## HOPE BAY PROJECT 2021 Nunavut Water Board Annual Report













## **HOPE BAY PROJECT**

## 2021 Nunavut Water Board Annual Report

Prepared by

Agnico Eagle Mines Limited

Prepared for

Nunavut Water Board

March 2022

### **Executive Summary – English**

Hope Bay is a gold mining and exploration Project located on a property approximately 20 km × 80 km along the south shore of Melville Sound in Nunavut, Canada, and continued to be operated by TMAC Resources Inc. (TMAC) in 2021. On February 2, 2021 TMAC was purchased by Agnico Eagle Mines Limited (Agnico Eagle) and became a wholly owned subsidiary of Agnico Eagle. Effective as of January 1<sup>st</sup>, 2022, Agnico Eagle and TMAC amalgamated and continued under the Agnico Eagle name. Accordingly, by operation of law and without any further acts or steps necessary, TMAC ceased to exist and continued as Agnico Eagle, and Agnico Eagle possessed all of the property, rights, privileges and franchises and is subject to all liabilities, including civil, criminal and quasi - criminal, and all contracts, disabilities and debts of TMAC. This report to the Nunavut Water Board (NWB) has been prepared to summarize the Project activities and monitoring conducted under Agnico Type A Water Licences 2AM-DOH1335, 2AM-BOS1835, Type B Water Licences 2BB-MAE1727, 2BB-BOS1727, and the exploration Type B Water Licence 2BE-HOP1222 for 2021.

In response to the health risks associated with the COVID-19 pandemic, Agnico continued the implementation of rigorous protocols and hygiene measures in order to keep its workforce and communities safe. A reduction of workforce was done in October-November 2021 following positive COVID-19 cases identified on site. Return to normal operations was initiated in November 2021. In 2021 logistical, operational and travel restrictions imposed by the COVID-19 pandemic influenced activity-based monitoring. However environmental protection and compliance at Hope Bay remained a top priority.

Commercial operations continued for most of 2021 at Doris with ongoing efforts to stabilize mill throughput and optimize gold recovery. In 2021 the mill processed 262,466 tonnes (t) of ore and poured 64,583 ounces of gold. Following the acquisition Agnico continued processing ore at a reduced rate and achieved steady state processing and improved gold recovery. In October the mill was shutdown to optimize underground development and stockpile ore for the mill.

Underground mining operations continued at Doris Mine, while Madrid underground and surface operations, including mining of the Naartok East Crown Pillar trench, were suspended in February 2021. At Doris, Agnico focused on producing from developed stopes and bringing ore to surface. A grouting program at Doris helped maintain the inflows of water over the course of 2021.

The Roberts Bay Discharge system was recommissioned in May with the addition of a coagulant dosing system to manage total suspended solids in mine water. Discharge to Robert's Bay commenced in accordance with MDMER in May 2021 and was suspended in November due to the coming into force of the MDMER toxicity testing for *Arcatia tonsa*.

Civil construction activities at Doris included maintenance conducted on airstrip and construction of a core storage laydown. Earthworks were conducted at the Madrid North portal laydown in early 2021 to excavate an area of the laydown with higher ammonia and chloride signatures. This material was removed prior to freshet 2021 and placed on the west boundary of the Naartok East Crown Pillar.

In the fall, Agnico concluded another successful sealift operation including the purchase and delivery of diesel fuel as well as explosives and reagents to support mining and milling activities. Hazardous waste was successfully backhauled without incident. A total of 57 sea cans of hazardous waste and 418 sea cans of non-hazardous solid waste were disposed off site. Waste disposal, fuel usage and chemical storage stayed consistent with previous years.

Three spills were reported to the Nunavut Spill Line, CIRNAC Inspector and KIA Major Projects office. The remaining spills that occurred during 2021 were minor in nature, occurring on camp pads and infrastructure, with quick response and clean up resulting in negligible impact to the receiving environment.

Water use in 2021 was conducted in accordance with the Type A Water Licence 2AM-DOH1335 for Doris -Madrid, the Type A Water Licence 2AM-BOS1835 and the Type B Water Licences 2BB-BOS1727 for Boston, the Type B Water Licences 2BB-MAE1727 for Advanced Exploration at Madrid, and the Type B Water Licence 2BE-HOP1222 for regional exploration. The referenced water licences include provisions for sampling programs that involve recording data related to the volume of water extracted for any purpose, testing of effluents (e.g., treated sewage effluents) discharged to the environment, and monitoring water quality within specific Project areas (e.g., surface discharge downstream of construction areas, storm water from an engineered containment structure, sewage, and oily water effluent, etc.). Water usage in 2021 was conducted within approved limits. There were no changes to surface water management practices at site. Due to limited access to the Boston site during the summer period, efficient use of helicopter time ensured that the site was accessed for monitoring and de-watering requirements of any water containing structures. On June 18, 2021, seepage was identified emanating from the downstream toe of the Madrid North Contact Water pond located at the Madrid North site. The Nunavut Spill Line was notified via email of a release of an estimated 350 m³ of contact water. Despite this unplanned event, water met discharge criteria in the licence.

An application for renewal of Licence 2BE-HOP0712 is in preparation for 2022. This water licence lists the terms and conditions for the use of water and management of waste in conducting mineral exploration activities in the Hope Bay Belt and in the operation of Windy Camp

In 2021, Agnico Community Consultation activities continued to be severely constrained by public health measures enacted by the Government of Nunavut Department of Health pursuant to the Nunavut public health emergency declared in response to the COVID-19 global pandemic. The Agnico Cambridge Bay office was closed to the public early in the pandemic and therefore it was not possible for the public in Cambridge Bay to physically engage with Agnico staff, although electronic lines of communication remained open.

As demonstrated above, Agnico strives to continually achieve compliance with the various regulatory requirements and maintain community relationships. Environmental monitoring in accordance with the existing Water Licences, Framework Agreement, Project Certificate, authorizations, management plans and environmental effects monitoring plans will continue during 2022. Agnico is pleased to submit the details of this report to the Nunavut Water Board.

### ▲Δ·ሮՐ⊲ፕሬተና ▷ኄ▷ረና – Inuktitut (North Baffin)

HÞʿ < $\Delta$  ለርኪላቴ ለቦነውላ፫፡ጋቴ 20 የ፫ርር-ጋላውኔ x 80 የ፫ርር-ጋላው c ګሁለቴ በቦላቴ ምርላውና ለቴር ነውና ውልውና አውኔ ውልውና, ቴልርርና, ላቴጋ ላውፎቴ በርር-ዕላው ፕሬቴንቴ TMAC Resources Inc.-ታውና (TMAC) 2020-Γና. ላውቴ ላኔ (ልቃላሲ) 2, 2021-Γና TMAC-ታ ምጋና ላቴታታታውና የረላታ TMAC-ታ ርልևውናና ለተርተርሲታታሪ ላቴጋ ልጓ Γታሲነውር ትጋቴ ላቴታታታውና. ለተርቀው ነውርት የር, ለነነላው በጎርና, ላየርተነነናና TMAC-ታ ርልևው የሰፊው የረላታ ውና ውና ውና ይጠርው ነርርና, ለነነላው በጎርና, ላየርተነነናና TMAC-ታ ርልևው የሰፊው የረላታ ውና ይጠርው ነርርና ላቴታታታውና 2021-Γና. ውታቴቴ ውልቃና ልርተነነር የመልርው ነውን የሚልርው ነውን የመልርው ነውን

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▷የላጎና, TMAC-ሪ ቴኦትሬኦቴጋና ላለላው ለላውናበላቴጋና ኦናላናላው ላኦሬቴበናበው ኔ Δሬኦናጋስ ውኦልናታና ላዜጋ ላታቴርኦው የኦንላጋኔ ላዜጋ ቴቴሮኔጋሪ ላዜጋ ላሪ ተከበተ የኦናርሲላህ ላጋቴርኦውላቴጋው ላዜጋ ለቴተርስሲው ኔ ይህቴርኦው ላቴሪኦ ነቴት ተከሰተ የነገር አመር የነገር የነገር አመር የነገር አመ

# Atanguyup Titikgakgaikhimayunik Havakhautit – Inuinnaqtun

Kapihiliktuumi Havaaghaq nayugalik nanminiqmi aktigiyuq 20 km-nik x 80 km-nik hivuraani hinaani Melville Sound-mi Nunavunmi, Kanatami, aulapkaqtitauvaghunilu TMAC Resources Inc.-kunnit (TMAC) 2020-mi. February 2-mi, 2021-mi TMAC-kut niuviqtauhimayuq Agnico Eagles Uyaraghiuqvianit (AEM) kihimi TMAC-kut tajja maligaliqiyikkut nanminiuyuq tajjalu nanminiriliqtait Agnico-kut. Tamangnik pilaarutit, havaaghat, akiliqtaghait TMAC-kut munarivagait TMAC-kut kihimi katitkumik Agnico-kut hivunighami 2021-mi.

2020-mi parnaiyainiq, aulapkainiqmut aullaaqtaqtunullu nutqaqtittiyut Qalakyuarnaq-19-mit ayuqhautauyut havaktunik-munaqhiyunik. Kihimi avatiniq munaqhiqyut maliquaqtullu Kapihiliktuumi iriniqiyaulluaqtut.

Kiutjutigiplugu aanniaqtailiniqmut amirnautinik Qalakyuarnaq-19-mut, TMAC-kut aullaqtittihimayut taapkuninnga Hangutaqtunik Aanniarutinik Munaqtit Parnaiyautainik Kapihiliktuumi March 12-mi, 2020-mi. March 17-mi, 2020-mi, TMAC-kut tuhaqtittihimayut ihumaliugainik taimaa havaguiqtittillagahuaqtait Nunavunmiut-havaktit amirnaiqpaallirahuaqhugu hangutaqtuq qalak inuilrumut nunallaarnut Nunavunmi aullaqtittiplutiklu havauhiqnik taimaa ihivriuqhiplutik tingminahuaqnik hivuraaniqmiunit aanniaqtuliqiyimit. Hivuraaniqmiunik havaktinik agyaqtaqtut ikighivaalliqhimayut malruiqtunit 1 week-mi taimaa atauhiiliqhutik tatqiqhiutimi, kinguanilu havaktit kaipiktaqpaktut pingahunik Santinik havaghutik. Tamangnik ihariagiyaunngittut havaaghat pulaaqtillu Kapihiliktuumut nutqaqtitauhimayut 2020-mi.

Maliguaqhutik amihuuyut uyaraghiuqtit, TMAC-kut ayuqnaqtumik ihumaliuqhimayut taimaa mighivaalliriamik ikighivaalliriamiklu havaktiit ihuaqnighakkut. Nalvaaqhiuqtit havaangit Kapihiliktuumi hanayullu havaangit Madrid North-mi nutqaqtitauhimayullu. Nunam iluani hanahimmaaqpaktut Doris-mi ikighivaalliqhimaplutik taapkua TMAC-kut ihumagilluaqhugit hauyauhimayunit uyaraghiuqtut kuluniklu qaanganunngaqtiniriniqmik. Marliliqhiyut Doris-mi ihuaqutauqpiaqtuq kuvihuiqpaalliutaugami imaqmik ukiumi 2020-mi. 2020-mi, TMAC-kut ikighivaalliqhimayait havaktiit kaantulaaktillu havakvingnit taimaa 120-nguyunik, havaqviqaqhutik inighalingmik 345-nik inungnik. Iqaluktuuttiaqmi, Nunavunmi havakviat umighimavaktuq inungnut havaktiillu havaghutik aimaviinit; angmatqighutik nungutinnagu 2020 malighugit ahiillu nanminiit. Havaktiit talvanngat Toronto, Ontario-mi havakvianit huli aimavingnit havakpaktut.

Manighiuqtit havaangit aulahimmaaqtut 2020-mi Doris-mi uyaraktaqtait qipliqhiiplugit kulutaqpaallirahuaqhutik. 2020-mi, qipliqhiviit hanahimayut 382,811 tonnes-nik (t) uyarangnik kuvihiplutik 108,724 ounces-nik kulunik, ihuaqtukkullu iniqhittiaqhutik 17,886 t-nik tuqunaqtunik cyanide-nik uyaraktarvingnik. Ikighivaalliqhugit havaktiit, TMAC-kut uyaraghiuqhimmaaqpaktut kayumiikpaalliqhutik kihimi aulattiaqhutik kulutaqpaktut.

Roberts Kangiqhuani Imaiyaqviat hanahimayuq aullaqtitaupluni January-mi anialattiplutik Roberts Kangiqhuanut maliqhugu MDMER February-mit talvunga August 2020-mut. Anialattiyut Roberts Kangiqhuanut nutqaqtitauhimayuq August 2020-mi nauvalliayunut kingungnut ukiuq tamaat. Imautighanik (Pakpaut 3) iliuraqtauhimayuq Doris-mi ihuaqhivaalliriamik imautainut ingilrutit.

Hanayunit iniqhihimayait taapkua ilaaqtuqhugu TIA-nit uhiiyaqvianit, manigighaqhugu milvik iliuraiplutiklu pingahunik imautinut pakpautinik kikliani Madrid-mi hiqquplugaqnit.

Nunaliqivaktut talvani Madrid North havakvianit 2020 atulihaaqtumi ikayuqhugu Naartok Kivalliqhianit Itiqtarvianit Madrid North-mi nunam iluanunngaqtumi. Hanaplugu manighiplugu amiqnaiyaqhugulu Naartok Kivalliqhianit Itiqtaqvianit qaanga hanaplugulu Madrid North-mi Imautait Tahiraq.

Nunam iluani uyaraghiuqtut havakpaktut Doris Uyaraghiuqvianit, talvanittauq Madrid-mi nunam iluani qaanganilu havaghutik, uyaraghiuqhutiklu Naartok Kivalliqhianit Itiqtarvianit, nutqaqtitauhimayt March 2020-mi.

Ukiaghami, TMAC-kut naammaktumik umiakkut agyaqtaqhimayut niuviqhutik agyaqtauplunilu uqhugaq qagaqtautillu ikighatillu ingilrutighait uyaraghiuqtut qipliqhaiyullu. Pualritit ingilrutit atuqtauhimayut talvani Naartok Kivalliqhianit Itiqtarvianit uyaraghiuqvianit ahivaqtauhimayuq havakvingnit umiakkut.

Qayangnaqtut kuvvikkuit ihuaqtukkut utiqtitauhimayut ayuqnaittumik. Kuvvikkuit, uqhughat atuqtaghat ikkighatillu tutquumaviat aajjikkutauyuq hivuanit ukiunit. 8-nguyut kuvihimayut naunaiqhitiyauhimayut talvunga Nunavunmi Kuviyuqarniqqat Hivayautaat, Imaqmik Laisiutinik Ihivriuqhiyimut talvungalu KIA-kut Angiyut Havaaghat havakvianut. Kuvihimayuttauq ahiit 2020-mi mikiyut, kuviplutik allarutinut havakvingnilu, kiuhinariqpaghutik halummaghinariqpaghutiklu mihingnaittumik kuvivianut.

Imag atugtauyug 2020-mi ihivriughimayug malighugu taamna Type A Imagmut Laisiutit 2AM-DOH1335 Doris-Madrid-mut, Type A Imagmut Laisiutit 2AM-BOS1835 taamnalu Type B Imagmut Laisiutit 2BB-BOS1727 Boston-mut, Type B Imagmut Laisiutit 2BB-MAE1727 taapkununnga Nalvaaghiugpaalligtunut Madrid-mi, taamnalu Type B Imaqmut Laisiutit 2BE-HOP1222 aviktuqhimayumi nalvaaqhiuqtunut. Ilittuqhitilgit imaqmut laisiutinit titiraqhimayulik qauyihaiyut ikayuutainut ilauplutik taapkua naunaitkutanik titiraqtut ilaupluni aktinianut imaiyaghimayug hunanutkiag, gimilruughugit kuvyiit (taapkuatut, ayulighugit annakkuit) kuviyauhimayut avatinut, munaqhugulu immap qanuriningania nanikiaq Havakvingnit (taapkuatut, gaangani kuviralattiyut qurluqtumik hannavingnit, hilam imautainik hanahimayumit imautimit, kuvviqnit, uqhuqyualiklu kuvvikkuit, ganuqlu). Imagmik atuqtut 2020-mi ihivriuqtauhimayuq angiqhimayunit havakvingnit. Aallanngugtuganngittug gaanganit imagmik munaghiyut havauhiinik havakvingnit Ayugnautinut pulaagtariamik Boston havakvianik auyami, ihuagtukkut atughutik halikaaptakkut pulaagpaghimayaat havakvik munariplugulu imaiyagtughallu havaaghainik kitunikiaq immiqtagtunik hanahimayunit. June 14-mi, 2020-mi, qaangani kuviralattiyumik gurlugtumik hannaviat putuguanit talvani Madrid North Imautait Tahiraa talvani Madrid North havakvianit. June 15-mi, 2020-mi, Nunavunmi Kuviyuqarniqqat Hivayaut naunaighitihimayut garitauyakkut titirakkut taimaa anialattiyumik 254 m³ halummaghitimik imagmik. Ahiagut taamna naahurinnaittug, imag anialattiyauyug naammagiyauyug laisiutainit kihimi taapkua naallugit hiamitittut naptuyut (TSS).

Nunallaaqnik katimaqatigihimayait 2020-mi ihumagilluaqpagait katitpallianiq naammaktukkut ihuaqtukkul nunallaarmiullu taapkualu Inuit Avatinik Unniqtuiyit Katimayiralaangit mighaagut TMAC-kut havaangit, havaaghait kaantulaaktaghaniklu katimatjutigilugilu TMAC-kut avatinik munaqhiyut mighaagut iqalliqiyillu havaaghainut. TMAC-kut Iqaluktuuttiaqmi havakvianit umighivaktuq qalakyualihaaqhutik talvuuna inuit Iqaluktuuttiaqmi katimattailivaktut TMAC-kut havaktiillu, kihimi alruyaqtuqtukut tuhaqtittigiikpaktut.

TMAC-kut maliguattiaqhimmaarahuaqpagait aallatqiik aulapkainiqmut maliktaghat ilagiittiarahuaqhugit nunallaarmiut. Avatinik munaqtiuyuq malighugit tajja atuqtauyuq Imaqmut Laisiutit, Havaaghanut Angirutit, Havaaghanut Ilitaritjutit, angirutit, atannguyait parnaiyautait avatinullu mihingnautinik munaqhiyut parnaiyautait aulavangniaqtut 2021-mi. TMAC-kut quviahuktut tunihiyaamik naunaitkutanik talvunga Nunavunmi Avatiliqiyit Katimayiinut naahurittiaqhutik katitpalliayaamik taapkualu Agnico Eagle Uyaraghiuqtit 2021-mi ikayuqtighat hanayunik Kapihiliktuumi munarittiaqhugit ihumagittiaqhugillu pitquyauhimayut taapkunannga Nunavunmi Avatiliqiyit Katimayiit.

## **HOPE BAY PROJECT**

## 2021 Nunavut Water Board Annual Report

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### **Acronyms and Abbreviations**

Terminology used in this document is defined where it is first used. The following list will assist readers who may choose to review only portions of the document.

ABA Acid-base accounting

**AEMP** Aquatic Effects Monitoring Program

Agnico Eagle Mines Limited

ANFO Ammonium nitrate/fuel oil

AP Acid Production Potential

AWR All weather road

BTD Below the Dyke

CIRNAC Crown-Indigenous Relations and Northern Affairs Canada

CPR Crown Pillar Recovery

**CPRT** Crown Pillar Recovery Trench

**CSR** Corporate Social Responsibility

**CWP** Contact Water Pond

**CWS** Canada-wide Standards

**DCN** Doris Central

**DCO** Doris Connector

**DNO** Doris North

**DWV** Doris West Valley

**DNSEMC** Doris North Project Specific Committee

**EC** Electrical conductivity

**ED&T** Economic Development and Transportation

FEIS Madrid-Boston Final Environmental Impact Statement

**GN** Government of Nunavut

**HCT** Humidity cell test

HR/SR Human Resources/Social Responsibility

IIBA Inuit Impact and Benefits Agreement

ISET Indigenous Skills and Employment Training

KIA Kitikmeot Inuit Association

**KSEMC** Kitikmeot Socio-Economic Monitoring Committee

Landfarm Treatment Area

m Metre

MDMER Metal and Diamond Mining Effluent Regulations

ML/ARD Metal leaching and/or acid rock drainage

MMER Metal Mining Effluent Regulations

**NEF** Nunavut Economic Forum

NIRB Nunavut Impact Review Board

NP Neutralization Potential

NWB Nunavut Water Board

NWS Naartok West

**OPEP** Oil Pollution Emergency Plan

**OPPP** Oil Pollution Prevention Plan

ORP Oxidation-reduction potential

PAG Potentially acid generating

PCP Pollution Control Pond

the Project the Hope Bay Project

**pXRF** Portable X-ray fluorescence

**QA/QC** Quality assurance and quality control

QIA Qikiqtani Inuit Association

**RBDS** Roberts Bay Discharge System

SCP Sediment Control Pond

SDS Safety data sheets

**SFE** Shake flask extraction

**SNP** Surveillance Network Program

**SOP** Standard Operating Procedure

t Tonnes

### **ACRONYMS AND ABBREVIATIONS**

TDGA Transportation of Dangerous Goods Act

**TDS** Total dissolved solids

TIA Tailings Impoundment Area

TIC Total inorganic carbon

TMAC TMAC Resources Inc.

**TSS** Total suspended solids

WAD Weak acid dissociable

WRIA Waste rock influenced area

WRSA Waste Rock Storage Area

**WWTF** Wastewater treatment facility

AGNICO EAGLE MINES LIMITED

### 1. Introduction

Hope Bay is a gold mining and exploration Project located on a property approximately 20 km × 80 km along the south shore of Melville Sound in Nunavut, Canada, and continued to be operated by TMAC Resources Inc. (TMAC) in 2021. On February 2, 2021 TMAC was purchased by Agnico Eagle Mines Limited (Agnico Eagle) and became a wholly owned subsidiary of Agnico Eagle. Effective as of January 1<sup>st</sup>, 2022, Agnico Eagle and TMAC amalgamated and continued under the Agnico Eagle name. Accordingly, by operation of law and without any further acts or steps necessary, TMAC ceased to exist and continued as Agnico Eagle, and Agnico Eagle possessed all of the property, rights, privileges and franchises and is subject to all liabilities, including civil, criminal and quasi-criminal, and all contracts, disabilities and debts of TMAC.

This report to the Nunavut Water Board (NWB) has been prepared to summarize the Project activities and monitoring conducted under Agnico Type A Water Licences 2AMDOH1335, 2AM-BOS1835, Type B Water Licences 2BB-MAE1727, 2BB-BOS1727, and the exploration Type B Water Licence 2BE-HOP1222 for 2021. Concordance tables referencing where in this report the requirements of the reporting outlined in each of the referenced water licences has been met are presented in Appendix A.

The referenced water licences include provisions for sampling programs that involve recording data related to the volume of water extracted for any purpose, testing of effluents (e.g., treated sewage effluents) discharges to the environment, and monitoring water quality within specific Project areas (e.g., surface discharge downstream of construction areas, storm water from an engineered containment structure, sewage and oily water effluent, etc.). These data are summarized and referenced on the completed NWB Annual Report Forms, included as Appendix B, and all monitoring data are provided in Appendix D of this report.

### 2. Regulatory Framework and Legal Matters

The key regulatory and legal documents that relates to this report are the Project Type A and B Water Licence(s), however this report is presented in context of other applicable regulatory authorizations and schedules. Agnico holds, or will soon hold, the permits and authorizations required to carry out the future work scope. A listing of the key regulatory instruments that allowed for work to be completed in 2021 is provided in Table 2-1.

Table 2-1. Key AEM Permits/Licences and Approvals

Name	Approval No.	Scope / Purpose	Term / Duration	Expiration Date
Nunavut Impact Review Board (NIRB) Project Certificate	009	Authorization for Madrid-Boston to proceed, provided certain conditions and requirements are incorporated in the various regulatory permits and authorizations issued by the regulatory agencies with permitting authority for the Hope Bay Project. The Project includes the construction of all required surface Infrastructure and operation of three new mines at Hope Bay: Madrid North, Madrid South and Boston.	Life of Doris Project	None
NIRB Project Certificate	003	Authorization for Doris to proceed provided certain conditions and requirements are incorporated in the various regulatory permits and authorizations issued by the regulatory agencies with permitting authority for the Hope Bay Project.	Life of Doris Project	None
NWB Type A Water Licence Amendment No.2	2AM- DOH1335	Water Licence for Doris and Madrid project that authorizes the construction, operation and reclamation of the Doris, Madrid and the all-weather road of the Hope Bay Project. Licence scope includes Amendment No.1.	22 years	March 2035
NWB Type A Water Licence Amendment No.1	2AM- DOH1323	Water Licence for Doris with a 10-year term that authorizes the construction, operation and reclamation of the Doris Project. Licence was renewed (with certain amendments) in November 2016. – Superseded by Amendment No. 2 2AM-DOH1835.	10 years	August 2023
NWB Type A Water Licence Amendment	2AM- BOS1835	Water Licence for the Phase 2 Boston Site that authorizes the construction, operation and reclamation of the Boston Project.	17 years	March 2035
Type B Water Licence for the HBVB including a camp at Windy Lake	2BE-HOP1222	Water Licence that allows for the use of water and disposal of waste associated with regional exploration program including drilling and camp operations.	10 years	June 2022
Type B Water Licence for bulk sample exploration at Boston	2BB-BOS1727	Water licence that allows for the use of water and the disposal of waste for the Boston Advanced Exploration Project. Licence was renewed in July 2017, was formerly 2BB-BOS1217.	10 years	July 2027

Name	Approval No.	Scope / Purpose	Term / Duration	Expiration Date
Type B Water Licence for Madrid Advanced Exploration Amendment No.2	2BB-MAE1727	Water licence that allows for the use of water and the disposal of waste for an undertaking classified as Mining and Milling as per Schedule II of the Regulations for the Madrid Advanced Exploration Project (Amended in 2018).	10 years	May 2027
Framework Agreement		Framework Agreement provides comprehensive land tenure governing the issuance of surface exploration licences, advanced exploration leases, commercial leases, and compensation associated with tenure. Framework Agreement includes a belt-wide Land Use Licence, an Inuit Impact and Benefits Agreement (IIBA) and a Water and Wildlife Agreement. Framework Agreement was signed in March 2015 for belt-wide land tenure.	20 years	March 2035
Water and Wildlife Agreement		Included as a Schedule to the Framework Agreement, this Agreement details compensation to be provided to the Kitikmeot Inuit Association (KIA) and Inuit beneficiaries for negative effects that may occur to wildlife harvesting and water as a result of mining related activities across the Belt.	20 years	March 2035
Amended and Restated Inuit Owned Lands Commercial Lease	KTCL 313D001	Commercial Lease for use of designated lands associated with the Hope Bay Volcanic Belt (HBVB) area. Currently, lands have been designated that encompass Doris. Expansion to include other areas of the HBVB is administrative in nature. Original Commercial Lease was amended and restated in March 2015 as a means to obtain surety of belt-wide land tenure.	20 years	March 2035
Inuit Impact and Benefits Agreement		Included as a Schedule to the Framework Agreement, this Agreement details the benefits to be provided to the KIA and Inuit beneficiaries from the Hope Bay Project, including compensation, employment and contracting opportunities. The IIBA originally signed in association with Doris was revised in March 2015 and expanded in scope to encompass belt-wide activities.	20 years	March 2035
KIA Advanced Exploration Agreements	KTAEL15C002	Agreements as per the terms of the Framework Agreement enabling advanced exploration at Boston.	5 year renewable annually thereafter for up to 20 years	March 2022 (renewal in progress)
KIA Land Use Licences		Enables exploration activities across the Hope Bay Belt as per the terms of the Framework Agreement.	1 year automatic renewable for 20 years	March 2023
DFO authorization	NU-02-0117.2	Construction of the jetty in Roberts Bay.		December 2009

### REGULATORY FRAMEWORK AND LEGAL MATTERS

Name	Approval No.	Scope / Purpose	Term / Duration	Expiration Date
DFO authorization	NU-1000-0028	Changes to the Doris jetty.		July 2012
DFO authorizations	NU-02- 01117.3	Construction of the Doris Tailings Impoundment Area (TIA) north dam.	Life of Mine	None
Navigable Waters Permit	8200-02-6565	Installation of the jetty in Roberts Bay.	N/A	N/A
Navigable Waters Permit	2018-600028	Approval for Jetty in Roberts Bay	N/A	N/A
Navigable Waters Permit	2018-600006	Approval for Marine Outfall Berm	N/A	N/A
Jetty Lease	77A3-1-2	Foreshore lease from the Crown for construction and operation of the Roberts Bay Jetty.	30 years	June 2047
Marine Outfall Berm	77A/3-3-2	Lease from Crown for construction and operation of Roberts Bay Marine Outfall Berm.	30 years	July 2048
Amendment to Schedule 2 of the Metal Mining Effluent Regulations (MMER)	Registration SOR/2008-216	Designation of Tail Lake as a tailings impoundment.	Life of Mine	None

### 3. Summary of Project Activities for 2021

### 3.1 CONSTRUCTION AND OPERATIONS

### Doris

- Workforce reduction due to COVID-19 pandemic continued until January 2021, with slow ramp up
  of activities. Reduction of workforce was done in October-November 2021 following positive
  COVID-19 cases identified on site. Began to return to normal operations in November 2021.
- Underground mining operations continued at Doris Mine.
- Northern workforce continued to remain at home to eliminate risk of COVID-19 transmission to communities.
- Milling operations continued at reduced rate with one rotation processing ore and opposite rotation conducting maintenance.
- Maintenance conducted on airstrip.
- Coagulant dosing system for treating underground effluent for total suspended solids commissioned in the Water Treatment Plant in April. Recommenced effluent discharge to Robert's Bay in accordance with MDMER in May.
- Discharge to Robert's Bay was suspended in November due to the coming into force of the MDMER toxicity testing for *Arcatia tonsa*.
- o Retrieval of 800m of submerged dewatering pipeline from Roberts Bay completed.
- Initial steps to retrieve and relocate Roberts Bay Discharge System diffuser were completed. Final reattachment of the diffuser delayed until 2022 due to equipment issues and safety concerns related to conducting the work during sealift fuel/materials offload.
- o Installation of heated parking structure for emergency vehicles.
- Construction of laydown space for designated core storage north of Quarry 2.
- o Began installation of metallurgy lab expansion at the Mill.
- o Construction of millwright shop located on south side of Mill building.
- Installation and commissioning of air quality monitors in Doris Air Quality monitoring building.
- Completed sealift operation with delivery of supplies, diesel fuel, explosives and reagents to support mining, milling and exploration activities.
- Hazardous waste was backhauled without incident.

### **Madrid**

- Continued underground decline development until February 2021. Operations at Madrid North were suspended once Agnico acquired the Hope Bay property to allow for a thorough review of the proposed work plan.
- Removal of ammonia/brine impacted area of the Madrid North portal laydown was completed prior to freshet 2021. This included completing excavation of the impacted area on the east side of the

portal laydown. Material from this excavation was placed on the west boundary of the Naartok East Crown Pillar Recovery trench.

In 2021 logistical, operational and travel challenges continued during the ongoing COVID-19 pandemic which influenced some activity-based monitoring. However environmental protection and compliance at Hope Bay remained a top priority.

In response to the health risks associated with the COVID-19 pandemic, Agnico continued the implementation of rigorous protocols and hygiene measures in order to keep its workforce and communities safe. A reduction of workforce was done in October-November 2021 following positive COVID-19 cases identified on site. Return to normal operations was initiated in November 2021. In 2021 logistical, operational and travel restrictions imposed by the COVID-19 pandemic influenced activity-based monitoring. However environmental protection and compliance at Hope Bay remained a top priority.

Commercial operations continued for most of 2021 at Doris with ongoing efforts to stabilize mill throughput and optimize gold recovery. In 2021 the mill processed 262,466 tonnes (t) of ore and poured 64,583 ounces of gold, and successfully treated 19,249 t of concentrate with cyanide solutions. Following the acquisition Agnico continued processing ore at a reduced rate and achieved steady state processing and improved gold recovery. In October the mill was shutdown to optimize underground development and stockpile ore for the mill.

The Roberts Bay Discharge system was recommissioned in May with the addition of a coagulant dosing system to manage total suspended solids in mine water. Discharge to Robert's Bay commenced in accordance with MDMER in May 2021 and was suspended in November due to the coming into force of the MDMER toxicity testing for *Arcatia tonsa*.

Civil construction activities at Doris included maintenance conducted on airstrip and construction of a core storage laydown. Earthworks were conducted at the Madrid North portal laydown in early 2021 to excavate an area of the laydown with higher ammonia and chloride signatures. This material was removed prior to freshet 2021 and placed on the west boundary of the Naartok East Crown Pillar.

Underground mining operations continued at Doris Mine, while Madrid underground and surface operations, including mining of the Naartok East Crown Pillar trench, were suspended in February 2021. At Doris, Agnico focused on producing from developed stopes and bringing ore to surface. A grouting program at Doris helped maintain the inflows of water over the course of 2021.

In the fall, Agnico concluded another successful sealift operation including the purchase and delivery of diesel fuel as well as explosives and reagents to support mining and milling activities. Hazardous waste was successfully backhauled without incident. A total of 57 sea cans of hazardous waste and 418 sea cans of non-hazardous solid waste were disposed off site. Waste disposal, fuel usage and chemical storage stayed consistent with previous years.

Exploration activities were suspended in September 2021 following a fatality involving a helicopter. All other helicopter work were also suspended pending initial investigation results. This temporary suspension and the onset of winter impacted the completion of the hydrology and remote camera programs.

Site layouts and aerial photos for the Belt are provided in Appendix C of this report and provide details of the existing camps, infrastructure and equipment at site.

### 3.2 EXPLORATION

The 2021 Exploration and Geoscience program at Hope Bay consisted of both underground and surface diamond drilling. The 2021 exploration program at Doris included drilling high-grade targets in the Below the Dyke (BTD) extension for mineral resource expansion and drilling in the Doris Central (DCN), Doris West Valley (DWV). The 2021 exploration program at Madrid included drilling Naartok West (NWS-HBM) and Naartok East (HBM) for further resource and mine developments but as well for extension and exploration purposes. A total of 83642.4 meres in 453 diamond drill holes was completed in 2021.

### 3.2.1 Drilling

Underground diamond drilling occurred throughout the year in 2021. The diamond drilling program focused on expansion of the high-grade zones within the Doris BTD, conversion and infill drilling in the Doris West Valley (DWV), Doris North (DNO) and infill drilling in the Doris Connector North (DCN) to support mine planning. Several geotechnical holes were also drilled to determine water inflows and were used to grout water making structures. A total of 348 underground diamond drillholes totaling 47,947 metres completed in 2021.

Agnico Eagle Mines Limited contracted Geotech Ekutak Drilling Services Ltd. to complete the diamond drilling on the Hope Bay Belt for both underground and surface operations in 2021. On surface, no drill setup or associated items were placed within 31 meters of any waterbody during the open water season and no spills were reported into water bodies. Water quality monitoring was performed on runoff from drill sites and water used for drilling to ensure the respective Water License Criteria were met. Drill cuttings and mud were contained within a recirculation system and were transported or pumped and stored in approved containment areas including the TIA at Doris.

Surface diamond drilling activities for the 2021 Exploration and Geoscience program occurred throughout the year in 2021, with a brief hiatus from October-November due to the COVID-19 pandemic. Diamond drilling mainly focused on targets proximal to the Doris and Madrid deposits. Some limited regional drilling was conducted at a regional scale (4 holes - 1179m). All drill sites on surface were reclaimed following the decommissioning of drills. A total of 105 surface diamond drill holes totalling 35,695.4 meters was completed in 2021.

### 4. Summary of Project Plans for 2022

## 4.1 CONSTRUCTION AND OPERATIONAL WORK PLANS FOR FUTURE YEAR (2022)

The following activities are planned for the Doris site and associated permitted infrastructure for 2022. Activities for the recently announced Care and Maintenance will be reported under a separate cover.

### 4.1.1 Doris

- Maintenance of Roberts Bay Discharge System
- Construction of Cemented Rockfill Plant on existing Doris footprint
- Upgrades to existing Process Plant
- Construction of additional Water Treatment Plant
- Start construction of South Dam Raise
- Construction of quarry
- Construction of Wind turbines

### 4.1.2 Madrid

- Installation of mitigation measures for existing Madrid Contact Water Pond
- Re-commence Madrid North underground development which includes:
  - Installation of gensets
  - Construction of Maintenance Shop
  - Installation of fuel tank with secondary containment

#### **4.1.3** Boston

No development is planned for Boston

### 4.2 EXPLORATION WORK PLANS FOR FUTURE YEAR (2022)

Exploration activities for 2022 will include surface and underground diamond drilling. Surface drilling will mainly focus on exploration and extension drilling on both Doris and Madrid Deposits. Some near mine regional drilling will also occurs during the summer fly season. Care and Maintenance activities will be reported under a separate cover.

Surface diamond drilling planned for 2022 will consist of approximately 44,900 metres on Doris (BTD\_EXT, BCO, BCN, WV), 47,800 metres on Madrid (Naartok West, Naartok East, Rand, Suluk) and 9,400 metres on Regional near mine exploration targets.

Underground drilling will consist of Delineation, Conversion and Exploration drilling within the Doris Deposit (BCO, BLOB, BTD, DCN, DCN BTD, DCO and WV). Underground drilling will consist of 84,082 metres. The exploration component of these meters will explore extensions on strike North and South but also on depth.

### 5. Water Use and Waste Disposal

During 2021, water management at Hope Bay Project Site was in line with the authorized Type A Water Licence for Doris and Madrid 2AM-DOH1335, the Type B Regional Exploration Licence 2BE-HOP1222, and the Type B Water Licence for Boston 2BB-BOS1727. No activities occurred under the Type A Water Licence 2AM-BOS1835 for Boston or the Type B Water Licence 2BB-MAE1727 for Madrid, therefore no water was used or waste produced from activities associated with these licences.

An overview of the sampling programs for each of the sites (Doris, Windy, Madrid and Boston) including site photographs showing the locations of monitoring sites as well as annual water sampling programs for the Hope Bay Project are provided in Appendix D of this report.

### 5.1 DORIS-MADRID

A summary of monitoring conducted for Doris and Madrid under the Type A Water Licence 2AM-DOH1335 is presented in Appendix D.1 of this report as outlined in Schedule I.

Water for domestic use at Doris is obtained from Windy Lake. Water is drawn from the lake at the freshwater intake and trucked to Doris Camp. The Doris Lake pumphouse was not supplying domestic water to Doris Camp in 2021.

Sewage and greywater produced onsite is processed in the sewage treatment plant at Doris in line with Part F Item 5 of the Type A Water Licence 2AM-DOH1335. Sludge produced by the treatment plant is disposed of within the TIA as outlined in the existing Hope Bay Project Domestic Waste Water Treatment Management Plan.

All containment berm water is sampled for water quality against the discharge criteria of the licence. Water that meets the standards for discharge is released in accordance with the licence following a notification to the Inspector; water that does not meet the licence criteria is treated onsite until it is remediated to acceptable levels for discharge to the tundra, is discharged to the TIA, and/or is managed as approved by the Inspector.

Runoff and contact seepage at site is managed in accordance with the approved Quarry Management and Monitoring Plan and Water Management Plan for the Doris Site.

During 2021, Agnico collected data from the following active or seasonally active monitoring stations: TL-1, TL-2, TL-5, TL-6, TL-7a, TL-7b, TL-9, TL-11, TL-12, ST-1, ST-2, ST-4, ST-5, ST-6a, ST-6b, ST-7, ST-7a/MMS-4b, ST-8, ST-9, ST-11, ST-12, MMS-1, and MMS-9.

Monitoring at stations ST-3 (Landfill Sump), ST-13 (Doris Contact Water Pond Pad U), MMS-4a (Freshwater intake at Windy Lake North), and MMS-8 (Madrid North Fuel Storage Facility) did not occur, as these facilities were not constructed as of 2021.

Monitoring at ST-10 (Doris Site runoff from sediment controls) and MMS-9 (Madrid Site runoff for sediment controls during construction) was not conducted as no new infrastructure was constructed at Doris or Madrid in 2021.

The Madrid North Concentrator was not constructed in 2021, therefore no effluent was discharged to the TIA from this facility and no monitoring occurred at station MMS-7. No monitoring at station MMS-10 (Madrid Mine Water Discharge) occurred as no mine water was pumped from Madrid underground workings in 2021.

No activities occurred at Madrid South in 2021. Monitoring at stations MMS-2 (Madrid South Primary Contact Water Pond), MMS-3 (Madrid South Secondary Contact Water Pond) and MMS-5 (Madrid South Fuel Storage Facility) did not occur as these facilities were not constructed as of 2021.

Monitoring of the TIA was undertaken at monitoring station TL-1. Monitoring of the tailings deposited into the TIA continued at monitoring stations TL-5 and TL-6 in 2021. Monitoring of detoxified tailings backfilled underground was completed at monitoring stations TL-7a, TL-7b and TL-11. As described in the Hope Bay Water Management Plan, the sedimentation pond (ST-1) was used as a collection pond for the water that accumulated in the pollution control pond (ST-2) and the three underflow sumps (ST2-S1, ST2-S2 and ST2-S3). The water collected in ST-1 was then transferred to the TIA by pipeline. The sedimentation pond was also used to transfer water from the landfarm (ST-4) and fuel storage facility berms (ST-5 and ST-6b) to the TIA. Water from the Madrid North Contact Water Pond (MMS-1) was also transferred to the TIA through the sedimentation pond. Dewatering of the TIA to Roberts Bay through the Roberts Bay Discharge System began in July and continued until November 2021.

All monitoring was conducted in accordance with the Hope Bay Project Quality Assurance and Quality Control Plan (2021).

Agnico uses external certified laboratories to carry out all analyses reported in the monthly and annual reports. The QA/QC data produced by ALS Canada Ltd. and Bureau Veritas Laboratories Inc. are used to determine the accuracy and precision of results in these reports.

Analytical results for all monitoring stations can be found in Appendix D.1.

### 5.1.1 Water Balance and Water Quality Model

In 2021 commercial operations continued at Doris and monitoring continued at the associated SNP stations. Water quality source terms, climate data, mine water dewatering rates, processing rates and TIA storage curves were reviewed and/or updated in the water and load balance model, with 2017 to 2021 data, to compare against the predicted TIA water quality and water elevation. Results of the Water and Load Balance Assessment, including relevant supporting data, internal modelling results and adaptive management strategies, have been summarized in the Doris Mine Annual Water and Load Balance Assessment found in Appendix E.

### 5.1.2 Tailings Impoundment Area

The North Dam which ensures containment of reclaim water in the TIA was completed in 2012. The South Dam which ensures containment of tailings solids was completed in 2018. The total tonnage of tailings solids deposited in 2021 was 0.25 Mt. As of December 2021, 74% of the licensed 2.5 Mt TIA tailings capacity has been utilized (1.9 Mt). The water level at the end of December 2021 was 31.8 masl. The full supply level of the TIA is 33.5 masl. This equates to approximately 1.77 Mm3 of additional water storage capacity available in the reclaim pond. Approximately 9,883 tonnes of detoxified tailings were placed underground as backfill.

### 5.2 WINDY - 2BE-HOP1222

The Type B Water Licence No. 2BE-HOP1222 issued by the NWB details the sampling and analysis requirements for the Surveillance Network Program (SNP). Windy Camp and the Patch Lake Laydown facility were not in use in 2021; therefore, sampling stations associated with camp operations and fuel storage facility are not being used or monitored. Tables in Appendix D.2 of this report summarize the results of sampling undertaken as part of the monitoring program detailed in Part J of 2BE-HOP1222.

Water is obtained from Windy Lake (ST-7a/MMS-4b) for use at Doris Camp under 2AM-DOH1335 and as allowed under 2BE-HOP1222. Water is taken up through a screened intake and sunken heat-traced line by a permanent pump house, which is used as needed to fill a water truck that transports the water to Doris Camp for use.

The camp water treatment and wastewater treatment facility (WWTF) permitted under this licence was not operational in 2021, therefore no sampling was conducted at monitoring stations HOP-1 (freshwater intake), HOP-2 (WWTF discharge), or HOP-3 (point of entry of WWTF discharge to Windy Lake). Water was utilized from Windy Lake for domestic consumption at Doris Camp and the monitoring station ST-7a/MMS-4b (HOP-1) was sampled for the monitoring criteria under the Doris Water Licence 2AM-DOH1335. For the ST-7a/MMS-4b results see the 2AM-DOH1335 Appendix D.1. The Landfarm at Windy Camp (HOP-4) has been dismantled, so no sampling was conducted at this monitoring station.

The bulk fuel storage tanks at Windy Camp were moved to Doris Camp in winter 2009 for use there, and the bulk fuel storage berm (HOP-5) was dismantled in 2012. The bulk fuel storage berm at Patch Lake laydown (HOP-6) was also dismantled in 2012. No sampling was conducted at either of these monitoring stations.

No sampling occurred at monitoring stations HOP-7A and HOP-7B (located in Quarries A and B, respectively) during 2021 as no discharge of water was required from these areas during the year. Sampling was conducted at HOP-7D (located in Quarry D).

No on-ice exploration drilling was conducted in the licence area in 2021, therefore no sampling was conducted as outlined in Part F Item 7 and Part J Item 7 of the licence. This surface exploration drilling was suspended in March due to the COVID-19 pandemic.

Water used for exploration drilling was taken from Windy Lake in accordance with Part C Item 1 of the 2BE-HOP1222 Licence. Water is supplied to a water tank at the drill, and recirculation to cool equipment occurs through this tank. A summary of monitoring activities conducted under this licence is provided in Appendix D.2.

No additional details on water use or waste disposal were requested by the Board in 2021 related to the Project. No artesian flow occurrences were encountered in 2021.

### 5.3 MADRID – 2BB-MAE1727

The Type B Water Licence No. 2BB-MAE1727 issued to Agnico by the NWB details the sampling and analysis requirements for the SNP. No activities were conducted under this licence in 2021. Activities conducted at Madrid North in 2021 were monitored under the Type A Water Licence 2AM-DOH1335. A summary of monitoring activities conducted under this licence is provided in Appendix D.3.

No additional details on water use or waste disposal were requested by the Board in 2021 related to the Project. No artesian flow occurrences were encountered in 2021.

### 5.4 BOSTON - 2BB-BOS1727

The Type B Water Licence No.2BB-BOS1727 details the sampling and analysis requirements for the SNP program. The Boston Camp was closed in December 2019 and remained inactive during 2021.

No water was used from Aimaokatalok (Spyder) Lake (BOS-1a) or from Stickleback Lake (BOS-1b) for domestic use at Boston Camp, to support surface exploration drilling activities or any other purpose in 2020. No samples were collected from monitoring stations BOS-1a or BOS-1b in 2020.

The Sewage Treatment Facility (BOS-3) was not active in 2021 as the camp was not operational and no samples were collected at monitoring station BOS-3 as outlined in Part D Item 14 and 15, and Part J Item 9 of the licence. Monitoring was not conducted for monitoring station BOS-4 (treated effluent prior to entering into Aimaokatalok (Spyder) Lake), as no effluent was discharged from the Sewage Treatment Plant in 2021.

Water management occurred at the Containment Pond (BOS-2) and the Bulk Fuel Storage Facility (BOS-5) in 2021. Water accumulation in the Bulk Fuel Storage Facility (BOS-5) was transferred to the Containment Pond (BOS-2). No water was discharged to tundra from this facility in 2021.

Dewatering of the Portal (BOS-9) was not conducted in 2021.

Dewatering of the Landfarm Treatment Area (LTA; BOS-6) was not required in 2021. The LTA was decommissioned in 2019 and no water quality sampling was conducted for this facility.

Water quality sampling of seepage/runoff from the ore stockpiles and camp pad to the tundra (BOS-8) was conducted in 2021.

A summary of water quality monitoring for the Boston Site under this licence 2BB-BOS1727 is provided in Appendix D.4.

No additional details on water use or waste disposal were requested by the Board in 2021 related to the Project. No artesian flow occurrences were encountered in 2021.

### 5.5 BOSTON - 2AM-BOS1835

The Type A Water Licence No. 2AM-BOS1835 issued to Agnico by the NWB details the sampling and analysis requirements for the SNP program. No activities were conducted under this licence in 2021. Activities conducted at Boston Camp were monitored under the Type B Water Licence 2BB-BOS1727. A summary of monitoring activities conducted under this licence is provided in Appendix D.5.

### 6. Solid Waste Disposal

At present Waste Management for the Hope Bay Project is currently divided into the following management areas:

- Non-hazardous Waste Management;
- Landfarm Management; and
- Hazardous Waste Management.

### 6.1 NON-HAZARDOUS WASTE MANAGEMENT

Agnico has an existing Non-hazardous Waste Management Plan (Section 12) which covers information pertaining to management of non-hazardous waste generated at Doris, Madrid, Boston and the regional exploration leases in the Hope Bay Greenstone Belt. The Hope Bay Project Non-hazardous Waste Management Plan has been developed to ensure that proper documentation, tracking and handling strategies are in place to monitor compliance and take corrective actions as necessary. In general, non-hazardous waste is generated by the camp(s), the kitchen and various on-site facilities and contracting groups. Management of non-hazardous waste includes recycling, treatment, and disposal of waste streams based on their specific characteristics. Incineration is used as a volume reduction treatment on-site for most non-hazardous domestic waste streams.

In 2021, waste produced at site was collected and consolidated at the Doris Waste Management area by the waste management department (includes waste produced during activities at Madrid and Boston). Agnico is authorized to dispose of all non-hazardous solid waste in a landfill on site under the existing Type A Water Licence; however to date a landfill has not been built. Therefore in 2021, all non-hazardous solid waste that could not be incinerated on site was stored on site for later landfilling or back haul to an approved facility off site. A total of 418 sea cans of non-hazardous waste were backhauled for disposal off site in approved sites.

### 6.1.1 Camp Incinerators

Agnico's Type A Water Licence 2AM-DOH1335, Type B Water Licence 2BE-HOP1222 and Type B Water Licence 2BB-BOS1727 issued by the NWB allows for the incineration of approved waste streams.

In August 2019, a new CY-100-CA incinerator located in Quarry 2 was commissioned for use in the Doris development area. This incinerator has the capacity to burn three 150-185kg batches per day and was used for waste incineration throughout 2021.

There was no incinerator operated at the Windy Camp and no domestic waste produced at Windy Camp in 2021.

There was no incinerator operated at the Boston Camp and no domestic waste produced at Boston Camp in 2021.

Food waste and paper is incinerated as per the Incinerator Management Plan (2019) for the Hope Bay Project. This plan outlines Agnico's approach to domestic waste stream segregation and incinerator management as it pertains to all the Hope Bay Project developments. The objective of the plan is to enable

the operation of domestic waste incinerators to be undertaken in a safe, efficient and environmentally compliant manner. The Incinerator Management Plan strives to ensure that:

- o Only appropriate burnable material enters the incinerator waste stream;
- Animal attractants are promptly incinerated;
- o The incinerator is operated in a manner that reduces harmful emissions;
- o Residual ash is handled and disposed of properly; and
- Compliance monitoring and reporting associated with incinerator operations are undertaken.

As recommended by the Nunavut Environmental Guideline for the Burning and Incinerations of Solid Waste, written records are kept of date and volume of burnt waste.

As per Schedule B, Item 12 of Type A Water Licence 2AM-DOH1335, Agnico is required to report the results of Incinerator Stack Testing when available compared to the Canada-wide Standards (CWS) for Dioxins and Furans and the CWS for Mercury.

In 2021, Agnico waste management operators have attempted to optimize incineration conditions to address past exceedances. A stack test to assess the techniques applied was planned for 2021 with equipment shipped to site for September 2021. However, due to a fatality at site, and a series of COVID-positive employees, all site visits were cancelled. The stack testing has been postponed to 2022. Based on the outcome of the investigation Agnico will evaluate if source control or 'end-of-pipe' pollution control technologies is the preferred approach to address exceedances. Agnico will continue to maintain good combustion practices in parallel with improved waste sorting practices to reduce the formation of hazardous compounds during incineration in the interim.

### 6.1.2 Open Burning

The disposal method for untreated wood, cardboard and paper products generated on-site is open burning. This method reduces the volume of inert waste disposed of in the landfill. The landfill has yet to be constructed at the Doris Site.

A total of 811m<sup>3</sup> of clean wood and 687 m<sup>3</sup> of cardboard was open burned in 2021.

All other waste is sorted and stored in sea cans at the Waste Management facility and is either backhauled for disposal or stored until the Landfill is constructed.

#### 6.2 LANDFARM MANAGEMENT

Agnico is permitted to operate a landfarm facility at the Doris and Boston sites to treat hydrocarbon contaminated materials. Agnico's Hydrocarbon Contaminated Material Management and Monitoring Plan (Section 12) describes the Doris and Boston facility design as it relates to storage and management of hydrocarbon contaminated materials, including soils and water generated at the site and associated facilities. This plan presents the management and monitoring obligations for each facility as modules A and B, respectively.

Hydrocarbon contaminated water and snow is either stored on-site for shipment off-site to an approved facility or treated with the use of an oil separation (absorbent) treatment system (if required) on site and then verified through laboratory analysis to meet discharge criteria prior to discharge to the environment. Hydrocarbon contaminated soils (including waste rock and ore) are treated in the Doris Landfarm or placed in the Doris underground mine for permanent storage.

The Doris Landfarm Facility is located on previously disturbed area approximately 0.6 km north of the existing Doris Camp Area, at approximately 432,573 Easting and 7,559,542 Northing (UTM NAD 83, Zone 13). The Facility is located in a restricted area of the site and is situated between the existing all-weather road and Quarry 2.

Hydrocarbon contaminated water, snow and soils (including crush rock) can be treated using on-site facilities at Doris or can be relocated off site to an appropriate remediation/disposal facility.

Only material containing the following hydrocarbons is farmed at the Doris Landfarm facility:

- Diesel fuel;
- o Jet fuels (Jet A, Jet A-1); and
- Gasoline.

All other materials are deemed inappropriate for landfarming and will ultimately be placed in the Doris Mine for permanent storage in accordance with the approved Hope Bay Project Hazardous Waste Management Plan or packaged for offsite disposal at a licensed remediation/disposal facility.

The Boston Landfarm Treatment Area (LTA), is located at the Boston Camp Site, south west of the tank farm. In 2017, reclamation commenced for the LTA at Boston with the excavation and stockpiling of contaminated materials into mega-bags for future treatment or shipment offsite to an approved facility. In March 2019, contaminated soil was backhauled from the LTA to Doris Camp via a winter track and disposed of this material underground in the Doris Mine as approved in the Hope Bay Project Hazardous Waste Management Plan. The Boston LTA was decommissioned in 2019 and no additional materials will be placed in this facility. Hydrocarbon contaminated materials generated from future activities conducted at Boston will be packaged for backhaul to Doris until a new LTA facility is constructed. No hydrocarbon contaminated material was generated at Boston or transported from Boston in 2021.

### 6.3 HAZARDOUS MATERIAL MANAGEMENT

Agnico has a Hazardous Waste Management Plan aimed at ensuring that hazardous waste collection, segregation, handling, storage, transport and disposal procedures are promptly and efficiently carried out, thus minimizing the risk to the site workforce and the environment, as well as reducing the financial cost to the Project (Section 12). A total of 57 sea cans of hazardous waste were disposed of at site.

The Hazardous Waste Management Plan requires in general that all hazardous materials will be shipped offsite for disposal at an approved site. The Hazardous Waste Management Plan describes the purpose-designed hazardous waste management facility. Based on the principles of reduction, reuse and recycling, the plan addresses hazardous waste streams in terms of their risks, storage and labelling, transportation, and disposal, including:

- waste glycol (antifreeze);
- waste solvents;
- waste batteries;
- fluorescent tubes;
- penetrable wastes (sharps);
- waste lubricating oils;
- waste aerosols;

- medical wastes and sewage treatment plant sludge;
- o applicable incinerator and wood ash;
- o contaminated rags, absorbents and soil;
- o residue last contained ammonium nitrate packaging; and
- o explosives products and explosives residue containers.

#### 6.3.1 Waste Back-haul

Waste materials back-hauled off site are regulated by the *Transportation of Dangerous Goods Act* (TDGA). In 2021, empty cargo aircraft were utilized for waste backhaul from the Doris Camp throughout the year. Waste oil backhauled on empty cargo aircraft was received by Buffalo Airways Ltd. in Yellowknife for recycling in waste oil heaters at that facility. All other waste backhauled on empty cargo aircraft was received by KBL Environmental Inc. in Yellowknife for final remediation and disposal. In September 2021, hazardous waste was backhauled by sealift to the Port of Cote Ste Catherine, Quebec and received by Groupe Ungava. for final remediation and disposal. Table 6-1 summarizes the type and volume of hazardous wastes that were transported offsite for final remediation/disposal in 2021.

Table 6-1. Hazardous Wastes Transported Offsite in 2021

Non-Hazardous and Hazardous Waste Type	Volume (m³)
Used Oil	76
Used Glycol	18
Sodium Cyanide Solid (Residue)	963
Used Oil and Polymer	1
Waste Leachate Mix	19
Solids c/w Lead Oxide (Assay Crucibles)	199
Used Petroleum Grease	1
Sodium Hydroxide Solid (Residue)	232
Copper Sulphate Pentahydrate Solid (Residue)	199
Lead Acid Batteries	33
Sodium Metabisulfite Solid (Residue)	266
Kitchen Grease	11

### 6.4 LANDFILL

Agnico is authorized to dispose of all non-hazardous solid waste in a landfill on site as per Type A Water Licences 2AM-DOH1335 and 2AM-BOS1835. To date, a landfill has not been constructed. All waste that cannot be incinerated on site is backhauled to an approved facility for disposal or is stored on site for future landfilling. Because a landfill has not been constructed, no landfill management report has been prepared. Agnico will continue to manage solid waste produced in Hope Bay according to three waste management plans:

- Non-Hazardous Waste Management Plan;
- o Hazardous Waste Management Plan; and
- o Incinerator Management Plan.

These plans describe how various streams of waste are managed.

### 7. Aquatic Effects Monitoring Program

The Hope Bay Project (the Project) is a gold mining development in the West Kitikmeot region of mainland Nunavut. The Project property is approximately 153 km southwest of Cambridge Bay on the southern shore of Melville Sound and contains a greenstone belt (the Belt) that runs 80 km in a north south direction varying in width between 7 km and 20 km. The Project is operated by Agnico Eagle Mines Ltd. (Agnico) who acquired it through the purchase of TMAC Resources Inc. (TMAC) on February 2, 2021.

The Project consists of three developments: Doris, Madrid, and Boston. Construction of the Doris Mine and associated infrastructure began in 2010, and commercial operations began in 2017. Construction of mining infrastructure at the Madrid North development began in April 2019, followed by a transition to operations in August 2019 with mining of the Naartok East Crown Pillar trench. All mining and development activity was suspended at Madrid North in March 2020 and did not re-commence for the duration of 2020. Mining activity remained suspended throughout 2021 except for a brief period of activity at the Madrid North portal in January and February. As of December 2021, construction had not begun at the Madrid South or Boston developments.

This report presents the results of the 2021 Aquatic Effects Monitoring Program (AEMP), the third year of implementation of the approved Belt-wide Hope Bay Project: Aquatic Effects Monitoring Plan (the Plan; TMAC 2018). The primary goals of the AEMP are to evaluate potential Project effects on the surrounding freshwater environment during the construction and operation of the Project, verify predictions from the Madrid-Boston Final Environmental Impact Statement (FEIS; TMAC 2017b), support current and future Fisheries Act Authorizations, and provide a mechanism to respond to potential Project effects in the freshwater environment through the Response Framework. This framework sets environmental thresholds that, if exceeded, would trigger further investigation and/or mitigation.

The 2021 AEMP includes lakes adjacent to proposed infrastructure that have the greatest potential to receive non-point-source inputs such as runoff or dust (i.e., Doris and Patch lakes) and lakes that could be affected by water loss due to permitted water withdrawal and groundwater seepage into the mines through underground workings (i.e., Windy, Glenn, Patch, Imniagut, P.O., Ogama, Doris, and Little Roberts lakes). Aquatic components evaluated in 2021 included the following: fish habitat (water level and ice thickness), under-ice dissolved oxygen concentration, water temperature, water quality, and phytoplankton biomass. Statistical and/or graphical analyses were undertaken to determine whether there were any apparent effects of Project activities on these aquatic components in the monitored lakes.

Table 7-1 presents a summary of the overall findings of the evaluation of effects for the 2021 AEMP, as well as the corresponding section in this report in which to find the discussion of the evaluation of effects for each monitoring component. No adverse Project-related effects to fish habitat (water level and ice thickness), under-ice dissolved oxygen concentrations, water temperature, water quality, or phytoplankton biomass were detected in the exposure lakes (i.e., lakes with the potential to be influenced by the Project). Accordingly, no low action level responses were triggered for any assessed variable in the 2021 AEMP.

Table 7-1. Summary of Evaluation of Effects for 2021 AEMP

Variable	Exposure Lakes Included in Evaluation of Effects	Conclusion of Effect	Low Action Level Triggered?	AEMP Report Section
Fish Habitat (Water Level and Ice Thickness)	Windy Lake, Glenn Lake, Patch Lake, Imniagut Lake, P.O. Lake, Ogama Lake, Doris Lake, Little Roberts Lake	No Effect	No	3.1; Appendix B
Physical Limnology (Dissolved Oxygen and Temperature)	Windy Lake, Patch Lake, Doris Lake	No Effect	No	3.2
Water Quality	Windy Lake, Patch Lake, Doris Lake	No Effect	No	3.3
Phytoplankton Biomass (as Chlorophyll <i>a</i> )	Patch Lake, Doris Lake	No Effect	No	3.4

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### 8. Geochemical Studies

### 8.1 DORIS AND MADRID MINES

This section summarizes the operational geochemical monitoring results for the Doris and Madrid North Mines, including waste rock, flotation tailings slurry and detoxified tailing solids from the Doris Mill, quarry rock used for infrastructure and road construction and seepage monitoring programs of waste rock, construction rock and underground mine backfill (detoxified tailings). Detailed discussion and interpretation of geochemical data for the Doris and Madrid North Mines is presented in Appendix F of this report.

### 8.1.1 Waste Rock

Waste rock monitoring for the Doris and Madrid North Mines (except for waste rock from the Naartok East CPR) is outlined in *Waste Rock, Ore and Mine Backfill Management Plan* (TMAC 2019), which is a part of Licence 2AM-DOH1335 Amendment No. 2. The program includes inspection and geochemical monitoring of the waste rock solids from the underground mine and Doris CPR and routine monitoring of the Pollution Control Pond (PCP). Geochemical monitoring of waste rock from Naartok East CPR is documented in *Classification of Waste Rock in Support of Segregating Construction Rock from Naartok East Crown Pillar Recovery, Madrid North* (SRK 2019). SRK (2019) includes a field geochemical classification method and associated criteria to identify waste rock that is non-potentially acid generating (PAG) and with low potential for neutral pH arsenic leaching and recommendations for operational implementation of the field-based geochemical characterization program that identifies waste rock that is suitable for use as construction rock.

In 2021, waste rock produced from underground mining at Doris was kept underground and used as backfill or placed in the surface waste rock stockpile on Pad T. In addition, waste rock was removed from the surface waste rock stockpile on Pad T and placed as backfill in stopes of the Doris mine.

In 2021, mining included development of the underground decline in January and February. During this period underground waste rock was produced and placed as backfill in the NE CPR.

### 8.1.1.1 Underground Doris Mine

Underground geological inspections were conducted by at the working face by AEM qualified geologists. The data were recorded in geological inspection logs and maps. Waste rock intersected by the Doris underground workings in 2021 was geologically described as 95% mafic volcanics with trace sulphide and 1 to 2% quartz-carbonate veining; 4% sericite altered mafic volcanics with up to 1% sulphide and 2 to 5% quartz-carbonate veining; and 1% diabase dyke with trace to 1% sulphide and trace quartz-carbonate veining.

### 8.1.1.2 Waste Rock Stockpile (Pad T)

The waste rock observed on Pad T was a mixture of approximately 90% chloritic green mafic metavolcanics (1a), 8% light tan colored sericite altered mafic metavolcanics (1as), <1% white quartz veins (12q), <1% dark gray diabase (11c), and <0.5% light brown felsic dyke (rock code undefined). SRK collected five samples (three of mafic metavolcanics (1a), one of altered mafic metavolcanics (1as), and one diabase (11c)) from the surface waste rock stockpile on Pad T. For mafic metavolcanics samples (1a), total sulphur ranged from 0.20 to 1.4% and median levels of 0.27%. The sample with 1.4% total sulphur contained 1% to 2% visible sulphides and was selected to characterize a high sulphur sample. TIC and Modified NP content was high ranging from 203 to 321 kg CaCO3/t and 154 to 186 kg CaCO3/t, respectively. All samples

were classified as non-PAG based on TIC/AP and NP/AP. The one sample of altered mafic metavolcanics (1as) had a total sulphur content of 0.21%. TIC and Modified NP content was 319 and 159 kg CaCO3/t, respectively. The sample was classified as non-PAG based on TIC/AP and NP/AP. The one sample of diabase (11c) had a total sulphur content of 0.33%. TIC and Modified NP content was 168 and 161 kg CaCO3/t, respectively. The sample was classified as non-PAG based on TIC/AP and NP/AP. Trace element content was below the screening criteria for all samples except for arsenic, sulphur, and tungsten in the mafic metavolcanics (1a) sample containing 1.4% sulphur. Total metal concentrations for all other samples were less than ten times the average crustal abundance for basalt indicating no appreciable enrichment. SFE tests on a sample each of mafic metavolcanics (1a), altered mafic metavolcanics (1as), and diabase (11c) had alkaline pH (7.8 to 8.9). Nitrate concentrations and chloride values ranged from 7.3 to 43 mg/L and 79 to 394 mg/L, respectively and are indicative of blasting and drilling brine residuals present on waste rock surfaces, and possibly also naturally saline groundwater that is present in areas of the mine.

Two mafic volcanic (1a) waste rock samples collected from Pad T in 2021 had similar sulphur content compared to the Type A, UG monitoring and CPR sample sets; one mafic volcanic sample was sampled as an end-member and biased high in sulphur. The sample of altered mafic metavolcanic (1as) collected in 2021 had similar sulphur, TIC, and NP content compared to the previous UG monitoring and CPR sample sets. The diabase (11c) sample collected from Pad T in 2021 was on the upper end of the range of geochemical characteristics (sulphur, arsenic) seen in the Type A and UG waste rock sample sets.

The geochemical behaviour of the waste rock is monitored through the annual seep survey along the downgradient toe of the waste rock and ore stockpile area and routine monitoring of the Pollution Control Pond (PCP).

### 8.1.1.3 Underground Madrid North Mine

The geochemical sampling and testing frequency of the underground waste rock is a minimum of one sample per 20,000 tonnes of rock. AEM did not collect a sample during development of the underground because 3,682 t of waste rock was produced. Based on geological inspections of the decline by AEM, waste rock was logged as 99% mafic metavolcanics (1) with the balance (1%) logged as quartz-carbonate veining.

### 8.1.1.4 Waste Rock as Backfill

SRK completed a surface geological inspection of a stockpile of waste rock placed as backfill along the western edge of the NE CPR. The stockpile contained waste rock placed in 2021 from the Madrid North underground mine and construction rock excavated as part of the reclamation of the Madrid North Portal Pad. Construction rock excavated from the Madrid North Portal Pad was within the flow path of hypersaline seepage and was waste rock sourced from the NE CPR that was geologically logged at the Portal Pad as mafic metavolcanics with sediments (1aj/1oj) and sedimentary units (5, SRK 2021b). As per the Waste Rock, Ore and Mine Backfill Management Plan (TMAC 2019), SRK collected one sample of waste rock from the surface stockpile of waste rock placed in the NE CPR based on the range of rock types identified during the geological inspection.

Based on the visual inspection by SRK, the majority (99%) of waste rock was chloritic green mafic metavolcanics (1a) with lesser (1%) quartz-carbonate veining (12). The mafic metavolcanics were unoxidized, dark blackish green and weakly foliated with <1% medium-grained disseminated pyrite, no fizz on the groundmass, and moderate fizz on rare <0.5 cm white quartz-carbonate veins. The absence of sedimentary units suggests that the source of waste rock inspected was from the underground mine and was not the NE CPR waste rock excavated from the Portal Pad, which were logged as sedimentary units.

Rinse and paste pH indicate the one sample was non-acidic. The rinse EC value is within the range of values of Portal Pad rock (5th to 95th percentile values of 90 to 320 uS/cm, n=10; SRK 2021b) and Doris

underground waste rock (e.g. 87 to 6,700 uS/cm, SRK 2021a and 2022). Total sulphur and sulphide were 0.20% and 0.17%, respectively. TIC and Modified NP were 130 kg CaCO3/t and the sample was classified as non-PAG. The sample was classified as not enriched for all parameters compared to the screening criterion. The stockpile also contained saline construction rock that was removed from the Portal Pad in 2021, however on the basis of geological inspection that indicated an absence of sedimentary units (1aj/1oj/5), the sample is interpreted to be underground rock.

## 8.1.2 Tailings

The geochemical monitoring program for flotation tailings slurry and detoxified tailings includes the following monitoring stations: process plant tailings water discharge (TL-5), flotation tailings solids (TL-6), detoxified tailings solids (TL-7A) and detoxified tailings filtrate (TL-7B). In 2021, the process plant operated on a reduced schedule between January 1 and October 5 whereby the process plant operated for three weeks for every six-week period. Between mid-October and December 31, the process plant did not operate. In total, 253,160 t (dry weight equivalent) of flotation tailings were deposited in the Doris TIA in 2021 and 10,006 t of detoxified tailings were placed as backfill in Doris Mine.

## 8.1.2.1 Sampling and Testing Program

The 2021 monitoring program for TL-5 included geochemical characterization of nine monthly samples of tailings process supernatant collected from January to September with a duplicate sample collected in January. The 2021 monitoring program for TL-6 included geochemical characterization of six composite samples of flotation tailings in January, March, April, May, August, and September. Samples representing February and June were not collected when the plant was not operating. The July sample was discarded by AEM in error before it could be analyzed. The 2021 monitoring program for TL-7A included geochemical characterization of nine samples of detoxified tailings solids. A sample was collected each month between January and September. Nine samples of filtrate (TL-7B) from the detoxified tailings were collected from January to September. Results of this SNP monitoring are presented in Appendix D.1 of this report.

#### 8.1.2.2 Results

Monthly monitoring of TL-5 and TL-7B is summarized as follows:

- o pH was stable in both TL-5 (8.1 to 8.4) and TL-7B (8.5 to 8.7).
- Sulphate concentrations ranged from 1,300 to 3,000 mg/L in TL-5 and from 13,000 to 20,000 mg/L in TL-7B, both of which are within the range of historical data.
- Sodium ranged between 1,600 and 2,900 mg/L in TL-5 and between 7,200 and 11,000 mg/L in TL-7B. TL-B concentrations were within the range of previous data. Sodium concentrations at TL-5 were equivalent to 2020 and generally higher than concentrations reported mid-2019 and earlier.
- Trends for major ions and trace elements were generally stable in 2021 and fluctuated within historical ranges. Exceptions included chloride (TL-5) and new operational maximum values for ammonia and cobalt (TL-7B).
- Total cyanide concentrations were also within range of previous data except for at TL-7B in March.
   WAD cyanide and free cyanide was either at limit of detection or at concentrations similar to previous data in TL-5 and TL-7B.
- Thiocyanate ranged from 12 to 51 mg/L in TL-5 and from 190 mg/L to 580 mg/L in TL-7B. These
  concentrations were within range of the previous data except for TL-7B in March and July, which
  were 580 and 560 mg/L, respectively. Cyanate ranged from 41 to 130 mg/L in TL-5 and from 540

mg/L to 1,100 mg/L in TL-7B. Cyanate concentrations fluctuated with periodic increases including February, March, and April.

Monitoring of TL-6 is summarized as follows:

- All flotation tailings samples were classified as non-PAG, which in consistent with 2017 to 2020 operational tailings monitoring (SRK 2020b) and metallurgical tailings samples (SRK 2015b).
   Sulphur concentrations ranged between 0.10 and 0.32% with a median value of 0.17%. TIC content ranged between 200 and 280 kg CaCO3/t.
- All parameters were below the screening criteria indicating no appreciable enrichment except arsenic was enriched for January and August samples. The higher arsenic content reported in August is roughly equivalent to tailings produced between June 2019 and March 2020, but overall, 2021 concentrations are typically lower than 2020. Processing of Madrid North ore, which has higher arsenic content than Doris (SRK 2017) commenced in 2019 and continued in 2021.

The results of the 2021 geochemical monitoring program of detoxified tailings solids (TL-7A) are summarized as follows:

- All detoxified tailings samples were classified as PAG, which is consistent with 2017 to 2020 operational tailings monitoring and metallurgical tailings samples (SRK 2015b). Sulphur concentrations ranged between 19 and 37% in 2021. TIC results for 2021 ranged between 89 and 160 kg CaCO3/t.
- All detoxified tailings samples were elevated in arsenic, bismuth, copper, selenium, and silver compared to the screening criteria. More than half of the 2021 samples were also elevated for cadmium. Selected samples were elevated in zinc (n=3) and lead (n=3) compared to the screening criteria. All other parameters, including cobalt and nickel were below the screening criteria indicating no appreciable enrichment.

## 8.1.3 Quarry Rock

## 8.1.3.1 Quarry Monitoring

Infrastructure at Doris and Madrid North were constructed using rock from Quarry 2 and Quarry D, respectively. In 2021, there were six blasts at Quarry 2 in September (7th and 12th), November (25th, 27th, and 30th), and December (4th).

The geological inspections of the quarry blast faces indicated mafic volcanics (1a) described as very fine grained to medium grained green / grey material with moderate to strong pervasive chlorite alteration and lesser amounts of epidote alteration. Occasional hematite staining was reported on fractures and joint surface. Trace amounts of quartz-carbonate veinlets at a mm to cm scale and sulphides of less than 1% were noted. Fibrous actinolite was not present.

Due to an error by the laboratory, data are pending for the quarry samples and were not available at the time of reporting. As such, the quarry and construction rock memo are not appended to this report. The final quarry memo will be provided as an addendum after data are received.

#### 8.1.3.2 Construction Monitoring

No construction took place in 2021 and therefore, no construction rock monitoring was conducted in 2021.

## 8.2 BOSTON CAMP

Currently there is no monitoring under the Type A Water Licence at Boston. This section summarizes monitoring in support of the Boston Camp closure plan under Type B. Detailed discussion and interpretation of geochemical data collected at Boston in 2021 is presented in Appendix G of this report.

#### 8.2.1 Waste Rock and Ore

The Boston ore/waste rock management plan (SRK 2017) includes a commitment to monitor the oxidation of the ore by carrying out a survey of rinse pH and conductivity every ten years. This monitoring was conducted in 2018 and was not a requirement in 2021.

## 9. Geochemical Seepage Surveys

This section summarizes the seepage surveys conducted at Doris and Madrid Mines as part of the geochemical operational monitoring programs.

In 2021, AEM conducted a seepage survey of the waste rock at Doris and Madrid. The seepage survey at Doris included the waste rock influenced area (WRIA) defined as the waste rock stockpile on Pad T, waste rock and ore stockpile on Pad I and access road located down-gradient of the Doris waste rock stockpiles. At Madrid North the waste rock seepage survey included the Waste Rock Storage Area (WRSA) Pad and the downstream berm of the Madrid Contact Water Pond (CWP). In addition to the seepage survey, AEM conducted routine water quality sampling of waste rock drainage managed and collected in the Madrid CWP and Sumps 1 to 3.

The scope of the 2021 construction rock seepage survey included the following areas, with rationale stated in parentheses: Madrid North Overburden Stockpile (saline seepage quality), Madrid North Portal Pad (saline seepage quality), Madrid Shop laydown (seepage not observed in 2020), Doris access road to the vent raise (seepage not observed since 2019, which was the first year of monitoring) and reference stations (background seepage quality).

#### 9.1.1 Doris Waste Rock Influenced Area

Prior to 2020, the seepage chemistry at the toe of the access road had the signature of waste rock and was more dilute than seepage at the toe of Pad I. Since 2020, seepage chemistry has indicated a loading source other than waste rock and has been geochemically characterized according to two loading sources: i) the downstream toe of the waste rock/ore stockpile on Pad I (21-DC-01 to 21-DC-03), and ii) toe of the access road (21-DC-04 and 21-DC-05). The seepage chemistry is summarized as follows:

- $_{\odot}$  pH for all seepage samples was non-acidic (7.5 to 7.9). EC values were lower at the toe of the stockpile (2,100  $\mu$ S/cm) and 4,100 and 4,200  $\mu$ S/cm for samples at the toe of the access road.
- The differences in major ion chemistry are summarized as follows:
  - For the stockpile samples (21DC-01 to 21DC-03), major cation chemistry was dominated by sodium (280 to 300 mg/L) with lesser calcium (99 to 100 mg/L), while major anion chemistry was dominated by sulphate (530 mg/L), chloride (250 mg/L), and
  - For the access road samples (21DC-04 and 21DC-06) the cation chemistry was dominated by calcium (350 and 360 mg/L) and sodium (340 mg/L), while major anion chemistry was dominated by chloride (1,100 mg/L), sulphate (170 and 180 mg/L) and nitrate (63 and 64 mg/L as N).
- Concentrations were higher in chloride and ammonia concentrations in the road seepage samples than the Pad I samples suggesting a loading source other than waste rock.
- A comparison of seepage trace element concentrations is summarized as follows:
  - Higher for stockpile stations: sulphate (530 mg/L), arsenic (ranging from 0.0040 to 00042 mg/L and three times higher), cobalt (0.034 to 0.035 mg/L and one order of magnitude higher), molybdenum (0.012 to 0.013 mg/L and one order of magnitude higher), and nickel (0.051 to 0.053 mg/L and one order of magnitude higher). Trends in these parameters were relatively stable except sulphate, which has been increasing with time.

- Higher for road stations: cadmium (ranging from 0.00019 and 0.00021 mg/L and one order of magnitude) and manganese concentrations (0.42 and 0.49 mg/L and 4 times greater for manganese).
- Equivalent: dissolved selenium and zinc were similar for all samples.
- For stockpile seepage, trends for all parameters were either decreasing or stable except for sulphate, which was increasing.
- For the access road seepage, concentrations for all parameters have decreased since 2020.

All drainage from the Doris camp pad, including seepage captured in the collection sumps downstream of the toe of the access road, is pumped to the sediment control pond (SCP) prior to transfer to the TIA. In 2021, water from the SCP accounted for 1.4% of total inflow volumes entering the TIA and 0.4% of the total volume stored in the TIA.

## 9.1.2 Madrid North Waste Rock Storage Area

SFE arsenic concentrations for Madrid North waste rock at WRSA exhibited a positive trend with solidphase arsenic and sulphur content. SFE arsenic did not have a relationship with gold in WRSA rock suggesting arsenic leaching is not higher for the oxide stockpile containing ore (SRK 2021c).

Discharge of effluent onto tundra from the CWP is in accordance with the effluent quality limits provided in the Water License. Water that does not meet these criteria is transferred to the TIA via water truck.

The water quality sample set in 2021 included i) one seepage sample collected downstream of the WRSA pad and near Sump 1, ii) monthly water quality samples from the contact water pond (CWP), Sump 1, Sump 2, and Sump 3, and iii) seepage samples collected upstream and downstream of the CWP berm. The purpose of the seepage monitoring upstream and downstream of the CWP berm was to geochemically characterize seepage that is bypassing the CWP.

A summary of the results are as follows:

- $_{\odot}$  All waste rock drainage samples were non-acidic and EC values (240 to 5,100  $\mu$ S/cm) indicated the temporal and spatial variability at all stations.
- As with EC, concentrations of all major ions were variable with time (e.g. sulphate, chloride and calcium as shown in Figure 4-13 of Appendix F: Attachment D). The major cation chemistry for most Madrid WRSA samples was typically dominated by sodium (12 to 440 mg/L) and calcium (20 to 540 mg/L), with concentrations for Sumps 1, 2, and 3 lower than CWP samples. Seepage at Sump 2 was dominated by magnesium (14 to 70 mg/L) and calcium (20 to 42 mg/L) with lesser sodium (12 to 31 mg/L). Seepage near Sump 1 (21-WRP-01) was lower than Sump 1 samples. Major anions for all samples were dominated by chloride (16 to 1,500 mg/L), sulphate (3.8 to 420 mg/L), and alkalinity (39 to 230 mg/L).
- Chloride concentrations ranged from 320 to 510 mg/L for all stations in June except the seepage sample near Sump 1 (86 mg/L).
- The seepage sample near Sump 1 had chloride (86 mg/L) and sulphate (74 mg/L) concentrations that were two times smaller than the nearby sump sample from 18 days prior. The lower concentration suggests that the seepage is less representative of waste rock contact water than the Sump 1.
- There was a temporal decrease in chloride concentrations at Sump 3 (maximum 620 mg/L) and CWP samples MMS1-N and MMS1-S (maximum values of 970 and 1,500 mg/L, respectively) between July and September. Decreases are likely due to increased dilution from inflows to the

CWP and reduced loading from underground waste rock that reports to Sump 3. The temporal increase in chloride concentrations at Sump 2 (from 16 mg/L in July to 270 mg/L in September) suggests that a minor loading source from underground waste rock reports directly to this water management collection point.

In June, concentrations of chloride and sulphate were slightly higher for samples downstream of the CWP berm (410 to 510 mg/L) compared to samples upstream of the CWP berm (320 to 410 mg/L), but overall the chemistry was roughly equivalent.

In 2022, AEM is scheduled to construct a sump downstream of the CWP berm to intercept any CWP bypassing containment.

#### 9.1.3 Madrid Infrastructure and Roads

Infrastructure surveyed at Madrid North included the Overburden Stockpile and Madrid North Portal Pad.

Construction rock from the portal pad was sourced from NE CPR waste rock. A comprehensive summary of sources of the portal pad seepage chemistry is documented in Appendix E. Between the 2020 and 2021 seepage surveys, AEM remediated the Portal Pad by excavating areas of Portal Pad that were saline with disposal within the NE CPR. Accordingly, the results of the 2021 seepage survey are an indicator of the reclamation activities. The 2021 Portal Pad seepage chemistry in the context of reclamation activities is summarized as follows:

- o All seepage observed in 2021 was non-acidic.
- EC values (780 to 2,000 µS/cm) were lower by one order of magnitude compared to 2020.
- Concentrations of calcium (71 to 190 mg/L) and chloride (110 to 510 mg/L) were lower by one order of magnitude compared to 2020. Sulphate concentrations (68 to 120 mg/L), which are an indicator of sulphide oxidation, were notably equivalent between years.
- Nitrogen nutrients, which are present in or residuals of explosives, were present at significantly lower concentrations in 2021, including ammonia (two orders of magnitude lower), nitrate (three to five orders of magnitude lower) and nitrite (up to two orders of magnitude lower).
- Trace element concentrations were lower for all elements indicated as having high rates of metal leaching by the 2020 seepage survey, including dissolved cadmium (one to two orders of magnitude), cobalt (two orders of magnitude), iron (three to four orders of magnitude), manganese (one order of magnitude), nickel (one order of magnitude), selenium (one order of magnitude) and zinc (one order of magnitude).

The results of the 2021 Portal Pad seepage survey indicates that reclamation activities has improved seepage chemistry.

In addition to overburden, the Overburden Stockpile contains some construction rock sourced from two areas: Quarry D for construction in early 2019 of access roads and NE CPR waste rock for construction in late 2019 interior access roads and placement as cladding. Overall, seepage from the Overburden Stockpile in 2021 was characterized by lower concentrations than 2020 and is summarized as follows:

Seepage from the Overburden Stockpile in 2021 was characterized by lower concentrations of EC and most major ions, whereby EC, sulphate, calcium, and potassium were one order of magnitude lower than 2020 samples and chloride, magnesium and sodium were up to two orders of magnitude lower. The major ion composition of 2021 samples was relatively uniform and distinctive from 2020 seepage samples.

- o Ammonia and phosphorus concentrations in 2021 were two orders of magnitude lower than in 2020.
- Concentrations of dissolved trace elements were lower in 2021 with levels one or two orders of magnitude lower for antimony, cadmium, cobalt, iron, lead, manganese, molybdenum, nickel, selenium, and zinc. Notably, arsenic concentrations were roughly equivalent.
- The significant decrease in concentrations of major ions and trace elements in seepage from 2020 to 2021 validates the conceptual geochemical model that the source loading to seepage chemistry in 2020 was the thawing and draining of frozen saline porewater within overburden. Seepage samples collected in 2021 were from a different location than 2020 samples and therefore may represent drainage from non- and less saline overburden that is present in the stockpile (SRK 2021d).

## 9.1.4 Underground Backfilled Stopes (TL-11) Seepage Survey

AEM completed underground seepage inspections of backfilled stopes in August and December 2021. Visual surveys were conducted of all backfilled stopes that could be accessed safely at the time of the survey, i.e., not all backfill could be inspected. Three seepage locations were sampled in August and three locations were sampled in December. During the August sampling survey, AEM collected three seepage samples from Levels 120, 114, and 110. In December, AEM collected three samples from Level 120, 114, and 74. SRK concluded that the sample from Level 74 did not represent contact water of backfill.

Key results for the seepage samples inferred to represent contact waters are summarized as follows:

- The pH and EC ranged between 8.0 and 8.2 and 7,200 to 22,000 μS/cm respectively. The higher EC values were reported in the Level 120 and Level 110 samples.
- The major ion composition has the equivalent chemical signature and are considered to be contact water of mine backfill. Ion chemistry was dominated by chloride (2,100 to 6,900 mg/L) and sodium (3,900 to 3,900 mg/L). Seepage collected from Level 120 and Level 110 had higher concentrations of major ions than Level 114.
- Levels of ammonia, nitrate and nitrite were lower than the 50th percentile concentrations from the historical sample set in all samples.im
- Arsenic and silver concentrations were within the same range as previous seepage surveys (0.002 to 0.005 mg/L and 0.00005 to 0.0003 mg/L respectively.
- Copper and zinc concentrations were notably lower than indicated by previous seepage surveys.
- Manganese and cadmium concentrations were also lower than the 50th percentile concentrations from the historical sample set in all samples

## 9.2 BOSTON CAMP

This section summarizes the geochemical monitoring results at Boston. The seepage and ephemeral streams monitoring programs are conducted annually in the context of the waste rock and ore management and Boston closure plans. The objective of the seepage monitoring is to provide an indication of water quality from the waste rock (camp pad) and ore stockpiles. The seepage samples are collected at the toe of the camp pad. The two objectives of the ephemeral streams program are to monitor drainage from the Boston ore stockpiles and camp pad before entering Aimaokatalok Lake and the natural attenuation of the tundra.

## 9.2.1 Seepage Monitoring

There are two opportunistic seepage monitoring programs, seepage monitoring at station BOS8 as indicated by Boston water licence 2BBBOS1727 and a freshet seepage survey along the north and east sides of the camp pad, and the southern end of the airstrip as specified in the Boston Water and Ore/Waste Rock Management Plan (SRK 2017).

During the 2021 freshet seepage survey, no flowing seeps were observed.

Three surveys of station BOS-8 were complete in June, July, and August. A total of three samples were collected from BOS-8A, BOS-8B, and BOS-8D in June and no seepage was observed in July and August.

All 2021 seepage samples were pH neutral (7.9 to 8.0). Lab EC values were equivalent to field EC values, with values lowest at BOS-8B (580  $\mu$ S/cm) and highest at BOS-8D (1,200  $\mu$ S/cm). The ammonia concentration at BOS-8B was the highest ammonia concentration observed since 2015 (16.0 mg/L at BOS-8C) and was within the range of historical concentrations. BOS-8D had the highest cobalt (0.45 mg/L), manganese (0.10 mg/L), nickel (0.46 mg/L), and selenium (0.0023 mg/L) and had a high concentration of arsenic (0.55 mg/L). BOS-8B had the highest concentrations of arsenic (1.5 mg/L) and had a high concentration of selenium (0.0014 mg/L). All concentrations for the aforementioned parameters are within the range of the historical concentrations.

Continued monitoring will allow for further trends in the seepage to be established.

## 9.2.2 Ephemeral Streams Monitoring

As outlined in the Water and Ore/Waste Rock Management Plan for the Boston Site, Hope Bay Project, Nunavut (2017), five ephemeral streams (A to E) within the catchments of the Boston camp pad are monitored during spring freshet. The objectives of the program are to monitor drainage from the Boston ore stockpiles and camp pad before entering Aimaokatalok Lake and the natural attenuation of the tundra. In 2021, flow was observed, and samples collected on June 28 from ephemeral streams A2 and C2. Field parameters at A2 and C2 were not collected in 2021.

Field pH values were 7.0 to 7.5 and were within the range of historical data. The flowrate at C2 was within historical flow rates and the flow rate at A2 was too low to quantify. Chloride concentrations for ephemeral streams exhibit a decreasing trend. Copper, arsenic, and selenium have stable trends. Nitrate concentrations at A2 have oscillated and have generally decreased at C2 since 2009. Compared to SRK (2009) model predictions, the 2021 monitoring data were below maximum predicted values for chloride, nitrate, arsenic, copper, iron, nickel, and selenium at streams A2 and C2 and sulphate at A2. At C2, sulphate concentrations observed in 2021 exceeded the maximum modeled values; however, concentrations were lower than 2020 and within the same order of magnitude as the modeled values.

Sulphate and chloride are not attenuated by the tundra and the concentrations measured in 2021 validate the Boston 2009 water and load balance. In general, ephemeral streams monitoring indicates that overall, geochemical conditions remain stable with some annual variability.

## 10. Fuel Storage

Bulk fuel storage at the Hope Bay Project site is accomplished in compliance with relevant regulations and authorizations. Bulk fuel is stored in steel tanks or manufactured fuel bladders which are housed in a "tank farm" that is lined with an impermeable membrane and surrounded with a berm with sufficient capacity to meet containment criteria (i.e., 110% of the largest tank in the farm). This minimizes the potential of fuel entering the environment from a spill. Chemical storage at the Hope Bay Project site is accomplished in compliance with handling and storage instructions detailed in the respective manufactures Safety Data Sheets (SDS).

Agnico maintains the Hope Bay Project Spill Contingency Plan (most recently revised in 2022), available in Appendix H of this report, which is utilized to safeguard against accidental spills of harmful substances that may negatively affect the environment. Implementation of spill prevention systems are critical to avoid such accidents, followed by a response system that is timely and efficient if spills do occur, and contains and mitigates the negative environmental consequences. The Hope Bay Project Spill Contingency Plan was developed in accordance with the Spill Contingency Planning and Reporting Regulations developed under Section 34 of the Government of Nunavut's *Environmental Protection Act* (RSNWT Nu1988), the Environmental Emergency Regulations (SOR/2019-51), the Metal and Diamond Mining Effluent Regulations (SOR/2002-222) and was developed specifically to address the requirements of the Framework Agreement; NWB Water Licences: 2AM-DOH1335, 2AM-BOS1835, 2BE-HOP1222, 2BB-MAE1727 and 2BB-BOS1727; and NIRB Project Certificates: Number 003 and Number 009; including all amendments. The Hope Bay Project Spill Contingency Plan provides a consistent spill response framework that is available to all site personnel so they can effectively and efficiently respond to a spill of petroleum products and/or hazardous materials regardless of where on the Hope Bay site they are encountered.

The Hope Bay Project Spill Contingency Plan contains detailed inventories and measurable quantities of all on-site hazardous materials and provides layouts indicating locations of all spill response equipment at site. A list of spill containment systems used are summarized below:

- Gravel/HDPE lined containment facilities (e.g., Roberts Bay and Doris Tank Farms);
- HDPE/wood containments (e.g., Jet-A storage at Heli-pad);
- Concrete berms (day-tanks at the Powerhouse);
- Double-walled steel tanks at location of use;
- o Steel spill containment (e.g., beneath tanks at incinerator);
- Insta-berms; and
- Plastic spill pallets.

Spill response resources are also described in detail in the existing management plan together with their routine maintenance and inspection. The availability and organization of the human resources deemed required to respond to spill events is described in the Hope Bay Project Spill Contingency Plan, along with the responsibilities of specified personnel and response teams clearly defined. External notification and communication in the event of spill events are addressed and there is also a specified and comprehensive system of internal reporting. The Plan is subject to annual review and an update to this plan is being provided with this Annual Report in Appendix H.

## 11. Spill Reports

During 2021, three spills were reported to the Nunavut Spill Line, Water Licence Inspector and KIA Major Projects. No spills were reported to Environment and Climate Change Canada. These three spills met the reporting threshold as outlined in the Nunavut Spill Contingency Planning and Reporting Regulations. In addition to the required Spill Line report, a more detailed follow-up report was filed within thirty days of each reported spill that included a description of the event together with the immediate cause, corrective and preventative action. The three reportable spill events are summarized in Table 11-1 below.

The remaining spills that occurred during 2021 were minor in nature, occurring on project roads/laydowns, with quick response and clean up resulting in negligible impact to the receiving environment. Agnico tracks all unauthorized discharges and spills on site, regardless of if they are externally reportable or not, and identifies any observable trends. In 2021 Agnico conducted frequent (daily) internal reviews of incidents using visual analytics generated automatically from tracking sheets. Spills were analysed by reportability, spill location, spill product, root cause, spill reason and volume. The lessons learned, improvements and causes are discussed with site personnel at daily toolbox meetings. No apparent root cause trend for minor spills was identified with freezing temperatures contributing to majority of the spill reasons. Inspectors have the opportunity to review the information on demand or when at site conducting inspections.

Table 11-1. Summary of Reportable Spills in 2021

Date of Occurrence	Spill Number	Date of Notification to an Inspector	Spilled Material and Volume or Mass	Details of Spill Event and Follow up Activities	Date Follow-up Report Provided to an Inspector
18-Jun-21	2021252	18-Jun-21	Madrid Contact Water 2000 L	On June 18, 2021 contact water seepage was identified at the same location as it had been identified in June 2020. A second seepage location was also identified in June 2021. Contact water released from the pond was contained by a road to the east and laydown pad to the north. No contact water was released to any water body (nearest water body is Patch Lake located 800m east of the CWP).	13-Jul-21
				A small sump pump was immediately installed at the toe of the berm to pump water back into the pond and minimize the volume of the release. Water trucks were used to transfer contact water from the pond to the Tailings Impoundment Area.	
				The initial estimate of quantity of water released on June 18th was unknown but believed to be more than 2000L. Based on a survey of the water level elevation on June 14th prior to the release, the estimated quantity released is 350 m3. Results of all samples were below the Maximum Concentration outlined in Part F Item 18 (a) of Water Licence 2AM-DOH1335.	
				An incident investigation conducted soon after the incident occurred concluded with the following root causes:	
				<ul> <li>The cause of the seepage to be the failure of the remedial works conducted in 2020 to fully seal the bedrock cracks/fissures in the foundation of the CWP.</li> </ul>	
				<ul> <li>The water level within the pond was above the maximum water level elevation defined for the pond based on the 2020 investigation.</li> </ul>	
				The following corrective/preventative actions were implemented to reduce the likelihood of a reoccurrence:	
				<ul> <li>Additional remedial works to seal the bedrock fractures within the base of the pond are not anticipated to prevent future seepage events. As an alternative, a water management structure will be installed at the downstream toe prior to freshet 2022 to capture any seepage and return it to the pond.</li> </ul>	
				<ul> <li>A water level gauge and signage will be installed at the CWP to identify the full supply level to allow for quick visual assessment of water level allowing operators to quickly respond if the water level is approaching the maximum allowable water elevation. Daily inspections will be conducted leading up to and during freshet to assess water level and initiate water management as needed.</li> </ul>	
27-Jun-21	2021269	27-Jun-21	Treated Effluent ~100 L	On June 27, electricians working in the area identified that a leak was occurring from the flange of one vacuum break on the pipeline. Treated effluent from the 10" ocean discharge pipeline was leaking from this flange to the surrounding tundra. The effluent soaked immediately into the tundra and could not be recovered. The quantity of effluent released is unknown but is estimated to have exceeded 100L.	26-Jul-21

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Date of Occurrence	Spill Number	Date of Notification to an Inspector	Spilled Material and Volume or Mass	Details of Spill Event and Follow up Activities	Date Follow-up Report Provided to an Inspector
				Results of the sample collected were below the allowable limits outlined in Part F Item 18 (a) of 2AM-DOH1335 licence and Schedule 4 of the MDMER. No impacts to vegetation have been identified to date, however this area will continue to be visually monitored for signs of vegetation stress/impact.	
				An incident investigation conducted soon after the incident occurred concluded with the following root causes:	
				<ul> <li>It was found that the bolts securing the flange to the 2" vertical pipe were loose, which resulted in the leak. It is believed these bolts became loose due to temperature changes over the previous days which cause contraction of the flange fitting.</li> </ul>	
				<ul> <li>The preventative maintenance schedule to retorque the bolts on these flanges during the spring/fall temperature changes had not been implemented.</li> </ul>	
				<ul> <li>No routine visual inspection of these flanges was being conducted to assess for leaks.</li> </ul>	
				The following corrective/preventative actions were implemented to reduce the likelihood of a reoccurrence:	
				<ul> <li>A daily visual inspection of the vacuum breaks by the Water Treatment Plant operator has now been implemented.</li> </ul>	
				<ul> <li>A preventative maintenance schedule to perform retorque of bolts for all flanges along the pipeline has also been scheduled to occur twice annually (spring and fall) and will begin in fall 2021.</li> </ul>	
04-Sep-2021	2021383	05-Sep-2021	Underground Contact Water ~100 L	On September 5, 2021 a release of underground contact water had occurred adjacent to the Tail Lake Access Road (TLR), east of the Tailings Impoundment Area (TIA). A leak was identified from a hugger clamp on the underground dewatering pipeline resulting in a release of contact water to the tundra. The dewatering pipeline is used to transfer underground contact water from the Doris mine to the TIA. The leak was identified by crews working in the area while conducting preventative maintenance on a separate pipeline. The dewatering pump was immediately shut down and locked out by the underground shifter to minimize the release, and the pipe was straightened and a new hugger clamp installed prior to restarting the dewatering system. The volume of the spill is unknown but is estimated to be more than 100L.	02-Oct-21
				No contact water was released to any water body (nearest water body is Doris Lake located 480m south of the release). The location was within the boundary of the TIA and no adverse impact to the surrounding environment is anticipated.	

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Date of Occurrence	Spill Number	Date of Notification to an Inspector	Spilled Material and Volume or Mass	Details of Spill Event and Follow up Activities	Date Follow-up Report Provided to an Inspector
				An incident investigation conducted soon after the incident occurred concluded with the following root causes:	
				<ul> <li>The connection clamp coming loose and is believed to be due to repetitive heating-cooling cycles linked to temperature variations</li> </ul>	
				The following corrective/preventative actions were implemented to reduce the likelihood of a reoccurrence:	
				<ul> <li>A daily inspection is conducted of all pipelines at the site to identify any potential leaks.</li> </ul>	
				<ul> <li>A preventative maintenance program has been implemented to conduct retorquing of the bolts on all clamps/flanges used on dewatering pipelines.</li> <li>This will be conducted twice annually (spring and fall) beginning in fall of 2021.</li> </ul>	
				<ul> <li>Install a heat traced/insulated pipeline for future mine dewatering. This new pipeline will be fuse welded reducing the need to use clamps which will minimize the risk of a reoccurrence. Installation of this pipeline is anticipated to be completed before January 2022.</li> </ul>	

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# 12. Management Plans

The Table 12-1 below provides and overview of all Management Plans for the Hope Bay Project.

Table 12-1. Hope Bay Project Management Plans

Topic	Management Plans	Revision Date
Environmental Management System	Hope Bay Project Environmental Management System	Dec-17
Management Plans		
Emergency Response	Hope Bay Project Emergency Response Plan	Feb-21
Spill Contingency	Hope Bay Project Spill Contingency Plan	Mar-22
Hazardous Waste Management Plan	Hope Bay Project Hazardous Waste Management Plan	Mar-20
Incinerator Management Plan	Hope Bay Project Incinerator Management Plan	Mar-19
De-icing Management	Hope Bay Project Aircraft De-icing Management Plan	Mar-19
QA/QC	Hope Bay Project Quality Assurance Quality Control Plan	Mar-22
Water Management	Hope Bay Project Doris-Madrid Water Management Plan	Mar-22
	Hope Bay Project Boston Water Management Plan	Dec-17
Waste Rock Management Plan	Hope Bay Project Waste Rock, Ore and Mine Backfill  Management Plan	Mar-22
	Hope Bay Project Water and Ore/Waste Rock Management Plan for Boston Site	Jan-17
Landfarm Management	Hope Bay Project Hydrocarbon Contaminated Material Management Plan	Dec-17
Air Quality	Air Quality Management Plan, Hope Bay Project	Apr-19
Domestic Waste Water Management	Hope Bay Project Domestic Wastewater Treatment Management Plan	Dec-17
	Boston Sewage Treatment Operations and Maintenance Management Plan	Sep-17
WWMP	Doris North Project Wildlife Mitigation and Monitoring Plan	Dec-16
	Wildlife Mitigation and Monitoring Plan	Apr-21
AEMP	Hope Bay Project Aquatic Effects Monitoring Plan	Apr-18
Ground Water Management Plan	Hope Bay Project Ground Water Management Plan	Mar-22
Tailing Management Plan	Hope Bay Project, Phase2 Doris Tailings Impoundment Area  – Operations, Maintenance, and Surveillance Manual	Feb- 22
	Hope Bay Project Boston Tailings Management Area - Operations, Maintenance, and Surveillance Manual	Dec-17
Non-Hazardous Waste	Hope Bay Project Non-hazardous Waste Management Plan	Dec-17
Quarry Management	Hope Bay Project Quarry Management and Monitoring Plan	Mar-22

Topic	Management Plans				
Closure	Hope Bay Project Doris-Madrid Closure and Reclamation Plan	Nov-17			
	Hope Bay Project Boston Conceptual Closure and Reclamation Plan	Nov-17			
	Hope Bay Project Windy Camp and Patch Lake Facility Updated Closure Plan (SRK)	May-14			
	Hope Bay Project: Madrid Advanced Exploration Program: Conceptual Closure and Reclamation Plan (SRK)	Oct-14			
Explosives	Hope Bay Project Explosives Management Plan	Nov-17			
OPPP & OPEP	Oil Pollution Prevention Plan (OPPP) and Oil Pollution Emergency Plan (OPEP)	May-20			
Socio-economic Management Plans					
Health and Safety	Hope Bay Health and Safety Management Plan	Dec-17			
Human Resources	Hope Bay Project Human Resources Plan	Sep-16			
Community Involvement	Hope Bay Project Community Involvement Plan	Dec-16			
Cultural Heritage	Cultural Heritage and Natural Resources Management Plan	Dec-17			

## 13. Closure and Reclamation

#### 13.1 PROGRESSIVE RECLAMATION

#### 13.1.1 Operation Areas

The eastern portion of the Madrid North Portal Pad and Madrid North Portal Laydown, collectively referred as the Portal Pad, was reclaimed in 2021. The eastern portion was removed down to the pre-existing natural grade. Although construction rock used for the portal pad was classified as non-PAG with arsenic content below the criterion for classifying suitable waste rock, removing the eastern portion is anticipated to reduce the source of ammonia and chloride that may remain entrained in the material of the pad. Efforts were made during excavation to minimize impact to the underlying tundra (Figure 13-1). Material excavated from the eastern portion of the pad was used as backfill in the Naartok East Crown Pillar Recovery Trench.



Figure 13-1. Madrid North Portal Pad Excavation

The western side of the pad remains in place and was graded to allow positive drainage. The geochemical field surveys will continue to monitor runoff from the remaining pad area and downstream of the excavated area. Erosion control measures including coco matting and silt fencing have been put in place to minimize sediments in runoff from the excavated area and the remaining pad area. Routine inspections of the area will be conducted throughout the snow-free period to monitor stability of the excavated area and ensure positive drainage is maintained.

The Doris North Reagent Pad constructed at the north end of the TIA was decommissioned as a reagent storage area. The pad underwent minor grading and maintenance to enhance positive drainage

## 13.1.2 Exploration Areas

Following surface diamond drilling operations, a reclamation process is conducted. Once drill equipment is demobilized from site, all drill casings are removed, if the casing is stuck due to permafrost it will be cut off at ground level. Cuttings are either used to fill the depression left by other drill operations in the vicinity or

collected and removed. The land will then be leveled with bentonite if required and covered using overburden. Following drilling operations on ice, equipment and soiled and/or oily snow and ice are removed from the surface of the ice and deposited in active sumps. Once drilling operations are complete at a drill site, a site closure inspection report is completed by Agnico Eagle, reviewed by the site Drilling Supervisor and approved by the Agnico Eagle Environment Superintendent. Generalized items inspected in closure review include water management, drill collar sites, sump locations and adjacent vegetation inspections and housekeeping. All site closures are photographed with records filed and maintained by Agnico Eagle. Due to reduced operations and personnel on site, no historical drill site reclamation was completed in 2021.

#### 13.2 COST ESTIMATE

The reclamation work for the Hope Bay Project will be done in accordance to approved Closure and Reclamation Plans for the Project. Reclamation progress is monitored through site inspections and annual reporting to the KIA, Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC) and NWB, and is documented in updates of the Project Closure and Reclamation Plan and financial security costs estimates. As part of the Type A Water Licence approval process for Boston-Madrid (Phase 2) Project in 2018, financial security costs estimates were updated and approved by the NWB, KIA and CIRNAC and consider all existing infrastructure, proposed Phase 2 infrastructure, and any new information available since the last revision. The resulting financial security estimates and their associated Closure and Reclamation Plans, which are applicable to each site, are outlined in the subsections below.

#### 13.2.1 Doris and Madrid

Agnico maintains the *Hope Bay Project Doris-Madrid Closure and Reclamation Plan* (November 2017) which describes the activities, requirements, and monitoring necessary for the closure and reclamation of the Doris site.

As part of the Type A Water Licence approval process for Boston-Madrid (Phase 2) Project in 2018, TMAC provided to the NWB an updated and final Closure and Reclamation cost estimate, which constituted an agreement between Agnico, KIA and CIRNAC on the financial security parties agreed was required for Doris and Madrid sites. Details of this process can be found on the NWB public registry and resulted in a requirement in Type A Water Licence 2AM-DOH1335 for \$62,058,577 to be posted for the Doris-Madrid portion of the Project; \$51,659,822 to KIA, \$10,398,755 to the Crown. This security is to be posted across nine (9) installments or tranches based on distinct project components.

In addition to the financial security required to be posted for Doris and Madrid under Type A Water Licence 2AM-DOH1335 described above, Agnico also has rights to conduct the Madrid Advanced Exploration Program in accordance with Water Licence No. 2BB-MAE1727 Amendment No.2. In the event Agnico proceeds the Madrid Advanced Exploration Program, and does not commence activities under Type A Water Licence 2AM-DOH1335, Agnico's Conceptual *Madrid Closure and Reclamation Plan* (2017) will dictate the activities, requirements, and monitoring necessary for the closure and reclamation of the Madrid site(s). In this scenario, Agnico is required to maintain reclamation security in the amount of \$7,131,000 for the work at Madrid. As per the amended licence, this amount is split between activities at Madrid North (\$4,042,000), Madrid South (\$3,072,000) and Madrid North to South All Weather Road (AWR) (\$17,000).

## 13.2.2 Windy

Agnico has an approved *Hope Bay Project, Windy Camp and Patch Lake Facility Updated Closure Plan* (SRK 2014). This document presents the closure obligations and the plan for closing both facilities, and demonstrates how the closure obligations can be met. A copy of this plan can be found on the NWB public registry.

## 13.2.3 Boston

For current Boston infrastructure, Agnico has an approved *Boston Camp Interim Closure Plan* (2020), which was submitted to the NWB September 14, 2020. The plan includes a current closure cost estimate of \$3,722,000. This amount includes cost escalation, management of mineralized rock, reclaiming drill sites and other areas of permafrost degradation, remediation of hydrocarbon contaminated soils, indirect costs, and a contingency. A copy of this plan can be found on the NWB public registry.

For planned Boston infrastructure under the Boston-Madrid (Phase 2) Project, Agnico provided to the NWB an updated and final Closure and Reclamation cost estimate as part of the Type A Water Licence approval process. The updated and final Closure and Reclamation cost estimate provided constituted an agreement between Agnico, KIA and CIRNAC on the financial security parties agreed was required for the Boston site. Details of this process can be found on the NWB public registry and resulted in a requirement in Type A Water Licence 2AM-BOS1835 for \$37,458,491 total to be posted; \$9,963,564 to KIA and \$27,494,927 to the Crown. This security is to be posted across nine (6) installments or tranches based on distinct project components.

## 14. Community Consultation

Agnico is committed to engaging positively and effectively with local communities in a manner that emphasizes respect, integrity and demonstrates a willingness to learn from experience and embrace necessary change. Agnico recognizes that maintaining engagement and community involvement is necessary throughout the mining cycle, and critical to continuous improvement. Agnico bases its approach to community involvement on the following principles:

- 1. Identify all Stakeholders in our operations;
- 2. Effectively engage Stakeholders and establish a dialogue;
- 3. Provide Stakeholders with means to respond to us as well as generate responses; and
- 4. Report to Stakeholders and regulators on our Engagements.

Agnico operates within Nunavut, and on Inuit Owned Lands. The Kitikmeot Inuit Association (KIA), representing the Inuit of the Kitikmeot region, advised Agnico during the Inuit Impact and Benefits Agreement (IIBA) negotiation process that all Kitikmeot communities are considered affected by Hope Bay. As a result, Agnico considers every Kitikmeot Inuk, and their representative organizations including the KIA to be Stakeholders in the Belt. For the purposes of local community engagement, communities involved in the Belt include Kugaaruk, Taloyoak, Gjoa Haven, Cambridge Bay, Umingmaktok, Kingaok, and Kugluktuk, comprising the Kitikmeot region of Nunavut.

In order to effectively engage, establish and maintain a dialogue with Agnico's various local communities, Agnico has implemented a number of steps and activities designed to support two-way communication. These efforts and activities are described in the subsections below.

In 2021, Agnico Community Consultation activities continued to be severely constrained by public health measures enacted by the Government of Nunavut Department of Health pursuant to the Nunavut public health emergency declared in response to the COVID-19 global pandemic.

#### 14.1 CAMBRIDGE BAY OFFICE

Agnico maintains an office in Cambridge Bay, which is the closest, occupied, affected community to the Hope Bay Greenstone Belt. The office is centrally located in the community, furnished with bilingual signage, and accessible by the public during regular business hours, including wheelchair access. The primary purpose of this office is to facilitate community engagement. The Cambridge Bay office supports Agnico's engagement of government, regulators, intervenors, interested members of the public, employees, those seeking employment at Hope Bay and other interested parties.

Staff of the Cambridge Bay office are available to communicate directly with local Stakeholders and participate in a number of regional and territorial events that regularly occur in Cambridge Bay, thereby informing communities of Agnico operations, and actively soliciting feedback. The Cambridge Bay office is staffed with a Vice President of Corporate Social Responsibility, a Agnico Liaison and a Human Resources/Social Responsibility (HR/SR) Coordinator. They engage regularly with the public using two-way communications for a variety of activities including:

Employee and public relations;

- Annual community awareness meetings;
- Regular meetings with individual Inuit job seekers;
- Recruiting and onboarding Inuit personnel;
- Regular communications with Community Liaison Officers in the Kitikmeot;
- Annual meetings between KIA and Agnico Presidents;
- Annual updating of KIA Board by Agnico Executive;
- Attendance at the KIA Annual General Meeting;
- Quarterly participation in the IIBA Implementation Committee;
- Presentation of the IIBA Annual Evaluation Report to the KIA Board;
- At a minimum, semi-annual meetings of the Inuit Environmental Advisory Committee (IEAC) in order to review environmental management and monitoring plans, discuss project related environmental issues, and obtain advice from knowledgeable Inuit on these matters;
- o Meetings between Agnico staff and Kitikmeot Qualified Businesses;
- o Regular meetings with relevant KIA Lands, Employment and Training and Executive staff; and
- Annual visits of the KIA Board, IIBA Implementation Committee, IEAC, and individual harvesters at Hope Bay.

During 2021, public health measures impeded or precluded implementation of the Community Involvement Plan. These measures included public closures of offices of Agnico and Stakeholders, Event cancellations, group size restrictions, travel restrictions. These measures prevented Agnico from communicating directly with the Cambridge Bay public, and to engage in face-to-face meetings with stakeholders. The uncertainty created by the pandemic in Nunavut also prevented Agnico from implementing the Community Involvement Plan; although it may have been possible to engage with stakeholders at any given time in 2021, there was no assurance this would hold true long enough for engagements to be scheduled and concluded.

#### 14.2 ENGAGEMENT WITH INUIT THROUGH THE IIBA

In accordance with the Hope Bay Inuit Impact and Benefit Agreement ("IIBA"), signed in 2015, Agnico regularly engages Inuit on a range of matters directly as well as through the KIA. The IIBA includes the following schedules which contain specific provisions of adaptive socio-economic effect mitigation measures aimed at Kitikmeot Inuit:

- Schedule D Training and Education Opportunities: whereby Inuit are provided support and training for opportunities at the Hope Bay Project;
- Schedule E Employment: whereby measures and supports are provided to maximize Inuit participation in the Hope Bay Project;
- Schedule F Business and Contracting Opportunities: whereby Inuit are provided business and contracting opportunities; and
- Schedule I Inuit Environmental Advisory Committee: whereby Inuit have the opportunity to receive
  and consider information, provide advice and attempt to resolve community concerns relative to
  the environment and wildlife for the Hope Bay Project.

During 2021, engagement between Agnico and the KIA for the purposes of implementing the Hope Bay IIBA were curtailed due to office closures and travel restrictions made as a result of the COVID-19 public health emergency.

#### 14.3 COMMUNITY AWARENESS: KITIKMEOT COMMUNITY MEETINGS

Agnico is committed to undertaking annual regional consultation tours of the Kitikmeot region. The tours consist of visits to each Kitikmeot community by Agnico community relations staff and relevant subject matter experts. During community consultation tours, public meetings are scheduled in each community, and in-person meetings are arranged with local stakeholders.

The 2021 annual Kitikmeot Community meeting tour was cancelled due to the COVID-19 public health emergency.

## 14.4 COMMUNITY AWARENESS: KITIKMEOT CAREER AWARENESS SESSIONS

Agnico hosts community and information and career awareness sessions in all Kitikmeot communities annually in order to maximize Inuit employment opportunities at Hope Bay. The purpose of these sessions is to provide information on:

- expected labour needs of Hope Bay;
- o the skills, behaviours and qualifications required for employment and advancement at Hope Bay;
- the training opportunities and educational support programs available to prepare for employment at Hope Bay; and
- career opportunities in related fields such as science, technology, mathematics or professional services.

In 2021, the Hope Bay site continued to be physically separated from Kitikmeot communities in order to eliminate the potential for COVID-19 transmission from mine workers to Kitikmeot residents. A Return to Work proposal and plan to allow Kitikmeot (Nunavut) based staff to be rehired to work at Hope Bay was prepared and submitted to the Nunavut Public Health Officer in Q2 2021. Agnico (AEM) choose not to implement this plan in 2021 due to continued outbreaks of COVID-19 at Hope Bay, and the emergence of new COVID-19 variants. Due to these factors, Career and Employment opportunities for Kitikmeot (Nunavut) residents at Hope Bay were not available in 2021. The Kitikmeot Career Awareness tour was cancelled due to the COVID-19 public health emergency.

## 14.5 SOCIAL MEDIA

Agnico maintains a company Facebook™ page to both share operational information with communities and increase awareness of mining. In 2021, in response to the acquisition of Agnico Resources by Agnico Eagle Mining Ltd, the Hope Bay social media presence was adjusted to reflect the change in ownership. Agnico (AEM) uses its Facebook™ page to augment information distributed through AEM's website. Agnico (AEM) also makes use of Kitikmeot community Facebook™ pages to advertise job postings, meeting notices, and any other news that may be of interest to Nunavut Stakeholders (https://www.facebook.com/AEMHopeBay).

Comments, questions or concerns received via social media are addressed promptly in a manner consistent with public meetings.

## 14.6 ELECTRONIC MAIL

Agnico maintains and periodically updates a listing of electronic mail addresses of Stakeholders, including select community members. This listing includes, but is not restricted to the following:

- Public elected officials;
- Inuit elected officials;
- Relevant federal and territorial regulator employees;
- Relevant Inuit Organization employees;
- o Relevant Municipal officials; and
- Relevant training and employment agency employees.

When necessary, Agnico distributes electronic mail messages to this listing to inform them of Agnico related events, news and happenings. This engagement activity is conducted to ensure that Stakeholders and communities are well informed, encouraged to provide feedback, and if willing, able to plan participation in any future Agnico engagement.

#### 14.7 NUNAVUT EVENT PARTICIPATION

Agnico ensures it is well informed of key events that occur on an annual basis in Nunavut that represent opportunities for community involvement and dialogue. Agnico makes staff available to attend these events in order to foster communication. Agnico also provides financial support as appropriate to event planning groups in order to assist in paying for event costs. Sponsored events include the following:

- Kitikmeot Mayor's Meeting;
- Kitikmeot Trade Show: and
- Nunavut Mining Symposium.

In 2021, all Nunavut events normally attended and sponsored were cancelled due to the COVID-19 public health emergency. The Nunavut Mining Symposium Society organized several virtual events in 2021 in lieu of an in-person conference. Agnico attended these virtual events.

#### 14.8 STAKEHOLDER REPRESENTATIVE ORGANIZATIONS

Agnico recognizes that one of the most effective means of engagement and dialogue with Stakeholders and communities is joining with them in an organization of mutual benefit. Towards this aim, Agnico is a member of established organizations involving numerous community members. Agnico's participation in these groups provides members with information on Agnico's activities and, allows them to discuss matters of mutual concern, and undertake initiatives of mutual benefit. These organizations include the following:

- NWT/Nunavut Chamber of Mines;
- Nunavut Mine Training Roundtable; and
- Kitikmeot Indigenous Skills and Employment Training (ISET) Stakeholder Working Group.

In 2021, Agnico continued to participate in Stakeholder representative organizations. However, in-person meetings that normally take place within the listed groups above were cancelled due to the COVID-19 public health emergency. A reduced number of virtual meetings with the stakeholder representatives occurred in 2021.

#### 14.9 COMMUNITY RELATIONS SUMMARY FOR 2021

Agnico's Corporate Social Responsibility (CSR) group is responsible for leading community relations on behalf of Agnico. Agnico conducts its activities in accordance with the *Community Involvement Plan*, and in compliance with the *Hope Bay Inuit Impact and Benefit Agreement*.

Agnico Corporate Social Responsibility supports the implementation of a number of Agnico Policies and Procedures including:

- Code of Ethical Business Conduct;
- Respectful Workplace;
- Whistleblower Policy;
- Corrective Action Policy;
- o Community Complaints Procedure;
- o Sustainable Development Policy; and
- Employee and Family Assistance Program.

During 2021, Alex Buchan, Director of Western Nunavut Affairs for Agnico headed the community involvement team based on corporate reorganization stemming from the Agnico Eagle Mining Ltd. Acquisition of Agnico. Alex Buchan is primarily responsible for delivering community involvement activities. The Community Relations team in Cambridge Bay includes Ikey Evalik, Inuit Impact and Benefit Agreement Coordinator, and Sandra Eyegetok, the HR/SR Coordinator.

Communications in 2021 focused on the acquisition of Hope Bay and Agnico Resources Inc. by Agnico Eagle Mining Ltd, and the effects of the COVID-19 global pandemic on Hope Bay operations and Inuit employment.

#### 14.9.1 Cambridge Bay Logistics Hub

Response to the COVID-19 global pandemic required significant changes to resupply and transport to and from Hope Bay. All air transport links between the Kitikmeot region and Hope Bay continued to be severed during 2021 in order to prevent disease transmission from mine workers to Kitikmeot Communities. In Q2 2021, Agnico proposed a Return to Work protocol to the Government of Nunavut Chief Public Health Officer that would allow the resumption of crew change flights to and from Kitikmeot communities and Hope Bay. After the proposal was submitted, Hope Bay continued to experience outbreaks of COVID-19, and variants of concern were first identified, and spread across Canada. Given these developments, the Return to Work protocol was not implemented given the continued and heightened risk of disease transmission at Site.

## 14.9.2 Other Communications in 2021

Agnico continues the use of a project/company Facebook page to provide information on Hope Bay primarily to northern stakeholders. Content of this page includes permitting information, meeting notices, job advertisements, and pictures of site activities linked to Kitikmeot community news pages. Feedback from Agnico information from this social media source is growing and it may be surmised that many younger

Kitikmeot residents make better use of this information source than Elders or others more typically reliant on information received during public meetings. The page can be viewed at the following link: https://www.facebook.com/AEMHopeBay.

## 14.9.3 Corporate Social Responsibility Activities in 2021 by Month

#### **January**

- CSR Staff participated and where appropriate, lead, engagements with stakeholders this month to provide information and answer questions on the acquisition of Agnico.
- CSR Staff provided initial orientations and presentations this month to Agnico management to familiarize them with Hope Bay community relations topics such as the content of Inuit Agreements, terms and conditions of Hope Bay project certificates, and the work of the Cambridge Bay office.
- CSR Staff supported and participated in an initial virtual meeting between KIA and Agnico to introduce the new company owners to this Inuit organization.

## **February**

- CSR Staff continued work this month to orient and provide information on Hope Bay Corporate Social Responsibility matters to Agnico staff that would now be involved in this work.
- CSR Staff supported the submission of the Roberts Bay Discharge Location change documentation to regulators this month.
- The Kitikmeot Workforce Readiness strategy process began this month with initial interviews of CSR staff by consultants. The Strategy has been initiated by Kitikmeot Corporation to find ways to better support Inuit employment at major developments in the region.
- CSR staff provided input and advice to the Agnico team responsible for responding to information requests from the KIA on the corporate acquisition this month.

#### March

- CSR staff engaged with others in the company to prepare for the scheduled review of the Hope Bay IIBA with the KIA.
- CSR staff assisted in the preparation of materials for the next Inuit Environmental Advisory Committee meeting to discuss Hope Bay Fisheries Offsetting. This IEAC meeting took place later on in the month to provide feedback on fisheries research plans for Freshwater Creek adjacent to Cambridge Bay.
- CSR staff engaged engineers working for the Government of the NWT inquiring about the availability
  of quarry rock at Hope Bay to be used to support erosion control in Tuktoyaktuk harbour this month.
- CSR staff supported Agnico in further development of a draft Hope Bay worker reintegration plan that would allow the rehiring of Nunavummuit at Hope Bay while maintaining strict pandemic measures.
- CSR staff engaged with others in the company to prepare for the scheduled review of the Hope Bay IIBA with the KIA.
- CSR staff provided input this month to the Conference Board of Canada in their research effort to study the effects of Fly-In Fly-Out employment in Northern Canada. The research findings may be useful for considering how best to maximize benefits from this type of employment at Hope Bay.

#### April

- CSR staff worked within the Nunavut Mining Symposium Steering Committee to consider alternatives to an in person conference this month including planning and preparation of virtual events during the summer and fall of 2021.
- CSR Staff attended, along with Agnico Senior Management, the KIA Board meeting in Kugluktuk this month. Agnico presented to the Board providing information on the new ownership of the company, and described AEM plans to rehire Inuit workers when safe, maintain and assess existing Gold production, and focus on gold exploration at Hope Bay. Follow up meetings were arranged in Cambridge Bay to introduce Agnico to Kitikmeot businesses and community stakeholders. However, due to the Covid outbreak experienced in the Kivalliq at that time, AEM Senior Management were required to vacate the region. Follow up virtual meetings were held later in the month in stead.
- CSR staff worked with Agnico communications staff to retire Agnico internet communications efforts and design and create replacement Agnico Hope Bay online content.

## May

- Early in the month, CSR staff attended and presented at an internal workshop to ensure that the planned 2021 Hope Bay exploration program complied with Inuit agreements and permits to ensure all requirements would be met.
- CSR Staff continued to assist site staff this month in administering Hope Bay Covid protocols including questioning off rotation staff on their infection and isolation status to ensure their availability for upcoming shifts.
- Agnico staff responded to a media inquiry this month regarding the status of operations at Hope Bay, and when Nunavut workers could be rehired from Kitikmeot communities. Details of the draft Return To Work protocols were provided.
- An IIBA Implementation Committee meeting was held this month with KIA representatives.
- Agnico High School Achievement Awards, normally awarded this month were cancelled due to the pandemic measures in effect in Kitikmeot schools, and the continuing isolation of the Hope Bay site from communities.
- CSR Staff assisted AEM Communications personnel in scheduling and arranging for a professional photographer to attend Hope Bay site to create an updated inventory of imagery of Hope Bay infrastructure, operations and activities that could be used for public presentations and other materials. The photographer was scheduled to conduct this work during the later part of summer.

#### June

- A follow up Hope Bay IIBA Implementation Committee meeting was conducted this month with representatives of the KIA.
- CSR staff worked with KIA Lands staff this month to recalculate and confirm certain Water Compensation Payments made under the Hope Bay Water and Wildlife Compensation Agreement this month.
- CSR staff supported initial efforts to communicate the results of planning to install and operate wind turbines at Hope Bay with a newly formed Kitikmeot Based Business.
- This month, CSR staff participated in the first of several Nunavut Mining Symposium virtual events held in 2021 in lieu of an in-person conference cancelled due to the pandemic.

## July

- Agnico staff participated in a KIA Kitikmeot Stakeholders Working Group this month in order to share information on employment and training matters with regional agencies and groups. The focus of the Hope Bay discussion was in relation to drafting, submitting and gaining approval for a return to work protocol for Hope Bay workers resident in Nunavut (Kitikmeot).
- CSR staff provided feedback to the Canadian Executive Services Organization (CESO) this month
  on an initiative that they are considering to support aboriginal business in entering the mine services
  sector.
- Agnico participated in formulating a company response to the proposed Nunavut Bill-55 regarding Property Tax collection for Nunavut mine sites upon invitation from the Nunavut Legislature Standing Committee.
- CSR staff were approached this month by independent researchers working with the Ekaluktutiak Hunters and Trappers Organization seeking international research funding to study marine water quality, including potentially at the Roberts Bay mine effluent discharge location. The researchers were provided information on Hope Bay aquatic effects monitoring programs, introduced to logistical considerations (fuel availability at Hope Bay), and invited to the next Inuit Environmental Advisory Committee meeting to present their research study proposal.

#### <u>August</u>

 CSR staff supported contracted hydrology and fisheries researcher field work this month investigating water flow and fish passage on the east channel of Freshwater Creek adjacent to Cambridge Bay in order to support future Fisheries Offsetting proposals to the Department of Fisheries and Oceans.

#### September

- Agnico staff participated in internal discussions and preparations for a comprehensive company submission to the Nunavut Planning Commission to comment on the 2021 Nunavut Draft Land Use Plan this month.
- CSR and HR staff provided input this month into the latest draft of the Kitikmeot Inuit Workforce Readiness Strategy commissioned by Kitikmeot Corporation. Included in the draft are steps and activities designed to support Inuit employment and training. Over a multi-year period by Kitikmeot agencies and major employers.
- During this month, a COVID 19 outbreak occurred at Doris Mine. CSR staff worked with communications staff to inform the public and Kitikmeot communities about the status of the outbreak, and the steps being taken to control the disease. The outbreak continued into October at which time a "circuit-breaker" mine site worker demobilization effort took place, followed by a major sanitation effort, before work crews could return to work.

## October

- CSR staff continued public communications and media efforts to provide information on the Hope Bay
   COVID-19 outbreak early in the month, including the ramp down of operations to break site infection.
- CSR staff prepared for Agnico participation in Nunavut Planning Commission Public Hearings on the 2021 Draft Land Use Plan this month. These public hearings were subsequently cancelled due to the pandemic.

- Community Career Awareness Sessions, usually planned for this month, were cancelled due to the pandemic.
- CSR staff received initial training on new community relations tracking software used by AEM this month. Agnico will employ this software in 2022 in relation to Hope Bay.

#### November

 CSR staff worked extensively this month with KIA staff to begin the review of the implementation of the Hope Inuit Impact and Benefit Agreement.

#### December

CSR staff facilitated an Inuit Environmental Advisory Committee meeting this month. Topics of discussion included informing the committee about legislated changes in lethality testing of mine effluent to include a new crustacean species, a report on Fisheries Offsetting research to date, discussions on wildlife Height of Land and Track monitoring survey design and local involvement in field work, and finally, an introduction to proposed independent marine water quality research that could take place in Roberts Bay.

# 15. Annual Inspection Activities

In 2021 Agnico hosted regulatory inspections for CIRNAC, NIRB, KIA, and WSCC. Details of when those visits occurred and a summary of the reports and follow up from those visits are detailed in Table 15-1.

Table 15-1. Summary of Annual Inspection Activities

Date	Agency	Summary	Follow up	Response
August 19-20, 2021	Kitikmeot Inuit Association	On August 19-20 the KIA inspected the Doris Commercial Lease area and infrastructure including Roberts Bay, the Airstrip and Access Road, Doris North, Waste Management Area, Quarry #2, Secondary Road, the TIA area, Windy Road and Windy Lake Camp, and Madrid North were inspected.	The remediation of the Windy Lake Camp needs to continue. It has been recommended to AEM – Agnico to test paint on buildings to determine if it is lead free. If the paint is lead free, buildings can be torn down, cut up, and burned in a burn pan. Ashes can then be backhauled to the land farm. Once AEM's workforce reintegration plan with Kitikmeot communities is approved, deploying Inuit workers to remediation work at Windy Lake Camp would provide immediate work for returning Inuit employees.	Lead analysis in paint is being conducted. All areas identified will continue to be monitored by Agnico.
August 25, 2021	Nunavut Impact Review Board	On August 25, 2021 the NIRB Monitoring Officer visited the Doris North and Phase 2 Hope Bay Project sites. The site visit consisted of the Roberts Bay area, Quarry 2 and the incinerator, the Madrid area and the tailings impoundment area.	Hope Bay has generally moved the Project towards overall compliance with requirements of the Project Certificates and is in general compliance with the terms and conditions contained therein. On November 9, 2021, NIRB issued the 2020-2021 Annual Monitoring Report for Doris North Gold Mine and Phase 2 Hope Bay Belt Project. The Board had no recommendations for the 2020-2021 Monitoring season	
September 6, 2021	Crown- Indigenous Relations and Northern Affairs Canada	Inspection to verify compliance with water licenses 2AM DOH1335, 2BB-BOS1727 and 2BE-HOP1222. The inspection focus was on fuel storage, waste and water management, site infrastructure as well as drilling and mining activities. Inspection of Crown Leases 77A/3-1-7 and 77A/3-3-2 were also conducted.	No follow up items identified.	
September 27, 2021	Worker's Safety and Compensation Commission	Inspection to verify compliance with Mines Health & Safety Regulations. The inspection focused on exploration activities, underground mining as well as surface infrastructure including the camp facility and warehouse. The inspector issued two orders for action.		Compliance report was submitted from Agnico within 30 days for order 2021-VM-01782-002. An extension was granted for order 2021-VM-01782-001 and report submitted on February 28, 2022.

AGNICO EAGLE MINES LIMITED 15-2

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