



okWater Resources Division
Resource Management Directorate
Nunavut Regional Office
P.O. Box 100
Iqaluit, NU, X0A 0H0

Your file - Votre référence
2BE-CHI1823
Our file - Notre référence
GCDOCS# 111235118

March 31, 2023

Robert Hunter
Licensing Administrator
Nunavut Water Board
P.O. Box 119
Gjoa Haven, NU, X0B 1J0
E-mail: licensing@nwb-oen.ca

**Re: Crown-Indigenous Relations and Northern Affairs Canada's Review of the
Licence Renewal Amendment Application for Chidliak Project, Type B Water
Licence No. 2BE-CHI1823**

Dear Robert,

Thank you for the March 03, 2023 invitation to review the referenced licence renewal amendment application, submitted by Peregrine Diamonds Ltd on behalf of their parent company De Beers Canada Inc., for Type B Water Licence No. 2BE-CHI1823.

Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC) examined the application pursuant to its mandated responsibilities under the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* and the *Department of Crown-Indigenous Relations and Northern Affairs Act*. Please find CIRNAC comments and recommendations in the attached Technical Memorandum.

If there are any questions or concerns, please contact me at (867) 975-3877 or Joyce.Demers@rcaanc-cirnac.gc.ca or Andrew Keim at (867) 975-4550 or Andrew.Keim@rcaanc-cirnac.gc.ca.

Sincerely,

Joyce Demers, B.Sc.,
Industrial Coordinator



Technical Review Memorandum

Date: March 31, 2023

To: Robert Hunter – Licensing Administrator, Nunavut Water Board

From: Joyce Demers – Industrial Coordinator, CIRNAC

Subject: Crown-Indigenous Relations and Northern Affairs Canada's Review of
the Licence Renewal Amendment Application for Chidliak Project, Type
B Water Licence No. 2BE-CHI1823

Region: ☐ Kitikmeot ☐ Kivalliq ☒ Qikiqtani

A. BACKGROUND

Peregrine Diamonds Ltd (Peregrine) is applying for a water license renewal amendment application on behalf of their parent company De Beers Canada Inc (De Beers) for the Chidliak Project. The project is located on the Hall Peninsula in the South Baffin Island located between Cumberland South and Frobisher Bay. The two closest communities are Pangnirtung, which is located 200 kilometers to the northeast, and Iqaluit, which is located 120 kilometers to the southwest. Peregrine currently operates under a type B exploration water license, 2BE-CHI1823.

Peregrine is applying for a 15 year renewal amendment water license. The amendment is to change from 246 m³/day to 299 m³/day. The 299 m³/day will be broken up into 25 m³/day for domestic use and 274 m³/day for drilling. There is no proposed change with regards to water withdrawal location. De Beers has plans to eventually build a diamond mine at the Chidliak exploration site.

The project started in 2008. The exploration is conducted seasonally during the winter, late February to early May, and in the summer, late June to early to mid September. Exploration activities include: prospecting, geological mapping, geophysical survey, sampling (mineral and rock), ground geophysics, exploration core drilling, diamond drilling and small diameter reverse circulation drilling, on ice drilling (which was last completed in 2011), bulk sampling, and finally trenching and large diameter drilling which are authorized at CH-1, CH-6, CH-7, CH-31, CH-44 and CH-45 sites.

The Chidliak project has four camp sites: the Discovery Camp (established in 2008) at -66°20'45.44"N, 64°14'25.45"W which can accommodate up to 40 people, the Sunrise Camp (established in 2009) at -66°07'45.31"N, 64°14'17.19"W which can accommodate up to 24 people,



the Aurora Camp (established in 2011) at -66°34'.43.00" N, 64°36'32.00" W which can accommodate up to 40 people, and the CH6 Camp (established in 2013) at -66°31'30.34"N, 64°19'24.62"W which can accommodate up to 30 people. The Discovery Camp is the primary camp used while the other three are used occasionally for logistics support or emergency refuge. The Discovery camp has weather-port tents, wood sided buildings with canvas skins and a Quonset. All camp sites are comprised of temporary structures.

During the summer, the exploration project is accessed with a fixed wing and rotary aircraft. During the winter, the exploration project is accessed via winter access trail between Iqaluit and the Discovery Camp and interwork area trails which allow inter-camp assess.

CIRNAC provides the following comments and recommendations pertaining to the application package. A summary of the subjects of recommendations can be found in Table 1. Documents reviewed as part of this submission can be found in Table 2 of Section B. Detailed technical review comments can be found in Section C.

Table 1: Summary of Recommendations

Recommendation Number	Subject
R1	Waste Management Plan
R2	Abandonment and Restoration Plan
R3	Revised Spill Plan

B. DOCUMENTS REVIEWED AND REFERENCED

The following table (Table 2) provides a list of the documents reviewed under the submission and reference during the review.

Table 2: Documents Reviewed and Referenced

Document Title	Author, File No., Rev., Date
230227 2BE-CHI1823 Application for Water Licence Amendment-IMLE	Nunavut Water Board, April 2013
230227 2BE-CHI1823 Chidliak Exploration Project 2023 Table of Contents-IMLE	N.A., N.D.
230227 2BE-CHI1823 Letter of Authority January 3 2023-IMLE	De Beers Group, January 3, 2023
230227 2BE-CHI1823 Renewal_Ammendment Cover Letter-IMLE	De Beers Group, February 27, 2023



Document Title	Author, File No., Rev., Date
230227 2BE-CHI1823 Schedule 1 - Map 001 -Dec-2022-IMLE	N.A., N.D.
230227 2BE-CHI1823 Schedule 1 - Map 002 -Dec-2022- Chidliak Project-IMLE	N.A., N.D.
230227 2BE-CHI1823 Schedule 1 - Map 003 - Dec 2022 - Water Sources & Important Locations-IMLE	N.A., N.D.
230227 2BE-CHI1823 Schedule 1- Map 004 - Dec-2022- Box Coordinates-IMLE	N.A., N.D.
230227 2BE-CHI1823 Schedule 2_2023-02-24 NPC Letter re 149954-IMLE	Nunavut Planning Commission, February 24, 2023
230227 2BE-CHI1823 Schedule 3 - Chidliak_NWB Licence History-IMLE	N.A., N.D.
230227 2BE-CHI1823 Schedule 4 - List of Authorized Activities-IMLE	N.A., N.D.
230227 2BE-CHI1823 Schedule 5 - Chidliak Exploration Waste Management Plan-IMLE	De Beers Group, December 2022
230227 2BE-CHI1823 Schedule 6 - Potential Environmental Impacts-IMLE	De Beers Group, N.D.
230227 2BE-CHI1823 Schedule 7_CHI_Consultation Catalogue-IMLE	N.A., N.D.
230227 2BE-CHI1823 Schedule 8 - Security Information-IMLE	N.A., N.D.
230227 2BE-CHI1823 Schedule 9 (B) -ET8412_29-Nov-2022 Letter Search-IMLE	Government of Nunavut Department of Justice, November 29, 2022
230227 2BE-CHI1823 Schedule 9-ET8329_29-Nov-2022 Letter Search-IMLE	Government of Nunavut Department of Justice, November 29, 2022
230227 2BE-CHI1823 Schedule 10 - Corporate Certificates-IMLE	Registrar of Corporations Nunavut, December 19, 2017
230227 2BE-CHI1823 Schedule 11 - Environmental Baseline Studies-IMLE	N.A., N.D.
230227 2BE-CHI1823 Schedule 11B - Environmental Baseline Studies-IMLE	N.A., N.D.
230227 2BE-CHI1823 Schedule 12 - English Summary-IMLE	De Beers Group, N.D.
230227 2BE-CHI1823 Schedule 15 - Chidliak Exploration Project - Abandonment and Restoration Plan-IMLE	De Beers Group, December 2022
230227 2BE-CHI1823 Schedule 16 - Exploration-Remote Camp Questionnaire-IMLE	Peregrine Diamonds (De Beers Group), N.D.
230227 2BE-CHI1823 Schedule_14_2022-12_CHI Revised Spill Plan-IMLE	De Beers Group, December 2022
230303 2BE-CHI1823 Application Renewal Licensee Response to NWB Review-IMLE	Nunavut Water Board, March 3, 2023
230303 2BE-CHI1823 Bulk Sample Monitoring Plan-IMLE	De Beers Group of Companies, March 2023



Document Title	Author, File No., Rev., Date
230303 2BE-CHI1823 Chidliak Exploration Project Permitted Locations-IMLE	N.A., N.D.
230303 2BE-CHI1823 Distribution Review NPC NIRB Received-OLAE	Nunavut Water Board, March 3, 2023
230303 2BE-CHI1823 notice-OLAE	Nunavut Water Board, March 3, 2023



C. RESULTS OF REVIEW

1. Waste Management Plan

Comment:

- A) It is unclear if all waste is removed from site(s) at the end of seasonal camp closures and during final closure.
- B) It is unclear how the building will be burned on site during the final camp closure. Note that CIRNAC does not recommend open burning.
- C) It is unclear how and where all waste types are being stored.
- D) It is unclear when the waste will be transported off site(s) to appropriate waste facilities.
- E) Is it unclear what the final disposition of the drill core and drill cutting will be.
- F) Is it unclear what the final disposition of RC Core or drill cuttings will be.
- G) It is unclear when large diameter drill cuttings will be transported to one of the three cuttings containment areas and how they will be stored prior to their transportation.
- H) It is unclear where grey water will be released.
- I) The waste management plan should include a plan for all waste types including, wood waste within its plan.
- J) It is unclear how and where waste is stored before and after waste has been processed through the incinerator.
- K) It is unclear if the incinerator is a double chamber incinerator.
- L) The Spill Plan states that used fuel drums will be used for large spills clean up operations (section 4.2). It is unclear how and where are those drums stored while awaiting final disposition.
- M) It is unclear if there will always be a supply of used fuel drums at the camp(s).
- N) It is unclear how often the used fuel drums will be removed from camp(s).

These are all concerns as it is unclear how waste is going to be managed. This can lead to waste making its way into water bodies.

Recommendation:

(R-01) CIRNAC recommends that the applicant clarify all the points made above before the Waste Management Plan can be accepted.



2. Abandonment and Restoration Plan

Comment:

- A) The reclamation of the gravel runaway was not mentioned in the Abandonment and Restoration Plan.
- B) It is unclear how sumps will be reclaimed at final closure.
- C) It is unclear if the site(s) will be inspected after final closure.
- D) It is unclear how the trenches will be refilled after their use and what material will be used to refill them.

Recommendation:

(R-02) CIRNAC recommends that the applicant clarify all the points made above before the Plan is accepted.

3. Revised Spill Plan

Comment:

- A) It is unclear if a spill kit will be located near hazardous waste and hazardous materials storage location(s).
- B) The section on spills on land (section 4.3.4.1) is not fully explained. There is no mention of how the product will be removed from the land, where the hazardous materials will be stored or how they will be stored until they are removed from site.
- C) It is unclear if burning is the preferred method of removing hazardous materials.
- D) The section on spills on Muskeg (section 4.3.4.2) is not fully explained. There is no mention of how the spill will be removed from the Muskeg environment, where the hazardous materials will be stored or how they will be stored until they are removed from site.
- E) The section on spills on water (section 4.3.4.3) is not fully explained. There is no mention of how the spill will be removed from the water, where the hazardous materials will be stored or how they will be stored until they are removed from site.
- F) The figures (4.3, 4.4 and 4.5) are not explained.
- G) Figure 4.7 title suggests that it should be under the spills on water section however it was placed under the section for ice and snow. Confirm if that figure is in the correct section and then explain the figure.
- H) The section on ice and snow (section 4.3.4.4) only states that it will be setting fire to the contaminants. There are no other clean up options are discussed.
- I) Please include all MSDS for all hazardous materials that will be used during this project. MSDS contain important information of how to clean up spills.



This is a concern because if spills are not properly cleaned up it can lead to deleterious substances in the water bodies.

Recommendation:

(R-03) CIRNAC recommends that the applicant clarify all the points made above.