

Report Title: The Nunavut Impact Review Board's 2012 – 2013 Annual Monitoring Report for the Doris North Gold Mine Project (NIRB File No. 05MN047)

Project: Doris North Gold Mine Project

Project Location: Kitikmeot Region, Nunavut

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Cover Photo: Looking north along the Doris North All-Weather Road/Airstrip

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1.0 INTRODUCTION

1.1 Project History and Current Status

In September 2006, the Nunavut Impact Review Board (NIRB or Board) issued Project Certificate No. 003 (PC) to Miramar Hope Bay Ltd. (Miramar) for the Doris North Gold Mine Project (Doris North project or the Project). The PC was issued following completion of the NIRB's Review of the Project in accordance with Part 5 of Article 12 of the Nunavut Land Claims Agreement (NLCA). The Doris North project is located 125 kilometres (km) south of Cambridge Bay, in the West Kitikmeot region of Nunavut. The site is accessed by sealift for fuel and supplies, and by air for select freight and all personnel movements.

In early 2008, Newmont Mining Corporation (Newmont) successfully purchased all interests of Miramar and its subsidiary properties in the Hope Bay Belt, including the Doris North holding. Following this acquisition, Hope Bay Mining Ltd. (HBML) was established for the purposes of operating the Doris North Project and other properties in the Hope Bay Belt.

From early 2008 to late 2009, the construction of the Doris North project was suspended as HBML re-evaluated the original mine development plan. In November 2009, HBML decided to proceed with the Doris North project through a staged development strategy. The Doris North project subsequently saw resumed infrastructure construction in the summer of 2010, and mine operation had been anticipated to commence in 2012.

In 2011, activity at Doris North project was focused on completing infrastructure necessary for the advanced exploration stage of the Project. On January 31, 2012 Newmont announced that it had decided to move the Doris North project into care and maintenance; however, prior to this decision, a number of facilities and structures had been constructed to support the proposed mine, including the Roberts Bay area, Doris North Camp, and some Tail Lake facilities which are linked by an all-weather road. Other facilities that were constructed along the roads included an airstrip, landfarm, wash bay area and laydown pads.

In early March 2013, HBML notified the NIRB that it was selling the Doris North project to TMAC Resources Inc. (TMAC) and later that month, TMAC notified the NIRB that it planned to re-open the camp in order to continue exploration activities while maintaining the site in care and maintenance. On April 11, 2013 the NIRB received notice that TMAC had completed the purchase of the Project from HBML. Throughout the summer of 2013, TMAC continued ongoing exploration and the management of site while in care and maintenance.

In October 2013, the Proponent indicated that it was preparing to engage the NIRB's 12.8.2 NLCA reconsideration of the Doris North Project Certificate in order to allow for project specific modifications. At the time of this report, the NIRB continued to await a formal request to engage this process.

1.2 Project Components

The original project proposal approximated a physical footprint of 62 hectares, with an ore processing capacity of 668 tonnes per day. The anticipated life of mine was 24 months, processing 458,000 tonnes of ore yielding approximately 306,830 ounces of gold.

The major components of the Doris North project include a camp, fuel tank farm, office complex, workshops, power generation plant, sewage treatment plant, underground mine and associated crusher and mill at the

main mine site and tailings generated during the milling process would be deposited in a tailings impoundment area (TIA) at Tail Lake and adjacent to Roberts Bay a jetty, fuel tank farm and laydown area are required.

A 4.8 kilometre (km) all-weather access road (AWAR) links Roberts Bay with the Doris North camp, mine site and related infrastructure. An airstrip has been constructed on the alignment of the all-weather road, with this piece of infrastructure serving as both access road and landing strip. During 2011, HBML proposed amendment No. 2, which included an airstrip expansion/bypass road which construction has started but has not yet been completed.

1.2.1 Tail Lake Area

The Tail Lake area currently includes the north dam and frozen core plant, and is located approximately 1 km southeast of Doris Camp, accessible via a secondary road called Tail Lake Road. The north dam is a rock fill dam with a permanently frozen core constructed to contain the tailings storage at Tail Lake. The frozen core is maintained using thermosyphons which are filled with liquid carbon dioxide to remain cool, with the dam being monitored to ensure its integrity.

1.2.2 Camp and Mine Site

The Doris Camp is located approximately 5 km south of Roberts Bay. Facilities located near the camp include a landfarm and open burn pan area, an overburden storage pile, core storage area, reagent storage pads, and the all-weather road/airstrip. All facilities currently constructed on-site consist of:

- 180 man camp;
- mine offices;
- power generators;
- bulk fuel storage area;
- warehouses;
- underground mining support facilities;
- vehicle parking;
- material laydown; and
- helicopter operations and landing area.

All facilities present are situated on rock pads; a measure taken to protect the permafrost and to allow positive drainage and prevent permanent ponding of water. The rock fill that was used for the pads is non-acid generating and non-mineralized material from Quarries #2 and #4.

Though no active mining has been undertaken at site, an underground decline and portal were constructed and are located to the east of the camp. A vent raise was constructed to supply heating and ventilation for the underground workings. Approximately 200,000 tonnes of waste rock has been extracted through the bulk sampling program are stockpiled on the permitted waste rock pad through to date. Ore that was not used in the bulk sampling program is also stored on a rock pad east of the camp near the underground portal. The Doris North project had not processed any ore or created any tailings, as it had never entered the production mining stage of operations.

A diversion berm with an impermeable liner was constructed upslope of the camp to divert non-contact runoff from Doris Outcrop. HBML has developed a program to collect and manage runoff from the camp pads and underflow through the pads as described in its Interim Water Management Plan.

The crushing, milling and processing plant, south dam (Tail Lake TIA) and the Doris North landfill have not been constructed to date and are not expected to be constructed until the Project is out of care and maintenance.

1.2.3 Roberts Bay Area

The Roberts Bay area includes the marine port and other ancillary facilities required for the Project. A rock fill jetty was constructed for barge operations, and two bulk fuel storage facilities, one containing a single 5 million litre (ML) tank that has remained empty as of September 2012, and the second facility which houses three 5 ML tanks. A mechanical shop, vehicle repair complex, waste management facility, and laydown area are also located at Roberts Bay. A sandy beach area located approximately 1.5 km west of the jetty had previously been used for explosives off-loading and storage. All structures and facilities at the Roberts Bay area had been built on bedrock or rock fill pads.

On August 14, 2013 TMAC informed the NIRB and other agencies that around July 30, 2013 the jetty had sustained damage from the storm surge of 1+metre (m) high waves and required repairs. TMAC submitted plans to DFO in order to complete the work prior to August 15, 2013. All work on the jetty has been completed.

2.0 MONITORING ACTIVITIES

2.1 General Reporting Requirements

During the 2012 – 2013 monitoring period, TMAC demonstrated overall compliance with reporting requirements imposed through commitments resulting from the NIRB's Review of the Project, including those contained in related reports, plans, and the NIRB's Project Certificate [No. 003]. HBML/TMAC has provided the following items as required by the terms and conditions contained within the Project Certificate for the current monitoring period of October 2012 through October 2013:

- 2012 Air Quality Compliance Report (November 2012);
- 2010 & 2011 Tundra Vehicle Monitoring Program Report (February 2013);
- Wildlife Mitigation and Monitoring Program Report, 2012 (February 2013);
- 2012 Roberts Bay Jetty Thermistor Report (March 2013);
- Hydrology Compliance Report 2012 (April 2013);
- 2012 Meteorology Compliance Report (April 2013); and
- HBML 2012 Annual Report (June 2013).

The following plans were also updated and submitted to the NIRB during the current monitoring period:

- Air Quality Monitoring Plan (November 2012);
- Noise Abatement Plan (November 2012);
- Environmental Health and Safety Management Plan (December 2012);
- Monitoring and Follow-up Plan (February 2013); and
- TMAC's Updated Wildlife Mitigation Monitoring Plan (March 2013).

The following plans have not been forwarded to the NIRB to date, but may be required should the Project move out of care and maintenance.

- Education and Orientation Plan;
- Human Resources Plan;

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- Inuit Involvement Plan;
 - Auditing and Continuous Improvement Plan; and
 - Reclamation Plan.

2.2 Compliance Monitoring

Compliance monitoring involves an assessment undertaken by regulators and other agencies to establish whether or not the project is being carried out within the relevant legislation, regulations, instruments, commitments and agreements as such are applicable to certain project activities, and further, is also a requirement of the NIRB's Monitoring Program for the Doris North Gold Mine Project.

2.2.1 Compliance with the NIRB Project Certificate

During the 2012-2013 reporting period, the Proponent was successful in having met the requirements of the NIRB Project Certificate No. 003 and Appendix A which contains a list of the Proponent's commitments. Some Terms and Conditions are not applicable to the Project's current care and maintenance status.

2.2.1.1 COMPLIANCE ACHIEVEMENTS

CONDITION 27

HBML SHALL UPDATE AND REVISE THE WILDLIFE MITIGATION AND MONITORING PLAN TO REFLECT THESE TERMS AND CONDITIONS AND SHALL SUBMIT THE REVISED WILDLIFE MITIGATION AND MONITORING PLAN TO NIRB. NIRB MAY CONSULT WITH RELEVANT GOVERNMENT DEPARTMENTS AND THE NUNAVUT WILDLIFE MANAGEMENT BOARD PRIOR TO APPROVING THE REVISED WILDLIFE MITIGATION AND MONITORING PLAN. THE WILDLIFE MITIGATION AND MONITORING PLAN MUST BE SUBMITTED WITHIN THREE (3) MONTHS OF THE ISSUANCE OF A PROJECT CERTIFICATE AND IT MUST BE APPROVED BY NIRB PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. HBML MUST ALSO SUBMIT AN UPDATED PLAN ON AN ANNUAL BASIS WHICH ALSO MUST BE APPROVED BY NIRB.

COMMENTARY: NIRB EXPECTS THE ANNUAL PLAN TO INCLUDE THE QUARTERLY PLANS AND THE FOURTH QUARTER REPORT THEN BECOMES PART OF THE ANNUAL REPORT.

On February 22, 2013 HBML submitted the 2012 Wildlife Mitigation and Monitoring Program (WMMP) Annual Report. HBML had indicated that while the Project remained in care and maintenance, the wildlife species monitored would be reduced as well as the area being assessed would be scaled back to only include the Project area. The NIRB distributed the report for comment and the Kitikmeot Inuit Association and Environment Canada had information requests, technical comments as well as suggested updates and other information. The NIRB will be following up with TMAC for the requested information and any recommendations that may be required.

On March 28, 2013 the NIRB received HBML's updated Wildlife Mitigation and Monitoring Plan (WMMP) which focused on the Doris North site and surrounding areas. As the Project had been placed into care and maintenance, the WMMP proposed wildlife mitigation and monitoring activities as well as indicated what may change during the construction and operations of the Doris North Project, should it resume. The NIRB distributed the WMMP for comment and received comments back from the Kitikmeot Inuit Association, Government of Nunavut, and Environment Canada. Agencies had information requests, technical comments and other suggestions to be implemented into future reporting. The NIRB will be following up with TMAC for the requested information and any recommendations that may be required.

CONDITION 28

WITHIN SIX (6) MONTHS OF THE ISSUANCE OF A PROJECT CERTIFICATE, A HOPE BAY BELT SOCIO-ECONOMIC MONITORING COMMITTEE ("SEMC") SHALL BE FORMED TO SUPPLEMENT, NOT DUPLICATE AREAS COVERED BY THE INUIT IMPACT BENEFIT AGREEMENT NEGOTIATED FOR THIS PROJECT. IN ORDER TO ENSURE CONSISTENT DATA COLLECTION AND TRACKING OF DATA TRENDS IN A COMPARABLE FORM TO BE SHARED AT THE REGIONAL LEVEL AND TO MINIMIZE THE DUPLICATION OF EFFORTS, THE COMPOSITION OF THE SEMC SHOULD INCLUDE THE SAME MEMBERSHIP AS THE KITIKMEOT SOCIO-ECONOMIC MONITORING COMMITTEE APPROVED BY THE MINISTER. ADDITIONALLY, THE SEMC MUST ENGAGE THE AFFECTED COMMUNITIES OF CAMBRIDGE BAY, KUGLUKTUK, GJOA HAVEN, TALOYAK, AND NIRB'S MONITORING OFFICER, AND CONSIDER CONCERNS FROM BATHURST INLET AND OMINGMAKTOK. IN CONSULTATION WITH THESE PARTIES AND IMMEDIATELY UPON THE SEMC'S FORMATION, MHBL SHALL PROVIDE THE TERMS OF REFERENCE FOR A SOCIO-ECONOMIC MONITORING PROGRAM TO THE SEMC FOR REVIEW AND SUBSEQUENT DIRECTION BY NIRB. THE TERMS OF REFERENCE ARE TO INCLUDE THE ROLE OF MHBL IN DATA COLLECTION AND ANALYSIS; THE KEY SOCIO-ECONOMIC INDICATORS TO BE MONITORED; THE REPORTING REQUIREMENTS; AND THE FUNDING FORMULA.

The Doris North SEMC was established in April 2007, with a Socio-Economic Monitoring Program (SEMP) and its associated Terms of Reference (ToR) developed and subsequently revised by Miramar at the end of 2007. The SEMP and ToR were approved by the Doris North SEMC in 2010. On December 6, 2012 HBML requested clarification to, and modification of, the aforementioned condition. HBML indicated that it had consulted with both the Doris North Socio-Economic Monitoring Committee and the Kitikmeot Socio-Economic Monitoring Committee and noted that it intended to suspend the Doris North Socio-Economic Monitoring Program until such time as the Project moved out of care and maintenance. HBML indicated in this correspondence that neither committee had any objections and thus it intended to suspend socio-economic monitoring during care and maintenance.

On December 14, 2012 the NIRB responded to HBML noting that it believed that the decision to place the Doris North Project into care and maintenance for an indeterminate time period would have the potential to impact upon the residents of Nunavut and that as such, socio-economic monitoring and reporting would continue to be as important during care and maintenance as with any other project phase (i.e., operations). The NIRB expressed concern with HBML's stated intention to suspend the SEMP as a result of the Project's care and maintenance status, and questioned this decision in terms of HBML's ability to meet the objectives of the SEMP as outlined in the Terms of Reference as provided by HBML in 2007 and as agreed to by parties in 2007. The NIRB further noted that the Terms of Reference were not provided solely for the operations phase of the Doris North Project, and that it was the NIRB's expectation that HBML continue to meet its obligations as set out in the NIRB Project Certificate and the Terms of Reference, as specified through Condition 28 through all project phases, including care and maintenance and any other occurrences of temporary Project shutdown.

The NIRB also requested that HBML provide a formal request for modifications to the monitoring and reporting requirements. No formal request has been received regarding these monitoring and reporting requirements.

CONDITION 30

HBML WILL INSTALL AND FUND AN ATMOSPHERIC MONITORING STATION. THIS STATION AND ITS LOCATION SHALL BE DEVELOPED IN CONSULTATION WITH EC AND HC AIR QUALITY OFFICIALS AND FOCUS ON PARTICULATES OF CONCERN GENERATED AT THE MINE SITE. THE RESULTS OF AIR-QUALITY MONITORING ARE TO BE REPORTED EVERY SIX (6) MONTHS TO NIRB THROUGH THE MONITORING OFFICER, AND FROM THERE TO ALL PARTIES.

COMMENTARY: NIRB EXPECTS THE CANADA WIDE STANDARDS FOR DIOXINS AND FURANS AND THE CANADA WIDE STANDARDS FOR MERCURY WILL APPLY AND SHOULD BE FOLLOWED INCLUDING STACK TESTING OF INCINERATORS.

In October 2012 the NIRB received HBML's 2012 Air Quality Report which specifically noted the following in the Executive Summary (p. i):

As Doris Camp will now be closed on a seasonal basis, HBML has requested that the air quality reporting requirement be annual rather than every six months. Hence, starting for 2012, all data obtained from 2012 are included in this report.

On November 28, 2012 the NIRB received HBML's updated Air Quality Management Plan which reiterated the requested change. Following a review of the Proponent's request which included a request for comments from the public, on June 20, 2013 the NIRB issued correspondence to HBML supporting the request to alter the frequency of reporting air quality from every six months to an annual basis while the Project remains in care and maintenance and the camp remains seasonal. It was noted that at any time the camp is used beyond limited seasonal operations or the Project is taken out of care and maintenance into any other phase (i.e., construction, operations, decommissioning, etc.), TMAC would be required to advise the NIRB of these changes in order that air quality reporting frequency is revisited in light of amended project activities.

On January 23, 2013 HBML requested that the NIRB allow it to suspend stack testing of its site-based incinerator and to reduce future stack testing frequency while the Project remained in care and maintenance. On March 6, 2013 the NIRB requested Environment Canada's (EC) advice regarding HBML's request.

On April 15, 2013 the NIRB received a response from EC which advised that sites incinerating more than 26 tonnes of waste per year would be required to conduct annual stack testing to confirm compliance with emission standards as set out by the Canadian Council of Ministers of the Environment's Canada-wide Standards for Dioxins and Furans and the Canada Wide Standards for Mercury Emissions. EC also recommended that HBML heed the advice provided in its Technical Document for Batch Waste Incineration to guide the Doris North operations in achieving compliance with emissions. On June 26, 2013 the NIRB responded to HBML's request and indicated that in line with EC's advice, the NIRB would support HBML's request to suspend annual stack testing during care and maintenance, *provided* incineration rates could be demonstrated to be less than 26 tonnes per year. Furthermore, the NIRB indicated that it would support TMAC's request to eliminate future stack testing considering proposed changes to its waste stream management, however that TMAC would be required to provide the Board with evidence that it generated less than 26 tonnes of waste for incineration during the year in question (or projections for future years based on waste management streams), along with a detailed request to revisit the requirements for stack testing and the frequency of testing as per EC's advice. The NIRB also noted that it expected TMAC to continue to keep the Board and other agencies informed as to the status of waste stream management and plans for stack testing, and that if at any future point in time site waste volumes were to change, or the Doris North Gold Project come out of care and maintenance, or should any other relevant information become available, the Board would re-visit the matter and could determine that stack testing resume as is required pursuant to Project Certificate No. 003.

CONDITION 32

PRIOR TO THE COMMENCEMENT OF OPERATION HBML SHALL HAVE A COMPLETE ENVIRONMENT, HEALTH AND SAFETY MANAGEMENT SYSTEM IN PLACE WHICH INCLUDES THE FOLLOWING: WILDLIFE MITIGATION AND MONITORING PLAN; ENVIRONMENTAL PROTECTION PLAN; EMERGENCY RESPONSE AND SPILL CONTINGENCY PLAN; OCCUPATIONAL HEALTH AND SAFETY PLAN; RECLAMATION PLAN; EDUCATION AND ORIENTATION PLAN; HUMAN RESOURCES PLAN; INUIT INVOLVEMENT PLAN; COMMUNITY RELATIONS PLAN; MONITORING AND FOLLOW-UP PLAN; AND AUDITING AND CONTINUOUS IMPROVEMENT PLAN. WHEN COMPLETE, THESE PLANS SHALL BE FORWARDED TO NIRB'S MONITORING OFFICER.

COMMENTARY: HBML IS EXPECTED TO CONTACT FEDERAL AND TERRITORIAL GOVERNMENT DEPARTMENTS IMMEDIATELY REGARDING THE PREPARATION OF THESE PLANS. THE GN, IN PARTICULAR, IS INVOLVED WITH THE APPROVAL OF MANY OF THE PLANS AND IS ENCOURAGED TO DESIGNATE AN OFFICIAL TO APPROVE THE PLANS AS APPLICABLE. PLEASE SEE APPENDIX E FOR A LIST OF GN CONTACTS. NIRB CONSIDERS THE ENVIRONMENTAL, HEALTH AND SAFETY MANAGEMENT SYSTEM TO BE COMPLETED ONCE HBML HAS SUBMITTED ALL REQUIRED PLANS. NIRB EXPECTS THE ENVIRONMENTAL HEALTH AND SAFETY MANAGEMENT SYSTEM TO BE COMPLETED PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.

On October 3, 2012 HBML provided the NIRB with an update regarding its plans for Doris North during 2012 and 2013. The update included proposed clarification and modification of reporting requirements during care and maintenance, and indicated that the 2012 sealift had focused primarily on demobilizing excess equipment and diesel fuel and that the site would be shut down during the winter months. Further, HBML outlined its intention to re-open the site in April 2013 to prepare for active water management and related environmental monitoring activities. While the update also indicated that HBML would provide a copy of the Care and Maintenance Plan to the NIRB by October 5, 2012, by December 14, 2012 the NIRB had not yet received the plan. On December 14, 2012 the NIRB formally requested a copy of the care and maintenance plan and on January 15, 2013 HBML submitted the Monitoring and Follow-up Plan which contained information in regards to care and maintenance and also described how the Project would be maintained in compliance with all authorizations in all phases including construction, operations, closure and care and maintenance. The NIRB has reviewed the Monitoring and Follow-up Plan and noted the following:

- HBML provided an interpretation of the applicability of the terms and conditions of Project Certificate No. 003.
- Air monitoring would continue to be conducted and reported on an annual basis.
- Noise monitoring would not be conducted due to the minimal activity planned during this period.
- Wildlife Mitigation and Monitoring Plan – data would not be collected during care and maintenance. However, TMAC submitted an updated Wildlife Mitigation and Monitoring plan and thus clarification of HBML's Monitoring and Follow-up Plan may be required.
- Water quality would be monitored at stations, and if significant effects are noted and attributed to Project activity, then additional aquatic components could be included in future monitoring cycles. Cycles for testing would only occur when the camp was open.
- Waste Rock and Ore – would be monitored according to existing plans.
- Tailings Impoundment Area – samples would be collected weekly during discharge to maintain the level of water at 28.3 metres above sea level.
- HBML stated that any annual inspections required for the north dam and shoreline would continue as well as monitoring programs required for fisheries authorizations.
- HBML noted it did not anticipate quarrying activities would occur while the Project was in care and maintenance.
- HBML outlined its plan for winter inspections during seasonal closures as well as the seasonal closure preparation requirements.

On December 21, 2012 the NIRB received HBML's Environmental Health and Safety Management System (Environmental Protection Plan) for the Doris North Project. The document described how the Environmental Health and Safety Management System would work and included a listing of plans that HBML had developed based on the requirements for all authorizations that have been issued for the Project.

2.2.1.2 HBML'S RESPONSE TO THE BOARD'S 2012 RECOMMENDATIONS

The Board made a number of recommendations as a result of the 2011-2012 monitoring efforts, and the 2012 site visit. The following provides an overview of HBML's responses to the Board's recommendations as provided in correspondence dated February 6, 2013.

RECOMMENDATION 1

CONDITION 27: MHBL SHALL UPDATE AND REVISE THE WILDLIFE MITIGATION AND MONITORING PLAN TO REFLECT THESE TERMS AND CONDITIONS AND SHALL SUBMIT THE REVISED WILDLIFE MITIGATION AND MONITORING PLAN TO NIRB. NIRB MAY CONSULT WITH RELEVANT GOVERNMENT DEPARTMENTS AND THE NUNAVUT WILDLIFE MANAGEMENT BOARD PRIOR TO APPROVING THE REVISED WILDLIFE MITIGATION AND MONITORING PLAN. THE WILDLIFE MITIGATION AND MONITORING PLAN MUST BE SUBMITTED WITHIN THREE (3) MONTHS OF THE ISSUANCE OF A PROJECT CERTIFICATE AND IT MUST BE APPROVED BY NIRB PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. MHBL MUST ALSO SUBMIT AN UPDATED PLAN ON AN ANNUAL BASIS WHICH MUST ALSO BE APPROVED BY THE NIRB.

The Board requested that HBML provide it with an update as to the status of caribou management initiatives, including any memorandum of understanding, collaring program, or other steps it had taken in conjunction with the Government of Nunavut to address caribou management. It noted that the Government of Nunavut (GN) and HBML were still progressing toward the creation of a memorandum of understanding (MOU) regarding caribou management and that this had yet to be finalized. In its response to the Board, HBML noted that it maintained a dialogue with GN-Department of Environment (DoE) aimed at reaching an MOU on wildlife monitoring. It indicated that a draft MOU was under consideration; however owing to GN staffing issues, it had encountered difficulties in processing the request, but that it hoped to continue discussions.

In follow up, on December 7, 2012 the NIRB wrote to the GN-DoE to request an update in regards to the MOU. The GN-DoE indicated that some discussions with TMAC as the new project owner would be required but that the NIRB would be updated once these took place. The NIRB continues to await these updates.

RECOMMENDATION 2

CONDITION 27: MHBL SHALL UPDATE AND REVISE THE WILDLIFE MITIGATION AND MONITORING PLAN TO REFLECT THESE TERMS AND CONDITIONS AND SHALL SUBMIT THE REVISED WILDLIFE MITIGATION AND MONITORING PLAN TO NIRB. NIRB MAY CONSULT WITH RELEVANT GOVERNMENT DEPARTMENTS AND THE NUNAVUT WILDLIFE MANAGEMENT BOARD PRIOR TO APPROVING THE REVISED WILDLIFE MITIGATION AND MONITORING PLAN. THE WILDLIFE MITIGATION AND MONITORING PLAN MUST BE SUBMITTED WITHIN THREE (3) MONTHS OF THE ISSUANCE OF A PROJECT CERTIFICATE AND IT MUST BE APPROVED BY NIRB PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. MHBL MUST ALSO SUBMIT AN UPDATED PLAN ON AN ANNUAL BASIS WHICH MUST ALSO BE APPROVED BY THE NIRB.

The Board requested that HBML assess the potential impacts posed by geo-mat® mesh materials protruding from marine waters at the Roberts Bay area, and that the mitigation of any identified potential impacts be reflected in updates to the Wildlife Mitigation Monitoring Plan, the Aquatic Effects Monitoring Plan, Roberts Bay Jetty Monitoring Plan, and the Health, Safety, and Loss Prevention Plan as well as any associated and/or annual reporting.

HBML indicated in its response to the Board that that Roberts Bay jetty had been constructed, modified and was being operated in compliance with all applicable federal authorizations. HBML also acknowledged that geo-mat® material was protruding from marine waters near the jetty and confirmed that it was there to catch any rocks that may come off the jetty in order to protect the surrounding environment. HBML suggested that the geo-mat® material remain in place and that new Project owners may wish to upgrade the jetty as per

previously approved plans. During the 2013 site visit, it was noted that the jetty had been constructed to a final design and that it had been re-enforced with rock armour and that the previously protruding geo-matting had been flattened and no longer posed a risk.

RECOMMENDATION 3 AND 4

CONDITION 31: A COMPLETE CLOSURE AND RECLAMATION PLAN PREPARED IN ACCORDANCE WITH THE NWB REQUIREMENTS SHALL BE FILED BY MHBL AT THE TIME MHBL MAKES APPLICATION TO THE NWB FOR A WATER LICENSE FOR THE MINE.

CONDITION 32: PRIOR TO THE COMMENCEMENT OF OPERATION MHBL SHALL HAVE A COMPLETE ENVIRONMENT, HEALTH AND SAFETY MANAGEMENT SYSTEM IN PLACE WHICH INCLUDES THE FOLLOWING: WILDLIFE MITIGATION AND MONITORING PLAN; ENVIRONMENTAL PROTECTION PLAN; EMERGENCY RESPONSE AND SPILL CONTINGENCY PLAN; OCCUPATIONAL HEALTH AND SAFETY PLAN; RECLAMATION PLAN; EDUCATION AND ORIENTATION PLAN; HUMAN RESOURCES PLAN; INUIT INVOLVEMENT PLAN; COMMUNITY RELATIONS PLAN; MONITORING AND FOLLOW-UP PLAN; AND AUDITING AND CONTINUOUS IMPROVEMENT PLAN. WHEN COMPLETE, THESE PLANS SHALL BE FORWARDED TO NIRB'S MONITORING OFFICER.

Recommendation 3

The Board requested that HBML monitor the impacts of Tucker Terra and Rimpull trials conducted overland and report the results of these trials, including impacts and proposed mitigation measures, in its future Annual Reporting to the NIRB.

In its response, HBML indicated that no federal permits were required to operate the Tucker Snowcat and the Rimpull and that the use of this equipment at site and any additional monitoring required was governed by the terms of its Commercial Lease with the Kitikmeot Inuit Association as a private land owner. HBML provided the results of the Tucker Terra and Rimpull trials conducted in 2010 and 2011, and noted that neither the Tucker nor the Rimpull have been used overland in non-winter months outside of the trial area. The NIRB is still unclear how the area impacted by the trials would be remediated and if there will be any long-term impacts that need to be considered in the post-environmental assessment monitoring program (PEAMP).

Recommendation 4

The Board requested that HBML submit to the NIRB its plan to monitor the relocated sewage outfall in terms of potential impacts of erosion, as well as any part of site operations which involve the discharge of sewage effluent during winter months. In its response, HBML stated that the sewage outfall was regulated pursuant to the Nunavut Water Board (NWB) Doris North Type A Water Licence (No. 2AM-DOH0713) and that the outfall had been relocated as a result of discussions with the NWB. HBML noted that all required monitoring related to the sewage outfall had been done as required under the Water Licence, and it also stated that the sewage outfall mentioned in the recommendation was to be used on a short term basis when site conditions such as low camp numbers and freezing temperatures make maintaining the main sewage line to the regular discharge location difficult. Furthermore, HBML indicated that once the camp returns to continuous use over winter with a large camp loading, an outcrop with diffuser will be used until the tailings impoundment area is ready to accept sewage effluent. The response also indicated that treated sewage effluent is sampled monthly during discharge at a location downslope of the discharge point prior to entry into the nearest waterbody, in accordance with the Type A Water Licence requirements.

During the 2013 site visit, the NIRB noted that sewage was being discharged at the original location on the tundra which had been upgraded with gravel to protect the area from the pressure of the discharge.

RECOMMENDATION 5

CONDITION 10: UPON THE COMMENCEMENT OF OPERATIONS, MHBL SHALL ENSURE THAT THE MONITORING OF OPERATIONS, MHBL SHALL ENSURE THAT THE MONITORING OF TAIL LAKE AND DORIS CREEK WATER QUALITY, ABOVE AND BELOW THE WATERFALL, BE VERIFIED AND REPORTED TO NIRB THREE TIMES DURING DISCHARGE BY AN INDEPENDENT, THIRD PARTY LABORATORY. THE SAMPLING MUST BE CARRIED OUT INDEPENDENTLY OR SUPERVISED IN WHICH CASE MHBL MUST PROVIDE THE SAMPLING AND DELIVERY OF SAMPLES TO THE INDEPENDENT, THIRD PARTY LABORATORY, WITH COPIES OF THE RESULTS DIRECTLY TO THE NWB AND NIRB'S MONITORING OFFICER.

The Board recommended that HBML continue monitoring all discharge events from Tail Lake into Doris Creek during care and maintenance pursuant to Condition 10, and requested that the results of the associated sampling be included within the Proponent's 2012 Annual Report.

HBML's response indicated it continued to manage all discharges from Tail Lake in compliance with the Type A Water Licence and that all monitoring results are provided monthly to the NWB as well as summarized and included in their annual report to the NWB. HBML indicated that during care and maintenance it would discharge water from Tail Lake in order to maintain adequate water levels in the impoundment area.

2.2.1.3 ITEMS FOR CONSIDERATION

The following items are discussed further in the Memo and Recommendations provided under separate cover to the Board for its consideration.

During a review of Project specific details, the Board noted it did not have a complete/up to date set of plans for the Doris North project on file, refer to Condition 32. Other agencies have either new plans or plans that have yet to be submitted to the NIRB. Further, it was noted that not all plans were submitted to the NIRB and these may be required at a later date.

During the site visit, motion and heat detection cameras were noted throughout the site. Some cameras were noted as being used for both security as well as for wildlife detection. Information collected through these cameras and their placement has yet to be provided to the NIRB.

2.2.2 Compliance Monitoring by Authorizing Agencies

2.2.2.1 NUNAVUT WATER BOARD

During September and October 2012 the Nunavut Water Board (NWB) received HBML's application to renew and amend its Type A Water Licence for the Doris North Project. The NWB requested that parties comment on various aspects of the licence application and on June 18, 2013, it held a Technical Meeting and Pre-Hearing Conference as part of its consideration process. The NWB initiated a written Public Hearing for the renewal and amendment of the Doris North water licence on July 12, 2013 and on August 16, 2013, it submitted its Hearing Report and decision to amend and renew the Type A water Licence to the Minister of Aboriginal Affairs and Northern Development (the Minister). The Minister issued approval of the licence amendment and renewal on September 12, 2013.

2.2.2.2 ABORIGINAL AFFAIRS AND NORTHERN DEVELOPMENT CANADA (AANDC)

AANDC conducted three (3) inspections during 2012 at the Doris North site for compliance with the Type A Water Licence as issued by the Nunavut Water Board (No. 2AM-DOH0713). AANDC noted that most issues identified by the inspector had been addressed adequately and were noted in HBML's 2012 Annual Report. It was noted that issues pertaining to the containment berms were recurrent from last year and that these would continue to be closely monitored.

AANDC also stated the following in comments provided to the NIRB:

- Confirmed that HBML continues to hold a lease for the land associated with the Jetty in Roberts Bay (Jetty Lease No. 77 A/3-1-2)
- It had not received a revised Tailing Management Plan that includes Shoreline Erosion Protection Adaptive Management strategies;
- Noted that most of the terms and conditions are in compliance.

2.3 Effects Monitoring

Effects monitoring can be described as an assessment of the measurable change to a particular environmental or socio-economic component, as compared to the potential effects that were predicted to result from a proposed development. In the case of Doris North, impact predictions and mitigation measures were outlined and developed throughout the environmental review of the Project, and were recorded and presented through the Proponent's Final Environmental Impact Statement (FEIS) and other related documents.

The following section provides a summary of the NIRB's review of the 2012 Annual Report and comments received from parties.

2.3.1 NIRB's Review of HBML's 2012 Annual Report

Appendix D of the Project Certificate provides an outline of the requirements of what is expected within the Proponent's annual report for the Doris North Project. Particularly the annual report should include a summary of the results from the post-environmental assessment monitoring program (PEAMP), including an analysis of the Project's impact to the environment with reference to the predictions and environmental and socio-economic indicators used throughout the FEIS and Final Hearing. HBML provided a summary of the following within its 2012 Annual Report:

HBML stated in their summary of the results from PEAMP that this would not be in effect until production at Doris north begins, i.e. when ore is processed through the mill. Further, the Proponent stated that Project activities have had less of an effect than what was predicted in the Final Environmental Impact Statement (FEIS) due to the reduced activity on site.

HBML included a description of baseline and monitoring data that was collected as the Project is in care and maintenance. HBML also indicated that reports and plans have been submitted to various agencies to meet conditions in Appendix D as well as maintain other licences required for the site. This summary also included an update on compliance status with all authorizations and applicable regulations and guidelines.

Finally, HBML gave a summary of activities that took place on site and a summary of community consultations undertaken in the past year. No photos were provided.

2.3.2 Effects Monitoring by Authorizing Agencies

As a part of its annual monitoring program, the NIRB requested that authorizing agencies with jurisdiction over project components or activities, or those with specific expertise, provide comment regarding the effects assessment associated with the Project.

2.3.2.1 KITIKMEOT INUIT ASSOCIATION (KIA)

The Kitikmeot Inuit Association (KIA) suggested the following improvements be implemented in future annual monitoring reports:

- Summarize evidence indicating how work on the Project has been carried out in relation to the PC;
- Report the status of TMAC's compliance with Appendix D regardless of current applicability;
- Provide more data to readers to substantiate statements; and
- Provide context for statements for clarity.

Aboriginal Affairs and Northern Development Canada

Aboriginal Affairs and Northern Development Canada (AANDC) commented that the revised tailings management plan which should include Shoreline Erosion Protection Adaptive Management strategies for monitoring and control has not yet been submitted.

Environment Canada

Environment Canada reported that it had no comment.

2.3.3 Areas Requiring Further Study or Changes to the Monitoring Program

2.3.3.1 APPENDIX D AND THE ANNUAL REPORT

The 2012 Annual Report did not provide a discussion or summary regarding the post environmental assessment monitoring program for the Project as required throughout the Project Certificate and as outlined in Appendix D. Specifically, a discussion and summary should have been provided for the evaluation of the accuracy of impact predictions that were made in the EIS, a summary of conclusions made throughout the reporting period, an evaluation of the effectiveness of mitigation measures employed, and a description of any impacts or effects resulting from exceeded thresholds. Without these discussions and summaries, it is difficult to ascertain whether or not impacts are being observed at site and to determine whether any impacts or data are in line with the predictions provided within the FEIS.

2.4 Other Actionable Items

There were no additional items that necessitated action on behalf of the Proponent or the NIRB during the 2012-2013 monitoring period.

2.5 Site Visit

As an integrated part of the NIRB's continuous monitoring program of the Project, the NIRB visited the Doris North Mine site on August 29, 2013 (Appendix A). The site visit included visual inspections of the entrance to the Doris North decline which remains barricaded to entry, vent raises, service road, laydown area, three cell landfarm, camp and administration facilities and the tailings impoundment area.

Observations made during the site visit indicate that all facilities which were in operation and sites which remained in care and maintenance appear to be within the approved plans and procedures as provided through the NIRB Project Certificate #003. It was noted that various environmental, health and safety measures appeared to be in place at the Project site to support various care and maintenance activities as well as ongoing exploration activities.

3.0 SUMMARY

HBML has been successful in moving the Project towards overall compliance with the requirements of the NIRB Project Certificate [#003] and is in compliance with the Terms and Conditions contained therein, except where such may not be applicable to the current construction stage of Project development. However, certain items do require the Proponent's attention as provided through the Board's recommendations included under separate cover.

As part of its efforts to maintain full compliance with regulatory requirements, HBML has been diligent in reporting major project changes to the NIRB and in obtaining the necessary approvals and licenses from authorizing agencies prior to the execution of project activities. The objectives of TMAC's plans as indicated to the NIRB are to follow HBML's Monitoring and Follow-up Plan which included the establishment of stable chemical and physical conditions that protect the environment and human health.

Monitoring and reporting programs during the undefined care and maintenance phase for the Project remain critical in assisting the NIRB in early identification of potential impacts that may need to be mitigated. A dormant project may have unforeseen potential impacts that were not modeled during the Project's environmental assessment. TMAC may encounter unique environmental challenges with this shift in project activities; the NIRB will continue to depend on TMAC's established procedures in openly engaging communication with the Board.

Pursuant to NLCA Sections 12.7.2 and 12.7.3, the NIRB will continue to work with TMAC and other agencies in order to provide the required evaluation of the monitoring efforts, results and compliance of this project-specific monitoring program in accordance with the requirements set out in the NIRB Project Certificate.

Prepared by:

Name: Kelli Gillard, P.Ag

Title: Technical Advisor

Date: November 1, 2013

Signature

A handwritten signature in blue ink that reads "Kelli Gillard". The signature is written in a cursive style with a large, looping initial "K".

Reviewed by:

Name: Amanda Hanson

Title: Director, Technical Services

Date: November 1, 2013

Signature:

A handwritten signature in black ink that reads "Amanda Hanson". The signature is written in a cursive style with a large, looping initial "A".

APPENDIX A: THE NIRB'S 2013 SITE VISIT REPORT