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# Nunavummi Qaujisaqtulirijikkut / Nunavut Research Institute

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## SCIENTIFIC RESEARCH LICENSE

LICENSE # 02 028 19R-M

ISSUED TO: Martin Sharp  
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TEAM MEMBERS: A. Dubnick, P. Williams

AFFILIATION: University of Alberta

TITLE: Dynamics and Change of the Devon Ice Cap, Nunavut

### OBJECTIVES OF RESEARCH:

Understand how Arctic ice caps are responding to climate warming, and quantify the contribution of glacier melt in Arctic Canada to sea level change. To service and recover data from 5 GPS sensors installed on bedrock around Devon Ice cap that record vertical motion of the Earth's crust in response to changes in the ice cap's mass. We expect the crust around the ice cap to rise if the ice cap is losing mass and to sink if it is gaining mass, and the rates of elevation change to scale with the amount of mass lost or gained. We also expect to see a seasonal cycle of uplift in summer when the ice cap is losing mass by melting and subsidence in winter when it is gaining mass by snowfall. We will collect glacier ice samples and return them to the laboratory for chemistry and microbial analyses and experiments.

### 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.

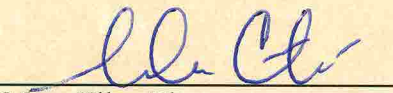
### DATA COLLECTION IN NU:

DATES: April 17, 2019-May 09, 2019

LOCATION: Devon Island

Scientific Research License 02 028 19R-M expires on December 31, 2019

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for   
Mary Ellen Thomas  
Science Advisor