

Staff Report

Applicant: De Beers Canada Inc.	
Location: Kennady Lake, NT	Application: MV2005L2-0015
Date Prepared: November 21, 2016	Meeting Date: December 5, 2016
Subject: Request to Extend Submission Date for the Standard Operating Procedure	

1. Purpose/Report Summary

The purpose of this Report is to present to the Mackenzie Valley Land and Water Board (MVLWB/the Board) a request submitted by De Beers Canada Inc. (De Beers) for an extension to the submission date of the Standard Operating Procedure (SOP) under Water Licence (Licence) MV2005L2-0015. The SOP details the handling of potentially acid generating (PAG) and non-potentially acid generating (non-PAG) rock during the construction and operation phases.

2. Background

- October 16, 2014 – Board approves the Standard Operating Procedure (SOP);
- April 25, 2016 – De Beers submits the Rock Placement Verification Program Report (Report);
- November 3, 2016 – Board approves the Report as an interim Report and required an updated SOP for Board approval by November 17, 2016;
- November 16, 2016 – De Beers submits an extension request to the submission date from November 17, 2016 to April 15, 2017;
- **December 5, 2016 – Board package presented to the Board.**

3. Discussion

Standard Operating Procedure

The SOP is required by Part E, item 6 of Licence MV2005L2-0015 and was first approved by the Board on October 16, 2014 following issuance of the Licence MV2005L2-0015 (September 24, 2014). Updates are required by Part E, item 8 of the Licence. The intent of requiring a SOP document was to ensure that De Beers presented the sampling and analysis program, the PAG criteria, the manner in which the samples are used to delineate areas of PAG rock, and the placement of rock to the Board prior to commencing construction. This document was then intended to be considered in conjunction with the overarching Geochemical Characterization and Management Plan, with the latter detailing any additional specific aspects regarding the management of Acid Rock Drainage at the site. The Geochemical Characterization and Management Plan was first approved by the Board on February

10, 2015 following the issuance of the Licence MV2005L2-0015 (September 24, 2014).

Rock Placement Verification Program and Rock Placement Verification Program Report (Report)

Part E, item 7 of Licence MV2005L2-0015 states:

*Upon commencement of Construction, the Licensee shall initiate a **Rock Placement Verification Program** in accordance with the requirements set out in Schedule 4, item 1, to assess the effectiveness of the SOP referred to in Part E, item 6. Within eighteen (18) months following issuance of this Licence, the Licensee shall submit a **Rock Placement Verification Program Report** that describes the results of the Program to the Board for approval.*

The results of this Report will inform the Board of the accuracy of predictions made and the success of rock segregation practices detailed in the SOP. De Beers submitted the Report on April 25, 2016.

During the review of the Report, Board staff requested further information as to what grain size was sampled and tested from the blasted rock (see table below). De Beers responded that no specific particle size fraction was selected. Sample rock was selected by rock fragment characteristics and by selecting a sample representative of the dominant rock type at the location. The Board requested De Beers update the SOP, for Board approval by November 17, 2016, providing further details of protocols and recommended that the 2009 MEND Prediction Manual be reviewed for guidance (see attached).

11	General	<p>Comment No information was provided as to what grain size was sampled and tested from blasted rock used for construction or placed within the SMRP.</p> <p>Recommendation De Beers should confirm whether or not grain size specific sampling or testing was completed. It would be recommended that additional analyses of specific particle size fractions should be conducted such that there can be an evaluation of whether there is partitioning of sulphides and/or carbonates into any one particle size. In general, the -2mm size fraction is considered the most reactive size fraction</p>	<p>June 23: Rock is ground up by the drill prior to sampling and furthermore the sample is prepared in the lab where it is dried and finely crushed to better than 70 % passing a 2 mm (Tyler 9 mesh, US Std. No.10) screen. A split of up to 250 g is taken and pulverized to better than 85 % passing a 75 micron (Tyler 200 mesh, US Std. No. 200) screen.</p> <p>September 16: In accordance with the approved sampling program for the Bi-Annual Audit (Section 8.1, Geochemical Characterization Plan, V.3), samples of mine rock have been collected from construction material, mine roads, rock pads and mine rock piles. No specific particle size fraction was selected for the sample collection or analysis, as this is not a component of the approved sampling program. Sample rock was selected at each location by examining rock fragments characteristics (colour, grain size, texture, visible minerals etc.) and selecting a sample representative</p>	<p>Noted.</p> <p>De Beers shall update the Standard Operating Procedure to provide further details of protocols for the selection, storage, preparation, and analysis of mine rock and determination of PAG material. It is recommended that the MEND Report 1.20.1, 2009 (http://www.abandoned-mines.org/pdfs/MENDPredictionManual-Jan05.pdf) be reviewed for guidance on the approach to selection, storage and preparation of samples. De Beers shall also make this update to the Rock Placement Verification Program Report.</p>
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	and therefore the focus of geochemical sampling in blasted rock piles.	of the dominant rock type at each location.	
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On November 16, 2016, De Beers submitted an extension request, including rationale, for the submission of the revised SOP from November 17, 2016 to April 15, 2017 (see attached).

4. Comments

De Beers requested the extension to April 15, 2017. Board staff note that this is a Saturday. Should the Board approve this request, Board staff suggest that a weekday deadline be selected instead.

The extension request was forwarded to the Board's consultant, who provided the initial comments on the Report on November 16, 2016. On November 17, 2016, the consultant responded that De Beers' rationale was reasonable and that they did not see any problems with the extension request.

5. Reviewer Comments

N/A

6. Security

The GNWT currently holds \$23,776,270.00 in reclamation security for the Gahcho Kué Project for Licence MV2005L2-0015. De Beers' next deposit of security (in the amount of \$40,713,234) is due prior to year 4 of Operations (the end of mining of the Hearne Pit).

7. Conclusion

Board staff concludes that there are no concerns with the extension request.

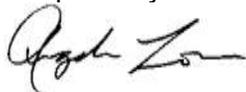
8. Recommendation

Board staff recommends that the Board approve the extension request to delay the submission date of the Standard Operating Procedure until April 14, 2017.

9. Attachments

- [Board's decision letter of November 3, 2016](#);
- [Request to extend submission date](#); and
- Draft Decision Letter

Respectfully submitted,



Angela Love
Regulatory Officer