



NIRB File No.: 00MN059

October 23, 2015

Shear Diamonds (Nunavut) Corporation

Sent via email: info@sheardiamonds.com

Re: The Nunavut Impact Review Board's 2014-2015 Annual Monitoring Report for the Jericho Diamond Mine Project and Board's Recommendations

Dear Shear Diamonds (Nunavut) Corporation:

The Nunavut Impact Review Board (NIRB or Board) is hereby releasing its *2014-2015 Annual Monitoring Report for the Jericho Diamond Mine Project* (Monitoring Report) along with the 2015 Site Visit Report for the NIRB's monitoring of the Jericho Diamond Mine Project (NIRB File No. 00MN059; Appendix I within the Monitoring Report). The enclosed Monitoring Report is based on the NIRB's monitoring activities as set out within the Jericho Project Certificate [No. 002] and pursuant to Sections 12.7.1 and 12.7.2 of the Nunavut Land Claims Agreement (NLCA). This report provides findings that resulted from monitoring of this Project that took place from October 2014 to September 2015.

By way of a motion carried during its regular meeting held in October 2015, the Board has issued the following recommendations to assist Shear Diamonds (Nunavut) Corporation (Shear) in achieving compliance with the Jericho Diamond Mine Project Certificate and to ensure that the NIRB has all the information necessary to adequately discharge its mandate with respect to provisions within section 12.7 of the NLCA as such pertain to the Jericho Project.

Outstanding Reports – Project Certificate, Appendix D

The Proponent is required to submit several reports as outlined in Appendix D of the Project Certificate [No. 002]. Since Shear's purchase of the site in 2010, the NIRB has not received any of the required reports, and despite the Board's recommendations to Shear since 2011 no additional information has been received to date.

Recommendation 1: The Board requests that Shear provide the following outstanding submissions:

- a) Annual Reports for 2010 through 2014;
- b) Quarterly reports for 2010 through 2015; and
- c) Wildlife monitoring data from 2010 to 2015.

The Board requests that the Proponent provide these outstanding reports within 90 days' receipt of the Board's recommendations.

Fuel and Waste Management – Project Certificate Conditions 34 and 35

During the 2015 site visit, the Monitoring Officer noted that the site was unmanned and in similar condition to that observed during the 2013 and 2014 site visits. The Jericho Mine site remains in non-compliance with the following Project Certificate terms and conditions:

- Condition 34 - All fuel storage areas shall be bermed and meet regulatory requirements; and
- Condition 35 - Waste management must be controlled in such a way that reduces or eliminates the attraction to carnivores or raptors. Fencing and other suitable deterrents shall be employed in all landfills and waste storage areas.

Recommendation 2: The Board requires that Shear provide a proposed plan of action to remedy the non-compliance to Condition 34, which requires secondary containment, and Condition 35, which requires fencing around all landfill and waste storage areas. The Board requests that the Proponent provide a response within 90 days' receipt of the Board's recommendations.

Fish Habitat Compensation

In correspondence provided to the NIRB on July 7, 2015 Fisheries and Oceans Canada (DFO) concluded that pursuant to the existing *Fisheries Act* Authorization, conditions related to the construction of fish habitat compensation, monitoring and reporting have not been met (DFO File No. NU-00-0068). Furthermore, DFO noted its future intent to utilize the collected security funds to complete the remaining fish habitat compensation requirements, or to develop and implement new fish habitat compensation options at the Jericho Mine site.

Recommendation 3: The Board requests that DFO provide the NIRB with its plans to complete or undertake fish habitat compensation measures at the Jericho Mine site. The Board requests that DFO inform the NIRB of its plans throughout the 2015 reporting year as new information arises, and provide an update by April 2016.¹

Nuclear Gauges

Two nuclear gauges were located at the Jericho Mine site without an active license from the Canadian Nuclear Safety Commission for possession/storage/transfer. Through follow-up discussion with Aboriginal Affairs and Northern Development Canada (AANDC) it was noted that as of September 8, 2015 the gauges were still located on-site and the department was considering the possibility of transporting the gauges off-site prior to the end of 2015.

Recommendation 4: The Board requests that AANDC provide the following information regarding the status of the nuclear gauges:

- a) Location of the gauges and whether they remain at the Jericho Mine site or have been transferred off-site;
- b) Licence number, licensee name, and applicable terms and conditions of any issued licenses; and
- c) Future plans regarding the storage, transfer, or disposal of the gauges as applicable.

¹ Note that the Board plans to invite the regulatory body to comment via correspondence issued under separate cover, and that Shear is not responsible for a response to this recommendation. It has been included here for information only.

The Board requests a response from AANDC within 60 days' receipt of the Board's recommendation.¹

Site Risk Management during Temporary Shutdown

In correspondence received by the NIRB on July 2, 2013, AANDC indicated that management of site risk would focus on: site water during freshet; tailings and tailings facility management; and fuel and hazardous waste storage and containment. During 2014 and 2015, AANDC made note of its continued efforts to manage the previously identified risks at the Jericho Mine site.

Site Water Management

In response to the Board's 2014 recommendations, AANDC provided an update on the site's water monitoring and sampling practices as well as releases of water at site. While it was noted that contaminated water in the lined bermed facilities surrounding the main fuel tanks not meeting discharging criteria was pumped back into the main fuel tank bermed area instead of being discharged, it was unclear what percentage of the total water that was and was not treatable by the Oztec filter to meet standards. The 2014 Water Licence Inspection Form further identified a need for future active management of contaminated water within the bermed fuel tank farm, although it was unclear whether this implied a continuation of current activities or that new management practices should be undertaken.

Tailings and Tailings Facility Management

AANDC provided information on the effects of windblown tailings from the processed kimberlite containment area (PKCA) at various locations on-site. In reference to three site visits in 2014, the AANDC Field Operations Water Resource Officer concluded that although mitigation measures undertaken by personnel at site during 2013 had reduced the spread of windblown tailings from the PKCA during the winter months, further measures would need to be undertaken in the future. In addition, it was noted that sediment deposited from the PKCA remained visible in the southeast dam pond. However, the levels of total suspended solids in the pond were not provided, making it difficult to determine the level of impact of sedimentation on the waterbody.

Fuel and Hazardous Waste Storage

It was noted by AANDC that the hazardous waste treatment area (HWTa) contained a growing quantity of hazardous waste and that in 2011 to 2012 Shear indicated that the liner was suspect at the time. It was unclear from the reports submitted by AANDC whether water samples were collected from the HWTa. A potential glycol leak from the generator set by the day-tank berm was further identified. It is not clear how the receiving environment surrounding the HWTa and generator has been assessed for potential contaminants.

Recommendation 5: The Board requires that Shear, or, given the current site management regime, requests that AANDC¹ continues to provide the NIRB with details of its water monitoring and sampling practices as well as releases of treated site contact water, and activities undertaken to manage the risks identified above at the Jericho site. The Board requests that the following details be included for the 2015 reporting year:

- a) Clarification on the percentage of total water from the main fuel tank farm not treatable by the Oztec filter to standards;
- b) The amount of total suspended solids found in water bodies tested, particularly in the southeast dam pond; and

- c) Plans to monitor for potential contaminants from the hazardous waste treatment area and generator set on the receiving environment and any long-term management plans.

The Board respectfully requests that for items requiring follow-up action by Shear Diamonds (Nunavut) Corporation a response be provided within the timeline as requested for each of the recommendations.

Should you have any questions or require further clarification regarding the recommendations outlined above or as related to the NIRB's monitoring program for the Jericho Diamond Mine Project, please contact the undersigned at (867) 983-4606 or hiasmussen@nirb.ca.

Sincerely,



Heather Rasmussen, M.Env-EA
Jericho Project Monitoring Officer
Nunavut Impact Review Board

cc: Karen Costello, Aboriginal Affairs and Northern Development Canada
Georgina Williston, Fisheries and Oceans Canada
Jericho Distribution List

Enclosure (1): The Nunavut Impact Review Board's *2014-2015 Annual Monitoring Report for the Jericho Diamond Mine Project*