Independent Environmental Monitoring Agency
P.O. Box 1192, Yellowknife, NT X1A 2R2 ▪ Phone (867) 669 9141 ▪ Fax (867) 669 9145
Website: www.monitoringagency.net ▪ Email: monitor1@yk.com

April 13, 2004

Ian Goodwin
Manager, Environment, Community and External Affairs
BHP Billiton Diamonds Inc.
1102 4920-52nd Street
Yellowknife, NT X1A 3T1

Gavin Moore
Manager, Environmental Assessment
Policy, Legislation and Communications Division
Department of Resources, Wildlife and Economic Development
Government of the NWT
Yellowknife, NT X1A 2L9

David Livingstone
Director, Renewable Resources and Environment
Department of Indian Affairs and Northern Development
Yellowknife, NT X1A 3R9

Re: Recommendations from the Environment Workshop hosted by IEMA March 16-17, 2004

The Independent Environmental Monitoring Agency (IEMA) hosted a workshop to review Ekati's environmental monitoring and management programs on March 16th and 17th, 2004. The purpose of the workshop was to review the monitoring results for 2003, to provide information to interested parties, to come to a common understanding of the monitoring programs and to make recommendations on improving environmental management at Ekati, if applicable. The workshop was well attended by community and government representatives. The comments we received were very complimentary on the workshop content and format.

The following summarizes the main comments and recommendations that came out of the workshop in the following categories:

- IEMA recommendations (what we recommend to BHPB and others as a result of the workshop – included in this letter)
- Considerations for BHPB (comments heard during the workshop that we encourage BHPB to consider – included in the attachment to this letter)
- Other concerns and recommendations from workshop participants (observations we heard and wish to pass on for BHPB and others – included in the attachment to this letter)

IEMA Recommendations resulting from the workshop:

Four key issues surfaced at the workshop:

1. We recommend that BHPB explore how it can best use RWED's hair-sampling technique to improve wolverine monitoring at Ekati and that RWED continue developing this technique and share its findings with others so that, where it is appropriate, it can be fully adopted. Results from RWED's DNA testing of wolverine hair appear promising. This type of monitoring provides information on the number of different individuals around the site, an improvement on the snow track surveys, which indicate only the presence of wolverine.

2. We recommend that BHPB, DIAND, RWED and others, as appropriate, initiate discussions on how to monitor the regional cumulative impacts on caribou. Concern over cumulative impacts was heard throughout the workshop. We believe that impacts originating from the Ekati claim block must be considered on a larger scale that may not be able to be captured through site-specific monitoring programs alone. This is a substantial issue for us and we will be working with others, including the Environmental Monitoring Advisory Board (EMAB), on how best to address the concerns. We firmly believe that a partnership approach is needed; one which includes industry, government, communities and existing agencies.

3. We recommend that the risk assessment conducted to determine if wildlife would be affected by exposure to processed kimberlite be redone. During the workshop we heard many concerns from community members about the uptake of contaminants from the mine. While the risk assessment offers some information, it did not increase our level of comfort about the impacts on wildlife and humans. Weaknesses were identified in the present risk assessment, some of which are outlined in the attachment. We believe that many assumptions were made incorrectly, or unnecessarily when actual data could have been used. We believe that a peer review of the protocol, assumptions and results would provide a more effective risk assessment. We also suggest that the goose be added as a VEC when modelling the risk to humans because of its importance in northern diets.

4. We recommend that BHPB add monitoring of dust around Cell B to its *Air Quality Monitoring Program* to see how vegetation and snow are affected by blowing processed kimberlite. The monitoring of dust is an immediate concern as BHPB had agreed to revise its monitoring program for 2004 based on the results of a remodelling exercise. The remodelling exercise has yet to take place, although a proposal to revise the current air dispersion remodelling design has been distributed for comments. Although monitoring of the snow pack and associated vegetation occurs only once every three years and is scheduled to occur in 2004, we suggest that better data will be produced if the sampling is conducted in 2005 using an improved monitoring program based on results from the remodelling exercise.

Although not a key issue, we make the following recommendation:

- We believe that seven years of breeding bird data provides enough certainty that a reduced sampling frequency can now provide similar statistical significance. We agree with the Canadian Wildlife Service's recommendation that the breeding bird sampling program can be reduced to every other year.

Finally, some participants expressed the need for BHPB to better interrelate its monitoring programs, especially as issues become more complex. For example, wildlife monitoring data needs to be more closely related to revegetation, dust and air quality data.

We look forward to working with all parties to address some of the concerns mentioned above.

Sincerely,

-ORIGINAL SIGNED BY-

William A. Ross
Chairperson

Cc: Society members, IACT members

Attachments:

1. Considerations for BHPB and Other Concerns and Recommendations from Workshop Participants.

ATTACHMENT to Letter to Ian Goodwin (BHPB) from the Independent Environmental Monitoring Agency, April 13th, 2004

Considerations and Other Concerns and Recommendations from Workshop Participants of March 16th and 17h, 2004

Considerations:
We encourage BHPB to consider the following comments heard during the workshop:

- Continue surveillance of the two substances, arsenic and cadmium, which have been predicted to exceed CCME at discharge during operations. Surveillance should include levels in Leslie Lake and downstream to determine where in the watershed it is expected that CCME limits will be attained.
- Continue winter monitoring of dissolved oxygen to determine if levels remain critically low for fish in Kodiak, Nema, Cujo and Counts lakes in coming years.
- Continue winter monitoring of copper in Kodiak Lake to determine if levels remain above CCME guidelines in coming years.
- The source of Molybdenum in the Long Lake Containment Facility should be determined.
- A special effects study could be done in Cell E to discover why fish are not reproducing and why there is no recruitment of young fish to the population. A similar special effects study could be done to determine if fish reproduction is occurring in Leslie Lake, and how it compares with control lakes.

Other Concerns and Recommendations from Workshop Participants:
The following highlights concerns, comments and recommendations heard during the workshop.

Community members repeatedly expressed concerns about the safety of consuming traditional foods that may have been in contact with Ekati, particularly fish, caribou and berries. They also identified the lack of traditional knowledge in monitoring programs as a very big concern. They wondered if water sampling is occurring frequently enough especially during the winter. There was a suggestion that BHPB conduct fish palatability studies similar to those done by Diavik. Community members recommended that BHPB keep better records of materials entering the landfills.

In response to a BHPB comment, BHPB was asked specifically to prepare a report for distribution to communities summarizing how it manages the landfill, how it's improved its practices, how it maximizes its recycling of useful materials to communities and an inventory of what is in the landfill.

The following suggestions regarding wildlife were received from community members and are directed primarily to RWED:

- Monitor grizzlies and wolverine to see if they are moving to newer places more frequently. Many community members identified grizzly further south than normal.

- Sample caribou and other animals that die to see if they contain contaminants and at what levels.

Community members also stated that reclamation criteria are needed now, an observation that we have supported strongly for years.

With respect to caribou, RWED suggested that BHPB:

- Increase its sampling efforts for behaviour of nursery and non-nursery groups.
- Better define the zone of influence through increased monitoring and determine whether the prime habitat is really lost as predicted and whether a band of low quality habitat will be produced across the spring and post-calving caribou routes.
- Use habitat results in combination with behaviour sampling.
- Design its monitoring programs to allow data to contribute to cumulative monitoring.
- Use remote monitoring, such as remote cameras to see if berms and fencing contribute to predation by wolves.

With respect to dust and vegetation monitoring, RWED suggested that BHPB consider:

- Proper monitoring program design for dust fallout patterns and accumulation on forage.
- Continued monitoring of lichens with expanded monitoring for uptake around the LLCF.
- Using the updated air quality dispersion modeling to identify reference sites to identify additional lichen monitoring sites.
- Integrating dust and atmospheric monitoring results and programs.

With respect to the risk assessment on uptake by wildlife of processed kimberlite, RWED suggested the following to BHPB:

- Barium and selenium should be included because levels at BHPB approach CCME guidelines.
- Magnesium should be included as levels at BHPB exceed those at Colomac which were determined to have mild impacts on caribou.
- Copper should be included because of its interactions with other metals.
- The actual levels in caribou meat should be used when available and not estimates based on calculations.
- The assessment should use a more accurate estimate for the amount caribou eat (2-3kg vs. 1.6kg assumed by BHPB).
- The assessment should use a more accurate estimate for the amount of dirt a caribou ingests. Small plant roots contain substantial amounts of processed kimberlite and will be ripped out and eaten. The estimate also does not account for the salts in the processed kimberlite.

NOTE: Please contact RWED for more direct input and confirmation of these recommendations.