



CIRNAC Comments to NIRB

Re: Notice of Screening for Thompson Rivers
University's "Responses of Permafrost Microbial
Communities to Climate-Driven Thaw" Project Proposal



Nunavut Regional Office
918 Sivumugiaq Street
Iqaluit, NU, X0A 3H0

Your file - Votre référence
25YN051
Our file - Notre référence
GCdocs# 148887282

July 28, 2026

Mia Beattie
Impact Assessment Officer
Nunavut Impact Review Board
P.O. Box 1360
Cambridge Bay, NU, X0B 0C0
via NIRB public registry

Re: Notice of Screening and Comment Request for Thompson Rivers University's "Responses of Permafrost Microbial Communities to Climate-Driven Thaw" Project Proposal

Dear Mia Beattie,

On July 7, 2026, the Nunavut Impact Review Board (NIRB) invited parties to comment on Thompson Rivers University's "Responses of Permafrost Microbial Communities to Climate-Driven Thaw" project proposal. Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC) appreciates the opportunity to provide comments and offers the responses below as it pertains to the NIRB's request:

Any matter of importance to the Party related to the project proposal

CIRNAC #1: Environmental Controls for Alternative Sampling Locations

The Proponent requests a 100 km sampling radius around each of 13 coordinates, increased from 50 km, to allow alternative sites to be selected in the field. Although the proposal indicates streams, wetlands, eskers, thermokarst, ice lenses, and fragile terrain would be avoided, the application does not provide mapped alternative areas or measurable site-selection criteria, or proposed setbacks from waterbodies. The expanded areas may also include substantially different drainage, soil moisture, and permafrost conditions. Without defined screening criteria, it is unclear whether alternative locations would adequately avoid saturated ground, drainage features, ice-rich permafrost, thermokarst, and unstable terrain. CIRNAC recommends that the Proponent consider:

- Providing clear environmental criteria for selecting alternative sampling sites, including appropriate setbacks from waterbodies;
- Describing how wetlands, drainage features, saturated ground, thermokarst, ice lenses, and unstable terrain would be identified and avoided; and



- Recording the final sampling coordinates and confirm that the site-selection criteria were met.

CIRNAC #2: Borehole Depth, Closure, and Subsurface Flow

The project summary describes 30 cm permafrost cores, while the equipment information indicates that permafrost may occur 1 to 2 metres below ground and that 31 cm drill extensions may be required. The total borehole depth and number of boreholes per site are not provided. The Project also identifies one person on site for 13 days, with sampling at each location expected to take no more than two hours. The application does not demonstrate how equipment transport, drilling, sample handling, borehole closure, and plot restoration would be completed particularly where permafrost is deeper than anticipated or field conditions shorten operations. Drill holes should be backfilled or capped, and artesian flow should be immediately plugged and permanently sealed. CIRNAC recommends that the Proponent consider:

- Clarifying the maximum borehole depth, diameter, and number of boreholes at each site;
- Explaining how boreholes would be backfilled or capped and how the original ground profile and drainage would be restored; and
- Providing contingency measures for groundwater, artesian flow, unstable ground, equipment difficulties, adverse weather, or shortened landing periods.

CIRNAC #3: Drilling Method and Water Use

The application identifies a Hilti DD 150-U-22 diamond core drill with a 10 cm-diameter, 37 cm-long SPX-A Speed core bit and extensions to access permafrost expected 1 to 2 metres below ground. However, the application estimates no water use and does not identify drilling fluids, a cooling medium, or a method for managing cuttings. It is unclear whether drilling would be wet or dry, how thermal disturbance and borehole stability would be controlled, and whether water or sediment-laden slurry would be generated. If water is required, the declared water use and associated authorization requirements may need to be considered. CIRNAC recommends that the Proponent consider:

- Clarifying whether wet or dry drilling would be used and describing the proposed cooling, cuttings-removal, and core-recovery methods;
- Providing the technical basis demonstrating that the selected drill and core bit are suitable for the anticipated permafrost and active-layer conditions; and
- If water or drilling additives would be used, identify the source, quantity, containment, and disposal method.

CIRNAC #4: Consultation with Interested Parties

CIRNAC recommends that the Proponent continue engaging with the Kitikmeot Inuit Association and Qikiqtani Inuit Association regarding its project proposal. As part of these consultation activities, several issues should be considered, including but not limited to:

- Incorporation of Inuit Qaujimajatuqangit, Inuit Societal Values, and community knowledge in project activities;



- Mitigation measures to prevent any disturbance to wildlife and the environment;
- Mitigation measures to prevent disturbance to sites of cultural, archaeological, and/or environmental significance;
- The experience of community members who may participate in traditional harvesting activities within or in close proximity to the project area;
- Training and employment opportunities for Inuit and community members;
- Procurement opportunities for local and Inuit-owned businesses; and
- Regular updates on the status of project activities.

CIRNAC appreciates the opportunity to provide comments. Should you have any questions, please contact Muhammad Arslan by e-mail at muhammad.arslan@rcaanc-cirnac.gc.ca or David Abernethy by email at david.abernethy@rcaanc-cirnac.gc.ca.

Sincerely,



Richard Bingley
Manager, Impact Assessment

