

SCIENTIFIC RESEARCH LICENSE

LICENSE NUMBER 02 022 24R-M

ISSUED TO: Lyle Whyte  
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TEAM MEMBERS: C.Davis,M.Quinn,S.Sugden,M.Kozey,L.Breckenbridge

TITLE: Microbial investigations of perennial springs, permafrost and ground ice in the high Arctic

### OBJECTIVES OF RESEARCH:

My research program examines microbial ecology in unique Canadian High Arctic ecosystems, including permafrost, glaciers, and hypersaline springs and sediments. Over the past 20 years, this research has contributed significantly to our knowledge of the diversity, abundance, and ecological role of microorganisms in polar regions. Our research program centers on three objectives: (1) studying microbial life at sub-zero temperatures to understand the low-temperature limits of life on Earth; (2) determining the current and future role of arctic microorganisms in global biogeochemical cycles; and (3) using extreme, cold-temperature environments as analogs for investigating the potential for life on other planets such as Mars.

**TERMS & CONDITIONS:**

The holder of the licence will be bound by the terms and conditions of the Nunavut Impact Review Board Screening Decision Report (09YN051) and the Department of Culture & Heritage archaeological sites terms and conditions. These terms and conditions will form part of this licence. These terms and conditions will form part of this license.

## DATA COLLECTION IN NU:

DATES: July 1, 2024 to July 30, 2024

LOCATION: Axel Heiberg

Scientific Research License 02 022 24R-M expires on December 31,2024

Issued at Iqaluit, NU on April 11, 2024

Jamal Shirley  
Science Advisor

