This table outlines TMAC's comments on potential water licence conditions to proceed with the activities and infrastructure associated with the Boston component of the Hope Bay Project (Project), should the Nunavut Water Board (NWB or Board) exercise its jurisdiction and authority under the Nunavut Waters and Nunavut Surface Rights Tribunal Act (NWNSRTA or Act) to proceed and issue a licence. This framework incorporates conditions included in Type A Water Licences recently issued by the NWB and includes certain Boston-specific conditions. Under separate cover, TMAC has submitted a blackline for the Board's consideration which suggests amendments to 2AM-DOH1323 which should be made in order to proceed with the Doris and Madrid components of the Project.

This table reflects information from the Application as well as the current public record (i.e., commitments from information requests, technical comments, and final submissions). Statements and conditions provided in this table are intended to support the NWB and staff in their development of a water licence for the Project.

Proposed Terms	TMAC Comments and Annotation
Water Licence Cover Sheet	
Licensee: TMAC Resources Inc. Mailing Address: 95 Wellington Street West, Suite 1010 Box 44 Toronto ON M5J2N7	
Water Management Area: Queen Maud Gulf Watershed - 30	
Location: Hope Bay Belt Project, Kitikmeot Region, Nunavut	
Quantity of Water not to Exceed: Potable Water Supply 33,000 m m3/year and Industrial 450,000	
m3/year as per Part E, quantity for winter road ice construction to vary annually and to be calculated in accordance with Part F, Item 3.	
Expiry of Licence: 2044	
Part A: Scope, Definitions and Enforcement	
1. Scope	
a. This License authorizes the Licensee to use Waters and deposit of Waste in support of a Mining Undertaking classified as per Schedule 1 of the	
Regulations, at the Hope Bay Belt Project (Boston) as outlined in the Type "A" Water Licence Application (the Application) submitted to the Nunavut	
Water Board (NWB) in December 2017 and as revised and reviewed throughout the regulatory process.	
The Licensee may conduct, mining, milling, and associated activities at the Hope Bay Belt Project (Boston) in the Kitikmeot Region of Nunavut,	
located at the following general geographical coordinates:	
Project Extents	
i roject Exterios	
NW: Latitude: (67° 41′ 36.837″ N) Longitude: (106° 25′ 6.135″ W)	
NE: Latitude: (67° 42′ 0.724" N) Longitude: (106° 17′ 0.131" W)	
SE: Latitude: (67° 36′ 15.834″ N) Longitude: (106° 15′ 12.879″ W)	
SW: Latitude: (67° 36′ 41.368" N) Longitude: (106° 26′ 27.016" W)	
Camp Location(s)	
Boston: Latitude: (67 ° 38′ 52″ N) Longitude: (106 ° 23′ 12″ W)	
The activities and facilities included under the scope of this Licence are as described in TMAC's December 2017 application and in any subsequent	
Modifications and generally as follows:	
Infoamcations and Senerally as follows.	

Proposed Terms	TMAC Comments and Annotation
 construction of an expanded site pad and infrastructure necessary to support production level underground mining, ore sorting, processing and tailings deposition; quarries used for site development; site infrastructure, including overburden stockpile, waste rock stockpile, ore stockpile and contact water ponds, explosives manufacturing facility, camp accommodations and process plant; water storage; construction and operation of a Sewage Treatment Plant; construction and operation of landfarms, landfills, and transportation of waste; construction and operation of an all weather airstrip; tailings management area; use of winter roads and all weather roads; miscellaneous related buildings and infrastructure. 	
1 (b) This Licence is issued subject to conditions contained herein with respect to the use of Waters and the deposit of Waste of any type in any Waters or in any place under any conditions where such Waste or any other Waste that results from the deposits of such Waste may enter any Waters. Whenever new Regulations are made or existing Regulations are amended by the Governor in Council under the Act, or other statutes imposing more stringent conditions relating to the quantity, type or manner under which any such Waste may be so deposited, this Licence shall be deemed to be subject to such requirements.	
1(c) Compliance with the terms and conditions of this Licence does not absolve the Licensee from responsibility for compliance with all applicable legislation and directives of the Board.	It is noted that the specific guidelines that TMAC has committed to following are referenced in the commitments made during this process as well as the Licence itself.
2. Definitions (a) The Licensee shall refer to Schedule A for definitions of terms used in this Licence.	See "Schedule A".
3. Enforcement	
(a) Failure to comply with this Licence will be a violation of the Act, subjecting the Licensee to the enforcement measures and the defences and penalties provided for in the Act.	
(b) All inspection and enforcement services regarding this Licence will be provided by Inspectors appointed under the Act.	
(c) For the purpose of enforcing this Licence and with respect to the use of Water and deposit of Waste by the Licensee, Inspectors appointed under the Act, hold all powers, privileges, and protections that are conferred upon them by the Act or by other applicable laws.	
Part B: General Conditions	
1. The amount of Water use fees shall be determined and payment of those fees shall be made in accordance with section 12 of the Regulations.	
2. The Licensee shall file an Annual Report with the Board no later than March 31st in the year following the calendar year being reported. The Annual Report shall be developed in accordance with Schedule B.	

Proposed Terms	TMAC Comments and Annotation
3. Any communication with respect to this Licence shall be made in writing to the attention of:	
Manager of Licensing, Nunavut Water Board P. O. Box 119 Gjoa Haven, NU X0B 1J0 Telephone: (867) 360-6338 Fax: (867) 360-6369 Email: licensing@nwb-oen.ca	
4. Any notice made to an Inspector shall be made in writing to the attention of:	
Water Resources Officer Nunavut District, Nunavut Region P.O. Box 100 Iqaluit, NU XOA 0H0 Telephone: (867) 975-4295 Fax: (867) 979-6445	
5. The Licensee shall submit one (1) electronic copy of all reports, studies, and plans to the Board unless otherwise requested by the Board. Unless otherwise directed by the Board, reports or studies submitted to the Board by the Licensee shall include an executive summary in English, Inuinnaqtun, and Inuktitut.	
6. This Licence is assignable as provided in Section 44 of the Act.	
7. The Licensee shall ensure that any document(s) or correspondence submitted by the Licensee to the Board is received and acknowledged by the Manager of Licensing.	
8. The Licensee shall post signs in the appropriate areas to inform the public of the location of the Water Supply Facilities and the Waste Disposal Facilities. All signs must be in English, Inuinnaqtun, and Inuktitut, and shall be located and maintained to the satisfaction of an Inspector, acting reasonably.	
9. Plans submitted under this Licence cannot be undertaken without subsequent written Board approval and direction, or as otherwise deemed approved in accordance with Part B, Section 11. The Board may request the Licensee to alter or modify a Plan, if necessary, to achieve the legislative objectives and will notify the Licensee in writing of acceptance, rejection or requested alteration of the Plan. With notice to the Board, the Licensee may rename or consolidate Plans listed in this Licence.	
10. Unless otherwise directed by the Board in writing, if a Plan is not acceptable to the Board, the Licensee shall provide a revised version to the Board for review within thirty (30) days of notification by the Board.	

Proposed Terms	TMAC Comments and Annotation
11. Except as otherwise reflected in this Licence, the Licensee shall, for all Plans submitted under this Licence, undertake Plans upon receipt of approval from the Board, or 60 days following Plan submission to the Board, whichever occurs first. Any changes to the plans deemed significant by the Board must be submitted to the Board following the process and timelines described in this section. The Board has approved the following plans for implementation under the relevant section of this Licence.	
I(i) Hone Bay Project Non-hazardous Waste Management Plan (December 2017)	TMAC requests that all of these plans be approved with the issuance of the Type A Water Licence.
[Note: No plans are currently anticipated to require further updates after licence issuance at this time.]	At this time, TMAC has not identified any plans that it expects would require revision after issuance of the licence. However, it has included this provision as a place holder in the event that such plans are identified during the regulatory process.
14. Every Plan to be carried out pursuant to the terms and conditions of this Licence shall become a part of this Licence, and any additional terms and conditions imposed upon approval of a Plan by the Board, or as otherwise deemed approved in accordance with Part B, Section 12, become part of this Licence. All terms and conditions of the Licence should be contemplated in the development of a Plan where appropriate.	

Proposed Terms	TMAC Comments and Annotation	
15. The Licensee shall review the Plans referred to in this Licence, as required by changes in status of the Project, operation and/or technology, and modify the Plan accordingly. Revisions to the Plans may be submitted in the form of an Addendum to be included with the Annual Report or in a revised Plan, as appropriate.		
16. The expiry or cancellation of this Licence does not relieve the Licensee from any obligation imposed by the Licence or any other regulatory requirement. Should this Licence expire or be cancelled, the Licensee is permitted to carry out any obligations imposed by the Licence to the extent required to maintain compliance with the Act.		
17. The Schedules attached to this Licence provide instructive details regarding the requirements associated with specific items in the main body of the Licence and are included in the Schedule to provide greater clarity and as an aid to interpretation for the Licensee. If the Board subsequently determines that an item in any of the Schedules require revision in order to better reflect the intent and objectives of the Licence, the Board may at its discretion, and upon providing written notice to the Licensee, revise the item in the Schedule. Unless the Board directs otherwise, such revision will not be considered to be an "amendment" to the Licence.		
18. Unless otherwise stated, references in the Licence to any specific legislation, policy, guideline or other regulatory requirement are deemed to refer to the regulatory requirement as may be amended or as may be expressly replaced by successor legislation, policy, guidelines or other regulatory requirements after the Licence is approved by the Minister.		
Part C: Conditions Applying to Security		
1. The Licensee shall:	The terms and conditions set out at this Part C are similar in structure to	
a. within xx days following the approval of this Licence by the Minister: i. file evidence, in writing, that is acceptable to the Board, and with notice to the Minister and the Kitikmeot Inuit Association, verifying that the Licensee has furnished and maintained reclamation security in an amount of no less than \$xx with the Kitikmeot Inuit Association for the purposes of reclamation consistent with the purposes set out in s. 76(2)(b) of the Act and as applicable to reclamation of the Mining Undertaking described in the Licence.	There are precedents for the Board to include staged security milestones in Water Licences (see for example 2BB-MAE1727 Amendment No. 1). This approach avoids the need for annual security review processes which may be time consuming for all parties and for the Board, while ensuring that all required security amounts are in place prior to construction. Since	
b. sixty days prior to construction of [xx] i. furnish and maintain security with the Minister in the amount of \$[xx]; and ii. file evidence, in writing, that is acceptable to the Board, and with notice to the Minister and the Kitikmeot Inuit Association, verifying that the Licensee has furnished and maintained reclamation security in an amount of no less than \$[xx]\$ with the Kitikmeot Inuit Association for the purposes of reclamation consistent with the purposes set out in s. 76(2)(b) of the Act and as applicable to reclamation of the Mining Undertaking described in the Licence.		
2. The Licensee must ensure that the security furnished and maintained under Part C, Item 1, once all items 1(a) through 1(j) have commenced construction is not less than \$[xx] and that the security is in the form, of the nature, subject to applicable terms and conditions, in accordance with the Regulations, or that is otherwise satisfactory to the Minister.		

Proposed Terms	TMAC Comments and Annotation
3. If the Licensee fails to provide evidence of the security required to be provided to the Kitikmeot Inuit Association under Part C, Item 1, or if, during the term of the Licensee fails to maintain the security required to be maintained with the Kitikmeot Inuit Association under Part C, Item 1, the Licensee shall, within thirty (30) days of the Licensee's failure, furnish and maintain such additional security with the Minister as is required to ensure that the total reclamation security held under Part C, Item 1 is not less than the amounts listed at Part C Item 1(a)(i) and (ii), 1(b)(i).	
4. The Licensee is required to provide the Board and the Minister with at least sixty (60) days written notice prior to any material change affecting the reclamation security arrangements between the Licensee and the Kitikmeot Inuit Association, including, but not limited to changes to the form of security, quantum of security or terms associated with holding, accessing or releasing the security. Notwithstanding this requirement, should the Licensee or the Kitikmeot Inuit Association become aware of, or cause any change to, the amount or terms of security referred to in Part C, Item 1, the Licensee or the Kitikmeot Inuit Association will promptly notify the Board.	
5. The Licensee shall submit to the Board for approval at least twelve (12) months prior to Closure, an updated estimate of the total mine closure restoration liability using the current version of RECLAIM, its equivalent or other similar method approved by the Board in writing, in accordance with principles of the INAC "Mine Site Reclamation Policy for Nunavut" (2002). Upon the Project entering into Care and Maintenance, an updated estimate of total mine closure reclamation liability shall be submitted, as above, within twelve (12) months of entering Care and Maintenance and every three (3) years thereafter.	
6. The Licensee shall furnish and maintain such further increases or decreases of security as may be required by the Board, based on the updated estimate of current mine reclamation liability under Part C, Item 5.	
7. The Licensee, the Minister, or the Kitikmeot Inuit Association may apply to the Board to order a revised amount of security required to be held under the Licence pursuant to Part C, Item 1. Any submission requesting a reduction or increase of the security to be held under the Licence pursuant to Part C, Item 1 shall include supporting evidence to justify the reduction or increase.	
8. Upon the Board receiving a request under Part C, Item 7 to reduce or increase security, or upon receiving an updated reclamation cost estimate as required under Part C, Item 6, the Board, may on its own initiative, or upon application by the Licensee, the Minister and/or the Kitikmeot Inuit Association, conduct a periodic review of the outstanding reclamation liability associated with the Undertaking and may, as the Board considers appropriate, order that the amount of security required to be held under Part C, Item 1 be reduced or increased.	
9. If the Board determines it to be necessary, or upon the request of Licensee, the Minister and/or the Kitikmeot Inuit Association, the Board may issue further directions under this Part with respect to the process for amending the amount of security to be furnished and maintained under the Licence.	
10. The security referred to in Part C, Item 1 shall be maintained until such time as it is fully or in part refunded by the Minister pursuant to Section 76(5) of the Act. This clause shall survive the expiry of this Licence and remains in force until amended by the Board under this Part or until full and final reclamation has been completed to the satisfaction of the Minister.	

Proposed Terms	TMAC Comments and Annotation
Part D: Conditions Applying to Construction and Operations	
1. Unless otherwise approved by the Board, the Licensee shall use fill material for construction from an approved source in accordance with approved Plans.	
2. The Licensee shall implement preventive and mitigation measures to prevent any non-compliant chemicals, fuel or Wastes associated with the undertaking from entering any Water body, unless otherwise approved by the Board.	
3. The Licensee shall locate equipment storage areas on gravel, sand or other durable land, a distance of at least thirty-one (31) metres above the ordinary High Water Mark of any Water body in order to minimize impacts on surface drainage and Water quality unless otherwise approved by the Board.	
4. The Licensee shall implement sediment and erosion control measures where necessary, during all phases of the Project to prevent entry of sediment into Water.	
5. The Licensee shall undertake appropriate corrective measures to mitigate impacts on surface drainage resulting from the Licensee's operations.	
6. The Licensee shall limit any in-stream activity for fish-bearing streams to the low Water or winter period unless otherwise approved by Fisheries and Oceans Canada and this activity is prohibited during fish migration unless otherwise approved by the Board or Fisheries and Oceans Canada.	
7. The Licensee shall conduct construction monitoring during periods where Construction activities are undertaken.	
8. The Licensee shall, during periods of Construction activities, submit an annual Construction Summary Report no later than March 31 in the year following the calendar year being reported. The report shall be developed in accordance with Schedule D, Item 1.	
9. Unless otherwise approved by the Board, the Licensee shall identify and tag any potentially acid generating rock identified through the Hope Bay Project Quarry Management and Monitoring Plan for removal and disposal to the Temporary Waste Rock Pile, for ultimate disposal underground.	
10. The Licensee shall, for the purposes of bridge construction, ensure that all activities remain outside of the natural channel width by the placement of abutments, footings or armouring above the ordinary High Water Mark so that there is no restriction to the natural channel processes, unless otherwise approved by the Board.	
11. The Licensee shall submit to the Board for review, at least thirty (30) days prior to construction, final design and construction drawings accompanied with a detailed report, both stamped and signed by the appropriately qualified Engineer where such facilities require engineered structures, for the following: a. Water Works; and b. Waste Disposal Facilities.	
12. The Licensee shall conduct all activities, including the construction and maintenance of any all-weather roads, in such a way as to minimize impacts on surface drainage and shall immediately undertake any corrective measures in the event the Licensee's activities cause significant pooling of Water or any significant impacts on surface drainage.	

Proposed Terms	TMAC Comments and Annotation
13. With respect to access road, pad construction or other earthworks where direct or indirect flow into a Water body is possible, the deposition of debris or sediment into or onto any Water body is prohibited. These materials shall be disposed at a distance of at least thirty-one (31) metres from the ordinary High Water Mark in such a fashion that they do not enter the Water, unless otherwise approved by the Board.	
14. The Licensee shall monitor all activities for signs of erosion and shall implement and maintain sediment and erosion control measures prior to the undertaking to prevent entry of sediment into any Water body.	
15. The Licensee shall conduct visual inspections for all construction activity during spring freshet and during and after remarkable rainfall events with sampling of runoff/seepage where turbidity is evident.	
16. All surface runoff during the construction of any facilities, where flow may directly or indirectly enter a Water body, shall meet the following Effluent quality limits:	

Proposed Terms T				TMAC Comments and Annotation
Proposeu remis				TIVIAC COMMENTS and Amoration
Parameter	Maximum Average Concentration (mg/L)*	Maximum Concentration of Any Grab Sample (mg/L)*		
Total Suspended Solids	50.0	100.0		
*Or equivalent turbidity co	oncentrations, as approved b	by the Board in writing.		
17. The Licensee shall operate the Sewage Treatment Plant in accordance with the Hope Bay Project Domestic Wastewater Treatment Management Plan with Effluent compliance during discharge to the tundra or to Aimaokatalok Lake.				
	18. The Licensee shall conduct a Quarry Rock Seepage Monitoring and Management Program in accordance with the Hope Bay Project Quarry Management and Monitoring Plan.			
19. The Licensee shall construct and maintain all containment and runoff control structures to prevent non-permitted releases of Wastes to the terrestrial environment or groundwater systems.				
20. The Licensee shall submit to the Board for review, with the Construction Summary Report referred to under Part D, Item 8, and following completion of each facility designed to contain, withhold, divert or retain Water or Waste, a Construction Summary Report prepared by a qualified Engineer(s) that shall include as-built drawings, documentation of field decisions that deviate from original plans and any data used to support these decisions.				
the required field checks	uring the construction of a s by an appropriately quali see shall maintain all cons sector.			

Proposed Terms	TMAC Comments and Annotation
22. The Licensee shall direct all runoff and seepage from the Temporary Ore and Waste Rock Pads to the Contat Water Ponds for re-use in processing plant or if it meets discharge criteria discharged to tundra or to Aimaokatalok Lake.	
23. The Licensee shall consider the principles of Adaptive Management in Construction and Operations.	
Part E: Conditions Applying to the Use of Water	

Proposed Terms	TMAC Comments and Annotation
1. The Licensee shall obtain fresh Water as follows or as otherwise approved by the Board: (a) from Aimaokatalok Lake, 33,000 m3/year for domestic use, 450,000 m3/year for industrial use (b) Drill Water may also be obtained from locations proximal to the drilling targets. (c) water for winter ice roads per Part G, Item 3.	
2. The Licensee shall maximize to the greatest practical extent, the use of reclaim Water from the Tailings Impoundment Area for use in the mill.	
3. The Licensee shall not use streams as a Water source unless authorized and approved by the Board in writing.	
4. The Licensee shall maintain the fresh water intakes to the satisfaction of the Inspector, acting reasonably.	
5. The Licensee shall equip all Water intake hoses with a screen of an appropriate mesh size to ensure that fish are not entrained and shall withdraw Water at a rate such that fish do not become impinged on the screen.	
6. The Licensee shall not remove any material from below the ordinary High Water Mark of any Water body unless authorized by an Inspector or the Board.	
7. The Licensee shall provide the controls necessary to prevent erosion to the banks of any body of Water. Sediment and erosion control measures shall be implemented prior to and maintained during any project activities to prevent entry of sediment into Water.	
Part F: Conditions Applying to Water Management 1. The Licensee shall carry out regular inspections of all Water management structures during periods of flow and the records be kept for review upon request of an Inspector. More frequent inspections may be required at the request of an Inspector, acting reasonably.	
2. The Board has approved, with the issuance of this amended Licence, the Plan entitled "Hope Bay Project Groundwater Management Plan" dated May 2018. The Plan shall be reviewed annually in order to capture any revisions or updates necessary to adapt to changing circumstances regarding groundwater inflows and discharge rates.	
3. The Licensee shall submit to the Board sixty (60) days prior to annual Winter Ice Road construction an updated Technical Memorandum titled "Winter Ice Road Withdrawal Evaluation for approval of the Board. Unless otherwise directed by the Board, the memorandum will confirm approximate projected routing (subject to changes year to year based on construction and operational conditions), bathymetry, depth, potential locations of possible water withdrawal, proposed volumes to be extracted and anticipated water level decreases.	

Proposed Terms			TMAC Comments and Annotation
Part G: Conditions Applying to Waste Disposal and Management			
•		r prior to any planned discharges from any Facilities. The notice shall	
include the estimated volume pr	oposed for discharge and location.		
2. The Licensee shall perform all land applied discharges in a manner that prevents erosion at the point of discharge and downstream. 3. The Licensee shall operate the Domestic Wastewater Treatment Plant in accordance with the following: a. All Sewage and Greywater shall be collected and treated in the Domestic Wastewater Treatment Plant; b. All Effluent discharged from the Domestic Wastewater Treatment Plant to the tundra or Aimaokatalok Lake shall not exceed the following Effluent quality limits:			
Parameter	Maximum Allowable Concentration (mg/L)		
pH	6-9		
Total Suspended Solids (TSS)	100		
BOD ₅	80		
Fecal Coliforms Total Oil and Grease	10,000 CFU/ 100mL 5 and no visible sheen		
Total Oil and Grease	5 and no visible sheen		

Proposed Terms	TMAC Comments and Annotation
4. The Licensee shall submit to the Board for approval in writing, at least sixty (60) days prior to planned implementation, any changes that are contemplated to the geochemical confirmatory sampling and testing program or the criteria for using non-mineralized Waste Rock for construction as outlined in the approved Waste Rock and Ore Management Plan, including a description of and justification for the change.	
4. The Licensee shall backhaul and dispose of all hazardous Wastes, through the course of the operation at a licensed Waste disposal site in accordance with the Hazardous Waste Management Plan.	
5. The Licensee shall maintain records of all Waste backhauled and records of confirmation of proper disposal of backhauled Waste. These records shall be made available to an Inspector upon request.	
6. The Licensee shall submit to the Board for approval in writing, at least sixty (60) days prior to planned implementation, any changes that are contemplated to the geochemical confirmatory sampling and testing program or the criteria for using non-mineralized Waste Rock for construction as outlined in the Hope Bay Project Waste Rock, Ore and Mine Backfill Management Plan, including a description of and justification for the change.	
7. The Licensee shall identify and tag any potentially acid generating rock identified through the Hope Bay Project Quarry Management and Monitoring Plan for removal to the Temporary Waste Rock Pile, for ultimate disposal underground.	
8. All Waste Rock brought to the surface from underground shall be managed in accordance with the Hope Bay Project Waste Rock, Ore and Mine Backfill Management Plan or as otherwise approved by the Board.	
9. The Licensee shall operate and maintain all Waste management facilities to the satisfaction the Inspector, acting reasonably.	
10. All Water from the Contact Water Ponds shall be directed to the tundra if it meets discharge criteria, or sent to the Surge Pond. All water from the surge pond will be re-used in the processing plant or discharged to the Aimaokatalok Lake, unless otherwise authorized by the Board in writing.	

Proposed Terms TMAC Comments and Annotation 11. The Licensee shall operate and maintain the Sumps associated with the site, in accordance with the following: a. Water discharged from the Landfill Sump shall not exceed the following Effluent quality limits: Parameter Maximum Allowable Concentration (mg/L) pН 6.0-9.0 Total Suspended 15.0 Solids (TSS) Total Ammonia -N 2.0 Free Cyanide (CN) 0.005 Total Oil and Grease 5 and no visible sheen on Water surface Total Aluminium - T 1.0 Total Arsenic - T-As 0.05 Total Copper - T-Cu 0.02 Total Iron - T- Fe 0.3 Total Lead - T- Pb 0.01 Total Nickel - T- Ni 0.05 Total Zinc - T - Zn 0.01 b. Water from the Landfill Sump that is acceptable for discharge under Part G, Item 11 (a), may be discharged to the tundra or as designated by an Inspector; c. Water discharged from the Landfarm sump shall not exceed the following Effluent quality limits:

Proposed Terms				
			TMAC Comments and	d Annotation
Parame	eter	Maximum Allowable Concentration (mg/L)		
	cici			
pH	c-1:4- (mcc)	Between 6.0-9.0		
Total Suspended		15.0		
Total Oil and Gre		5 and no visible sheen		
Total Ammonia-N	N	2.0		
Total Lead		0.01 0.37		
Benzene				
Toluene		0.002 0.090		
Ethyl Benzene		0.090		
Param	neter	Maximum Allowable Concentration (mg/L)		
pН		Between 6.0-9.0		
pH Total Suspended	1 Solids (TSS)	Between 6.0-9.0 15		
pH Total Suspended Total Oil and Gr	1 Solids (TSS)	Between 6.0-9.0 15 5		
pH Total Suspended Total Oil and Gr Total Lead	1 Solids (TSS)	Between 6.0-9.0 15 5 0.01		
pH Total Suspended Total Oil and Gr Total Lead Benzene	1 Solids (TSS)	Between 6.0-9.0 15 5 0.01 0.37		
pH Total Suspended Total Oil and Gr Total Lead Benzene Toluene	1 Solids (TSS)	Between 6.0-9.0 15 5 0.01 0.37 0.002		
pH Total Suspended Total Oil and Gr Total Lead Benzene	1 Solids (TSS)	Between 6.0-9.0 15 5 0.01 0.37		
pH Total Suspended Total Oil and Gr Total Lead Benzene Toluene	1 Solids (TSS)	Between 6.0-9.0 15 5 0.01 0.37 0.002		

Proposed Terms	TMAC Comments and Annotation
Part H: Conditions Applying to Modifications	
 The Licensee may, without written consent from the Board, carry out Modifications to the Water Supply Facilities and Waste Disposal Facilities provided that such Modifications are consistent with the terms of this Licence and the following requirements are met: The Licensee has notified the Board of such proposed Modifications at least sixty (60) days prior to beginning the Modifications, unless otherwise approved by the Board; Such Modifications do not place the Licensee in contravention of the Licence or the Act; Such Modifications are consistent with the applicable terms and conditions of the NIRB Project Certificate; The Board has not, within sixty (60) days following notification of the proposed Modifications, informed the Licensee that review of the proposal will require more than sixty (60) days; and The Board has not rejected the proposed Modifications. 	
2. Modifications for which any of the conditions referred to in Part G, Item 1 have not been met can be carried out only with approval from the Board.	
 3. Applications for modifications shall contain: a. A description of the facilities and/or works to be constructed; b. The proposed location of the structure(s); c. Identification of any potential impacts to the receiving environment; d. A description of any monitoring required, including sampling locations, parameters measured, and frequencies of sampling; e. A proposed schedule for construction; f. Drawings of Engineered Structures stamped by a Professional Engineer, where applicable; and g. Proposed sediment and erosion control measures. 	

Proposed Terms	TMAC Comments and Annotation
4. The Licensee shall provide as-built plans and drawings of the Modifications referred to in this Licence within ninety (90) days of completion of the Modification or with submission with the Annual Report. These plans and drawings shall be stamped by an Engineer.	
Part I: Conditions Applying to Contingency Planning	
1. All sumps and fuel caches shall be located at a distance of at least thirty-one (31) metres from the ordinary High Water Mark of any adjacent Water body and inspected on a regular basis.	
2. The Licensee shall provide secondary containment for fuel and chemical storage as required by applicable standards and acceptable industry practice.	
3. The Licensee shall perform regular inspections of Fuel Storage and Containment Facilities, Sumps, Emergency Dump Catch Basins, other fuel tanks and connectors for leaks and movement and shall keep a written log of inspections to be made available to an Inspector upon request. More frequent inspections may be required at the request of an Inspector, acting reasonably.	
4. The Licensee shall report in accordance with the Nunavut Waters Regulations any unauthorized deposits or forseeable unauthorized deposits of waste and or discharges of Effluent to territorial lands or waters which meet or exceed the volumes specified in the Spill Planning and Reporting Regulations.	
5. If the Licensee provides notification of Care and Maintenance, the Licensee shall submit to the Board an Addendum to the Emergency Response Plan and the Spill Contingency Plan, detailing the changes in operations, personnel, responsibilities, availability of equipment and access to the site for assistance.	
Part J: Conditions Applying to General and Aquatic Effects Monitoring	
1. The Licensee shall install and maintain flow meters or other such devices, or implement suitable methods required for the measuring of Water use and Effluent discharge volumes, where such discharges are made to land or inland Waters, to be operated and maintained to the satisfaction of an Inspector, acting reasonably.	
2. The Licensee shall undertake the Water Monitoring Program detailed in the tables of Schedule J or as may be directed by the Board, after consulting with the Licensee.	

Proposed Terms	TMAC Comments and Annotation
3. Water quality monitoring shall be carried out in accordance with the Quality Assurance/Quality Control Plan.	
4. The Licensee, in consultation with an Inspector, shall establish the locations and GPS coordinates for all monitoring stations referred to in Schedule J.	
5. The Licensee shall install and maintain, to the satisfaction of an Inspector, acting reasonably, signs that identify monitoring stations. The signs shall be posted in English, Inuktitut, and Inuinnaqtun.	
6. Additional monitoring may be directed by the Board.	
7. All analyses shall be conducted as described in the most recent edition of "Standard Methods for the Examination of Water and Wastewater" or by other such methods approved by an Analyst.	
8. All compliance analyses shall be performed in an accredited laboratory.	
 9. The Licensee shall measure and record all flow and volume measurements on a monthly basis, during Operations and any use of Waters (unless otherwise stated): a. The volume of freshwater obtained from Aimaokatalok Lake; b. The volume of freshwater obtained from proximal lakes for drilling and winter ice road; c. The volume of reclaim water obtained for process water at the process plant; d. Tonnes of Waste Rock stored in the Waste Rock Storage Area(s) and at other locations approved by the Board during Construction, Operations, and Closure; e. The volume of sewage sludge removed and the locations or method of sewage sludge disposal during Construction, Operations, and Closure; f. Report the data in accordance to Schedule B. 	
 10. The Licensee shall measure and record in tonnes including the location of disposal (temporary and permanent) for the following: a. The daily dry tonnes of tailings placed; and b. The monthly quantity of ore processed. 	

Proposed Terms	TMAC Comments and Annotation
12. The Licensee shall undertake a geotechnical inspection annually between July and September, by a Geotechnical Engineer. The inspection shall be conducted in accordance with the Canadian Dam Safety Guidelines where applicable, and take into account all major earthworks.	
13. The Licensee shall submit to the Board for review, within ninety (90) days of completion of the geotechnical inspection in accordance with Part J, Item 12, the Geotechnical Engineer's inspection report. The report shall include a cover letter from the Licensee outlining an implementation plan addressing each of the Geotechnical Engineer's recommendations.	
14. The Licensee shall visually monitor and record observations, to be made available to an Inspector upon request, during periods of discharge onto the tundra from: a. Eandfill Sump(s); b. Eandfarm Sump(s); c. Fuel Storage Facilities Sump(s); d. Sewage Treatment Plant Sump; and e. Any other treated effluent water discharge Sump(s).	
15. The Licensee shall, within thirty (30) days following the month being reported, submit to the Board a monthly monitoring report in an electronic format. The Report shall include the following: a. All data and information required by this Part and generated by the Monitoring Program in the Tables of Schedule J; b. An assessment of data to identify areas of non-compliance with regulated discharge parameters referred to in this Licence; and c. Reports should document conditions during spring freshet, major rain events, and periods of sustained precipitation should be monitored. Documented information can include flow measurements, photographs and notes.	

Proposed Terms	TMAC Comments and Annotation
Part K: Conditions Applying to General and Aquatic Effects Monitoring Plans	
1. The Licensee shall annually review the approved QA/QC Plan and modify the Plan as necessary.	
Part L: Conditions Applying to Abandonment, Reclamation, and Closure	
1. The Licensee shall notify the Board, as soon as practically possible, of any intent to enter into a Care and Maintenance Phase.	
2. The Licensee shall, upon providing notice to the Board as per Part L, Item 1, review all operational plans and submit revised Plans to reflect the Care and Maintenance status, to the Board for approval in writing, within three (3) months of providing notice.	
3. The Licensee shall provide to the Board in writing, at least thirty (30) days advanced notification of the initial start of Operations or change of Project Phase. Notification may be provided separately or in accordance with the monthly monitoring report as per Part J, Item 15.	
4. The Licensee shall submit to the Board for approval at least twelve (12) months prior to the expected end of planned mining, a Final Closure and Reclamation Plan. The Final Closure and Reclamation Plan shall incorporate revisions, which reflect the pending closed status of the mine, and include: . Soil Quality Remediation Objectives along with CCME Guidelines and the Government of Nunavut Environmental Guideline for Site Remediation; b. A Protocol for the disposal of any contaminated soil into the underground mine at closure; c. Environmental Site Assessment plans in accordance with Canadian Standards Association (CSA) criteria; and d. An Evaluation of the Human Health and Ecological Risk Assessment.	
5. The Licensee shall, should the Project remain, or be in Care and Maintenance, submit an updated estimate of total mine closure restoration liability, within twelve (12) months of entering Care and Maintenance and every three (3) years thereafter.	
6. The Licensee shall include, with the Plan submitted under Part L, an updated estimate of the total mine closure restoration liability using the current version of RECLAIM, its equivalent or other similar method approved by the Board, in accordance with principles of the INAC "Mine Site Reclamation Policy for Nunavut" (2000).	
7. The Licensee shall complete all reclamation work in accordance with the Plan(s) referred to in this Part, as and when approved by the Board in writing.	

Proposed Terms	TMAC Comments and Annotation
8. The Licensee shall carry out progressive reclamation of any components of the project no longer required for the Licensee's operations.	
9. All roads and airstrip, if any, shall be re-graded to match natural contour to reduce erosion to the extent practicable.	
10. The Licensee shall remove any culverts and restore the drainage to match the natural channel to extent practicable. Measures shall be implemented to minimize erosion and sedimentation.	
11. Areas that have been contaminated by hydrocarbons from normal fuel transfer procedures shall be reclaimed to meet objectives as outlined in the Government of Nunavut's Environmental Guideline for Site Remediation, (2010 version or current version in place at the time of Reclamation).	
12. The Licensee shall contour and stabilize all disturbed areas to a pre-disturbed state upon completion of work to the extent practicable.	
13. The Licensee shall consult traditional land users, land owners, and other stakeholders on the proposed post-closure land use criteria. Particularly, the proposal to leave certain facilities in place and confirm the soil quality remediation objectives.	
SCHEDULE A: Definitions	TMAC may provide further comments on this section in the next draft.
associated equipment and structures;	
"Act" means the Nunavut Waters and Nunavut Surface Rights Tribunal Act;	
"Acid Rock Drainage (ARD)" means the production of acidic leachate, seepage or drainage from underground workings, ore piles, waste rock, and portal development rock that can lead to the release of metals to groundwater or surface Water during the life of the Project and after Closure;	
"Adaptive Management" means a way of managing risks associated with uncertainty and provides a flexible framework for the mitigation measures to be implemented and actions to be taken when specified thresholds are exceeded;	
"Aliquot" means the amount comprising a known fraction of a whole and constituting a sample used for analysis;	
"Amendment" means a change to terms and conditions of this Licence requiring addition or deletion of specific terms and conditions of the Licence;	
"Analyst" means an Analyst designated by the Minister under Section 85 (1) of the Act;	
"Appually" magneting the context of monitoring frequency, one campling event occurring every 265 days with a minimum of 200 days between	

Proposed Terms	TMAC Comments and Annotation
"Board" means the Nunavut Water Board established under Article 13 of the Nunavut Land Claims Agreement and under Section 14 of the Act;	
"Canadian Council of the Ministers of the Environment" (CCME) is the primary minister-led intergovernmental forum for collective action on environmental issues of national and international concern. CCME sets guidelines for environmental protection across Canada such as the Canadian Water Quality Guidelines for the Protection of Freshwater Aquatic Life;	
"Care and Maintenance" in respect of a mine, means when the Licensee ceases construction, production or commercial operation temporarily for an undefined period of time;	
"Closure" means when a mine ceases operations without the intent to resume mining activities in the future;	
"Commercial Operation" in respect of a mine, means an average rate of production that is equal to or greater than 25% of the design rated capacity of the mine over a period of 90 consecutive days;	
"Construction" means any activities undertaken to construct or build any component under the scope of this Licence associated with, the development of the Doris North Mine Project,	
"Deposit" means the placement of Waste rock, tailings or other solids materials on land or in Water;	
"Discharge" means the release of any Water or Waste to the receiving environment, other than discharge to the marine waters;	
"Dissolved Metals" means the suite of metals referred to as MD in Schedule J Table 1 entitled Monitoring Groups. Dissolved metals shall be analyzed on a filtered sample;	
"Domestic Waste" means all solid Waste generated form the accommodations, kitchen facilities and all other site facilities, excluding those industrial and hazardous Wastes associated with the mining and processing of ore;	
"Effluent" means treated or untreated liquid Waste material that is discharged into the environment from a structure such as a settling pond, landfarm or a treatment plant;	
"Engineer" means a professional engineer registered to practice in Nunavut in accordance with the Consolidation of Engineers and Geoscientists Act S. Nu 2008, c.2 and the Engineering and Geoscience Professions Act S.N.W.T. 2006, c.16 Amended by S.N.W.T. 2009, c.12; "Engineering Geologist" means a professional geologist registered with the Association of Professional Engineers, Geologist and Geophysicists of Nunavut and whose principal field of specialization is the investigation and interpretation of geological conditions for civil engineering purposes;	
"Engineered Structure" means any facility, which was designed and approved by a Professional Engineer registered with the Association of Professional Engineers, Geologists and Geophysicists of Nunavut;	
"Environmental Assessment" means, for the purpose of this licence, the totality of the Nunavut Impact Review Board (NIRB) Public Registry as established under the authority of Article 12 of the Nunavut Agreement, this includes everything that was submitted by the Licensee to the NIRB, the scope of which is consistent with the Water Licence Application;	

Proposed Terms	TMAC Comments and Annotation
"Geotechnical Engineer" means a professional engineer registered with the Association of Professional Engineers, Geologist and Geophysicists of Nunavut and whose principal field of specialization with the engineering properties of earth materials in dealing with man-made structures and earthworks that will be built on a site. These can include shallow and deep foundations, retaining walls, dams, and embankments;	
"Grab Sample" means an undiluted quantity of material collected at a particular time and place that may be representative of the total substance being sampled at the time and place it was collected; "Greywater" means the component of Effluent produced from domestic use (i.e. washing, bathing, food preparation and laundering), excluding sewage;	
"Ground Ice" means ice that occupies fractures in rock and soil below the ground surface and may be present as ice inclusion in permafrost, soil or rock, as pore ice, lense ice or massive ice;	
"Ground Water" means Water that occupies pores and fractures in rock and soil below the ground surface in a liquid or frozen state;	
"Modification" means an alteration to a physical work that introduces a new structure or eliminates an existing structure and does not alter the purpose or function of the work;	
"Monthly" means, in the context of monitoring frequency, one sampling event occurring every thirty (30) days with a minimum of 21 days between sampling events;	
"Operations Phase" means the period during which the ore is extracted from the mine and processed to produce the final product (gold). The Operations Phase starts with the ore extraction, mining, and includes the milling and extraction of the valuable minerals as described in the	

Proposed Terms	TMAC Comments and Annotation
"Reclamation" means the process of returning the mine sites and affected areas to viable and, wherever practicable, self-sustaining ecosystems that are compatible with a healthy environment and with human activities;	
"Receiving Environment" means both the freshwater and terrestrial environments that receive any discharge resulting from the Project;	
"Seepage" means any Water that drains through or escapes from any structure designed to contain, withhold, divert or retain Water or Waste. Seepage also includes any flows that have emerged from the toe, or as a result of runoff from overburden storage areas, Waste Rock Storage Facilities, and Ore Stockpile Areas; (note roads, dams, pads, quarries);	
"Sewage" means all toilet Wastes and greywater;	
"Sump" means a containment facility for the collection of surface drainage;	
"Surface Drainage" means all surface Waters resulting from the flow over, through or out of an operations area and is collected by means of engineered structures considered under the Storm Water Management Facilities;	
"Talik" means a layer or body of unfrozen ground occurring in a permafrost area due to a local anomaly in thermal, hydrological, hydrogeological or hydrochemical conditions;	
"Total Metals" means the suite of metals referred to as MT in Schedule J Table 1 entitled Monitoring Groups. Total metals shall be analyzed on an un-filtered sample;	
"Use" means use of Water's defined in section 4 of the Act;	
"Waste" means waste as defined in section 4 of the Act;	

Proposed Terms	TMAC Comments and Annotation
"Waste Rock" means all unprocessed rock materials that are or were produced as a result of mining operations and having no current economical value;	
"Wastewater" means the Water generated by site activities or originates on-site that requires treatment or any other Water management activity;	
"Water or Waters" means water as defined in section 4 of the Act;	
"Weekly" means, in the context of monitoring frequency, one sampling event occurring every 7 days with a minimum of 5 days between sampling events.	
"Water Supply Facility" means the Fresh Water Intake and associated infrastructure;	

Proposed Terms	TMAC Comments and Annotation
SCHEDULE B: General Conditions	
The Annual Report shall include:	
1. Summary of monitoring reporting performed in accordance with Part J, Item 21. The Summary shall include conversion of daily volumes and tonnages to monthly and annual volumes and tonnages.	
2. A Geochemical Monitoring and Waste Rock Storage Assessment that includes the following:	
a. For the tailings solids:	
i. All geochemical data appended;	
ii. All tonnage data appended and locations of disposal;	
iii. Discussion of geochemical data (static and kinetic, if applicable) with relevant figures and calculation of NNP and NPR; and	
iv. Geochemical interpretation of data.	TMAC may provide further comments on Annual Reporting in the next
b. For tailings supernatant:	draft.
i. All geochemical data appended; and	
ii. Figures depicting time series of constituent concentrations and loads.	
c. For waste rock:	
i. Tonnage of mineralized and un-mineralized Waste Rock placed on the Temporary Waste Rock Pad and in other locations as approved by the	
Roard in writing: and	
3. Include the report referenced in Part D, Item 21, that presents the data collected from the Quarry Rock Seepage Monitoring and Management	
Program conducted under Part D, Item 20. The report shall include a discussion of the interpretation of geochemical data and shall be presented to	
the Board for review.	
4. A summary of the results of the monthly Water balance and Water quality model assessments referred to in Part G, Item 34 and any re-	
calibrations that have been carried out. The report shall include:	
a. Relevant supporting data;	
b. a comparison of measured Water balance and Water quality values to predicted values;	
c. Monitoring and internal modelling results;	
d. a discussion of any discrepancies in model inputs; and	
e. Identification of any necessary adaptive management strategies.	
5. An update on the current capacity of the Tailings Impoundment Area;	
6. A record of measurements of the following:	
a. The flows (m3/day) at monitoring stationTL-2,	
b. A record of measurements of Doris Lake Water Level	
7. Annual review of and submission of any revisions to the Management Plans or Emergency Response or Contingency Plan in the form of either	
addenda or revised Plan;	

Proposed Terms	TMAC Comments and Annotation
8. A list and description of all unauthorized discharges including volumes, spill report line identification number and summaries of follow-up action taken;	
9. The results of the Aquatic Effects Monitoring Program and in accordance with Part J, Item 3;	
10. Annual adjustments to reclamation security estimates including any additional security that may be required or reductions in security requirements for progressive reclamation actions;	
implementation and scheduling 12. Incineration stack testing results when stack testing is required; 13. Annual Landfill Management report; 14. A summary of modifications and/or major maintenance work carried out on the Water Supply and the Waste Disposal Facilities, including all acceptance of the testing of any work anticipated for the past year.	
15. A summary report describing public consultation and participation with local organizations and the residents of the nearby communities, including a schedule of upcoming community events/information sessions; 16. GPS locations of monitoring stations as confirmed with the Inspector Part J, Item 5; 17. A summary of the data requested under Part J Item 11;	
18. A summary of actions taken to address concerns or deficiencies listed in the inspection reports and/or compliance reports filed by an Inspector; and 19. Any other details on Water use or Waste Disposal requested by the Board by November 1st of the year being reported.	
SCHEDULE D: Conditions Applying to Construction	

Proposed Terms	TMAC Comments and Annotation
a. Blast vibration monitoring for quarrying activity carried out in close proximity to fish bearing Waters; b. Monitoring of the performance of erosion protection measures employed by the construction contractor; c. Monitoring for sediment release from construction areas; d. Waste Rock and Quarry Monitoring Report referred to in Part G, item17, including the following: i. A summary of the geochemical inspections; iii. Results of the seep surveys; iiii. Results of geochemical sampling and analysis; and iv. A summary of all mitigation activities undertaken as a result of monitoring. e. Monitoring of contractor's activity to minimize ground impacts to the tundra (i.e. keeping vehicles off the tundra and on constructed roadways); f. Summary of the Quarry Rock Seepage Monitoring Program referred to in Part D, Item 20; and g. Construction Summary Reports referred to in Part D, Item 25. 2. The report shall discuss the monitoring results, analysis and any mitigation measures employed as a result of the monitoring, for each of the items listed above	
SCHEDULE E: Conditions Applying to Waste Management and Waste Management Plans	
CCME - Water Quality guidelines for total ammonia for the protection of aquatic life (mg·L-1 NH3)	
SCHEDULE J: Conditions Applying to General and Aquatic Effects Monitoring	
TABLES - Table 1 Monitoring Groups	
	To be provided upon consultation with the inspector
TABLES - Table 2 Monitoring Requirements	
	To be provided upon the consultaiton with the inspector