



June 3, 2003

Vernon Betts  
Homestake Canada Inc.  
P.O. Box 11115  
1100-1055 W.Georgia St.  
Vancouver, B.C. V6E 3P3

E-mail: [vbetts@homestake.com](mailto:vbetts@homestake.com)

**Re: Response to comments from Environment Canada  
Cullaton Lake Project**

Please respond to the comments forwarded by Environment Canada. Of particular interest to NIRB is the question of "passive treatment". Under section 5.2.3 "Collection and Treatment of Surface Runoff and Seepage" this was not considered a viable option.

All information is to be forwarded to Colette Meloche of Environment Canada and myself at NIRB.

If you have any questions regarding, please do not hesitate to contact our office.

Yours truly,

Gladys Joudrey  
Environmental Assessment Officer

Tel: (867) 983-2593

Fax: (867) 983-2574

D30603 NW BICUL NIRB to Homestake - ILAE

Environment  
CanadaEnvironnement  
Canada

Environmental Protection Branch  
Qimugluk Building 969 P.O. Box 1870  
Iqaluit, NU X0A 0H0  
Tel: (867) 975-4639  
Fax: (867) 975-4645

May 23, 2003

Gladys Joudrey  
Environmental Assessment Officer  
Nunavut Impact Review Board  
P.O. Box 2379  
Cambridge Bay, NU X0B 0C0  
Tel: (867) 983-2593  
Fax: (867) 983-2594

Our file: 4705 037 CULL

Via Facsimile

**RE: NIRB 03AN067 - Homestake Canada Inc. - Cullaton Lake Project**

On behalf of Environment Canada (EC), I have reviewed the information submitted with the above-mentioned application. The following specialist advice has been provided pursuant to Environment Canada's mandated responsibilities for the enforcement of the *Canadian Environmental Protection Act*, Section 36(3) of the *Fisheries Act*, the *Migratory Birds Convention Act*, and the *Species at Risk Act*.

Homestake Canada Inc. is applying for an amendment to the abandonment and restoration plan portion of their approved water license to allow for the encapsulation of waste rock at the Shear Lake portal. Homestake Canada Inc. identified the onset of acid rock drainage (ARD) originating from the waste rock pile located adjacent to Shear Lake. Associated effects noted include depressed pH and elevated sulphate in surface waters, as well as localized damage to vegetation. An application to control the ARD via subaqueous disposal was made in March 2001. However, subsequent work by the proponent identified encapsulation as the preferred method, and this work was completed in 2001. This amendment application includes an overview of the encapsulation work that has been completed, as well as the "Assessment of Closure Options and Impacts, Shear Lake Zone Waste Rock Dump" report.

Homestake Canada Inc. has identified seepage as a potential impact resulting from the encapsulation of the waste rock pile. As such, a toe berm has been constructed around the pile to collect any potential seepage and prevent overland flow, and no seepage was noted in 2002. Environment Canada requests further information regarding the "passive treatment" measures that Homestake has identified to be implemented in the event that seepage from the pile occurred.

As no information or drawings were presented in the application indicating either the number of thermistors to be installed at SNP station 940-26 or the size / exact location of the pile, EC is unable to comment on whether the number of thermistors is adequate for the size of the waste rock pile.

Homestake Canada Inc. is proposing to monitor the water quality and temperatures at the two new SNP stations in 2003 and 2004 only. Environment Canada requests additional information regarding the parameters for the water quality monitoring at the new SNP station 940-25. Given that the two new SNP stations will be established during the 2003 site inspection, this would only allow for approximately 1½ years of data to be collected. Environment Canada recommends that the monitoring program for this waste rock disposal area be continued until 2008, which will allow

Canada



for a full 6 years of sampling data to be collected, with additional sampling to be done in years 7 and 10.

If there are any other changes in the proposed project, EC should be notified, as further review may be necessary. Please do not hesitate to contact me with any questions or comments with regards to the foregoing at (867) 975-1639 or by email at [colette.meloche@ec.gc.ca](mailto:colette.meloche@ec.gc.ca).

Yours truly,



Colette Meloche  
Environmental Assessment Specialist

cc: (Mike Fournier, Northern Environmental Assessment Coordinator, Environment Canada, Yellowknife)  
(Anne Wilson, Water Pollution Specialist, Environment Canada, Yellowknife)