



***Independent Environmental Monitoring Agency***

P.O. Box 1192, Yellowknife, NT X1A 2R2 ▪ Phone (867) 669 9141 ▪ Fax (867) 669 9145  
Website: [www.monitoringagency.net](http://www.monitoringagency.net) ▪ Email: [monitor1@yk.com](mailto:monitor1@yk.com)

March 24<sup>th</sup>, 2004

Melody McLeod  
Chair  
Mackenzie Valley Land and Water Board  
Box 2130  
7th Floor - 4910 50th Avenue  
Yellowknife, NT X1A 2P6

Dear Ms. McLeod:

**Re: Water Licence Renewal BHP Billiton Diamonds Inc., MV2003L2-0013  
(formerly N7L2-1616)**

This letter constitutes our preliminary comments on BHPB's application for renewal of its Type 'A' water licence MV2003L2-0013 (formerly N7L2-1616). It is our understanding that another opportunity for comment will follow the announcement of the public hearing in the above matter, in accordance with the Board's *Rules of Procedures*. We expect to intervene in that proceeding, and note that the recommendations made here may be modified, added to, or dropped depending upon the resolutions of issues between now and then.

We would like to encourage the Board to issue a draft licence ahead of the public hearing to assist interveners in their preparation for the hearing. Many of the existing provisions in the water licence are no longer relevant to on-going operations for the four pipes currently authorized under this licence, and some early consolidation of the licence terms, particularly in reference to newer, relevant conditions set out in BHPB's other Type 'A' water licence (MV2001L2-0008), would be very beneficial.

As a general rule, the Agency believes that it is important to avoid situations where the licensee implements changes to its management plans before the Board approves them. Thus, there should be explicit language used in the appropriate places that makes this less likely. However, to make this work successfully, the review and approval process must be conducted in a timely fashion. In drafting the new licence, the Board should give some consideration as to how to achieve the effective balance required for a timely and yet thorough assessment of plans, and the need for the operator to conduct its activities in manner responsive to changing conditions at the mine.

## **SCOPE AND DEFINITIONS**

1. For certainty, the scope of the renewed licence should not include any reference to Leslie Lake.
2. From MV2001L2-0008 import clause 1(c) under “Scope”—“The Licensee shall take every precaution to protect the environment”; and add “and shall apply the Precautionary Principle in all its environmental management activities.
3. The definitions contained in MV2001L2-0008 are more extensive than N7L2-1616 and generally ought to be used. In addition a clear definition of mining distinguishing it from other mining related activities would be helpful for enforcement conditions. That information may be available from recent Type ‘A’ licences at Ekati and elsewhere.

## **LICENCE PROVISIONS**

1. The licence text needs generally to be reviewed with a view to eliminating ambiguous wording and unenforceable provisions, and strengthening others. Some examples follow:
  - Item 7(a)iii should be changed to read “seepage from the Long Lake Tailings Containment Area is prevented;”
  - Changes to operating activities that are not consistent with approved OEMP components should not to be initiated until approved by the board, or in the event of an emergency situation upon the discretion of the land use inspector.
  - In Part K of the existing licence, Item 7 reads:

“The Licensee shall implement the Plan(s) as approved by the Board in accordance with the schedules and procedures specified in the Plan(s) and endeavour to carry out progressive restoration of areas as soon as is reasonably practicable.”

This should be changed to state that progressive reclamation shall be carried out as soon as is reasonably practicable and in accordance with the schedule and procedures described in the approved A&R Plan.

## **CONDITIONS APPLYING TO WASTE DISPOSAL (PART F)**

The following changes to Item 12(d) (Discharge Limits) are recommended with a view to increasing the level of environmental protection to the receiving environment:

1. Expand the range of regulated parameters listed in N7L2-1616 to match the list specified in MV2001L2-0008.
2. The discharge criteria specified for the parameters listed in MV2001L2-0008, while more protective than N7L2-1616, should not necessarily be considered sufficiently safe for discharge of Ekati effluent to the environment. All criteria should be re-examined based on the dilution available in the receiving environment (e.g., Leslie Lake), and set at levels low enough to ensure that no

adverse impacts will occur to aquatic life. New work done by BHPB (Fox Minewater Discharge Risk Assessment) shows that for arsenic and cadmium, Cell E water will slightly exceed CCME guidelines for several years during the mine life. It is not clear where, in the downstream watercourses of Koala drainage, sufficient dilution will occur such that CCME guidelines will be achieved. The Board should consider the advisability of establishing site-specific water quality objectives for the Koala drainage. BHPB should complete its water quality predictions for the downstream Koala lakes, as first recommended in our letter of July 15, 2003, to the Board in response to BHPB's submitted May 2003 *Waste Water and Processed Kimberlite Management Plan*.

**This assessment should be made available to the Board and interveners well in advance of the public hearing.**

3. Suspended sediment (TSS) criteria for MV2001L2-0008 are set at 15 mg/L (max average) and 25 mg/L (max grab), approximately ½ the levels in the current licence. Background TSS for lakes downstream of Cell E is approximately 3 mg/L or less. The CCME guidelines state that for clear flow conditions (freshet flows are not part of the determination) a 30-day average should not exceed more than 5 mg/L above background, while a short-term exposure (24 hours) should not exceed more than 25 mg/L above background. This suggests that a maximum average concentration in Leslie Lake should not exceed 8 mg/L, approximately 1/3 the limit set for the outflow from Cell E in the current licence. Again, the dilution factor for Leslie Lake should be used to determine if site-specific water quality discharge criteria for TSS are necessary in the new licence to be fully protective of downstream waters, or whether the limits set in MV2001L2-0008 are sufficient.
4. No criteria are currently set in either Ekati water licences for nitrate. A new guideline of 2.93 mg/L (nitrate as N) has been set by CCME. The maximum predicted concentration for Cell E is 1.868, predicted for 2003 and more than the measured 1.33 mg/L in July 2003 and declining through the rest of mine life. However, it may be prudent to add nitrate as a regulated parameter, with a discharge level set in regard to the dilution available in Leslie Lake so that the CCME guideline can be achieved.

#### **CONDITIONS APPLYING TO WATER EFFECTS MONITORING PROGRAM (PART J)**

1. Change this section to be equivalent to and consistent with "Aquatic Effects Monitoring Program" as described in MV2001L2-0008.
2. Add provision to ensure that annual reviews of the environmental effects monitoring programs covered by this licence are undertaken by BHPB in a collaborative, collective process with the affected parties (aboriginal groups, regulators and ourselves).

3. For the annual report on the AEMP the interpretation of data should also integrate the results of previous snow and air quality surveys.

### **CONDITIONS APPLYING TO SECURITY REQUIREMENTS**

1. A section should be added to the new licence consistent with the structure of MV2001L2-0008.

2. Part C.3 of that licence reads:

“Security shall be maintained for the full current liability on the site. If there is a reduction in the total liability, due to progressive reclamation or alteration of the mine development plans, the applicant may apply to the Board for a reduction in the amount of security required.”

The Agency recommends adding the following words (underlined) for this provision:

“Security shall be maintained for the full current liability on the site. If there is a reduction in the total liability, due to progressive reclamation targets being successfully achieved, or alteration of the mine development plans, the applicant may apply to the Board for a reduction in the amount of security required.”

Regular updates of the outstanding reclamation liability in any given year should be submitted to the MVLWB and the security adjusted as necessary to reflect the outstanding liability.

### **ABANDONMENT & RESTORATION (PART K)**

The application is currently supported by the approved February 2000 *Interim Abandonment and Restoration Plan*. A new *Plan* is expected to be submitted for review in April, 2004, and will form the official support document to the licence renewal if approved. A previous draft of this was submitted for review in July of 2003 and was not approved by the MVLWB due to the questions raised by reviewers that have yet to be addressed by BHPB. We expect to comment further on the adequacy of the *A&R Plan* at the time of the public hearing.

However, the Agency would like to stress the following principles that should now be used for judging the adequacy of any *A&R Plan* for this project:

1. Reclamation objectives should be clearly described for each mine reclamation unit, and specific criteria for determining reclamation success, or progressive reclamation targets, should be identified.
2. For developed mine components, “implementable”, detailed closure plans should be provided in the A&R Plan. “Conceptual” plans should only be acceptable for those mine components that have not yet been constructed.

### **TERM**

BHPB’s currently requested completion date of Dec 31, 2015, (11 year term) is not supported by the Agency.

At the April 4, 2002, public hearing held by the MVLWB into the Sable, Pigeon and Beartooth mine expansion, BHPB suggested that its preferred timing for integrating the two water licences would be during the renewal of the N7L2-1616, at which time this licence could be rolled into MV2001L2-0008. We agree with the objective of integrating the two licences at the earliest possible date and, therefore, with BHPB's recommendation at that time. However, we suspect that incorporating the new licence into MV2001L2-0008 is not straightforward, since it may require "opening" that licence, thereby presenting undue complexities for the licensing process. In the event that this option is deemed not possible by the MVLWB, we would suggest that the renewal term ought to be matched to the expiry date of MV2001L2-0008 (August, 2009) so that the licences can be integrated at that time.

**CONDITIONS APPLYING TO OTHER ENVIRONMENTAL EFFECTS  
MONITORING PROGRAMS**

The MVLWB may consider the merit of incorporating the requirement for a wildlife effects monitoring program and an integrated air, snow and lichen monitoring program into licence MV2003L2-0013.

Sincerely,

**-ORIGINAL SIGNED BY-**

William A. Ross  
Chairperson

Cc. Society Members