Spill Response Plans are provided in Module A	Ensure the proper reference (Appendix 1: Hazardous Materials and Product Specific Spill Response Plans) is used to eliminate confusion	References to appendices corrected in this version of the Plan.
2018	CIRNAC	CIRNAC-3	In reviewing the 2017 Annual Report, CIRNAC commented that a table of key government contacts was presented in the Hope Bay Project Spill Contingency Plan which required an update. This contact information has not been updated to the recommended phone number in the 2019 revision.	CIRNAC recommends that the contact numbers for the inspector be updated. Candice Peterson is now responsible for this file. She is based out of Cambridge Bay, her phone number is 867-983-5115, and her fax number is 867-982-4307.	During the upcoming annual review and update of the Spill Contingency Plan, TMAC will update the Inspector contact information, as well as any other key government contacts, as required to ensure they are current.
2018	CIRNAC	CIRNAC-6	Continuous monitoring and timely reporting of spills incidents is required by regulations and project Term and Condition. The Term and Condition 20 states that: “The Proponent shall ensure spill kits are at hand at the Roberts Bay oil handling facility at all times, and that appropriate containment measures are used in the event of a spill”. The Term and Condition 32 requires that: “Prior to the commencement of operation the Proponent shall have a complete Environment, Health and Safety Management System in place which includes: Emergency Response and Spill Contingency Plan; Occupational Health and Safety Plan; Monitoring and Follow-up Plan; and Auditing and Continuous Improvement Plan”. General comments in Section 6.2 regarding the 2017 Annual Report state: “An information summary should be included in the annual report on these minor spills such as numbers, quantities, impacted media, reasons/causes, and corrective measures implemented (both short term and long term). As one of the objectives stated in the Hope Bay Project Spill Contingency Plan is to “Implement a process to evaluate and continuously improve site spill response procedures”, discussion should be provided regarding lessons learned related to spill response and improvement measures implemented.” The objectives for monitoring spills and discharges are designed to prevent negative impacts to the environment (e.g., water, soil, vegetation, wildlife, air, etc.) associated with project activities, prevent injuries and health impacts to workers and other people associated with project activities; ensure adequate spill response capacity and emergency response planning is in place and ensure adequate oversight of project activities is occurring. In the 2018 Annual Report, 15 spills were reported to have met the reporting threshold of the Nunavut Spill Contingency Planning and Reporting Regulations and were reported to regulatory agencies. An unquantified number of spills termed minor in nature are noted. It is notable that:	CIRNAC recommends that TMAC Resources Inc.: Consider including details of all spills (minor and major/reportable) in the Annual Report. Minimum details should include numbers, quantities, material spilled, impacted media, reasons/causes, and corrective measures implemented (both short term and long term). Identify corrective measures to address the timing for reporting of reportable spills. All reportable spills have to be reported within 24 hours as required by the Spill Contingency and Reporting regulation R-068-93 (Government of Nunavut, clauses 9(2) and 11(2)). Consider adding the following testing and review elements to the Spill Contingency Plan to promote continuous improvement, as best management practice: Document all spill incidents (major/reportable and minor/non-reportable) and undertake periodic review of trends and lessons learned. Analyze previous year’s data of reportable and non-reportable spills to identify trends. Plan, undertake and document an annual spill drill / simulation exercise. The incorporation of this element into the existing management plan(s) will provide a mechanism to learn and improve from accidents and malfunctions. Revise Spill Contingency Plan to include requirements for evaluation and continuous improvement.	TMAC tracks all unauthorized discharges and spills on site, regardless if they are externally reportable or not and identifies any observable trends. Based on those results, root cause analysis and corrective actions are recorded, tracked and implemented. CIRNAC is welcome to review information with TMAC staff during any of their multiple annual site inspections. See Section 3 of this plan. TMAC would like to clarify that only two of the 15 spills were reported outside of the 24 hour reporting window. TMAC strives to provide adequate reporting within the 24 hour reporting period and will aim to ensure all spills are reported as per the Spill Contingency and Reporting regulation R-068-93 (Government of Nunavut, clauses 9(2) and 11(2)). An annual tabletop exercise is conducted prior to the sealift fuel transfer simulating a spill to land or water. The exercise tests TMAC’s Incident Command System and the implementation of the Spill Contingency Plan, Oil Pollution Prevention Plan and the Oil Pollution Emergency Plan in response to a spill scenario at the Roberts Bay oil handling facility as required by Transport Canada. See Section 5.1 of this plan.

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			The overall number of reportable spills increased from 2017 (11) to 2018 (15). The overall number of total spills including minor spills is not reported and there is no provision of quantities, details of the 'minor' spills. Eight of 15 reportable spills were reported one day after the spill occurred. The total quantity of hazardous materials spilled to the environment is more than 25,000 L and is a greater volume than that of the previous year. The March 2019 Spill Contingency Plan does not include continuous improvement management processes addressing prevention.		
2018	CIRNAC	CIRNAC-7	Sections 2.3.12 and 2.2.13 of the Hope Bay Project Spill Contingency Plan (December 2017) make reference to substances that will sink or dissolve if spilled under ice, indicating that response to these substances will be decided on a case-by-case basis, with consultation with regulatory agencies and remediation specialists as necessary. CIRNAC recommended that at a minimum, the plan should include an indication of whether these categories of materials are present on site currently, if so identify them and indicate where they are stored and how they are utilized. TMAC Resources Inc. provided a response and referred to these substances in Table 4.2 (Pg. 27) of the updated Spill Contingency Plan (March, 2019). Therefore this issue has been resolved. Appendix 2 of the Hope Bay Project Spill Contingency Plan provides information on spill response resources including mobile equipment, spill kit contents, and aquatic environment response equipment, however no mention is made of specialized equipment and material to cleanup/handle spills, for example, the respirators/self-contained breathing apparatus, fire retardant clothing, sodium or calcium hypochlorite solution, etc. identified in Appendix 1 as required to clean up/neutralize spilled sodium cyanide. CIRNAC recommended that Appendix 2 should be enhanced to include all equipment and material referenced in the plan for spill response. TMAC Resources Inc. listed the specialized response equipment in the Spill Contingency Plan, March, 2019 (Pg. 13). This issue is resolved. Format and reference errors were identified for the updated Spill Contingency Plan (March, 2019): Hope Bay Project Spill Contingency Plan (March 2019) Section 1.2 Title of Table 1.1 references the Incinerator Management Plan Correct Title of	CIRNAC recommends that TMAC Resources Inc.: Correct the Format and Reference errors indicated in the table above. Review and add new relevant documents pertaining to spills including: "A Guide to Spill Contingency Planning and Reporting" dated 2018 June, Nunavut Department of Environment; and Environmental Emergency Regulations, 2019 published in the Canada Gazette March 6, 2019, coming into force August 24, 2019, Environment and Climate Change Canada	TMAC agrees to update and correct the formatting and reference errors in the next annual update of the Spill Contingency Plan.

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			Table 1.1 Table 1.1 Regulation / Guideline Include updated regulation:		
2018	KIA	KIA-NIRB-21 KIA-NWB-3	There is a discrepancy in the spill amount-reporting threshold for “miscellaneous products, substances, or organisms” that needs to be resolved. The table of Immediately Reportable Spills (p. iv) refers to the “NU Spill Contingency Planning and Reporting Regulations”, a document on the GN DOE website that was created by the GNWT for the GNWT’s use in 1998. These regulations specify a 50 L or 50 kg reporting threshold. However, Section 3.3 of the Plan also implies that the Immediately Reportable Spills Table follows the current GNWT ENR “Report a spill” website, which states that this limit is ≥ 5L or 5kg. Unless there is a typo on the GNWT website, the more conservative values should be used in TMAC’s Spill Contingency Plan. In the Mar 2019 Hope Bay Spill Contingency Plan, there is a table showing Immediately Reportable Spills following “Schedule B of the NU Spill Contingency Planning and Reporting Regulations”. This document is available on the GN DOE website – it is a 1998 consolidation of the 1993 regulations created by the GNWT. In Schedule B of this document, the immediately reportable amount of “miscellaneous products or substances, excluding PCB mixtures” is 50 L or 50 kg, which are the values listed in the Plan. However, the Plan also references the GNWT ENR “Report a spill” website within Section 3.3 when discussing the Immediately Reportable Spills Table. On this website, the reportable quantities for spills of “miscellaneous products, substances or organisms” are ≥ 5 L or 5 kg. These values are 10x lower than those listed in the Regulations, suggesting that the Hope Bay Spill Contingency Plan, or the website itself, contains a typo. It seems more likely that the values on the website are correct, and that those in the Plan are incorrect, based on precedents seen in other projects. Note also that the cited website link in Section 3.3 is broken. The current URL is: https://www.enr.gov.nt.ca/en/services/report-spill The correct spill amount threshold for miscellaneous substances needs to be resolved with regulators. The Immediately Reportable Spills table in the Hope Bay Spill Contingency Plan should then be updated, if necessary.	The KIA recommends that TMAC confirm spill-reporting thresholds with the GN and GNWT, and to update the information presented in the Immediately Reportable Spills, if needed.	TMAC will investigate to determine the correct reportable quantity and include in the next update of the Spill Contingency Plan if required. Use of the GNWT ENR “Report a Spill” website confirmed with the Inspector. This plan has been updated to reflect these thresholds (Section 3.3).
2018	KIA	KIA-NIRB-22 KIA-NWB-4	The Plan states that a marine spill report will be submitted to a Transport Canada (TC) Marine Safety Inspector if required. There is no further information regarding these reporting	The KIA requests additional information about spill reporting requirements for Transport Canada, and that contact information be included in the Plan for TC’s Marine Safety Inspector.	TMAC will ensure the correct contact information for the CIRNAC inspector is up to date with key Government Contacts in the next annual update of the Spill Contingency Plan.

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			requirements; and the table showing Key Government Contacts does not include the TC Inspector's contact information. In addition, the CIRNAC Inspector's phone number in the Key Government Contacts table is different from the number listed in the Type A/B Water License conditions within the Conformity Tables.	The KIA also recommends that TMAC confirm the correct contact information for the CIRNAC Inspector and update the table of Key Government Contacts, if needed.	
			Section 3.3 of the Hope Bay Spill Contingency Plan states that in the event that a spill has occurred to the marine environment, a written report will be submitted within 24 hours to the Canadian Coast Guard, and a copy of this report will be submitted to a Transport Canada Marine Safety Inspector "if required". There are no further details regarding the situation(s) in which a TC Marine Safety Inspector will need to be notified. There is also no contact information for the TC Marine Safety Inspector within the table of Key Government Contacts on p. iii of the Plan. The Conformity Tables within Modules A, B, C, and D include conditions of the Type A and B Water Licenses that the Spill Contingency Plan is intended to address. Among these conditions is the reporting of any unauthorized deposits or foreseeable unauthorized depots of waste and/or discharges of effluent to "the Inspector at (867) 975-4295" (in addition to the 24-Hour NT-NU Spill Reporting Line and the KIA). However, the phone number listed in Key Government Contacts (p. iii of the Plan) for the CIRNAC Inspector is (867) 983-5115. Please confirm which phone number is correct and update the list of key contacts, if needed.	TMAC's response is partially satisfactory. They will confirm and include the correct contact information for the CIRNAC inspector in the next update of the Spill Contingency Plan. However, TMAC did not address the KIA's comment regarding marine spills and reporting requirements to a Transport Canada Marine Safety Inspector. Request to TMAC: Please include contact information for the Marine Safety Inspector in the list of Key Government Contacts and indicate the situation(s) in which the Marine Safety Inspector needs to be notified in the next update of the Spill Contingency Plan.	Contact information for the Marine Safety Inspector and the situation(s) in which the Inspector would be contacted are detailed in the Hope Bay Ocean Pollution Prevention Plan/Oil Pollution Emergency Plan (OPPP/OPEP). The OPPP/OPEP is the main document of reference for spill control actions in a marine environment and is directly referenced in section 2.2.8 – Spill in a Marine Environment of the Spill Contingency Plan.
2018	KIA	KIA-NIRB-23 KIA-NWB-5	It is difficult to judge from the plates in Modules A and D whether TMAC is complying with their own policy of making spill kits available within 200 m of fuel and chemical storage locations. TMAC should ensure that spill kits are available as described. Section 2.4.1 of the Hope Bay Spill Contingency Plan states that spill response kits will be available near (within 200 m) any areas where chemicals are stored and used on site, including near all bulk fuel berms and smaller fuel tanks. In addition, all active construction areas where equipment is operating will have a spill kit located within 200 m. Modules A through D within the Plan describe the specific conditions of Doris, Windy, Madrid, and Boston operations relevant to spill response, including chemical storage volumes	The KIA recommends that updated photos or site diagrams, with appropriate scale indicators, be included in the next version of the Hope Bay Spill Contingency Plan.	TMAC will ensure updated site diagrams will be included in the next annual update of the Spill Contingency Plan. Please refer to Modules A through D of this Plan.

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			and locations, and photographs of the sites. Plate A.4 shows the Reagent Berm at Doris, and an Explosive Berm is indicated to the right, outside of the photo. It is unclear whether the spill kit located at the Reagent Berm is also intended to serve spill incidents at the Explosive Berm, and it is also unknown whether the Explosive Berm is located within 200 m of the Reagent Berm (and spill kit). Furthermore, the lack of scale, and possible forced perspective, of Plate D.1 (Boston Camp) makes it difficult for a reviewer to determine whether the spill kit in the middle-left is located within 200 m of the chemical storage locations to the farthest left of the photo. It would be useful to have updated photos or site diagrams, for all Hope Bay project locations, that encompass all infrastructure and activities and have a scale to assess distances. These would allow for a more comprehensive review of TMAC's spill response plan.		
2018	KIA	KIA-NIRB-24 KIA-NWB-6	The Jet-A Specific Spill Response Plan needs more information and subsequent steps for emergency response to a spill to water. Currently, the plan is limited to advising responders not to attempt to contain or remove spills, and to use booms to prevent spread. Even if TMAC staff are not responsible for cleaning up a Jet-A spill, there should be further information about who to contact for proper treatment. TMAC has developed a Product Specific Spill Response Plan for Jet-A fuel because spills of this substance could be immediately harmful to humans and/or the environment and has the potential to cause pool fires and vapour cloud explosion. Within the Jet-A plan, the instructions for spills to water include three bullet points: Jet-A fuel floats on surface of water. Do not attempt to contain or remove spills (high explosion potential). Use booms to prevent spread of spill. The subsequent generic steps regarding Jet-A fuel spills are to properly dispose of Personal Protection Equipment (PPE) and to thoroughly wash skin with soap. This is the end of the Jet-A spill response plan. Further details are needed regarding Jet-A spills to water. It is perhaps implied (though this should be clarified) that no Hope Bay Project staff within the Spill Emergency Incident Command System (Figure 1-3, p. vii) is qualified to clean up Jet-A spills to water. If this is the case, information about who should be	The KIA requests that additional information regarding spills to water be included in the Jet-A Specific Spill Response Plan, such as the party(ies) responsible for cleanup/ treatment.	TMAC will provide additional information to the Aviation Fuel (Jet-A) Specific Spill Response Plan. Additional information has been provided in the Jet-A Specific Spill Response Plan with rationale for response to a spill on water. Refer to Appendix 1 of this Plan. Note, multiple spill response resources direct that attempts to recover spills of Jet-A to water should not be attempted due to volatility and explosive potential of the material, and the fact that evaporation of the product occurs within hours to days makes recovery of this product by conventional skimming methods difficult to accomplish.

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			contacted, and who will be responsible for clean-up, should be included in the Plan.		
2018	KIA	KIA-NIRB-25 KIA-NWB-7	TMAC's revisions to the Spill Contingency Plan in response to the previous KIA comment #2 are incomplete. There are ambiguities between Section 2.2.16 and the Environmental Resource Maps provided in Appendix 3, which would prevent a clear understanding of priorities in the event of a spill. In response to previous KIA review comment KIA-7, TMAC proposed a prioritization hierarchy for environmental sensitivities. (Note that there is a typo in TMAC's response on p. 24 – it should refer to Section 2.2.16 rather than 2.3.10.) The proposed hierarchy of protection will attempt to favour: 1. Waterbodies; 2. Sensitive habitat types; 3. Archaeological sites; 4. Rare plants; and 5. Active raptor nest or wildlife den. In addition, for spills in water, prioritization will attempt to avoid vegetated and finer substrate shoreline areas (sand, gravel, cobble). TMAC's proposed hierarchy is not detailed enough in comparison to the Environmental Sensitivity Maps A-C, which include rare plants, raptor nests, and wildlife dens. Are the "sensitive habitat types", indicated as the second highest priority, the other features on these maps, i.e., eskers, slopes of 40-90% (possible cliffs), or certain TEM classes? For example, would the TEM class of Dry Carex-Lichen be prioritized over others because this is important forage for caribou? Furthermore, the Environmental Resource Maps in Appendix 3 may not be at a size, scale, or resolution that is useful for emergency spill response. For example, Figure 3.1 (Map A) is very difficult to read; the need for 12 insets may indicate that larger scale maps are needed to cover the study area in sufficient detail. Map A also shows that Hope Bay is within the study area; however, only Roberts Bay was mapped for shoreline fish habitat values (Figure 3.4, Map D).	The KIA requests that the proposed prioritization hierarchy in Section 2.2.16 of the Spill Contingency Plan be revised to a level of detail that is compatible with the Environmental Sensitivity Mapping for this project. The KIA also requests that Environmental Sensitivity Maps be provided to Project personnel in a larger format and at higher resolution, such that they are useful for emergency spill response.	TMAC would like to take the opportunity to re-visit the response hierarchy to reflect operational experience. TMAC's first priority in any spill incident is to stop the source of the spill (if not already accomplished at the time discovered), then to prevent the spread and contain the spill and then to assess the best method to remove as much of the spilled substance as possible taking into consideration numerous factors including but not limited to land, water, topography, substrate depth, location and season. Safety of personnel is the paramount consideration in all efforts and workplans. Based on the review of Appendix 3 and experience to date, TMAC will re-visit the Environmental Sensitivity Mapping to account for the abiotic and biotic factors that practically guide spill response at Hope Bay. KIA will be engaged on this matter and the potential timing of the next update in the plan.

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2018	KIA	KIA-NIRB-26 KIA-NWB-8	TMAC has made some revisions to the Spill Contingency Plan regarding spill-related monitoring. However, the wording is weak and does not reflect a commitment by TMAC to conduct monitoring activities. In response to previous KIA review comment KIA-9, TMAC responded that more details on spill related monitoring have been included in Section 3.4 of the Spill Contingency Plan. However, the revisions to Section 3.4 do not fully address the KIA's concerns. While TMAC has deleted the phrase "completely removed" and has added more information about monitoring triggers and locations for spills to water, the wording in this section still needs to be stronger. The current wording throughout Section 3.4 is that "monitoring may be triggered". TMAC should commit to conducting monitoring activities for spills that potentially have negative environmental impacts, and that are unlikely to be (completely) recovered, whether or land or in water. While monitoring for all spills may not be feasible, especially for small spills with little expected impact, TMAC could develop spill thresholds for various substances or situations for which "monitoring will be triggered".	The KIA recommends that TMAC use stronger wording within Section 3.4 of the Spill Contingency Plan, i.e. "monitoring will be triggered" rather than "monitoring may be triggered" for various spill response scenarios.	TMAC is committed to the application of the appropriate spill prevention, response, monitoring and restoration activities outlined in the Spill Contingency Plan. TMAC believes that it is not practical to establish specific thresholds for various spill response scenarios as there are many, and monitoring and restoration activities would need to be determined on a case-by-case basis. Where deemed appropriate, monitoring and restoration programs deemed would be developed in consultation with the CIRNAC Inspector and the KIA.
			Without a strong commitment from TMAC to monitor the potential effects of spilled substances that cannot be recovered, there is no guarantee that monitoring will occur at all. The KIA's right to compensation for damages to their lands and waters makes prompt and effective monitoring important to both TMAC and the KIA in the event of a spill or unplanned discharge.	TMAC's response is partially satisfactory. Please see detailed KIA review comments for KIA-NWB-9 below.	Please see detailed response as part of KIA-NWB-9 below.
2018	KIA	KIA-NIRB-27 KIA-NWB-9	Conditions for triggering of monitoring of spills into water is unclear. TMAC states that "monitoring may be triggered in the event of spills to water of substances that dissolve or sink where substance recovery unlikely" and that "monitoring may also be triggered in the event of externally reportable spills to land for which recovery of spilled material is unlikely or may be incomplete". In Appendix 4, under Comment #4 (KIA-9), the KIA requested that "TMAC should include triggers which require monitoring activities, and provide details of the type of monitoring that will be undertaken as part of adaptive management to spills and unplanned discharges…the discussion should be specific to the type of spill, volume, mobility of the spilled material and proximity to various habitat features. Triggered monitoring should be implemented as quickly as possible".	Please remove the discretionary language in Section 3.4 to so that monitoring is required for (i) all spills to water of substances that dissolve or sink which are unlikely to be recovered and (ii) all externally reportable spills to land of substances unlikely to be fully recovered. Please specify under what conditions monitoring will be triggered for spills (i) and (ii) (e.g., type of spill, volume, mobility, proximity to sensitive environmental features), what parameters will be collected, and how soon after a spill triggered monitoring will be implemented.	TMAC is committed to the application of the appropriate spill prevention, response, monitoring and restoration activities outlined in the Spill Contingency Plan. TMAC believes that it is not practical to establish specific thresholds for various spill response scenarios as there are many, and monitoring and restoration activities would need to be determined on a case-by-case basis. Where deemed appropriate, monitoring and restoration programs would be developed in consultation with the CIRNAC Inspector and the KIA.

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			TMAC responds that it "has provided more detail on spill related monitoring in Section 3.4". We do not believe TMAC has satisfactorily responded to our original concern regarding monitoring spills. We are concerned with the use of discretionary language in the guidelines for monitoring spills under Section 3.4 ("may be triggered"). Furthermore, it is not clear what conditions will actually trigger monitoring under the two scenarios presented in this section (e.g., type of spill? volume? mobility? proximity to sensitive environmental features?). TMAC also has not indicated how soon after a spill triggered monitoring would be implemented, or what parameters will be collected.	TMAC's response is the same as for KIA-NWB-8, which is partially satisfactory. The proponent states that "where deemed appropriate, monitoring and restoration programs would be developed in consultation with the CIRNAC Inspector and the KIA." As evidenced by comments KIA-NWB-8 and -9, the KIA believes that monitoring and restoration programs should be developed prior to spill events as part of spill response planning and preparedness and to show an understanding of the potential effects of spills on land and in water. These programs can then be adapted, in a timely manner, to each spill response scenario on a case-by-case basis. We appreciate that TMAC's monitoring and restoration programs will be developed in consultation with the KIA; however, we recommend that consultation about spill response and triggered monitoring occur as soon as possible. KIA acknowledges that spill response varies depending on numerous factors (including type of substance, location of spill, volume, proximity to sensitive environmental features etc.), all spills need to be monitored to help determine what response is appropriate. Furthermore, in the case of spills to water and land that are unlikely to be recovered, it is paramount that monitoring be conducted to track whether these spills cause any adverse environmental effects, so that effective mitigation measures can be implemented. Consequently, the discretionary language in the guidelines for monitoring spills under Section 3.4 should be removed and replaced with wording stating that monitoring is required for all spills described under (i) and (ii) in our prior recommendation. The KIA also requests clarification about situations in which TMAC would deem it appropriate to develop appropriate monitoring and restoration programs in consultation with the CIRNAC Inspector and the KIA (e.g., compared to when it would be inappropriate to do so).	TMAC appreciates KIA's intent to understand spill preparedness however TMAC does not feel predetermining every possible scenario, response, follow up monitoring, including parameters to be measured, and reclamation actions, is practical or effective. If TMAC were to attempt to address these requests it would result in an extremely voluminous document with thousands of iterations and combinations that account for every possible factor at Hope Bay. TMAC has explored this approach in the past and determined it would be unreasonable to maintain but more importantly, unnecessary. Including these details up front in the management plan is not the intent of the Spill Contingency Plan. The Spill Contingency Plan was developed for the efficient and effective management of activities at site by ensuring the people responsible have the information required to make informed decisions that consider key factors. TMAC has evaluated this approach as being more effective than predetermined responses to a copious amount of scenarios. That said, TMAC would welcome discussing this matter further with the KIA to understand if there are opportunities for improvement that TMAC can incorporate into its approach to spill response.
2019	KIA	KIA-NIRB-28 KIA-NWB-10	Photograph does not indicate location of spill kit at Patch Laydown Facility. Plate B.2 shows a photograph of the Patch Laydown Facility. The caption indicates that the red circle is for the fuel storage location and the yellow star is for the spill kit location. However, no red circles or yellow stars are shown on the photograph.	Please clarify whether any fuel storage and spill kit locations exist at the Patch Laydown Facility.	Fuel and chemical storage facilities have been removed from the Patch Laydown Facility. Plate B.2 been removed in this version of the Plan.
2019	KIA	KIA-NIRB-29 KIA-NWB-11	No mitigation measures are stated for settlement of tanks. Eight fuel tanks at the Boston site are situated on a lined fuel berm on the permafrost. TMAC indicates that there are concerns that the permafrost may degrade over time due to thin areas of the crush pad, which could cause settlement of the tanks, making them unstable and prone to tipping. TMAC states that regular monitoring of the fuel tanks for differential settlement occurs	Please explain what management action is taken if settlement of the fuel tanks at the Boston site is detected during routine monitoring.	If settlement of the fuel tanks at the Boston site are detected beyond an acceptable limit, TMAC will discontinue the use of the tank(s) that are affected by settlement and engage the Engineer of Record (SRK Consulting) for guidance and recommendations for correcting the settlement issue. TMAC will continue to monitor permafrost and physical stability of site infrastructure on an ongoing basis and will take a proactive approach to risks identified.

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			during seasonal visits, annual geotechnical inspections, and as needed. However, TMAC does not discuss what mitigation measures are in place should settlement of the tanks be detected.		
2020	KIA	KIA-NWB-33	The discretionary language KIA identified in the 2018 Annual Report relating to monitoring of spills remains in the 2019 Annual Report. Under section 3.4 of Appendix H, TMAC states that “monitoring activities may be conducted to assess the impacts of the spill and the effectiveness of associated cleanup/ remediation efforts in the event spill material cannot be removed” (p. 20) and “monitoring may be triggered in the event of spills to water of substances that dissolve or sink or where substance recovery is unlikely” (p. 21) and “monitoring may also be triggered in the event of externally reportable spills to land for which recovery of spilled material is unlikely or may be incomplete” (p. 21). In Appendix 4, in response to our previous comments, TMAC indicates that it is not reasonable or necessary to predetermine “every possible scenario, response, follow up monitoring” because such an approach “would result in an extremely voluminous document with thousands of iterations and combinations that account for every possible factor at Hope Bay” (p. 43). We are not suggesting that every possible step for monitoring should be detailed in the Spill Contingency Plan, but we are requesting that monitoring be required for (i) every spill that cannot be removed, (ii) spills to water of substances that dissolve or sink or where substance recovery is unlikely, and (iii) externally reportable spills to land for which recovery is unlikely or incomplete. Specific details on what the required monitoring would entail could then be determined on a case by case basis, depending on the nature of the spill. We do not think such an approach would be unduly time-consuming or cumbersome, but rather, would provide an effective and efficient framework for ensuring monitoring of spills that are not fully or partially recoverable is conducted, so that ultimately no adverse effects to the environment occur, and long-term liabilities on IOL are avoided.	Please remove the discretionary language in section 3.4 and replace with wording that monitoring is required for all spills detailed in (i) to (iii) above.	TMAC acknowledges that any required environmental monitoring would be evaluated on a case by case basis in situations of reportable spills that cannot be removed or fully recovered; or, involve a substance spilled to water that dissolves, sinks or where substance recovery is unlikely. As part of regulated spill reporting and follow up, specific details on the spill and any follow-up monitoring would be detailed in the 30 day spill report submitted to the Government of Nunavut with copy to the KIA. Spill response and monitoring is determined on a case by case basis, depending on the nature of the spill and the KIA has the opportunity to inspect spill locations with their routine site inspections.
2021	KIA	KIA-NWB-6	In 2020 the discharge location of the Roberts Bay Discharge System changed. The subsea diffuser now	It is recommended that TMAC update the description of the RBDS in Module A of	The new location will be included in the next revision of the plan and submitted in the 2021 annual report.

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			extends 1.4 km into Roberts Bay and the Marine Outfall Berm now extends from the shoreline to approximately the 20 m bathymetric contour. It is recommended that TMAC update Section A4 of Module A: Doris to reflect the recent changes to the RBDS.	the Spill Contingency Plan to reflect recent changes to the discharge location.	
2021	ECCC	3.(1)	Did the responsible person submit a SCH 2 Notice of Substance within 90 days of either of the following situations: The SCH 2 Notice must be submitted via the SWIM database within 90 days of meeting the threshold for quantity and/or container capacity of an E2 substance and re-submitted every 5 years thereafter (s.13)		Schedule 2 was submitted by TMAC on June 23, 2020; however, because the substances on site met the E2 concentration and substance thresholds on August 24, 2019, Schedule 2 was due on Nov. 22, 2019.
V18 (March 2025)	ECCC	ECCC-NIRB-04	At remote sites such as where this project is located, the implementation of additional mitigation measures is prudent to help to decrease the likelihood of spills and minimize the need for spill response actions which are made more challenging by the project's isolation from transportation infrastructure. To that end, the Proponent may wish to consider implementing the suggested additional mitigation measures.	ECCC recommends the Proponent consider including additional mitigation measures within the Spill Response Plan, to help mitigate the likelihood of leaks and spills. These include: Section 4.3. Spill during Transfer o Fuel nozzles equipped with automatic shutoffs o Operators stationed at both ends of hoses during refueling operations, unless both ends of the hose are visible and accessible by one operator o Fuel remaining in hoses is discharged into equipment or returned to the storage container o Refuel at least 31 m from the normal high-water mark of any water body o Use of drip trays or absorbent mats at prevent drips when refueling vehicles or equipment in an area that does not have secondary containment o Provide adequate lighting at refueling areas Section 4.4. Spills from Equipment o Use of secondary containment for any equipment with a built-in fuel tank o Use of biodegradable hydraulic oil (when appropriate) for equipment that is working near or in water o Park vehicles and equipment at a location that is at least 31 m from the normal high-water mark of any water body	Agnico Eagle will review these suggestions in relation to future SCP updates.
V18 (March 2025)	ECCC	ECCC-NIRB-05	There is no information provided on the containment / secondary containment (i.e., type and size) used for the hazardous substances listed in Table C.1. It is recommended that this information be included, as secondary containment is an important mitigation measure for spills and leaks.	ECCC recommends that containment / secondary containment (i.e., type and size) be included for the hazardous substances at the Madrid North and Madrid South sites.	The points raised by ECCC are noted and Agnico Eagle will update Table C.1 in the next update to the Spill Contingency Plan to include a column for containment type.
V18 (March 2025)	KitIA	KitIA-NIRB-28	KIA previously requested that mapping of freshwater and marine fish habitat be included as part of the sensitivity mapping used to inform spill response (KIA comment KIA-6 in Table 4.1 on the 2017 version of the Spill Contingency Plan). TMAC responded that fish habitat was included in the Environmental Resource Maps. However, no information on fish habitat is depicted on the four environmental sensitivity mapping figures (Maps A-D) provided in the revised Spill Contingency Plan. It is essential that fish habitat be identified on environmental sensitivity mapping so that, if a spill were to	Environmental sensitivity mapping should be updated to identify freshwater and marine fish habitat.	Agnico Eagle considers any fish bearing stream or water body to be environmentally sensitive habitat and would take appropriate and immediate action to protect these areas in the case of an incident. Features including sensitive shorelines, streams, drainage areas and associated habitat are highlighted in the existing Spill Contingency Plan maps. For example, areas where streams empty into the ocean are captured. Agnico Eagle will update the sensitivity maps to clearly state that all streams and water bodies are considered sensitive habitats.

V19

Version	Reviewer	Comment #	Comment	Recommendation	Response
			occur near or in water, appropriate and immediate action could be taken to avoid damage to these sensitive habitats.		

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SPILL CONTINGENCY PLAN

HOPE BAY, NUNAVUT

Appendix 5:
E2 and MDMER Cross-reference Tables

E2 Regulations Cross-Reference Table

Environmental Emergency Regulations, 2019: SOR/2019-15
Cross-reference Table Hope Bay Mine Facility, E2 ID# 2-4032, E2 Substance Diesel Fuel

EER Reference	Information required	Location of information in this emergency plan
4 (2) (a)	a description of the properties and characteristics of the substance and the maximum expected quantity of the substance at the facility	Maximum expected quantity – Hope Bay Spill Contingency Plan Module A Section A2, Module B Section B2, Module C Section C2 and Module D Section D2 Substance properties – Appendix 1
4 (2) (b)	a description of the commercial manufacturing, processing or other activity involving the substance that takes place at the facility	Hope Bay Spill Contingency Plan Appendix 1
4 (2) (c)	a description of the facility and of the area surrounding the facility that may be affected by an environmental emergency referred to in paragraph (d), including any hospitals, schools, residential, commercial or industrial buildings and any highways, public transit infrastructure, parks, forests, wildlife habitats, water sources or water bodies;	Hope Bay Spill Contingency Plan Section 1.5, Module A, Appendix 1, Appendix 3
4 (2) (d)	an identification of any environmental emergency that could reasonably be expected to occur at the facility and that would likely cause harm to the environment or constitute a danger to human life or health, including the environmental emergency referred to in paragraph (e) and if applicable, the environmental emergency that is more likely to occur than the environmental emergency referred to in paragraph (e) and that would have the longest impact distance outside the boundary of the facility	Hope Bay Spill Contingency Plan Section 4.8
4 (2) (e) (i)	an identification of the harm to the environment or danger to human life or health that would likely result from an environmental emergency involving the release of the maximum quantity of the substance that could be contained in the container system that has the largest maximum capacity, if a quantity of the substance is in a container system, and	Hope Bay Spill Contingency Plan Section 4.8
4 (2) (e) (ii)	an identification of the harm to the environment or danger to human life or health that would likely result from an environmental emergency involving the release of the maximum expected quantity of the substance that will not be in a container system, if a quantity of the substance is not in a container system	Hope Bay Spill Contingency Plan Section 4.8, Appendix 1
4 (2) (f)	an identification of the harm of the environment or danger to human life or health that would likely result from the environmental emergency identified under paragraph (d), if any, that is more likely to occur than the environmental emergency referred to in paragraph (e) and would have the longest impact distance outside the boundary of the facility;	Hope Bay Spill Contingency Plan Section 4, Appendix 1
4 (2) (g)	a description of the measures to be taken to prevent and prepare for the environmental emergencies identified under paragraph (d) and the measures that will be taken to respond to and recover from such emergencies if they were to occur	Hope Bay Spill Contingency Plan Section Section 2, Section 4, Section 3.4 and Section 3.5, Appendix 1

EER Reference	Information required	Location of information in this emergency plan
4 (2) (h)	a list of the position titles of the persons who will make decisions and take a leadership role in the event of an environmental emergency and a description of their roles and responsibilities	Hope Bay Spill Contingency Plan Section 2.3 and figure 1.3
4 (2) (i)	a list of the environmental emergency training that has been or will be provided to prepare personnel at the facility who will respond in the event that an environmental emergency identified under paragraph (d) occurs	Hope Bay Spill Contingency Plan Section 5
4 (2) (j)	a list of the emergency response equipment that is necessary for the measures described in paragraph (g) and the equipment's location	Hope Bay Spill Contingency Plan Appendix 2, Equipment locations shown in Module A Plate A.1 to A.5, Module B Plate B.1 to B.2, Module C Plate C.1 to C.4, Module D Plate D.1 to D.3
4 (2) (k) (i)	a description of the measures that will be taken by a responsible person or by a responsible person and local authorities, acting jointly, to communicate with the members of the public who may be adversely affected by the environmental emergency referred to in paragraph (f) to inform them, before the environmental emergency occurs, of the possibility that the environmental emergency could occur	Hope Bay Spill Contingency Plan Section 2.3, Section 3.3, Section 4
4 (2) (k) (ii)	a description of the measures that will be taken by a responsible person or by a responsible person and local authorities, acting jointly, to communicate with the members of the public who may be adversely affected by the environmental emergency referred to in paragraph (f) to inform them, before the environmental emergency occurs, of the potential effects of the environmental emergency on the environment and on human life or health, taking into account the factors referred to in paragraphs (a) to (c), and	Hope Bay Spill Contingency Plan Section 2.3, Section 3.3, Section 4
4 (2) (k) (iii)	a description of the measures that will be taken by a responsible person or by a responsible person and local authorities, acting jointly, to communicate with the members of the public who may be adversely affected by the environmental emergency referred to in paragraph (f) to inform them, before the environmental emergency occurs, of the measures that will be taken by the responsible person to protect the environment and human life or health, and the means by which the responsible person will communicate with them, in the event that the environmental emergency occurs;	Hope Bay Spill Contingency Plan Section 2.3, Section 3.3, Section 4
4 (2) (l)	a description of the measures that will be taken by a responsible person or by a responsible person and local authorities, acting jointly, to, in the event that an environmental emergency involving the release of a substance occurs, communicate with the members of the public who may be adversely affected to provide them, during and after its occurrence, with information and guidance concerning the actions that could be taken by them to reduce the potential harm to the environment and danger to human life or health, including an explanation of how those actions may help to reduce the harm or danger;	Hope Bay Spill Contingency Plan Section 1.5, Section 2.3, Section 3.3, Section 4
4 (2) (m)	the position title of the person who will communicate with the members of the public referred to in paragraphs (k) and (l);	Hope Bay Spill Contingency Plan Section 2.3, Section 3.3, Section 4
4 (2) (n)	a description of the consultations that a responsible person had with local authorities, if any, with respect to the measures referred to in paragraph (k) and (l); and	Hope Bay Spill Contingency Plan Appendix 4

EER Reference	Information required	Location of information in this emergency plan
4 (2) (o)	a plan of the facility showing the locations of any substances in relation to the physical features of the facility	Hope Bay Spill Contingency Plan Module A Plate A.1 to A.5, Module B Plate B.1 to B.2, Module C Plate C.1 to C.4, Module D Plate D.1 to D.3

MDMER Cross-Reference Table

MDMER Cross-reference table for section 30(1) to 30(5)

Hope Bay Mine Facility, FDP RBD-1

MDMER Reference	Information required	Location of information in this emergency plan
s. 30(1)	The owner or operator of a mine shall prepare an emergency response plan that describes the measures to be taken in respect of a deleterious substance within the meaning of subsection 34(1) of the Act to prevent any unauthorized deposit of such a substance or to mitigate the effects of such a deposit.	Hope Bay Spill Contingency Plan
s. 30(2)	The emergency response plan shall include the following elements:	
s. 30(2)(a)	the identification of any unauthorized deposit that can reasonably be expected to occur at the mine and that can reasonably be expected to result in damage or danger to fish habitat or fish or the use by man of fish, and the identification of the damage or danger;	Hope Bay Spill Contingency Plan Section 4
s. 30(2)(b)	a description of the measures to be used to prevent, prepare for, respond to and recover from a deposit identified under paragraph (a);	Hope Bay Spill Contingency Plan Section 2, Section 4, Module A Section A5
s. 30(2)(c)	a list of the individuals who are to implement the plan in the event of an unauthorized deposit, and a description of their roles and responsibilities;	Hope Bay Spill Contingency Plan Section 2
s. 30(2)(d)	the identification of the emergency response training required for each of the individuals listed under paragraph (c);	Hope Bay Spill Contingency Plan Section 5
s. 30(2)(e)	a list of the emergency response equipment included as part of the plan, and the equipment's location; and	Hope Bay Spill Contingency Plan Appendix 2. Equipment locations shown in Modules A through D.
s. 30(2)(f)	alerting and notification procedures including the measures to be taken to notify members of the public who may be adversely affected by a deposit identified under paragraph (a).	Hope Bay Spill Contingency Plan Section 3.3
s. 30(3)	The owner or operator shall complete the emergency response plan and have it available for inspection no later than 60 days after the mine becomes subject to this section.	Hope Bay Spill Contingency Plan
s. 30(4)	The owner or operator shall update and test the emergency response plan at least once each year to ensure that the plan continues to meet the requirements of subsection (2).	Hope Bay Spill Contingency Plan Section 5
s. 30(4.1)	The owner or operator of a mine shall, each time the emergency response plan is tested, record the following information and keep the record for at least five years: (a) a summary of the test (b) the test results; and	Hope Bay Spill Contingency Plan Section 5

	any modifications that are made to the plan as a consequence of the test.	
s. 30(4.2)	The owner or operator of a mine shall ensure that a copy of the most recent version of the emergency response plan is kept at the mine in a location that is readily available to the individuals who are responsible for implementing the plan.	Hope Bay Spill Contingency Plan Available on Public server, posted in main camp hallway, copy maintained in main conference room (assembly point for Incident Command Group) and Geo- Hub conference room (alternate assembly point)
s. 30(5)	If a mine has not been subject to the requirements of this section for more than one year, a new emergency response plan shall be prepared and completed no later than 60 days after the day on which the mine again becomes subject to this section.	NA