



Baffinland Iron Mines Corporation
Mary River Project
Baffinland ᐅᓕᓕᓐᓂᐸᓐᓂᓐ ᓂᐸᓕᓐᓂᓐ
ᓂᓕᓕᓐ ᐱᓕᓕᓐᓂᓐ

2017 Qikiqtani Inuit Association (QIA) and Nunavut Water Board (NWB)
Annual Report for Exploration and Geotechnical Drilling Activities

2017 ᓕᓕᓕᓐᓂᓐ ᐸᓕᓕᓐ ᓂᓕᓕᓐᓂᓐᓂᓐᓂᓐ (QIA) ᐸᓕᓕᓐ ᓂᓕᓕᓐᓂᓐ ᐸᓕᓕᓐᓂᓐᓂᓐᓂᓐ (NWB)
ᐸᓕᓕᓐᓂᓐ ᓂᓕᓕᓐᓂᓐ ᓂᓕᓕᓐᓂᓐ ᐸᓕᓕᓐ ᓂᓕᓕᓐᓂᓐᓂᓐᓂᓐ



Water Licence 2BE-MRY1421 and Commercial Lease Q13C301
ᓕᓕᓕᓐᓂᓐ ᐸᓕᓕᓐ ᓂᓕᓕᓐᓂᓐ 2BE-MRY1421
ᐸᓕᓕᓐ ᓂᓕᓕᓐᓂᓐ ᓂᓕᓕᓐᓂᓐ Q13C301

March 31, 2018 / ᓕᓕᓐ 31, 2018



BAFFINLAND IRON MINES CORPORATION

MARY RIVER PROJECT

2017 QIKIQTANI INUIT ASSOCIATION (QIA) AND
NUNAVUT WATER BOARD (NWB) ANNUAL REPORT FOR EXPLORATION
AND GEOTECHNICAL DRILLING ACTIVITIES

2017 QIKIQTANI INUIT ASSOCIATION (QIA) AND NUNAVUT WATER BOARD (NWB)
ANNUAL REPORT FOR EXPLORATION AND GEOTECHNICAL DRILLING ACTIVITIES

EXECUTIVE SUMMARY

This report to the Qikiqtani Inuit Association (QIA) and the Nunavut Water Board (NWB) has been prepared to summarize the 2017 exploration and geotechnical drilling activities conducted under Baffinland Iron Mines Corporation's (Baffinland) Type B Water Licence 2BE-MRY1421 (Type B Water Licence) and the Commercial Lease No. Q13C301 (Commercial Lease) between the QIA and Baffinland for the Mary River Project (Project). A separate annual report has been prepared for the QIA and NWB to summarize the 2017 Project activities and monitoring conducted under Baffinland's Type A Water Licence 2AM-MRY1325 – Amend. No. 1 (Type A Water Licence) and addresses the remaining annual reporting requirements set forth in the Commercial Lease.

The scope of the Type B Water Licence focuses on exploration and geotechnical drilling activities and includes provisions and conditions regarding water use, waste management, construction and operation of satellite camps, exploration and geotechnical drilling programs, spill contingency and environmental monitoring.

During 2017, activities carried out under the scope of the Type B Water Licence involved continued geotechnical drilling programs and assessments to support ongoing design studies for future Project infrastructure, an exploration drilling program to increase mine pit confidence at Deposit No. 1 and further assess Deposit No. 2 resources, and the continued exploration of prospects and Baffinland's mineral leases. No satellite camps were constructed or operated in 2017, with all personnel involved with the exploration and geotechnical activities being based out of the Mary River Mine Site (Mine Site) and Milne Port accommodation camps.

Water withdrawn under the authorization of the Type B Water Licence in 2017 was used solely to support exploration and geotechnical drilling operations. Water withdrawal limits stipulated in the Type B Water Licence were not exceeded in 2017. Progressive reclamation carried out under the Type B Water Licence during 2017 involved the reclamation of drill holes associated with the 2017 exploration and geotechnical drilling programs.

In addition to tracking water use, environmental monitoring conducted in 2017 consisted of daily monitoring of drilling activities to ensure activities adhered to the practices outlined in the Project's Environmental Protection Plan (EPP). A marine under-ice water quality monitoring program at Milne Inlet was also conducted during spring 2017 to monitor turbidity and total suspended solids (TSS) levels near on-ice geotechnical drilling and testing activities.

As outlined in the 2018 Work Plan, exploration activities for 2018 have not yet been finalized however it is anticipated that activities at a minimum will include mapping, sampling and geophysical and geochemical surveys of prospects and Baffinland's mineral leases, and may also include exploration

drilling programs on Deposits No. 1 and No. 2. Operation of the Steensby and Mid Rail camps to support exploration activities in 2018 are not anticipated however the establishment of a new exploration camp at the Ege Bay location is currently being evaluated.

In addition, it is anticipated that Baffinland will continue to conduct geotechnical assessments, including drilling programs, during 2018 to support ongoing engineering design studies for future Project infrastructure. Preliminary locations for geotechnical assessments and drilling in 2018 include Milne Inlet and locations along the Tote Road associated with the proposed railway bridges. Once additional details are finalized for the 2018 drilling programs, this information will be provided to the NWB and QIA prior to the commencement of drilling activities.

ᖃᐅᐱᕐᑕᐅᐱᑦ >ᐅᑎᐱᑦᐱ 2018-ᑦᑕ ᖃᑦᑕᑦ ᐱᑦᑕᑦ (Milne Inlet) ᐱᑦᑕ ᑕᑦᑕᑦ ᖃᑦᑕᑦ ᖃᑦᑕᑦ ᖃᑦᑕᑦ Tote Road-ᑦ ᖃᑦᑕᑦᑕᑦᑕ ᑕᑦᑕᑦᑕᑦᑕᑦ ᐱᑦᑕᑦᑕᑦᑕᑦ ᐱᑦᑕᑦᑕᑦᑕᑦ. ᑕᑕᑦ ᐱᑦᑕ ᑕᑦᑕᑦ ᖃᑦᑕᑦ ᑕᑦᑕᑦᑕᑦᑕᑦ 2018-ᑦ >ᐅᑎᐱᑦᑕᑦ ᑕᑕᑦᑕᑦᑕᑦ, ᑕᑕᑦᑕᑦᑕᑦ ᑕᑕᑦᑕᑦᑕᑦᑕᑦ ᑕᑕᑦᑕᑦᑕᑦᑕᑦ ᑕᑕᑦᑕᑦᑕᑦᑕᑦᑕᑦ NWB-ᑕᑦᑕᑦᑕᑦ ᐱᑦᑕ ᑕᑦᑕᑦᑕᑦᑕᑦ ᑕᑦᑕᑦᑕᑦᑕᑦ ᑕᑦᑕᑦᑕᑦᑕᑦᑕᑦ ᖃᑦᑕᑦᑕᑦᑕᑦ.

TABLE OF CONTENTS

	<u>PAGE</u>
EXECUTIVE SUMMARY (ENGLISH)	ii
EXECUTIVE SUMMARY (INUKTITUT)	iv
SECTION 1.0 - INTRODUCTION.....	1
1.1 SUMMARY OF 2017 EXPLORATION AND GEOTECHNICAL DRILLING ACTIVITIES.....	1
1.1.1 Exploration Activities and Drilling Programs	1
1.1.2 Geotechnical Assessments and Drilling Programs.....	2
1.2 REGULATORY FRAMEWORK.....	2
SECTION 2.0 - WATER USE AND WASTE DISPOSAL ACTIVITIES	5
2.1 WATER USE	5
2.1.1 Quantities of Freshwater Used for Domestic Purposes	5
2.1.2 Quantities of Freshwater Used for Drilling Activities	5
2.2 SEWAGE, GREYWATER AND WASTE MANAGEMENT	6
SECTION 3.0 - SPILLS	7
SECTION 4.0 - MODIFICATIONS.....	8
SECTION 5.0 - MONITORING	9
5.1 ENVIRONMENTAL MONITORING FOR DRILLING ACTIVITIES	9
5.2 2017 MARINE WATER QUALITY MONITORING PROGRAM – MILNE INLET	9
SECTION 6.0 - RECLAMATION AND CLOSURE	11
6.1 PROGRESSIVE AND FINAL RECLAMATION	11
6.2 CURRENT RESTORATION LIABILITY	11
SECTION 7.0 - PLANS, REPORTS AND STUDIES	12
7.1 SUMMARY OF STUDIES REQUESTED BY THE BOARD	12
7.2 REVISIONS TO PLANS REPORTS AND MANUALS.....	12
7.3 SUMMARY OF FUEL STORAGE	12
7.4 INSPECTIONS AND COMPLIANCE REPORTS	13
7.5 SUMMARY OF ARTESIAN FLOWS.....	13
7.6 SUMMARY OF GEOCHEMICAL ANALYSIS OF DRILL CORES.....	13
SECTION 8.0 - PUBLIC CONSULTATIONS	14
SECTION 9.0 - 2018 EXPLORATION AND GEOTECHNICAL ACTIVITIES	15

LIST OF TABLES

TABLE 1.1	2017 EXPLORATION AND GEOTECHNICAL DRILL HOLE AND CONE PENETRATION TEST LOCATIONS
TABLE 2.1	2017 DRILLING WATER SOURCE LOCATIONS
TABLE 2.2	WATER USE FOR 2017 DRILLING ACTIVITIES
TABLE 5.1	2017 MARINE WATER QUALITY MONITORING RESULTS – MILNE INLET
TABLE 6.1	2017 MARY RIVER PROJECT CLOSURE AND RECLAMATION SECURITY SUMMARY
TABLE 8.1	2017 COMMUNITY GROUP MEETINGS AND CONSULTATIONS

LIST OF FIGURES

FIGURE 1.1	PROJECT LOCATION MAP
FIGURE 1.2	LOCATION OF PROJECT ACTIVITIES
FIGURE 1.3	2017 DRILLING ACTIVITIES – MILNE PORT
FIGURE 1.4	2017 DRILLING ACTIVITIES – TOTE ROAD
FIGURE 1.5	2017 DRILLING ACTIVITIES – MINE SITE

APPENDICES

APPENDIX A	CONCORDANCE TABLES
APPENDIX B	NWB ANNUAL REPORT FORMS
APPENDIX C	2017 DRILLING ACTIVITY NOTIFICATIONS
APPENDIX D	PHOTO JOURNAL
	D.1– 2017 GEOTECHNICAL DRILLING PHOTO SHEET
	D.2– 2017 EXPLORATION DRILLING PHOTO SHEET
APPENDIX E	2017 PRE, DURING AND POST DRILLING SITE INSPECTION SHEETS (EXAMPLES)

SECTION 1.0 - INTRODUCTION

This report to the Qikiqtani Inuit Association (QIA) and the Nunavut Water Board (NWB) has been prepared to summarize the 2017 exploration and geotechnical drilling activities conducted under Baffinland Iron Mines Corporation's (Baffinland) Type B Water Licence 2BE-MRY1421 (Type B Water Licence) and the Commercial Lease No. Q13C301 (Commercial Lease) between the QIA and Baffinland for the Mary River Project (the Project). A separate annual report has been prepared for the QIA and NWB to summarize the 2017 Project activities and monitoring conducted under Baffinland's Type A Water Licence 2AM-MRY1325 – Amend. No. 1 (Type A Water Licence) and addresses the remaining annual reporting requirements set forth in the Commercial Lease. Concordance tables referencing where in this report annual reporting requirements outlined in the Commercial Lease and Type B Water Licence have been met are presented in Appendix A.

The scope of the Type B Water Licence focuses on exploration and geotechnical drilling activities and includes provisions and conditions regarding water use, waste management, construction and operation of satellite camps, exploration and geotechnical drilling programs, spill contingency and environmental monitoring. Activities and data discussed in this report are summarized and referenced in the completed NWB Annual Report Forms, included as Appendix B of this report.

Figures 1.1 and 1.2 present the locations of the key areas associated with the Project where activities in 2017 were undertaken. Key areas involved with exploration and geotechnical drilling activities in 2017 included Milne Port, the Milne Inlet Tote Road (Tote Road), the Mary River Mine Site (Mine Site) and Steensby Port.

1.1 SUMMARY OF 2017 EXPLORATION AND GEOTECHNICAL DRILLING ACTIVITIES

1.1.1 Exploration Activities and Drilling Programs

During 2017, exploration activities were based out of the Mine Site and consisted of day trips by helicopter to prospects and Baffinland's mineral leases to conduct mapping, sampling and geophysical and geochemical surveys. No new satellite camps were constructed and/or operated to support exploration activities in 2017. Although the site was used as a refuelling location for helicopters transporting exploration field crews in 2017, Steensby Port remained closed throughout the year and was not used to house personnel.

In addition to the exploration activities listed above, an exploration diamond drilling program was conducted from June to September 2017 to increase mine pit confidence at Deposit No. 1 and further assess Deposit No. 2 resources. The drilling program consisted of six (6) drill holes, five (5) on Deposit No. 1 and one (1) on Deposit No. 2, using LM 55 rock coring drill rigs. Equipment used in the diamond drilling program, consisting of a non-skid mounted drill rig, drill rods and other supplies, was transported between drill sites using the

onsite helicopters. Drill hole locations associated with the 2017 exploration drilling program at Deposits No. 1 and No. 2 are presented in Table 1.1 and Figure 1.5.

A notification was submitted to the NWB, QIA and other parties to ensure compliance with the conditions set out in the Type B Water Licence and Commercial Lease for the 2017 exploration drilling program, and is provided in Appendix C.

1.1.2 Geotechnical Assessments and Drilling Programs

To support on-going engineering design studies for planned future infrastructure at the Project, Baffinland continued to conduct geotechnical assessments in 2017, including two (2) geotechnical drilling programs.

During late March and early April 2017, a marine on-ice geotechnical assessment program, consisting of six (6) drill holes and eight (8) cone penetration tests (CPT), was conducted at Milne Inlet to evaluate the geotechnical conditions at the location proposed for the second ore dock at Milne Port. The second ore dock at Milne Port is included in the scope of Baffinland's proposed Phase 2 Expansion and is currently being reviewed by the relevant regulatory bodies and stakeholders. Table 1.1 and Figure 1.3 present the drill hole and test locations associated with the marine on-ice geotechnical program at Milne Inlet and their position in relation to the existing infrastructure at Milne Port.

In January 2017 and continuing throughout the year, a land-based geotechnical drilling program was completed at the Project. The land-based geotechnical drilling program consisted of fifty (50) drill holes at various areas at Milne Port, along the Tote Road and at the Mine Site. Drill hole locations for the land-based geotechnical drilling program are presented in Figures 1.3, 1.4 & 1.5 and detailed in Table 1.1.

The equipment utilized for both geotechnical drilling programs (on-ice and land-based) consisted of a tracked drill rig (LS 250) capable of using both sonic and rotary coring drilling techniques. Other supporting equipment included a tracked flatbed vehicle (Nodwell type) for hauling water and other supplies as well as a skid steer for moving drill rods and other equipment/supplies.

The 2017 geotechnical drilling notifications submitted to the NWB, QIA and other parties to ensure compliance with the conditions set out in the Type B Water Licence and Commercial Lease are provided in Appendix C of this report.

1.2 REGULATORY FRAMEWORK

Although the key regulatory and legal documents that relate to this report are the Commercial Lease and the Type B Water Licence, this report is presented in the context of other applicable regulatory authorizations and schedules for the Project. A list of the key regulatory permits and authorizations that allowed for the work to be completed at the Project in 2017 is presented below.

Permit or Licence No.	Licence Name	Status Update for 2017	Expiry
Nunavut Impact Review Board			
No. 005	Amended Project Certificate	All works and activities proposed have been screened by the Nunavut Impact Review Board (NIRB) and have been considered in the amended Project Certificate issued by the NIRB in May 2014. A NIRB Annual Report is submitted by March 31 of each year summarizes the status of the Project relative to the conditions outlined in the Project Certificate.	N/A
Nunavut Water Board			
2AM-MRY1325	Type A Water Licence – Amendment No. 1	In good standing; no amendments were made during 2017.	June 10, 2025
2BE-MRY1421	Type B Water Licence	In good standing; no amendments were made during 2017.	April 16, 2021
Qikiqtani Inuit Association			
Q13C301	Inuit Owned Land Commercial Lease	Compliance with the lease is outlined in the <i>2017 QIA and NWB Annual Reports</i> submitted by March 31 st of each year.	December 31, 2043
-	Inuit Impact and Benefit Agreement (IIBA)	Compliance with the agreement is outlined in the annual IIBA implementation report submitted by March 31 st of each year.	N/A
Crown Land Use Permits and Quarry Permits			
47H16-1-2	Foreshore Area for Milne Port Ore Dock Lease	In good standing; no changes from previous year.	June 30, 2035
N2014Q0016	Tote Road and Borrow Area Land Use Permit	In good standing; no changes from previous year.	June 30, 2019
N2014C0013	Steensby and Milne Land Use Permit	In good standing, no changes from previous year.	June 30, 2019
N2014J0011	Bruce Head Land Use Permit	In good standing, no changes from previous year.	June 30, 2019
N2014X0012	Milne Foreshore Land Use Permit	In good standing, no changes from previous year.	June 30, 2019
Authorizations under the Fisheries Act			
06-HCAA-CA7-0084	Crossings along the Milne Inlet Tote Road Authorization	The authorization remains valid and has been amended over the years. Monitoring and reporting to DFO occurs annually.	N/A

Permit or Licence No.	Licence Name	Status Update for 2017	Expiry
14-HCAA-00525	Fisheries Authorization – Milne Ore Dock	A monitoring report for the ore dock was submitted to DFO on December 31, 2017.	December 31, 2020
NU-06-0084	Fisheries Authorization – Tote Road	-	N/A
Various Letter of Advice	Fisheries Crossings along Tote Road and Quarries, culvert extensions and replacements	-	N/A
Approvals under the Navigable Waters Protection Act (Transport Canada)			
8200-07-10273, 10267, 10269, 10268, 10274, 10272, 10266, 10271	Construction of Watercourse Crossings (Bridges and Culverts)	In good standing, no changes from previous year.	Until complete
4306-2-6- P/B	Occasional-Use Marine Facility	In good standing, no changes from previous year. Planned to be renewed.	June 30, 2018
Licence under the Explosives Act			
F76068	Division 1 Factor Licence	Held by explosives contractor for the Project.	-

SECTION 2.0 - WATER USE AND WASTE DISPOSAL ACTIVITIES

2.1 WATER USE

Under the authorization of the Type B Water Licence, water was withdrawn in 2017 for drilling purposes only. As per Part B, Item 2 of the Type A Water Licence, in cases where there were conflicts between the Type B Water Licence and the Type A Water Licence, Baffinland proceeded with the terms and conditions of the Type A Licence.

The following subsections describe water use and the associated authorized sources under the Type B Water Licence.

2.1.1 Quantities of Freshwater Used for Domestic Purposes

During 2017, water was not withdrawn under the authorization of the Type B Water Licence for domestic (camp) purposes. No satellite camps were operated to support exploration and drilling activities in 2017.

2.1.2 Quantities of Freshwater Used for Drilling Activities

During the 2017 land-based geotechnical drilling program, 22 cubic metres (m³) of water was withdrawn from Km 32 Lake, located along the Tote Road, to support geotechnical drilling activities. The low water volume requirements for the drilling program are attributed to the fact that the majority of geotechnical drill holes were performed using a sonic drilling technique which requires minimal volumes of water to perform. Water requirements during the 2017 geotechnical drilling program are attributed to the few drill holes requiring the rotary core diamond drilling technique.

For the 2017 exploration drilling program at Deposits No. 1 and No. 2, a total of 3,069 cubic metres (m³) of water was used to support exploration drilling activities. For drill holes at Deposit No. 1, water was sourced by reclaiming water from the Mine Site Waste Rock Facility surface water management pond (WRF pond), referred to as MS-08 under the Type A Water Licence, and a water management check dam at Km 105 along the Mine Haul Road. Water requirements for the drilling program at Deposit No. 2 were supplied by pumping water from the Mary River to the drill hole location.

Both Km 32 Lake and the Mary River were proposed by Baffinland as potential water sources in the 2017 drilling notifications submitted to the NWB, QIA and other parties to ensure compliance with the conditions set out in the Type B Water Licence and Commercial Lease.

Under Part E, Item 5 of the Type A Water Licence, Baffinland is permitted to recycle and reclaim water from Project water management infrastructure. As such, Baffinland was able to supply the Deposit No. 1 drilling program with the necessary water volumes by recycling and reclaiming water from existing Project water management infrastructure regulated under the Type A Water Licence. However, changes in water

quality at the WRF pond in August 2017 resulted in Baffinland suspending the reclamation of water from the WRF pond for Deposit No. 1 drilling activities. The reader is referred to the *2017 QIA and NWB Annual Report for Operations* for further discussion on the water quality changes observed at the WRF pond and the corrective actions undertaken and planned to address concerns identified in 2017. The water source at the Km 105 check dam was subsequently used to complete the drilling program at Deposit No. 1.

Locations of the water sources used for the 2017 drilling programs are provided in Table 2.1 and are presented in Figures 1.4 and 1.5. Daily and monthly water use volumes for drilling activities by water source are detailed in Table 2.2.

As shown in Table 2.2, there were no exceedances of the authorized daily withdrawal rate of 250 cubic metres (m³) for all drilling activities conducted under the Type B Water Licence in 2017.

2.2 SEWAGE, GREYWATER AND WASTE MANAGEMENT

Satellite camps were not operated to support exploration and geotechnical drilling activities in 2017. Personnel associated with exploration and geotechnical drilling activities were based out of the Mine Site and Milne Port camps, operated under the Type A Water Licence. Because of this, sewage, greywater and solid waste generated by the 2017 exploration and geotechnical drilling activities have been captured under the Type A Water Licence. The reader is referred to the *2017 QIA and NWB Annual Report for Operations* for additional details on sewage, greywater and waste generated under the Type A Water Licence during 2017.

It should be noted that wastes, with the exception of small amounts of drill cuttings generated from the 2017 drilling programs and deposited in natural depressions/sumps near drill hole locations, were not deposited under the scope of the Type B Water Licence in 2017.

SECTION 3.0 - SPILLS

Under the Type B Water Licence, there were no spills in 2017 that met or exceeded the reporting thresholds outlined in the Nunavut Spill Contingency Planning and Reporting Regulations.

SECTION 4.0 - MODIFICATIONS

Under the Type B Water Licence, modifications or major maintenance work were not undertaken on water or waste related structures during 2017.

SECTION 5.0 - MONITORING

5.1 ENVIRONMENTAL MONITORING FOR DRILLING ACTIVITIES

Daily environmental monitoring, including the completion of pre, during and post inspections, was performed at drill hole locations by on-site Environmental personnel. Protocols and mitigation measures consistent with the Project's Environmental Protection Plan (EPP; BAF-PH1-830-P16-0008) for the management of fuel, hazardous materials, and waste were employed during the 2017 drilling programs and associated activities. Examples of environmental inspections sheets completed at 2017 drill hole locations are provided in Appendix E.

Areas that were drilled in 2017 were previously assessed for the presence of archaeological sites. To minimize the potential for disturbance of cultural heritage resources and prior to the commencement of drilling operations, identified archaeological sites near areas to be drilled in 2017 were staked off and their locations communicated to the appropriate drilling crews.

5.2 2017 MARINE WATER QUALITY MONITORING PROGRAM – MILNE INLET

During late March and early April 2017, an under-ice water quality monitoring program was conducted in Milne Inlet during the execution of the marine on-ice geotechnical drilling program and associated activities. The objective of the water quality monitoring program was to monitor turbidity and total suspended solids (TSS) levels within the immediate vicinity of the on-ice drilling operations and geotechnical testing activities.

The water quality monitoring program consisted of collecting under-ice, discrete water samples within 12 hours before the commencement of geotechnical activities, and within 12 hours following the completion of activities at select on-ice drill hole and cone penetration test locations. Pre and post water samples were generally collected at a depth of approximately one (1) metre above the bottom of the water column using a Kemmerer water sampler. During the collection of water samples, in-situ parameters were monitored at sample depth using a ProDSS YSI water quality probe and subsequently recorded. Monitored in-situ parameters included pH, specific conductivity, water temperature and turbidity. Water samples were collected as described in Baffinland's Surface Water Sampling Program – Quality Assurance and Quality Control Plan (BAF-PH1-830-P16-0001) and analyzed for trace metals (total) and general parameters, including turbidity and TSS. Monitoring results for the water quality monitoring program are presented in Table 5.1.

Due to the transient and intermittent nature of the on-ice geotechnical activities, the CCME TSS and turbidity guidelines for short-term exposure in marine environments (clear flow)¹ were the applicable

¹ CCME. 1999. Canadian Water Quality Guidelines for the Protection of Aquatic Life – Total Particulate Matter.

criteria utilized for turbidity and TSS results collected during the marine on-ice water quality monitoring program.

In comparing the CCME TSS guidelines with the changes in TSS concentrations documented between pre and post drilling water samples at drilling and testing sites, changes in TSS levels did not exceed the CCME TSS guideline of a maximum increase of 25 mg/L TSS from background (pre-drilling/testing) levels, with the exception of drill hole BH17-D003 (BH17-OD2-03B). The post drilling water sample at drill hole BH17-D003 (38 mg/L TSS) showed an increase of 26 mg/L TSS from the pre-drilling sample (12 mg/L TSS). The exact cause of the minor TSS exceedance is unknown however the exceedance may have been caused by a combination of factors including sampling error, tidal sediment re-suspension and ocean bed disturbance from geotechnical drilling and testing activities. The elevated TSS result for the pre-drilling water sample (CPT17-OD2-03A) at geotechnical testing location CPT17-D003 was suspected to be caused by ocean bed disturbance (sediment re-suspension) during sample collection.

In comparing the CCME turbidity guidelines with the changes in turbidity levels documented between pre and post drilling/testing water samples and in-situ field readings, changes in turbidity levels at drilling and testing sites did not exceed the CCME turbidity guideline of a maximum increase of 8 NTUs from background (pre-drilling/testing) levels.

Baffinland will continue to monitor changes in TSS and turbidity within the proximity of on-ice drilling operations and implement the appropriate mitigation measures, as outlined in the Project's EPP.

SECTION 6.0 - RECLAMATION AND CLOSURE

6.1 PROGRESSIVE AND FINAL RECLAMATION

During 2017, progressive and final reclamation carried out under the Type B Water Licence involved the reclamation of drill hole sites associated with the 2017 exploration and geotechnical drilling programs.

Following the completion of each drill hole, as per Part I, Item 9 of the Type B Water Licence, drilling equipment was removed and drill sites were restored to their natural condition. For completed geotechnical drill sites, holes were backfilled using native material and reinstated to natural conditions. For exploration drills sites, drill hole casing was cut off near ground surface. The drill rig and supporting equipment used for the 2017 exploration program remains at Deposit No. 2 to facilitate further drilling in 2018. All hazardous materials, with the exception of a small volume of diesel (< 205 litres) at Deposit No. 2, has been removed from the drill sites associated with the 2017 geotechnical and exploration drilling programs.

Photographs taken of conditions before, during and after the completion of several drills holes performed during 2017 are provided in Appendix D, including post drilling conditions of the drill site at Deposit No. 2.

6.2 CURRENT RESTORATION LIABILITY

The current status of restoration liability for the Project, including exploration and drilling activities conducted under the Type B Water Licence, is summarized in Table 6.1.

SECTION 7.0 - PLANS, REPORTS AND STUDIES

7.1 SUMMARY OF STUDIES REQUESTED BY THE BOARD

In 2017, studies under the Type B Water Licence were not requested by the NWB.

7.2 REVISIONS TO PLANS, REPORTS AND MANUALS

An annual review of the management plans developed under the Type B Water Licence was completed in 2017. The current revisions of the Exploration Spill Contingency Plan (Rev. 0; Baffinland June 2014) and the Exploration Closure and Reclamation Plan (Rev. 1, Baffinland, July 2014) reflect current operations, protocols and procedures. The reader is referred to the *2017 QIA and NWB Annual Report for Operations* for a complete list of the Project's current management and monitoring plans and the recent revisions undertaken during 2017 and early 2018.

7.3 SUMMARY OF FUEL STORAGE

Fuel storage and refueling facilities at the Mine Site, Milne Port and Steensby Port were used to support exploration and geotechnical drilling activities in 2017.

Fuel requirements for exploration activities in 2017 consisted of Jet-A1 fuel, for on-site helicopters transporting crews and equipment to prospects, mineral leases and drill sites, and diesel fuel (P50), for drill site operations and support equipment (i.e. pick-up trucks). Jet-A1 fuel requirements for exploration activities were supplied using drummed Jet-A1 fuel stored in lined containment berms at the Mine Site and Steensby Port. Diesel fuel requirements for exploration activities were supplied by the Mine Site and Milne Port bulk fuel storage facilities (tank farms).

Fuel requirements for the 2017 geotechnical drilling programs consisted of diesel fuel (P50) supplied by the Mine Site and Milne Port bulk fuel storage facilities (tank farms). The drill rig and supporting equipment (Nodwell flatdeck, skidsteer) were refueled using pick-up trucks equipped with double walled portable tanks (tidy tanks).

To safeguard impacts to freshwater bodies and mitigate fuel spills, fueling activities adhered to the protocols and mitigation measures (i.e. spill trays, spill kits) outlined in Baffinland's current EPP and Exploration Spill Contingency Plan.

As of December 31st, 2017 there were 1,504 drums (205 L) of fuel (624 diesel and 880 Jet-A1) stored at Steensby Port and 416 drums (205 L) of fuel (408 Jet-A1 and 8 gasoline) at the Mine Site. Drummed fuel at the Mine Site and Steensby Port are stored within lined secondary containment structures. End of year fuel inventories for the Mine Site and Milne Port bulk fuel storage facilities, regulated under the Type A Water Licence, are provided in the *2017 QIA and NWB Annual Report for Operations*.

As previously mentioned, the drill rig and supporting equipment used for the 2017 exploration program remains at Deposit No. 2 to facilitate further drilling in 2018. All hazardous materials, with the exception of a small volume of diesel (< 205 litres) stored in lined secondary containment at Deposit No. 2, have been removed from the 2017 drill sites.

7.4 INSPECTION AND COMPLIANCE REPORTS

During 2017, Baffinland did not receive any inspection and/or compliance reports from the Inspector (INAC) outlining concerns pertaining to the scope of the Type B Water Licence.

7.5 SUMMARY OF ARTESIAN FLOWS

During the 2017 geotechnical and exploration drilling programs, artesian flows were not observed at any of the drill hole locations.

7.6 SUMMARY OF GEOCHEMICAL ANALYSIS OF DRILL CORES

As of March 31st, 2018, geochemical analysis of the geotechnical drill cores collected during 2017 has not been completed and is not planned at this time.

As of March 31st, 2018, geochemical analysis of the drill cores collected during the exploration drilling programs at Deposits No. 1 and No. 2 has not been completed and is currently under review.

SECTION 8.0 - PUBLIC CONSULTATIONS

Throughout 2017, Baffinland continued to consult with the Baffin communities and organizations regarding; ongoing construction activities at the Project, operations and the 2017 shipping season, progress regarding employment from the North Baffin communities, environmental monitoring activities and results, and future phases of the Project. Baffinland's senior management team continued to participate in these meetings. A list of public meetings held at North Baffin communities during 2017 is presented in Table 8.1. The reader is referred to the *2017 NIRB Annual Report* for further details on consultations and meetings held with regulators, stakeholders and the public during 2017.

SECTION 9.0 - 2018 EXPLORATION AND GEOTECHNICAL ACTIVITIES

The 2018 Work Plan was prepared and provided by Baffinland to relevant parties on November 6, 2017 as required under Section 6.1 of the Commercial Lease and under Part J, Item 3 of the Type A Water Licence, for the purposes of an Annual Security Review (ASR) for activities undertaken on an annual basis. The 2018 Work Plan described the planned development and operation of the Project in 2018, including planned exploration and geotechnical drilling activities. Following discussions with the NWB, QIA and INAC to clarify the scope of the ASR, a revision of the 2018 Work Plan (Rev. 1), dated January 10, 2018, was issued to relevant parties.

The scope of Baffinland's Type B Water Licence and Commercial Lease allows for Baffinland to continue to undertake exploration activities and drilling programs at Project areas and Baffinland's mineral leases within the Qikiqtani Region of Nunavut. This includes exploration land use areas as defined in Section 2.2 of the Commercial Lease.

Exploration activities for 2018 have not yet been finalized however it is anticipated that activities at a minimum will include mapping, sampling and geophysical and geochemical surveys of prospects and Baffinland's mineral leases and may include additional exploration drilling programs on Deposits No. 1 and No. 2. Notification will be provided to QIA and NWB prior to the commencement of proposed exploration drilling activities.

Geotechnical activities, including drilling programs, will be conducted during 2018 to support on-going engineering design studies for future Project infrastructure. Notification was provided to the NWB and QIA on December 13, 2017 regarding the scope of geotechnical drilling activities to be carried out in January 2018. The drilling program consists of six (6) drill holes within the Tote Road corridor at potential bridge installations associated with the railway proposed in the Phase 2 Expansion, as well as ten (10) marine on-ice drill hole locations associated with the proposed location of the second ore dock in the Phase 2 Expansion. Should additional geotechnical drilling activities be identified for 2018, notification will be provided to the QIA and NWB prior to commencement of the activities.

Operation of the Steensby and Mid Rail camps to support exploration activities are not anticipated to be required during 2018 however the establishment of a new exploration camp at the Ege Bay location is currently being evaluated. Permits and approvals required to establish the exploration camp at Ege Bay in 2018 are currently being reviewed by Baffinland's Sustainable Development department.

TABLES

Table 1.1 – 2017 Exploration and Geotechnical Drill Hole and Cone Penetration Test Locations

<u>No.</u>	<u>Type</u> ^{1,2}	Drill Hole ID	UTM ³		Latitude / Longitude	
			Easting	Northing	Latitude	Longitude
1	Geotechnical (DH)	BH17-13	503159	7975912	N 71 52 59.7	W 80 54 32.3
2	Geotechnical (DH)	BH17-12	503180	7975752	N 71 52 54.5	W 80 54 30.2
3	Geotechnical (DH)	BH17-14	503187	7975913	N 71 52 59.7	W 80 54 29.4
4	Geotechnical (DH)	BH17-15	503222	7975913	N 71 52 59.7	W 80 54 25.8
5	Geotechnical (DH)	BH17-11	503268	7976025	N 71 53 03.3	W 80 54 21.0
6	Geotechnical (DH)	BH17-10	503476	7974905	N 71 52 27.2	W 80 53 59.6
7	Geotechnical (DH)	BH17-EBC-8	503529	7976310	N 71 53 12.5	W 80 53 53.9
8	Geotechnical (DH)	BH17-EBC-9	503548	7976372	N 71 53 14.5	W 80 53 51.9
9	Geotechnical (DH)	BH17-RD-4	503594	7975136	N 71 52 34.6	W 80 53 47.3
10	Geotechnical (DH)	BH17-RD-5	503596	7974811	N 71 52 24.1	W 80 53 47.2
11	Geotechnical (DH)	BH17-RD-3	503599	7975985	N 71 53 02.0	W 80 53 46.7
12	Geotechnical (CPT)	CPT17-D001	503607	7976721	N 71 53 25.8	W 80 53 45.7
13	Geotechnical (DH)	BH17-D003	503607	7976721	N 71 19 00.5	W 80 53 45.5
14	Geotechnical (CPT)	CPT17-D008	503632	7976651	N 71 53 23.5	W 80 53 43.1
15	Geotechnical (DH)	BH17-D001	503641	7976669	N 71 53 24.1	W 80 53 42.2
16	Geotechnical (CPT)	CPT17-D004	503648	7976767	N 71 53 27.3	W 80 53 41.4
17	Geotechnical (DH)	BH17-D006	503690	7976791	N 71 53 28.0	W 80 53 37.1
18	Geotechnical (DH)	BH17-D004	503697	7976731	N 71 53 26.1	W 80 53 36.4
19	Geotechnical (CPT)	CPT17-D002	503697	7976731	N 71 53 26.1	W 80 53 36.4
20	Geotechnical (CPT)	CPT17-D005	503737	7976776	N 71 53 27.5	W 80 53 32.2
21	Geotechnical (DH)	BH17-D002	503764	7976683	N 71 19 00.5	W 80 53 29.5
22	Geotechnical (CPT)	CPT17-D007	503765	7976686	N 71 53 24.6	W 80 53 29.3
23	Geotechnical (DH)	BH17-M008-R	503771	7974959	N 71 52 28.9	W 80 53 29.0
24	Geotechnical (DH)	BH17-EBC-1	503782	7974921	N 71 52 27.7	W 80 53 27.9
25	Geotechnical (CPT)	CPT17-D003	503786	7976741	N 71 53 26.4	W 80 53 27.1
26	Geotechnical (DH)	BH17-D005	503786	7976741	N 71 53 26.4	W 80 53 27.1

No.	Type ^{1,2}	Drill Hole ID	UTM ³		Latitude / Longitude	
			Easting	Northing	Latitude	Longitude
27	Geotechnical (DH)	BH17-EBC-2	503791	7974895	N 71 52 26.8	W 80 53 27.0
28	Geotechnical (CPT)	CPT17-D006	503806	7976810	N 71 53 28.6	W 80 53 25.0
29	Geotechnical (DH)	BH17-RD-2	503872	7976162	N 71 53 07.7	W 80 53 18.3
30	Geotechnical (DH)	BH17-RD-7	503896	7974423	N 71 52 11.6	W 80 53 16.2
31	Geotechnical (DH)	BH17-RD-6	503922	7974286	N 71 52 07.2	W 80 53 13.5
32	Geotechnical (DH)	BH17-CAMP-1	503961	7976147	N 71 53 07.2	W 80 53 09.1
33	Geotechnical (DH)	BH17-RD-1C	504075	7976302	N 71 53 12.2	W 80 52 57.2
34	Geotechnical (DH)	BH17-RD-1A	504090	7976463	N 71 53 17.4	W 80 52 55.6
35	Geotechnical (DH)	BH17-RD-1	504095	7976552	N 71 53 20.3	W 80 52 55.1
36	Geotechnical (DH)	BH17-RD-1B	504100	7976398	N 71 53 15.3	W 80 52 54.6
37	Geotechnical (DH)	BH17-C001	509838	7967861	N 71 48 39.2	W 80 43 03.5
38	Geotechnical (DH)	BH17-C002	519532	7957667	N 71 43 08.0	W 80 26 31.6
39	Geotechnical (DH)	BH17-C003	520130	7957541	N 71 43 03.7	W 80 25 30.2
40	Geotechnical (DH)	BH17-C004	520486	7956367	N 71 42 25.7	W 80 24 54.8
41	Geotechnical (DH)	BH17-C005	525227	7938527	N 71 32 48.3	W 80 17 09.3
42	Geotechnical (DH)	BH17-C006	527315	7932504	N 71 29 33.1	W 80 13 44.4
43	Geotechnical (DH)	BH17-C007	528564	7917138	N 71 21 16.7	W 80 11 58.2
44	Geotechnical (DH)	BH17-C008	529031	7916747	N 71 21 03.8	W 80 11 11.6
45	Geotechnical (DH)	BH17-C009	529323	7916577	N 71 20 58.2	W 80 10 42.4
46	Geotechnical (DH)	BH17-C010	529961	7916702	N 71 21 02.0	W 80 09 37.8
47	Geotechnical (DH)	BH17-C011	532072	7917478	N 71 21 26.0	W 80 06 03.8
48	Geotechnical (DH)	BH17-C012	533228	7918553	N 71 22 00.2	W 80 04 05.5
49	Geotechnical (DH)	BH17-C013	534196	7918569	N 71 22 00.2	W 80 02 27.7
50	Geotechnical (DH)	BH17-BR86-1	542257	7922182	N 71 23 52.2	W 79 48 47.0
51	Geotechnical (DH)	BH17-BR86-2	542269	7922172	N 71 23 51.8	W 79 48 46.0
52	Geotechnical (DH)	BH17-BR86-3	542304	7922143	N 71 23 50.9	W 79 48 42.3
53	Geotechnical (DH)	Hole 1	558022	7914776	N 71 19 41.4	W 79 22 33.6

No.	Type ^{1,2}	Drill Hole ID	UTM ³		Latitude / Longitude	
			Easting	Northing	Latitude	Longitude
54	Geotechnical (DH)	Hole 2	558282	7914635	N 71 19 36.6	W 79 22 07.8
55	Geotechnical (DH)	Hole 3	558574	7914438	N 71 19 30.0	W 79 21 39.0
56	Geotechnical (DH)	Hole 4	558715	7914349	N 71 19 27.0	W 79 21 25.0
57	Geotechnical (DH)	Hole 5	558948	7914200	N 71 19 22.0	W 79 21 02.0
58	Geotechnical (DH)	Hole 6	559179	7914083	N 71 19 18.0	W 79 20 39.0
50	Geotechnical (DH)	Hole 7	559434	7913873	N 71 19 11.0	W 79 20 13.9
60	Geotechnical (DH)	Hole 8	559463	7913874	N 71 19 11.0	W 79 20 11.0
61	Geotechnical (DH)	Hole 9	559564	7913815	N 71 19 09.0	W 79 20 01.0
62	Geotechnical (DH)	Hole 10	559195	7914239	N 71 19 23.0	W 79 20 37.0
63	Geotechnical (DH)	Hole 11	559185	7914238	N 71 19 23.0	W 79 20 38.0
64	Exploration (DH)	MR1-17-P11	562972	7914192	N 71 19 18.1	W 79 14 16.9
65	Exploration (DH)	MR1-17-P12	562955	7914105	N 71 19 15.3	W 79 14 18.8
66	Exploration (DH)	MR1-17-P13	562962	7914072	N 71 19 14.2	W 79 14 18.2
67	Exploration (DH)	MR1-17-P8	563016	7914309	N 71 19 21.8	W 79 14 12.1
68	Exploration (DH)	MR1-17-P9	562987	7914239	N 71 19 19.6	W 79 14 15.2
69	Exploration (DH)	MR2-17-P1	566851	7914123	N 71 19 12.1	W 79 07 46.6

Notes:

¹ Geotechnical (DH), refers to a geotechnical drill hole

² Geotechnical (CPT), refers to a geotechnical cone penetration test

³ Zone 17W, NAD 83

Table 2.1 – 2017 Drilling Water Source Locations

Description	UTM ¹		Latitude / Longitude	
	Easting	Northing	Latitude	Longitude
	(m)	(m)		
Km 32 Lake	521547	7953735	N 71 41 00.0	W 80 23 09.0
Mary River	567785	7912735	N 71 18 26.4	W 79 06 17.0
Km 105 Check Dam (Mine Haul Road)	563840	7913115	N 71 18 42.5	W 79 12 52.7
Mine Site Waste Rock Facility (WRF - MS-08)	562856	7916782	N 71 20 41.7	W 79 14 20.9

Notes:

¹ Zone 17W, NAD 83

Table 2.2 – Water Use for 2017 Drilling Activities

Day	July	August			September		
	WRF	WRF	Mary River	Km 105 Check Dam	Mary River	Km 105 Check Dam	Km 32 Lake
1	0.0	54.3	0.0	0.0	58.7	79.6	0.0
2	0.0	49.4	0.0	0.0	0.0	132.7	0.0
3	0.0	57.6	0.0	0.0	0.0	0.0	0.0
4	0.0	66.4	0.0	0.0	0.0	53.1	0.0
5	0.0	57.4	0.0	0.0	0.0	79.6	0.0
6	0.0	57.0	0.0	0.0	0.0	79.6	0.0
7	0.0	64.3	0.0	0.0	0.0	53.1	0.0
8	0.0	62.4	0.0	0.0	0.0	53.1	0.0
9	0.0	62.3	0.0	0.0	0.0	0.0	0.0
10	0.0	23.5	0.0	0.0	0.0	0.0	0.0
11	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	0.0	0.0	0.0	60.6	0.0	0.0	0.0
13	0.0	0.0	0.0	75.8	0.0	0.0	0.0
14	0.0	0.0	0.0	45.5	0.0	0.0	0.0
15	0.0	33.1	0.0	0.0	0.0	0.0	0.0
16	0.0	64.1	0.0	0.0	0.0	0.0	0.0
17	0.0	62.9	0.0	0.0	0.0	0.0	2.0
18	0.0	63.0	0.0	0.0	0.0	0.0	2.5
19	0.0	18.0	0.0	0.0	0.0	0.0	3.0
20	0.0	63.1	0.0	0.0	0.0	0.0	1.0
21	0.0	60.6	0.0	0.0	0.0	0.0	1.0
22	0.0	0.0	11.1	0.0	0.0	0.0	2.5
23	0.0	0.0	103.8	0.0	0.0	0.0	3.0
24	0.0	0.0	92.0	0.0	0.0	0.0	3.0
25	0.0	0.0	64.5	0.0	0.0	0.0	4.0
26	25.8	0.0	49.2	79.6	0.0	0.0	0.0
27	61.2	0.0	75.2	79.6	0.0	0.0	0.0
28	66.5	0.0	54.9	79.6	0.0	0.0	0.0
29	68.8	0.0	44.8	106.1	0.0	0.0	0.0
30	63.4	0.0	73.8	53.1	0.0	0.0	0.0
31	64.5	0.0	60.6	0.0	0.0	0.0	0.0
Total	350.1	919.7	629.8	579.9	58.7	530.6	22.0

Notes:

All volumes are in cubic metres (m³).

Table 5.1 – 2017 Marine Water Quality Monitoring Results - Milne Inlet

ANALYTE	Drill Hole/CPT ID	BH17-D002			BH17-D005	
	Date	21-Mar-17	21-Mar-17	24-Mar-17	24-Mar-17	26-Mar-17
	Time	16:05	16:20	9:00	10:00	8:35
	Sample ID	BH17-OD2-0204	BH17-OD2-02A	BH17-OD2-02B	BH17-OD2-05A	BH17-OD2-05B
	ALS Laboratory ID	L1903965-1	L1903965-2	L1905286-1	L1905286-2	L1905350-1
	Sample Type	Equipment Blank	Pre-Drilling	Post-Drilling	Pre-Drilling	Post-Drilling
LABORATORY RESULTS						
General Parameters		Unit	MDL			
pH	<i>pH Units</i>	0.1	5.84	7.8	7.79	7.86
Total Suspended Solids (TSS)	<i>mg/L</i>	2	<2.0	20.4	4	4
Total Dissolved Solids (TDS)	<i>mg/L</i>	20	<20	29900	32000	32800
Turbidity	<i>NTU</i>	0.1	0.19	0.55	0.13	0.26
Total Metals						
Aluminum (Al)-Total	<i>mg/L</i>	0.01	<0.010	<1.0	<1.0	<1.0
Antimony (Sb)-Total	<i>mg/L</i>	0.0001	0.00012	<0.010	<0.010	<0.010
Arsenic (As)-Total	<i>mg/L</i>	0.0001	<0.00010	<0.010	<0.010	<0.010
Barium (Ba)-Total	<i>mg/L</i>	0.0002	0.00023	<0.020	<0.020	<0.020
Beryllium (Be)-Total	<i>mg/L</i>	0.0001	<0.00010	<0.010	<0.010	<0.010
Bismuth (Bi)-Total	<i>mg/L</i>	0.00005	<0.000050	<0.0050	<0.0050	<0.0050
Boron (B)-Total	<i>mg/L</i>	0.01	<0.010	4	4.2	4.1
Cadmium (Cd)-Total	<i>mg/L</i>	0.00001	<0.000010	<0.0010	<0.0010	<0.0010
Calcium (Ca)-Total	<i>mg/L</i>	0.5	<0.50	387	398	384
Cesium (Cs)-Total	<i>mg/L</i>	0.00001	<0.000010	<0.0010	<0.0010	<0.0010
Chromium (Cr)-Total	<i>mg/L</i>	0.0005	<0.00050	<0.050	<0.050	<0.050
Cobalt (Co)-Total	<i>mg/L</i>	0.0001	<0.00010	<0.010	<0.010	<0.010
Copper (Cu)-Total	<i>mg/L</i>	0.001	<0.0010	<0.10	<0.10	<0.10
Iron (Fe)-Total	<i>mg/L</i>	0.05	<0.050	<5.0	<5.0	<5.0
Lead (Pb)-Total	<i>mg/L</i>	0.00005	<0.000050	<0.0050	<0.0050	<0.0050
Lithium (Li)-Total	<i>mg/L</i>	0.001	<0.0010	0.12	0.14	0.13
Magnesium (Mg)-Total	<i>mg/L</i>	0.05	<0.050	1260	1200	1250
Manganese (Mn)-Total	<i>mg/L</i>	0.0005	<0.00050	<0.050	<0.050	<0.050
Molybdenum (Mo)-Total	<i>mg/L</i>	0.00005	<0.000050	0.0102	0.0099	0.0095
Nickel (Ni)-Total	<i>mg/L</i>	0.0005	0.00072	<0.050	<0.050	<0.050
Phosphorus (P)-Total	<i>mg/L</i>	0.05	<0.050	<5.0	<5.0	<5.0
Potassium (K)-Total	<i>mg/L</i>	0.05	<0.050	384	393	368
Rubidium (Rb)-Total	<i>mg/L</i>	0.0002	<0.00020	0.111	0.108	0.109
Selenium (Se)-Total	<i>mg/L</i>	0.00005	<0.000050	<0.0050	<0.0050	<0.0050
Silicon (Si)-Total	<i>mg/L</i>	0.1	<0.10	<10	<10	<10
Silver (Ag)-Total	<i>mg/L</i>	0.00005	<0.000050	<0.0050	<0.0050	<0.0050
Sodium (Na)-Total	<i>mg/L</i>	0.5	<0.50	10100	9780	9930
Strontium (Sr)-Total	<i>mg/L</i>	0.001	<0.0010	6.9	6.89	6.69
Sulfur (S)-Total	<i>mg/L</i>	0.5	<0.50	898	924	874
Tellurium (Te)-Total	<i>mg/L</i>	0.0002	<0.00020	<0.020	<0.020	<0.020
Thallium (Tl)-Total	<i>mg/L</i>	0.00001	<0.000010	<0.0010	<0.0010	<0.0010
Thorium (Th)-Total	<i>mg/L</i>	0.0001	<0.00010	<0.010	<0.010	<0.010
Tin (Sn)-Total	<i>mg/L</i>	0.0001	0.00023	<0.010	<0.010	<0.010
Titanium (Ti)-Total	<i>mg/L</i>	0.0003	<0.00030	<0.030	<0.030	<0.030
Tungsten (W)-Total	<i>mg/L</i>	0.0001	<0.00010	<0.010	<0.010	<0.010
Uranium (U)-Total	<i>mg/L</i>	0.00001	<0.000010	0.0029	0.0031	0.003
Vanadium (V)-Total	<i>mg/L</i>	0.0005	<0.00050	<0.050	<0.050	<0.050
Zinc (Zn)-Total	<i>mg/L</i>	0.003	<0.0030	<0.30	<0.30	<0.30
Zirconium (Zr)-Total	<i>mg/L</i>	0.0003	<0.00030	<0.030	<0.030	<0.030
FIELD PARAMETERS		Unit				
Water Temperature	<i>°C</i>	--	--	-0.2	-0.5	-1.7
Specific Conductivity	<i>µS/cm</i>	--	--	44065	--	97940
pH	<i>pH Units</i>	--	--	7.45	7	7.56
Turbidity	<i>NTU</i>	--	--	0.3	0.9	10.1

Table 5.1 – 2017 Marine Water Quality Monitoring Results - Milne Inlet cont'd

ANALYTE	Drill Hole/CPT ID	BH17-D004		BH17-D003			
	Date	26-Mar-17	28-Mar-17	28-Mar-17	31-Mar-17	31-Mar-17	
	Time	9:25	10:30	11:15	15:00	15:00	
	Sample ID	BH17-OD2-04A	BH17-OD2-04B	BH17-OD2-03A	BH17-OD2-03B	BH17-OD2-03B03	
	ALS Laboratory ID	L1905350-2	L1906995-1	L1906995-2	L1907872-1	L1907872-2	
	Sample Type	Pre-Drilling	Post-Drilling	Pre-Drilling	Post-Drilling	Travel Blank	
LABORATORY RESULTS							
General Parameters	Unit	MDL					
pH	<i>pH Units</i>	0.1	7.8	7.81	7.85	7.81	5.72
Total Suspended Solids (TSS)	<i>mg/L</i>	2	4.8	15.2	12	38	<2.0
Total Dissolved Solids (TDS)	<i>mg/L</i>	20	31700	32000	32800	32400	80
Turbidity	<i>NTU</i>	0.1	0.16	0.18	0.13	0.18	<0.10
Total Metals							
Aluminum (Al)-Total	<i>mg/L</i>	0.01	<1.0	<1.0	<1.0	<1.0	<0.010
Antimony (Sb)-Total	<i>mg/L</i>	0.0001	<0.010	<0.010	<0.010	<0.010	<0.00010
Arsenic (As)-Total	<i>mg/L</i>	0.0001	<0.010	<0.010	<0.010	<0.010	<0.00010
Barium (Ba)-Total	<i>mg/L</i>	0.0002	<0.020	<0.020	<0.020	<0.020	<0.00020
Beryllium (Be)-Total	<i>mg/L</i>	0.0001	<0.010	<0.010	<0.010	<0.010	<0.00010
Bismuth (Bi)-Total	<i>mg/L</i>	0.00005	<0.0050	<0.0050	<0.0050	<0.0050	<0.000050
Boron (B)-Total	<i>mg/L</i>	0.01	4.3	4.4	4.5	4.5	<0.010
Cadmium (Cd)-Total	<i>mg/L</i>	0.00001	<0.0010	<0.0010	<0.0010	<0.0010	<0.000010
Calcium (Ca)-Total	<i>mg/L</i>	0.5	390	382	380	395	<0.50
Cesium (Cs)-Total	<i>mg/L</i>	0.00001	<0.0010	<0.0010	<0.0010	<0.0010	<0.000010
Chromium (Cr)-Total	<i>mg/L</i>	0.0005	<0.050	<0.050	<0.050	<0.050	0.00096
Cobalt (Co)-Total	<i>mg/L</i>	0.0001	<0.010	<0.010	<0.010	<0.010	<0.00010
Copper (Cu)-Total	<i>mg/L</i>	0.001	<0.10	<0.10	<0.10	<0.10	<0.0010
Iron (Fe)-Total	<i>mg/L</i>	0.05	<5.0	<5.0	<5.0	<5.0	<0.050
Lead (Pb)-Total	<i>mg/L</i>	0.00005	<0.0050	<0.0050	<0.0050	<0.0050	<0.000050
Lithium (Li)-Total	<i>mg/L</i>	0.001	0.16	0.19	0.18	0.18	<0.0010
Magnesium (Mg)-Total	<i>mg/L</i>	0.05	1230	1210	1230	1220	<0.050
Manganese (Mn)-Total	<i>mg/L</i>	0.0005	<0.050	<0.050	<0.050	<0.050	<0.00050
Molybdenum (Mo)-Total	<i>mg/L</i>	0.00005	0.0101	0.0102	0.0100	0.0105	<0.000050
Nickel (Ni)-Total	<i>mg/L</i>	0.0005	<0.050	<0.050	<0.050	<0.050	<0.00050
Phosphorus (P)-Total	<i>mg/L</i>	0.05	<5.0	<5.0	<5.0	<5.0	<0.050
Potassium (K)-Total	<i>mg/L</i>	0.05	392	369	386	380	<0.050
Rubidium (Rb)-Total	<i>mg/L</i>	0.0002	0.111	0.107	0.106	0.111	<0.00020
Selenium (Se)-Total	<i>mg/L</i>	0.00005	<0.0050	<0.0050	<0.0050	<0.0050	<0.000050
Silicon (Si)-Total	<i>mg/L</i>	0.1	<10	<10	<10	<10	0.21
Silver (Ag)-Total	<i>mg/L</i>	0.00005	<0.0050	<0.0050	<0.0050	<0.0050	<0.000050
Sodium (Na)-Total	<i>mg/L</i>	0.5	9790	9840	10500	10400	<0.50
Strontium (Sr)-Total	<i>mg/L</i>	0.001	6.78	6.68	6.71	7.11	<0.0010
Sulfur (S)-Total	<i>mg/L</i>	0.5	904	877	914	891	<0.50
Tellurium (Te)-Total	<i>mg/L</i>	0.0002	<0.020	<0.020	<0.020	<0.020	<0.00020
Thallium (Tl)-Total	<i>mg/L</i>	0.00001	<0.0010	<0.0010	<0.0010	<0.0010	<0.000010
Thorium (Th)-Total	<i>mg/L</i>	0.0001	<0.010	<0.010	<0.010	<0.010	<0.00010
Tin (Sn)-Total	<i>mg/L</i>	0.0001	<0.010	<0.010	<0.010	<0.010	<0.00010
Titanium (Ti)-Total	<i>mg/L</i>	0.0003	<0.030	<0.030	<0.030	<0.030	<0.00030
Tungsten (W)-Total	<i>mg/L</i>	0.0001	<0.010	<0.010	<0.010	<0.010	<0.00010
Uranium (U)-Total	<i>mg/L</i>	0.00001	0.003	0.0031	0.0029	0.0033	<0.000010
Vanadium (V)-Total	<i>mg/L</i>	0.0005	<0.050	<0.050	<0.050	<0.050	<0.00050
Zinc (Zn)-Total	<i>mg/L</i>	0.003	<0.30	<0.30	<0.30	<0.30	<0.0030
Zirconium (Zr)-Total	<i>mg/L</i>	0.0003	<0.030	<0.030	<0.030	<0.030	<0.00030
FIELD PARAMETERS							
	Unit						
Water Temperature	°C		-1.7	-1.4	-1.5	-0.9	--
Specific Conductivity	<i>µS/cm</i>		36655	19510	35204	35718	--
pH	<i>pH Units</i>		7.52	7.37	7.4	7.72	--
Turbidity	<i>NTU</i>		18.1	1.8	15.5	0.4	--

Table 5.1 – 2017 Marine Water Quality Monitoring Results - Milne Inlet cont'd

ANALYTE	Drill Hole/CPT ID	BH17-D006			CPT17-D005		
	Date	01-Apr-17	01-Apr-17	02-Apr-17	02-Apr-17	04-Apr-17	
	Time	16:30	16:30	16:15	17:00	10:30	
	Sample ID	BH17-OD2-06A	BH17-OD2-06A01	BH17-OD2-06B	CPT17-OD2-05	CPT17-OD2-05B	
	ALS Laboratory ID	L1907875-1	L1907875-2	L1907947-1	L1907947-2	L1909031-1	
	Sample Type	Pre-Drilling	Duplicate	Post-Drilling	Pre-Drilling	Post-Drilling	
LABORATORY RESULTS							
General Parameters	Unit	MDL					
pH	<i>pH Units</i>	0.1	7.78	7.8	7.85	7.83	7.84
Total Suspended Solids (TSS)	<i>mg/L</i>	2	18.8	16.5	22.4	27.6	12.8
Total Dissolved Solids (TDS)	<i>mg/L</i>	20	32700	31800	31900	33300	34000
Turbidity	<i>NTU</i>	0.1	0.14	0.26	0.13	0.13	<0.10
Total Metals							
Aluminum (Al)-Total	<i>mg/L</i>	0.01	<1.0	<1.0	<1.0	<1.0	<1.0
Antimony (Sb)-Total	<i>mg/L</i>	0.0001	<0.010	<0.010	<0.010	<0.010	<0.010
Arsenic (As)-Total	<i>mg/L</i>	0.0001	<0.010	<0.010	<0.010	<0.010	<0.010
Barium (Ba)-Total	<i>mg/L</i>	0.0002	<0.020	<0.020	<0.020	<0.020	<0.020
Beryllium (Be)-Total	<i>mg/L</i>	0.0001	<0.010	<0.010	<0.010	<0.010	<0.010
Bismuth (Bi)-Total	<i>mg/L</i>	0.00005	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Boron (B)-Total	<i>mg/L</i>	0.01	4.6	4.5	4.8	4.6	4.4
Cadmium (Cd)-Total	<i>mg/L</i>	0.00001	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Calcium (Ca)-Total	<i>mg/L</i>	0.5	400	387	411	397	380
Cesium (Cs)-Total	<i>mg/L</i>	0.00001	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Chromium (Cr)-Total	<i>mg/L</i>	0.0005	<0.050	<0.050	<0.050	<0.050	<0.050
Cobalt (Co)-Total	<i>mg/L</i>	0.0001	<0.010	<0.010	<0.010	<0.010	<0.010
Copper (Cu)-Total	<i>mg/L</i>	0.001	<0.10	<0.10	<0.10	<0.10	<0.10
Iron (Fe)-Total	<i>mg/L</i>	0.05	<5.0	<5.0	<5.0	<5.0	<5.0
Lead (Pb)-Total	<i>mg/L</i>	0.00005	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Lithium (Li)-Total	<i>mg/L</i>	0.001	0.19	0.18	0.21	0.19	0.21
Magnesium (Mg)-Total	<i>mg/L</i>	0.05	1230	1230	1270	1230	1220
Manganese (Mn)-Total	<i>mg/L</i>	0.0005	<0.050	<0.050	<0.050	<0.050	<0.050
Molybdenum (Mo)-Total	<i>mg/L</i>	0.00005	0.0107	0.0108	0.0115	0.0103	0.01
Nickel (Ni)-Total	<i>mg/L</i>	0.0005	<0.050	<0.050	<0.050	<0.050	<0.050
Phosphorus (P)-Total	<i>mg/L</i>	0.05	<5.0	<5.0	<5.0	<5.0	<5.0
Potassium (K)-Total	<i>mg/L</i>	0.05	376	382	400	382	379
Rubidium (Rb)-Total	<i>mg/L</i>	0.0002	0.111	0.107	0.106	0.107	0.108
Selenium (Se)-Total	<i>mg/L</i>	0.00005	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Silicon (Si)-Total	<i>mg/L</i>	0.1	<10	<10	<10	<10	<10
Silver (Ag)-Total	<i>mg/L</i>	0.00005	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Sodium (Na)-Total	<i>mg/L</i>	0.5	10500	10600	10600	10600	10200
Strontium (Sr)-Total	<i>mg/L</i>	0.001	7.11	6.85	7.23	6.9	6.88
Sulfur (S)-Total	<i>mg/L</i>	0.5	929	924	916	917	894
Tellurium (Te)-Total	<i>mg/L</i>	0.0002	<0.020	<0.020	<0.020	<0.020	<0.020
Thallium (Tl)-Total	<i>mg/L</i>	0.00001	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Thorium (Th)-Total	<i>mg/L</i>	0.0001	<0.010	<0.010	<0.010	<0.010	<0.010
Tin (Sn)-Total	<i>mg/L</i>	0.0001	<0.010	<0.010	<0.010	<0.010	<0.010
Titanium (Ti)-Total	<i>mg/L</i>	0.0003	<0.030	<0.030	<0.030	<0.030	<0.030
Tungsten (W)-Total	<i>mg/L</i>	0.0001	<0.010	<0.010	<0.010	<0.010	<0.010
Uranium (U)-Total	<i>mg/L</i>	0.00001	0.0032	0.0032	0.0032	0.0032	0.0031
Vanadium (V)-Total	<i>mg/L</i>	0.0005	<0.050	<0.050	<0.050	<0.050	<0.050
Zinc (Zn)-Total	<i>mg/L</i>	0.003	<0.30	<0.30	<0.30	<0.30	<0.30
Zirconium (Zr)-Total	<i>mg/L</i>	0.0003	<0.030	<0.030	<0.030	<0.030	<0.030
FIELD PARAMETERS							
	Unit						
Water Temperature	°C		-0.8	-0.8	0.2	-1.2	-1.1
Specific Conductivity	<i>µS/cm</i>		37348	37348	36723	36684	36732
pH	<i>pH Units</i>		7.81	7.81	7.51	7.61	7.69
Turbidity	<i>NTU</i>		9.7	9.7	1	0.1	-0.1

Table 5.1 - 2017 Marine Water Quality Monitoring Results - Milne Inlet cont'd

ANALYTE	Drill Hole/CPT ID		CPT17-D003	
	Date		06-Apr-17	06-Apr-17
	Time		11:40	15:50
	Sample ID		CPT17-OD2-03A	CPT17-OD2-03B
	ALS Laboratory ID		L1910733-1	L1910733-2
	Sample Type		Pre-Drilling	Post-Drilling
LABORATORY RESULTS				
General Parameters		Unit	MDL	
pH	<i>pH Units</i>	0.1	7.78	7.79
Total Suspended Solids (TSS)	<i>mg/L</i>	2	463	15.2
Total Dissolved Solids (TDS)	<i>mg/L</i>	20	27000	33400
Turbidity	<i>NTU</i>	0.1	182	1.55
Total Metals				
Aluminum (Al)-Total	<i>mg/L</i>	0.01	<1.0	<1.0
Antimony (Sb)-Total	<i>mg/L</i>	0.0001	<0.010	<0.010
Arsenic (As)-Total	<i>mg/L</i>	0.0001	<0.010	<0.010
Barium (Ba)-Total	<i>mg/L</i>	0.0002	<0.020	<0.020
Beryllium (Be)-Total	<i>mg/L</i>	0.0001	<0.010	<0.010
Bismuth (Bi)-Total	<i>mg/L</i>	0.00005	<0.0050	<0.0050
Boron (B)-Total	<i>mg/L</i>	0.01	4.4	4.4
Cadmium (Cd)-Total	<i>mg/L</i>	0.00001	<0.0010	<0.0010
Calcium (Ca)-Total	<i>mg/L</i>	0.5	385	387
Cesium (Cs)-Total	<i>mg/L</i>	0.00001	<0.0010	<0.0010
Chromium (Cr)-Total	<i>mg/L</i>	0.0005	<0.050	<0.050
Cobalt (Co)-Total	<i>mg/L</i>	0.0001	<0.010	<0.010
Copper (Cu)-Total	<i>mg/L</i>	0.001	<0.10	<0.10
Iron (Fe)-Total	<i>mg/L</i>	0.05	<5.0	<5.0
Lead (Pb)-Total	<i>mg/L</i>	0.00005	<0.0050	<0.0050
Lithium (Li)-Total	<i>mg/L</i>	0.001	0.22	0.22
Magnesium (Mg)-Total	<i>mg/L</i>	0.05	1210	1220
Manganese (Mn)-Total	<i>mg/L</i>	0.0005	<0.050	<0.050
Molybdenum (Mo)-Total	<i>mg/L</i>	0.00005	0.0093	0.0097
Nickel (Ni)-Total	<i>mg/L</i>	0.0005	<0.050	<0.050
Phosphorus (P)-Total	<i>mg/L</i>	0.05	<5.0	<5.0
Potassium (K)-Total	<i>mg/L</i>	0.05	372	390
Rubidium (Rb)-Total	<i>mg/L</i>	0.0002	0.103	0.104
Selenium (Se)-Total	<i>mg/L</i>	0.00005	<0.0050	<0.0050
Silicon (Si)-Total	<i>mg/L</i>	0.1	<10	<10
Silver (Ag)-Total	<i>mg/L</i>	0.00005	<0.0050	<0.0050
Sodium (Na)-Total	<i>mg/L</i>	0.5	9950	10200
Strontium (Sr)-Total	<i>mg/L</i>	0.001	6.96	6.92
Sulfur (S)-Total	<i>mg/L</i>	0.5	891	894
Tellurium (Te)-Total	<i>mg/L</i>	0.0002	<0.020	<0.020
Thallium (Tl)-Total	<i>mg/L</i>	0.00001	<0.0010	<0.0010
Thorium (Th)-Total	<i>mg/L</i>	0.0001	<0.010	<0.010
Tin (Sn)-Total	<i>mg/L</i>	0.0001	<0.010	<0.010
Titanium (Ti)-Total	<i>mg/L</i>	0.0003	<0.030	<0.030
Tungsten (W)-Total	<i>mg/L</i>	0.0001	<0.010	<0.010
Uranium (U)-Total	<i>mg/L</i>	0.00001	0.003	0.0031
Vanadium (V)-Total	<i>mg/L</i>	0.0005	<0.050	<0.050
Zinc (Zn)-Total	<i>mg/L</i>	0.003	<0.30	<0.30
Zirconium (Zr)-Total	<i>mg/L</i>	0.0003	<0.030	<0.030
FIELD PARAMETERS		Unit		
Water Temperature	<i>°C</i>		--	--
Specific Conductivity	<i>µS/cm</i>		--	--
pH	<i>pH Units</i>		--	--
Turbidity	<i>NTU</i>		--	--

Table 6.1 - 2017 Mary River Project Closure and Reclamation Summary¹

Authorization	Liability	Securities Held on 31 Dec 2017 (Actual) (\$)	Adjustment for 2017 ASR (\$)	Adjustment for 2017 Addendum ASR (\$)	Securities Held on 31 Dec 2017 (Actual) (\$)
Type A Water Licence (2AM-MRY1325 – Amend. No. 1)	IOL ²	51,384,000	2,538,000	10,258,000	64,180,000
	Crown	1,299,000	89,000	-	1,388,000
Subtotal Type A Water Licence		52,683,000	2,627,000	10,258,000	65,568,000
Type B Water Licence (2BE-MRY1421)	IOL ²	-	-	-	-
	Crown	1,250,000	-	-	1,250,000
Subtotal Type B Water Licence		1,250,000	-	-	1,250,000
GRAND TOTAL		53,933,000	2,627,000	10,258,000	66,818,000

Notes:

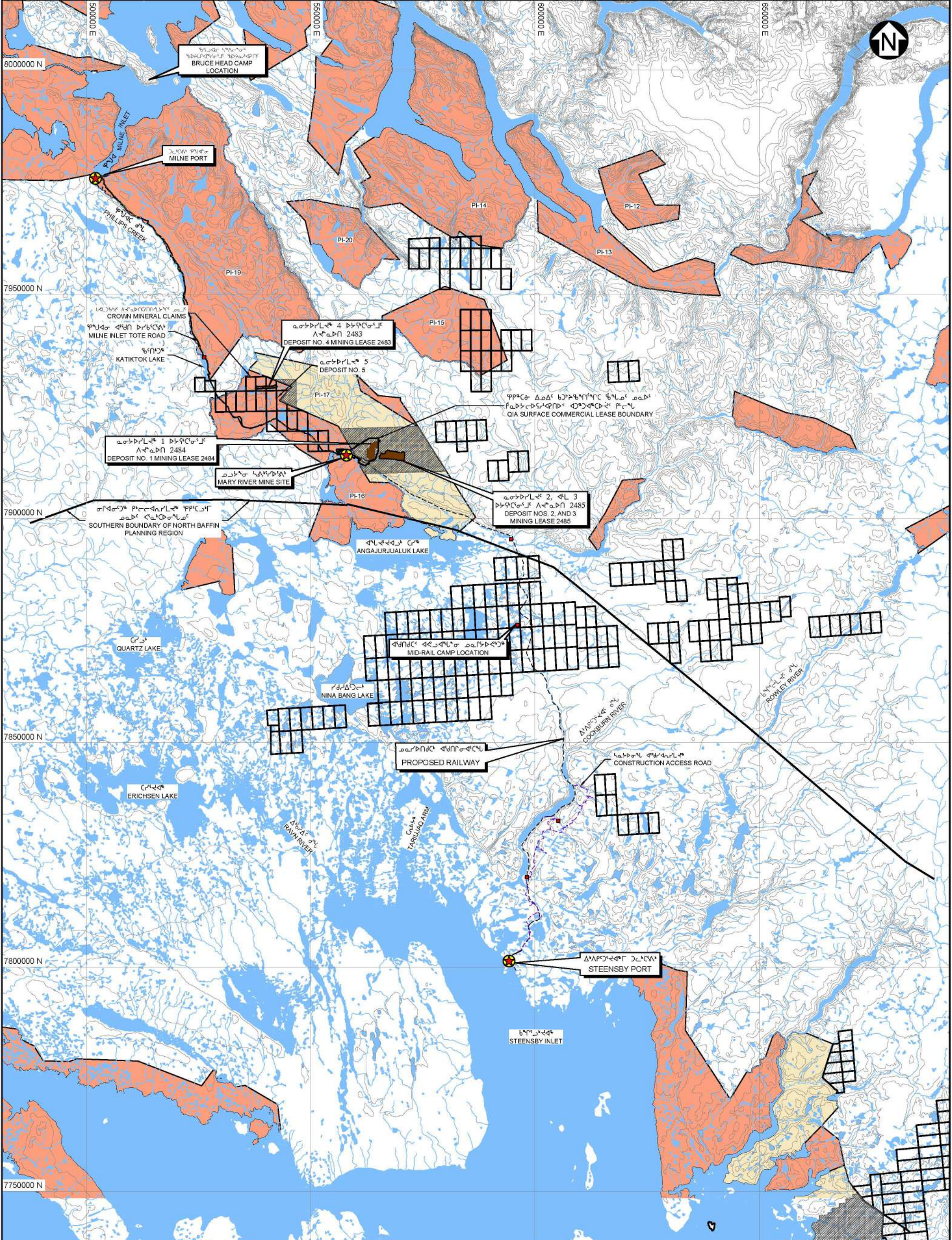
¹Totals rounded to nearest '000 in CAD

²All security relating to IOL held by Qikiqtani Inuit Association (QIA) under Commercial Lease No. Q13C301

Table 8.1 – 2017 Community Group Meetings and Consultations

Community	Organization	Date	Topic
Arctic Bay	Community residents	April 3 to 7, 2017	Career and Training Information Tour
	Hamlet of Arctic Bay	May 31, 2017	Phase 2 Proposal
	Ikajutit Hunters and Trappers Organization	May 31, 2017	Phase 2 Proposal
Clyde River	Community residents	April 3 to 7, 2017	Career and Training Information Tour
	Hamlet of Clyde River	May 29, 2017	Phase 2 Proposal
	Clyde River Hunters and Trappers Organization	May 29, 2017	Phase 2 Proposal
Hall Beach	Community residents	April 3 to 7, 2017	Career and Training Information Tour
	Hamlet of Hall Beach	June 2, 2017	Phase 2 Proposal
	Hall Beach Hunters and Trappers Organization	June 2, 2017	Phase 2 Proposal
Igloolik	Community residents	April 3 to 7, 2017	Career and Training Information Tour
	Igloolik Hunters and Trappers Organization	June 1, 2017	Phase 2 Proposal
	Hamlet of Igloolik	June 1, 2017	Phase 2 Proposal
Iqaluit	Iqaluit Business Community	January 16, 2017	Procurement and Contracting Workshop
Pond Inlet	Pond Inlet Business Community	January 18 to 19, 2017	Procurement and Contracting Workshops
	Community residents	April 3 to 7, 2017	Career and Training Information Tour
	Hamlet of Pond Inlet	May 30, 2017	Phase 2 Proposal
	Mittimatalik Hunters and Trappers Organization (MHTO)	May 30, 2017	Phase 2 Proposal
	Mittimatalik Hunters and Trappers Organization (MHTO)	June 12, 2017	Marine Environmental Monitoring meeting

FIGURES



- LEGEND:**
- WATER
 - INUIT OWNED LAND - SURFACE ONLY EXCLUDING MINERALS
 - INUIT OWNED LAND - SURFACE AND SUBSURFACE INCLUDING MINERALS
 - MINERAL LEASE BOUNDARY
 - CROWN LAND
 - N.T.I. EXPLORATION AREA
 - CROWN MINERAL CLAIMS HELD BY BAFFINLAND
 - MILNE INLET TOTE ROAD
 - PROPOSED RAIL ALIGNMENT
 - PROPOSED CONSTRUCTION ACCESS ROAD
 - RIVER/STREAM/DRAINAGE
 - CONTOUR
 - PROPOSED TEMPORARY CONSTRUCTION CAMP

Scale: 1:50,000
 0 20 40 km

- NOTES:**
- BASE MAP: © HER MAJESTY THE QUEEN IN RIGHTS OF CANADA, DEPARTMENT OF NATURAL RESOURCES (2004). ALL RIGHTS RESERVED.
 - COORDINATE GRID IS SHOWN IN UTM (NAD83) ZONE 17 AND IS IN METRES.
 - CONTOURS ARE IN METRES. CONTOUR INTERVAL VARIES.
 - PROPOSED RAIL ALIGNMENT PROVIDED BY CANARAIL CONSULTANTS INC.
 - CLAIM BOUNDARIES PROVIDED BY BAFFINLAND IRON MINES CORPORATION, MARCH 2 2018.
- ኔትሮኒክል:**
- መላኛ-ሰላም: ልጅ ልጅ
 - መላኛ ስጦት ለ-ጋ ሆት ሆት
 - በሰላም ገር ለ-ጋ ሆት ሆት
 - መላኛ ሰላም ለ-ጋ ሆት ሆት

Baffinland

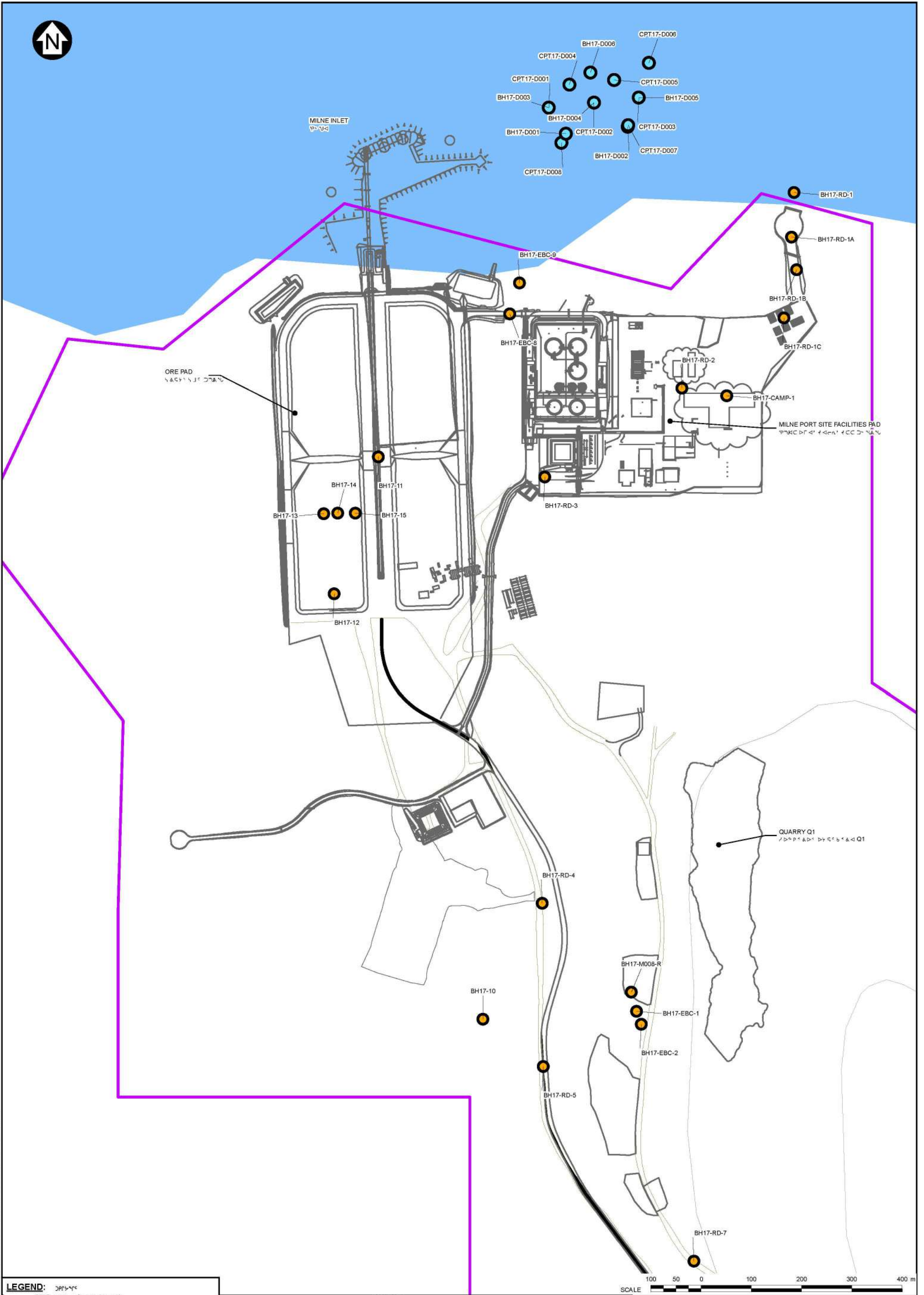
MARY RIVER PROJECT

LOCATION OF PROJECT ACTIVITIES

Knight Piésold CONSULTING

FIA NO: NB102-181/44	REF NO: NB18-00172
ሰላም ሰላም ሰላም	1.2
FIGURE	REV 0

0	ISSUED WITH 2017 QIA AND NWB ANNUAL REPORT	AV	MMD	RAC
REV	DATE	DESIGNED	DRAWN	REVIEWED



LEGEND:

	2017 MARINE GEOTECHNICAL DRILLHOLE/ MARINE CONE PENETRATION TEST		WATER
	2017 LAND GEOTECHNICAL DRILLHOLE		QIA SURFACE COMMERCIAL LEASE BOUNDARY
	MILNE INLET TOTE ROAD		RIVER/STREAM/DRAINAGE

NOTES:

1. BASE MAP: © HER MAJESTY THE QUEEN IN RIGHTS OF CANADA, DEPARTMENT OF NATURAL RESOURCES, (2004). ALL RIGHTS RESERVED.
2. COORDINATE GRID IS SHOWN IN UTM (NAD83) ZONE 17 AND IS IN METRES.
3. CONTOURS ARE IN METRES. CONTOUR INTERVAL VARIES.
4. INFRASTRUCTURE LOCATIONS PROVIDED BY BAFFINLAND.

Baffinland

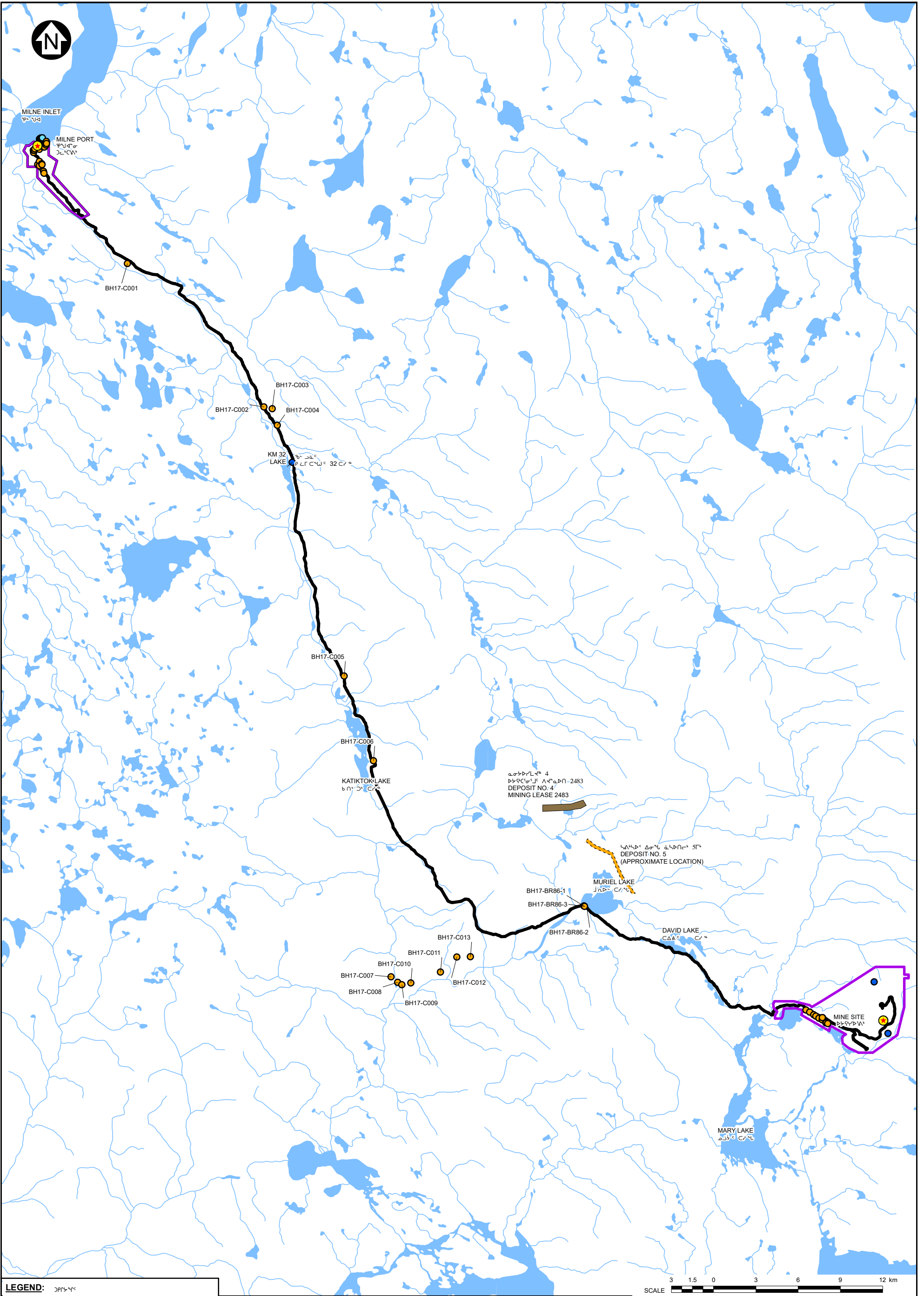
MARY RIVER PROJECT

2017 DRILLING ACTIVITIES - MILNE PORT

Knight Piésold CONSULTING	PIANO: NB102-181/44 REF NO: NB18-00172 FIGURE 1.3
-------------------------------------	--

SAVED: I:\10200181\44\GIS\Figures\08_10 - MILNE PORT DRILLING ACTIVITIES - V2.mxd, Mar 22, 2018 1:56 PM, rld/m

REV	DATE	DESCRIPTION	AV	RF	RAC
DESIGNED	DRAWN	REVIEWED			
0	22MAR18	ISSUED WITH 2017 QIA AND NWB ANNUAL REPORT			



LEGEND:

	2017 2017 2017	2017 2017 2017
	2017 2017 2017	2017 2017 2017
	2017 2017 2017	2017 2017 2017
	2017 2017 2017	2017 2017 2017
	2017 2017 2017	2017 2017 2017
	2017 2017 2017	2017 2017 2017
	2017 2017 2017	2017 2017 2017
	2017 2017 2017	2017 2017 2017

NOTES:

1. BASE MAP: © HER MAJESTY THE QUEEN IN RIGHTS OF CANADA, DEPARTMENT OF NATURAL RESOURCES, (2004). ALL RIGHTS RESERVED.
2. COORDINATE GRID IS SHOWN IN UTM (NAD83) ZONE 17 AND IS IN METRES.
3. CONTOURS ARE IN METRES. CONTOUR INTERVAL VARIES.
4. INFRASTRUCTURE AND WATER SOURCE LOCATIONS PROVIDED BY BAFFINLAND.

0	22MAR18	ISSUED WITH 2017 QIA AND NWB ANNUAL REPORT	AV	RF	RAC
REV	DATE	DESCRIPTION	DESIGNED	DRAWN	REVIEWED

Baffinland

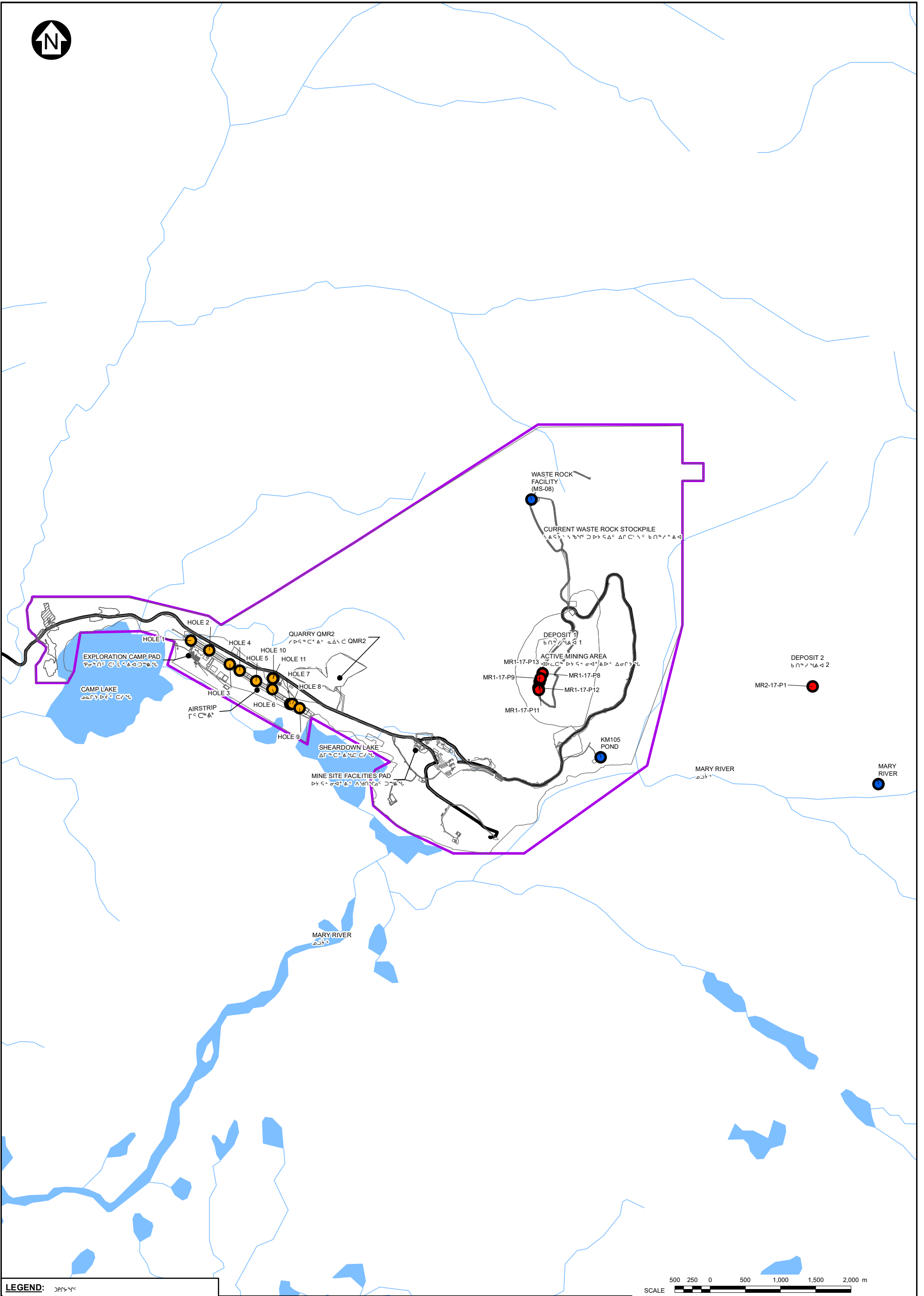
Mary River Project

2017 Drilling Activities - Tote Road

Knights Piésold CONSULTING

P/A NO. NB102-181/44	REF NO. NB18-00172
FIGURE 1.4	
REV 0	

SAVED: I:\1020018144\GIS\Figures\09_10 - TOTE ROAD DRILLING ACTIVITIES - V2.mxd, Mar 22, 2018 1:55 PM, rfallina

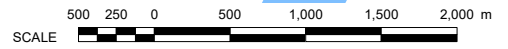


LEGEND:

- 2017 Land Geotechnical Drillhole
- 2017 Exploration Drillhole
- 2017 Water Source
- Milne Inlet Tote Road
- River/Stream/Drainage
- Water
- QIA Surface Commercial Lease Boundary

NOTES:

1. BASE MAP: © HER MAJESTY THE QUEEN IN RIGHTS OF CANADA, DEPARTMENT OF NATURAL RESOURCES, (2004). ALL RIGHTS RESERVED.
2. COORDINATE GRID IS SHOWN IN UTM (NAD83) ZONE 17 AND IS IN METRES.
3. CONTOURS ARE IN METRES. CONTOUR INTERVAL VARIES.
4. INFRASTRUCTURE AMD WATER SOURCE LOCATIONS PROVIDED BY BAFFINLAND.



Baffinland

MARY RIVER PROJECT

2017 DRILLING ACTIVITIES - MINE SITE

Knight Piésold CONSULTING	P/A NO. NB102-181/44	REF NO. NB18-00172
	FIGURE 1.5	

SAVED: 11/10/2018 11:44:14 AM (GMT-07:00) - MINE SITE DRILLING ACTIVITIES - V2.mxd; Mar 22, 2018 1:55 PM; rbelima

REV	DATE	DESCRIPTION	DESIGNED	DRAWN	REVIEWED
0	22MAR18	ISSUED WITH 2017 QIA AND NWB ANNUAL REPORT	AV	RF	RAC

APPENDICES

APPENDIX A
CONCORDANCE TABLES

Concordance Table - Type B Water Licence 2BE-MRY1421			
Type B Water Licence 2BE-MRY1421		2017 QIA and NWB Annual Report for Exploration and Geotechnical Drilling Activities	
Condition No.	Condition	Report Reference/Response	
Part B. General Conditions			
<i>The Annual Report referred to in Part B, Item 6 shall include:</i>			
6	The Licensee shall file with the Board no later than March 31st of the year following the calendar year being reported, an Annual Report on the appurtenant undertaking, which shall contain the following information:	See below	Annual Report submitted on March 31, 2018.
i	the monthly and annual volumes, in cubic metres, of freshwater used for all purposes under the Licence and obtained from sources located on, in or flowing through Crown Lands;	Section 2.1	Water Use
ii	the monthly and annual volumes, in cubic metres, of freshwater used for all purposes under the Licence and obtained from sources located on, in or flowing through Inuit-owned lands;	Section 2.1	Water Use
iii	A summary, including photographic records before, during and after any relevant construction activities or modifications and/or major maintenance work carried out on facilities under this Licence and an outline of any work anticipated for the next year;	Section 4.0	Modifications
iv	The geochemical analysis of drill cores as per Part F, Item 3;	Section 7.6	Summary of Geochemical Analysis of Drill Cores
v	Detailed discussion on the performance, installation, and evaluation, including the use of photographic record, of the primary and secondary containment functions used in fuel storage to safeguard impacts to freshwaters;	Section 7.3	Summary of Fuel Storage
vi	Report all artesian flow occurrences as required under Part F, Item 6;	Section 7.5	Summary of Artesian Flows
vii	A list of unauthorized discharges and a summary of follow-up action(s) taken;	Section 3.0	Spills
viii	A brief description of follow-up action(s) taken to address concerns presented within inspection and compliance reports prepared by the Inspector;	Section 7.4	Inspection and Compliance Reports
ix	Updates in the form of an addendum or revisions to the Abandonment and Restoration Plan, and Spill Contingency Plan;	Section 7.2	Revisions to Plans, Reports and Manuals
x	A description of all progressive and/or final reclamation work undertaken, including drill sites, presented with photographic records of site conditions before, during and after completion of operations;	Section 6.1 Appendix D	Reclamation and Closure 2017 Photo Journal
xi	An updated estimate of the current restoration liability required under Part B, Item 2, based upon the results of restoration assessment, project development monitoring, and any changes or modifications to the project;	Section 6.2 Table 6.1	Current Restoration Liability 2017 Mary River Project Closure and Reclamation Security Summary
xii	A summary of public consultation/participation, describing consultation with local organizations and residents of the nearby communities, if any were conducted;	Section 8.0	Public Consultations
xiii	A summary of any specific studies or reports requested by the Board, and a brief description of any future studies planned or proposed; and	Section 7.1	Summary of Studies Requested by the Board
xiv	Any other details on Water use or Waste disposal requested by the Board by November 1 of the year being reported.	N/A	No other details on water use or waste disposal was requested by the Board by November 1, 2017.

Concordance Table - Commercial Lease No. Q13C301			
Commercial Lease No. Q13C301		2017 QIA and NWB Annual Report for Exploration and Geotechnical Drilling Activities	
Condition No.	Condition	Report Reference/Response	
Section 6.4 - Annual Reporting Requirements			
6.4	For informational purposes, by no later than March 31 in each Year during the Term, the Tenant shall deliver to the Landlord an Annual Report for the preceding Year which shall include the following:	See below	Annual Reports were submitted on March 31, 2018.
a.	A report of activities conducted relative to what was described in the Work Plan submission for the Previous Year;	N/A	Refer to <i>2017 QIA and NWB Annual Report for Operations</i>
b.	A description of construction and infrastructure changes, additions or removals located within the boundaries of all Land Use Areas;	N/A	Refer to <i>2017 QIA and NWB Annual Report for Operations</i>
c.	All "As Built" reports available, signed and stamped by an Engineer, for all works completed as per (b) above;	N/A	Refer to <i>2017 QIA and NWB Annual Report for Operations</i>
d.	Description of any and all mining and exploration activities, and the results and outcomes thereof including:	See below	
	i. exploration activity and drilling summary	Section 1.1	Summary of Exploration and Drilling Activities for 2017
	ii. amount and type of ore and waste mined in each month	N/A	Refer to <i>2017 QIA and NWB Annual Report for Operations</i>
	iii. amount and type of ore shipped each month	N/A	Refer to <i>2017 QIA and NWB Annual Report for Operations</i>
	iv. quantities of each Specified Substance including sand, gravel, construction stone, and ice, quarried each month, broken down by individual quarry site or borrow location	N/A	Refer to <i>2017 QIA and NWB Annual Report for Operations</i>
e.	Quantities of waste deposited in the landfill, landfarm and or other approved waste storage areas each calendar quarter	N/A	Refer to <i>2017 QIA and NWB Annual Report for Operations</i>
f.	Type and quantities of materials that were shipped off the Lands	N/A	Refer to <i>2017 QIA and NWB Annual Report for Operations</i>
g.	Type and quantities of materials that were shipped to and stored on the Lands	N/A	Refer to <i>2017 QIA and NWB Annual Report for Operations</i>
h.	A detailed description of any and all Reclamation Work on the Property	N/A	Refer to <i>2017 QIA and NWB Annual Report for Operations</i>
i.	Any and all information related to a finding of non-compliance or breach of environmental standards as discovered by any Governmental Authority	N/A	Refer to <i>2017 QIA and NWB Annual Report for Operations</i>
j.	A listing and compilations of reports associated with any accident, spill, release of hazardous material in the environment, fire, emergency or loss of life	N/A	Refer to <i>2017 QIA and NWB Annual Report for Operations</i>
k.	Information respecting the Tenant's compliance with the terms of this Lease and any permits or licenses required in respect of its Operations on the Property, together with details of any incidents of non-compliance, the results of any inspection reports or orders prepared or issued by or fines levied by any competent regulatory authority and any remedial action relating thereto	N/A	Refer to <i>2017 QIA and NWB Annual Report for Operations</i>
l.	Any further reports, information or data reasonably requested by the Landlord from time to time, including Inuktitut language summary versions of such material at the request of the Landlord, acting reasonably.	N/A	No additional information or data was requested by the Landlord during 2017.

APPENDIX B
NWB ANNUAL REPORT FORMS

NWB Annual Report

Year being reported: 2017

License No: **Issued Date:**
Expiry Date:

Project Name:

Licensee:

Mailing Address:

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

General Background Information on the Project (*optional):

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

Part B Select

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):	<input type="text" value="Refer to Section 2.1."/>	
Water Quantity:	<input type="text" value="17885"/> cu.m/year	Quantity Allowable Domestic (cu.m)
	<input type="text" value="0"/>	Actual Quantity Used Domestic (cu.m)
	<input type="text" value="91250"/> cu.m/year	Quantity Allowable Drilling (cu.m)
	<input type="text" value="3091"/>	Total Quantity Used Drilling (cu.m)

Waste Management and/or Disposal

- Solid Waste Disposal
- Sewage
- Drill Waste
- Greywater
- Hazardous
- Other:

Additional Details:

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)


Refer to Section 3.0 of the 2017 QIA and NWB Annual Report for Exploration and Geotechnical Drilling Activities

Revisions to the Spill Contingency Plan

SCP submitted and approved - no revision required or proposed 

Additional Details:

Revisions to the Abandonment and Restoration Plan

AR plan submitted and approved - no revision required or proposed 

Additional Details:


Progressive Reclamation Work Undertaken

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

Refer to Section 6 of the 2017 QIA and NWB Annual Report for Exploration and Geotechnical Drilling Activities

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 described below 

Additional Details:

Refer to Table 2.1 of the 2017 QIA and NWB Annual Report for Exploration and Geotechnical Drilling Activities


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 described below 

Additional Details:

Refer to Section 2.2, Table 1.1 and Figures 1.3, 1.4, 1.5 of the 2017 QIA and NWB Annual Report for Operations

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

No additional sampling requested by an Inspector or the Board 

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

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

Additional Details: (Attached or provided below)

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

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

Any additional comments or information for the Board to consider

Date Submitted:

March 31, 2018

Submitted/Prepared by:

Andrew Vermeer

Contact Information:

Tel: (416) 364-8820 ext. 5005

Fax: -

email: andrew.vermeer@baffinland.com

APPENDIX C
2017 DRILLING ACTIVITY NOTIFICATIONS

APPENDIX C.1

February 9, 2017 – Geotechnical Drilling Notification



February 9, 2017

Justin Hack, Resource Management Officer
Nunavut Field Operations, INAC
P.O. Box 100
Iqaluit, NU X0A 0H0

Stephaen Bathory, Director Major Projects
Qikiqtani Inuit Association
P.O. Box 219
Iqaluit, NU X0A 0H0

RE: 2017 Geotechnical On-Ice Drilling Program - Water Licence 2BE-MRY1421 QIA Lease No. Q13C301, INAC Land Use Permit N2014C0013

Baffinland will be commencing an On-Ice geotechnical drilling program for the evaluating of geotechnical conditions at the proposed Ore Dock No. 2 for the purpose of engineering studies. The program is being managed by Hatch Ltd. and performed by Boart Longyear. A total of 10 geotechnical boreholes and cone penetration testing is planned. These boreholes will be performed using a sonic drilling technique requiring minimum sea water usage for flushing purposes during the drilling. Refer to the attached map in Attachment A that show proposed borehole locations in relation to the existing Milne Port infrastructure including the UTM coordinates.

The equipment to be utilized for the program includes a tracked drill rig (LS 250). The diameter of the boreholes to be advanced is approximately 100 mm. Other supporting track vehicles include a flatbed (Nodwell type) for hauling supplies and a skid steer for moving drill rods and other equipment/supplies.

In accordance with Part F, Section 2, of the Type B Water Licence 2BE-MRY1421, this letter and attachments provides the notification for the drilling of 10 boreholes on ice. Daily environmental monitoring will be performed, including pre-, during and post- inspections. Turbidity monitoring of the boreholes will also be performed pre and post, as done in past sea ice drilling programs. It will consist of auguring holes and using a Kemmerer Sampler to take a sample 1m above the sea bottom.

We trust that this information meets the various notifications required by the above referenced parties. Please to not hesitate to contact the undersigned, should you have any questions or comments.

Regards,

A handwritten signature in black ink that reads "Allan Knight".

Allan Knight,
Environmental Superintendent

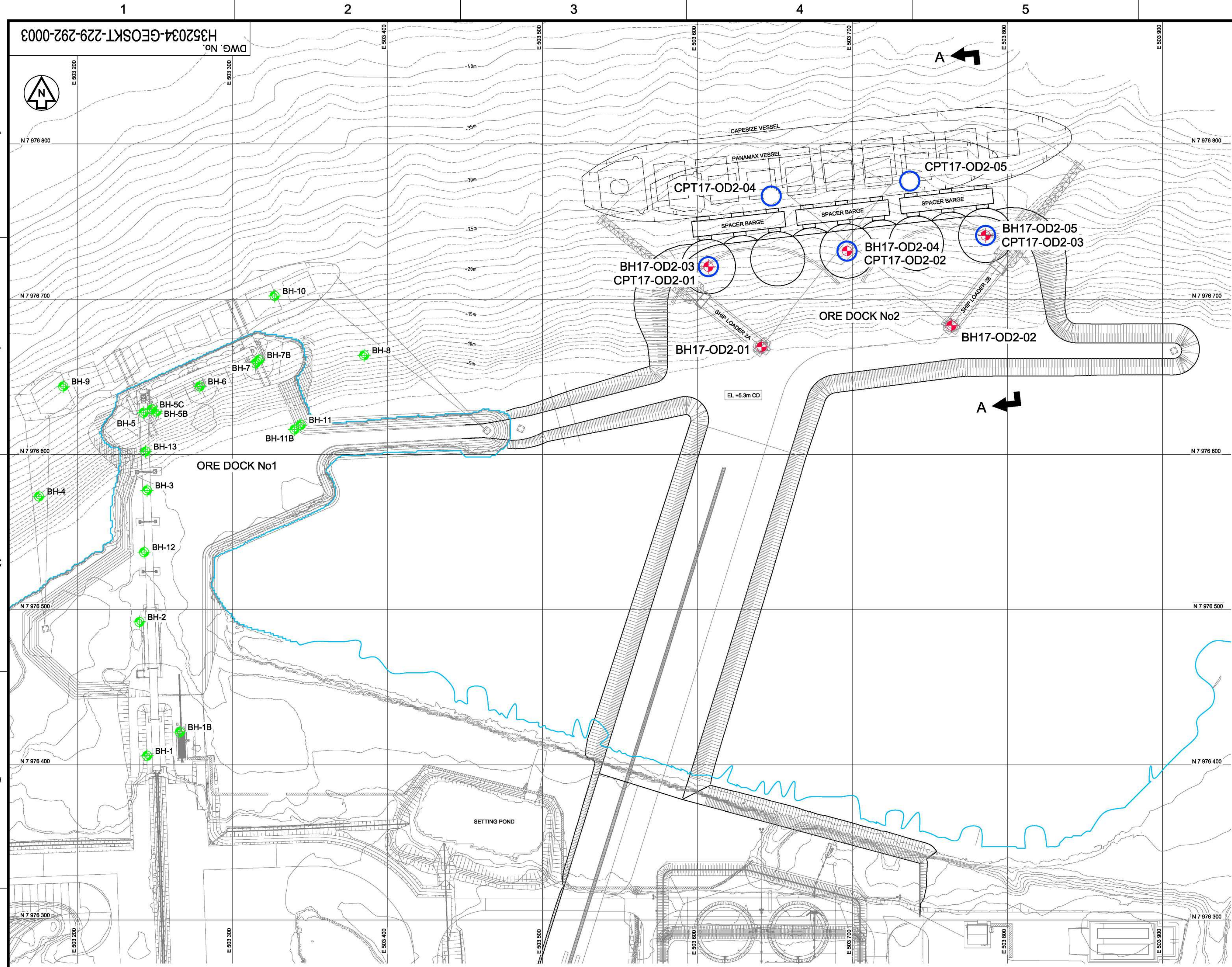
Attach: A: Map Sheet, Port Site – Ore Dock No. 2 2017 Geotechnical Investigations BH and CPT Locations

cc. Wayne McPhee, Todd Burlingame, Matt Weaver, William Bowden, Laura Taylor (Baffinland),
Sean Hinchberger and Warren Hoyle (Hatch),
Tracey McCaie and Erik Allain (INAC)

ATTACHMENT A

Port Site – Ore Dock No. 2

2017 Geotechnical Investigations BH and CPT Locations



- NOTES:**
- COORDINATE GRID IS UTM, NAD 83, ZONE 17
 - INFORMATION FOR BATHMETRY IS A COMBINATION OF LOGISTEC STEVEDORING INC. AND M&S.
 - THE CHART DATUM HAS BEEN ASSUMED TO BE 1.2 METRES BELOW CGVD 28 (0.0m CHART DATUM = -1.2m GEODETIC DATUM)
 - ELEVATIONS ARE BASED ON CHART DATUM
 - DIMENSIONS AND ELEVATIONS ARE SHOWN IN METERS
 - ELEVATIONS ARE MEASURED AT THE TIME OF BOREHOLE COMPLETION.

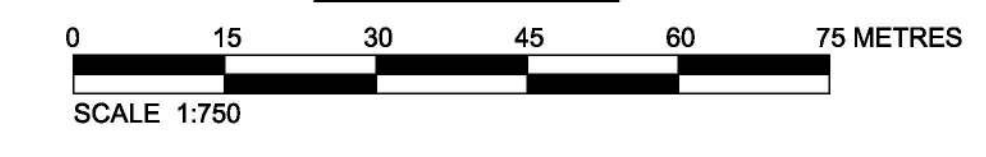
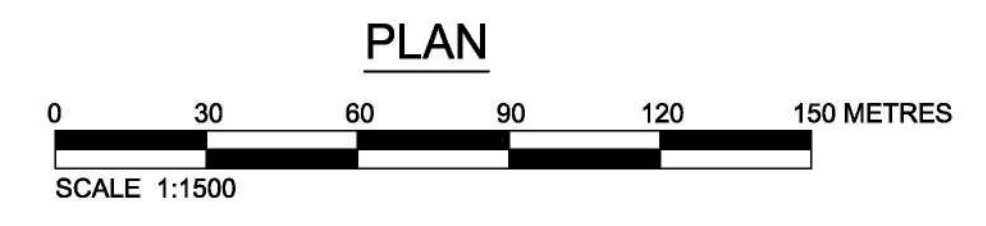
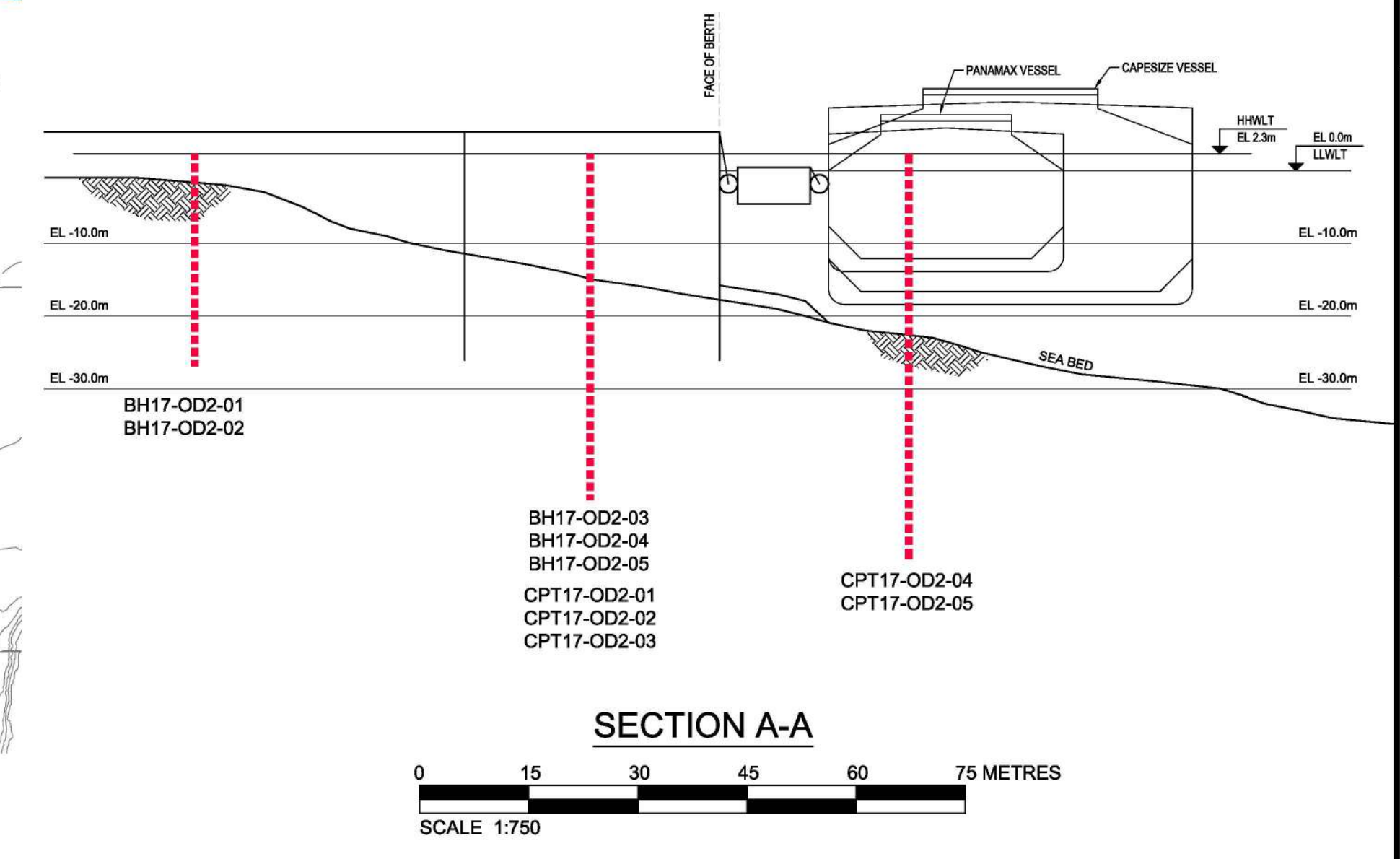
- LEGEND**
- PROPOSED SONIC BOREHOLE LOCATION
 - PROPOSED CONE PENETRATION TEST (CPT) LOCATION
 - 2013 GEOTECHNICAL INVESTIGATION BOREHOLE LOCATIONS

BH LOCATIONS

POINT #	EASTING	NORTHING	DEPTH
BH17-OD2-01	503641	7976669	25
BH17-OD2-02	503764	7976683	25
BH17-OD2-03	503607	7976721	30
BH17-OD2-04	503697	7976731	30
BH17-OD2-05	503786	7976741	30

CPT LOCATIONS

POINT #	EASTING	NORTHING	DEPTH
CPT17-OD2-01	503807	7976721	30
CPT17-OD2-02	503697	7976731	30
CPT17-OD2-03	503786	7976741	30
CPT17-OD2-04	503648	7976767	30
CPT17-OD2-05	503737	7976776	30



DESIGN SHOWN IS A HATCH CONCEPT DESIGN
CONTRACTOR TO PROVIDE HIS OWN DESIGN

DRAWING No.	DRAWING TITLE
	REFERENCE DRAWINGS

NAME	
SIGNATURE	
ENG REG NUMBER	
REVISION DATE	
ORIGINAL DATE	
REGISTERED PROFESSIONAL	

No.	DESCRIPTION	BY	CHK'D	DATE
B	NUMBER OF BH REVISED, CPT ADDED	W.H.	S.H.	27/01/2017
A	CLIENT REVIEW	W.H.	S.H.	20/01/2017

ROLE	NAME	SIGNATURE	DATE
DRAFTSPERSON	D PARKES		NR 20/01/2017
DESIGNER			NR
CHECKER			
DESIGN COORD.	W HOYLE		
RESP. ENG.			
LEAD DISC. ENG.	S HINCHBERGER		
ENG. MANAGER			
PROJ. MANAGER	S HEINER		

HATCH

Baffinland

BAFFINLAND EXPANSION 12 MTPA MINE OPTION PRE FEASIBILITY STUDY

PORT SITE - ORE DOCK No. 2 2017 GEOTECHNICAL INVESTIGATIONS BH AND CPT LOCATIONS

SCALE: 1:50,000 OR AS NOTED

DWG. No. H352034-GEOSKT-229-292-0003

REV B

SUBSEQUENT REVISED \$TIMES \$FILES

APPENDIX C.2

June 22, 2017 – Exploration Drilling Notification



June 22, 2017

Justin Hack, Resource Management Officer
Nunavut Field Operations
Aboriginal Affairs and Northern Development Canada
Box 100
Iqaluit, NU X0A 0H0

Stephen Bathory, Director Major Projects
Qikiqtani Inuit Association
P.O. Box 219
Iqaluit, NU X0A 0H0

Manager of Licensing
Nunavut Water Board
PO Box 119, Gjoa Haven, NU X0B 1J0

Re: 2017 Diamond Drilling Program – Type “B” Water License 2BE-MRY1421, QIA Commercial Lease No. Q13C301, INAC Land Use Permit N2014C0013

Baffinland will be commencing a diamond drilling program to increase confidence in the 5-year mine pit, and upgrade Deposit No. 2 to a measured and indicated resource. The program is being managed by Baffinland’s Exploration department, and performed by Boart Longyear’s coring division. The program is scheduled to start July 1, and end by September, 2017. A total of approximately 17 drill holes are planned, with depths ranging from 47 - 450 metres (m) in depth. Drill holes will require water to support diamond drill coring techniques. Refer to the attached map sheets (1 and 2) provided in Attachment A for the proposed drill hole collar locations and proposed water sources. The UTM coordinates for the drill program collars are presented in Attachment B.

The equipment to be utilized for the program includes two LM 55 rock coring drill rigs mounted to a skid for the duration of the Deposit No. 1 drill campaign. These drills will not be mounted to a skid for the duration of the Deposit No. 2 drill campaign. The diameter of the holes to be advanced is approximately 61.1 mm. Other supporting vehicles include a CAT 988 or CAT D9 to pull the skid-mounted drills and move other supporting equipment, a “wobble wagon” to supply sumps with water, and a helicopter for moving non-skid mounted drills and other supporting equipment/supplies.

Under Part C, Item 1, of the Type “B” Water License 2BE-MRY1421 (Type “B” Water License), Baffinland is required to provide notification to the Board and the Inspector, of new water sources to be used during drilling that are not currently identified. There are 5 new water sources that may be used to support the drilling program and are denoted by the “PS” symbol on the map sheets provided in Attachment A. Tables showing the locations of the proposed water sources to support the drilling program are provided in Attachment C. New water sources denoted as PS-17-04 and PS-17-05 will be sumps that are supplied water from Camp Lake, an approved water source under Baffinland’s Type “A” Water Licence. The estimated water usage rate for the drilling program is approximately 1.3 m³ per linear metre drilled. Assuming 1,010 metres and 1,905 metres drilled at Deposit 1 and 2, respectively, the total water volume requirements for the Deposit 1 and 2 drill holes are 2,477 m³ and 1,010 m³, respectively.

Based upon visual assessment and knowledge from previous drilling programs in the area, Baffinland believes that the new water sources required for Deposit 2 (PS-17-01, 02, 03) are large enough in size to sustain such a withdrawal of water. The new water sources (ponds) denoted as PS-17-02 and PS-17-03 are not believed to be fisheries habitat and will be visually monitored for draw down during periods of withdrawal. The Mary River (PS-17-01) has been used as a water source in previous drilling programs and has sufficient flow volumes necessary to support the proposed water requirements for Deposit 2 drilling activities. Despite best planning, it should be noted that unforeseen circumstances may preclude some changes in plans as the program proceeds. Baffinland will endeavor to inform the Inspector and land owner in such circumstances.

In accordance with Part B, Item 8 of the Type "B" Water License, Baffinland proposes to use flow meters to track water usage volumes during the proposed drilling program.

In addition, drill waste generated from drilling program will be disposed of in sumps consistent with requirements outlined in Part F, Item 2 of Type "B" Water Licence. Daily environmental monitoring will be performed, including pre-, during, and post-inspections. Drill water runoff and siltation mitigation measures consistent with Baffinland's Environmental Protection Plan (BAF-PH1-830-P16-0008 r1) will be employed as required.

We trust that this information meets the various notifications required by the above referenced parties. Please do not hesitate to contact the undersigned, should you have any question or comments.

Submitted by:



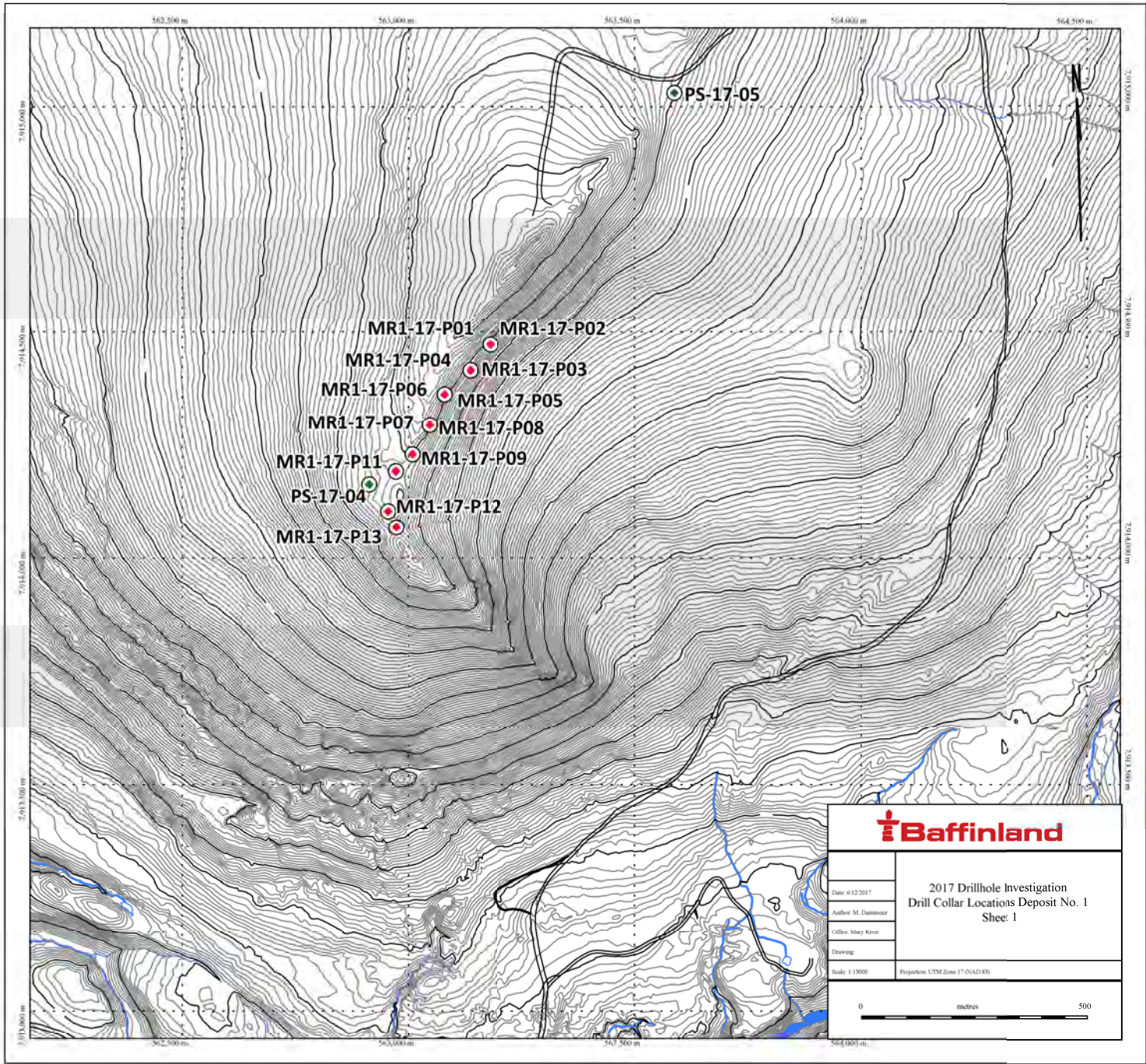
William Bowden
Environmental Superintendent

Attachments:

- Attachment A: Map Sheet 1, 2017 Drill Hole Investigation – Drill Collar Locations Deposit 1
Map Sheet 2, 2017 Drill Hole Investigation – Drill Collar Locations Deposit 2
- Attachment B: UTM Coordinates of Proposed Drill Hole Collars
- Attachment C: Locations/UTM Coordinates of Proposed Water Sources

Cc: Wayne McPhee, Todd Burlingame, Allan Knight, Laura Taylor, Michael Anderson, Andrew Vermeer, Thomas Iannelli, Meghan Dammeier (Baffinland)
Jonathan Mesher (INAC)

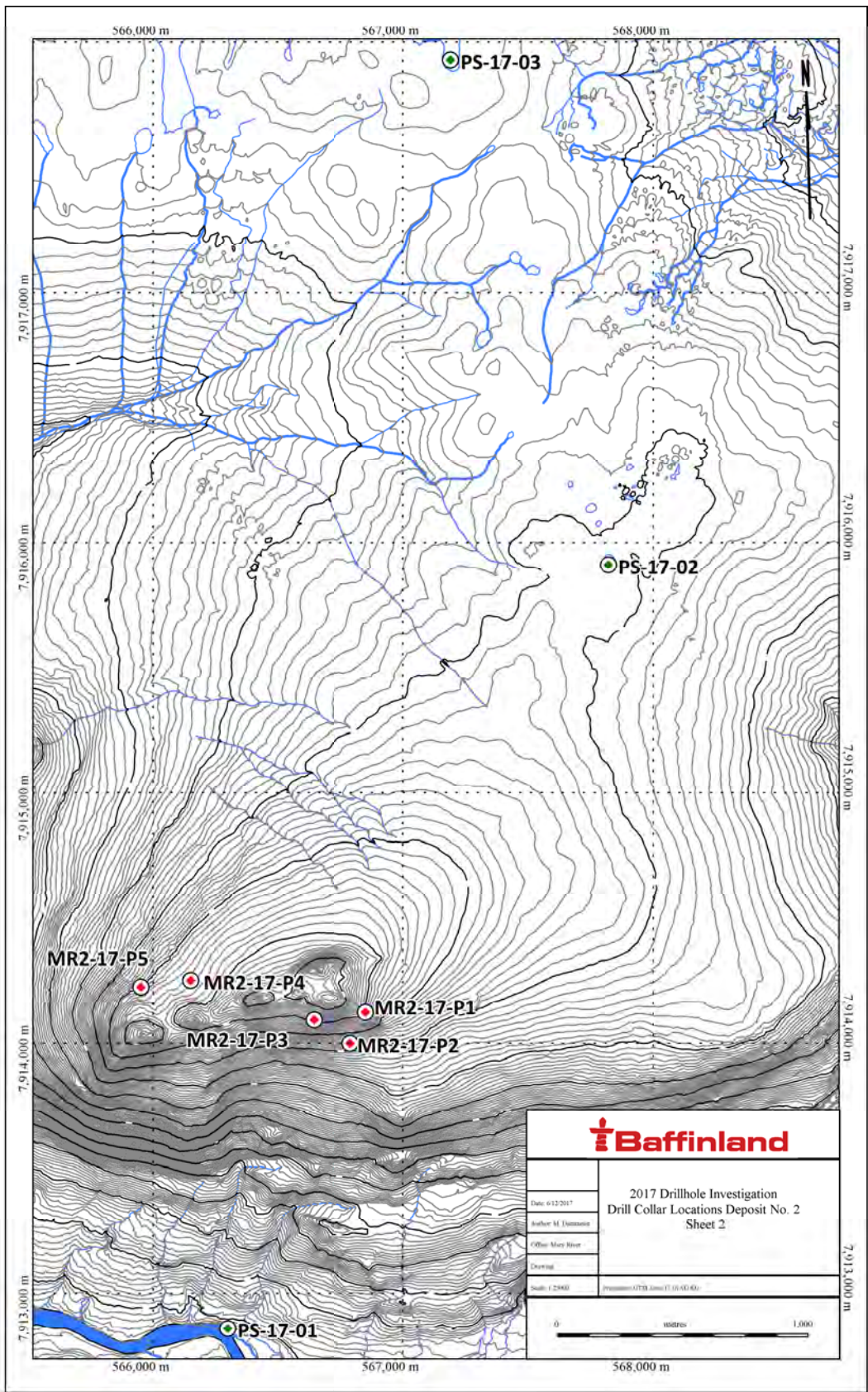
ATTACHMENT A
2017 Drill Hole Investigation – Drill Hole Collar Locations



Baffinland

Date: 6/12/2017	2017 Drillhole Investigation Drill Collar Locations Deposit No. 1 Sheet 1
Author: M. Dammour	
Client: Mary Area	
Drawing:	
Scale: 1:3000	Projection: UTM Zone 17 (NAD 83)

0 metres 500



ATTACHMENT B
UTM Coordinates of Proposed Drill Hole Collars

Drill Hole Summary

Hole ID	Easting (m)	Northing (m)	Elevation (m)	Length	Deposit
MR1-17-P01	563181	7914472	630	65	1
MR1-17-P02	563181	7914472	630	65	1
MR1-17-P03	563137	7914415	630	68	1
MR1-17-P04	563137	7914415	630	58	1
MR1-17-P05	563080	7914362	640	98	1
MR1-17-P06	563080	7914362	640	47	1
MR1-17-P07	563047	7914294	640	95	1
MR1-17-P08	563047	7914294	640	50	1
MR1-17-P09	563009	7914229	640	133	1
MR1-17-P11	562972	7914192	644	146	1
MR1-17-P12	562955	7914105	644	95	1
MR1-17-P13	562973	7914069	639	90	1
MR2-17-P1	566851	7914123	622	340	2
MR2-17-P2	566790	7913998	585	450	2
MR2-17-P3	566645	7914093	628	315	2
MR2-17-P4	566151	7914250	614	350	2
MR2-17-P5	565952	7914224	599	450	2

ATTACHMENT C
Locations/UTM Coordinates of Proposed Water Sources

Existing Water Sources*

Location	Tote Road Chainage
Camp Lake	At Camp Lake Water Jetty - Km 100

*Type "A" Licence 2AM-MRY1325 - refer to Part E, Tables 2, 3, and 4.

Potential New Water Sources

Potential New Water Sources*	Easting (m)	Northing (m)
PS-17-01	566298	7912858
PS-17-02	567821	7915910
PS-17-03	567191	7917928
PS-17-04	562913	7914164
PS-17-05	563588	7915030

*Refer to Attachment A, Sheets 1 and 2

APPENDIX C.3

September 19, 2017 – Geotechnical Drilling Notification



September 19, 2017

Jonathan Mesher, Resource Management Officer
Nunavut Field Operations
Indigenous and Northern Affairs Canada
Box 100
Iqaluit, NU X0A 0H0

Stephen Bathory, Director Major Projects
Qikiqtani Inuit Association
P.O. Box 219
Iqaluit, NU X0A 0H0

Manager of Licensing
Nunavut Water Board
PO Box 119, Gjoa Haven, NU X0B 1J0

Re: Additional Drill Hole Locations for 2016/2017 Geotechnical Drilling Program – Type “B” Water License 2BE-MRY1421, QIA Commercial Lease No. Q13C301,

This purpose of this letter is to inform the Qikiqtani Inuit Association (QIA), Nunavut Water Board (NWB) and Indigenous and Northern Affairs Canada (INAC) of an additional six (6) drill hole locations Baffinland has added to the geotechnical drilling program presented to regulators and stakeholders in a notification letter dated October 9, 2016. A copy of the original notification letter for the geotechnical drilling program is provided as Attachment 1 of this letter.

Baffinland continues to conduct a geotechnical drilling program at Project sites and near the Tote Road to evaluate geotechnical conditions and support engineering studies. The program continues to be managed by Hatch Ltd., performed by Boart Longyear and is scheduled for completion by the end of November 2017. Equipment, drilling methods, water use tracking methods and water sources used for the additional drill hole locations will be consistent with the original notification for geotechnical drilling program submitted to the various parties on October 9, 2016. Baffinland is not proposing any new water sources to support the six (6) additional drill hole locations.

Coordinates for the six (6) additional drill hole locations are provided in Attachment 2. Five (5) of the additional drill holes are located at Milne Port and are greater than 30 metres away from the high water mark of nearby waterbodies. The sixth additional drill hole (BR-86-1-WP2) is located near the Km 80 bridge along the Tote Road and is within 30 metres of nearby water bodies. In accordance with Part F, Section 2, of the Type B Water Licence 2BE-MRY1421, this letter and attachments provides the notification for the single drill hole at Km 80 bridge that will be closer than 30 metres from the ordinary high water mark of nearby water bodies. A map showing the Km 80 bridge drill hole location in proximity to nearby water bodies is provided in Attachment 3.

Despite best planning, it should be noted that unforeseen circumstances may preclude some changes in plans as the program proceeds. Baffinland will endeavor to inform the Inspector and land owner in such circumstances.

Drill waste will be disposed of in natural depressions or sumps consistent with Part F Item 4 of Type B Water Licence. Daily environmental monitoring will be performed, including pre-, during and post-inspections. Drill water runoff and siltation mitigation measures consistent with Baffinland's Environmental Protection Plan BAF-PH1-830-P16-0008 r1 will be employed as required.

We trust that this information meets the various notifications required by the above referenced parties. Please do not hesitate to contact the undersigned, should you have any question or comments.

Regards,



William Bowden
Environmental Superintendent

Attachments:

- Attachment 1: Original Geotechnical Drilling Program Notification Letter (dated October 9, 2016)
- Attachment 2: UTM Coordinates of Additional Drill Hole Locations
- Attachment 3: Map - Km 80 Bridge Drill Hole Location and Nearby Water Bodies

Cc: Wayne McPhee, Todd Burlingame, Allan Knight, Laura Taylor, Andrew Vermeer (Baffinland)
Justin Hack (INAC)
Sean Joseph (NWB)

Attachment 1

Original Geotechnical Drilling Program Notification Letter (dated October 9, 2016)



October 9, 2016

Justin Hack, Resource Management Officer
Nunavut Field Operations
Aboriginal Affairs and Northern Development Canada
Box 100
Iqaluit, NU X0A 0H0

Stephen Bathory, Director Major Projects
Qikiqtani Inuit Association
P.O. Box 219
Iqaluit, NU X0A 0H0

Manager of Licencing
Nunavut Water Board
PO Box 119, Gjoa Haven, NU X0B 1J0

Re: 2016 Geotechnical Drilling Program- Type B Water Licence 2BE-MRY1421, QIA Lease No. Q13C301, INAC Land Use Permit N2014C0013.

Baffinland has commenced a geotechnical drilling program for the evaluating of geotechnical conditions adjacent and near to the existing Tote Road for the purpose of engineering studies. The program is being managed by Hatch Ltd. and performed by Boart Longyear. The program is scheduled for completion by the end of November 2017. A total of approximately 180 geotechnical boreholes are planned. The majority of these boreholes will be performed using a sonic drilling technique requiring no or little water usage (based on shallow depth through soils of around 5 metres). However, a select number of the boreholes, evaluating proposed future quarries, will require water to support rotary coring drill techniques. The quarry boreholes are planned to drill into bedrock to depths of up to around 20 metres. Refer to the attached four maps (Sheets 1 to 4) in Attachment A that show proposed borehole locations and proposed water sources in relation to the alignment of the existing Tote Road. The UTM coordinates for the drill program are presented in Attachment B.

The equipment to be utilized for the program includes a tracked drill rig (LS 250), capable of drilling using both sonic and rotary coring techniques. The diameter of the boreholes to be advanced is approximately 100 mm. Other supporting track vehicles include a flatbed (Nodwell type) for hauling water and other supplies and a skid steer for moving drill rods and other equipment/supplies. An archaeology survey of the area to be drilled and traversed was completed during summer 2016 and observed archaeology sites were identified and staked off. These coordinates have been provided, in confidence, to the drilling manager to minimize the potential for archaeological disturbance.

Under Part C, Item 1, of the Type B Water Licence 2BE-MRY1421, Baffinland is required to provide notification to the Board and the Inspector, of new water sources to be used during drilling that are not currently identified. There are 12 new water sources that may be used during the drilling program are denoted by the "PWS" symbol on the maps provided in Attachment A. In addition to the new water sources, there are eight (8) previously identified water sources (from



Type A Water Licence 2AM-MRY1325 / Amendment No.1) that may be used to support the drilling program, also denoted on the Attachment A maps. A table with existing and new water sources to support the drilling program are provided in Appendix C. The volume of water to be utilized at each new source is considered to be minimal. For rotary coring drill holes, the anticipated water use would be <10 m³, but typically <5 m³ per borehole. This is only for the boreholes denoted by the prefix, "BH16-Q". All of the ponds, lakes, and rivers identified can sustain such a very minor withdrawal of water. All other boreholes will use the sonic technique which typically drills without the use of water. Despite best planning, it should be noted that unforeseen geotechnical circumstances may preclude some changes in plans as the program proceeds. Baffinland will endeavor to inform the Inspector and land owner in such circumstances. Due to temperature restrictions tracking water usage volumes utilising water lines and flow meters will not be feasible. Therefore, Baffinland proposes to track water usage volumes by means of calibrated one cubic metre totes.

In accordance with Part F, Section 2, of the Type B Water Licence 2BE-MRY1421, this letter and attachments provides the notification for the drilling of 16 boreholes that will be closer than 31 metres from the ordinary high water mark of a water body. These locations are denoted by the prefix "BH16-B" on the maps provided in Attachment A. Locations of drill waste will be disposed of in natural depressions or sumps consistent with Part F Item 4 of Type B Water Licence. Daily environmental monitoring will be performed, including pre-, during and post- inspections. Drill water runoff and siltation mitigation measures consistent with Baffinland's Environmental Protection Plan BAF-PH1-830-P16-0008 r1 will be employed as required.

We trust that this information meets the various notifications required by the above referenced parties. Please to not hesitate to contact the undersigned, should you have any questions or comments.

Submitted by:

James Millard
Environmental Manager

Attach: A: Map Sheets 1 to 4, 2016 Geotechnical Investigations –Borehole Locations (four pages).

B: UTM Coordinates of Proposed Boreholes (two pages).

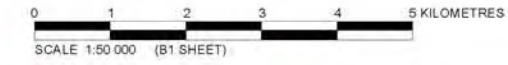
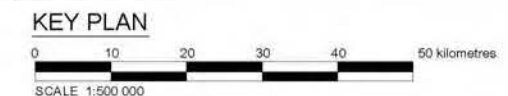
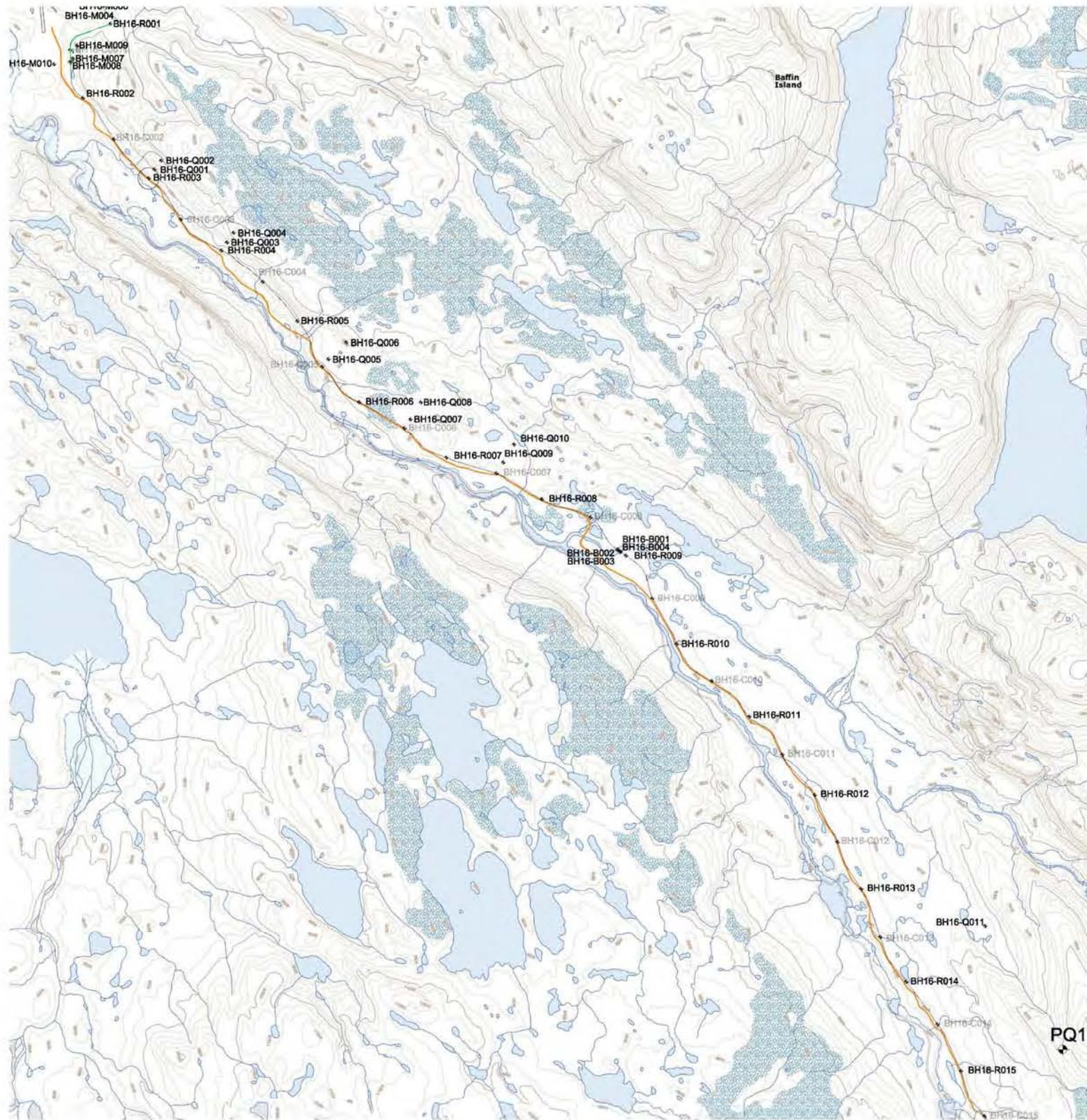
C: Locations/UTM Coordinates of New/Existing Water Sources (one page).

cc. Wayne McPhee, Todd Burlingame, Matt Weaver, William Bowden, Allan Knight (Baffinland), Sean Hinchberger and Warren Hoyle (Hatch)

Tracey McCaie , Scott Burgess, Erik Allain (INAC)

ATTACHMENT A

2016 Geotechnical Investigations - Borehole Locations



A
B
C
D
E

A
B
C
D
E

NAME	
SIGNATURE	
ENG REG NUMBER	
REVISION DATE	
ORIGINAL DATE	No.
REG. PROFESSIONAL	

<small>THIS DRAWING WAS PREPARED FOR THE EXCLUSIVE USE OF (NAME OF CLIENT) (CLIENT) AND IS ISSUED PURSUANT TO THE RELEVANT AGREEMENT BETWEEN CLIENT AND HATCH LTD. ("HATCH"), UNLESS OTHERWISE AGREED IN WRITING WITH CLIENT OR SPECIFIED ON THIS DRAWING. HATCH DOES NOT ACCEPT AND DISCLAIMS ANY AND ALL LIABILITY OR RESPONSIBILITY ARISING FROM ANY USE OF OR RELIANCE ON THIS DRAWING BY ANY THIRD PARTY OR ANY MODIFICATION OF THIS DRAWING BY CLIENT. AND (B) THIS DRAWING IS CONFIDENTIAL AND ALL INTELLECTUAL PROPERTY RIGHTS EMBODIED OR REFERENCED IN THIS DRAWING REMAIN THE PROPERTY OF HATCH.</small>			
DESCRIPTION	BY	CHK'D	DATE
REVISIONS			

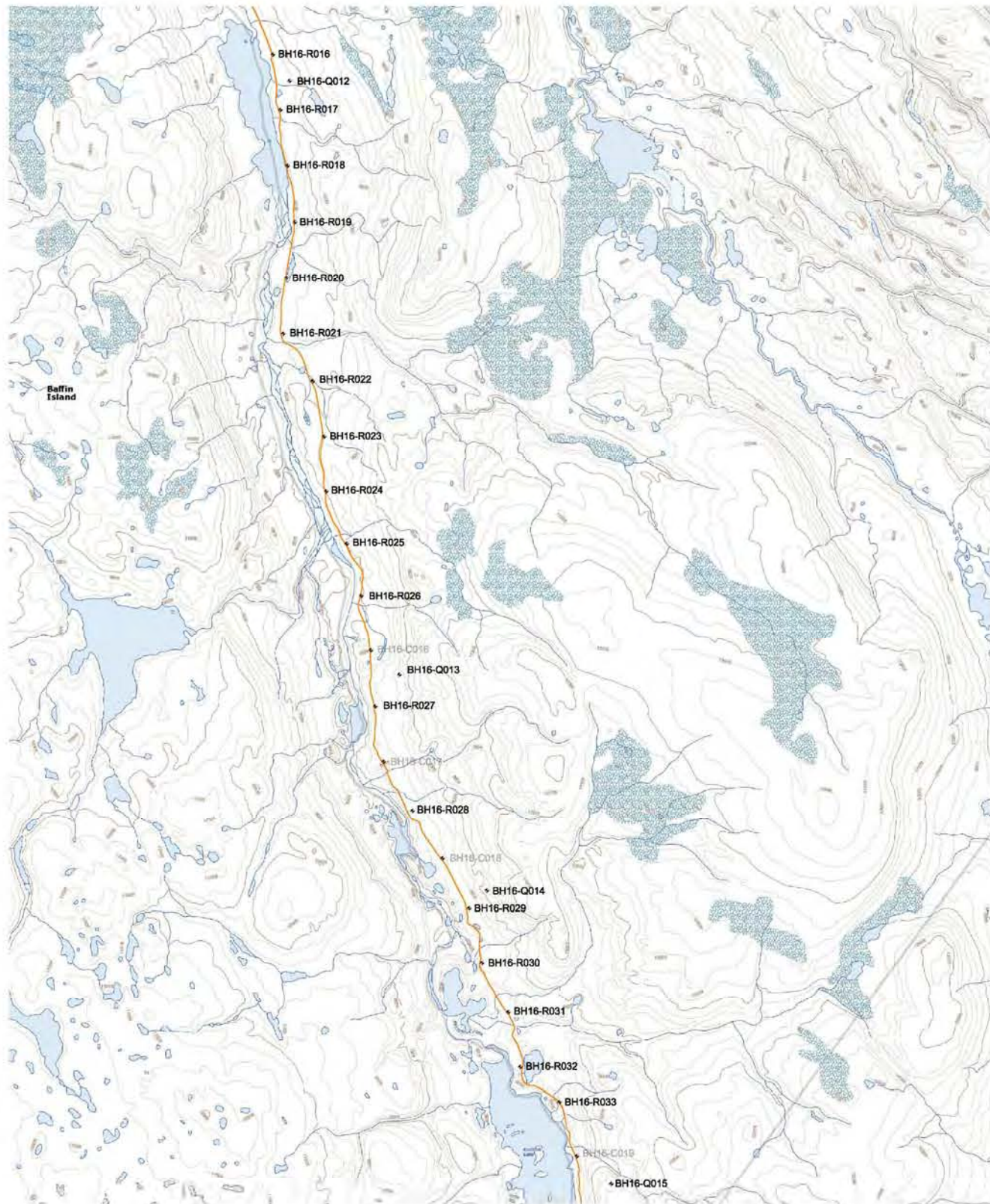
HATCH			
DRAFTSPERSON	N DONNELLY	NR	
DESIGNER	U KHAN	NR	
CHECKER			
DESIGN COORD.	W HOYLE		
RESP. ENG.			
LEAD DISC. ENG.	S HINCHBERGER		
ENG. MANAGER			
PROJ. MANAGER	J CLELAND		
ROLE	NAME	SIGNATURE	DATE
DRAWING APPROVAL STATUS: Preliminary			

**2016 GEOTECHNICAL INVESTIGATIONS
BOREHOLE LOCATIONS
SHEET 1**

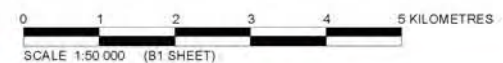
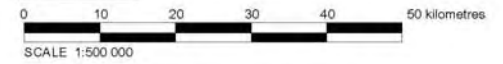
SCALE 1:50,000 OR AS NOTED	DWG. No. H352034-GEOSKT-229-292-0001	REV A
----------------------------------	---	-----------------

SUSERNAME\$ STIVES

DWG No.



KEY PLAN



A
B
C
D
E

A
B
C
D
E

NAME	
SIGNATURE	
ENG REG NUMBER	
REVISION DATE	
ORIGINAL DATE	No.
REG. PROFESSIONAL	

No.	DESCRIPTION	BY	CHK'D	DATE

HATCH			
DRAFTSPERSON	N DONNELLY	NR	
DESIGNER	U KHAN	NR	
CHECKER			
DESIGN COORD.	W HOYLE		
RESP. ENG.			
LEAD DISC. ENG.	S HINCHERGER		
ENG. MANAGER			
PROJ. MANAGER	J CLELAND		
ROLE	NAME	SIGNATURE	DATE
DRAWING APPROVAL STATUS: Preliminary			

Baffinland

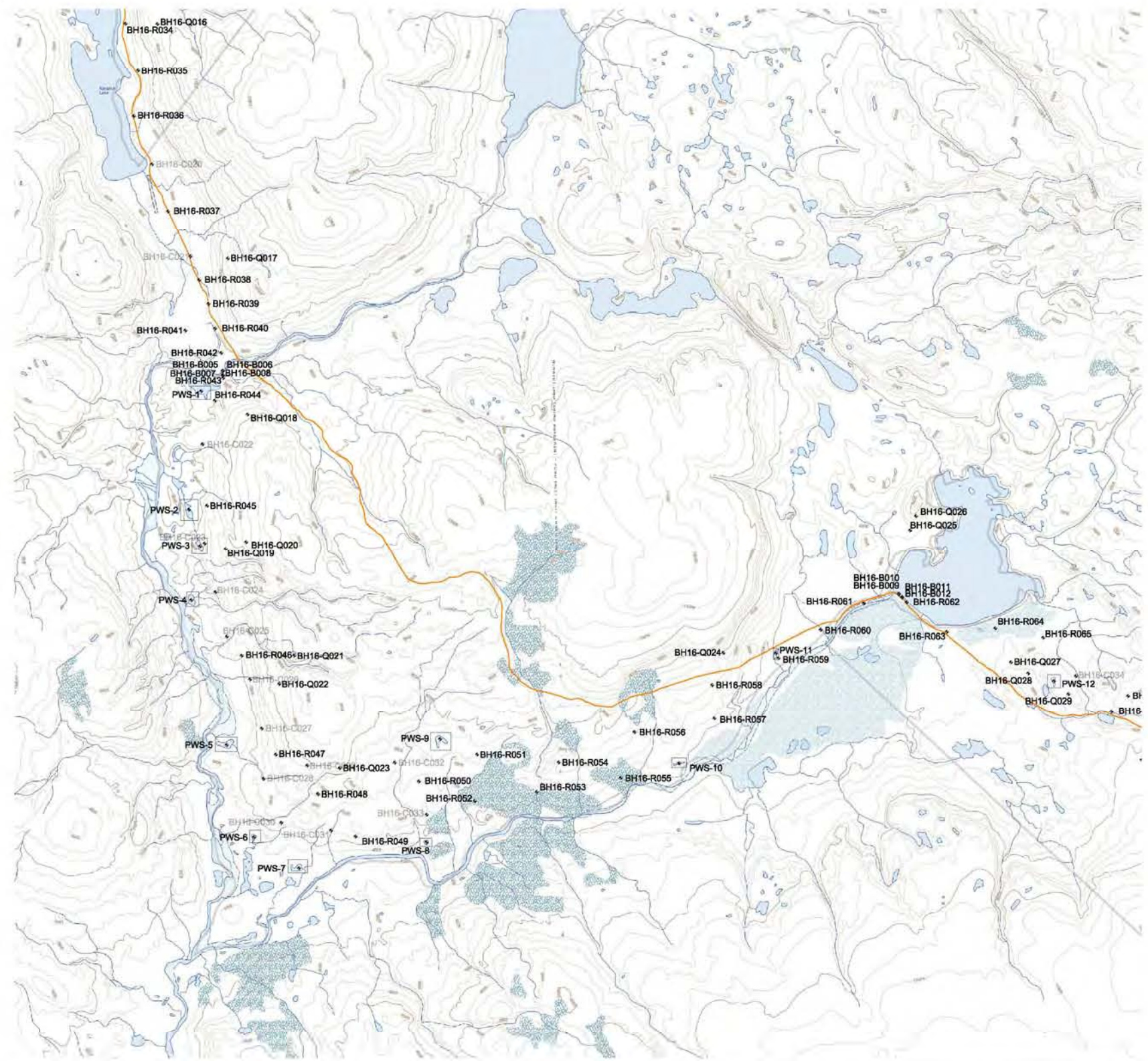
**2016 GEOTECHNICAL INVESTIGATIONS
BOREHOLE LOCATIONS
SHEET 2**

SCALE 1:50,000 OR AS NOTED DWG. No. H352034-GEOSKT-229-292-0001 REV A

SUSSEMAN STIVES



ON 'DMG



KEY PLAN



DRAFTSPERSON	N DONNELLY	NR
DESIGNER	U KHAN	NR
CHECKER		
DESIGN COORD.	W HOYLE	
RESP. ENG.		
LEAD DISC. ENG.	S HINCHBERGER	
ENG. MANAGER		
PROJ. MANAGER	J CLELAND	

**2016 GEOTECHNICAL INVESTIGATIONS
BOREHOLE LOCATIONS
SHEET 3**

ROLE	NAME	SIGNATURE	DATE
DRAWING APPROVAL STATUS:	Preliminary		

SCALE	DWG. No.	REV
1:50,000 OR AS NOTED	H352034-GEOSKT-229-292-0001	A

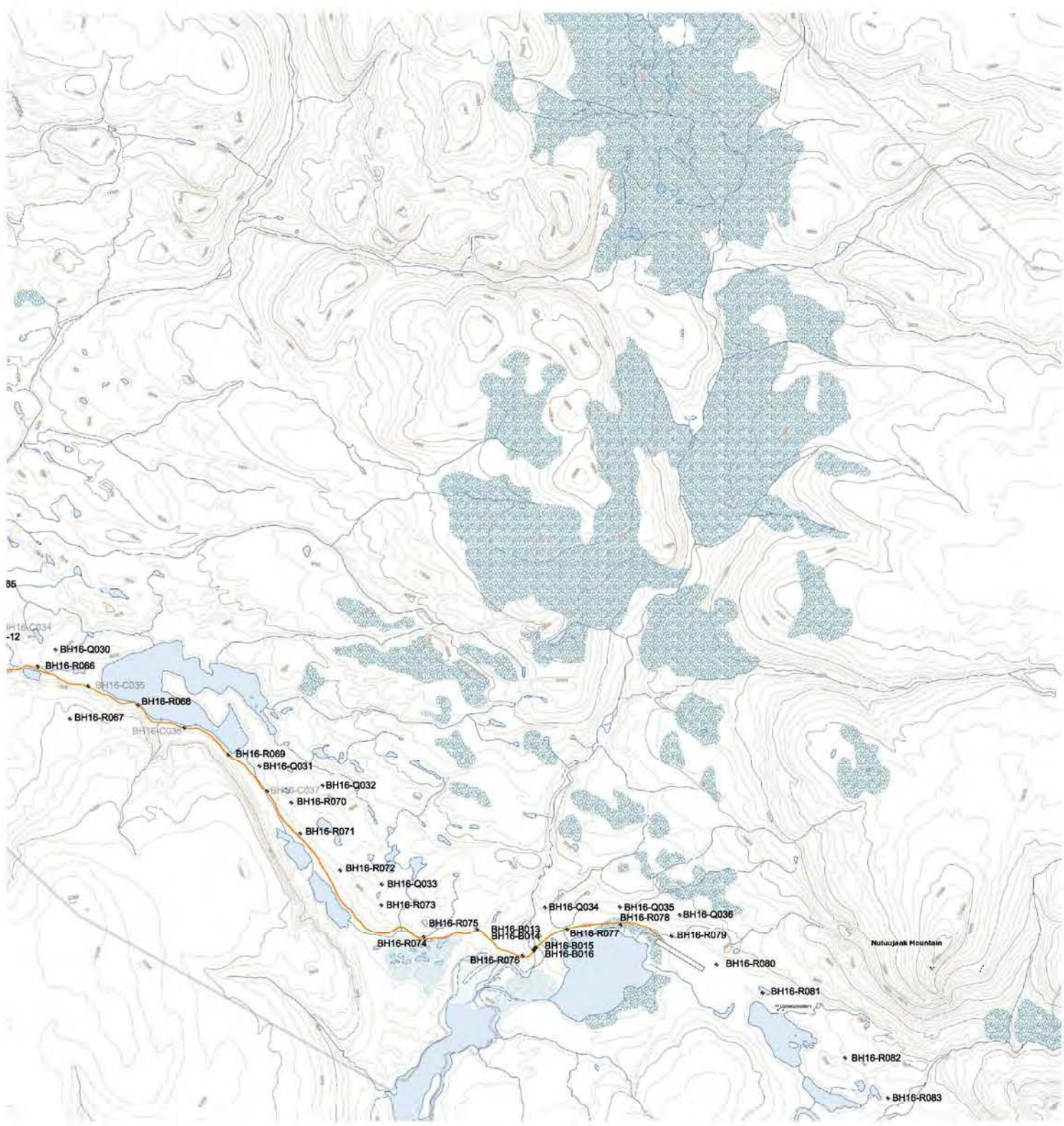
NAME	
SIGNATURE	
ENG REG NUMBER	
REVISION DATE	
ORIGINAL DATE	No.
REG. PROFESSIONAL	

DESCRIPTION	BY	CHK'D	DATE

DRAWING No.	DRAWING TITLE
	REFERENCE DRAWINGS

SUSSENAWES STIVES

DWG No.



A
B
C
D
E

A
B
C
D
E

NAME	[Redacted]
SIGNATURE	[Redacted]
ENG REG NUMBER	[Redacted]
REVISION DATE	[Redacted]
ORIGINAL DATE	[Redacted]
REG. PROFESSIONAL	[Redacted]

No.	DESCRIPTION	BY	CHK'D	DATE

HATCH			
DRAFTSPERSON	N DONNELLY	NR	
DESIGNER	U KHAN	NR	
CHECKER			
DESIGN COORD.	W HOYLE		
RESP. ENG.			
LEAD DISC. ENG.	S HINCHBERGER		
ENG. MANAGER			
PROJ. MANAGER	J CLELAND		

Baffinland

**2016 GEOTECHNICAL INVESTIGATIONS
BOREHOLE LOCATIONS
SHEET 4**

SCALE	DWG. No.	REV
1:50,000 OR AS NOTED	H352034-GEOSKT-229-292-0001	A

SUSSEX STIVES

ATTACHMENT B

UTM Coordinates of Proposed Boreholes

Primary Geotechnical Borehole Summary

Borehole	Easting (m)	Northing (m)
BH16-R001	504533.65	7975684.81
BH16-R002	504009.06	7974262.97
BH16-R003	505260.92	7972722.28
BH16-R004	506651.29	7971352.64
BH16-R005	508097.79	7969996.47
BH16-R006	509277.49	7968463.97
BH16-R007	510940.28	7967393.61
BH16-R008	512762.81	7966603.87
BH16-R009	514366.46	7965535.46
BH16-R010	515334.49	7963835.89
BH16-R011	516718.55	7962460.69
BH16-R012	517969.02	7960960.06
BH16-R013	518855.9	7959177.6
BH16-R014	519711.68	7957395.63
BH16-R015	520756.92	7955702.92
BH16-R016	521601.09	7953915.81
BH16-R017	521735.9	7952926.21
BH16-R018	521860.85	7951939.23
BH16-R019	521990.59	7950954.78
BH16-R020	521841.15	7949967.65
BH16-R021	521783.73	7948975.67
BH16-R022	522304.71	7948153.32
BH16-R023	522504.56	7947177.37
BH16-R024	522543.93	7946201.39
BH16-R025	522903.68	7945278.06
BH16-R026	523160.37	7944369.58
BH16-R027	523406.53	7942407.31
BH16-R028	524062.66	7940581.02
BH16-R029	525062.46	7938850.92
BH16-R030	525289.55	7937896.29
BH16-R031	525752.76	7937017.67
BH16-R032	525963.87	7936051.68
BH16-R033	526653.3	7935438.82
BH16-R034	527044.19	7933499.76
BH16-R035	527291.89	7932564.09
BH16-R036	527210.36	7931660.33
BH16-R037	527885.06	7929785.58
BH16-R038	528501.03	7928421.17
BH16-R039	528683.34	7927953.44
BH16-R040	528814.39	7927478.94
BH16-R041	528226.57	7927437.88
BH16-R042	528936.79	7926996.65
BH16-R043	528972.59	7926498.29
BH16-R044	528808.25	7926043.52
BH16-R045	528656.18	7923976.28
BH16-R046	529339.96	7921011.1
BH16-R047	530016.35	7919054.59
BH16-R048	530847.09	7918279.43
BH16-R049	531591.93	7917445.62
BH16-R050	532842.71	7918524.43
BH16-R051	533990.77	7919056.07
BH16-R052	533943.33	7918145
BH16-R053	535168.39	7918315.84
BH16-R054	535604.57	7918898.81
BH16-R055	536828.91	7918592.04
BH16-R056	537100.69	7919497.8
BH16-R057	538679.57	7919772.09
BH16-R058	538636.3	7920429.45
BH16-R059	539946.38	7920964.1
BH16-R060	540780.25	7921513.12
BH16-R061	541633.14	7922035.22
BH16-R062	542479.02	7922057.44
BH16-R063	543271.11	7921477.25
BH16-R064	544230.27	7921543.66
BH16-R065	545173.82	7921368.35
BH16-R066	546524.35	7919908.26
BH16-R067	547122.32	7918948
BH16-R068	548376.36	7919196.78
BH16-R069	550045.05	7918286.07
BH16-R070	551208.32	7917481.1
BH16-R071	551373.43	7916823.39
BH16-R072	552111.33	7916151.54
BH16-R073	552871.51	7915507.87
BH16-R074	553654.49	7914913.89
BH16-R075	554638.76	7915064.52
BH16-R076	555482.59	7914565.85
BH16-R077	556304.5	7915062
BH16-R078	557291.79	7915145.75
BH16-R079	558235.15	7914931.45
BH16-R080	559063.06	7914396.51
BH16-R081	559911.13	7913877.66
BH16-R082	561437.53	7912685.58
BH16-R083	562230.59	7911943.36

Quarry Geotechnical Borehole Summary

Borehole	Easting (m)	Northing (m)
BH16-Q001	505988.71	7972100.02
BH16-Q002	506112.86	7972325.31
BH16-Q003	506355.87	7972624.62
BH16-Q004	507905.91	7970594.07
BH16-Q005	508123.12	7970799.72
BH16-Q006	509055.72	7969191.69
BH16-Q007	509289.13	7969375.13
BH16-Q008	509453.64	7969695.98
BH16-Q009	513470.58	7967887.03
BH16-Q010	514002.36	7967792.36
BH16-Q011	521219.25	7958472.68
BH16-Q012	521895.67	7953450.04
BH16-Q013	523833.86	7942967.75
BH16-Q014	525375.41	7939165.29
BH16-Q015	527570.65	7933988.24
BH16-Q016	527675.74	7933495.21
BH16-Q017	529065.83	7928847.16
BH16-Q018	529457.29	7925768.18
BH16-Q019	529021.19	7923113.12
BH16-Q020	529427.82	7923256.16
BH16-Q021	530377.36	7921013.23
BH16-Q022	530082.08	7920456.14
BH16-Q023	531275.46	7918786.11
BH16-Q024	538858.25	7921067.43
BH16-Q025	542547.72	7923489.38
BH16-Q026	542661.31	7923771.47
BH16-Q027	544539.04	7920883.14
BH16-Q028	544880.34	7920662.25
BH16-Q029	545675.28	7920251.76
BH16-Q030	546853.2	7920214.34
BH16-Q031	550621.84	7918070.02
BH16-Q032	551786.15	7917710.96
BH16-Q033	552880.78	7915894.76
BH16-Q034	555893.82	7915467.29
BH16-Q035	557276.34	7915478.36
BH16-Q036	558385.54	7915327.98

Near Water Port Geotechnical Borehole Summary

Borehole	Easting (m)	Northing (m)
BH16-B001	514211.61	7965650.2
BH16-B002	514206.53	7965643.11
BH16-B003	514260.62	7965604.73
BH16-B004	514266.92	7965611.04
BH16-B005	528961.37	7926640.54
BH16-B006	528971.18	7926641.36
BH16-B007	528964.15	7926554.87
BH16-B008	528975.87	7926555.04
BH16-B009	542323.47	7922217.9
BH16-B010	542327.47	7922223.1
BH16-B011	542384.67	7922154.85
BH16-B012	542392.11	7922160.31
BH16-B013	555691.83	7914665.08
BH16-B014	555685.13	7914669.66
BH16-B015	555726.52	7914711.77
BH16-B016	555715.88	7914715.73

Milne Port Geotechnical Borehole Summary

Borehole	Easting (m)	Northing (m)
BH16-M001	503619	7976245
BH16-M002	503665	7976245
BH16-M003	503619	7976125
BH16-M004	503665	7976124
BH16-M005	503666	7976196
BH16-M006	503964	7976123
BH16-M007	503820	7975018
BH16-M008	503769	7974955
BH16-M009	503900	7975263
BH16-M010	503459	7974911
BH16-M011	502935	7976271

Secondary Geotechnical Borehole Summary

Borehole	Easting (m)	Northing (m)
BH16-C001	503762.89	7975181.63
BH16-C002	504597.3	7973462.97
BH16-C003	505876.35	7971948.16
BH16-C004	507436.66	7970743.14
BH16-C005	508573.06	7969141.44
BH16-C006	510143.73	7967964.92
BH16-C007	511894.83	7967094.41
BH16-C008	513694.92	7966256.21
BH16-C009	514870.4	7964719.61
BH16-C010	516002.07	7963128.69
BH16-C011	517349.06	7961736.69
BH16-C012	518403.5	7960062.49
BH16-C013	519218.35	7958250.54
BH16-C014	520308.6	7956593.61
BH16-C015	521208.1	7954831.33
BH16-C016	523331.67	7943399.06
BH16-C017	523555.54	7941441.48
BH16-C018	524592.88	7939733.37
BH16-C019	526962.92	7934487.65
BH16-C020	527569.36	7930717.9
BH16-C021	528326.19	7928888.05
BH16-C022	528567.22	7925181.52
BH16-C023	528607.62	7923228.29
BH16-C024	528821.7	7922261.95
BH16-C025	529047.04	7921389.24
BH16-C026	529506.56	7920543.85
BH16-C027	529736.19	7919570.88
BH16-C028	529771.81	7918574.99
BH16-C029	530636.02	7918838.61
BH16-C030	530125.13	7917718.53
BH16-C031	531106.36	7917566.15
BH16-C032	532362.92	7918894.63
BH16-C033	532995.66	7917875.7
BH16-C034	545824.59	7920610.1
BH16-C035	547457.94	7919550.2
BH16-C036	549231.75	7918780.8
BH16-C037	550763.02	7917609.93

ATTACHMENT C

Locations of Existing / New Sources

Existing Water Sources*

Location	Tote Road Chainage
Km32 Lake	At Water Intake - km 32
CV128 River	Km17
Katiktok Lake	Km52-58
BG50 River	Km62
CV217 River	Km80
Muriel Lake	km78 - 80
David Lake	Km 87 - 89
CV233 (Tom River)	Km97
Camp Lake	At Water Intake - km 100

*Type A Licence 2AM-MRY1325 - refer to Part E, Tables 2, 3, and 4.

Potential New Water Taking Sources*

Location	Easting (m)	Northing (m)
PWS-1	528541	7936231
PWS-2	528298	7923899
PWS-3	528518	7923176
PWS-4	528345	7922100
PWS-5	529042	7912244
PWS-6	529585	7917433
PWS-7	534071	7916820
PWS-8	532993	7917330
PWS-9	533261	7919362
PWS-10	537981	7918880
PWS-11	539897	7921060
PWS-12	545388	7920511

* Refer to Attachment A, Sheets 1 to 4

Attachment 2

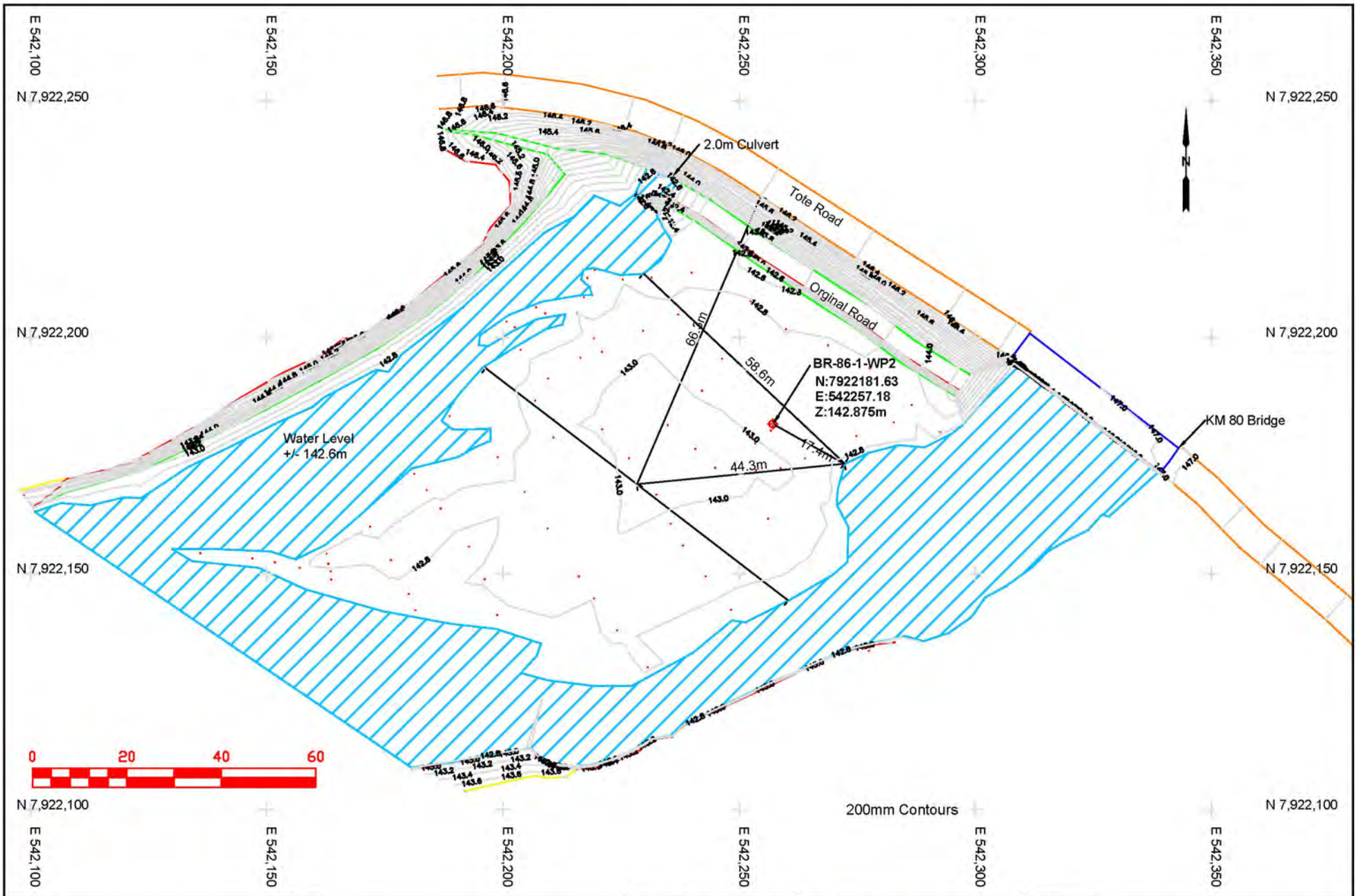
UTM Coordinates for Additional Drill Hole Locations

Drill Hole Summary

Drill Hole ID	UTM – NAD83		Location
	Easting (m)	Northing (m)	
CORNER OF INDEXER	503791.0	7974895.0	Milne Port
CENTER OF INDEXER	503781.6	7974920.8	Milne Port
BH16-M008 RELOC	503771.0	7974959.0	Milne Port
P8	503529.2	7976309.9	Milne Port
P9	503548.5	7976371.5	Milne Port
BR-86-1-WP2	542257.2	7922181.6	Km 80 Bridge (Tote Road)

Attachment 3

Map - Km 80 Bridge Drill Hole Location and Nearby Water Bodies



NOTES: Coordinate system: NAD 83 (Canada) UTM Zone 17 North Geoid model: HT_2	CLIENT: Baffinland Iron Mines Corporation	PREPARED BY: Nuna East Ltd. 9839 - 31 Avenue Edmonton, AB T6N 1C5	DRAWING TITLE: Bore Hole BR-86-1WP2 Bridge 80 Tote Road	
	PROJECT: Early Earthworks Project , Baffin Island, Nunavut	DRAWN BY: mc	SCALE: barscale	DATE: Sept. 17 2017

APPENDIX C.4

October 10, 2017 – Geotechnical Drilling Notification



October 10, 2017

Jonathan Mesher, Resource Management Officer
Nunavut Field Operations
Indigenous and Northern Affairs Canada
Box 100
Iqaluit, NU X0A 0H0

Stephen Bathory, Director Major Projects
Qikiqtani Inuit Association
P.O. Box 219
Iqaluit, NU X0A 0H0

Manager of Licensing
Nunavut Water Board
PO Box 119, Gjoa Haven, NU X0B 1J0

Re: Additional Drill Hole Locations for 2016/2017 Geotechnical Drilling Program – Type “B” Water License 2BE-MRY1421, QIA Commercial Lease No. Q13C301

The purpose of this letter is to inform the Qikiqtani Inuit Association (QIA), Nunavut Water Board (NWB) and Indigenous and Northern Affairs Canada (INAC) of an additional two (2) drill hole locations Baffinland has added to the geotechnical drilling program presented to regulators and stakeholders in a notification letter dated October 9, 2016. A copy of the original notification letter for the geotechnical drilling program is provided as Attachment 1 of this letter.

Baffinland continues to conduct a geotechnical drilling program at Project sites and near the Milne Inlet Tote Road to evaluate geotechnical conditions and support engineering studies. The program continues to be managed by Hatch Ltd., performed by Boart Longyear and is scheduled to be completed by the end of November 2017. Equipment, drilling methods, water use tracking methods and water sources used for the additional drill hole locations will be consistent with the original geotechnical drilling program (refer to Attachment 1). Baffinland is not proposing any new water sources to support the additional drill hole locations.

The two (2) additional hole locations are situated near the Km 80 bridge along the Tote Road and are within 30 metres of the ordinary high water mark of nearby water bodies. In accordance with Part F, Item 2 of Baffinland’s Type B Water Licence 2BE-MRY1421 (Type B Water Licence), this letter and attachments provide the notification required for the two (2) additional drill hole locations at Km 80 bridge. A map showing the location of the two (2) additional drill holes, along with their coordinates and the nearby water bodies, are provided in Attachment 2.

Despite best planning, it should be noted that unforeseen circumstances may necessitate some changes in plans as the program proceeds. Baffinland will endeavor to inform the Inspector and land owner in such circumstances.

Drill waste will be disposed of in natural depressions or sumps consistent with Part F, Item 4 of the Type B Water Licence. Daily environmental monitoring will be performed, including pre-, during and post-inspections. Drill water runoff and siltation mitigation measures consistent with Baffinland's Environmental Protection Plan (BAF-PH1-830-P16-0008, Rev. 1) will be employed as required.

We trust that this information meets the various notifications required by the above referenced parties. Please do not hesitate to contact the undersigned, should you have any question or comments.

Regards,

A handwritten signature in black ink, appearing to read 'Christopher Murray', with a large, stylized flourish at the end.

Christopher Murray
Environmental & Regulatory Compliance Manager

Attachments:

- Attachment 1: Original Geotechnical Drilling Program Notification Letter (dated October 9, 2016)
- Attachment 2: Map - Km 80 Bridge Drill Hole Locations and Nearby Water Bodies

Cc: Sean Joseph (NWB)
Todd Burlingame, William Bowden, Laura Taylor, Andrew Vermeer (Baffinland)

Attachment 1

Original Geotechnical Drilling Program Notification Letter (dated October 9, 2016)



October 9, 2016

Justin Hack, Resource Management Officer
Nunavut Field Operations
Aboriginal Affairs and Northern Development Canada
Box 100
Iqaluit, NU X0A 0H0

Stephen Bathory, Director Major Projects
Qikiqtani Inuit Association
P.O. Box 219
Iqaluit, NU X0A 0H0

Manager of Licencing
Nunavut Water Board
PO Box 119, Gjoa Haven, NU X0B 1J0

Re: 2016 Geotechnical Drilling Program- Type B Water Licence 2BE-MRY1421, QIA Lease No. Q13C301, INAC Land Use Permit N2014C0013.

Baffinland has commenced a geotechnical drilling program for the evaluating of geotechnical conditions adjacent and near to the existing Tote Road for the purpose of engineering studies. The program is being managed by Hatch Ltd. and performed by Boart Longyear. The program is scheduled for completion by the end of November 2017. A total of approximately 180 geotechnical boreholes are planned. The majority of these boreholes will be performed using a sonic drilling technique requiring no or little water usage (based on shallow depth through soils of around 5 metres). However, a select number of the boreholes, evaluating proposed future quarries, will require water to support rotary coring drill techniques. The quarry boreholes are planned to drill into bedrock to depths of up to around 20 metres. Refer to the attached four maps (Sheets 1 to 4) in Attachment A that show proposed borehole locations and proposed water sources in relation to the alignment of the existing Tote Road. The UTM coordinates for the drill program are presented in Attachment B.

The equipment to be utilized for the program includes a tracked drill rig (LS 250), capable of drilling using both sonic and rotary coring techniques. The diameter of the boreholes to be advanced is approximately 100 mm. Other supporting track vehicles include a flatbed (Nodwell type) for hauling water and other supplies and a skid steer for moving drill rods and other equipment/supplies. An archaeology survey of the area to be drilled and traversed was completed during summer 2016 and observed archaeology sites were identified and staked off. These coordinates have been provided, in confidence, to the drilling manager to minimize the potential for archaeological disturbance.

Under Part C, Item 1, of the Type B Water Licence 2BE-MRY1421, Baffinland is required to provide notification to the Board and the Inspector, of new water sources to be used during drilling that are not currently identified. There are 12 new water sources that may be used during the drilling program are denoted by the "PWS" symbol on the maps provided in Attachment A. In addition to the new water sources, there are eight (8) previously identified water sources (from



Type A Water Licence 2AM-MRY1325 / Amendment No.1) that may be used to support the drilling program, also denoted on the Attachment A maps. A table with existing and new water sources to support the drilling program are provided in Appendix C. The volume of water to be utilized at each new source is considered to be minimal. For rotary coring drill holes, the anticipated water use would be <10 m³, but typically <5 m³ per borehole. This is only for the boreholes denoted by the prefix, "BH16-Q". All of the ponds, lakes, and rivers identified can sustain such a very minor withdrawal of water. All other boreholes will use the sonic technique which typically drills without the use of water. Despite best planning, it should be noted that unforeseen geotechnical circumstances may preclude some changes in plans as the program proceeds. Baffinland will endeavor to inform the Inspector and land owner in such circumstances. Due to temperature restrictions tracking water usage volumes utilising water lines and flow meters will not be feasible. Therefore, Baffinland proposes to track water usage volumes by means of calibrated one cubic metre totes.

In accordance with Part F, Section 2, of the Type B Water Licence 2BE-MRY1421, this letter and attachments provides the notification for the drilling of 16 boreholes that will be closer than 31 metres from the ordinary high water mark of a water body. These locations are denoted by the prefix "BH16-B" on the maps provided in Attachment A. Locations of drill waste will be disposed of in natural depressions or sumps consistent with Part F Item 4 of Type B Water Licence. Daily environmental monitoring will be performed, including pre-, during and post- inspections. Drill water runoff and siltation mitigation measures consistent with Baffinland's Environmental Protection Plan BAF-PH1-830-P16-0008 r1 will be employed as required.

We trust that this information meets the various notifications required by the above referenced parties. Please to not hesitate to contact the undersigned, should you have any questions or comments.

Submitted by:

James Millard
Environmental Manager

Attach: A: Map Sheets 1 to 4, 2016 Geotechnical Investigations –Borehole Locations (four pages).

B: UTM Coordinates of Proposed Boreholes (two pages).

C: Locations/UTM Coordinates of New/Existing Water Sources (one page).

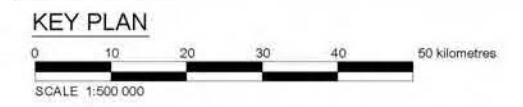
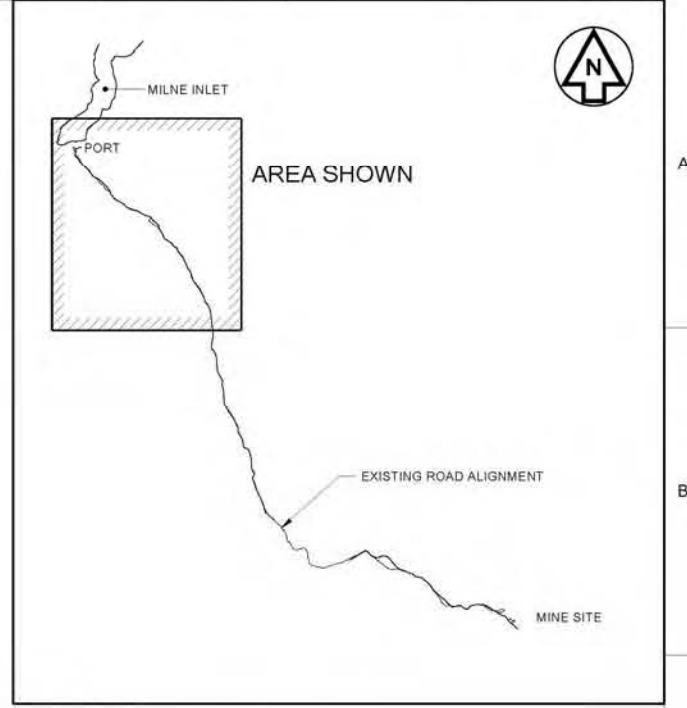
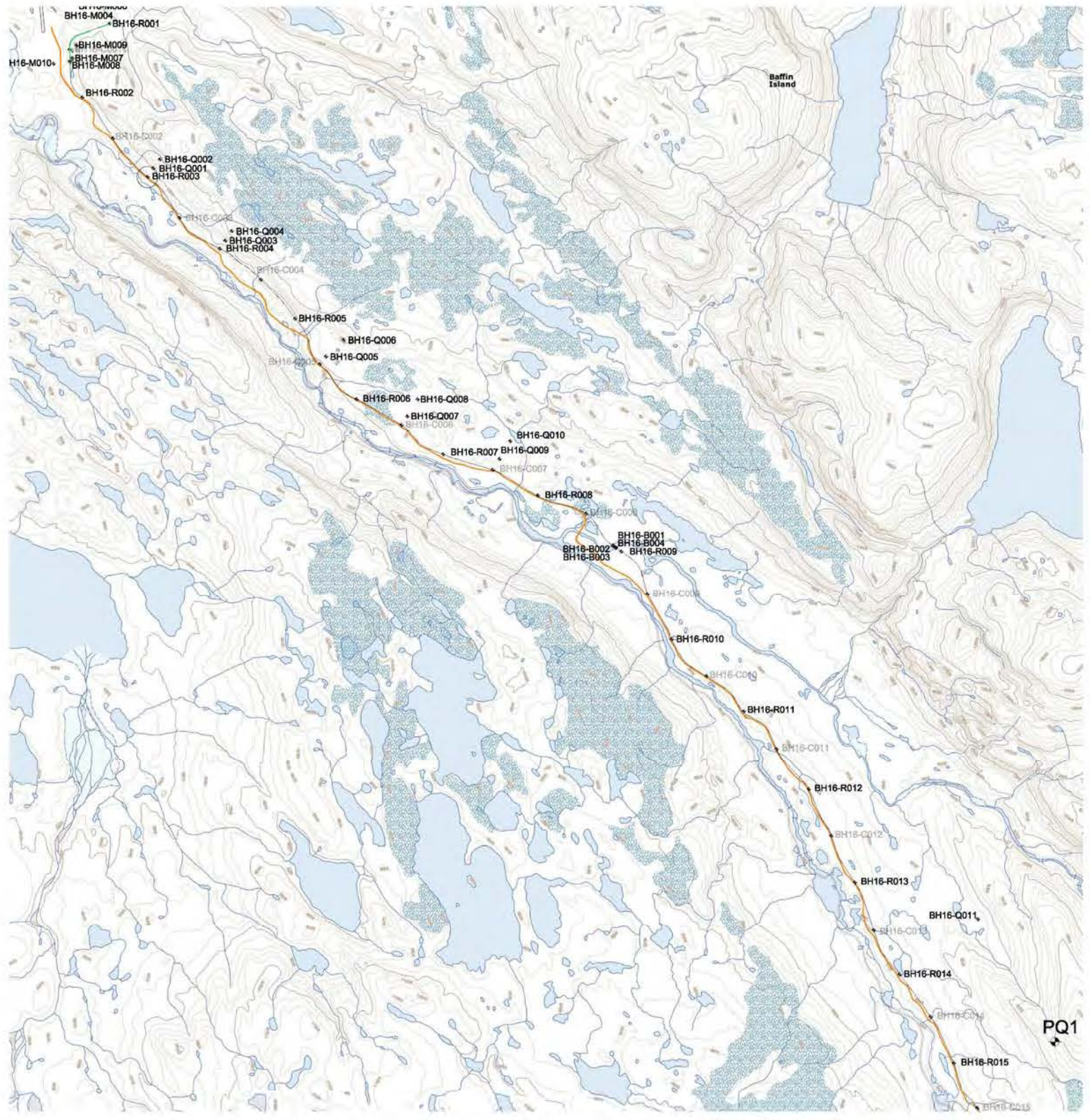
cc. Wayne McPhee, Todd Burlingame, Matt Weaver, William Bowden, Allan Knight (Baffinland), Sean Hinchberger and Warren Hoyle (Hatch)

Tracey McCaie , Scott Burgess, Erik Allain (INAC)

ATTACHMENT A

2016 Geotechnical Investigations - Borehole Locations

1 2 3 4 5 6 7 8



A
B
C
D
E
F

A
B
C
D
E
F

NAME	
SIGNATURE	
ENG REG NUMBER	
REVISION DATE	
ORIGINAL DATE	No.
REG. PROFESSIONAL	

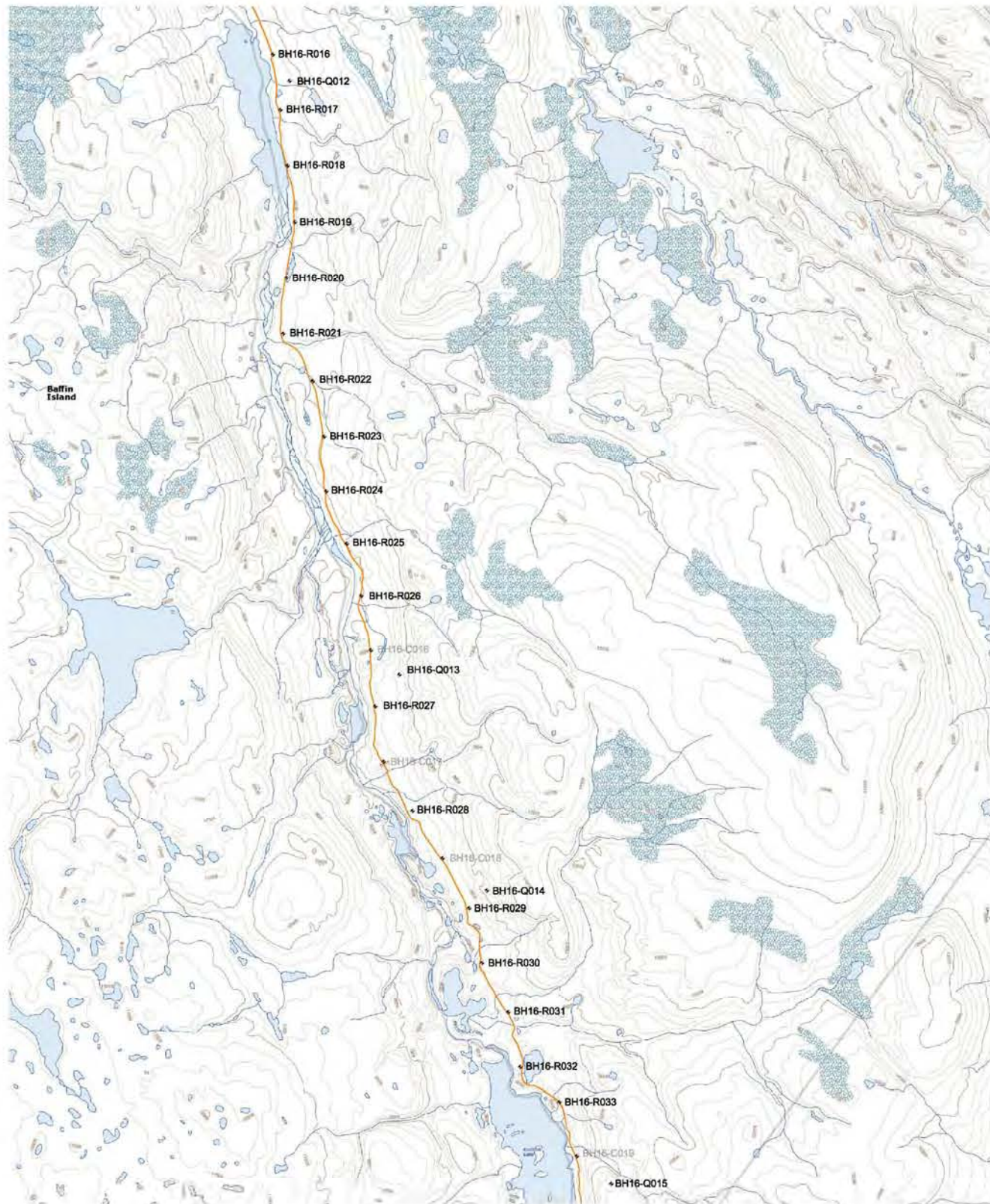
<small>THIS DRAWING WAS PREPARED FOR THE EXCLUSIVE USE OF (NAME OF CLIENT) (CLIENT) AND IS ISSUED PURSUANT TO THE RELEVANT AGREEMENT BETWEEN CLIENT AND HATCH LTD. ("HATCH"), UNLESS OTHERWISE AGREED IN WRITING WITH CLIENT OR SPECIFIED ON THIS DRAWING. HATCH DOES NOT ACCEPT AND DISCLAIMS ANY AND ALL LIABILITY OR RESPONSIBILITY ARISING FROM ANY USE OF OR RELIANCE ON THIS DRAWING BY ANY THIRD PARTY OR ANY MODIFICATION OF THIS DRAWING BY CLIENT. AND (B) THIS DRAWING IS CONFIDENTIAL AND ALL INTELLECTUAL PROPERTY RIGHTS EMBODIED OR REFERENCED IN THIS DRAWING REMAIN THE PROPERTY OF HATCH.</small>			
DESCRIPTION	BY	CHK'D	DATE
REVISIONS			

HATCH			
DRAFTSPERSON	N DONNELLY	NR	
DESIGNER	U KHAN	NR	
CHECKER			
DESIGN COORD.	W HOYLE		
RESP. ENG.			
LEAD DISC. ENG.	S HINCHBERGER		
ENG. MANAGER			
PROJ. MANAGER	J CLELAND		
ROLE	NAME	SIGNATURE	DATE
DRAWING APPROVAL STATUS: Preliminary			

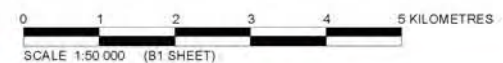
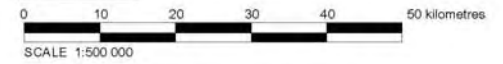
**2016 GEOTECHNICAL INVESTIGATIONS
BOREHOLE LOCATIONS
SHEET 1**

SCALE 1:50,000 OR AS NOTED	DWG. No. H352034-GEOSKT-229-292-0001	REV A
----------------------------------	---	-----------------

DWG No.



KEY PLAN



A
B
C
D
E

A
B
C
D
E

NAME	
SIGNATURE	
ENG REG NUMBER	
REVISION DATE	
ORIGINAL DATE	No.
REG. PROFESSIONAL	

No.	DESCRIPTION	BY	CHK'D	DATE

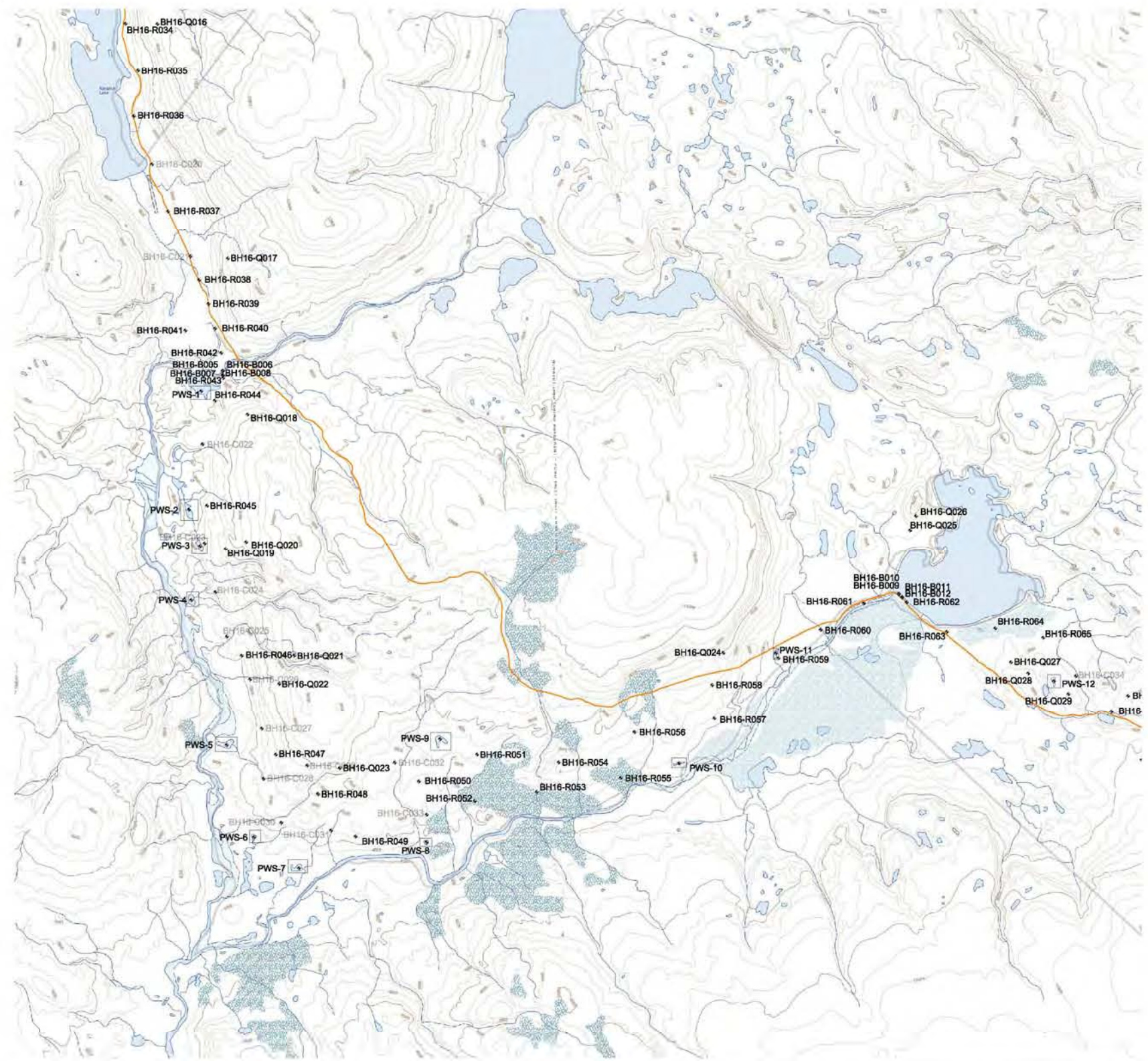
				2016 GEOTECHNICAL INVESTIGATIONS BOREHOLE LOCATIONS SHEET 2			
DRAFTSPERSON	N DONNELLY	NR					
DESIGNER	U KHAN	NR					
CHECKER							
DESIGN COORD.	W HOYLE						
RESP. ENG.							
LEAD DISC. ENG.	S HINCHDERGER						
ENG. MANAGER							
PROJ. MANAGER	J CLELAND						
ROLE	NAME	SIGNATURE	DATE				
DRAWING APPROVAL STATUS: Preliminary							

DRAWING No.	DRAWING TITLE	
1	REFERENCE DRAWINGS	
SCALE	DWG. No.	REV
1:50,000 OR AS NOTED	H352034-GEOSKT-229-292-0001	A

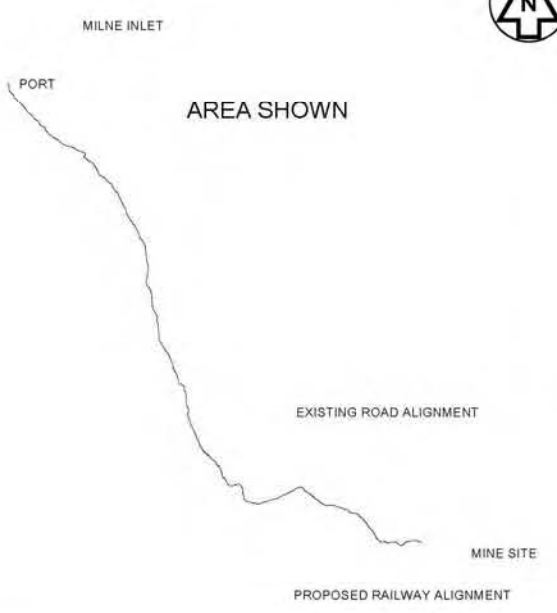
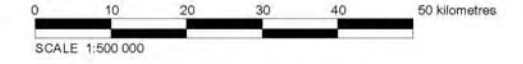
SUSSEMAN STIVES



ON 'DMG



KEY PLAN



A
B
C
D
E

A
B
C
D
E

NAME	
SIGNATURE	
ENG REG NUMBER	
REVISION DATE	
ORIGINAL DATE	No.
REG. PROFESSIONAL	

No.	DESCRIPTION	BY	CHK'D	DATE

				DRAFTSPERSON	N DONNELLY	NR
				DESIGNER	U KHAN	NR
				CHECKER		
				DESIGN COORD.	W HOYLE	
2016 GEOTECHNICAL INVESTIGATIONS BOREHOLE LOCATIONS SHEET 3				RESP. ENG.		
				LEAD DISC. ENG.	S HINCHERGER	
DRAWING APPROVAL STATUS: Preliminary				ENG. MANAGER		
				PROJ. MANAGER	J CLELAND	

DRAWING No.	DRAWING TITLE	SCALE	DWG. No.	REV
	REFERENCE DRAWINGS	1:50,000 OR AS NOTED	H352034-GEOSKT-229-292-0001	A

SUSSENAWES STIVES

ATTACHMENT B

UTM Coordinates of Proposed Boreholes

Primary Geotechnical Borehole Summary

Borehole	Easting (m)	Northing (m)
BH16-R001	504533.65	7975684.81
BH16-R002	504009.06	7974262.97
BH16-R003	505260.92	7972722.28
BH16-R004	506651.29	7971352.64
BH16-R005	508097.79	7969996.47
BH16-R006	509277.49	7968463.97
BH16-R007	510940.28	7967393.61
BH16-R008	512762.81	7966603.87
BH16-R009	514366.46	7965535.46
BH16-R010	515334.49	7963835.89
BH16-R011	516718.55	7962460.69
BH16-R012	517969.02	7960960.06
BH16-R013	518855.9	7959177.6
BH16-R014	519711.68	7957395.63
BH16-R015	520756.92	7955702.92
BH16-R016	521601.09	7953915.81
BH16-R017	521735.9	7952926.21
BH16-R018	521860.85	7951939.23
BH16-R019	521990.59	7950954.78
BH16-R020	521841.15	7949967.65
BH16-R021	521783.73	7948975.67
BH16-R022	522304.71	7948153.32
BH16-R023	522504.56	7947177.37
BH16-R024	522543.93	7946201.39
BH16-R025	522903.68	7945278.06
BH16-R026	523160.37	7944369.58
BH16-R027	523406.53	7942407.31
BH16-R028	524062.66	7940581.02
BH16-R029	525062.46	7938850.92
BH16-R030	525289.55	7937896.29
BH16-R031	525752.76	7937017.67
BH16-R032	525963.87	7936051.68
BH16-R033	526653.3	7935438.82
BH16-R034	527044.19	7933499.76
BH16-R035	527291.89	7932564.09
BH16-R036	527210.36	7931660.33
BH16-R037	527885.06	7929785.58
BH16-R038	528501.03	7928421.17
BH16-R039	528683.34	7927953.44
BH16-R040	528814.39	7927478.94
BH16-R041	528226.57	7927437.88
BH16-R042	528936.79	7926996.65
BH16-R043	528972.59	7926498.29
BH16-R044	528808.25	7926043.52
BH16-R045	528656.18	7923976.28
BH16-R046	529339.96	7921011.1
BH16-R047	530016.35	7919054.59
BH16-R048	530847.09	7918279.43
BH16-R049	531591.93	7917445.62
BH16-R050	532842.71	7918524.43
BH16-R051	533990.77	7919056.07
BH16-R052	533943.33	7918145
BH16-R053	535168.39	7918315.84
BH16-R054	535604.57	7918898.81
BH16-R055	536828.91	7918592.04
BH16-R056	537100.69	7919497.8
BH16-R057	538679.57	7919772.09
BH16-R058	538636.3	7920429.45
BH16-R059	539946.38	7920964.1
BH16-R060	540780.25	7921513.12
BH16-R061	541633.14	7922035.22
BH16-R062	542479.02	7922057.44
BH16-R063	543271.11	7921477.25
BH16-R064	544230.27	7921543.66
BH16-R065	545173.82	7921368.35
BH16-R066	546524.35	7919908.26
BH16-R067	547122.32	7918948
BH16-R068	548376.36	7919196.78
BH16-R069	550045.05	7918286.07
BH16-R070	551208.32	7917481.1
BH16-R071	551373.43	7916823.39
BH16-R072	552111.33	7916151.54
BH16-R073	552871.51	7915507.87
BH16-R074	553654.49	7914913.89
BH16-R075	554638.76	7915064.52
BH16-R076	555482.59	7914565.85
BH16-R077	556304.5	7915062
BH16-R078	557291.79	7915145.75
BH16-R079	558235.15	7914931.45
BH16-R080	559063.06	7914396.51
BH16-R081	559911.13	7913877.66
BH16-R082	561437.53	7912685.58
BH16-R083	562230.59	7911943.36

Quarry Geotechnical Borehole Summary

Borehole	Easting (m)	Northing (m)
BH16-Q001	505988.71	7972100.02
BH16-Q002	506112.86	7972325.31
BH16-Q003	506355.87	7972624.62
BH16-Q004	507905.91	7970594.07
BH16-Q005	508123.12	7970799.72
BH16-Q006	509055.72	7969191.69
BH16-Q007	509289.13	7969375.13
BH16-Q008	509453.64	7969695.98
BH16-Q009	513470.58	7967887.03
BH16-Q010	514002.36	7967792.36
BH16-Q011	521219.25	7958472.68
BH16-Q012	521895.67	7953450.04
BH16-Q013	523833.86	7942967.75
BH16-Q014	525375.41	7939165.29
BH16-Q015	527570.65	7933988.24
BH16-Q016	527675.74	7933495.21
BH16-Q017	529065.83	7928847.16
BH16-Q018	529457.29	7925768.18
BH16-Q019	529021.19	7923113.12
BH16-Q020	529427.82	7923256.16
BH16-Q021	530377.36	7921013.23
BH16-Q022	530082.08	7920456.14
BH16-Q023	531275.46	7918786.11
BH16-Q024	538858.25	7921067.43
BH16-Q025	542547.72	7923489.38
BH16-Q026	542661.31	7923771.47
BH16-Q027	544539.04	7920883.14
BH16-Q028	544880.34	7920662.25
BH16-Q029	545675.28	7920251.76
BH16-Q030	546853.2	7920214.34
BH16-Q031	550621.84	7918070.02
BH16-Q032	551786.15	7917710.96
BH16-Q033	552880.78	7915894.76
BH16-Q034	555893.82	7915467.29
BH16-Q035	557276.34	7915478.36
BH16-Q036	558385.54	7915327.98

Near Water Port Geotechnical Borehole Summary

Borehole	Easting (m)	Northing (m)
BH16-B001	514211.61	7965650.2
BH16-B002	514206.53	7965643.11
BH16-B003	514260.62	7965604.73
BH16-B004	514266.92	7965611.04
BH16-B005	528961.37	7926640.54
BH16-B006	528971.18	7926641.36
BH16-B007	528964.15	7926554.87
BH16-B008	528975.87	7926555.04
BH16-B009	542323.47	7922217.9
BH16-B010	542327.47	7922223.1
BH16-B011	542384.67	7922154.85
BH16-B012	542392.11	7922160.31
BH16-B013	555691.83	7914665.08
BH16-B014	555685.13	7914669.66
BH16-B015	555726.52	7914711.77
BH16-B016	555715.88	7914715.73

Milne Port Geotechnical Borehole Summary

Borehole	Easting (m)	Northing (m)
BH16-M001	503619	7976245
BH16-M002	503665	7976245
BH16-M003	503619	7976125
BH16-M004	503665	7976124
BH16-M005	503666	7976196
BH16-M006	503964	7976123
BH16-M007	503820	7975018
BH16-M008	503769	7974955
BH16-M009	503900	7975263
BH16-M010	503459	7974911
BH16-M011	502935	7976271

Secondary Geotechnical Borehole Summary

Borehole	Easting (m)	Northing (m)
BH16-C001	503762.89	7975181.63
BH16-C002	504597.3	7973462.97
BH16-C003	505876.35	7971948.16
BH16-C004	507436.66	7970743.14
BH16-C005	508573.06	7969141.44
BH16-C006	510143.73	7967964.92
BH16-C007	511894.83	7967094.41
BH16-C008	513694.92	7966256.21
BH16-C009	514870.4	7964719.61
BH16-C010	516002.07	7963128.69
BH16-C011	517349.06	7961736.69
BH16-C012	518403.5	7960062.49
BH16-C013	519218.35	7958250.54
BH16-C014	520308.6	7956593.61
BH16-C015	521208.1	7954831.33
BH16-C016	523331.67	7943399.06
BH16-C017	523555.54	7941441.48
BH16-C018	524592.88	7939733.37
BH16-C019	526962.92	7934487.65
BH16-C020	527569.36	7930717.9
BH16-C021	528326.19	7928888.05
BH16-C022	528567.22	7925181.52
BH16-C023	528607.62	7923228.29
BH16-C024	528821.7	7922261.95
BH16-C025	529047.04	7921389.24
BH16-C026	529506.56	7920543.85
BH16-C027	529736.19	7919570.88
BH16-C028	529771.81	7918574.99
BH16-C029	530636.02	7918838.61
BH16-C030	530125.13	7917718.53
BH16-C031	531106.36	7917566.15
BH16-C032	532362.92	7918894.63
BH16-C033	532995.66	7917875.7
BH16-C034	545824.59	7920610.1
BH16-C035	547457.94	7919550.2
BH16-C036	549231.75	7918780.8
BH16-C037	550763.02	7917609.93

ATTACHMENT C

Locations of Existing / New Sources

Existing Water Sources*

Location	Tote Road Chainage
Km32 Lake	At Water Intake - km 32
CV128 River	Km17
Katiktok Lake	Km52-58
BG50 River	Km62
CV217 River	Km80
Muriel Lake	km78 - 80
David Lake	Km 87 - 89
CV233 (Tom River)	Km97
Camp Lake	At Water Intake - km 100

*Type A Licence 2AM-MRY1325 - refer to Part E, Tables 2, 3, and 4.

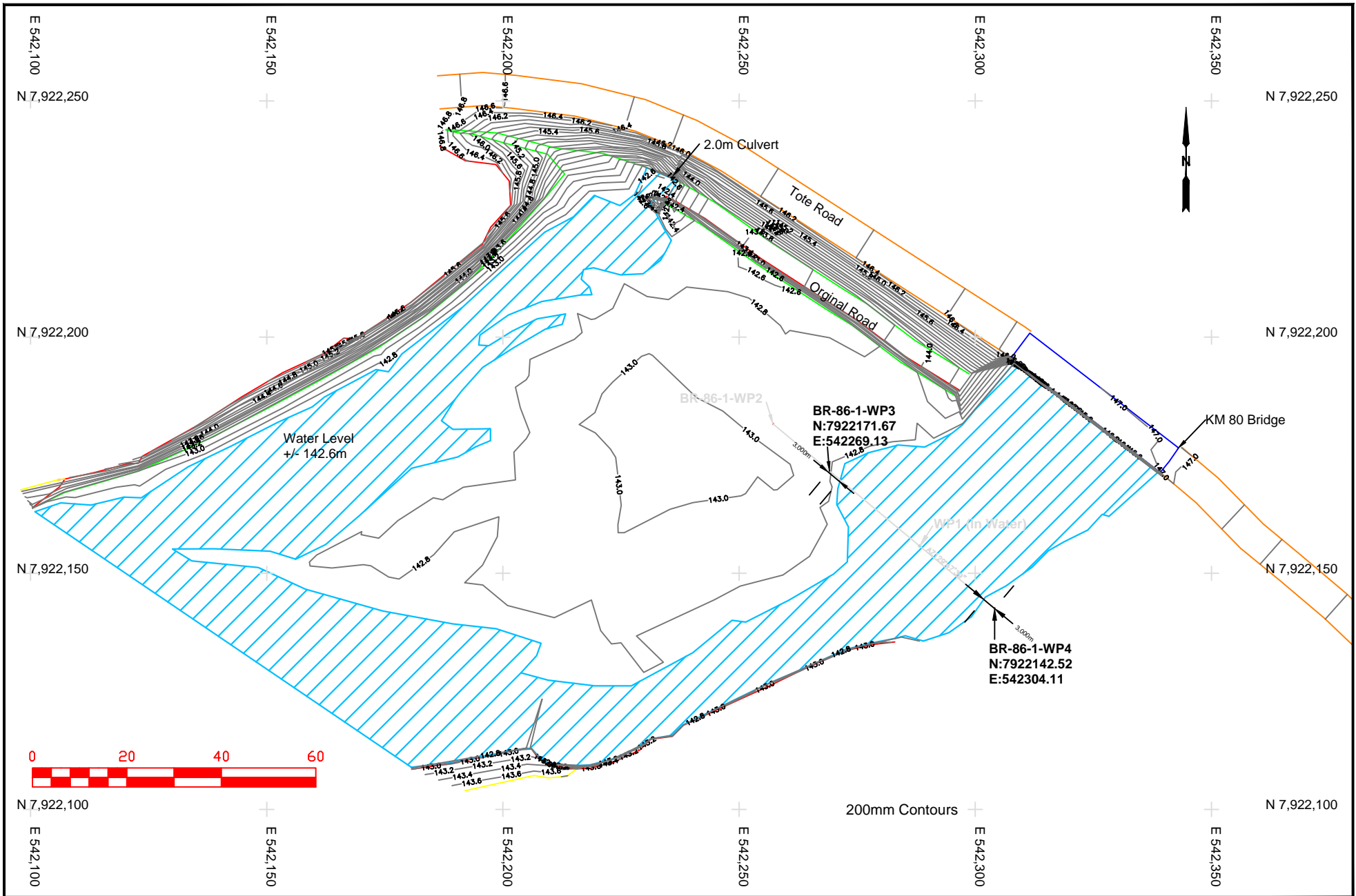
Potential New Water Taking Sources*

Location	Easting (m)	Northing (m)
PWS-1	528541	7936231
PWS-2	528298	7923899
PWS-3	528518	7923176
PWS-4	528345	7922100
PWS-5	529042	7912244
PWS-6	529585	7917433
PWS-7	534071	7916820
PWS-8	532993	7917330
PWS-9	533261	7919362
PWS-10	537981	7918880
PWS-11	539897	7921060
PWS-12	545388	7920511

* Refer to Attachment A, Sheets 1 to 4

Attachment 2

Map - Km 80 Bridge Drill Hole Locations and Nearby Water Bodies



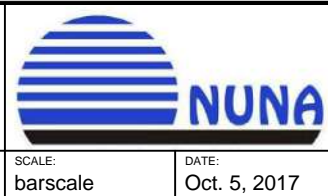
NOTES:
 Coordinate system:
 NAD 83 (Canada)
 UTM Zone 17 North
 Geoid model: HT_2

CLIENT:
 Baffinland Iron Mines Corporation

PROJECT:
 Early Earthworks Project , Baffin Island, Nunavut

PREPARED BY:
 Nuna East Ltd.
 9839 - 31 Avenue
 Edmonton, AB
 T6N 1C5

DRAWN BY:
 mc



DRAWING TITLE:
**Proposed Bore Holes
 BR-86-1 WP3 & WP4
 Tote Road Bridge Km80**

DRAWING NAME (YYMMDD):
 CA 171005 RL BR86 Proposed BH WP3 & WP4.dwg

APPENDIX C.5

December 13, 2017 – Geotechnical Drilling Notification



December 13, 2017

Jonathan Mesher, Resource Management Officer
Nunavut Field Operations
Indigenous and Northern Affairs Canada
Box 100
Iqaluit, NU X0A 0H0

Stephen Bathory, Director Major Projects
Qikiqtani Inuit Association
P.O. Box 219
Iqaluit, NU X0A 0H0

Manager of Licensing
Nunavut Water Board
PO Box 119, Gjoa Haven, NU X0B 1J0

**Re: 2018 Geotechnical Drilling Program
Type 'B' Water Licence 2BE-MRY1421
Commercial Lease No. Q13C301**

Baffinland Iron Mines Corporation (Baffinland) plans to commence a geotechnical drilling program in January 2018 to evaluate the geotechnical conditions near the existing Milne Inlet Tote Road (Tote Road) and at Milne Inlet for the purposes of advancing engineering studies in support of Project expansion (e.g. Phase 2). The drilling program is being managed by Hatch Ltd. and performed by Boart Longyear. The drilling program is scheduled to commence in early January 2018 and is expected to be completed by late April 2018. The drilling program consists of six (6) drill holes at potential railway bridge locations near the Tote Road and ten (10) on-ice (sea ice) drill hole locations for future dock infrastructure in Milne Inlet. Proposed drill hole locations, including coordinates, are presented in Attachment 1. Alongside the 2018 drilling program, Baffinland also plans on conducting a series of ice thickness and bathymetry surveys as well as additional geotechnical tests (e.g. thermistor installation, Vane test) near drill hole sites and other locations near the Tote Road and at Milne Port.

Drilling programs are expected to require minimal water usage and will be performed using a tracked drill rig (LS 250) capable of drilling using both sonic and rotary coring techniques. Other supporting tracked vehicles include a flatbed (Nodwell type) for hauling water and other supplies and a skid steer for moving drill rods and other equipment/supplies.

An archaeology survey of the areas to be drilled and traversed near the Tote Road was completed during the summer of 2016 and observed archaeology sites were identified and staked off. These coordinates have been provided, in confidence, to the drilling manager to minimize the potential for archaeological disturbance. A review of the identified archaeological sites confirms there are no archaeological sites within close proximity to the proposed drill hole locations.

To support drilling operations, nine (9) existing water sources near the Tote Road, identified under Baffinland's Type A Water Licence 2AM-MRY1325 Amend. 1 (Part E, Item 25), have been selected. A table showing the nine (9) water sources are provided in Attachment 2. Due to temperature restrictions

tracking water usage volumes utilising water lines and flow meters will not be feasible. Therefore, Baffinland proposes to track water usage volumes by means of calibrated one cubic metre totes.

Daily environmental monitoring will be performed, including pre, during and post drilling inspections. Locations of drill waste will be disposed of in natural depressions or sumps consistent with Part F, Item 4 of Baffinland's Type B Water Licence 2BE-MRY1421 (Type B Water Licence). Drill water runoff and siltation mitigation measures consistent with Baffinland's Environmental Protection Plan BAF-PH1-830-P16-0008 r1 will be employed as required. For the Milne Inlet on-ice drilling program, under-ice turbidity and total suspended solids (TSS) water quality monitoring will be conducted to characterize water quality conditions prior to and following drilling activities.

In accordance the conditions of the Type B Water Licence, this letter and attachments provides Baffinland's notification for the drilling of six (6) drill holes near the Tote Road that will be closer than 30 metres from the ordinary high water mark of a water body and the identification of water sources for the planned 2018 drilling activities.

Despite best planning, it should be noted that unforeseen geotechnical circumstances may preclude some changes in plans as the program proceeds. Baffinland will endeavor to inform the Inspector and QIA in such circumstances.

We trust that this information meets the various notifications required. Please to not hesitate to contact the undersigned, should you have any questions or comments.

Regards,



Christopher Murray
Environmental & Regulatory Compliance Manager

Attachments:

Attachment 1: 2018 Geotechnical Drilling Program Locations

Attachment 2: Proposed Water Sources for 2018 Geotechnical Drilling Program

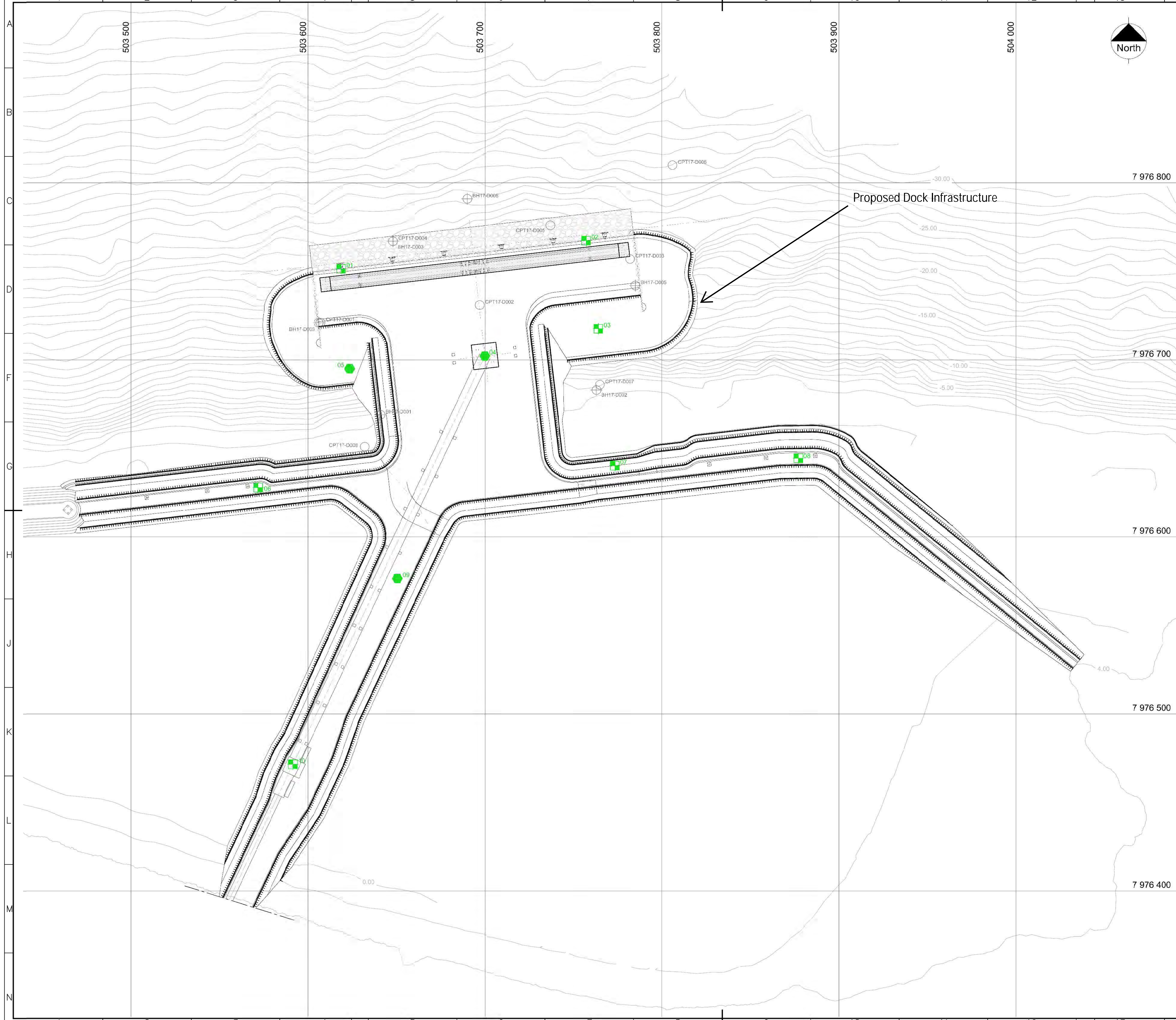
Cc: David Hohnstein (NWB)
Tim Sewell, William Bowden, Connor Devereaux, Andrew Vermeer (Baffinland)

Attachment 1

2018 Geotechnical Drilling Program Locations

Attachment 1.1

2018 Milne Inlet On-Ice Drilling Program



Proposed Dock Infrastructure

New Geotechnical Campaign					
N°	Easting	Northing	CPT depth below seabed	Vane Test	Sampling (sharky)
01	50361.967	7976751.459	20m	1 @ -0.50 below seabed 1 @ -1.50 below seabed	1 from seabed to -0.61 below seabed 1 from seabed to -0.61 below seabed
02	50375.714	7976757.392	20m	1 @ -0.50 below seabed 1 @ -1.50 below seabed	1 from seabed to -0.61 below seabed 1 from seabed to -0.61 below seabed
03	50376.408	7976717.604	5m	1 @ -0.50 below seabed 1 @ -1.50 below seabed	1 from seabed to -0.61 below seabed 1 from seabed to -0.61 below seabed
04	50389.394	7976702.221	15m	-	From -0.50 to -1.11 below seabed
05	50382.350	7976635.000	5m	-	From -0.50 to -1.11 below seabed
06	50357.182	7976627.872	5m	1 @ -0.50 below seabed 1 @ -1.50 below seabed	1 from seabed to -0.61 below seabed 1 from seabed to -0.61 below seabed
07	50377.335	7976640.299	5m	1 @ -0.50 below seabed 1 @ -1.50 below seabed	1 from seabed to -0.61 below seabed 1 from seabed to -0.61 below seabed
08	50387.710	7976644.473	5m	1 @ -0.80 below seabed	From -0.50 to -1.11 below seabed
09	50365.051	7976576.499	5m	-	From -0.50 to -1.11 below seabed
10	50359.146	7976471.594	5m	1 @ -0.80 below seabed	From -0.50 to -1.11 below seabed

REMARK:
Position and number of tests could be adapted during the campaign in case of unexpected results

LEGEND:

Borehole (geotechnical investigations 2017)	CPT + Vane test + Sampling (new campaign)
CPT (geotechnical investigations 2017)	CPT + Sampling (new campaign)
Working point	

REFERENCES:
- General - General Layout: BIM-BD-GE-DE-DW-50001
- Port site - Ore Dock n°2 - 2017 geotechnical investigations BH and CPT locations: H352034-GEOSKT-229-292-0003

NOTES:
- Coordinate grid is UTM (NAD83) zone
- All elevations are in metres relative to Chart Datum (mCD)
- All dimensions are in metres unless stated otherwise

REVISION	DESCRIPTION	DATE
00	First issue	30-Nov-2017

SUB-CONTRACTOR DESIGN:

BESIX Engineering Department
Avenue des Communautés, 100 B - 1200
Brussels - Belgium

CONTRACTOR:

ENGINEER:

CLIENT:

PROJECT:
MARY RIVER EXPANSION STAGE 3
BAFFINLAND IRON MINES

DRAWING TITLE:
ADDITIONAL GEOTECHNICAL CAMPAIGN

DRAWN: FPI	CHECKED: MZE	APPROVED: HVM	AUTHORISED: JVST
SCALE: 1:1000	SIZE: A1	DATE: 30-Nov-2017	
BESIX DRAWING No: BIM-BD-GE-DE-DW-50751			REV: 00

Attachment 1.2

2018 Milne Inlet Tote Road Drilling Program

Bridge 1 (CH. 15.950) – Near Km 17 of Existing Tote Road

Bridge 2 (CH. 70.690) – Southwest of Km 75 of Existing Tote Road

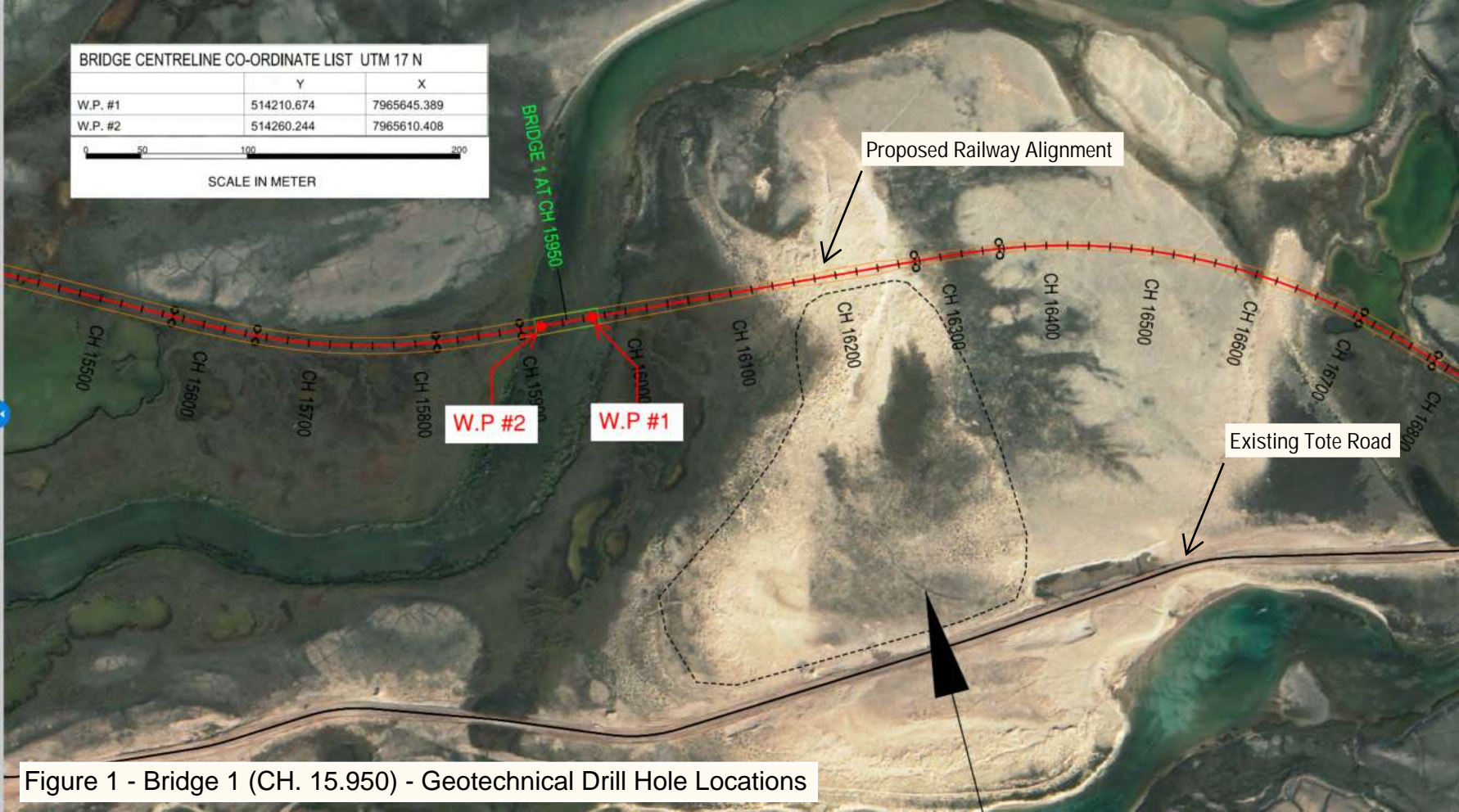
Bridge 4 (CH. 102.592) – Near Km 97 of Existing Tote Road

BRIDGE CENTRELINE CO-ORDINATE LIST UTM 17 N

	Y	X
W.P. #1	514210.674	7965645.389
W.P. #2	514260.244	7965610.408



SCALE IN METER



Proposed Railway Alignment

W.P. #2

W.P. #1

Existing Tote Road

Figure 1 - Bridge 1 (CH. 15.950) - Geotechnical Drill Hole Locations

Proposed Railway Alignment

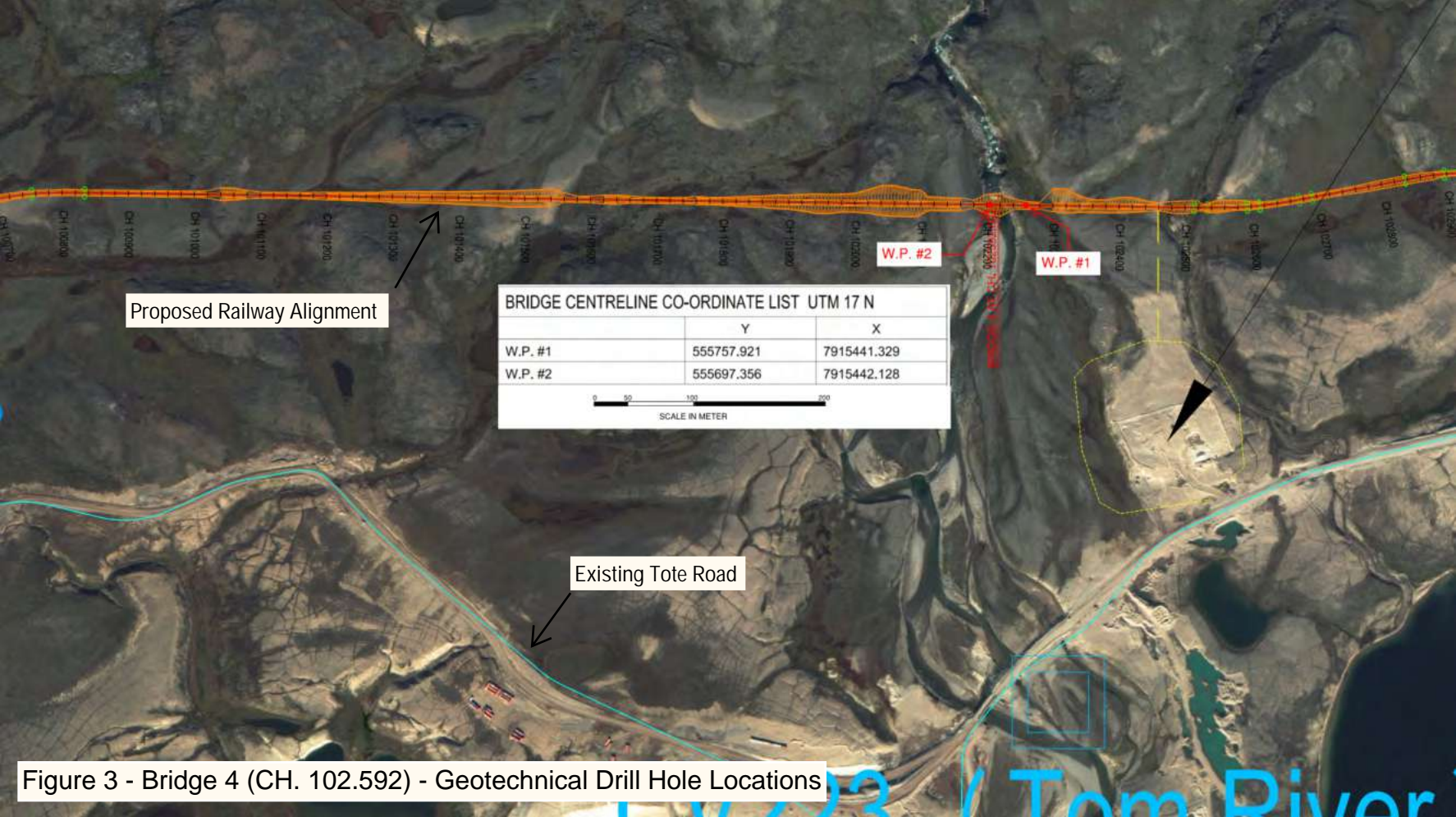
	Y	X
W.P. #1	529142.297	7916679.156
W.P. #2	529107.458	7916699.747

0 50 100 200
SCALE IN METER

W.P. #2

W.P. #1

Figure 2 - Bridge 2 (CH. 70.690) - Geotechnical Drill Hole Locations



Proposed Railway Alignment

BRIDGE CENTRELINE CO-ORDINATE LIST UTM 17 N

	Y	X
W.P. #1	555757.921	7915441.329
W.P. #2	555697.356	7915442.128

0 50 100 200
SCALE IN METER

Existing Tote Road

Figure 3 - Bridge 4 (CH. 102.592) - Geotechnical Drill Hole Locations

102.592 / Tom River

Attachment 2

Proposed Water Sources for 2018 Geotechnical Drilling Program

Table 1 – Proposed Water Source Locations for 2018 Geotechnical Drilling Program¹

Water Source	Approx. Tote Road Chainage
CV 128 River	Km 17
Km 32 Lake	Km 32
Katiktok Lake	Km 52 – 58
BG50 River	Km 62
CV217 River	Km 80
Muriel Lake	Km 78 – 80
David Lake	Km 87 - 89
CV233 (Tom River)	Km 97
Camp Lake	Km 100

¹Refer to Type A Water Licence 2AM-MRY1325, Amend. 1 – Refer to Part E, Item 25

APPENDIX D
2017 PHOTO JOURNAL

APPENDIX D.1

2017 GEOTECHNICAL DRILLING PHOTO SHEET



PHOTO 1 - Geotechnical Drilling Operations at BH17-D005, March 2017

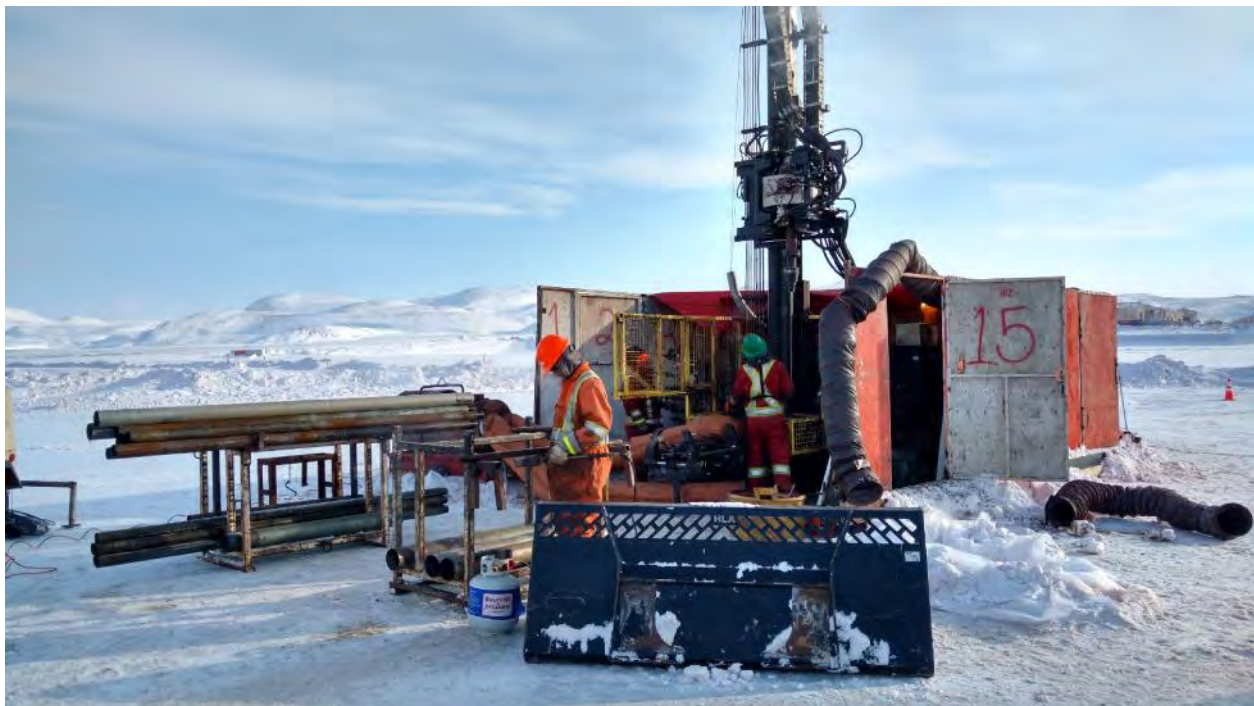


PHOTO 2 - Geotechnical Drilling Operations at BH17-D004, March 2017



PHOTO 3 - Pre-Drilling Site Conditions at Hole 1, June 2017



PHOTO 4 – Post-Drilling Site Conditions at Hole 1, June 2017



PHOTO 5 – Pre-Drilling Conditions at BH17-C013, April 2017



PHOTO 6 - Post-Drilling Conditions at BH17-C013, April 2017



PHOTO 7 – Turbidity water sampling at BH17-D002, March 2017



PHOTO 8 – Geotechnical Investigation at Hole 1, June 2017

APPENDIX D.2
2017 EXPLORATION DRILLING PHOTO SHEET



PHOTO 1 – Exploration Drilling Operations at MR1-17-234, August 2017



PHOTO 2 - Exploration Drilling Operations at MR1-17-238, September 2017



PHOTO 3 - Pre-Drilling Site Conditions at MR1-17-234, August 2017



PHOTO 4 – Post-Drilling Site Conditions at MR1-17-234, August 2017



PHOTO 5 – Pre-Drilling Conditions at MR1-17-238, September 2017



PHOTO 6 - Post-Drilling Conditions at MR1-17-238, September 2017



PHOTO 7 - Post-Drilling Conditions at MR2-17-237, October 2017

APPENDIX E

2017 PRE, DURING AND POST DRILLING SITE INSPECTION SHEETS (EXAMPLES)

APPENDIX E.1

Exploration Drill Hole – MR1-17-P12 (MR1-17-234)



PRE-DRILLING INSPECTION REPORT (pre-set-up) 2017

BIM personnel: Massoud Robatian

Date: 11-Jun-17

Time: 9:30

Proposed hole ID: MR1-17-P12 **Final hole ID:** MR1-17-234

PROPOSED HOLE INFORMATION:

Deposit #: 1	Collar location: E 562955
Project: MARY RIVER	(NAD 83) N 7914105
Area: BAFFIN ISLAND	Dip: -35
NTS: 37G/5	Azimuth: 93
Elevation: 644	Target depth: 150 m
Description of drillhole location: On Deposit No.1 near hinge zone	
Purpose of drillhole: Infill drilling, ore characterization (ore typology/texture).	

DRILLING INFORMATION:

Has site been approved by drill foreman?:	Yes	Foreman: Pierre Demers
Drill contractor: Boart Longyear		
Drill #: 7506		
Expected start of drilling:	03-Aug-17	
Is moving of drillhole required?: No		
If yes, provide reason:		

New Collar Location E N

Environment Assessment

Water source: waste rock pond MS-08			
Pump Station #:	4	Portable Tanks:	Yes
Natural depression/ drainage evident?:	Yes	(Photo required)	
Manual drainage constructed?:	No	(Photo required)	
Silt fence(s) constructed?:	Yes	(Photo required)	
Silt Bag Used:	No	(Photo required)	

SITE ASSESSMENTS:

Are wildlife present?: (if yes, record in log) None	
Is site safe for drilling?: Yes	
Safety concerns/issues:	None
Environmental concerns?: None	

PHOTOGRAPHIC RECORD:

Photo of drillhole location prior to setup?	Yes
Location of photos:	2017 Drill Hole Database

COMMENTS:



DAILY DRILL INSPECTION REPORT 2017

BIM personnel:	Massoud Robatian
Date:	06-Aug-17
Time:	6:30 PM
Hole ID:	MR1-17-234

HOLE INFORMATION:

Deposit #: 1	Collar location: E: 562955
Location: MR1-17-P12 Section: L	(NAD 83) N: 7914105

DRILLING INFORMATION

Drill contractor: Boart Longyear	Drill Type: LM 55
Drill personnel: DS: Todd Vokey Driller, Ashley Buckley Helper, Brad Regular Pump Man	
Drill #: 1 7506 NS: Mike Brisson Driller Chris Buckley Helper, Sam Grey Pump Man	

DRILLING PROGRESS:

Any rods/casing/tools lost in the drill hole? No If yes, what was lost?:

Delays/Problems: (breakdowns, stuck rods, bit change, weather, wait time, drill move, etc) Provide time estimate

ENVIRONMENT ASSESSMENT:

Sediment control measures in place:	Set up the silt fence
Assessment of effectiveness:	
Salt usage per day:	
Flow Meter Reading:	End of N/S 194630 End of D/S
Has wildlife been present?: (check log for previous wildlife activity)	None
Environmental Concerns:	None

SAFETY ASSESSMENT:

Stable platform	<input checked="" type="radio"/> Yes / <input type="radio"/> No	Fall prevention system if platform is over 1.8m	N/A	Yes / No
First Aid kit	<input checked="" type="radio"/> Yes / <input type="radio"/> No	Fire Extinguisher(2)	<input checked="" type="radio"/> Yes / <input type="radio"/> No	
PPE	<input checked="" type="radio"/> Yes / <input type="radio"/> No	Eye Wash (2)	<input checked="" type="radio"/> Yes / <input type="radio"/> No	
(Safety glasses/steal toe boots/ear plugs/Hard Hats)		Spill Kits (2)	<input checked="" type="radio"/> Yes / <input type="radio"/> No	
		Lined Berms	<input checked="" type="radio"/> Yes / <input type="radio"/> No	
		Survival Shack	<input type="radio"/> Yes / <input type="radio"/> No	N/A

Safety concerns/issues:

None

Corrective action required?:

Action plan (if required):

Responsible party:

Date to be completed:

Photograph (only required to document problems and corrective actions):

PHOTOGRAPHIC RECORD:

Photo of drill hole during drilling?	<input checked="" type="radio"/> Yes / <input type="radio"/> No	Photo of sediment control measures?	Yes / No	N/A
Location of photos: 2017 Drilling Database in M Drive				

COMMENTS:



DAILY DRILL INSPECTION REPORT 2017

BIM personnel:	Massoud Robatian
Date:	07-Aug-17
Time:	5:00 PM
Hole ID:	MR1-17-234

HOLE INFORMATION:

Deposit #: 1	Collar location: E: 562955
Location: MR1-17-P12 Section: L	(NAD 83) N: 7914105

DRILLING INFORMATION

Drill contractor: Boart Longyear	Drill Type: LM 55
Drill personnel: DS: Todd Vokey Driller, Ashley Buckley Helper, Brad Regular Pump Man	
Drill #: 1 7506 NS: Mike Brisson Driller Chris Buckley Helper, Sam Grey Pump Man	

DRILLING PROGRESS:

Any rods/casing/tools lost in the drill hole? No If yes, what was lost?:

Delays/Problems: (breakdowns, stuck rods, bit change, weather, wait time, drill move, etc) Provide time estimate

ENVIRONMENT ASSESSMENT:

Sediment control measures in place: Set up the silt fence
Assessment of effectiveness:
Salt usage per day:
Flow Meter Reading: End of N/S 211603 End of D/S
Has wildlife been present?: (check log for previous wildlife activity) None
Environmental Concerns: None

SAFETY ASSESSMENT:

Stable platform	<input checked="" type="radio"/> Yes / No	Fall prevention system if platform is over 1.8m	N/A	Yes / No
First Aid kit	<input checked="" type="radio"/> Yes / No	Fire Extinguisher(2)	<input checked="" type="radio"/> Yes / No	
PPE	<input checked="" type="radio"/> Yes / No	Eye Wash (2)	<input checked="" type="radio"/> Yes / No	
(Safety glasses/steal toe boots/ear plugs/Hard Hats)		Spill Kits (2)	<input checked="" type="radio"/> Yes / No	
		Lined Berms	<input checked="" type="radio"/> Yes / No	
		Survival Shack	Yes / No	N/A

Safety concerns/issues:

None

Corrective action required?:

Action plan (if required):

Responsible party:

Date to be completed:

Photograph (only required to document problems and corrective actions):

PHOTOGRAPHIC RECORD:

Photo of drill hole during drilling? <input checked="" type="radio"/> Yes / No	Photo of sediment control measures?	Yes / No	N/A
Location of photos: 2017 Drilling Database in M Drive			

COMMENTS:



DAILY DRILL INSPECTION REPORT 2017

BIM personnel:	Massoud Robatian
Date:	09-Aug-17
Time:	11:30 AM
Hole ID:	MR1-17-234

HOLE INFORMATION:

Deposit #: 1	Collar location: E: 562955
Location: MR1-17-P12 Section: L	(NAD 83) N: 7914105

DRILLING INFORMATION

Drill contractor: Boart Longyear	Drill Type: LM 55
Drill personnel: DS: Todd Vokey Driller, Ashley Buckley Helper, Brad Regular Pump Man	
Drill #: 1 7506 NS: Mike Brisson Driller Chris Buckley Helper, Sam Grey Pump Man	

DRILLING PROGRESS:

Any rods/casing/tools lost in the drill hole? No If yes, what was lost?:

Delays/Problems: (breakdowns, stuck rods, bit change, weather, wait time, drill move, etc) Provide time estimate

ENVIRONMENT ASSESSMENT:

Sediment control measures in place:	Set up the silt fence
Assessment of effectiveness:	
Salt usage per day:	
Flow Meter Reading:	End of N/S 244512 End of D/S
Has wildlife been present?: (check log for previous wildlife activity)	None
Environmental Concerns:	None

SAFETY ASSESSMENT:

Stable platform	<input checked="" type="radio"/> Yes / No	Fall prevention system if platform is over 1.8m	N/A	Yes / No
First Aid kit	<input checked="" type="radio"/> Yes / No	Fire Extinguisher(2)	<input checked="" type="radio"/> Yes / No	
PPE	<input checked="" type="radio"/> Yes / No	Eye Wash (2)	<input checked="" type="radio"/> Yes / No	
(Safety glasses/steal toe boots/ear plugs/Hard Hats)		Spill Kits (2)	<input checked="" type="radio"/> Yes / No	
		Lined Berms	<input checked="" type="radio"/> Yes / No	
		Survival Shack	Yes / No	N/A

Safety concerns/issues:

None

Corrective action required?:

Action plan (if required):

Responsible party:

Date to be completed:

Photograph (only required to document problems and corrective actions):

PHOTOGRAPHIC RECORD:

Photo of drill hole during drilling?	<input checked="" type="radio"/> Yes / No	Photo of sediment control measures?	Yes / No	N/A
Location of photos: 2017 Drilling Database in M Drive				

COMMENTS:



DAILY DRILL INSPECTION REPORT 2017

BIM personnel:	Massoud Robatian
Date:	10-Aug-17
Time:	2:30 PM
Hole ID:	MR1-17-234

HOLE INFORMATION:

Deposit #: 1	Collar location: E: 562955
Location: MR1-17-P12 Section: L	(NAD 83) N: 7914105

DRILLING INFORMATION

Drill contractor: Boart Longyear	Drill Type: LM 55
Drill personnel: DS: Todd Vokey Driller, Ashley Buckley Helper, Brad Regular Pump Man	
Drill #: 1 7506 NS: Mike Brisson Driller Chris Buckley Helper, Sam Grey Pump Man	

DRILLING PROGRESS: textural characteristics

Any rods/casing/tools lost in the drill hole? No If yes, what was lost?:

Delays/Problems: (breakdowns, stuck rods, bit change, weather, wait time, drill move, etc) Provide time estimate

ENVIRONMENT ASSESSMENT:

Sediment control measures in place: Set up the silt fence
Assessment of effectiveness:
Salt usage per day:
Flow Meter Reading: End of N/S 250724 End of D/S

Has wildlife been present?: (check log for previous wildlife activity) None

Environmental Concerns: None

SAFETY ASSESSMENT:

Stable platform	<input checked="" type="radio"/> Yes / No	Fall prevention system if platform is over 1.8m	N/A	Yes / No
First Aid kit	<input checked="" type="radio"/> Yes / No	Fire Extinguisher(2)	<input checked="" type="radio"/> Yes / No	
PPE	<input checked="" type="radio"/> Yes / No	Eye Wash (2)	<input checked="" type="radio"/> Yes / No	
(Safety glasses/steal toe boots/ear plugs/Hard Hats)		Spill Kits (2)	<input checked="" type="radio"/> Yes / No	
		Lined Berms	<input checked="" type="radio"/> Yes / No	
		Survival Shack	Yes / No	N/A

Safety concerns/issues:

None

Corrective action required?:

Action plan (if required):

Responsible party: _____ **Date to be completed:** _____

Photograph (only required to document problems and corrective actions):

PHOTOGRAPHIC RECORD:

Photo of drill hole during drilling?	<input checked="" type="radio"/> Yes / No	Photo of sediment control measures?	Yes / No	N/A
Location of photos: 2017 Drilling Database in M Drive				

COMMENTS:



POST-DRILL CLEAN UP INSPECTION REPORT 2017

BIM personnel: Massoud Robatian
Date: 13-Sep-17
Time: 10:15 AM
Hole ID: MR1-17-234

HOLE INFORMATION:

Deposit #: 1	Collar location: E: 562955
Project: MARY RIVER	(NAD 83) N: 7914105
Area: BAFFIN ISLAND	Actual depth: 153.0m
NTS: 37G/5	

Description of drillhole location: On Deposit No.1 near hinge zone
Purpose of drillhole: Infill drilling, ore characterization (ore typology/texture).

DRILLING INFORMATION:

Drill contractor: Boart Longyear
Drill #: 1 7506
End Date of drilling: 10-Aug-17

ENVIRONMENT ASSESSMENT:

All materials and debris removed from site? Yes / No

Casing left?: Yes / No
12.0 metres of HWT Casing

Has Casing left been cut to ground level? Yes / No

Any drill rods lost in the drillhole? Yes / No If yes, how many?:

Has hole been properly marked? Yes / No

Any environmental concerns? Yes No If yes, please describe below:

Any additional work required? Yes No If yes, please describe below:

Corrective action:

PHOTOGRAPHIC RECORD:

Photo of drillhole location following demobilization and clean up? Yes / No
Location of photos: 2017 Drilling Database in M Drive

COMMENTS:

INSPECTION COMPLETED BY:

BIM signature: Massoud Robatian Date: 13-Sep-17	Boart Foreman signature: Arnout Devree Date: 13-Sep-17
---	--

APPENDIX E.2

Geotechnical Cone Penetration Test – CPT17-D003



PRE-DRILLING INSPECTION REPORT 2017			
HATCH personnel:	Massoud Robatian / Alex Boissonneault		
Date:	4/6/2017		
Time:	8:00 AM		
Proposed hole ID:	CPT17-D003	Final hole ID:	CPT17-D003

PROPOSED HOLE INFORMATION:

Location: Milne Port	Collar location: E 503,782
Project: Mary River Expansion Study Stage 2	(NAD 83) N 7,976,757
Area: Offshore	Dip: 90
NTS: N/A	Azimuth: N/A
Elevation: 0 m	Target depth: 30.42m
Description of drillhole location: On sea ice	
Purpose of drillhole: Geotechnical investigation of the sea bed	

DRILLING INFORMATION:

Has site been approved by drill foreman?: Yes	Foreman: Emile Beauchamp
Drill contractor: Boart Longyear	
Drill #: BL 100	
Expected start of drilling: 6-Apr-17	
Is moving of drillhole required?: No	
If yes, provide reason:	
New Collar Location E 503,782 N 7,976,757	

Environment Assessment

Water source: Sea water	
Pump Station #: N/A	Portable Tanks: No
Natural depression/ drainage evident?: N/A	(Photo required)
Manual drainage constructed?: N/A	(Photo required)
Silt fence(s) constructed?: N/A	(Photo required)
Silt Bag Used: N/A	(Photo required)

SITE ASSESSMENTS:

Are wildlife present?: (if yes, record in log) None
Is site safe for drilling?: Yes
Safety concerns/issues: Ice Thickness
Environmental concerns?: Hydraulic/Fuel leaks

PHOTOGRAPHIC RECORD:

Photo of drillhole location prior to setup? Yes
Location of photos: Milne Port Server 2017 Drilling Program

COMMENTS:

None



DAILY DRILL INSPECTION REPORT 2017

HATCH personnel:	Massoud Robatian / Alex Boissonneault
Date:	4/6/2017
Time:	12:30 PM
Hole ID:	CPT17-D003

HOLE INFORMATION:

Location: Milne Port	Section: Offshore	Collar location: E	503,782
		(NAD 83)	N 7,976,757

DRILLING INFORMATION

Drill contractor:	Boart Longyear	Drill Type:	Mini Sonic
Drill personnel:	Sam Flynn, Justin Gross, Chris Entz		
Drill #:	BL 100		

DRILLING PROGRESS:

Any rods/casing/tools lost in the drill hole?	If yes, what was lost?:	N/A
No		

Delays/Problems: (breakdowns, stuck rods, bit change, weather, wait time, drill move, etc) Provide time estimate
None

ENVIRONMENT ASSESSMENT:

Sediment control measures in place:	N/A
Assessment of effectiveness:	N/A
Salt usage per day:	N/A
Flow Meter Reading:	N/A End of N/S 6:00 AM End of D/S 6:00 PM

Has wildlife been present?: (check log for previous wildlife activity)

No
Environmental Concerns: None

SAFETY ASSESSMENT:

Stable platform	Yes	Fall prevention system if platform is over 1.8m	N/A
First Aid kit	Yes	Fire Extinguisher(2)	Yes
PPE	Yes	Eye Wash (2)	N/A
(Safety glasses/steal toe boots/ear plugs/Hard Hats)		Spill Kits (2)	N/A
		Lined Berms	Yes
		Survival Shack	Yes

Safety concerns/issues:	Ice Thickness
--------------------------------	---------------

Corrective action required?:	No		
Action plan (if required):	N/A		
Responsible party:	N/A	Date to be completed:	N/A
Photograph (only required to document problems and corrective actions): N/A			

PHOTOGRAPHIC RECORD:

Photo of drill hole during drilling?	Yes	Photo of sediment control measures?	N/A
Location of photos: Milne Port Server 2017 Drilling Program			

COMMENTS:	None
------------------	------



POST-DRILL CLEAN UP INSPECTION REPORT 2017

HATCH personnel: Massoud Robatian / Alex Boissonneault
Date: 4/6/2017
Time: 5:15 PM
Hole ID: CPT17-D003

HOLE INFORMATION:

Location: Milne Port **Collar location:** E 503,782
Project: Mary River Expansion Study Stage 2 (NAD 83) N 7,976,757
Area: Offshore
NTS: N/A
Description of drillhole location: On sea ice
Purpose of drillhole: Geotechnical investigation of the sea bed

DRILLING INFORMATION:

Drill Contractor: Boart Longyear
Drill #: BL 100
End Date of drilling: 4/6/2017

ENVIRONMENT ASSESSMENT:

All materials and debris removed from site? Yes

Casing left?: No

Has Casing left been cut to ground level? N/A

Any drill rods lost in the drillhole? No If yes, how many?: N/A

Has hole been properly marked? Yes

Any environmental concerns? No If yes, please describe below: N/A

Any additional work required? No If yes, please describe below: No

Corrective action: N/A

PHOTOGRAPHIC RECORD:

Photo of drillhole location following demobilization and clean up? Yes

Location of photos: Milne Port Server 2017 Drilling Program

COMMENTS:

None

INSPECTION COMPLETED BY:

BIM signature: _____ **Boart Foreman signature:** _____
Date: _____ **Date:** 4/6/2017

APPENDIX E.3

Geotechnical Drill Hole – Hole 1



PRE-DRILLING INSPECTION REPORT 2017

BIM personnel: Massoud Robatian
Date: 24/6/2017
Time: 7:00 AM
Proposed hole ID: Hole 01 **Final hole ID:** Hole 01

PROPOSED HOLE INFORMATION:

Location: Mary River Runway	Collar location: 558022
Project: MARY RIVER	(NAD 83) 7914776
Area: BAFFIN ISLAND	Dip: 90°
NTS: 37G/5	Azimuth: —
Elevation: 188m	Target depth: 4,88m
Description of drillhole location: Mary River Runway	
Purpose of drillhole: Mary River Runway Geotechnical Investigation	

DRILLING INFORMATION:

Has site been approved by drill foreman?: Yes / No **Foreman:** Sam Flynn, Justin Gross
Drill contractor: Boart Longyear
Drill #: 1403
Expected start of drilling: 24/6/2017
Is moving of drillhole required?: No
If yes, provide reason:

New Collar Location Same as above E N

Environment Assessment

Water source: No water used
Pump Station #: N/A **Portable Tanks:** Yes / No
Natural depression/ drainage evident?: Yes / No (Photo required)
Manual drainage constructed?: Yes / No (Photo required)
Silt fence(s) constructed?: Yes / No (Photo required)
Silt Bag Used: Yes / No (Photo required)

SITE ASSESSMENTS:

Are wildlife present?: No (if yes, record in log)
Is site safe for drilling?: Yes
Safety concerns/issues: None
Environmental concerns?: None

PHOTOGRAPHIC RECORD:

Photo of drillhole location prior to setup? Yes / No
Location of photos: Mary River M Drive 2017 Drilling Program

COMMENTS:

None



DAILY DRILL INSPECTION REPORT 2017

BIM personnel:	Massoud Robatian
Date:	24/6/2017
Time:	7:30 AM
Hole ID:	Hole 01

HOLE INFORMATION:

Location: Mary River Section: Runway section 14	Collar location: E: 558022 (NAD 83) N: 7914776
---	--

DRILLING INFORMATION

Drill contractor: Boart Longyear	Drill Type: Sonic
Drill personnel: Sam Flynn, Justin Gross	
Drill #: 1403	

DRILLING PROGRESS:

Any rods/casing/tools lost in the drill hole? No If yes, what was lost?:

Delays/Problems:

None

ENVIRONMENT ASSESSMENT:

Sediment control measures in place: N/A
Assessment of effectiveness:
Salt usage per day: No salt used
Flow Meter Reading: N/A End of N/S End of D/S

Has wildlife been present?: (check log for previous wildlife activity)

No

Environmental Concerns:

None

SAFETY ASSESSMENT:

Stable platform	<input checked="" type="radio"/> Yes / No	Fall prevention system if platform is over 1.8m	N/A	Yes / No
First Aid kit	<input checked="" type="radio"/> Yes / No	Fire Extinguisher(2)	<input checked="" type="radio"/> Yes / No	
PPE (Safety glasses/steal toe boots/ear plugs/Hard Hats)	<input checked="" type="radio"/> Yes / No	Eye Wash (2)	<input checked="" type="radio"/> Yes / No	
		Spill Kits (2)	<input checked="" type="radio"/> Yes / No	
		Lined Berms	N/A	Yes / No
		Survival Shack:	N/A	Yes / No

Safety concerns/issues:

None

Corrective action required?: No

Action plan (if required): N/A

Responsible party: N/A **Date to be completed:** 24/6/2017

Photograph (only required to document problems and corrective actions):

PHOTOGRAPHIC RECORD:

Photo of drill hole during drilling?	<input checked="" type="radio"/> Yes / No	Photo of sediment control measures?	N/A	Yes / No
Location of photos: Mary River M Drive 2017 Drilling Program				

COMMENTS:

None



POST-DRILL CLEAN UP INSPECTION REPORT 2017

BIM personnel: Massoud Robatian

Date: 24/6/2017

Time: 7:45 AM

Hole ID: Hole 01

HOLE INFORMATION:

Location: Mary River Runway

Collar location: E: 558022

Project: MARY RIVER

(NAD 83) N: 7914776

Area: BAFFIN ISLAND

Final Depth: 4,88m

NTS: 37G/5

Description of drillhole location: Mary River Runway

Purpose of drillhole: Mary River Runway Geotechnical Investigation

DRILLING INFORMATION:

Drill Contractor: Boart Longyear

Drill #: 1403

End Date of drilling: 24/6/2017

ENVIRONMENT ASSESSMENT:

All materials and debris removed from site? Yes No

Casing left?: Yes No

Has Casing left been cut to ground level? N/A Yes / No

Any drill rods lost in the drillhole? Yes No **If yes, how many?:**

Has hole been properly marked? N/A Yes / No

Any environmental concerns? Yes No **If yes, please describe below:**

Any additional work required? Yes No **If yes, please describe below:**

Corrective action: None

PHOTOGRAPHIC RECORD:

Photo of drillhole location following demobilization and clean up? Yes No

Location of photos: Mary River M Drive 2017 Drilling Program

COMMENTS:

None

INSPECTION COMPLETED BY:

BIM signature:

Boart Foreman signature:

Date: 24/6/2017

Date: 24/6/2017