

ENVIRONMENTAL ASSESSMENT ACT

SECTION 9

NOTICE OF APPROVAL TO PROCEED WITH THE UNDERTAKING

RE: An Environmental Assessment for the Marathon Platinum Group Metals and Copper (Palladium) Mine Project

Proponent: Generation PGM Inc.

EA File No.: EA 05-09-03

EAIMS No.: 11010

TAKE NOTICE that:

Having considered the purpose of the *Environmental Assessment Act*, the “Report of the Joint Review Panel for the Marathon Palladium Project”, Joint Review Panel Agreement, as amended and Harmonization Order, the environmental impact statement dated June 2012 and environmental impact statement addendum dated, January 2021 and consultation with Indigenous Groups, I hereby give approval to proceed with the Project (the “Approval”), subject to the conditions set out below.

REASONS

- (1) The Environmental Assessment has been prepared in accordance with the Environmental Impact Statement guidelines issued by the federal Minister of the Environment on August 9, 2011.
- (2) The effects of the Project were carefully assessed by the Joint Review Panel in an open and transparent process that included extensive opportunities for input and participation by Indigenous Groups, stakeholders, government agencies and the public, including a public hearing.
- (3) The Joint Review Panel prepared and submitted a report, in accordance with the terms of reference set out in the Joint Review Panel Agreement dated August 9, 2011, as amended, detailing conclusions related to its assessment of the Project and recommendations to address concerns and mitigate adverse effects.
- (4) I have considered the Joint Review Panel report and potential impacts of the Project on the environment and Indigenous Groups, and I am satisfied that the conditions of this Approval are necessary to implement the recommendations of the Joint Review Panel and mitigate adverse effects from the Project.
- (5) I am further satisfied that giving approval to proceed with the Project is consistent with the purpose of the *Environmental Assessment Act* given:
 - a. the socio-economic benefits of the Project;
 - b. the measures to mitigate adverse environmental effects of the Project and impacts on Indigenous Groups, including the Proponent's Commitments, the conditions of this Approval, and the proposed conditions of approval under federal environmental assessment legislation; and
 - c. accommodation measures for impacted Indigenous Groups, where appropriate.

CONDITIONS

The Approval is subject to the following conditions:

1. Definitions and Interpretation

1.1 For the purposes of the Approval:

"Active Closure Phase" means the phase of the Project during which the Proponent permanently ceases commercial production and commences removal from service of any components of the Project and continues until the Proponent completes the reclamation of the Site.

"Caribou" means caribou (boreal population) (*Rangifer tarandus caribou*).

"Closure Plan" means a plan prepared under Part VII of the Mining Act to rehabilitate the site or mine hazard.

“Commitments” means all the Proponent’s commitments set out in Appendix 2 of the Joint Review Panel Report.

“Construction” means physical construction activities associated with the Project, including: Site preparations that involve clearing, grubbing, stripping, grading topsoil and organic materials (trees, stumps, and other debris); drilling and blasting for access roads, sample and monitoring wells; excavating rock materials; building temporary construction support facilities such as a construction office, maintenance shop, servicing facilities for drinking water, waste management and electricity generation and transmission, housing to accommodate workers during the pre-construction and construction phase, but does not include the tendering of contracts.

“Construction Phase” means the phase of the Project during which the Proponent undertakes the site preparation, building or installation of any components of the Project, including periods during which these activities may temporarily cease.

“Contact Water” means any water, including seepage or surface runoff, that has come into contact with any component of the Project at the Site, including mine rock, process solids, infrastructure and terrain.

“Cultural Heritage Resources” includes archaeological resources, built heritage resources and cultural heritage landscapes.

“Date of Approval” means the date on which the Order in Council pertaining to the approval of the Project was signed by the Lieutenant Governor.

“Days” means calendar days.

“Director” means the Director of the Environmental Assessment Branch of the MECP.

“District Manager” means the Manager of the MECP’s Thunder Bay District Office.

“EAB” means the Environmental Assessment Branch of the MECP.

“Environmental Assessment” means the documents titled “Marathon Platinum Group Metals-Copper Project Environmental Impact Statement- Main Report”, dated June, 2012 (Canadian Impact Assessment Registry Reference Number 54755, Document Number 224) and “Marathon Palladium Project Environmental Impact Statement Addendum”, dated January, 2021 (Canadian Impact Assessment Registry Reference Number 54755, Document Number 727), and all of the Proponent’s written submissions to the Joint Review Panel, and includes all amending documents for any changes to the Project approved under Condition 7.

“Environmental Assessment Act” means the *Environmental Assessment Act*, R.S.O. 1990, c. E.18.

“Harmonization Order” means the order issued under s. 3.1 of the Environmental Assessment Act, dated, August 8, 2011, as amended.

“Indigenous Groups” means the following Aboriginal Peoples: Biigtigong Nishnaabeg, Ginoogaming First Nation, Jackfish Métis Association, Region 2 of the Métis Nation of

Ontario, Michipicoten First Nation, Netmizaaggamig Nishnaabeg, Pays Plat First Nation, and Red Sky Métis Independent Nation.

“Joint Review Panel” means the review panel for the Project established under the *Canadian Environmental Assessment Act, 2012* and by agreement between the federal Minister of Environment and Climate Change and the provincial Minister of the Environment, Conservation and Parks.

“Joint Review Panel Report” means the report of the Joint Review Panel submitted on August 2, 2022, to the federal Minister of Environment and Climate Change and provincial Minister of the Environment, Conservation and Parks (Canadian Impact Assessment Registry Reference Number 54755, Document Number 1301).

“MECP” means the Ministry of the Environment, Conservation and Parks.

“Operations Phase” means the phase of the Project starting when commercial production begins and continuing until the start of decommissioning. This phase includes periods when commercial production may temporarily cease.

“Platinum Group Metals” means the elements platinum, ruthenium, rhodium, palladium, osmium, and iridium.

“Post Closure Phase” means the phase of the Project when decommissioning and final reclamation activities other than follow-up program monitoring are complete.

“Procedure B-1-5” means the MECP report detailing the procedures to establish receiving-water based effluent requirements for point source discharges to surface waterbodies.

“Project” means the Marathon Palladium Project, as described in section 4 of the Joint Review Panel Report and includes any changes thereto as may be approved by the Director under Condition 7.

“Proponent” means Generation PGM Inc. and its successors or assigns.

“Regional Director” means the Director of the MECP’s Northern Region.

“Site” means the geographic area occupied by the Project, delineated in “site study area” in Figure 4-1 and Figure 4-2 of the Joint Review Panel Report.

“Site Study Area” has the same meaning as described in section 4.2 of the Joint Review Panel Report.

“Technical Support Manager” means the Manager of Technical Support for the MECP’s Northern Region.

“Type 1 Mine Rock Materials” means rock material derived from rock such as tailings which standard testing has determined will not be potentially acid generating.

“Type 2 Mine Rock Materials” means rock material derived from rock such as tailings which standard testing has determined to be potentially acid generating.

- 1.2 For the purposes of these conditions and the Commitments, any reference to “adaptive management” or “adaptive management strategy” shall include at a minimum:
 - (a) the development of triggers and thresholds that define the levels of environmental change relative to baseline that would require the Proponent to implement modified or additional mitigation measure(s), including instances where the Proponent may require Project activities causing the environmental change to be stopped; and
 - (b) the identification of alternative and additional mitigation measures that would be applied if the relevant trigger and threshold is reached.

2. General Requirements

- 2.1. The Proponent shall implement the Project in accordance with the Environmental Assessment, which is hereby incorporated into this Notice of Approval by reference, except as provided in the conditions of this Notice of Approval and as provided in any other approval, permit, authorization, or decision statement that may be issued by a government authority for the Project.
- 2.2. The Proponent shall fulfill all of its Commitments, except as provided in the conditions of this Notice of Approval and as provided in any other approval, permit, authorization, or decision statement that may be issued by a government authority for the Project.
- 2.3. Should the Proponent wish to make a change to any document, plan, program or measure that is required by a condition of this Notice of Approval to be developed in consultation with specified groups or entities or to the satisfaction of a specified government official, the Proponent shall comply with any such requirements in the condition in making the change, unless otherwise specified in writing by the specified government official or, if no official is specified, the Director.
- 2.4. For any document required by the conditions of this Notice of Approval to be prepared, submitted, or posted publicly by the Proponent, the Director may determine that the Proponent is no longer required to do so, in which case the requirement ceases to apply. The Director will notify the Proponent in writing should the Director make such a determination.
- 2.5. Where a condition of this Notice of Approval requires that the Proponent develop, implement, submit or otherwise take certain steps regarding a plan, program, measure or other thing within a specified timeframe (e.g., within 30 Days) or before other actions can be taken (e.g., prior to Construction), the Proponent shall do so subject to any other timeframe that is specified in writing by the government official(s) mentioned in the relevant condition or, where no such official is specified, by the Director.
- 2.6. Where a condition of this Notice of Approval requires the Proponent to carry out an activity post-closure, the Proponent shall continue to carry out such activity until such time that the Director notifies the Proponent in writing that it is no longer required to do so.
- 2.7. The conditions of this Notice of Approval do not prevent more restrictive conditions being imposed under other statutes or regulations.

3. Public Record

- 3.1. Where a document is required to be prepared by the conditions of this Notice of Approval, the Proponent shall, unless otherwise specified in writing by the Director, post the document on the Proponent's website and shall provide one hardcopy and one electronic copy of the document to the Director and District Manager as well as Biigtigong Nishnaabeg and other Indigenous Groups.
- 3.2. The environmental assessment Reference Number 11010 and File Number EA 05-09-03 shall be quoted on all documents submitted to the MECP pursuant to this Notice of Approval.
- 3.3. For every document submitted to the MECP, the Proponent shall clearly identify which condition of this Notice of Approval the document is meant to fulfill.

4. Compliance Monitoring Program

- 4.1. The Proponent shall prepare and submit to the Director for approval and for the public record an environmental assessment compliance monitoring program.
- 4.2. The compliance monitoring program shall be submitted to the Director within 90 Days of the Date of Approval, or such other date as may be agreed upon by the Director in writing.
- 4.3. The compliance monitoring program shall include a description of how the Proponent will:
 - (a) monitor implementation of the Project in accordance with the Environmental Assessment with respect to mitigation measures, public consultation, and additional studies and work to be carried out;
 - (b) monitor compliance with the conditions of this Notice of Approval; and
 - (c) monitor compliance with all Commitments with respect to mitigation measures, consultation with Indigenous Groups and the public, and additional studies and work to be carried out.
- 4.4. The compliance monitoring program shall include an implementation schedule for monitoring activities to be completed.
- 4.5. The Director may require the Proponent to amend the compliance monitoring program at any time. Should an amendment be required, the Director will notify the Proponent in writing of the required amendment and the date by which the Proponent must complete and submit the amendment to the Director.
- 4.6. The Proponent shall submit the amended compliance monitoring program to the Director within the time period specified by the Director in the written notice.
- 4.7. The Proponent shall implement the compliance monitoring program, including any amendments to it.

5. Compliance Reporting

- 5.1. The Proponent shall prepare an annual compliance report describing the results of the compliance monitoring program required by Condition 4 and shall submit each report to the Director for review and the public record, in accordance with the requirements of this Condition 5.
- 5.2. The first annual compliance report shall describe the results of the compliance monitoring program for the period of one year from the Date of Approval and each subsequent report shall describe the results of the compliance monitoring program for each subsequent one-year period.
- 5.3. The Proponent shall submit each annual compliance report to the Director by no later than 30 Days following each anniversary of the Date of Approval, unless otherwise specified in writing by the Director.
- 5.4. The Proponent shall submit annual compliance reports until all conditions in this Notice of Approval are satisfied or the Proponent is instructed otherwise in writing by the Director.
- 5.5. The Proponent shall notify the Director in writing when the final annual compliance report is being submitted. The MECP will confirm whether or not the annual compliance reporting requirements in Conditions 5.1 to 5.4 have been fulfilled and the Director will confirm this in writing to the Proponent.
- 5.6. The Proponent shall retain, either on the Site or in another location approved by the Director, a copy of each annual compliance report that has been submitted to the Director until such time as the Director determines that the Proponent is no longer required to do so. The Director will notify the Proponent in writing should the Director make such a determination.
- 5.7. Within 30 Days of submitting each annual compliance report to the Director, the Proponent shall post the annual compliance report on its website.
- 5.8. The Proponent shall make each annual compliance report that has been submitted to the Director, and any associated documentation, available to any MECP designate in a timely manner when requested to do so.

6. Complaint Protocol

- 6.1. The Proponent shall prepare a complaint protocol for dealing with and responding to inquiries and complaints during all stages of the Project. The complaint protocol shall include a procedure for notifying the Regional Director of any complaints received by the Proponent. Without limiting the generality of the foregoing, the protocol shall address all complaints and responses during the Construction Phase, Operations Phase, Active Closure Phase and Post Closure Phase.
- 6.2. The Proponent shall submit the complaint protocol to Biigtigong Nishnaabeg and other Indigenous Groups for consultation and comment, and to the Director for approval and for the public record at least 90 Days before the start of Construction or such other date as may be specified by the Director in writing.

- 6.3. The Director may require the Proponent to amend the complaint protocol at any time. Should an amendment be required, the Director shall notify the Proponent in writing of the amendment required and when the amendment must be completed.
- 6.4. The Proponent shall submit an amended complaint protocol to the Director within the time period specified by the Director.
- 6.5. The Proponent shall implement the complaint protocol and any amendments to it during all stages of the Project.
- 6.6. The Proponent shall include a summary of any complaints received and how they were addressed in the annual compliance reports required by Condition 5.

7. Changes to Project

- 7.1. If the Proponent wishes to make any change to the Project after the Date of Approval, the following process shall apply:
 - (a) The Proponent shall notify the Director, Biigtigong Nishnaabeg and other Indigenous Groups in writing of the proposed change and provide them with a brief description of it.
 - (b) The Proponent, in consultation with Biigtigong Nishnaabeg and other Indigenous Groups shall assess any potential environmental effects of the proposed change, and identify the net effects, any adverse impacts on Biigtigong Nishnaabeg and other Indigenous Groups, any additional mitigation measures that may be required, any proposed monitoring and any other matters that may be specified by the Director in writing. The Proponent shall describe this information, along with the description of the proposed change, in a document prepared for submission to the Director (the "Amendment Document"). The document will specify that, if the proposed change is approved by the Director, the proposed change would form part of the Project approved under the *Environmental Assessment Act* and will identify which section(s) of the Environmental Assessment would be amended.
 - (c) The Proponent shall consult with Biigtigong Nishnaabeg, other Indigenous Groups, the MECP, other relevant government agencies and affected parties, including by providing a notice that includes a summary of the proposed change(s), opportunities for comment and how to access the Amendment Document. The consultation shall include a minimum 30-day review and comment period, or such other consultation as may be required by the Director in writing.
 - (d) The Proponent shall make the Amendment Document available on its website prior to the start of the consultation and comment period and shall provide copies to Biigtigong Nishnaabeg and other Indigenous Groups.

- (e) The Proponent shall consider and address any comments or concerns received as part of the consultation process and make any appropriate updates to the Amendment Document.
- (f) The Proponent shall ensure that the Amendment Document includes a record of consultation that describes in detail how the Proponent has fulfilled the requirements of clauses (c) and (e).
- (g) The Proponent shall submit the updated Amendment Document to the Director. The MECP will review the updated Amendment Document and may conduct additional consultation, as it considers appropriate. The Director may require that the Proponent provide additional information or undertake additional consultation with respect to the proposed change.
- (h) After the MECP has completed its review of the updated Amendment Document, and any additional information has been provided and consultation has been undertaken to the satisfaction of the Director, the Director will consider the MECP review, and any concerns raised during the consultation process and may:
 - (i) give approval to proceed with the change subject to any conditions that the Director considers appropriate; or
 - (ii) refuse to give approval to proceed with the change.
- (i) The Director will give the Proponent and any Indigenous Groups that were consulted notice of their decision, together with reasons for it.

7.2. If the Director gives approval to proceed with a change to the Project, the Proponent shall:

- (a) post a copy of the updated Amendment Document, together with a copy of the Director's approval, on its website for the duration of the Project; and
- (b) implement the change in accordance with the Director's approval and any conditions imposed by the Director.

8. Duration of Approval

- 8.1. If the Proponent has not commenced the Project within 10 years of the Date of Approval, this Notice of Approval shall expire, unless extended by the Minister of the Environment, Conservation and Parks.
- 8.2. If the Proponent has not commenced the Construction Phase within five years of the Date of Approval, the Proponent shall carry out the following:
 - (a) Before commencing the Construction Phase, the Proponent shall conduct a review, in consultation with Biigtigong Nishnaabeg and other Indigenous Groups, to determine if the impact assessment and significance of residual effects set out in the Environmental Assessment remain accurate for the Project and to identify any changes to the effects prediction,

mitigation measures and significance of residual effects in the Environmental Assessment; and

- (b) At least 90 days before the commencement of the Construction Phase, the Proponent shall,
 - i. prepare a report that details the review specified in clause (a), including the consultation carried out with Biigtigong Nishnaabeg and other Indigenous Groups; and
 - ii. submit the report to the Director, Biigtigong Nishnaabeg and other Indigenous Groups and post the report on its website.

9. Aquatic Environment

Geology

- 9.1. The Proponent shall develop and implement to the satisfaction of the Technical Support Manager, mitigation measures for Type 1 Mine Rock Materials and Type 2 Mine Rock Materials that include:
 - (a) undertaking field-scale testing of geological materials prior to and during the Operations Phase to refine metal leaching and acid rock drainage predictions and updating the management of Type 1 Mine Rock Materials and Type 2 Mine Rock Materials as necessary;
 - (b) prior to the Construction Phase, undertaking field scale testing of geological materials to inform preliminary predictions of Platinum Group Metals in effluent and the receiving environment using exploration drill core data;
 - (c) during the Construction Phase, using results of field-scale testing specified in clause (b) to inform preliminary predictions of Platinum Group Metals in effluent and receiving environment using exploration drill core data;
 - (d) undertaking field-scale testing of geological materials during the Operations Phase to further inform and confirm preliminary predictions of Platinum Group Metals in effluent and the receiving environment using exploration drill core data and material generated from mining;
 - (e) conducting testing of effluent, water, and sediment quality in Hare Lake, Biigtig Zibi (Pic River), and Stream 6 (Angler Creek) during the Construction Phase, Operations Phase and Post Closure Phase to verify predictions of Platinum Group Metals release rates;
 - (f) conducting geochemical testing of waste rock and source material during the Construction Phase and Operations Phase, using the results of field-scale testing specified in clause (b) to assess mercury releases in effluent and receiving environment with respect to low-level method detection

limits for water of 0.1 ng/L for total mercury and 0.02 ng/L for methylmercury, using exploration drill core data and material generated by mining;

- (g) during the Construction Phase and the Operations Phase, using the results from the geochemical testing specified in clause (f) to inform and update water and sediment quality predictions for mercury across the Site;
 - (h) separating Type 1 Mine Rock Materials and Type 2 Mine Rock Materials during the Construction Phase, Operations Phase and Active Closure Phase;
 - (i) developing and implementing a monitoring program, including sampling methods and frequencies, to correctly identify Type 1 Mine Rock Materials and Type 2 Mine Rock Materials during the Construction Phase and Operations Phase;
 - (j) updating mine rock block model to inform sorting of Type 1 Mine Rock Materials and Type 2 Mine Rock Materials during the Construction Phase and Operations Phase;
 - (k) managing Type 1 Mine Rock Materials and Type 2 Mine Rock Materials separately in the process solids management facility during the Operations Phase and Active Closure Phase;
 - (l) using only Type 1 Mine Rock Materials for Construction;
 - (m) avoiding temporary storage of Type 2 Mine Rock Materials , unless not technically feasible, during the Construction Phase, Operations Phase, Active Closure Phase and Post Closure Phase; if avoiding temporary storage is not technically feasible, ensuring the temporary storage location has sufficient capacity for the volume of rock, that the temporary storage area is located where all runoff and seepage can be contained and directed to the water management pond and that the water management pond has sufficient capacity for the volume of leachate and runoff collected from the temporary storage location;
 - (n) storing Type 2 Mine Rock Materials in designated areas during the Construction Phase, Operations Phase, Active Closure Phase and Post Closure Phase that allow for effective drainage, including permanent storage in a saturated state to prevent acid rock drainage; and
 - (o) developing ongoing effluent, receiving water and seepage monitoring program to evaluate Platinum Group Metals concentrations as well as other parameters considered relevant during the Construction Phase, Operations Phase, Active Closure Phase and Post Closure Phase.
- 9.2. The Proponent shall submit the mitigation measures referenced in condition 9.1 to the Technical Support Manager District Manager for review as follows:

- (a) the mitigation measures specified in the following clauses shall be submitted during the pre-submission consultation process associated with applications for Environmental Compliance Approvals: clauses (d), (e), (g) and (o) of condition 9.1; and
 - (b) the mitigation measure specified in clauses (l) and (j) of condition 9.1 shall be submitted during the Operations Phase.
- 9.3. The Proponent shall use the most current release rate predictions and concentrations to inform Site-specific Platinum Group Metals effluent criteria during permitting and approval processes with relevant government authorities.

Groundwater Quantity and Quality

- 9.4. The Proponent shall implement measures to limit seepage from the process solids management facility during the Operations Phase, Active Closure Phase and Post Closure Phase, including at a minimum:
- (a) constructing a geomembrane liner, or better technology, tied into bedrock on the upstream face of the perimeter embankments (dams);
 - (b) grouting fractured bedrock; and
 - (c) intercepting any shallow seepage with seepage collection basins or other suitable measures subject to the approval of the Technical Support Manager and District Manager around the perimeter of the process solids management facility and returning it back to the water management pond or process solids management facility.
- 9.5. The Proponent shall develop, in consultation with Biigtigong Nishnaabeg, other Indigenous Groups and relevant government authorities, and implement a groundwater monitoring and follow-up program for the Construction Phase, Operations Phase, Active Closure Phase and Post Closure Phase of the Project that will: verify the accuracy of the predictions made during the Environmental Assessment and in follow up programs to support permitting; verify the effectiveness of mitigation measures; and implement an adaptive management strategy. The monitoring and follow-up program shall be developed to the satisfaction of the Technical Support Manager and District Manager prior to the Construction Phase and shall include at a minimum:
- (a) Refinement of the predicted effects of the Project on groundwater quality and quantity by:
 - i. collecting pre-Construction baseline groundwater quality information for Platinum Group Metals and all other potential contaminants;
 - ii. further refining the groundwater model used in the Environmental Assessment as more baseline data accumulates to support permitting and approval applications; and

- iii. adjusting the groundwater model predictions, particularly those related to groundwater travel times, which could affect contaminant loading to surface water receiving waters;
 - (b) measurement of groundwater levels during the Construction Phase, Operations Phase and Active Closure Phase to document changes in water levels and flows in nearby surface water features in response to dewatering of the open pits and construction and operation of the process solids management facility and mine rock storage area;
 - (c) monitoring of groundwater quantity and quality in wells upgradient, downgradient, and cross-gradient of the mine rock storage area, process solids management facility, and open pit in addition to groundwater monitoring wells along the predicted flow paths of seepage from these mine features in the Environmental Assessment during the Construction Phase, Operations Phase, Active Closure Phase and Post Closure Phase; and
 - (d) a comparison of results with requirements established through permitting and with predictions in the Environmental Assessment. Additional mitigation may be implemented if it is determined that the Project results in water quality or quantity measurements that exceed limits established by authorizations under the *Environmental Protection Act* or *Ontario Water Resources Act*.
- 9.6. The Proponent shall develop, during the Construction Phase and to the satisfaction of the Technical Support Manager, and implement a contingency plan for groundwater quality and quantity that includes at a minimum:
- (a) Trigger levels for groundwater quality and quantity that require implementation of contingency measures; and
 - (b) A description of the contingency measures that will be implemented if trigger levels are exceeded, including monitoring requirements and mitigation measures.
- 9.7. The Proponent shall develop, in consultation with Biigtigong Nishnaabeg, other Indigenous groups and relevant government authorities, and implement a drinking water monitoring and follow-up program for the Construction Phase, Operations Phase, Active Closure Phase and Post Closure Phase that will verify the accuracy of the predictions made during the Environmental Assessment and in follow up programs to support permitting, verify the effectiveness of mitigation measures, and implement an adaptive management strategy. The monitoring and follow-up program shall be developed to the satisfaction of the Technical Support Manager and District Manager prior to the Construction Phase and shall include at a minimum:
- (a) a water supply well inventory, prior to the Construction Phase, of the stretch of properties along Highway 17 southwest of the Site Study Area to confirm the number of users, well construction, and existing baseline groundwater quality conditions;

- (b) consultation with Biigtigong Nishnaabeg to identify any groundwater springs on the east side of Site Study Area that are important to the community for consideration in the monitoring program;
 - (c) review and enhancement (as necessary) of the monitoring well network and program established as part of the groundwater monitoring and follow-up program referenced in condition 9.5 to ensure appropriate up-, down- and cross-gradient coverage of key mine infrastructure in relation to drinking water wells and groundwater springs;
 - (d) annual updates to the groundwater model referenced in condition 9.5 using the most recent groundwater monitoring data and water consumption/use data to address the potential impacts to the drinking water wells for the stretch of properties located along Highway 17 southwest of the Site Study Area, including pumping at the water supply wells;
 - (e) an adaptive management strategy; and
 - (f) a communication plan to notify well users in the event of exceedance of groundwater trigger thresholds that are established by authorizations under the *Ontario Water Resources Act*.
- 9.8. The Proponent shall develop, during the Construction Phase and to the satisfaction of the Technical Support Manager, and implement a contingency plan for drinking water wells that includes at a minimum:
- (a) Trigger levels for contaminants in drinking water that require implementation of contingency measures; and
 - (b) A description of the contingency measures that will be implemented if trigger levels are exceeded, including monitoring requirements and mitigation measures.

Surface Water Quantity and Quality

- 9.9. The Proponent shall implement mitigation measures to prevent or reduce effects of the Project on surface water quantity, including:
- (a) recycling Contact Water for use as process water during the Operations Phase;
 - (b) using a water management system to manage water volumes and attenuate discharges during the Construction Phase and Operations Phase;
 - (c) discharging water in a manner that replicates natural conditions during the Construction Phase, Operations Phase and Active Closure Phase;
 - (d) implementing measures to reduce the potential for scouring and erosion in downstream watercourses in all subwatersheds identified in Figure 8-1

of the Joint Review Panel Report during the Construction Phase, Operations Phase and Active Closure Phase; and

- (e) in consultation with Indigenous Groups, restoring natural drainage patterns within the Site Study Area to the extent possible during the Active Closure Phase and Post Closure Phase.
- 9.10. The Proponent shall develop, in consultation with Bigtiigong Nishnaabeg, other Indigenous Groups and relevant authorities, a flow monitoring plan for the Biigtig Zibi (Pic River) which shall include the establishment of low flow thresholds to identify extreme dry conditions. The monitoring plan shall be developed to the satisfaction of the Technical Support Manager and District Manager prior to the Construction Phase and shall include at a minimum:
- (a) the methodology, location(s), frequency and duration of flow monitoring in Biigtig Zibi;
 - (b) an adaptive management strategy;
 - (c) provision for the establishment of an upstream monitoring station relative to any potential effects of the Project;
 - (d) low flow triggers for extreme dry conditions in Biigtig Zibi using the Water Survey of Canada station data as a baseline data set, and;
 - (e) direction that, if a low flow trigger has been reached, the Proponent shall reduce or cease taking water from Biigtig Zibi.
- 9.11. The Proponent shall implement the flow monitoring plan described in condition 9.10 during the Construction Phase, Operations Phase, Active Closure Phase and Post-Closure Phase.
- 9.12. The Proponent shall develop, in consultation with Biigtigong Nishnaabeg, other Indigenous Groups and relevant government authorities, a Site-wide water management plan and surface water quantity monitoring and follow-up program that will verify the accuracy of the predictions made during the Environmental Assessment and to support permitting, verify the effectiveness of mitigation measures, and implement an adaptive management strategy. The Site-wide water management plan and surface water monitoring and follow-up program shall be developed to the satisfaction of the Technical Support Manager and District Manager prior to the Construction Phase and shall include at a minimum:
- (a) collection of monitoring data for water level (at an in-situ data collection frequency of 15-minutes, data logger downloads monthly frequency) and flow (at a manual measurement frequency of monthly) during the Construction Phase, including:
 - i. water level monitoring data for Hare Lake, Terru Lake, Lake 8, Lake 12, Lake 5, Malpa Lake, and Lake 19 in subwatershed 104, or at such lakes as may otherwise be specified in writing by the Technical Support Manager;

- ii. flow (and water level with rating curve) monitoring data at stations S-8, S-9, S-10, S-11, or at such stations as may otherwise be specified in writing by the Technical Support Manager;
 - iii. flow and water level monitoring data at stations S-1, S-2, S-3, S-4, S-6, S-11, S-13, S-14, S-31, station S-24, and station S-25, or at such stations as may otherwise be specified in writing by the Technical Support Manager, and developing rating curves for those stations;
 - iv. establishment of flow reference stations and water level reference stations and commencement of data collection; and
- (b) designing infrastructure to have the capacity to contain at least the 1 in 100-year, 24-hour storm event from the corresponding drainage area.
- (c) continuous monitoring of water quantity to compare to reference stations and predicted effects including:
 - i. measurement of water quantity, level, flow gauging, and depth and flow profiling, at point-source discharge locations and receiving water bodies, including Lake 1, Lake 2, Lake 5, Lake 8, Lake 12, Malpa Lake, Terru Lake, Hare Lake, Hare Creek, Stream 6 (Angler Creek; hydrometric station S-14 and S-31) and Lake 19 in subwatershed 104, or at such waterbodies as may otherwise be specified in writing by the Technical Support Manager.
 - ii. monitoring at various times of the year, consistent with provincial permitting requirements;
 - iii. monitoring at reference stations that would not be impacted by the Project;
 - iv. continuous monitoring of effluent volumes contained within all infrastructure to confirm that risk of overtopping will not occur; and
 - v. designing the mine rock storage area catch basins and the associated pumps to prevent overflows to Biigtig Zibi as a result of the Project during the Construction Phase, Operations Phase, Active Closure Phase and Post-Closure Phase.
- (d) annual comparison of the results of monitoring with the predictions of the Environmental Assessment and applicable regulatory criteria or permitting and approvals requirements; and
- (e) implementation of additional mitigation measures if the results of monitoring indicate that effects are greater than predicted in the Environmental Assessment or if either of the following trigger thresholds are reached:
 - i. a trigger threshold of 100-year flood flows for flow increase; and

- ii. a trigger threshold of two consecutive months during which there is a decrease in average daily flows between the reference stations and the impacted stations of greater than 20 percent (for water bodies that are not covered under authorizations under the *Fisheries Act*).
- 9.13. The Proponent shall implement the surface water quantity monitoring and follow-up plan described in Condition 9.12 during the Construction Phase and during the Operations Phase, Active Closure Phase and Post-Closure Phase.
- 9.14. Prior to the Construction Phase, the Proponent shall, in consultation with Biigtigong Nishnaabeg, Pays Plat First Nation, other Indigenous Groups and relevant government authorities, identify any and all technically and economically feasible options for water supplementation for Stream 6 (Angler Creek) to minimize disruptions to this waterbody without adversely affecting other water sources. The Proponent shall implement any optimal option(s) during the Construction Phase, Operations Phase and the Active Closure Phase to minimize disruptions to this waterbody without adversely affecting other water sources, unless otherwise authorized.
- 9.15. The Proponent shall develop, in consultation with Biigtigong Nishnaabeg, other Indigenous Groups and relevant government authorities, control measures for erosion and sedimentation in the Site Study Area to prevent effects on the quality of water frequented by fish. The control measures for erosion and sedimentation shall be developed to the satisfaction of the Technical Support Manager and District Manager prior to the Construction Phase and shall include at a minimum:
 - (a) consideration of current and future climate scenarios relevant to the Project, including periods of flooding, heavy rainfall and frost, when designing and implementing these measures;
 - (b) maintenance and regular inspection, subject to safety requirements, of all erosion and sediment control measures, and documentation and repair of any defective or damaged control measure as soon as circumstances permit;
 - (c) conducting progressive reclamation concurrently over all phases of the Project to stabilize and vegetate any disturbed areas as soon as possible after the disturbance; and
 - (d) development of a Site-wide construction environmental monitoring plan to document all erosion and sedimentation control measures across the Site.
- 9.16. The Proponent shall implement the control measures for erosion and sedimentation described in Condition 9.15 during the Construction Phase and during the Operations Phase and Active Closure Phase.
- 9.17. The Proponent shall, in consultation with Biigtigong Nishnaabeg, other Indigenous Groups and relevant government agencies, develop a water quality monitoring plan for the Operations Phase, Active Closure Phase and Post Closure Phase for each pit lake to assist with the development of mitigation measures to protect the Biigtig Zibi

(Pic River). The Proponent shall submit the plan to the ministry's regional Technical Support Manager and District Manager prior to Operations Phase. The plan shall be developed to the satisfaction of the Technical Support Manager.

- 9.18. The Proponent shall implement the water quality monitoring plan described in condition 9.17 for each pit lake, commencing with the filling of the pit lake and continuing through the Post Closure Phase.
- 9.19. The Proponent shall, in consultation with Biigtigong Nishnaabeg, other Indigenous Groups and relevant government authorities, develop mitigation measures to prevent mercury mobilization, release to surface water bodies and biological uptake. The mitigation measures shall be developed to the satisfaction of the Technical Support Manager prior to the Construction Phase and shall include at a minimum maintaining a minimum 30 m vegetated buffer zone between cleared areas and waterbodies except where the Technical Support Manager and the Proponent agree that maintaining the buffer zone is not practical for Project infrastructure.
- 9.20. The Proponent shall implement the mitigation measures described in Condition 9.19 prior to and during the Construction Phase, Operations Phase and Active Closure Phase.
- 9.21. The Proponent shall, in consultation with Biigtigong Nishnaabeg, other Indigenous Groups and relevant government authorities, develop a mercury monitoring program to investigate potential changes in total mercury and methylmercury during the Project that include triggers to assess the significance of the impact and identify potential mitigation strategies. The monitoring program shall be developed to the satisfaction of the Technical Support Manager prior to the Construction Phase.
- 9.22. The Proponent shall implement the mercury monitoring program described in Condition 9.21 prior to and during the Construction Phase and during the Operations Phase and Active Closure Phase.
- 9.23. The Proponent shall develop, in consultation with Biigtigong Nishnaabeg, other Indigenous Groups and relevant government authorities, and implement a Site-wide water quality monitoring and follow-up program to verify the accuracy of the predictions made during the Environmental Assessment to support permitting, verify the effectiveness of mitigation measures, and implement an adaptive management strategy. The Site-wide water quality monitoring and follow-up program shall be developed to the satisfaction of the Technical Support Manager prior to the Construction Phase and shall include at a minimum:
 - (a) pre-Construction sampling of water quality in Hare Lake, Hare Creek, the Biigtig Zibi and Stream 6 (Angler Creek), including:
 - i. collection of additional baseline data for benthic communities, fish tissue contaminant levels (small and large-bodied), sediment, and all water quality parameters measured during the 2008–2012 and 2013–2019 sampling campaigns;
 - ii. collection of baseline data for Platinum Group Metals using low-level method detection limits;

- iii. collection of baseline mercury and methylmercury data with method detection limits;
- (b) monitoring of waterbodies, construction water, mine effluent, seepage water and any other Contact Water during the Construction Phase and Operations Phase to compare against predicted effects, including monitoring at a minimum:
- i. water quality in Hare Lake, Biigtig Zibi (extending downstream of the Project to the mouth of Lake Superior), Stream 5 (Hare Creek) to its outlet at Port Munro, and Stream 6 (Angler Creek) to its outlet at Sturdee Cove and appropriate reference water bodies as approved by the MECP;
 - ii. total ammonia and un-ionized ammonia in Hare Lake;
 - iii. dissolved oxygen in Hare Lake, the Biigtig Zibi, and Stream 6 (Angler Creek);
 - iv. methylmercury in Hare Lake, the Biigtig Zibi, and Stream 6 (Angler Creek);
 - v. Platinum Group Metals in mine effluent to be discharged into Hare Lake; and
 - vi. acute toxicity and sub-lethal toxicity to fish in mine effluent to be discharged in Hare Lake;
 - vii. total phosphorus in Hare Lake, Stream 5 (Hare Creek), Stream 6 (Angler Creek) and Biigtig Zibi;
- (c) an evaluation in accordance with Procedure B-1-5, of the worst-case mixing zone size with respect to the discharge scenario in Hare Lake to support the Mixing Zone Assessment as part of the provincial approvals process; this evaluation may include the lowest 7-day average inflow/outflow condition to/from Hare Lake that has a return period of 20 years (as well as the 1 in 20 dry year lake level) to evaluate the predicted effects, as applicable; and
- (d) implementation of additional mitigation measures should the results of monitoring indicate that the effects are greater than predicted or mitigation measures are not effective.

9.24. The Proponent shall develop, in consultation with Biigtigong Nishnaabeg, other Indigenous Groups and relevant government authorities, and implement a monitoring and follow-up program to validate the effects predicted by the mixing model for Hare Lake as described in the Environmental Assessment and the further evaluation required by condition 9.23 (c). The program shall be developed to the satisfaction of the Technical Support Manager prior to the Construction Phase and shall include at a minimum:

- (a) monitoring the thermal regime of Hare Lake during the Operations Phase;
- (b) implementing additional mitigation measures as necessary to ensure that the natural process of temperature stratification and mixing is maintained, unless otherwise authorized; and
- (c) an adaptive management strategy.

Fish and Fish Habitat

- 9.25. The Proponent shall comply with the timing windows for Northwest Region set out in Ontario's In-water Work Timing Window Guidelines (2013) and Fisheries and Oceans Canada's Ontario Restricted Activity Timing Windows for the Protection of Fish and Fish Habitat (2017) when conducting work in or within 30m of any waterbody to protect fish, including their eggs, juveniles, spawning adults, the organisms upon which they feed, and where they migrate. The Proponent shall:
- (a) complete work in or within 30m of any waterbody during periods of low flow (e.g., summer, fall, or winter) to further reduce the risk to fish and their habitat or to allow the work to be isolated from flows; and
 - (b) minimize work in or within 30m of any waterbody during wet, windy, and rainy periods that may increase erosion and sedimentation.
- 9.26. The Proponent shall develop, in consultation with Biigtigong Nishnaabeg, other Indigenous Groups, Fisheries and Oceans Canada, MECP and other relevant government authorities, and implement a fish and fish habitat, and fish population monitoring and follow-up program to verify the predictions in the Environmental Assessment related to fish and fish habitat and determine the effectiveness of mitigation measures, including offsetting. The Proponent shall at a minimum:
- (a) address existing gaps in baseline needed to inform the follow-up program and determine adaptive management thresholds and success thresholds, including a sampling plan to address these gaps with timelines associated with data collection relative to anticipated effects of the Project;
 - (b) explicitly identify areas of uncertainty in the effects predictions and how the monitoring program would address those by pairing each with measurable physical or biological parameters;
 - (c) determine the parameters, including flow, surface water level, groundwater quality, groundwater level, sediment, benthic communities, and fish communities, that need to be monitored in order to verify the predictions of effects on fish and fish habitat, and fish populations;
 - (d) monitor the parameters in clause (c) to verify the predictions of effects on fish and fish habitat during operation, active closure and post-closure, including but not limited to: Hare Lake, the Biigtig Zibi extending downstream of the Project to the mouth of Lake Superior, Stream 5 (Hare Creek) to its outlet at Port Munro, and Stream 6 (Angler Creek) to its outlet at Sturdee Cove, and any corresponding reference stations

(representative of the potentially impacted location), and any other locations identified by government authorities that will provide continuous monitoring data; and

- (e) an adaptive management strategy.
- 9.27. The Proponent shall, prior to the Construction Phase and in consultation with Biigtigong Nishnaabeg, Pays Plat First Nation, and other Indigenous Groups, develop a monitoring program for Stream 6 (Angler Creek) to verify the predictions in the Environmental Assessment and effectiveness of any mitigation measures as it pertains to impacts of the Project on the use for traditional purposes and the cultural heritage of Biigtigong Nishnaabeg, Pays Plat First Nation and other Indigenous Groups. The Proponent shall incorporate fish species that are representative of fish present and of interest to local communities into the monitoring program. The Proponent shall, in consultation with Biigtigong Nishnaabeg, Pays Plat First Nation, and other Indigenous Groups, implement the monitoring plan during the Construction Phase, Operations Phase, Active Closure Phase and Post Closure Phase.
- 9.28. The Proponent shall, prior to the Construction Phase and in consultation with Biigtigong Nishnaabeg and other Indigenous Groups, Fisheries and Oceans Canada, the Ministry of Natural Resources and Forestry and other relevant authorities, conduct fish sampling surveys to confirm the presence of Northern brook lamprey (*Ichthyomyzon fossor*) in Streams 1, 2 and 3.

10. Terrestrial Environment

Reclamation

- 10.1. As part of progressive reclamation specified in the Commitments, the Proponent shall, in consultation with Biigtigong Nishnaabeg and other Indigenous Groups, the Ministry of Natural Resources and Forestry and other relevant government authorities, utilize a diverse mixture of native plant species for revegetation that prioritizes reforestation and includes:
- (a) trees and shrubs;
 - (b) species of value to forest birds and waterfowl as identified in the Environmental Assessment;
 - (c) species of value to moose (*Alces alces*) and other mammals of interest to Indigenous Groups, as identified by Indigenous Groups; and
 - (d) plant species of interest to Indigenous Groups, as identified by Indigenous Groups; and
 - (e) species known to aid in the reestablishment of ecosystems by improving the physical environment through their contributions to shade, litter accumulation, and moisture retention.

- 10.2. The Proponent shall, prior to the Operations Phase and in consultation with Biigtigong Nishnaabeg and other Indigenous Groups, the Ministry of Mines, the Ministry of Natural Resources and Forestry, and other relevant government authorities, develop a final reclamation plan for the Project that addresses the following matters:
- (a) performance standards to be used by the Proponent to evaluate the effectiveness of final reclamation activities, including standards for:
 - i. restoration of natural drainage patterns within the Site to as close to baseline as technically and economically feasible;
 - ii. self-sustaining ecosystems, including even-aged conifer forest;
 - iii. habitat for moose (*Alces alces*) and other mammals of interest to Indigenous Groups, as identified by Indigenous Groups;
 - iv. habitat for birds and waterfowl as identified in the Environmental Assessment, that are informed by bird and waterfowl survey results collected pursuant to condition 10.7;
 - v. habitat for bats; and
 - vi. species of interest to Indigenous groups, as identified by Indigenous Groups;
 - (b) a description of final reclamation measures to be implemented, including how these measures will address performance standards referred to in condition 10.2.(a); and
 - (c) a monitoring and follow-up program developed by the Proponent to verify the effectiveness of the reclamation measures referred to in clause (b), including whether performance standards referred to in clause (a) are met. The monitoring and follow up program shall include an adaptive management strategy.
- 10.3. The Proponent shall develop the final reclamation plan specified in condition 10.2 to the satisfaction of the Nipigon District Manager of the Ministry of Natural Resources and Forestry, for such matters that related to the mandate of the Ministry of Natural Resources and Forestry.
- 10.4. The Proponent shall implement the final reclamation plan specified in condition 10.2 during the Active Closure Phase.

Closure Plan

- 10.5. Prior to submitting a Closure Plan for filing under section 141 of the *Mining Act* or an amendment to a Closure Plan for filing under section 143 of the *Mining Act*, the Proponent shall not submit a consultation report to the Director of Mine Rehabilitation or seek notice from the Director that he or she is satisfied that appropriate consultation with Indigenous communities has been carried out, pursuant to s. 8.1(9)

of O. Reg. 240/00 under the Mining Act, unless Biigtigong Nishnaabeg has provided the Proponent with confirmation of its consent to the Closure Plan or amendment to the Closure Plan, as expressed in a Band Council resolution.

- 10.6. Prior to the Operations Phase, the Proponent shall assess, in consultation with Biigtigong Nishnaabeg, any technically and economically feasible alternative to discharging water from the north pit lake into the Biigtig Zibi (Pic River) during the Active Closure Phase and Post Closure Phase. If the Proponent identifies any technically and economically feasible alternative(s), the Proponent shall propose a change to the Project in accordance with condition 7 for the optimal alternative(s) and implement the change, if approved by the Director. If the Proponent cannot identify a technically and economically feasible alternative, the Proponent shall notify Biigtigong Nishnaabeg and the Director of the reasons for their determination that a such an alternative could not be identified.

Wildlife

- 10.7. The Proponent shall, prior to disturbance of amphibian habitat, develop an amphibian salvage and translocation plan that identifies receiving locations. The plan shall be developed to the satisfaction of the relevant Ministry of Natural Resources and Forestry district manager, and then implemented as specified in the plan.
- 10.8. The Proponent shall not undertake vegetation clearing and blasting required for the Project during the period of May 1 to August 31, unless the Proponent determines that vegetation clearing and blasting outside this period is not technically or economically feasible. If the Proponent makes such a determination, the Proponent shall develop, in consultation with Biigtigong Nishnaabeg and other Indigenous Groups, the Ministry of Natural Resources and Forestry and the MECP's Species at Risk Branch and other relevant government agencies and implement mitigation measures for vegetation clearing and blasting.
- 10.9. The Proponent shall, prior to the Construction Phase and in consultation with Biigtigong Nishnaabeg, other Indigenous Groups, Environment and Climate Change Canada and the Ministry of Natural Resources and Forestry, ensure that the Wildlife and Migratory Bird follow up and monitoring programs specified in the Commitments include:
 - (a) an adaptive management strategy;
 - (b) a description of how the baseline survey results for birds and waterfowl identified in the Environmental Assessment will be updated based on further surveys conducted by the Proponent;
 - (c) a description of how updates to survey information along with baseline survey results will be used to inform reclamation in the final reclamation plan referenced in condition 10.2;
 - (d) a description of pre-Construction habitat characterization for Canada warbler (*Cardellina canadensis*), Eastern wood-pewee (*Contopus virens*), olive-sided flycatcher (*Contopus cooperi*), evening grosbeak

(*Coccothraustes vespertinus*), common nighthawk (*Chordeiles minor*); and rusty blackbird (*Euphagus carolinus*);

- (e) determination of the need for additional modelling for habitat suitability to verify the accuracy of the Environmental Assessment on Canada warbler (*Cardellina canadensis*) and if it is determined there is a need, a description of the additional modelling that will be conducted by the Proponent; and
- (f) a description of the monitoring of common nighthawk (*Chordeiles minor*), forest birds and waterfowl populations that will be carried out by the Proponent during the Construction Phase and Operations Phase at locations based on baseline surveys conducted as part of the Environmental Assessment, as indicated in Section 4.2.2 of the Terrestrial Environment Baseline Report Update (Canadian Impact Assessment Registry Reference Number 54755, Document Number 722) and pre-Construction habitat characterization results in clause (d).

10.10. The Proponent shall ensure that mitigation measures in the Wildlife and Migratory Bird follow up and monitoring programs are informed by survey results specified in clauses (b) to (f).

Caribou

10.11. The Proponent shall undertake a comprehensive assessment of impacts to Caribou and Caribou habitat based on the final footprint and timing of Construction and operation of the Project and shall develop and implement mitigation measures regarding Caribou and their habitat. In doing so, the Proponent shall:

- (a) have regard to the MECP's guidelines in relation to the *Endangered Species Act, 2007*;
- (b) address the policy objectives contained in actions 2.7 and 4.1.4 of Ontario's Woodland Caribou Conservation Plan, 2009 (as updated); and
- (c) consider Biigtigong Nishnaabeg's caribou strategy in consultation with Biigtigong Nishnaabeg.

11. Atmospheric and Acoustic Environments

Atmospheric

11.1. The Proponent shall, in consultation with Biigtigong Nishnaabeg, other Indigenous Groups, MECP and other relevant government agencies, develop an air quality monitoring and follow-up program to assist in determining the accuracy of the air quality modelling predictions in the Environmental Assessment and verify the effectiveness of air quality mitigation measures. The Proponent shall submit the air quality monitoring and follow-up program to the Technical Support Manager and District Manager, at least 90 Days following the commencement of the Construction Phase or by such date as may be specified in writing by the District Manager. The air

quality monitoring and follow-up program shall be developed to the satisfaction of the District Manager and shall include at a minimum:

- (a) updating of baseline conditions prior to the start of the Construction Phase or by such date as may be specified in writing by the District Manager, to inform the follow-up program by conducting:
 - i. sampling of benzo(a)pyrene, benzene, dustfall, and crystalline silica in the atmospheric local study area identified in Figure 2.4-3 of Appendix 6 of the Joint Review Panel Report, and updating the air quality model where parameters are higher than original assumptions; and
 - ii. analysis of the silt content of unpaved roads and updating of the air quality model should the value be higher than 5.8 percent;
- (b) regular monitoring of the following during the Construction Phase, Operations Phase and Active Closure Phase: dust fall, total suspended particulate matter (TSP) and metals, crystalline silica, benzene, and benzo(a)pyrene;
- (c) continuous monitoring of inhalable particulate matter (PM10), fine particulate matter (PM2.5) and nitrogen dioxide (NO₂) during the Construction Phase, Operations Phase and Active Closure Phase;
- (d) monitoring contaminants specified in clause (b) and clause (c) during the Construction Phase, Operations Phase and Active Closure Phase, where receptors are predicted to experience air quality exceedances for one or more contaminants and at locations used for traditional land resource use purposes, as determined in consultation with Indigenous Groups;
- (e) implementing additional mitigation measures, in consultation with Biigtigong Nishnaabeg, other Indigenous Groups, the MECP and other relevant government authorities and interested stakeholders, should monitoring show exceedances of any identified thresholds; and
- (f) an adaptive management strategy.

11.2. The Proponent shall implement the air quality follow up and monitoring program specified in condition 11.1 and shall share the results of the program annually with Biigtigong Nishnaabeg, other Indigenous Groups, the MECP and Environment and Climate Change Canada.

Acoustic

11.3. The Proponent shall reduce noise-generating activities of the Project between the hours of 11 p.m. and 7 a.m. by:

- (a) not operating compactors on the southern portion of the process solids management facility during these hours during the Construction Phase and Operations Phase;

- (b) not operating bulldozers on the southern portion of the process solids management facility during these hours during the Operations Phase;
 - (c) not operating heavy equipment with an adjusted overall sound power level of greater than or equal to 110 dBA on the southern portion of the process solids management facility during these hours during the Operations Phase;
 - (d) ensuring that the frequency of haul trucks arriving in the southern portion of the process solids management facility does not exceed an average of four per hour; and
 - (e) requiring that all other heavy equipment in the southern portion of the process solids management facility idle while haul trucks are dumping mine rock in this area.
- 11.4. The Proponent shall acknowledge any noise complaint within 48 hours of receipt and implement corrective actions, if required, in a timely manner.
- 11.5. The Proponent shall develop a notification plan, in consultation with Biigtigong Nishnaabeg, other Indigenous Groups and the Town of Marathon, to provide advance notice to residents regarding noise generating activities from the Project, including blasting. The notification plan shall describe the methods and the timing of notifications. The Proponent shall implement the plan and provide a copy of any notifications to the District Manager.

12. Human Environment

Socio-Economic Environment

- 12.1. In addition to fulfilling all Commitments with regard to the development and implementation of policies, procedures and Indigenous cultural competency training that address violence, harassment and discrimination, the Proponent shall, in consultation with Biigtigong Nishnaabeg and other Indigenous Groups, develop a violence, harassment and discrimination follow up and monitoring program. This program shall include at a minimum:
- (a) documentation of all incidents of violence, harassment and discrimination associated with the Project;
 - (b) articulation of consequences enforced in response to violence, harassment and discrimination events;
 - (c) periodic assessment of the effectiveness of violence, harassment and discrimination policies, procedures and training as it pertains to incidents of violence, harassment and discrimination associated with the Project; and
 - (d) augmentation and adjustments to the policies, procedures, training and program in response to assessment results and consultation with Indigenous Groups.

- 12.2. The Proponent shall share with Biigtigong Nishnaabeg and other Indigenous Groups the results of the periodic assessments required by condition 12.1 (c) and any augmentation and adjustments to the policies, procedures, training and program referenced in condition 12.1 in response to the assessments.
- 12.3. In addition to fulfilling all Commitments with regard to the development and implementation of the Socio-Economic Follow-Up and Monitoring Program, the Proponent shall ensure that the Socio-Economic Follow-Up and Monitoring Program, in consultation with Biigtigong Nishnaabeg and other Indigenous Groups, includes monitoring the impacts of the Project on harvesters, including tracking the ability of harvesters to relocate and the level and change of harvesting near the Site.

Archaeology

- 12.4. The Proponent shall, prior to the Construction Phase and in consultation with Biigtigong Nishnaabeg and Pays Plat First Nation, complete an additional Stage 2 archaeological assessment should the final location of the discharge pipeline be in an area of archaeological potential on Hare Lake, as identified in Map 4 of the Supporting Information Document No. 27 of the environmental impact statement (Canadian Impact Assessment Registry Reference Number 54755, document number 227).
- 12.5. The Proponent shall develop, in consultation with Biigtigong Nishnaabeg and Pays Plat First Nation and the Ministry of Citizenship and Multiculturalism, and implement measures to mitigate adverse effects of the Project on any Cultural Heritage Resources identified through the Stage 2 archaeological assessment (and further stages, if recommended) referred to in condition 12.3.
- 12.6. Prior to the Construction Phase, the Proponent shall ensure that its General construction and operations management plan, as described in the Commitments, sets out a chance find protocol that includes at a minimum:
- (a) training for all employees engaged in activities that have the potential to discover Cultural Heritage Resources;
 - (b) a process to apply should previously undocumented archaeological resources or human remains be discovered, including:
 - i. immediately ceasing alteration of the Site;
 - ii. actions required to comply with any applicable requirements of the *Ontario Heritage Act* and the *Funeral, Burial and Cremation Services Act, 2002*;
 - iii. in situations where human remains are associated with archaeological resources, notification of the Ministry of Citizenship and Multiculturalism; and
 - (c) participation of Biigtigong Nishnaabeg and other Indigenous Groups as monitors.

Indigenous Monitors Program

12.7. The Proponent shall, prior to the Construction Phase and in consultation with Biigtigong Nishnaabeg and other Indigenous Groups, develop an Indigenous monitors plan to enable members of Biigtigong Nishnaabeg and other Indigenous Groups to participate as monitors the follow up and monitoring programs required by the conditions of this Approval and specified in the Commitments. The Plan shall include at a minimum:

- (a) a description of the scope, purpose, and objectives for the participation of Indigenous monitors in the follow up and monitoring programs;
- (b) a description of how each Indigenous monitor will be involved in the monitoring related to their area of interest, including the location, frequency, timing and duration of their participation;
- (c) if opportunities for Indigenous monitor participation in specific monitoring programs of interest to Indigenous Groups do not exist, provide an explanation why;
- (d) a description of how the Proponent will support the participation of Indigenous monitors, including through the provision of training, equipment and access to the Site; and
- (e) a process for providing Biigtigong Nishnaabeg and other Indigenous Groups an annual summary of the results of the follow up and monitoring programs outlined in conditions 9.7, 9.12, 9.18, 9.23, 9.26, 9.27, 10.9, and 12.3.

12.8. The Proponent shall implement the Indigenous monitors plan referenced in condition 12.7 and shall provide a copy of the plan and record of associated consultation to Biigtigong Nishnaabeg, other Indigenous Groups and the Director.

Dated the 29 day of November 2022 at TORONTO.

<Original signed by>

Minister of the Environment, Conservation and Parks
777 Bay Street, 5th Floor
Toronto ON M7A 2J3

Approved by O.C. No. 1578 / 2022

Date O.C. Approved 2022/11/30