Report of the Federal Review Panel

Prosperity Gold-Copper Mine Project
Taseko Mines Ltd.
British Columbia

Review Panel established by the Federal Minister of the Environment
TABLE OF CONTENTS

EXECUTIVE SUMMARY .................................................................................................................. I

SECTION 1: ENVIRONMENTAL ASSESSMENT REVIEW PROCESS ........................................... 1 -
   1.1: BACKGROUND .................................................................................................................. 1 -
   1.2: PANEL'S TERMS OF REFERENCE ............................................................................... 2 -
   1.3: ENVIRONMENTAL IMPACT STATEMENT GUIDELINES ............................................ 2 -
   1.4: PARTICIPANT FUNDING PROGRAM ............................................................................. 2 -
   1.5: SITE TOUR ..................................................................................................................... 3 -
   1.6: REVIEW OF THE ENVIRONMENTAL IMPACT STATEMENT ....................................... 3 -
   1.7: PUBLIC HEARING ......................................................................................................... 6 -
   1.8: CONFIDENTIALITY REQUESTS ..................................................................................... 6 -
   1.9: APPREHENSION OF BIAS ............................................................................................. 7 -

SECTION 2: PROJECT DESCRIPTION AND SETTING .................................................................. 8 -
   2.1: PROJECT SETTING ......................................................................................................... 8 -
      2.1.1: LOCAL SETTING .................................................................................................... 8 -
      2.1.2: REGIONAL SETTING ............................................................................................. 10 -
   2.2: PROJECT COMPONENTS ............................................................................................... 11 -
      2.2.1: PROJECT OVERVIEW .......................................................................................... 11 -
      2.2.2: CONSTRUCTION PHASE ..................................................................................... 15 -
      2.2.3: OPERATION PHASE .............................................................................................. 15 -
      2.2.4: CLOSURE PHASE ................................................................................................. 16 -
      2.2.5: POST CLOSURE PHASE ....................................................................................... 16 -

SECTION 3: INVOLVEMENT OF INTERESTED PARTIES ............................................................. 19 -
   3.1: OPPORTUNITIES FOR PUBLIC INPUT .......................................................................... 19 -
   3.2: THE PARTICIPANTS ....................................................................................................... 19 -
      3.2.1: FEDERAL GOVERNMENT ...................................................................................... 20 -
      3.2.2: PROVINCIAL GOVERNMENT ................................................................................ 21 -
      3.2.3: FIRST NATIONS .................................................................................................... 22 -
      3.2.4: OTHER PARTIES ..................................................................................................... 23 -

SECTION 4: MANDATE OF PANEL AND SCOPE OF REVIEW ....................................................... 24 -
   4.1: ASSESSMENT OF ENVIRONMENTAL EFFECTS ............................................................ 24 -
   4.2: DETERMINING SIGNIFICANCE ...................................................................................... 25 -
   4.3: JUSTIFIABILITY OF SIGNIFICANT ADVERSE EFFECTS ........................................ 26 -
   4.4: ABORIGINAL RIGHTS AND TITLE .............................................................................. 26 -
      4.4.1: STRENGTH OF CLAIM .......................................................................................... 28 -
      4.4.2: THE DUTY TO CONSULT AND ACCOMMODATE ........................................... 28 -
   4.5: DUAL FEDERAL AND PROVINCIAL ENVIRONMENTAL ASSESSMENT PROCESSES 29 -
   4.6: PRECAUTIONARY PRINCIPLE ...................................................................................... 31 -

SECTION 5: NEED, PURPOSE AND ASSESSMENT OF ALTERNATIVES .................................... 33 -
   5.1: OVERVIEW .................................................................................................................... 33 -
   5.2: NEED FOR AND PURPOSE OF THE PROJECT ............................................................ 33 -
      5.2.1: PROPOSED'S ASSESSMENT .................................................................................. 33 -
      5.2.2: VIEWS OF PARTICIPANTS .................................................................................... 33 -
      5.2.3: PANEL'S CONCLUSIONS AND RECOMMENDATIONS ...................................... 34 -
   5.3: ALTERNATIVES TO THE PROJECT .............................................................................. 34 -
      5.3.1: PROPOSED'S ASSESSMENT .................................................................................. 34 -
      5.3.2: VIEWS OF PARTICIPANTS .................................................................................... 35 -
      5.3.3: PANEL'S CONCLUSIONS AND RECOMMENDATIONS ...................................... 35 -
   5.4: ALTERNATIVE MEANS OF CARRYING OUT THE PROJECT ........................................ 37 -
      5.4.1: MINE DEVELOPMENT PLANS ................................................................................ 37 -
SECTION 6: ENVIRONMENTAL EFFECTS

6.1: OVERVIEW

6.2: SURFACE WATER

6.2.1: CHANGES TO STREAMFLOW AND WATERSHED AREAS

6.2.2: ANNUAL WATER BALANCE

6.2.3: DEVELOPMENT OF THE WATER QUALITY MODEL

6.2.4: RECEIVING WATER QUALITY AND TREATMENT METHODS

6.2.5: EFFECTS ON FISH HEALTH IN THE DASIQOX (TASEKO RIVER)

6.2.6: PANEL'S CONCLUSIONS AND RECOMMENDATIONS

6.3: GROUNDWATER

6.3.1: CHANGES TO GROUNDWATER FLOW

6.3.2: EFFECTS OF SEEPAGE ON JIDIZAY BINY (BIG ONION LAKE)

6.3.3: PANEL'S CONCLUSIONS AND RECOMMENDATIONS

6.4: FISH AND FISH HABITAT

6.4.1: PERMANENT LOSS/ALTERATION OF FISH AND FISH HABITAT

6.4.2: RECREATIONAL AND SPORT FISHING OPPORTUNITIES

6.4.3: FISH AND FISH HABITAT COMPENSATION PLAN

6.4.4: ARTIFICIAL PROPAGATION

6.4.5: PANEL'S CONCLUSIONS AND RECOMMENDATIONS

6.5: TERRAIN AND SOIL

6.5.1: TERRAIN INSTABILITY AND SOIL EROSION

6.5.2: PANEL'S CONCLUSIONS AND RECOMMENDATIONS

6.6: VEGETATION

6.6.1: OLD GROWTH FORESTS

6.6.2: GRASSLAND ECOSYSTEMS

6.6.3: PANEL'S CONCLUSIONS AND RECOMMENDATIONS

6.7: WILDLIFE AND WILDLIFE HABITATS

6.7.1: GRIZZLY BEARS

6.7.2: MULE DEER MIGRATION AND UNGULATE WINTER HABITAT

6.7.3: INCREASED ACCESSIBILITY TO THE LAND

6.7.4: WILDLIFE HABITAT COMPENSATION PLAN

6.7.5: PANEL'S CONCLUSIONS AND RECOMMENDATIONS

6.8: ATMOSPHERIC ENVIRONMENT

6.8.1: CRITERIA AIR CONTAMINANTS

6.8.2: GREENHOUSE GASES

6.8.3: LIGHT POLLUTION

6.8.4: PANEL'S CONCLUSIONS AND RECOMMENDATIONS

6.9: NOISE

6.9.1: PROONENT'S ASSESSMENT

6.9.2: VIEWS OF PARTICIPANTS

6.9.3: PANEL'S CONCLUSIONS AND RECOMMENDATIONS

6.10: ARCHAEOLOGICAL AND HERITAGE RESOURCES

6.10.1: PROONENT'S ASSESSMENT

6.10.2: VIEWS OF PARTICIPANTS

6.10.3: PANEL'S CONCLUSIONS AND RECOMMENDATIONS

6.11: CUMULATIVE ENVIRONMENTAL EFFECTS

6.11.1: PROONENT'S ASSESSMENT

6.11.2: VIEWS OF PARTICIPANTS

6.11.3: PANEL'S CONCLUSIONS AND RECOMMENDATIONS

SECTION 7: SOCIO-ECONOMIC EFFECTS

7.1: LAND AND RESOURCE USES

7.1.1: PROONENT'S ASSESSMENT

7.1.2: VIEWS OF PARTICIPANTS

7.1.3: PANEL'S CONCLUSIONS AND RECOMMENDATIONS
SECTION 8: FIRST NATION ISSUES

8.1: OVERVIEW ................................................................. - 174 -
8.2: CURRENT USE OF LANDS AND RESOURCES BY FIRST NATIONS PEOPLE ................................................................. - 177 -
8.2.1: CURRENT USE ......................................................... - 177 -
8.2.2: FISHING ................................................................. - 179 -
8.2.3: HUNTING AND TRAPPING ........................................... - 182 -
8.2.4: PLANT GATHERING .................................................... - 185 -
8.3: CULTURAL HERITAGE ..................................................... - 188 -
8.3.1: ARCHAEOLOGY ......................................................... - 188 -
8.3.2: CULTURAL CONTINUITY ............................................... - 191 -
8.4: EMPLOYMENT AND ECONOMIC EFFECTS .............................. - 194 -
8.4.1: PROponent'S ASSESSMENT ........................................... - 194 -
8.4.2: VIEWS OF PARTICIPANTS .............................................. - 195 -
8.5: HEALTH ................................................................. - 198 -
8.5.1: PROponent'S ASSESSMENT ........................................... - 198 -
8.5.2: VIEWS OF PARTICIPANTS .............................................. - 198 -
8.6: PANEL'S CONCLUSIONS AND RECOMMENDATIONS ....................... - 201 -

SECTION 9: ABORIGINAL RIGHTS AND TITLE .................................... - 205 -

9.1: PROponent'S ASSESSMENT ........................................... - 207 -
9.2: VIEWS OF PARTICIPANTS .............................................. - 212 -
9.3: PANEL'S CONCLUSIONS AND RECOMMENDATIONS ....................... - 217 -

SECTION 10: OTHER ISSUES ...................................................... - 221 -

10.1: CAPACITY OF RENEWABLE RESOURCES .................................. - 221 -
10.1.1: PROponent'S ASSESSMENT ........................................... - 221 -
10.1.2: VIEWS OF PARTICIPANTS .............................................. - 221 -
10.1.3: PANEL'S CONCLUSIONS AND RECOMMENDATIONS ....................... - 222 -
10.2: BIODIVERSITY ........................................................... - 222 -
10.2.1: PROponent'S ASSESSMENT ........................................... - 222 -
10.2.2: VIEWS OF PARTICIPANTS .............................................. - 223 -
10.2.3: PANEL'S CONCLUSIONS AND RECOMMENDATIONS ....................... - 224 -
10.3: EFFECTS OF THE ENVIRONMENT ON THE PROJECT ...................... - 225 -
10.3.1: PROponent'S ASSESSMENT ........................................... - 225 -
10.3.2: VIEWS OF PARTICIPANTS .............................................. - 227 -
10.3.3: PANEL'S CONCLUSIONS AND RECOMMENDATIONS ....................... - 228 -
10.4: MEASURES TO ENHANCE ANY BENEFICIAL ENVIRONMENTAL EFFECTS ... - 228 -
10.4.1: PROponent'S ASSESSMENT ........................................... - 228 -
10.4.2: VIEWS OF PARTICIPANTS .............................................. - 229 -
10.4.3: PANEL'S CONCLUSIONS AND RECOMMENDATIONS ....................... - 229 -
10.5: ACCIDENTS AND MALFUNCTIONS ....................................... - 230 -
was no real and meaningful response to their concerns, then there could be no accommodation.

In its closing remarks, the Stswecest'c/Xgat'tem (Canoe Creek Band) stated that the Panel's consideration of the issue of accommodation of Aboriginal rights and title must include a weighing of the evidence of the need for and means of accommodating Aboriginal title and rights, including an assessment of any accommodation measures proposed to date.

Taseko noted in its closing remarks that although some procedural aspects of consultation may be delegated to the proponent, the legal responsibility for consultation remained with the Crown.

In considering this issue, the Panel noted that the federal government appointed a Crown Consultation Coordinator for this Project. On February 9, 2010, the Crown Consultation Coordinator sent a letter to the First Nations in the Project area which summarized the government's consultation process for the Project. With respect to the Panel's role in the consultation process, the letter stated that information provided by First Nations to the Panel regarding the manner in which the Project may adversely affect potential or established Aboriginal rights or title, as well as other relevant information, would be used by the federal government to determine the validity of Aboriginal rights or title claims in relation to the Project, the scope of the Crown's duty to consult and whether Canada has met its duty to consult and accommodate.

The Panel recognizes that the federal government would rely on information provided by it to assist the Crown in fulfilling its legal duty to consult and accommodate if necessary. However, the Panel also recognizes that the federal government would ultimately be responsible for ensuring adequate consultation and accommodation, if necessary. Consultation with potentially affected First Nations began before the Panel was appointed, with respect to the EIS Guidelines and the Panel's Terms of Reference. The Panel further understands that consultation will continue after it has submitted its report to the Minister, prior to a decision being taken by the federal government on whether or under which conditions the Project may proceed.

The Panel's Terms of Reference are clear that it does not have a mandate to make any determination as to the scope of the Crown's duty to consult First Nations and/or whether Canada has met its respective duty to consult and accommodate in respect of rights recognized and affirmed by section 35 of the Constitution Act, 1982. However, where measures have been proposed by Taseko to mitigate or accommodate any First Nations' rights or title, the Panel has examined and reached a conclusion on their effectiveness in this report.

4.5: DUAL FEDERAL AND PROVINCIAL ENVIRONMENTAL ASSESSMENT PROCESSES

As indicated above, the Panel received many comments during the course of the review regarding the lack of harmonization between the federal and provincial environmental assessment processes. This section provides a summary of the comments received from Taseko, the public and First Nations on the decision by the Government of British Columbia to conduct a separate environmental assessment process on the proposed Project.
Given the challenges resulting from the application of two separate, but coordinated processes, this section also provides a few observations about the implications of this decision. The comments and observations are as follows:

- Taseko and the Tsilhqot'in National Government, both of which had some involvement in the discussions on the development of a joint review process, indicated that British Columbia had unilaterally decided to conduct a separate process leaving the federal government to pursue its own panel review process;
- although Taseko produced one EIS for both processes, and a joint public comment period was held to review the EIS, the two processes began diverging, with different timing after the public comment period on the EIS ended;
- some organizations (e.g. the British Columbia Mining Association and the British Columbia Chamber of Commerce) expressed concern that the federal and provincial governments were unable to reach an agreement on a single review process and noted the inefficiencies that had resulted;
- First Nations were critical about the lack of consultation by the Province during its environmental assessment; although invited to participate in the provincial working group, First Nations indicated that they did not have the resources to participate in both processes and chose to participate primarily in the Panel review;
- many members of the public and First Nations were critical of the lack of participation by provincial Ministries during the public hearing process;
- criticism was directed toward Taseko for proceeding with the provincial permitting process while the Panel was still conducting its review;
- the lack of participation by British Columbia meant that during the course of the public hearing, Taseko was, at times, placed in a position of trying to explain provincial policy on matters such as revenue sharing, archaeology and fisheries management;
- while it received some input from federal departments during the provincial working group process, the British Columbia Environmental Assessment Office was not able to consider the final reviews from the federal departments on alternatives, surface and groundwater quality and quantity, the feasibility of the proposed fish and fish habitat compensation plan, effects on migratory birds, health effects and navigation;
- the Panel received input from provincial ministries while the provincial working group was functioning, but participation of the provincial ministries ended when the Environmental Assessment Office submitted its report; therefore, during the public hearing, the Panel was not able to receive clarification regarding provincial ministries mandates, the issues they raised, or to take advantage of their expertise;
- the provincial process was not able to take advantage of information received from First Nations during the Panel’s public hearing process on the current use of lands and resources for traditional purposes and effects on cultural heritage;
- the Province did not consider the potential future mine extension to be sufficiently certain to proceed to require further assessment and therefore did not assess the cumulative effects of this potential scenario in its report;
- the public and First Nations often questioned how much weight the Panel might give to the provincial Assessment Report and related Environmental Assessment Certificate, given that Taseko often referred to it and the commitments contained therein that it would have to follow if the Project proceeds; this in turn often resulted in critical comments about the results of the provincial assessment; and
- the federal government would have different information to consider than the province in reaching a decision on whether to enable the Project to proceed.
While the Province issued an Environmental Assessment Certificate for the Project in January 2010, the Panel finds it is appropriate to consider the comments raised by the provincial experts on the various valued ecosystem components during the course of the review of the EIS. Therefore, where appropriate, the comments from the provincial experts are reflected in the summaries of the views of participants for each valued ecosystem component.

The Panel notes that as a result of the two separate processes and their divergent timing, updated and new information was presented to the Panel that was not available to the British Columbia Environmental Assessment Office in completing its assessment. The manner in which the Panel has considered this additional information is addressed in each of the relevant sections of this report.

4.6: PRECAUTIONARY PRINCIPLE

One of the purposes of the Canadian Environmental Assessment Act was "to ensure that projects are considered in a careful and precautionary manner before federal authorities take action in connection with them, in order to ensure that such projects do not cause significant adverse environmental effects".

The Canadian Environmental Assessment Act did not provide a definition for the precautionary principle. However the Panel notes that the generally accepted definition is found in Principle 15 of the 1992 Rio Declaration on Environment and Development: "where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation."

In applying the precautionary approach, the EIS Guidelines required Taseko to:

- demonstrate that the proposed actions were examined in a careful and precautionary manner in order to ensure that they did not cause serious or irreversible damage to the environment, especially with respect to environmental functions and integrity, considering system tolerance and resilience, and would not interfere with the conservation of wildlife in a protected area;
- outline the assumptions made about the effects of the proposed actions and the approaches used to minimize these effects;
- identify any follow-up and monitoring activities planned, particularly in areas where scientific uncertainty existed in the prediction of effects; and
- present public views on the acceptability of these effects.

The application of the precautionary principle was not specifically addressed by Taseko in the EIS. In response to a comment on the EIS, Taseko indicated that the precautionary approach was used throughout the environmental assessment to avoid or mitigate the possible adverse effects of development on the environment, and that this was reflected in the Project design.

During the public hearing, Taseko suggested that an appropriate application of the precautionary principle to the Project would be to ensure that the Project was developed in such a way as to ensure that future expansion would be possible. Specifically, Taseko stated that it applied the precautionary principle by asking themselves the following question: "With the current Project in front of us today, the 20-year mine life, is there