



**NIRB File No.: 23YN026**  
NPC File No.: 150072

June 12, 2023

Haley Sapers  
York University  
1003-305 Roehampton Ave  
Toronto, ON M4P 0B2

Sent via email: [haley.sapers@gmail.com](mailto:haley.sapers@gmail.com)

**Re: Notice of Screening for York University's "Identifying Putative Microbial Drivers of Methane Flux on Earth and Mars" project proposal**

Dear Haley Sapers:

On May 15, 2023, the Nunavut Impact Review Board (NIRB) received a referral to screen York University's "Identifying Putative Microbial Drivers of Methane Flux on Earth and Mars" project proposal from the Nunavut Planning Commission (Commission), with an accompanying positive conformity determination with the North Baffin Regional Land Use Plan. On May 22, 2023, the NIRB received the complete application from the Proponent.

Pursuant to Article 12, Sections 12.4.1 and 12.4.4 of the *Agreement between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in right of Canada (Nunavut Agreement)* and s. 87 of the *Nunavut Planning and Project Assessment Act*, S.C. 2013, c. 14, s. 2 (*NuPPAA*), the NIRB has commenced screening this project proposal and has assigned it file number **23YN026** - please reference this file number in all future related correspondence.

#### PROJECT OVERVIEW

##### ***Project Scope:***

<b>Project:</b>	Identifying Putative Microbial Drivers of Methane Flux on Earth and Mars				
<b>Region:</b>	Qikiqtani (North Baffin)				
<b>Location:</b>	Within 42 kilometers of the McGill Arctic Research Station (MARS) at five (5) different sampling sites				
<b>Closest Community:</b>	Grise Fiord	<b>Distance (approximate)</b>	350 kilometers (km)	<b>Direction</b>	Southeast

<b>Summary of Project Description:</b>	The Proponent intends to conduct research to understand the relationship between subsurface microorganisms and methane in the Arctic.
<b>Project Proposed Timeline:</b>	June to July 2023

According to the project proposal, the scope of the project includes the following undertakings, works or activities:

- Use of a helicopter for daily trips to sample sites;
- Use of multiple scientific tools to collect physical, passive and remote sampling;
  - Use of a manual push core to collect sediment samples;
  - Use of a cryosol drill core to collect frozen samples;
  - Use of a 3-D sonic anemometer to measure wind direction and velocity;
  - Use of a spectroscopy suite to collect organic molecule mapping; and
  - Use of a small drone to collect aerial photography.
- Use and storage of multiple hazardous liquids (no more than 200 millimeters) for disinfecting, preserving and acidifying samples;
- Use of the McGill Arctic Research Station (MARS) and facilities for the duration of the project.

### ***Inclusion or Exclusion of Scoping List***

At this time, the NIRB has identified no additional works or activities in relation to the project proposal. As a result, the NIRB will proceed with screening the project based on the scope as described above.

## REQUEST FOR COMMENTS

All documents received can be accessed from the NIRB's online public registry at [www.nirb.ca/project/125813](http://www.nirb.ca/project/125813) and include:

- *Commission Conformity Determination*
- *Commission Application & Questionnaire*
- *NIRB Application*
- *NRI Project Description*
- *Spill Contingency Plan*
- *Future Consultation Plan*

The NIRB will copy you on screening process related correspondence and upload related documents to the NIRB's online registry for public access. The NIRB may request additional information at any time during the process.

The NIRB is copying parties and municipalities potentially affected by York University's project proposal with this letter, and we invite interested parties to comment directly to the NIRB by **June 21, 2023**.

The NIRB would like parties to provide comments regarding:

- Whether the project proposal is likely to arouse significant public concern; and if so, why;
- Whether the project proposal is likely to cause significant adverse eco-systemic or socio-economic effects; and if so, why;
- Whether the project proposal is likely to cause significant adverse impacts on wildlife habitat or Inuit harvest activities; and if so, why;
- Whether the project proposal is of a type where the potential adverse effects are highly predictable and mitigable with known technology, (and providing any recommended mitigation measures); and
- Any matter of importance to the Party related to the project proposal.

Please note that *proposed* project-specific terms and conditions, should the project proceed, have been attached for consideration and comment ([Appendix A](#)).

#### CONTACT INFORMATION

Please send your comments to the NIRB via email at [info@nirb.ca](mailto:info@nirb.ca), via fax at (867) 983-2594 or via the individual project dashboard for this assessment on the NIRB's online public registry at [www.nirb.ca/project/125813](http://www.nirb.ca/project/125813).

If you have any questions or require clarification, feel free to contact the undersigned at (867) 983-4622 or [motokiak@nirb.ca](mailto:motokiak@nirb.ca).

Sincerely,



Mia Otokiak  
Technical Advisor I  
Nunavut Impact Review Board

Attachments: Appendix A: *Proposed* Project Specific Terms and Conditions

Enclosures (4): Public Notice of Screening (English, and Inuktitut)  
Comment Forms (English, and Inuktitut)

cc: Distribution List  
Richard Dwyer, Nunavut Water Board  
Stephen Williamson Bathory, Qikiqtani Inuit Association  
Joel Fortier, Qikiqtani Inuit Association  
Jared Ottenhof, Qikiqtani Inuit Association  
Mosha Cote, Nunavut Research Institute

## Appendix A: Proposed Project Specific Terms and Conditions

The following is a list of project-specific terms and conditions which, should the project proceed, may be recommended to be attached to any approval.

### General

1. York University (the Proponent) shall always maintain a copy of the Project Terms and Conditions at the site of operation and make it accessible to enforcement officers upon request.
2. The Proponent shall operate in accordance with all commitments stated in correspondence provided to the Nunavut Planning Commission (NPC File No.: 150072) and the NIRB (Online Application Form, May 22, 2023). This information should be accessible to enforcement officers upon request.
3. The Proponent shall operate the site in accordance with all applicable Acts, Regulations and Guidelines.
4. The Proponent shall ensure that it meets the standards and/or limits as set out in the authorizing agencies' permits or licences as required for this project.
5. The Proponent shall ensure that all personnel, staff and contractors are adequately trained prior to commencement of all project activities, and shall be made aware of all operational plans, management plans, guidelines and Proponent commitments relating to the project.

### Waste Management

6. The Proponent shall manage all hazardous and non-hazardous waste including food, domestic wastes, debris and petroleum-based chemicals (e.g., greases, gasoline, glycol-based antifreeze) in such a manner to avoid release into the environment and access to wildlife at all times until disposed of appropriately or at an approved facility.

### Fuel and Chemical Storage

7. The Proponent shall use adequate secondary containment or a surface liner (e.g., self-supporting insta-berms and fold-a-tanks) when storing barreled fuel and chemicals at all locations.
8. The Proponent shall follow the authorizing agencies' direction for management and removal of hazardous materials and wastes (e.g., contaminated soils, sediment and waste oil).
9. The Proponent shall ensure that wildlife deterrent systems are utilized at the time of a spill incident in order to avoid wildlife (terrestrial or marine) and migratory birds from being contaminated.
10. The Proponent shall ensure that all spills of fuel or other deleterious materials of 100 litres or more must be reported immediately to the 24-hour Spill Line at (867) 920-8130.

### Wildlife – General

11. The Proponent shall not substantially alter or damage or destroy any wildlife habitat in conducting this operation unless otherwise authorized by the appropriate authorizing agencies.
12. The Proponent shall not chase, weary, harass or molest wildlife. This includes persistently circling, chasing, hovering over, pursuing or in any other way harass wildlife, or disturbing large groups of animals.
13. The Proponent shall not hunt or fish, unless proper Nunavut authorizations have been acquired.

### **Aircraft Flight Restrictions**

14. The Proponent shall not alter flight paths to approach wildlife and avoid flying directly over animals.
15. The Proponent shall plan flight paths that minimize flights over known habitat likely to have birds or concentrations of wildlife. Aircraft should always avoid critical and sensitive wildlife areas by choosing alternate flight corridors.
16. The Proponent shall restrict aircraft/helicopter activity related to the project to a minimum flight altitude of 610 metres (2,100 ft) above ground level except during landing, take-off or if there is a specific requirement for low-level flying, which does not disturb wildlife or migratory birds.
17. The Proponent shall avoid known concentrations of birds (e.g., bird colonies, moulting areas) by a lateral distance of 1.5 kilometre. If avoidance is not possible maintain a minimum flight altitude of 1,100 metres (3,500 feet) over these areas.
18. The Proponent shall ensure that aircraft/helicopter do not, unless for emergency, touch-down in areas where wildlife are present.

### **Land Use and Restoration of Disturbed Areas**

19. The Proponent shall use existing trails where possible during project activities on the land.
20. The Proponent shall ensure that the land use area is always kept clean and tidy.
21. The Proponent shall avoid disturbance on slopes prone to natural erosion, and alternative locations shall be utilized.
22. The Proponent shall remove all garbage, fuel and equipment upon completion of work.
23. The Proponent shall ensure that all disturbed areas are restored to a stable or pre-disturbed state using Best Available Technology Economically Achievable (BATEA) upon completion of work and/or abandonment.

### **Heritage Sites**

24. The Proponent shall ensure that archaeological and paleontological sites are not purposely or inadvertently disturbed by clients or staff as a result of project activities.
25. The Proponent shall ensure that all clients and staff are aware of the Proponent's responsibilities and requirements regarding archaeological or palaeontological sites that are encountered during land-based activities. This should include briefings explaining the

prohibitions regarding removal of artifacts and defacing or writing on rocks and infrastructure.

26. No activities shall be conducted in the vicinity (50 metres buffer zone) of any archaeological/historical sites. If archaeological sites or features are encountered, activities shall immediately be interrupted and moved away from this location. Each site encountered needs to be recorded and reported to the Government of Nunavut-Department of Culture and Heritage.

**Other**

27. The Proponent should consult with local residents regarding their activities in the area and solicit available Inuit Qaujimaningit and information that can inform project activities.
28. The Proponent shall ensure that project activities do not interfere with Inuit wildlife harvesting or traditional land use activities.
29. The Proponent should, to the extent possible, hire local people and access local services where possible.