Biosignature Dynamics in British Columbia's Frozen Hypersaline Lakes: Implications for the Habitability and Bioburden of Ice-Brine Environments

Figure 1 – Hypersaline lake locations. Left) Map of the hypersaline lake groups of central British Columbia (modified from [Renaut and Long, 1989]) Last Chance Lake and Salt Lake are members of the Cariboo Plateau group while Basque Lakes 1, 2 and 5 are members of the Basque group. Right) Enlarged view of the region outlined in red showing the lake locations visited during February 2020.

Figure 2 – Field work at Basque Lake 2. A) Drone image of Basque Lake 2 taken in February 2019 (courtesy of Peter Doran). The segregated brine pools, more evident in (D), can still be seen under the snow cover. B) Ground...
photo of a sample site. Emma Brown is beginning to drill the borehole array seen in the next panel. C) The typical sampling procedure where ice thickness and temperature are recorded, ice cores are gathered, and brine is extracted from the underlying lake. D) The lake without an ice cover, photographed in September 2019.