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EXAMINING PERMAFROST DETECTION AND VALIDATION TECHNIQUES IN THERMALLY COMPLEX MOUNTAINOUS TERRAIN: A CASE STUDY IN THE OGILVIE MOUNTAINS

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Fig. 2.2. A temperature profile describing the relationship between the lower atmosphere and the thermal state of the ground in permafrost terrain (Henry & Smith, 2001).

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Fig. 2.5. Conceptual diagrams demonstrating the influence of inverted surface lapse rates on permafrost distribution in mountains following warming (Bonnaventure & Lewkowicz, 2013).

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Fig. 2.6. **Permafrost map of Canada with ground ice content (Heginbottom, 1995). From National Atlas of Canada, 5th edition, Plate 2.1 (MCR 4177), scale 1:7,500,000.**

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Fig. 2.7. A TTOP model product generated by Obu et al. (2019), displaying probabilities of permafrost distribution as zones in the northern hemisphere.

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Fig. 2.9. A figure by O'Neill et al. 2023, where a) is a schematic representation of a thaw tube instrument and b) is a conceptual diagram of the influence of ice-rich permafrost thaw on active layer thickness and ground surface height.

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Fig. 2.13. An example of an ERT profile generated by Holloway & Lewkowicz (2019). It depicts a 160-metre-long permafrost survey, where resistivity values >350 MΩm are interpreted as frozen ground.

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Fig. 2.14. An example of a GPR output with interpretation by Campbell et al. (2018), identifying a stratified ice-rich matrix and bedrock at McMurdo Station, Antarctica.

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