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# Nunavummi Qaujisaqtulirijikkut / Nunavut Research Institute

Box 1720, Iqaluit, NU X0A 0H0 phone: (867) 979-7279 fax: (867) 979-7109 e-mail:

[mosha.cote@arcticcollege.ca](mailto:mosha.cote@arcticcollege.ca)

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## SCIENTIFIC RESEARCH LICENSE

LICENSE # 02 049 19N-M

ISSUED TO: Maya Bhatia  
Department of Earth and Atmospheric Sciences  
1-26 Earth Science Bld.  
Edmonton, Alberta  
T6G 2E3 Canada

TEAM MEMBERS: D. Burgess, E. Bertrand, P. Williams

AFFILIATION: University of Alberta

TITLE: Impacts of Melting Tidewater Glaciers on Marine Biogeochemical Cycles

### OBJECTIVES OF RESEARCH:

We propose to characterize the biogeochemical impact of glacial runoff and meltwater plumes on a regionally productive marine ecosystem that is central to the health of indigenous communities. Our proposed field work program for 2019-2024 will be completed on the Sverdrup Glacier, Belcher Glacier, Sydkcap Glacier and Jakeman Glacier, and their downstream marine environments. This project is designed to thoroughly characterize and quantify the material exports from the glaciers, define their environmental controls, and assess their impacts in downstream marine environments. We have assembled a team of new and established Canadian researchers capable of characterizing the physical, biological and chemical properties of subglacial water, from its meltwater origin, through its transport along the glacier bed, and finally to its discharge into and dispersion within the ocean.

### TERMS & CONDITIONS:

The holder of the licence will be bound by the terms and conditions of the Nunavut Impact Review Board Screening Decision Report and the Department of Culture & Heritage archaeological sites terms and conditions. These terms and conditions will form part of this licence.

### DATA COLLECTION IN NU:

DATES: July 22, 2019-August 20, 2019

LOCATION: Devon Island, Ellesmere Island

Scientific Research License 02 049 19N-M expires on December 31, 2019

Issued at Iqaluit, NU on June 11, 2019

Mary Ellen Thomas  
Science Advisor

