

# Nunavummi Qaujisaqtulirijikkut / Nunavut Research Institute

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## SCIENTIFIC RESEARCH LICENSE

LICENSE # 02 045 15N-A

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TITLE: The Role of Algae, Sunlight and Humic Substances in Disinfection in an Arctic Wastewater Stabilization Pond.

### OBJECTIVES OF RESEARCH:

This research aims to measure, and better understand and provide guidance on disinfection of domestic wastewater in the Arctic wastewater stabilization ponds (WSP's). WSP's are a sustainable, low cost and maintenance, passive wastewater treatment systems that are commonly used in Northern communities across Canada. This performance is susceptible to environmental conditions and therefore can exhibit variable treatment efficiencies. Disinfections in WSP's relies on naturally occurring water quality variable, such as sunlight, pH, dissolved oxygen and humic substances. Measuring disinfection performances of WSP's and providing evidence to guide potential improvements is the overarching goal of the project.

### 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 24, 2015-August 29, 2015

LOCATION: Pond Inlet

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Mary Ellen Thomas  
Science Advisor

