

# Nunavummi Qaujisaqtulirijikkut / Nunavut Research Institute

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## SCIENTIFIC RESEARCH LICENSE

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AFFILIATION: Korea Polar Research Institute

TITLE: Permafrost Atmospheric Science in Cambridge Bay, Canada

### OBJECTIVES OF RESEARCH:

This research will focus on interactions that drive critical climate feedbacks within these environments through greenhouse gas fluxes and changes in surface energy balance associated with permafrost degradation. Subsurface microbial, geochemical, and hydrologic processes that determine the fate of organic carbon will need to be characterized to better predict CO<sub>2</sub>, CH<sub>4</sub> and N<sub>2</sub>O fluxes from Arctic landscapes. An improved understanding of organic matter vulnerability in thawing permafrost with nitrogen cycle will greatly improve modeling of greenhouse gas flux from subsurface environments and the atmosphere.

### TERMS & CONDITIONS:

The holder of the license will be bound by the terms and conditions from the Nunavut Impact Review Board Screening Decision and per the Department of Culture & Heritage Archeological Sites Terms and Conditions. These terms and conditions will form part of this license.

### DATA COLLECTION IN NU:

DATES: February 28, 2019-December 31, 2019

LOCATION: Cambridge Bay

Scientific Research License 04 016 19R-M expires on December 31, 2019

Issued at Iqaluit, NU on February 28, 2019



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