NWB Annual Report **Year being reported:** 2015

License No: 2BB-BOS1217 **Issued Date:** August 2, 2012
Expiry Date: July 31, 2017

Project Name: Boston Advanced Exploration Project

Licensee: TMAC Resources Inc.

Mailing Address:
95 Wellington St. W.
Suite 1010, PO Box 44
Toronto, Ontario M5J 2N7

Name of Company filing Annual Report (if different from Name of Licensee please clarify relationship between the two entities, if applicable):

Licence 2BB-BOS1217 was issued Aug 2, 2012 to Hope Bay Mining Ltd. Effective June 18, 2013, the NWB authorized the assignment of Licence 2BB-BOS1217 from Hope Bay Mining Ltd. to TMAC Resources Inc.

General Background Information on the Project (*optional):

The Boston site supports advanced mineral exploration in the south end of the Hope Bay Greenstone Belt. This site is currently in Care and Maintenace.

Licence Requirements: the licensee must provide the following information in accordance with

Part B | Select | Item 6

A summary report of water use and waste disposal activities, including, but not limited to: methods of obtaining water; sewage and greywater management; drill waste management; solid and hazardous waste management.

Water Source(s): Aimaokatalok (Spyder) Lake for domestic use and drilling purposes. The total quantity of water allowable by the licence is 36,500 m3/yr or 100 m3/day. There is no differentiation between quantities to be used domestically or for drilling.

Water Quantity:

not specified	Quantity Allowable Domestic (cu.m)
0	Actual Quantity Used Domestic (cu.m)
not specified	Quantity Allowable Drilling (cu.m)
0	Total Quantity Used Drilling (cu.m)

Waste Management and/or Disposal

- [ ] Solid Waste Disposal
- [ ] Sewage
- [ ] Drill Waste
- [ ] Greywater
- [ ] Hazardous
- [x] Other: Fuel Farm Berm, Containment Pond and Mine Portal discharges

Additional Details:

The Hope Bay Project was placed into Care and Maintenance in October 2012. Activities in 2015 at the Boston Camp were limited to water management and licence compliance.

When the camp is open, the following applies:
Water for domestic use at Boston Camp is obtained from Aimaokatalok Lake via a 2 inch diameter submerged pipe with a DFO compliant fish screen. This intake pipe is linked to a pumphouse located approximately 30 metres from shore. In winter, the pumphouse is moved onto the ice to decrease the length of heat-traced line required to reach the location where the water is open under the ice. Boston camp was not operational in 2015.

Waste produced on site will be treated according to Part D of the licence, and in accordance with the relevant Management Plans *(Incineration Management Plan, Non-Hazardous Waste Management Plan, and Hazardous Waste Management Plan*). Some specifics are as follows:
-Food waste, paper waste and untreated wood waste is burned in the incinerator as per Part D Item 3.
-Solid waste that cannot be burned is transfered to the Roberts Bay waste management facility for packaging and is taken offsite for disposal.
-Drill cuttings produced under this licence are disposed of in depressions as per Part F Item 2.
-Sewage and greywater produced on site is processed in the sewage treatment plant as per Part D Item 11. No sludge was removed from the sewage treatment plant because it was not operational in 2015.
-Waste hazardous materials such as waste oil, glycol, and contaminated soil are shipped to Doris North either to be reclaimed or shipped offsite for disposal in an approved facility as per Part D Item 6. Contaminated soil is also located at the Boston Landfarm.
-Fuel berm effluent is sampled for water quality against the discharge criteria of the licence. Effluent that meets the standards for discharge is released in accordance with the licence following a notification to the Inspector. Effluent that does not meet the licence criteria is treated onsite within the BOS-2 containment until it is remediated to acceptable levels for discharges from BOS-2 and BOS-5, or it is removed offsite for treatment/disposal.
-Effluent from the landfarm is sampled in accordance with the licence criteria for discharge when water is available - no discharges occurred from the facility in 2015.
- Effluent from the mine portal/decline is sampled in accordance with the criteria specified for Monitoring Station BOS-2 (Containment Pond). Approximately 612 cu.m. of water was pumped from the mine portal to the tundra in 2015. 63 cu.m. of water was discharged from BOS-2 to the tundra in 2015.

A list of unauthorized discharges and a summary of follow-up actions taken.

Spill No.: (as reported to the Spill Hot-line)

Date of Spill:

Date of Notification to an Inspector:

Additional Details: (impacts to water, mitigation measures, short/long term monitoring, etc)

No unauthorized discharges occurred in 2015 under licence 2BB-BOS1217.

Revisions to the Spill Contingency Plan

Other: (see additional details)

Additional Details:

See Item 12 of attached Annual Report Supplement for details.

Revisions to the Abandonment and Restoration Plan

Other: (see additional details)

Additional Details:

See Item 12 of attached Annual Report Supplement for details

Progressive Reclamation Work Undertaken

Additional Details (i.e., work completed and future works proposed)

See Item 14 of the attached Annual Report Supplement for details.

Results of the Monitoring Program including:

The GPS Co-ordinates (in degrees, minutes and seconds of latitude and longitude) of each location where sources of water are utilized;

Details attached

Additional Details:

The coordinates for the freshwater intake (BOS-1) are in the attached coordinates file.
Drilling water source coordinates are maintained on file by the Exploration Department for all water sources utilized proximal to the drill targets. No drilling occurred in 2015 so there are no drill water sources to report.

The GPS Co-ordinates (in degrees, minutes and seconds of latitude and longitude) of each location where wastes associated with the licence are deposited;

Details attached

Additional Details:

The coordinates for waste discharge locations (BOS-2, 3, 4, 5, 6) are in the attached coordinates file.

Results of any additional sampling and/or analysis that was requested by an Inspector

Additional sampling requested by an Inspector or the Board (See below)

Additional Details: (date of request, analysis of results, data attached, etc)

No additional sampling or analysis was requested, for actions identificed by the Inspector and TMAC responses see Item 13 of this report.

Any other details on water use or waste disposal requested by the Board by November 1 of the year being reported.

Select

Additional Details: (Attached or provided below)

N/A

Any responses or follow-up actions on inspection/compliance reports

Inspection Report received by the Licensee (Date):

Additional Details: (Dates of Report, Follow-up by the Licensee)

See Item 13 of attached Annual Report Supplement for details on inspection action items and how these were addressed.

Any additional comments or information for the Board to consider

Please see attached Annual Report Supplement for additional information requirements set out in Licence No. 2BB-BOS1217.

Date Submitted:	March 31, 2016	
Submitted/Prepared by:	Katsky Venter	
Contact Information:	**Tel:**	250-538-2306
	Fax:	
	email:	katsky.venter@tmacresources.com

GPS Coordinates for water sources utilized

Source Description	Latitude			Longitude		
	Deg °	Min '	Sec "	Deg °	Min '	Sec "
BOS-1 - Raw water supply intake at Spyder Lake	67	39	34.7	106	23	39.9

GPS Locations of areas of waste disposal

Location Description (type)	Latitude			Longitude		
	Deg °	Min '	Sec "	Deg °	Min '	Sec "
BOS-2 - Containment Pond Discharge	67	39	29.3	106	22	58.2
BOS-3 - Sewage Disposal Facility Final Discharge	67	39	33.9	106	23	10.5
BOS-4 - Treated sewage effluent point prior to entry into Aimaokatuk (Spyder) Lake	67	39	41.2	106	23	10.1
BOS-5 - Effluent from the bulk fuel storage facility prior to release	67	39	27.5	106	23	1.2
BOS-6 - Effluent from the landfarm treatment facility prior to release	67	39	29.3	106	23	3.5

2015 2BB-BOS1217 Type B Water Licence Annual Report Supplemental Document

Boston Advanced Exploration Project

Nunavut Water Board

Prepared by
TMAC Resources Inc.
Toronto, ON

Prepared for
Nunavut Water Board
Gjoa Haven, NU

March 2015

Executive Summary
2BB-BOS1217 Annual Report

TMAC Resources Inc. ("TMAC") has filed its Annual Report on its activities during 2015 under Water Licence No. 2BB-BOS1217 issued by the Nunavut Water Board. As set out in Part B, Item 6 of the Licence, the report includes information with respect to the following topics:

- a summary of water use and waste disposal activities
- a summary of data generated under the Monitoring Program
- a list of unauthorized discharges and a summary of follow-up actions taken
- a brief description of follow-up actions taken to address concerns detailed in inspection and compliance reports prepared by the Inspector
- updates or revisions to the Abandonment and Restoration Plan, QA/QC Plan, Waste Rock and Ore Storage Plan, Spill Contingency Plan, and Landfarm Plan
- a description of all progressive and/or final reclamation work undertaken
- a summary of modification and/or major maintenance work carried out on the Water Supply and Waste Disposal facilities, and an outline of any work anticipated for the next year
- a summary of drilling activities and progressive reclamation
- any updates with respect to the Boston restoration liability and any modifications to the site plan
- an estimate of both the current and anticipated volume of waste rock and ore stockpiled on site
- a summary of public consultation/participation with local organizations and residents of nearby communities, if any were conducted
- a summary of abandonment and restoration work completed
- an update on the status of the V-notch weir at Stickleback Lake
- a summary of any specific studies or reports requested by the board, and a brief description of future studies currently planned or proposed
- any other details on water use and waste disposal requested by the board

Atanguyan Naetomik Okaohen
2BB-BOS1217 Ukeotoagaagan Unipkaak

TMAC-kon Oyagakheoktin ("TMAC-kon") titigakhimaliktun Ukeotoagaagan Unipkaamik havaamigun 2015-mi ilagani Imaknik Atoknigagun laeseoyum Napaa 2BB-BOS1217 tuniyaohimayok Nunavumi Imalikiyin Katimayenin. Okaotaoyomi Ilagani B, Okaohik 6 Laeseoyomi, unipkaak ilakaktok hivonikhiyutikhanik ukuniga okaoheoyonik:

- naetomik okaohik imaknik atoknigagun atakugutiniklo
- naetomik okaohik naonaepkotink pihimayonik ilagani Amigiyotinun Havaani
- titigaknigin agiktaohimagitun kuvigaeyotinik naetomilo okaohik kigoagun havaanik
- naetomik okateagun kigoagun havaanik ihoakhiyaagani ihomalutaoyun okateakhimayun ihivgeokhikmata maligoateakmagalo unipkaagini Ihivgeokhiyum
- kanogilivaleanigin nutaguktiknigilo Kimaktaokpan Utiktitaaganilo Ilitkoheanun Opalogaeyaon, Haohiven Opalogaeyagaoyok okateagun tamaenik atoenaktun kiguliklunen nunan utiktitaagani ilitkohenun havaagiyaoyun
- naetomik okaohik ihoakhakniginik hanakiyotiloalunen Imiktakviknik Anagukvikniklo, kanoklo havaohikhaenik nahogiyaoyonik atoktukhami ukeomi
- naetomik okaohik ikutaktun havaaginik atoenaktomiklo nunan utiktitaagani ilitkohenun
- kanogilivaleayotin Boston-mi nunan utiktiniganik ilitkohenun maneyaotaoyok ihoakhaotikakalunelo iglukpakakvikmi opalogaeyaon
- nalaotaknigin tamaknik taya nahogiyaoyulo ikagun oyakan oyagaktaaniklo katitigivik iglukpakakvikmi
- naetomik okaohik kitulikaa okakatiginikun nahogiyaoyulunen nunagiyaoyoni timeoyonik inukniklo kanitoani nunagiyaoyoni, pihimanikata
- naetomik okaohik kimaliktaokpan nunalo utiktiniginik ilitkohenun havaan inikhiayun
- kanogiliniganik V-tun itomik hapotinik Stickleback-mi Tatimi
- naetomik okaohik hunaniklikaa ilitokhaotinik unipkaaniklo tukhigaoyun katimayinin, naetomik okateagun hivunikhami ilitokhaotikhanik taya opalogaeyagaoyonik atoktaoyomayoniklo
- ahenik okateagutinik imaknik atoknigagun atakuknikulo tukhigaoyun katimayinin

ᑐᓴᒐᒃᓴᑦ ᓇᐃᓈᖅᓯᒪᔪᑦ
2BB-BOS1217 ᐊᕐᕌᒍᑕᒫᑦ ᑐᓴᒐᒃᓴᑦ

ᐅᑯᐊ TMAC Resources Inc.−ᑯᑦ (“TMAC”) ᑎᑎᕋᖅᓯᒪᓕᖅᑐᑦ ᐊᕐᕌᒍᓕᒫᖅᓯᐅᑎᒥᓐᓂᒃ ᐊᐅᓚᑕᒥᓃᑦ ᐅᓪᓂ 2015 ᐊᑑᑎᑎᓪᓗᒋᑦ ᐃᒪᓕᕆᔾᔪᑖ ᓚᐃᓴᑦ No. 2BB-BOS1217 ᑐᓂᔭᐅᔪᔪᑦ ᓄᓇᕗᑦ ᐃᒪᓕᕆᔩᑦ ᑲᑎᒪᔩᖏᑦᑕ. ᐅᑯᐊ ᐃᓚᖓᓅᖓᔪᑦ B, ᐱᔾᔪᑦ 6 ᓚᐃᓴᕐᑲᕈᑎᖓᑦ, ᑐᓴᒐᒃᓴᑦ ᒪᑯᓂᖓ ᐃᓚᖏᑦ:

- ᑐᓴᒐᒃᓴᑦ ᐃᒥᖅ ᖃᓄᖅ ᐊᑐᖅᑕᐅᕐᑲᑦᑕᕐᓂᖓ ᐊᒻᒪᓗ ᐊᒃᑐᖅᑕᐅᕐᑲᑦᑕᕐᓂᖓ ᐊᐅᓚᑦᓯᔪᓄᑦ
- ᑐᓴᒐᒃᓴᑦ ᓇᐃᓈᖅᓯᒪᔪᑦ ᑎᑎᖅᑕᐅᓪᓚᒃᑐᑦ ᖃᐅᔨᒪᔾᔪᑕᐅᓂᐊᕐᒪᑕ ᓄᐊᑕᐅᓪᓗᑎᒃ ᒪᓕᒃᑐᑦ ᖃᐅᔨᓴᕈᑎᓂᒃ ᐱᓕᕆᔾᔪᑎᓂᒃ
- ᐊᑑᑎᒍᑎᖃᓐᓂᖏᑦᑐᑦ ᐱᔪᓐᓇᐅᕈᑎᓂᒃ ᐊᓯᐊᓅᖅᐸᒃᑐᑦ ᐱᔾᔪᑕᐅᓪᓗᑎᒃ ᐊᒻᒪᓗ ᓇᐃᓈᖅᓯᒪᔪᑦ ᑐᓴᒐᒃᓴᑦ ᖃᓄᖅ ᐊᑑᑕᐅᕐᑯᔭᑦ ᑲᒪᕐᑯᔭᐅᓪᓗᑎᒃ
- ᐅᓂᒃᑳᑦ ᓇᐃᑦᑑᒐᓗᐊᑦ ᖃᓄᖅ ᐊᑑᑕᐅᕐᑯᔭᓂᒃ ᒪᓕᒃᑐᑦ ᐅᔾᔨᕈᑦᓯᐊᕐᑯᔭᐅᓪᓗᑎᒃ ᐃᓯᒫᓗᙵᖅᑐᓂᒃ ᖃᐅᔨᓴᖅᑕᒥᓂᕐᓂᒃ ᐊᒻᒪᓗ ᒪᓕᒃᑐᑦ ᐊᑑᑕᐅᕐᑯᔭᐅᓯᒪᔪᓂᒃ ᐱᕐᑯᔭᖅᑎᒍᑦ ᑐᓴᒐᒃᓴᑦ ᐋᕐᑭᒃᓯᒪᔭᖏᑦ ᖃᐅᔨᓴᖅᑎᐅᑉ ᓇᐅᑦᓯᑐᖅᑎᐅᑉ
- ᒫᓇᕐᓂᑕᑦ ᑐᓴᒐᒃᓴᑦ ᐅᕝᕙᓗᑭᐊᖅ ᐋᕐᑭᖏᐊᖅᓯᒪᔭᑦ ᕿᒪᒃᑕᐅᓖᑦ ᐊᒻᒪᓗ ᓴᓗᒪᖅᓴᐃᒍᑎᑦ, ᕿᑭᖅᑕᓂ ᑲᑐᔾᔨᖃᑎᑦ/ᕿᑭᖅᑕᓂ ᑯᐊᐳᓅᓴᓐ, ᐅᔭᖃᑦ ᐊᒃᑕᑯᑦ ᐊᒻᒪᓗ ᓯᕐᓗᐊᖅ ᓄᐊᑕᒥᓂᖅᑕᓕᒃ ᐅᔭᖃᓂᒃ, ᓄᓇᓕᕆᕕᕕᓂᖅ ᖃᓄᖅ ᐊᐅᓚᑕᐅᒐᔭᕐᓂᖏᑦ ᐅᓂᒃᑳᑦ ᐃᓘᓐᓇᐃᓐᓂᒃ ᐱᔾᔪᑎᓖᑦ ᐱᕙᓪᓕᐊᔭᓕᒫᓂᒃ ᐅᕝᕙᓗᑭᐊᖅ ᑭᖑᓪᓕᖅᐸᓂ ᓴᓗᒪᖅᓴᕋᒃᓴᑦ ᐱᓕᕆᐊᕐᕈᓕᖅᑐᑦ
- ᑐᓴᒐᒃᓴᑦ ᓇᐃᓈᖅᓯᒪᔪᑦ ᐱᔾᔪᑎᓕᒃ ᖃᓄᖅ ᐋᕿᒋᐊᕆᐊᓕᖕᓂᒃ ᐅᕝᕙᓗᑭᐊᖅ ᐊᖏᕚᑎᓂᒃ ᓴᓇᔭᑦ ᐃᒪᕐᑲᕈᒻᒨᖓᔪᑦ ᐊᒻᒪᓗ ᐊᒃᑕᑯᓄᑦ ᐃᒥᕐᒨᖓᔪᑦ, ᓇᓗᓇᐃᔭᖅᓯᒪᔭᑦ ᖃᓄᐃᑦᑐᑦ ᓱᓕ ᑲᒪᒋᔭᐅᒋᐊᓖᑦ ᐊᕐᕌᒍᓛᖅᑐᑦ
- ᑐᓴᒐᒃᓴᑦ ᓇᐃᓈᖅᓯᒪᔪᑦ ᐃᑰᑕᕐᓂᓕᕆᔪᑦ ᐊᐅᓚᑕᑦ, ᐱᕙᓪᓕᐊᔭᑦ ᓴᓗᒪᓴᖅᑕᐅᒋᐊᓖᓪᓗ
- ᖃᓄᑐᐃᓐᓇᖅ ᒫᓇᕐᓂᑕᑦ ᑐᓴᒐᒃᓴᑦ ᐅᕗᖓᖓᔪᑦ Boston ᓴᓇᒋᐊᕈᑏᑦ ᐱᕐᑯᑎᒋᔭᒥᒃ ᐊᒻᒪᓗ ᐋᕿᒃᑕᐅᒋᐊᕈᑎᖏᑦ ᓄᓇᐅᑉ ᖃᓄᐃᓕᖓᓂᖓᑕ
- ᒥᒃᓴᐅᓴᒃᑐᑦ ᑕᒪᒃᐹᓐᓅᖓᔪᑦ ᒫᓇ ᐊᒻᒪᓗ ᖃᓄᐃᓕᖓᓛᖅᑐᑦ ᐅᔭᕐᑲᑦ ᐊᑐᖅᑕᐅᓂᐊᖏᑦᑐᑦ ᐊᒃᑕᑯᑦ ᐊᒻᒪᓗ ᐅᔭᕋᓐᓂᐊᖅᑕᒥᓃᑦ ᓄᐊᑕᐅᓯᒪᔪᑦ ᐃᓂᒥᓐᓃᑦᑐᑦ
- ᑐᓴᒐᒃᓴᑦ ᓇᐃᓈᖅᓯᒪᔪᑦ ᐅᕐᑲᕐᑲᑕᐅᕙᖕᓂᖏᑦ ᐃᓄᐃᑦ ᑲᑎᒪᑎᑕᐅᓪᓗᑎᒃ ᐃᓚᐅᔪᓪᓗ ᓄᓇᓕᖕᓂ ᑲᓪᔭᐅᑎᒌᑦ ᐊᒻᒪᓗ ᓄᓇᓖᑦ ᖃᓂᒋᔭᖏᑦ, ᐱᑕᕐᑲᑉᐸᑕ ᖃᓄᖅ ᐊᐅᓚᑕᓂᒃ
- ᑐᓴᒐᒃᓴᑦ ᓇᐃᓈᖅᓯᒪᔪᑦ ᕿᒪᒃᑕᐅᓕᖅᐸᑦ ᐊᒻᒪᓗ ᓄᓇ ᐅᑎᖅᑎᑕᐅᓕᖅᐸᑦ ᓴᓗᒪᓴᖅᑕᐅᓗᓂ ᐃᕐᑲᓇᐃᔮᑦ ᐱᔭᕇᑉᐸᑕ
- ᒫᓇᕐᓂᑕᑦ ᑐᓴᒐᒃᓴᑦ ᐱᔾᔪᑎᓖᑦ ᐃᕐᑲᓗᓕᖕᒥᒃ ᓴᐳᑏᑦ ᑕᓯᖓᓂ Stickleback Lake−ᒥ
- ᑐᓴᒐᒃᓴᑦ ᓇᐃᓈᖅᓯᒪᔪᑦ ᖃᓄᑐᐃᓐᓇᖅ ᐃᓕᓴᕈᑕᐅᓯᓐᓈᑦ ᖃᐅᔨᓴᖅᑕᑦ ᐅᕝᕙᓗᑭᐊᖅ ᑐᓴᒐᒃᓴᑦ ᑐᒃᓯᕌᕆᓯᒪᔭᖏᑦ ᑲᑎᒪᔩᑦ, ᐊᒻᒪᓗ ᐅᓂᒃᑳᑦ ᐱᔾᔪᑎᓖᑦ ᓇᐃᓈᖅᓯᒪᔪᓂᒃ ᓯᕗᓂᒃᓴᒧᑦ ᐊᑑᑕᐅᕐᑲᑦᑕᓛᖅᑐᑦ ᐃᓕᓐᓂᐊᕈᑕᐅᓯᓐᓇᖅᓱᑎᒃ ᒫᓇ ᐸᕐᓇᑕᑦ ᐅᕝᕙᓗᑭᐊᖅ ᑐᒃᓯᕋᐅᓯᒪᔪᑦ
- ᖃᓄᑐᐃᓐᓇᖅ ᐊᓯᖏᑦ ᐅᓂᒃᑳᑦ ᐱᔾᔪᑎᓖᑦ ᐃᒥᖅ ᖃᓄᖅ ᐊᑐᖅᑕᐅᕐᑲᑦᑕᕐᓂᖓᓂᒃ ᐊᒻᒪᓗ ᐊᒃᑕᖅᑕᐅᕐᑲᑦᑕᕐᓂᖓ ᐊᑐᖅᑕᐅᓂᑯ ᑐᒃᓯᕋᖏᑦ ᑲᑎᒪᔩᑦ

Résumé opérationnel
2BB-BOS1217 Rapport annuel

TMAC Resources Inc. (« TMAC ») a déposé son rapport annuel sur ses activités au cours de l'année 2015 en conformité avec le Permis no 2BB-BOS1217 émis par l'Office des eaux du Nunavut (Nunavut Water Board), tel qu'énoncé dans la partie B, point 6, du permis. Le rapport comprend des renseignements sur les sujets suivants :

- un aperçu de l'utilisation et du traitement de l'eau et de l'évacuation des rejets
- un aperçu des données générées dans le cadre du programme de surveillance
- une liste des déversements non autorisés et un résumé des mesures de suivi prises à la suite de ces incidents
- une brève description des mesures de suivi prises pour régler les problèmes décrits dans les rapports d'inspection et de conformité établies par l'inspecteur
- des mises à jour et révisions du plan d'abandon et de restauration « Abandonment and Restoration Plan », du plan d'assurance/contrôle de la qualité (AQ/CQ), du plan de gérance des haldes de stériles et des piles de stockage de minerai « Waste Rock and Ore Storage Plan », plan d'urgence en cas de déversement « Spill Contingency Plan » et du plan de restauration du site par bio-remédiation « Landfarm Plan »
- une description des travaux de remise en état progressive et des travaux de remise en état terminé
- un aperçu des travaux d'entretien mineurs ou des travaux majeurs effectués sur les réserves d'eau potable, les installations de l'évacuation des rejets et de toutes leurs composantes s'y rattachant, ainsi qu'un aperçu des travaux prévus l'année suivante
- un aperçu des activités de forage et des travaux de remise en état progressive
- toute mise à jour du dépôt de garantie relatif aux travaux de remise en état en accord avec le « Boston restoration liability » et toute modification effectuée au plan du site
- une estimation du volume actuel et prévu des haldes de stériles et piles de stockage de minerai sur le site
- un aperçu décrivant la participation et la réalisation de consultations avec les organisations locales et les habitants des communautés voisines, si elles ont été menées
- un aperçu des travaux d'abandon et de restauration effectués
- une mise à jour sur l'état de la barrière de dénombrement (V-notch weir) au Lac de l'épinoche « Stickleback Lake »
- un aperçu des rapports ou études scientifiques exigés par l'Office et une brève description des éventuelles recherches ou celles prévues par l'Office
- tout autre détail en lien avec l'utilisation et du traitement de l'eau et de l'évacuation des rejets

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1. The monthly and annual quantities in cubic meters of all freshwater obtained from Aimaokatalok (Spyder) Lake at Monitoring Station BOS-1 [as per Part B Item 6 (a)]

Boston Camp was not open during 2015. No water was obtained from monitoring station BOS-1 in Aimaokatalok (Spyder) Lake for domestic or drilling use.

2. The monthly and annual quantities in cubic meters of Mine water pumped from the underground [as per Part B Item 6 (b)]

No minewater was pumped from the underground in 2015.

3. The monthly and annual quantities in cubic meters of treated Mine water and surface drainage discharged at Monitoring Station Number BOS-2 [as per Part B Item 6 (c)]

A total of 612 m^3 of surface water accumulation was discharged from the Boston portal in 2015 (83 m^3 on June 29, 6 m^3 on July 21, 201 m^3 on July 22, 155 m^3 on August 25 and 41 m^3 on August 30). The water was discharged onto the tundra to the west of the portal at UTM 7505316 N, 441197 E as approved by the Inspector. Prior notification of the planned discharge was provided May 13, 2015.

Historically, the BOS-2 Containment Pond has been used to contain water pumped from the Bulk Fuel Storage Facility BOS-5 as a water management strategy pending analytical water quality results. Water in BOS-2 was sampled in June and results were not compliant with BOS-5 discharge criteria; no discharges occurred in June. Water was transferred in June and July to BOS-2 from BOS-5 to facilitate prompt evacuation of water from the fuel farm berm (38 m^3 on June 20 and 52 m^3 on July 30). While in BOS-2 this water was treated though an oil/water separator in preparation for discharge. A total of 14 m^3 was discharged from this facility in July (4.5 m^3 on July 21 and 9.5 m^3 on July 22) as approved by the Inspector on July 18. The remaining water in BOS-2 was treated through an oil/water separator and an additional 49 m^3 of water was discharged in August (9 m^3 on August 24 and 40 m^3 on August 30). Details of the water quality testing are provide in Appendix A.

4. The monthly and annual quantities in cubic meters of treated Sewage effluent discharged at Monitoring Station Number BOS-3 [as per Part B Item 6 (d)]

Boston Camp was not open during 2015. No treated sewage effluent was discharged at monitoring station BOS-3.

5. The monthly and annual quantities in cubic meters of Sludge removed from the Sewage Disposal Facility [as per Part B Item 6 (e)]

No sludge was removed from the sewage disposal facility during 2015.

6. The annual quantities in cubic meters of all soil and types of contaminants from all locations that are placed within the Land farm facility [as per Part B Item 6 (f)]

In 2015, no new material was deposited in the Landfarm facility at Boston Camp.

7. Report all artesian flow occurrences as identified under Part F, Item 3 [as per Part B Item 6 (g)]

No artesian flow occurrences were encountered in 2015. No drilling occurred pertaining to the Licence.

8. Report all drilling activity that has penetrated below the permafrost as identified under Part F, Item 4 [as per Part B Item 6 (h)]

Drilling activity did not occur in 2015 in the Boston area. For areas where exploration is carried out, depth of permafrost is calculated using thermistor strings that measure ground temperature, installed in geotechnical drill holes (thermistor strings are not installed in all drill holes). The thermistor stings are used because it is not possible to visually assess when a drill hole has passed through the permafrost layer. Results obtained from the thermistor strings are used to extrapolate the lower depth of permafrost using thermal gradient. There are several such thermistor strings throughout the Hope Bay Belt and measurements are taken on an on-going basis. The depth of permafrost extrapolated from data collected at thermistor string SRK-50 (200 m in length) is 570 m. The depth of permafrost extrapolated from data collected at thermistor string 08TDD632 (350 m in length) is 435 m. Results collected from all thermistor strings are presented in the Annual Geotechnical Inspection Reports filed under Water Licence 2AM-DOH1323.

9. Tabular summary of all data generated under the Monitoring Program [as per Part B Item 6 (i) and Part J Item 21]

Tables setting out data generated under the Monitoring Program appear at Appendix A of this document.

10. A summary of modifications and/or major maintenance work carried out on the Water Supply and the Waste Disposal Facilities, including all associated structures, and an outline of any work anticipated for the next year [as per Part B Item 6 (j)]

No changes were made to the water supply or waste disposal facilities in 2015. No work is anticipated for 2016.

11. A list of unauthorized discharges and follow-up action taken [as per Part B Item 6 (k)]

No unauthorized discharges occurred pertaining to this licence in 2015.

12. Updates or revisions to the Abandonment and Restoration Plan, QA/QC, Waste Rock and Ore Storage Plan, Spill Contingency Plan, and Landfarm Plan [as per Part B Item 6 (l)]

The Spill Contingency Plan for the Hope Bay Belt (including 2BB-BOS1217, 2BE-HOP1222, and 2AM-DOH1323) is currently being updated to reflect comments received on the 2014 Plan as well as changes to the Doris North Project and Project contacts. A revised Plan will be submitted in April of 2016.

The approved Abandonment and Restoration Plan (2014), QA/QC Plan (2012) and the Water and Ore/Waste Rock Management Plan (2009), and the Boston Land Treatment Area Management and Monitoring Plan (2012) are still considered operationally valid for Care and Maintenance and were therefore not updated in 2015.

13. A brief description of follow-up action taken to address concerns detailed in inspection and compliance reports prepared by the Inspector [as per Part B Item 6 (m)]

An inspection of Boston Camp and area was conducted by INAC on July 18, 2015. Three non-compliances were noted by the Inspector, with action items prescribed for each non-compliance:

Non-compliances

1. *Part I Item 3. Progressive reclamation of components no longer required.*
2. *Part I Item 4. Backfill and restore sumps.*
3. *Part I Item 10. Restore drill holes.*

Action Items

1. *Please clarify what obligations remain with respect to the Orbit 25 spill. And to whom they fall.*
2. *An interim solution to the worst-impacted legacy drill sites is required. TMAC has committed to investigating the issue on the thermokarsts and ponding and a result of past drilling practices. The investigation will be two-fold: 1) to review practices across the circumpolar Arctic to determine is a solution already exists; and 2)to examine local impacts (rates of change, and experimentation with various treatments) to determine a course of action for future work. Corrective measures will be implemented when access to Boston site improves.*
3. *When renewal of the Boston licence is sought, please ensure that they application reflects the care and maintenance status, and the actual layout/function of the site, so that the new licence has terms and conditions relevant to the activity on -site.*

Responses to the action items are provided below:

1. TMAC will continue monitoring the Orbit 25 spill location to ensure natural remediation continues and no worsening of site conditions are observed. Annual monitoring of the Orbit 25 spill location in 2011, 2012 and 2013 indicated soil salinity was decreasing over time, and that there are no adverse effects to water. Based on these findings, the best course of action with respect to this site was determined to be to allow the continuation of natural improvement and to monitor this process. TMAC will undertake monitoring every 5 years to ensure continued improvement, with the next year of monitoring being 2018.
2. At present, the worst-impacted sites at Boston are immediately adjacent to the airstrip and are a combination of drill sites and cuttings deposition sumps. These areas will be closed when the Boston site is re-activated and machinery and quarry material are available to fill and cap the thermokarsts. In the interim, TMAC is undertaking a review of circumpolar practices used for addressing drill thermokarsting to determine if interim measures exist, and will monitor the sites in 2016 to determine whether the sites are changing through time and to gather information on which remediation practices yield the best results for later implementation.
3. The current term of the Boston Type B Licence is 5 years with an expiry date of July 31, 2017. A renewal or amendment application will be submitted at least 3 months prior to the expiry date and will include updated information reflecting the status and/or plans for the site as requested.

14. A summary of drilling activities and progressive reclamation of drill sites [as per Part B Item 6 (n)]

No drilling activities occurred in 2015 in the Boston water licence area and no drill hole reclamation was undertaken.

15. An updated estimate of the current Boston restoration liability based upon the results of the restoration research, project development monitoring, and any modifications to the site plan [as per Part B Item 6 (o)]

An updated estimate of restoration liability was provided in the Boston Camp Revised Interim Closure Plan (2014) submitted to the NWB May 26, 2014. It included a current closure cost estimate of $5,988,000. 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.

16. An estimate of both the current and anticipated volume of waste rock and ore stockpiled on site [as per Part B Item 6 (p)]

It is estimated that there are approximately 47,400 m^3 of ore stockpiled on site at Boston Camp based on digital models of the ore removed historically from the underground workings at Boston. There is no estimate for the anticipated waste rock and ore to be stockpiled, because there is no mining activity occurring or currently planned for Boston.

17. A public consultation/participation report describing consultation with local organizations and residents of the nearby communities, if any were conducted [as per Part B Item 6 (q)]

Community consultations continued in accordance with the Community Relations Plan, which is a responsibility of the Cambridge Bay office of TMAC Resources Inc.

Alex Buchan, Director of Community Relations, based in Cambridge Bay is primarily responsible for implementing this Plan, with support from Julia Micks, VP of Human Resources. The Community Relations team includes and is supported by Ikey Evalik, Inuit Impact and Benefit Agreement Coordinator, and designated TMAC Liaison pursuant to Schedule B of the 2015 Hope Bay IIBA.

Community relations in 2015 focused on providing information to the public on the reactivation of the Doris North Project, providing information on TMAC Advanced Exploration activities, concluding Inuit Land Tenure negotiations and implementing said new agreements, including the establishment and activation of the Hope Bay Inuit Environmental Advisory Committee pursuant to Schedule I of the new IIBA.

TMAC continued to maintain a Kitikmeot office, located on the 2nd floor of the Kitikmeot Center, above the Northern Store at #18 Mitik Street. TMAC maintains an open door policy and Cambridge Bay residents and Beneficiaries regularly visit the TMAC office for their own interest. Also in 2015, the Ekaluktutiak Hunters and Trappers Organization (EHTO) began using the same office location. This has resulted in a noticeable increase in casual, walk-in visitation by Cambridge Bay harvesters.

TMAC participated in key Nunavut, regional and community organizations and groups aligned to support community relations and consultation efforts. These groups include the NWT/Nunavut Chamber of Mines, the Nunavut Mining Symposium Society, the Nunavut Mine Training Roundtable, the KIA regional ASETS Stakeholder group, Cambridge Bay Community Readiness Committee, Kitikmeot Socio-Economic Monitoring Committee and the Cambridge Bay Canadian High Arctic Research Station Committee.

TMAC involvement in the Chamber of Mines and Mining Symposium promotes industry awareness and advocacy and mine focused dialogue at a territorial level. Participation in the Mine Training Roundtable and ASETS Stakeholder group promotes understanding and coordination of training and education initiatives in the region and territory. Involvement of in Community Readiness and CHARS committees supports sustainable community development and planning. Participation in the Kitikmeot Socio-Economic Monitoring Committee supports discussion on the effects of major development on Kitikmeot communities and residents.

Cambridge Bay Logistics Hub

Cambridge Bay continues to be the logistics hub for TMAC in the Kitikmeot. TMAC

employees from across the region are flown to Cambridge Bay via commercial airline service, and are then transported to and from Site utilizing a charter aircraft.

Other Communications

TMAC 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, and pictures of site activities linked to Kitikmeot community news pages. Some feedback is received through the Page, including employment inquiries. The page can be viewed at the following link: https://www.facebook.com/tmacresources.

Community Relations Monthly Summary

January

- Reviewed new draft Caribou contribution agreement with GN-DOE.
- Assisted in developing a training proposal with Kitikmeot Corporation for Diamond Driller Training with onsite contractor – Geotech Drilling.
- Processed a request to obtain Windy Camp cabins and Roberts Bay surplus snowmobiles from a local harvester.
- Prepared the 2014 Contract spend report with final figures for use in various annual reports.
- KIA Senior staff were engaged to begin the Hope Bay Inuinnaqtun naming initiative with positive results. The aim of this project is to compile a list of traditional names of the Hope Bay area that could be used for future facilities and sites.
- Scheduled meetings between TMAC and a number of project stakeholders for during the upcoming Cordilleran Roundup mining conference, including Nunavut Mine Minister Ell.

February

- Presentation materials developed for the Kitikmeot Trade Show to provide delegates of this conference with a project update.
- 2014 SEMP report draft was developed and reviewed for eventual submission.
- Annual KIA Land Use License applications processed to allow for 2015 TMAC exploration program.
- Elders in Cambridge Bay selected for Hope Bay Inuinnaqtun naming project.
- Responded to 3 media requests; Nunavut News North referral from Farrow, Nunatsiaq News for site photos, and Nunavut Mining magazine request for employee profile
- Conducted a Doris North Socio Economic Monitoring Committee meeting with representatives of Government of Nunavut Department of Economic Development and Transportation and Department of Aboriginal Affairs and Northern Development Canada, where the 2014 DNSEMP report was presented and discussed.
- Participated in KIA Update call in continued efforts to conclude land tenure negotiations.

- Attended the Kitikmeot Trade Show with VP of Operations; arranged for introductions to key Kitikmeot stakeholders and political leaders. Participated in a presentation to the KTS Youth Delegates.
- Responded to a local business request for information regarding the disposition of NTCL freight at Roberts Bay, and to the request from a local family to salvage wood from Windy Camp.
- Provided a range of CSR documentation to ERM Rescan consultant working as PFS reviewer for TMAC. This will be used to confirm the PFS tenure and Inuit relations assertions.
- A meeting was held this month with the owners of Elu Inlet Lodge to ascertain details and interest in using this location for fuel caching this summer for Elu Belt geophysical work.
- Initial courtesy meeting held with new Wildlife Officer staff for Cambridge Bay area.
- Support provided to TMAC negotiation team in direct talks with NTI and KIA towards signing the Mineral Exploration Agreement and discussing KIA Framework Agreement financial terms.

March

- First 2015 TMAC exploration crew rotations arranged; Onboarding complete, travel and accommodations arranged.
- Attended Cambridge Bay Community Readiness Steering Committee meeting with an aim to develop RFP for Community Baseline study. Subsequently reviewed RFP for data collection contract for Hamlet of Cambridge Bay community readiness project.
- Met with GN-DOE Wildlife research team in Cambridge Bay to review details of and prepare to host caribou study at Hope Bay this month. Items brought forward from this meeting to Environment, Surface Managers and Logistics.
- Met with CHARS Chief Scientist during which was informed of CHARS environmental baseline study plans for Elu Inlet area this summer. Item brought forward to Geology and Environment.
- Received information back from GN-DOE on a dead red fox submitted to them for sampling last year. The likely cause of death was Rabies.
- Reviewed draft new IIBA as part of TMAC Negotiation Team and provided final substantive comments back to KIA.
- Several scheduling meetings were held with Kitnuna Cat Train staff to keep abreast of their operation in preparation for inspecting cement powder to be shipped to Hope Bay from Cambridge Bay.
- Handled 1 inquiry from Saskatchewan based helicopter company requesting refueling in Hope Bay to ferry machine to Cambridge Bay for DND work.
- Delivered 2015 Wildlife Research Applications for TMAC WMMP to HTOs for support. Assisted in identifying contact for 1 HTO.
- Review and forwarding of KIA comments on 2014 Windy Shoal Compliance Monitoring Report.
- Concluded Inuit land tenure negotiations with signing ceremony in Cambridge Bay for 20 year NTI Mineral Exploration Agreement and 20 year KIA Framework Agreement.

April

- Communicated Inuit Land Tenure agreement approval to northern stakeholders.
- Supported Kitnuna Cat Train operations from Cambridge Bay to Hope Bay with communications to NTCL consignees of stranded freight.
- Donated 1 drum of heating fuel to EHTO sports hunters for use at harvesting cabin, Kent Peninsula.
- Attended Community Readiness Initiative meeting to determine list of potential consultants to distribute Request for Proposals to, including assistance to Hamlet of Cambridge Bay in adding potential consulting firms to RFP list
- Attended Nunavut Mining Symposium. Delivered Hope Bay Project presentation to main audience at Astro 1 Theater. Scheduled and attended meetings with government and regulator groups including NWB, NIRB, GN-ED&T (Minister Ell), CanNor, AANDC, Senator Patterson and attended Nunavut Mine Training Roundtable. Accepted Murray Pike Award on behalf of TMAC.
- Helped secure $50K in funding from the Nunavut Mine Training Roundtable for the Geotech Igutak Diamond Drill Training Programme.
- Made presentation to Kitikmeot Mayors providing a Hope Bay Project Update.
- Caribou MOU signing between TMAC and GN-DOE in support of DOE Dolphin and Union multi-year caribou study.
- Referred one Media request to C. Farrow in regards to PFS news release.
- Provided brief project update to Minister Peterson in his constituency office.

May

- 2 media contacts this period; Kate Kyle of CBC News North referred to Catharine Farrow, Karen Ho of Northern News Services provided site and u/g mining photographs for newspaper story.
- Coordinated and took a teleconference Hope Bay project update with 7 Environment Canada participants at their request (could not meet with them during Nunavut Mining Symposium).
- Initial discussions with KIA Lands to initiate the IIBA Implementation Committee and Inuit Environmental Advisory Committee.
- Forwarded initial version of the Kitikmeot Qualified Business Registry to the TMAC Executive and responded to several queries regarding the same.
- Provided advice to Environment staff on laws of general application governing hunting adjacent to built-up areas to assist in better managing visiting Harvesters.
- Participated in initial planning teleconference with Chamber of Mines representatives aiming to prepare for the Nunavut Planning Commission Final Hearing on the Draft Nunavut Land Use Plan this summer, including discussing a request for standing at the hearing.
- Conducted teleconference meeting with KIA on initial IIBA implementation matters including the appointment of representatives to the IIBA Implementation Committee (IC), discussion of the initial version of the Kitikmeot Qualified Business Registry, and scheduling the initial meetings of both the IC and Inuit Environmental Advisory Committee.

- Began tracking Inuit Employment at Hope Bay utilizing new priority hiring categories as described in the new IIBA. This is now done on a monthly basis every month.
- Attended Cambridge Bay Community Readiness Initiative meeting to progress Request for Proposals for data collection work.
- Forwarded unrelated community concern to DeBeers Canada in reference to one of their Cambridge Bay contract workers.
- Assist Environment staff in responding to discovery of severed heads of seal and wolf behind Roberts Bay Fuel Dispenser.
- Facilitated translations of Doris Amendment Plain Language Summary.
- Updated Community Consultation summary for Doris Amendment application (December 2014 public meetings)
- Completed final version of IIBA Orientation Presentation and delivered same to 6 TMAC staff this week. Goal is to provide IIBA orientation to every TMAC employee.
- Updated TMAC Firearms Business Licence to include new Nuna appointees to the Wildlife Response Team.
- Developed initial list of persons that may be recommended by TMAC to the Inuit Environmental Advisory Committee.
- Supported the hiring of Environmental seasonal staff from within Kitikmeot communities.

June

- One communication with on-site Inuk staff to listen to a work related concern. Followed up with supervisor and HR. Appears to be resolved.
- Review and comments on Socio-Economic section of Doris Amendment package to Environment group.
- Some support provided to Nunavut EMO request for Hope Bay helicopter to retrieve stranded hunters on Victoria Island. 2 hunters returned to Cambridge Bay safely.
- Attended KIA Employment and Training Stakeholder Group meeting to learn of developments in this area within the region. Shared information on the Geotech Egutak Diamond Driller training program.
- Attended meeting with KIA staff to select Inuit Environmental Advisory Committee members. 7 persons selected to be approached by KIA to join the committee, with 6 backup names in case any are unable.
- Attended Polar Knowledge Center Board of Director's open house in Cambridge Bay to meet CHARS station functionaries and AANDC senior staff including acting President Nellie Cournoyea.
- Attended Nunavut Planning Commission Technical hearing by telephone to participate in caribou calving ground protection discussion. NPC to conduct workshop in November to deal with this issue in depth.
- Attended Community Readiness Initiative meeting with the Hamlet of Cambridge Bay. Golder and Conference Board of Canada proposals short listed for CRI work.
- Courtesy visit to the NIRB with Monitoring Officer to explain initial and tentative Doris Amendment communications plans.

July

- Facilitated Doris North Socio-Economic Monitoring Committee teleconference to review ERM recommended government indicator substitution list. AANDC and GN representatives indicated general agreement with new indicators and will provide formal written feedback within 2 weeks.
- Attended Nunavut Resources Corporation Board of Directors meeting to provide a Hope bay project update with notes of proceedings to TMAC Executive.
- Participated in Cambridge Bay community cleanup along with over 200 volunteers. TMAC assisted KIA in picking garbage in their assigned goal, leading to some teambuilding.
- Participated in Diamond Driller Training Program candidate selection process with KIA Employment and Training Staff. Approached former Lupin Mine worker (and current GN Community Mineral Advisor) to act as Elder for training program. 11 applicants selected to attend the program starting in August.
- One additional Inuk member of wildlife response team added to TMAC Commercial Firearms Licence list of authorised users.
- Provided Kitikmeot Community Futures Manager (publically funded regional small business loan organization) with project update including high level details of signed IIBA. Community Futures has a current loan portfolio of $1.2M and has recently been provided another $1M in working capital from CanNor. Is interested in loaning money to mine services groups.
- Provided Premier of Nunavut with project update.
- Attended KIA Board of Directors meeting in Taloyoak and presented project update in concert with TMAC executive.
- Provided Hamlet of Taloyoak Mayor and Senior Administrative Officer with a verbal project update.
- Provided advice and support to onsite environment staff in responding to Red Bear incident, including providing liaison between Site and GN-DOE office in Cambridge Bay on same.
- Conducted first IIBA Implementation Committee meeting in Cambridge Bay.

August

- Discussion with GN Family Services staff on Family Support Orders and wage garnishment of Nunavut TMAC employees.
- Attended Can Nor Northern Major Project Office mineral development regulatory session in Iqaluit in support of Environment staff. Meeting was intended to provide an initial briefing to regulators on the Doris Amendment package. Over 15 federal and territorial officials attended. Draft minutes of proceedings taken and provided to S. Hamm for documentation purposes.
- Courtesy visit to GN-DOE Headquarters office in Iqaluit in order to touch base on Caribou studies.
- Distribution of KCMD job advertisements for Hope Bay related employment.
- Support to KIA and Geotech Egutak in orienting and preparing 9 participants of Diamond Drill training program begun in Cambridge Bay.

- Attended meeting with NIRB staff to discuss Environmental Assessment processes for Hope Bay including scheduling of 2015 NIRB site visit (now planned for week of September 25th).
- Attended Cambridge Bay Community Readiness Meeting with Hamlet and other stakeholders. This was the initial meeting with the Conference Board of Canada consultants selected to conduct community mapping work.
- Responded to a telephone complaint from Kugluktuk that TMAC staff were involved in goose hunting. Investigated same and determined that this was a misunderstanding based on an ambiguous Facebook post. Complainant advised.
- Supported TMAC sealift of supplies to be trans-shipped through Cambridge Bay.

September

- Attended reception on *MV Camilla Degagnes* to celebrate new NSSI/Kitikmeot Corporation partnership.
- Distributed Community Readiness program materials to Socio-Ec consultant and HR Manager for reference.
- Investigated college acceptance problem experienced by seasonal worker on request of site and environment staff; college misplaced application package leading to lack of acceptance into program,
- Informal meetings with Cathy Towtongie, President of NTI, and Leona Aglukkaq, Conservative candidate for Nunavut, and Natan Obed, new ITK President during ITK meetings in town.
- Review of Community Readiness Initiative Cambridge Bay resident questionnaire for survey to be conducted by Conference Board of Canada; inclusion of positive expected community effects of mining and development instead of only questions on “concerns”.
- Provided Inuit Employment data to NIRB monitoring officer based on request stemming from 2015 site visit.
- Reviewed and provided comments on Socio-Economic memo responding to Madrid Bulk Sample information requests from regulators.
- Initial discussion with KIA Business Development Officer on path forward to implementing a bit sharpening contract business in Cambridge Bay.
- Reviewed Hope Bay Phase 2 DEIS Socio-Economic Chapter (draft).
- Begin response to Doris Amendment socio-economic Information Requests from regulators.
- Initial introductory meeting with new KIA IIBA Implementation Manager – Michelle Gillis. She has now moved back to Cambridge Bay to assume her duties.

October

- Conducted Kitikmeot Community Tour with John Roberts, Sharleen Hamm, Ikey Evalik and Joe Otokiak. Focus of presentation was the Doris Amendment package, within a general company update. Gjoa Haven public meeting conducted by Sharleen and Joe as Cambridge Bay charter with rest of crew unable to reach community. Gjoa Haven Housing Association meeting conflicted.15 attended our meeting. Continued to Kugaaruk. Over 40 attended our meeting there. Continued to Taloyoak, with 8 community members attending this meeting. GN-CGS overbooked the night. Tour continued to Cambridge Bay with over

30 members of the public attending this meeting. Tour was completed in Kugluktuk with over 40 of the public in attendance.

- Met with Nunavut Arctic College Environmental Technology Class in Cambridge Bay to explain exploration and mining environmental techniques, and career opportunities. Encouraged class to continue studies and learn more about our operation.
- Excellent questions heard throughout the region focussed on Tailings Management, Ocean Discharge, and Employment demonstrated that the public understood our new mining plan. No negative comments received; generally supportive with a desire for clarification on details.
- Facilitated meeting between TMAC Tour team and staff of the NIRB and NWB in Cambridge Bay. Discussion focussed on understanding and predicting the Doris Amendment application review process, and providing regulators with an overview of proposed changes to the mining plan.
- Provided comments and recommended responses to Doris Amendment application Socio-Economic Information requests. Will be incorporating into ERM main document as soon as possible.
- Completed comments and review of Community Readiness Initiative Cambridge Bay Household survey questionnaire.
- Took interview from KIA Management Consultant working on business plan for Environmental Services on behalf of Kitikmeot Hunters and Trappers Organizations; a potential new Kitikmeot Qualified Business entity could be formed.
- Audited a number of KIA Annual General Meeting presentations including Lands Division report – generally positive response on KIA benefits from Hope Bay.
- Conducted IIBA Implementation Committee Meeting in Cambridge Bay with new KIA IIBA Implementation Manager. 12 action items to bring forward to support employment, contracting and IEAC business.
- Attended Nunavut Mining Symposium Steering Committee meeting to further plan 2016 event. Theme "Balancing Investment" discussed and finalized. Scheduling and venue bookings well progressed.
- Introductory meeting with Inuit Atco-Frontec joint venture arranged for TMAC Executive next month in Toronto.
- First Inuit Environmental Advisory Committee meeting held the 16th. Focus of discussion was on updating the Doris Wildlife Mitigation and Monitoring Plan with participation from Government responsible agencies. Full day meeting proved too short for material to be covered. Initial comments from IEAC on TMAC proposed future wildlife studies are positive to neutral.
- Preparation and data collection for 2015 Socio-Economic Monitoring Presentation including front end project update.
- Updated Kitikmeot Qualified Business Registry received and reviewed – forwarded to head office with explanation of changes.

November

- Attended meeting with Senator Patterson in Ottawa with TMAC Executive.
- Initial contact with Hunter Tootoo, MP for Nunavut and new DFO Minister.

- Participated in first TMAC/KIA Presidents meeting under the Hope Bay IIBA in Ottawa.
- Presented 2015 Doris North Socio-Economic Monitoring Report to the Kitikmeot Socio-Economic Monitoring Committee.
- Responded to 2 inquiries from GN-Family Services requesting information on potential term employees required to make family support payments; they did not work for us.
- Confirmed TMAC Presentation for 2016 Trade Show with Hamlet of Cambridge Bay.
- Copy of Kugluktuk Community Readiness Initiative final report obtained for use and inclusion in Phase II Socio-Ec Chapter.
- Received draft IIBA Plain Language Summary from KIA for review.
- Attended *KIA Employment and Training Stakeholders Working Group* meeting with TMAC HR Manager; provided project update and input into potential near term training and employment initiatives.
- Assisted TMAC Geology in developing Inuinnaqtun name alternative for Hope Bay exploration target.
- Attended 2015 Yellowknife Geoscience Forum and presented a project update to delegates.

December

- Attended Chamber of Mines AGM and have been elected Secretary Treasurer for another term; Executive Meeting held December 11th with a focus on "levelling the playing field" joint PDAC/MAC/Chamber report. Further actions include inviting Alaska Investment Bank representative to Canada to discuss and promote their model.
- Presented to Kitikmeot Corporation Board of Directors meeting in Cambridge Bay on December 9th. Present included Wilf Wilcox, Frank Ikpakohak, Edna Elias and Stanley Anablak.
- Completed review of KIA Traditional Knowledge report for inclusion into Phase 2 DEIS.
- Completed project update text for the 2015 DNSEMP report.
- Assistance in addressing the 4 Traditional Knowledge recommendation derived from the KIA report including an environment scan for current Inuit Plant Use traditional knowledge studies.
- Support to Site environment staff in tracking and reporting on annual Land Use Licences and Quarry Permits in light of transition provisions in the KIA Framework Agreement and restated Doris North Commercial Lease.
- Review of intervenor comments on the completeness review of the Doris Amendment package for socio-economic topics.
- Requested Traditional Knowledge on Inuit Plant use in west Kitikmeot collaboration with Polar Knowledge Canada. PKC to develop listing of relevant studies for discussion early in 2016.
- Facilitated IEAC meeting primarily to discuss the Doris Amendment application; committee members now familiar with all proposed changes. Also discussed the Roberts Bay archaeological site that will be impacted by proposed routing of marine discharge pipeline. No immediate resolution of issue – IEAC requested summer site visit of site to better understand issue.

18. Summary of any abandonment and restoration work completed during the year and an outline of any work anticipated for the next year [as per Part B Item 6 (r)]

No abandonment or restoration work was completed in 2015 at Boston. No fieldwork is planned for 2016, aside from opportunistic reclamation of historic drill holes if staff resources and site access limitations permit. In response to an Inspector request (See item 13 for more information), TMAC is undertaking a review of circumpolar practices used to address thermokarsting related to drill sites, and will submit this report to the NWB once complete.

19. An update on the status of the v-notch weir located at Stickleback Lake, an item transferred through the amalgamation of Licence NWB4WEI0002 with 2BB-BOS0106 (now the current Licence) and addressed through Part E, Item 9 [as per Part B Item 6 (s)]

The v-notch weir at Stickleback Lake was removed on August 9, 2012. A report on the removal of the weir was submitted to the NWB on September 6, 2012.

20. Summary of any specific studies or reports requested by the Board, and a brief description of any future studies planned or proposed [see Part B Item 6 (t)]

No specific studies or reports were requested by the Board in 2015.

21. Any other details on Water use or Waste disposal requested by the Board by November 1st of the year being reported [see Part B Item 6 (u)]

No other details on water use or waste disposal were requested by the Board by November 1, 2015.

Appendix A

Annual Monitoring Report – 2BB-BOS1217

a) Tabular Summary of Monitoring Information

The following section summarizes the results of sampling undertaken in 2015 as part of the monitoring program detailed in Part J of licence 2BB-BOS1217.

Monitoring was not undertaken at the following stations because the camp was not operational in 2015: BOS-1 (raw water supply intake at Aimaokatalok Lake), BOS-3 (sewage disposal facility final discharge), and BOS-4 (treated sewage effluent point prior to entry to Aimaokatalok Lake).

As in previous years, water from the Containment Pond (BOS-2) is sampled for and screened against, both BOS-2 and BOS-5 criteria. The Containment Pond (BOS-2) has been used to consolidate water from the smaller fuel containment berms, and occasionally from the bulk fuel farm BOS-5, to facilitate testing and treatment while and allowing the fuel berms to be promptly vacated of water. The results of sampling at BOS-2 are presented in Table 1. BOS-2 was sampled in June and was non-compliant for discharge (under Part D, Item 19). Water was transferred from BOS-5 to BOS-2 during June and July, and additional samples were collected and analyzed from BOS-2. The subsequent sampling found the water to be non-compliant for discharge (under Part D, Item 19) due to elevated lead levels and water was treated through an oil/water separator with activated carbon. One sample collected in June was not compliant with the pH discharge criteria. This sample was collected from the discharge hose of the oil/water separator; the activated carbon in the oil/water separator had been changed prior to treatment and is believed to have caused a higher pH in the treated water.

On July 18, the Inspector authorized discharge of water from BOS-2 for water meeting the discharge criteria for lead as outlined in 2AM-DOH1323 for bulk fuel storage facilities and suggested this be a change requested on Water Licence renewal. For discharges of water at Boston, the threshold for discharges under Part D, Item 9 (Containment Pond BOS-2), for lead is 0.4 mg/L in any grab sample. This threshold is two orders of magnitude less sensitive than those applied to discharges from BOS-5 (0.001 mg/L). The lead grab sample criteria specified in the Doris North Water Licence 2AM-DOH1323 for discharges from any bulk fuel storage facilityis 0.02 mg/L; an order of magnitude less sensitive than for discharges from the Boston bulk fuel storage facility (BOS-5). TMAC is interested in discussing with the NWB an approach to standardization of bulk fuel facility effluent discharge quality limits across the project.

Samples collected from BOS-2 met the adjusted criteria for lead and water was discharged on July 21 and July 22 (total of 14 m^3). During August, treatment of the water remaining in BOS-2 through an oil/water separator continued. The water post-treatment was compliant with the discharge criteria from Part D, Item 19 of the licence in samples collected on August 24 and August 30 during discharge. Analytical results of all sampling are provided in Table 1.

Mine water was not pumped from underground during 2015. The surface water accumulated at the portal was sampled against criteria for BOS-2 (Containment Pond) and discharged directly to the tundra at UTM 7505316 N, 441197 E as approved by the Inspector. One sample collected on August 30 marginally exceeded the Maximum Average Concentration criteria for nickel (0.571 mg/L); however, nickel concentrations were well below the maximum Concentration in Any Grab

Sample of 1.0 mg/L. Table 2 shows the sampling results for this water. A notification of the discharge was provided to the Inspector May 13, 2015.

Water from BOS-5 (effluent from the bulk fuel storage facility) was transferred into the Containment Pond BOS-2 during June and July as described above. Table 3 shows the sampling results for this effluent prior to consolidation in BOS-2.

Water was not discharged from BOS-6 (Landfarm) in 2015 because there was no water to sample at this location.

No landfill exists at Boston and the status of monitoring station BOS-7 is in-active.

During 2015, TMAC opportunistically sampled at locations where seepage was observed during periods of runoff near the waste rock and ore storage pad (BOS-8). Table 4 shows sampling results of this effluent.

Table 1 - Results of 2015 water quality sampling from containment pond monitoring station BOS-2, in mg/L, unless specified otherwise

Sample ID		BOS2C-10JUN15	BOS2C-21JUN15	BOS2C-29JUN15	BOS2C-21JUL15	BOS2C-22JUL15	BOS2C-09AUG15	BOS2C-24AUG15	BOS2C-30AUG15	Maximum Average Concentration (mg/L)	Maximum Concentration of any Grab Sample (mg/L)
ALS ID		L1626218-1	L1631650-1	L1635571-1	L1647871-1	L1647871-2	L1656298-1	L1662929-1	L1666635-1		
Sample Date/Time		6/10/2015 4:00:00 PM	6/21/2015 5:00:00 PM	6/29/2015 4:50:00 PM	7/21/2015 4:45:00 PM	7/22/2015 11:20:00 AM	8/9/2015 4:50:00 PM	8/24/2015 12:20:00 PM	8/30/2015 11:35:00 AM		
Parameter	**Units**	**Results**									
Conductivity	µS/cm	132	774	891	921	928	928	925	918		
Hardness (as CaCO3)	mg/L	70.4	412	458	478	480	495	488	487		
pH	pH	7.17	**9.55** ^	8.91	8.25	8.41	8.27	8.28	7.93		6.0-9.5
Total Suspended Solids	mg/L	11.9	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	25	50
Alkalinity, Total (as CaCO3)	mg/L	10.1	93.1	91.1	82.3	83.8	70.1	75.5	70.1		
Nitrate (as N)	mg/L	0.0062	<0.010 *	<0.0050	<0.010 *	<0.010 *	<0.025 *	<0.025 *	846		
Nitrite (as N)	mg/L	<0.0010	<0.0020 *	<0.0010	<0.0020 *	<0.0020 *	<0.0050 *	<0.0050 *	<0.10 *		
Sulfate (SO4)	mg/L	46.9	335	184	445	410	424	416	402		
Aluminum (Al)-Total	mg/L	0.198	0.0144	0.0154	0.0069	0.0089	0.0116	0.0059	0.0129		
Antimony (Sb)-Total	mg/L	<0.00050	0.00297	0.00331	0.00332	0.00338	0.00478	0.00397	0.00407		
Arsenic (As)-Total	mg/L	0.0365	0.145	0.122	0.0584	0.0566	0.141	0.0654	0.122	0.5	1.00
Barium (Ba)-Total	mg/L	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020		
Beryllium (Be)-Total	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010		
Boron (B)-Total	mg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.14		
Cadmium (Cd)-Total	mg/L	0.0000071	0.0000332	0.0000199	0.0000057	0.0000058	0.0000123	<0.0000050	0.0000102		
Calcium (Ca)-Total	mg/L	18.1	102	111	114	115	121	124	119		
Chromium (Cr)-Total	mg/L	0.0029	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010		
Cobalt (Co)-Total	mg/L	0.00663	0.00361	0.00293	0.00231	0.00165	0.00307	0.00394	0.0035		
Copper (Cu)-Total	mg/L	0.0032	0.0011	0.0012	<0.0010	<0.0010	<0.0010	<0.0010	0.0046	0.30	0.60
Iron (Fe)-Total	mg/L	0.547	0.311	0.207	0.065	0.052	0.105	0.044	0.059		
Lead (Pb)-Total	mg/L	**0.00125**	**0.0096**	**0.00655**	**0.0015**	**0.00133**	**0.00197**	0.00074	0.00084	0.20	0.40/0.001^
Lithium (Li)-Total	mg/L	0.002	0.0075	0.0097	0.014	0.014	0.0125	0.0126	0.0124		
Magnesium (Mg)-Total	mg/L	6.12	38.3	43.7	46.7	47.1	46.6	43.7	46		
Manganese (Mn)-Total	mg/L	0.0391	0.00504	0.00943	0.0267	0.00981	0.0103	0.0586	0.00362		
Mercury (Hg)-Total	mg/L	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050		
Molybdenum (Mo)-Total	mg/L	<0.0010	0.0016	0.002	0.0017	0.0019	0.0024	0.0012	0.0028		
Nickel (Ni)-Total	mg/L	0.0193	0.0219	0.0244	0.0149	0.0148	0.0266	0.0203	0.0551	0.50	1.00
Potassium (K)-Total	mg/L	<2.0	18.3	26	28	27.6	18	16.9	16.4		
Selenium (Se)-Total	mg/L	<0.000050	0.000127	0.000168	0.000168	0.000167	0.000199	0.000155	0.000224		
Silver (Ag)-Total	mg/L	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020		
Sodium (Na)-Total	mg/L	<2.0	7.9	8.4	10	9.9	8.8	8.3	7.8		
Thallium (Tl)-Total	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020		
Tin (Sn)-Total	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050		
Titanium (Ti)-Total	mg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010		
Uranium (U)-Total	mg/L	<0.00020	0.00036	0.0005	0.00058	0.00053	0.00028	0.00025	0.00025		
Vanadium (V)-Total	mg/L	0.00089	0.0007	0.00064	0.0006	0.00062	<0.00050	<0.00050	<0.00050		
Zinc (Zn)-Total	mg/L	<0.0050	<0.0050	0.0066	0.0063	<0.0050	0.0119	0.0098	<0.0050	0.50	1.00
Oil and Grease	mg/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0		
Oil And Grease (Visible Sheen)		NO	NO	NO	NO	NO	NO	NO	NO	No Visible Sheen	No Visible Sheen^
Phenols (4AAP)	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010 *	0.0023		
Benzene	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050		0.370^
Ethylbenzene	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050		0.090^
Methyl t-butyl ether (MTBE)	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050		

Sample ID		BOS2C-10JUN15	BOS2C-21JUN15	BOS2C-29JUN15	BOS2C-21JUL15	BOS2C-22JUL15	BOS2C-09AUG15	BOS2C-24AUG15	BOS2C-30AUG15	Maximum Average Concentration (mg/L)	Maximum Concentration of any Grab Sample (mg/L)
ALS ID		L1626218-1	L1631650-1	L1635571-1	L1647871-1	L1647871-2	L1656298-1	L1662929-1	L1666635-1		
Sample Date/Time		6/10/2015 4:00:00 PM	6/21/2015 5:00:00 PM	6/29/2015 4:50:00 PM	7/21/2015 4:45:00 PM	7/22/2015 11:20:00 AM	8/9/2015 4:50:00 PM	8/24/2015 12:20:00 PM	8/30/2015 11:35:00 AM		
Parameter	**Units**	**Results**									
Toluene	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050		0.002^
ortho-Xylene	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050		
meta- & para-Xylene	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050		
Xylenes	mg/L	<0.00075	<0.00075	<0.00075	<0.00075	<0.00075	<0.00075	<0.00075	<0.00075		
TPH10-32	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
Acenaphthene	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010		
Acenaphthylene	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010		
Acridine	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010		
Anthracene	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010		
Benz(a)anthracene	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010		
Benzo(a)pyrene	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010		
Benzo(b)fluoranthene	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010		
Benzo(g,h,i)perylene	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010		
Benzo(k)fluoranthene	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010		
Chrysene	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010		
Dibenz(a,h)anthracene	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010		
Fluoranthene	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010		
Fluorene	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010		
Indeno(1,2,3-c,d)pyrene	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010		
Naphthalene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050		
Phenanthrene	mg/L	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020		
Pyrene	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010		
Quinoline	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050		

Bold *indicates exceedance of applicable criteria*
** Detection limit adjusted due to sample matrix effects.*
^ Elevated pH attributed to carbon filter material of oil water separator system. Activated carbon medium was exchanged prior to treatment.
*** Part D, Item 19 for the Bulk Fuel Storage Facility. Water was pumped from the Bulk Fuel Storage Facility to the Containment Pond to ensure maximum freeboard.*

Table 2 - Results of 2015 water quality sampling from Boston Portal, in mg/L, unless specified otherwise

Sample ID		BOS2P-10JUN15	BOS2P-29JUN15	BOS2P-21JUL15	BOS2P-22JUL15	BOS2P-09AUG15	BOS2P-24AUG15	BOS2P-30AUG15	Maximum Average Concentration (mg/L)^	Maximum Concentration of any Grab Sample (mg/L)^
ALS ID		L1626310-1	L1635551-1	L1647928-1	L1647928-2	L1656243-1	L1662948-1	L1666650-1		
Sample Date/Time		6/10/2015 5:00:00 PM	6/29/2015 10:35:00 AM	7/21/2015 4:20:00 PM	7/22/2015 11:28:00 AM	8/9/2015 11:05:00 AM	8/24/2015 11:15:00 AM	8/30/2015 12:19:00 PM		
Parameter	**Units**	**Results**								
pH	pH	6.62	7.34	7.65	7.67	8.12	7.97	7.97		6.0 – 9.5
Total Suspended Solids	mg/L	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	25	50
Arsenic (As)-Total	mg/L	0.00268	0.018	0.0444	0.047	0.199	0.27	0.343	0.5	1.0
Copper (Cu)-Total	mg/L	<0.0010	0.0012	0.0022	0.0022	0.0121	0.019	0.0272	0.30	0.60
Lead (Pb)-Total	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	0.20	0.40
Nickel (Ni)-Total	mg/L	<0.0010	0.0133	0.0461	0.047	0.137	0.388	**0.571**	0.50	1.00
Zinc (Zn)-Total	mg/L	0.0111	0.0055	0.0057	0.0056	0.0053	0.0162	0.0179	0.50	1.00
Oil And Grease (Visible Sheen)		NO	NO	NO	NO	NO	NO	NO	No Visible Sheen	No Visible Sheen

Bold *indicates exceedance of lowest criteria listed within Part D Item 9 and Part D Item 19.*
^ Criteria from Part D Item 9 and Part D Item 19 applied (lowest value)

Table 3 - Results of 2015 water quality sampling from Bulk Fuel Storage Facility BOS-5, in mg/L, unless specified otherwise

Sample ID		BOS5-10JUN15	BOS5-23JUL15	Maximum Concentration of any Grab Sample (mg/L)
ALS ID		L1626275-1	L1647864-1	
Sample Date/Time		6/10/2015 4:00:00 PM	7/23/2015 1:45:00 PM	
Parameter	**Units**	**Results**		
Conductivity	µS/cm	814	976	
Hardness (as CaCO3)	mg/L	477	558	
pH	pH	7.93	7.6	
Alkalinity, Total (as CaCO3)	mg/L	52.5	57.2	
Nitrate (as N)	mg/L	<0.010 *	0.268	
Nitrite (as N)	mg/L	<0.0020 *	0.0163	
Sulfate (SO4)	mg/L	406	465	
Aluminum (Al)-Total	mg/L	0.017	0.0812	
Antimony (Sb)-Total	mg/L	0.00526	0.00642	
Arsenic (As)-Total	mg/L	0.289	0.361	
Barium (Ba)-Total	mg/L	<0.020	<0.020	
Beryllium (Be)-Total	mg/L	<0.0010	<0.0010	
Boron (B)-Total	mg/L	0.18	0.26	
Cadmium (Cd)-Total	mg/L	0.000177	0.0000824	
Calcium (Ca)-Total	mg/L	117	143	
Chromium (Cr)-Total	mg/L	<0.0010	<0.0010	
Cobalt (Co)-Total	mg/L	0.0228	0.0566	
Copper (Cu)-Total	mg/L	0.0098	0.0063	
Iron (Fe)-Total	mg/L	0.461	0.295	
Lead (Pb)-Total	mg/L	**0.0125**	**0.031**	0.001
Lithium (Li)-Total	mg/L	0.0074	0.0092	
Magnesium (Mg)-Total	mg/L	44.9	48.9	
Manganese (Mn)-Total	mg/L	0.0311	0.103	
Mercury (Hg)-Total	mg/L	<0.0000050	<0.0000050	
Molybdenum (Mo)-Total	mg/L	0.0022	0.0033	
Nickel (Ni)-Total	mg/L	0.131	0.22	
Potassium (K)-Total	mg/L	6.8	7.9	
Selenium (Se)-Total	mg/L	0.000268	0.000345	
Silver (Ag)-Total	mg/L	0.000025	<0.000020	
Sodium (Na)-Total	mg/L	6.9	7.4	
Thallium (Tl)-Total	mg/L	<0.00020	<0.00020	
Tin (Sn)-Total	mg/L	<0.00050	<0.00050	
Titanium (Ti)-Total	mg/L	<0.010	<0.010	
Uranium (U)-Total	mg/L	<0.00020	<0.00020	
Vanadium (V)-Total	mg/L	<0.00050	<0.00050	
Zinc (Zn)-Total	mg/L	0.0071	0.0094	
Oil and Grease	mg/L	<5.0	<5.0	15.0
Oil And Grease (Visible Sheen)		NO	NO	No Visible Sheen
Phenols (4AAP)	mg/L	<0.0010	0.0048 ^	
Benzene	mg/L	<0.00050	<0.00050	0.370
Ethylbenzene	mg/L	<0.00050	<0.00050	0.090
Methyl t-butyl ether (MTBE)	mg/L	<0.00050	<0.00050	
Toluene	mg/L	<0.00050	<0.00050	0.002
ortho-Xylene	mg/L	<0.00050	<0.00050	
meta- & para-Xylene	mg/L	<0.00050	<0.00050	

Sample ID		BOS5-10JUN15	BOS5-23JUL15	Maximum Concentration of any Grab Sample (mg/L)
ALS ID		L1626275-1	L1647864-1	
Sample Date/Time		6/10/2015 4:00:00 PM	7/23/2015 1:45:00 PM	
Parameter	**Units**	**Results**		
Xylenes	mg/L	<0.00075	<0.00075	
TPH10-32	mg/L	<1.0	<1.0	
		<0.000020 *	<0.000030 **	
Acenaphthene	mg/L	<0.000010	<0.000010	
Acenaphthylene	mg/L	<0.000010	<0.000010	
Acridine	mg/L	<0.000010	<0.000010	
Anthracene	mg/L	<0.000010	<0.000010	
Benz(a)anthracene	mg/L	<0.000010	<0.000010	
Benzo(a)pyrene	mg/L	<0.000010	<0.000010	
Benzo(b)fluoranthene	mg/L	<0.000010	<0.000010	
Benzo(g,h,i)perylene	mg/L	<0.000010	<0.000010	
Benzo(k)fluoranthene	mg/L	<0.000010	<0.000010	
Chrysene	mg/L	<0.000010	<0.000010	
Dibenz(a,h)anthracene	mg/L	<0.000010	<0.000010	
Fluoranthene	mg/L	<0.000010	<0.000010	
Fluorene	mg/L	<0.000010	<0.000010	
Indeno(1,2,3-c,d)pyrene	mg/L	<0.000080 *	0.000088 ^^	
Naphthalene	mg/L	<0.000020	<0.000020	
Phenanthrene	mg/L	<0.000010	<0.000010	
Pyrene	mg/L	<0.00020 *	<0.000050	
Quinoline	mg/L	814	976	

Bold *indicates exceedance of Part D Item 19 Maximum Concentration in a Grab Sample. No water was discharged to the tundra form this facility in 2015, water was instead placed in BOS-2 for treatment and discharge.*

** Detection Limit adjusted due to sample matrix effects*

*** Detection Limit raised due to co-eluting interference. GCMS qualifier ion ratio did not meet acceptance criteria.*

^ Reported Result Verified By Repeat Analysis

^^ The ion abundance ratio(s) did not meet the acceptance criteria. Value is an estimated maximum.

Table 4 - Results of opportunistic sampling at the Boston waste rock and ore storage pad monitoring station BOS-8, where flow was observed in 2015, in mg/L, unless specified otherwise

	Sample ID	BOS8A-29JUN15	BOS8C-29JUN15	BOS8A-09AUG15	BOS8C-09AUG15	BOS8A-24AUG15	BOS8C-24AUG15
	ALS ID	L1635592-1	L1635592-2	L1656225-1	L1656225-2	L1662944-1	L1662944-2
	Date Sampled	6/29/2015 11:30:00 AM	6/29/2015 11:10:00 AM	8/9/2015 12:00:00 PM	8/9/2015 11:50:00 AM	8/24/2015 11:00:00 AM	8/24/2015 10:50:00 AM
Parameter	**Units**	**Results**					
Conductivity	µS/cm	944	1220	1460	2620	1490	1370
Hardness (as CaCO3)	mg/L	426	529	742	1370	721	601
pH	pH	8.03	7.49	7.02	7.6	7.16	7.14
Total Suspended Solids	mg/L	<3.0	<3.0	<3.0	<3.0	12.1	<3.0
Ammonia, Total (as N)	mg/L	0.0134	0.153	0.0081	16	0.0074	0.33
Sulfate (SO4)	mg/L	325	301	662	1300	569	292
Aluminum (Al)-Total	mg/L	0.0148	0.0285	0.0246	0.0167	0.074	0.021
Antimony (Sb)-Total	mg/L	0.00208	0.0113	0.00498	0.118	0.00548	0.0102
Arsenic (As)-Total	mg/L	0.0281	0.154	0.0362	5.62	0.105	0.116
Barium (Ba)-Total	mg/L	<0.020	0.027	0.039	<0.020	0.025	0.033
Beryllium (Be)-Total	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Boron (B)-Total	mg/L	0.11	0.26	0.27	0.6	0.17	0.22
Cadmium (Cd)-Total	mg/L	0.0000133	0.0000601	0.000129	0.000061	0.0000322	0.0000753
Calcium (Ca)-Total	mg/L	89.2	157	192	346	168	185
Chromium (Cr)-Total	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Cobalt (Co)-Total	mg/L	0.0198	0.178	0.0599	1.35	0.0349	0.167
Copper (Cu)-Total	mg/L	0.0027	0.0021	<0.0010	0.0021	0.0089	0.0021
Iron (Fe)-Total	mg/L	0.313	0.521	<0.030	0.031	0.431	0.059
Lead (Pb)-Total	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Lithium (Li)-Total	mg/L	0.0025	0.0248	0.0348	0.0758	0.0056	0.0299
Magnesium (Mg)-Total	mg/L	49.2	33.4	64	122	73.3	34
Manganese (Mn)-Total	mg/L	0.624	0.256	0.0974	0.465	0.677	0.24
Molybdenum (Mo)-Total	mg/L	<0.0010	0.0032	<0.0010	0.0056	<0.0010	0.0016
Nickel (Ni)-Total	mg/L	0.0952	0.302	0.0601	3.98	0.245	0.344
Potassium (K)-Total	mg/L	8.9	12.8	13.5	31.8	12.9	15.1
Selenium (Se)-Total	mg/L	0.000472	0.00218	0.00357	0.00884	0.00209	0.00464
Silver (Ag)-Total	mg/L	<0.000020	0.000065	<0.000020	0.000031	0.000032	0.000028
Sodium (Na)-Total	mg/L	32.6	28.7	23.5	46.6	53.7	43.3
Thallium (Tl)-Total	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Tin (Sn)-Total	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Titanium (Ti)-Total	mg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Uranium (U)-Total	mg/L	0.00024	<0.00020	<0.00020	0.0003	0.00062	<0.00020
Vanadium (V)-Total	mg/L	<0.00050	<0.00050	<0.00050	0.0037	0.00052	<0.00050
Zinc (Zn)-Total	mg/L	<0.0050	0.0051	0.0077	<0.0050	<0.0050	0.0068