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EXECUTIVE SUMMARY

Main Panel Finding

The Kemess North Mine Joint Review Panel (the "Panel") has concluded that development of the Kemess North Copper/Gold Project (the "Project") in its present form would not be in the public interest. In the Panel’s view, the economic and social benefits provided by the Project, on balance, are outweighed by the risks of significant adverse environmental, social and cultural effects, some of which may not emerge until many years after mining operations cease. The Panel recommends to the federal and provincial Ministers of the Environment that the Project not be approved as proposed.

The Panel’s main finding is based on a comprehensive synthesis and analysis of the information provided to the Panel regarding adverse and beneficial Project effects. These effects were used as the basis for the assessment of the pros and cons of Project development from a range of perspectives. One of the most important components of a panel review is to integrate public values, as well as government policy expectations, into the review process. In order to weigh the Project development pros and cons in the context of public values and policy expectations, the Panel chose to adopt what it considered to be an appropriate sustainability assessment framework. In developing this framework, the Panel consulted recent mining sector sustainability initiatives, as well as the B.C. government's 2005 Mining Plan. The framework was used to determine whether or not the Project is in the public interest.

The Panel has considered the Project from five sustainability perspectives: Environmental Stewardship; Economic Benefits and Costs; Social and Cultural Benefits and Costs; Fairness in the Distribution of Benefits and Costs; and Present versus Future Generations. The Panel notes that the Project’s benefits accrue for only a relatively short period (two years of construction and 11 years of mining production). This period could be reduced if the Project, which is not economically robust, were to close prematurely. Key adverse effects include the loss of a natural lake with important spiritual values for Aboriginal people, and the creation of a long-term legacy of environmental management obligations at the minesite to protect downstream water quality and public safety. These obligations may continue for several thousand years, and include ongoing treatment of poor quality water from the open pit (the "North Pit"), and regular monitoring and maintenance of the waste disposal impoundment (the "Duncan Impoundment") and its three dams, to preserve the desired water balance and water chemistry in the Impoundment and to ensure the health of its aquatic ecosystem. The Panel also notes that it may be difficult for Aboriginal people to increase their share of Project benefits, although as the region’s primary residents and users, they would experience first-hand any impacts on traditionally-used resources.

The Panel has prepared a comprehensive report that attempts to summarize and examine all of the information considered in the review process. The detail and scope of the report reflects the complexity of the Project and the challenges posed in weighing its pros and cons. The Panel’s intent in preparing a detailed report is to allow interested parties the opportunity to consider all of the information that the Panel has taken into account in reaching its conclusions and recommendations.

Acknowledging that Ministers could disagree with the Panel’s advice and approve the Project, the Panel has included thirty-two recommendations in this report which, in its view, would help to enhance Project benefits and facilitate efforts to manage and minimize adverse effects, should the Project proceed.
10 PANEL CONCLUSIONS AND RECOMMENDATIONS

10.1 Context for Panel’s Overall Conclusions and Recommendations

The inter-governmental agreement which set up the panel process charged the Panel with providing to the federal and provincial Ministers of the Environment a report assessing a broad range of environmental, economic, social, heritage and health effects of the proposed Kemess North mine, including such effects on Aboriginal interests. In this report, the Panel has documented its conclusions on the adequacy of the measures proposed to mitigate or compensate for the Project’s potential adverse effects, and has also suggested some ways to enhance Project benefits. In this final chapter, the Panel weighs the question of whether or not, in its view, proceeding with the Project would be in the public interest.

One of the most important benefits of a panel review is the integration of public values into the review process. The Panel heard strong views both for and against the Project, and there is no broad public consensus on the Project to help guide the Panel. In its original form, the Proponent’s September 2005 EIA was deficient in several areas. The Proponent took advantage of the iterative feedback received from review participants during various rounds of review, and made considerable efforts to upgrade the EIA, particularly with respect to water quality assessments and the management of ML/ARD risk. By the time that the hearing record closed in May 2007, federal and provincial government agencies had advised the Panel that, in almost all important respects, the Project could be implemented in a manner consistent with their respective programming and regulatory objectives. While this is an important consideration, the Panel recognizes that most agencies examine the question of Project acceptability primarily from the perspective of their own well-defined mandates. The Panel believes that it is also necessary to evaluate the Project effects holistically, and to incorporate values expressed by the public. In the Panel’s view, compatibility with government requirements does not necessarily mean that the Project would not cause adverse effects, at least in the view of some interested parties, or would necessarily be in the public interest.

10.2 The Central Issue – Water

The proposal to dispose of waste rock and tailings in Duncan (Amazay) Lake emerged initially as the most pervasive risk to long-term water quality. This is considered to be the reason why the Project was consigned for panel review by government. The Panel has concluded that disposal of mined wastes in Duncan (Amazay) Lake is the only waste disposal alternative which is environmentally effective, and technically and economically feasible. However, the future integrity of the surface drainage and groundwater system in the Project area could be placed at risk by mined waste disposal and open pit excavation if adequate mitigation and prevention measures are not implemented and managed throughout all phases of the Project, including the longer-term post-closure phase. In addition, such use of the lake would have significant implications to the spiritual values ascribed to it by Aboriginal peoples.

During the review process it became apparent that the drainage from the flooded North Pit could cause a potentially significantly adverse water quality effect, unless treated. The treatment of this drainage over the long term and its relationship to the management of the Duncan Impoundment system emerged to broaden the concerns over the long-term risks to water quality.

The key implications of the use of Duncan (Amazay) Lake for storing mined wastes and the need to treat North Pit drainage are summarized below:

- Loss of Natural Lake – Duncan (Amazay) Lake would be irreversibly altered through conversion to a mined waste storage impoundment from the first year of Project development.
shareholders. The Panel has significant concerns with respect to the short duration of the incremental economic benefits (11 years of mining production). Moreover, given the Project’s lack of economic robustness, premature closure is possible, and the period of benefits may be shorter. Most Project “costs” (such as the long-term site management legacy and the loss of the lake) are not readily priced in dollar terms, and it is not possible to state whether, in dollar terms, total benefits would exceed total costs.

Social and Cultural Benefits and Costs

Pros

- Because Project benefits would be diffused throughout B.C. and beyond, no communities are primarily dependent on the Project for community stability and prosperity.
- The Project should continue to benefit those communities that benefit now from the existing mine (i.e. where workers live and service providers and suppliers are based).
- Government revenues from the existing mine would be maintained into the future.
- Local Aboriginal communities are offered the opportunity to benefit from substantial financial compensation, should they choose to accept it.
- The Proponent has offered to facilitate Aboriginal employment at the mine by arranging regular flights from local Aboriginal communities.

Cons

- Even government coffers and the communities which appear most likely to benefit from the Project could benefit much less if the Project closes prematurely.
- It appears that comparatively few economic benefits would accrue to local Aboriginal people and their communities.
- The Aboriginal proportion of mine employees at the existing mine, although growing in response to Proponent recruitment and training initiatives, remains relatively small, and is likely to stay small.
- The Project restricts traditional Aboriginal activities which have historically been of low to moderate intensity in the vicinity of the Project site.
- In particular, from the Aboriginal perspective, Duncan (Amazay) Lake would lose its spiritual values when converted for permanent storage of mined wastes. Aboriginal people who use the area also voiced concerns regarding impacts on water quality, both in the area of the minesite and downstream.
- Aboriginal communities are unlikely to embrace the Project and the compensation offered, since to do so would entail trading off the spiritual value of Duncan (Amazay) Lake, which Aboriginal groups have said is unacceptable.

Conclusion – The Panel agrees that the Project would continue to make a significant contribution to social wellbeing and community stability in communities where workers live and service suppliers operate. Moreover, the Panel recognizes that the "fly-in, fly-out" workforce model effectively shares risks as well as benefits, shielding individual communities from the adverse socio-economic effects of negative events such as premature mine closure. However, the Panel considers the socio-cultural implications of the Project for Aboriginal people, and the obstacles to their participation in Project benefits, to be a significant drawback. The Aboriginal proportion of mine employees at the existing mine, although growing in response to Proponent recruitment and training initiatives, remains relatively small, and is likely to stay small. Aboriginal communities appear unlikely to embrace either the Project or the financial
compensation and other potential benefits offered to them by the Proponent. To do so would entail accepting the loss of the spiritual values of Duncan (Amazay) Lake, and Aboriginal groups have said that these values are beyond price.

**Fair Distribution of Benefits and Costs**

**Pros**

- The Proponent has offered substantive benefit opportunities to Aboriginal people in an effort to overcome systemic barriers to their participation in the Project.

**Cons**

- The positive benefits of the proposal would likely still fall primarily to the Proponent, its shareholders, current employees and suppliers, and government revenue coffers. Although very few of the mine’s employees and suppliers live in the region surrounding the Project, almost all potentially affected Aboriginal people live there.
- Unless Aboriginal people embrace the Project, they would incur most of the costs, which accrue locally, without enjoying a corresponding proportion of Project benefits.
- Aboriginal people do not agree that the loss of Duncan (Amazay) Lake is a price worth paying to enjoy Project benefits, and are unlikely to embrace the Project.
- In the case of premature closure, the gap between benefits and costs is widened, since not all of the benefits available to Aboriginal people would have been provided, but many of the costs (most importantly, the loss of the Lake and the creation of an indefinitely long-term environmental management liability) would have been incurred in their traditional territories.
- Long-term downstream risks to water quality, aquatic systems and public safety are borne mostly by local Aboriginal people. These risks cause a perceptible level of anxiety, especially in Kwadacha.

**Conclusion** – The Panel believes that there would likely be inequities in the distribution of benefits and costs between those interests which receive most of the benefits (workers, suppliers, government revenue coffers and company shareholders) and those people who incur most of the costs (locally-based, primarily Aboriginal people). Aboriginal people would experience first-hand any impacts on traditionally-used environmental resources. Unless, as seems unlikely, Aboriginal people embrace the Project, they would incur most of the costs, which accrue locally, without enjoying a corresponding proportion of Project benefits. Some costs, such as the loss of the natural lake and the creation of a long-term environmental management liability, would still be incurred even if the Project closed prematurely. Premature mine closure would widen still further the gap between the benefits and costs accruing to local people. The established way of addressing this kind of inequity is through negotiation of a mutually agreed benefits agreement with Aboriginal people. In this case, there is no such agreement.

**Present vs. Future Generations**

**Pros**

- The immediate and more long-term environmental effects of the Project can be effectively managed by the measures proposed by the Proponent and government agencies, providing that there is adequate oversight of the on-site management and monitoring obligations to ensure that they are faithfully carried out.
Appendix 1 - Terms of Reference for the Panel

Part I - Project Description

Northgate Minerals Corporation is proposing to expand the operating Kemess mine which is projected to close in late 2008. The proposed Project will be an open-pit mine with production of up to 120,000 tonnes per day and an 11-year mine life.

The Project would result in present-day milling capacity at the operating Kemess mine being increased from the current 55,000 tonnes per day to up to 120,000 tonnes per day. The Project would use all of the existing primary infrastructure in place at the Kemess mine, including the 380-kilometre transmission line, the 500-person accommodation and camp facilities, the service complex consisting of personnel offices, warehouse and maintenance facilities, the mining truck fleet, shovels and drills, the mill complex and the 1500-metre airstrip. A copper-gold concentrate would continue to be transported off-site.

New infrastructure for the Project would include:

- a 12-kilometre access road from the Kemess mine to the Project site;
- haul roads within the pit and to waste dumps;
- a new primary crusher;
- an 8.8-kilometre ore conveyor system and 3-kilometre tunnel to transport ore from the Project site to the Kemess mine mill;
- waste rock dump(s);
- tailings delivery system(s) and storage facility(ies);
- fuel depot;
- explosives storage and manufacturing plant if necessary;
- borrow material sites (quarries) and storage sites for salvaged topsoil and overburden;
- maintenance shops and equipment laydown areas; and
- an extension of the existing electrical transmission line.

The Project would extend employment for employees at the operating Kemess mine. The Kemess mine employs approximately 500 persons full-time, including approximately 140 full-time contract persons, and up to 70 seasonal persons. In addition, approximately 150 persons will be employed during the construction and early operational phase of the Project.

Part II - Scope of the Environmental Assessment

The Panel shall include in its review of the Project, consideration of the following factors:

- purpose of the Project;
- need for the Project;
- alternative means of carrying out the Project that are technically and economically feasible and the environmental effects of any such alternative means;
- the environmental effects of the Project, including the environmental effects of malfunctions or accidents that may occur in connection with the Project and any cumulative environmental effects that are likely to result from the Project in combination with other Projects or activities that have been or will be carried out, and the significance of those effects;
- economic, social, heritage and health effects;
- comments from the public that are received during the review;
- comments from First Nations that are received during the review;
Appendix 5 – Agreement to Establish the Joint Review Panel

- measures that are technically and economically feasible and that would mitigate any significant adverse environmental, economic, social, heritage or health effects of the Project, including such effects on First Nations;
- the need for, and the requirements of, any Follow-up Program in respect of the Project; and
- the capacity of renewable resources that are likely to be significantly affected by the Project to meet the needs of the present and those of the future.

Part III Components of the Panel Review Process

The main steps in the review by the Panel will be as follows:

1. The Agency and EAO shall prepare draft Guidelines. The public and First Nations shall be provided 30 days to review the draft Guidelines and provide comments to the Panel.
2. After taking into account the comments received from First Nations and the public, the Panel shall finalize and issue the Guidelines within 14 days of the close of the comment period. The Panel will forward the Guidelines to the Proponent and, at the same time, the Guidelines will be made available on the public registry.
3. The Panel will require the Proponent to prepare the EIA in accordance with the Guidelines issued by the Panel, and submit the EIA to the Panel. The Panel shall require the Proponent to make the EIA available to First Nations and the public.
4. Within five working days of receipt of the EIA, the Panel will initiate a 60-day comment period on the EIA. First Nations and the public will be able to review the document and provide comments on whether the EIA adequately addresses the requirements of the Guidelines.
5. Comments received during the comment period, shall be immediately provided to the Proponent by the Panel. The Proponent shall, as appropriate, provide to the Panel its response to the comments not later than 30 days following completion of the comment period.
6. Should the Panel identify deficiencies after reviewing the EIA, and in consideration of any comments received from First Nations and the public, and in consideration of the Proponent's response, the Panel may require additional information from the Proponent. Any request for additional information shall be issued by the Panel within 30 days following the close of the comment period or 30 days following receipt of written comments from the Proponent, whichever occurs later. The Panel will determine the need, timing and location of any public meetings required for clarification of technical information.
7. The Panel shall schedule and announce the start of the hearings once the Panel is satisfied that sufficient information has been provided. Forty-five days notice will be provided to First Nations and the public prior to the start of the hearings.
8. The Panel will hold hearings in locations determined by the Panel within the area likely to be affected by the Project, or in any area reasonably close to where the Project is proposed to be carried out, to provide convenient access for potentially affected First Nations and the public.
9. The hearings will be completed within 45 days from the start of the hearings.
10. The Panel will deliver its report to Ministers within 60 days following the close of the hearings. The report will take into account and reflect the views of all Panel members.