DE BEERS GROUP

Chidliak Exploration Project

Winter Trail Monitoring and Cleanup Plan
Version 1.0

February 2024

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REVISION HISTORY

Version	Date	Notes/Revisions
Version 1.0	February 1, 2024	Revision of Peregrine Document to De Beers format.

1 OVERVIEW

The Winter Trail Cleanup and Reclamation Stabilization Plan (the Plan) has been developed in consultation with winter-transportation and heavy-equipment experts who had previously installed, maintained, monitored, progressively reclaimed and closed the Iqaluit winter trail and the inter-camp trails. In addition, this Plan is informed by the AANDC (now INAC) publication *Northern Land Use Guidelines – Access: Roads and Trails* (January 2010).

De Beers requires a winter trail network to support winter exploration activities associated with work and bulk sampling of diamondiferous kimberlites CH-1, CH-6, CH-7, CH-31, CH-44 and CH-45. The winter trail network includes two components:

1) Inter-camp trails: Connecting field camps, airstrips, kimberlites, cuttings deposition areas and water sources.(approximately 42 kilometers)

2) Iqaluit winter trail: Equipment and cargo supply link between Iqaluit and the Project Area. Also serves as an emergency access route. (approximately 175 km)

The Iqaluit winter trail was first utilized/scouted in 2009, then subsequently re-constructed in 2012, 2013 and 2015. Activities in 2009, 2012 and 2015 were brief while activities in 2013 extended over several weeks. Renewal for the Federal portion of the winter trail was completed in early 2018.

The trail routes are illustrated in Map 1, attached. Precise routing of the winter trails is dependent upon snow conditions which vary annually. Alternate routings may supplant main routings where conditions so dictate, (*e.g.*, where snowpack and ice permit).

The majority of the route is located on crown land, however the first nine (9) kilometers beginning in Iqaluit are on Commissioner Lands. De Beers will be required to hold a Letter of Authority through motion of the City of Iqaluit to construct this first 9km section.

2 REGULATORY SETTING

The winter trail network was first approved in February 2012 by permit amendment #3 by Aboriginal Affairs and Northern Development Canada ("AANDC" now INAC) Class A land use permit N2008C0005. Winter trails were utilized by Peregrine in 2012, 2013, and 2015. Currently DeBeers holds Land Use Permit N2018C0002 which authorizes the winter trail network. The current permit will be renewed in 2024.

This Plan was initially required by Condition #26 of Amendment #3 to AANDC Class "A" Land-Use Permit *#N2008C0005* and is now required by the conditions of the present LUP N2018C0002. The following winter trail mitigation measures have been adopted from the previous and current Land Use Permit conditions;

- Will not move any equipment or vehicles unless the ground surface is in a state capable of fully supporting the equipment or vehicles without rutting or gouging.
- Overland travel of equipment or vehicles is to be suspended if rutting occurs.
- Select a winter route that maximizes the use of frozen water bodies
- Will not move equipment or vehicles without prior testing the thickness of lake ice to ensure the lake is in a state capable of fully supporting the equipment or vehicles.
- Suspend overland travel of equipment or vehicles at signs indicative of trail deterioration including increased roughness, exposure of mineral soil, etc. Likewise, upon spring break up, or at such time as the shorelines or frozen water bodies begin to thaw, the Permittee shall suspend all travel over water bodies if disturbance to the banks or shorelines of any definable water body occurs.
- Ensure that winter lake/stream crossings are located to minimize approach grades and constructed entirely of ice and snow materials. Ice or snow free of sediment should be the only materials used to construct temporary crossings over any ice covered watercourse.
- Avoid utilizing slopes prone to natural erosion and shall ensure that bank disturbances are avoided, including prohibiting mechanized clearing immediately adjacent to any watercourse.
- Ensure that stream crossings and/or temporary crossings constructed from ice and snow, which may cause jams, flooding or impede fish passage and/or water flow, are removed or notched prior to spring break-up
- Implement sediment and erosion control measures prior to, and during operations to prevent sediment entry into the water during spring thaw. This includes ensuring that a sufficient thickness of snow and ice is present on the winter road to prevent

unnecessary erosion of the underlying ground surface and impact on underneath vegetation.

- Upon closure of the winter trail, remove all trail markers, grease and oil marks; remove/flatten any snow banks or drifts; divert water away from erosion-prone areas; and note any areas suffering from damaged vegetation (due to gouging, etc.)

- Avoid any known or suspected archeological sites. Cease any activity within proximity should a suspected archeological site be discovered.

- Will not extract any water from any fish-bearing water body unless the water intake hose is equipped with a screen of appropriate mesh size to ensure there is no entrapment of fish.

3 PHYSIOGRAPHY

The route slopes gently from near sea level in Iqaluit to 700 meters above sea level at Discovery Camp. Lake and ice shore crossings are gradual with no steep or sheer abutments. Most of the route is flat with occasional boulder sections. At no time during the past has it been necessary to artificially create crossings using snow fill. At times it is necessary to clear snow on lake ice to ensure adequate freezing of lakes. During past use, snow cover has been sufficient to cover boulders.

Commencing in 2013, a snow groomer pulled behind a Challenger tractor was used to smooth the trail and improve its durability and snow retention.

The winter trail is ephemeral in nature and requires little to no reclamation on an annual basis. The mitigation measures listed in Section 2 are inclusive of seasonal reclamation and closure work.

4 TRAIL OPERATION PLAN

Safe and effective operation of the winter trail involves implementation of the following operational procedures:

- Regular grooming of the trail base.

- Active cleanup during trail use, (*e.g.*, no material left behind on the trail during a haul trip)

- Operators maintain regular communication with the camps on either end of the circuit. VHF radios are used on the Inter-camp trails and satellite tracking units and satellite phones on the Iqaluit winter trail.

- Continual monitoring by camp control when trail use is under way.

- Trained heavy-equipment operators assigned to drive the routes using heavy equipment. Use of equipment authorized under the land use permit.

- Route training for operators and other personnel, such as laborers or crew, who are required to utilize the winter-trail network as operators or occasional passengers. Training will include familiarity with this Plan, winter-trail maintenance and spill prevention and control.

- Operation of trails only when weather, temperatures, adequate snow cover and ice thickness permit. Best practice dictates that the winter trail and winter-trail network will be established only when waterbodies are sufficiently frozen and ice is competent, and when there is sufficient snow cover to prevent inadvertent damage to soils

- Cessation of haul trips during blizzards and whiteouts, which otherwise could result in risk to human safety and inadvertent deviations from the approved routing.

- Testing of adequate ice thickness using either auger sampling or ground penetrating radar.

- Removal from service of any trail sections blown free of snow cover until snow cover is determined adequate and packed for travel.

- Any operator-created snow stream crossings and/or temporary crossings formed from ice and snow for efficient trail operation during a season will be removed or reduced prior to end of season to ensure normal seasonal melting and to prevent pooling. (**Note:** *to date these types of crossings have not been necessary*)

- Erosion controls will be kept on hand or readily available should their use be required despite best efforts. Examples include: silt barriers, sandbags, erosion-control matting, peat blocks, and rocks and cobbles stockpiled at a designated area, such as at the main Discovery Camp. (**Note:** *to date this has not been necessary*)

- Trail use will cease prior to freshet, so as to safeguard underlying soils and any early-thaw sections of watercourses.

- At the conclusion of operations, a final inspection of the trails will be conducted to ensure any remaining materials, such as trail markers, have been removed and that nothing is left behind. At the end of each season, preferably in summer conditions, the winter trail and winter-trail network will be reviewed by flyover and selective ground-truthing to ensure correction of any areas of potential instability and future trail competence.

- At the conclusion of each season, review the trail operation to ensure adjustments or improvements are made, if required. For example, if review of haul-trip records indicates that realignment is required at specific points of drifting or weaker ice, *e.g.*, these adjustments/improvements are incorporated into the Plan for the next winter season.

- All wildlife will have the right of way on the trail and sightings or incidences reported to the De Beers Environmental designate. Wildlife will be handled in accordance with Land Use Permit N2018C0002 conditions 31 (1) (h) Wildlife and Fisheries Habitat. This will also include Wildlife conditions under subsequent renewals of the land use permit.

- All spills or accidental discharges will be dealt with in accordance with the Chidliak Exploration Project Spill Contingency Plan, wherever relevant. This includes ensuring all equipment is equipped with the necessary spill kits.

- All waste will be dealt with in accordance with the Chidliak Exploration Project Waste Management Plan.

- Prior to each field season an emergency response plan including winter trail emergency response will be developed to allow for updated information and emergency contacts.

Map 1: General location of the Iqaluit link trail