



Company: Diavik Diamond Mines Inc. (DDMI)	
Location: Lac de Gras	License: W2007L2-0003
Date Prepared: January 5, 2012	Meeting Date: January 9, 2012
Subject: DDMI Security Deposit	

Purpose

The purpose of this report is to present an update regarding Diavik Diamond Mine Inc.'s (DDMI) security deposit, required by Part B, Items 2 and 3 of Water Licence W2007L2-0003.

Specifically, Board staff present submissions made by Aboriginal Affairs and Northern Development Canada (AANDC) and DDMI on December 30th 2011, and January 3rd 2012, respectively (Attachments 1 and 2). Board staff also seek guidance on next steps towards finalizing the DDMI security estimate.

Background

The Board, DDMI, and AANDC have been working towards finalizing a security estimate since the Board approved DDMI's ICRP on September 21st 2011. Board staff updated the Board on the security review on November 7th 2011 and December 5th 2011. Documents presented in the Board Packages for those updates remain relevant to this discussion.

AANDC's most recent estimate of 156.9 million dollars is more than 41 million dollars higher than Diavik's estimate. The bulk of this difference is related to two areas of disagreement: whether a quarry is required to obtain inert (Type I) rock for use during closure, and whether enough fuel will remain on-site for closure.

At the Board's December 5th 2011 meeting, the Board concluded that AANDC's estimate of the costs to bring fuel to the site at closure should be included in the security estimate. Thus, only the issue of the quarry remains. The estimated amount for developing a quarry for obtaining rock for closure is over 28 million dollars.

Discussion

To resolve issues related to the need for a quarry, Board staff sent AANDC an information request on December 20th 2011. The information request addressed availability of inert rock, accessibility to this rock, and the unit costs for obtaining the rock.

AANDC's response, submitted on December 30, 2011, and a clarification from DDMI submitted on January 3rd 2011 are discussed below.

Availability of Inert Rock

At the December 5th 2011 meeting, the Board concluded that new evidence submitted by DDMI on November 25th 2011 supports the company's position that there will be more than enough inert rock in the waste rock pile that is potentially available for closure. However, the Board was interested in AANDC's opinion on this issue, as they had not yet had the opportunity to provide it their response in writing to the Board. In AANDC's response to Board staff's request for AANDC's opinion (December 30th 2011), AANDC stated that "accessibility issues aside, both BCL and AANDC agree that it is likely that there is sufficient Type I material located somewhere in the NCRP to meet the needs of the closure plan."

Accessibility of Inert Rock

AANDC and their consultant, Brodie Consultants Limited (BCL) remain concerned that, although enough inert rock is expected to be present in the waste rock pile at closure, the inert rock may not be accessible. AANDC has provided their rationale for these concerns in submissions made on April 18th 2011, October 24th 2011, and November 25th 2011. The concerns are summarized well in BCL's memo in AANDC's December 30th 2011 submission.

DDMI addressed AANDC's concerns in detail on October 13th 2011, October 28th 2011, and November 26th 2011 and briefly again in their January 3rd 2011 submission. Despite DDMI's responses to AANDC's concerns, AANDC maintains that stronger evidence regarding material accessibility is required.

Unit Cost: Typographical Error

In previous correspondence (November 25th 2011), AANDC had informed the Board that, should the Board conclude that a quarry is not required, "the AANDC estimate will have to be revisited to ensure costs associated with recovering and collecting material from within the NCRP for cover purposes are adequate". To ensure the Board has enough information to review several options, Board staff requested that AANDC confirm BCL's cost estimate for recovering and collecting inert rock.

The cost to obtain inert rock is calculated from two numbers: the volume of rock to be moved (which DDMI and AANDC both agree is 10.4 million meters cubed) and the unit cost, which is the cost to move one meter cubed of rock. The total cost to place the rock covers is simply the volume of rock to be moved multiplied by the unit cost.

All unit costs were developed by Brodie Consultants Limited (BCL) for AANDC, and adopted by DDMI. In its 2007 and 2011 security estimates, BCL used the following unit costs for obtaining inert rock from the waste rock pile:

- \$3.6 per m³ for covering the PKC
- \$3.96 per m³ for covering potentially acid-generating rock in the waste rock pile

In response to Board staff's request to confirm these unit costs, AANDC noted that \$3.6/m³ was a typographical error and that \$3.96/m³ should have been used for both the PKC and waste rock pile covers. BCL did not name a data source for the unit cost or explain how they determined which unit cost had the typographical error. In DDMI's January 3rd 2011 submission, the company concludes the reverse: that

\$3.6/m³ is the correct unit cost and \$3.96/m³ is the error. DDMI noted that BCL used \$3.6/m³ at Snap Lake in 2011 and \$3.05/m³ at Ekati in 2005. The impact of the error under various scenarios is illustrated below.

Security Estimate under Various Scenarios

The final security estimate depends on whether the Board decides a quarry is required and which unit cost should be used in the calculations, as demonstrated in the table below.

Since the Board has already decided that the security estimate should include the cost of mobilizing fuel, all estimates below include this cost (except for DDMI’s July 2011 estimate). The recent AANDC and DDMI estimates are included for comparison.

Description of Security Estimate	Total Security Assuming a Quarry is Needed	Total Security Assuming a Quarry is not Needed
Recent Estimates		
Most recent AANDC Estimate (October 2011)	\$156.9 million	NA
Most recent DDMI estimate (July 2011)	NA	\$115.4
Possible Estimates Under Various Scenarios		
Security estimate when using a unit cost* of \$3.6/m ³	\$154.9 million	\$126.5 million
Security estimate using a unit cost* of \$3.96/m ³	\$159.8 million	\$131.4 million

* This is the unit cost for obtaining inert rock from the waste rock pile for use in covering the PKC and the potentially acid-generating rock in the waste rock pile.

Future Revisions to the Security Estimate

DDMI’s water licence requires DDMI to submit an updated security estimate to the Board every year. The water licence also grants the Board the authority to increase or decrease the security amount based on the company’s annual updates or on other information available to the Board. Thus, once the current security review is complete and the Board establishes the revised security estimate; the Board will continually have the opportunity to update the security estimate based on new evidence. A copy of the exact wording in the water licence is in Attachment 4.

Options

Board staff outlines the following options for the Board’s consideration:

1. Decide whether the evidence supports the need for a quarry or not, and what the unit cost for obtaining inert rock from the waste rock pile should be. If the Board makes a determination on these two issues, Board staff would take the final steps towards determining the final amended security amount that would be required under the Water Licence (e.g., bring information to the

Board regarding the land vs water liability issue, prepare a final spreadsheet of calculations, provide an opportunity for AANDC and DDMI to review the spreadsheet for errors, etc.)

2. Hire a third party expert to help the Board resolve the remaining differences between the AANDC and DDMI security estimates.
3. Request that Board staff continue to work with DDMI and AANDC to resolve differences. For example, Board staff could request information from AANDC regarding the correct unit cost or request more information from DDMI regarding accessibility of inert rock.
4. Request input from legal counsel.

Respectfully submitted,



Mark Cliffe-Phillips
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Attachments:

1. W2007L2-0003 - Diavik - Security Review - WLWB Information Request for AANDC - Nov 20_11
2. W2007L2-0003 - Diavik - Security Review – AANDC Response to WLWB Information Request – Dec 30_11
3. W2007L2-0003 - Diavik - Security Review - DDMI Clarifications – Jan 3_2012
4. W2007L2-0003 – Water Licence – page 8