

nwmo

NUCLEAR WASTE
MANAGEMENT
ORGANIZATION

SOCIÉTÉ DE GESTION
DES DÉCHETS
NUCLÉAIRES

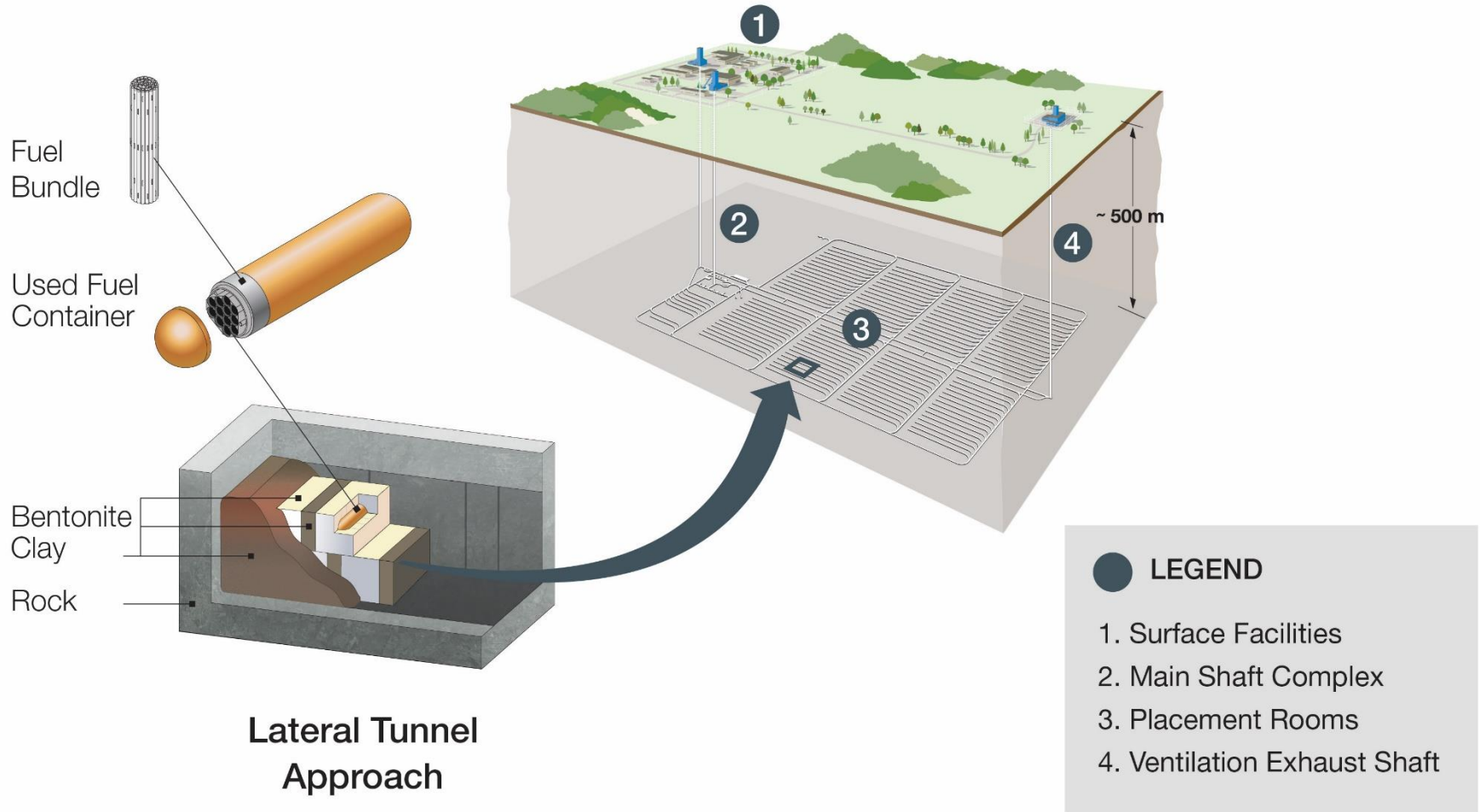


When the Glaciers Return

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Siting Project Coordination Manager
NWMO



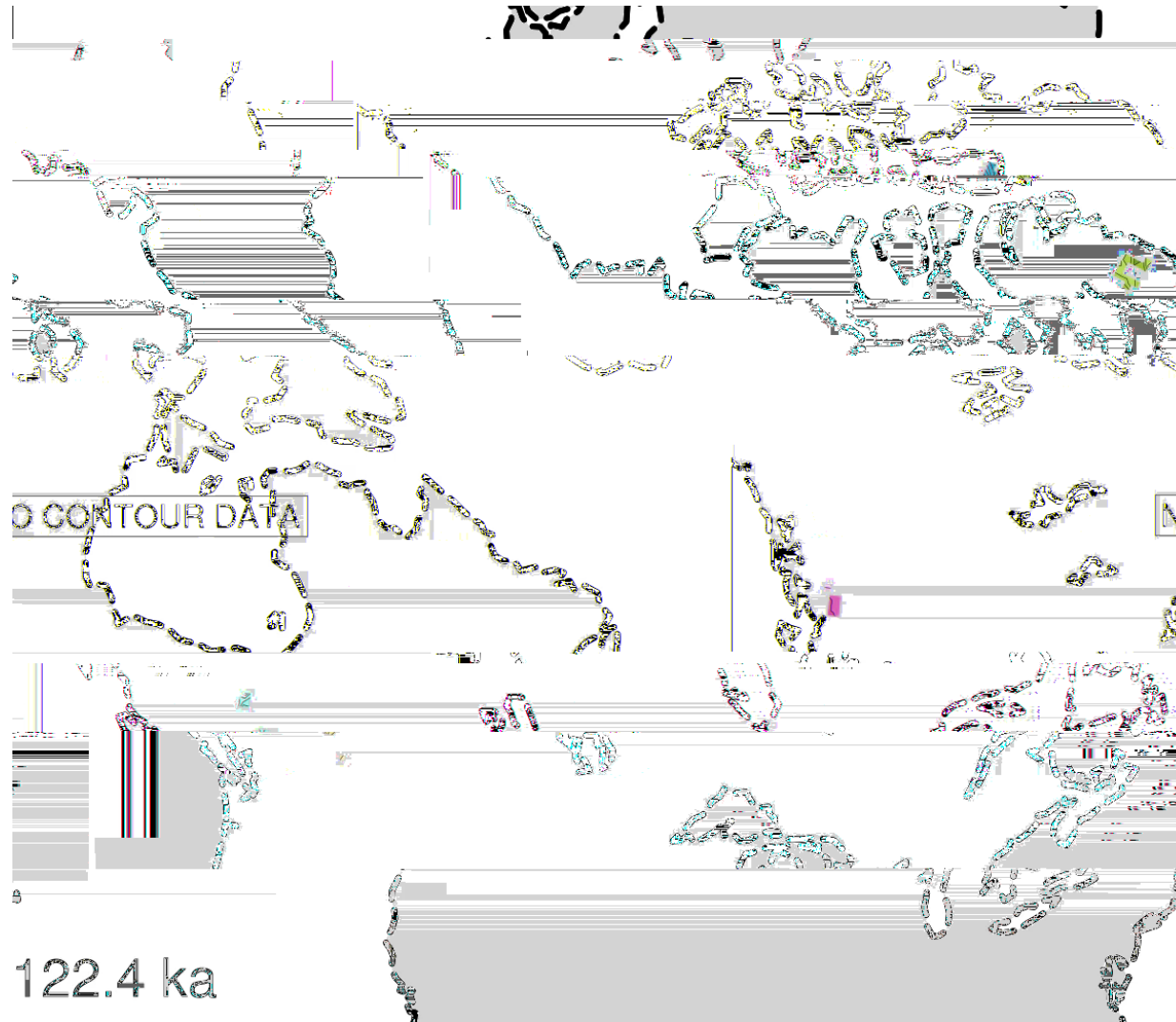
Deep Geological Repository (DGR)



Protect people & the environment ~ one million years



Changes in the past



**U of T Glacial
Systems Model**

Partners in Research



Sweden



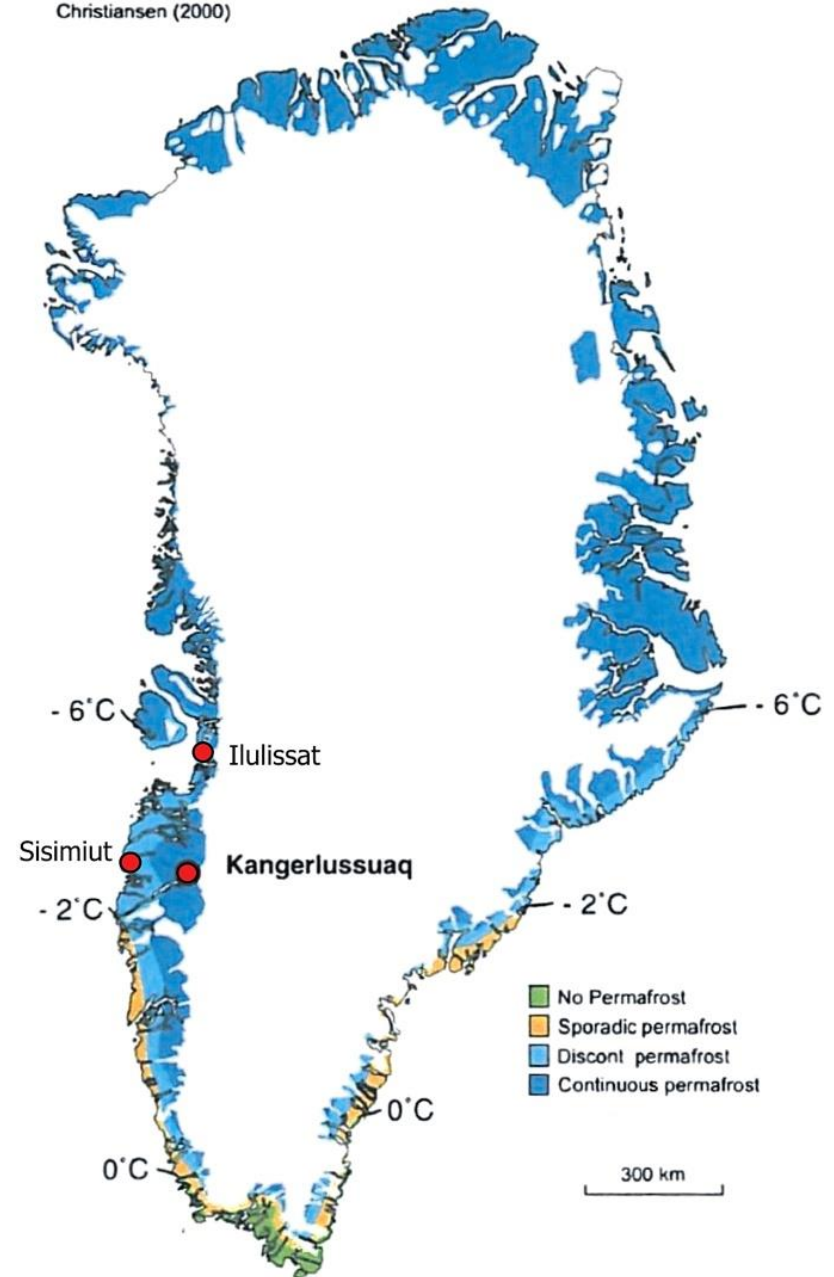
Finland



Canada

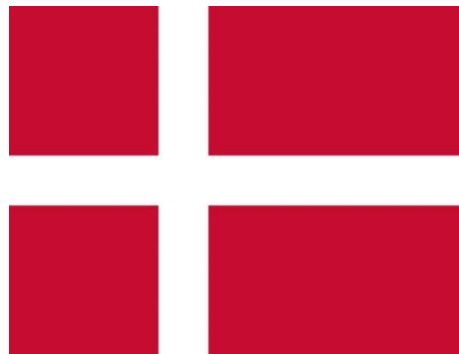
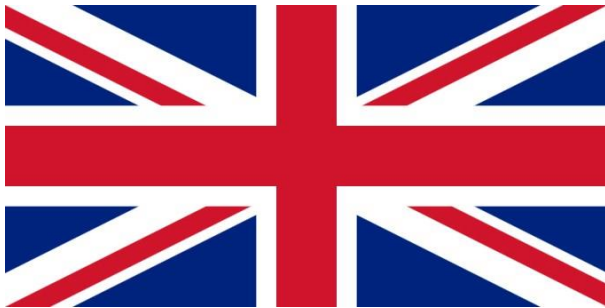
2008-2013

Christiansen (2000)

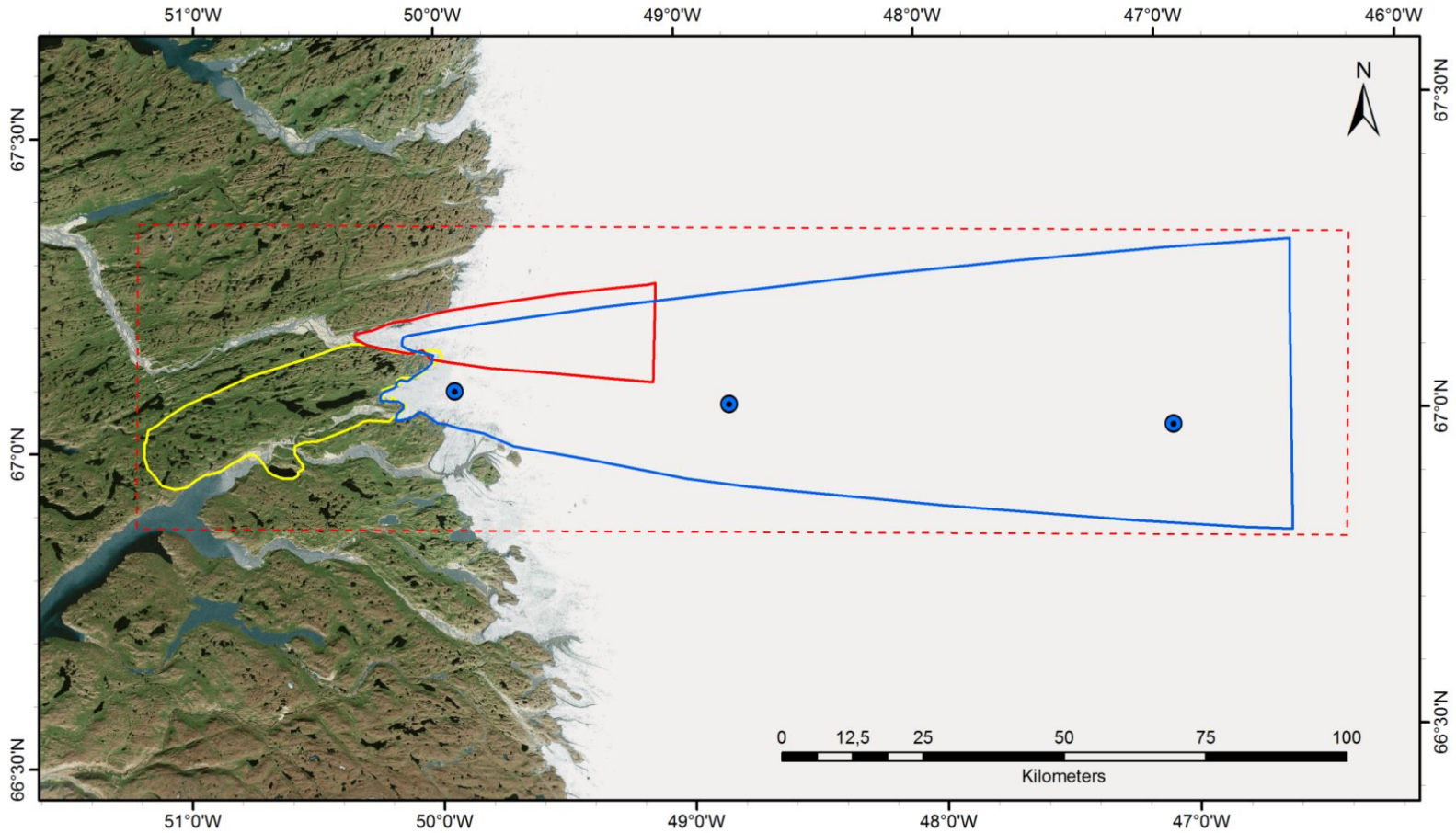




Scientists, Engineers, Technical Specialists...

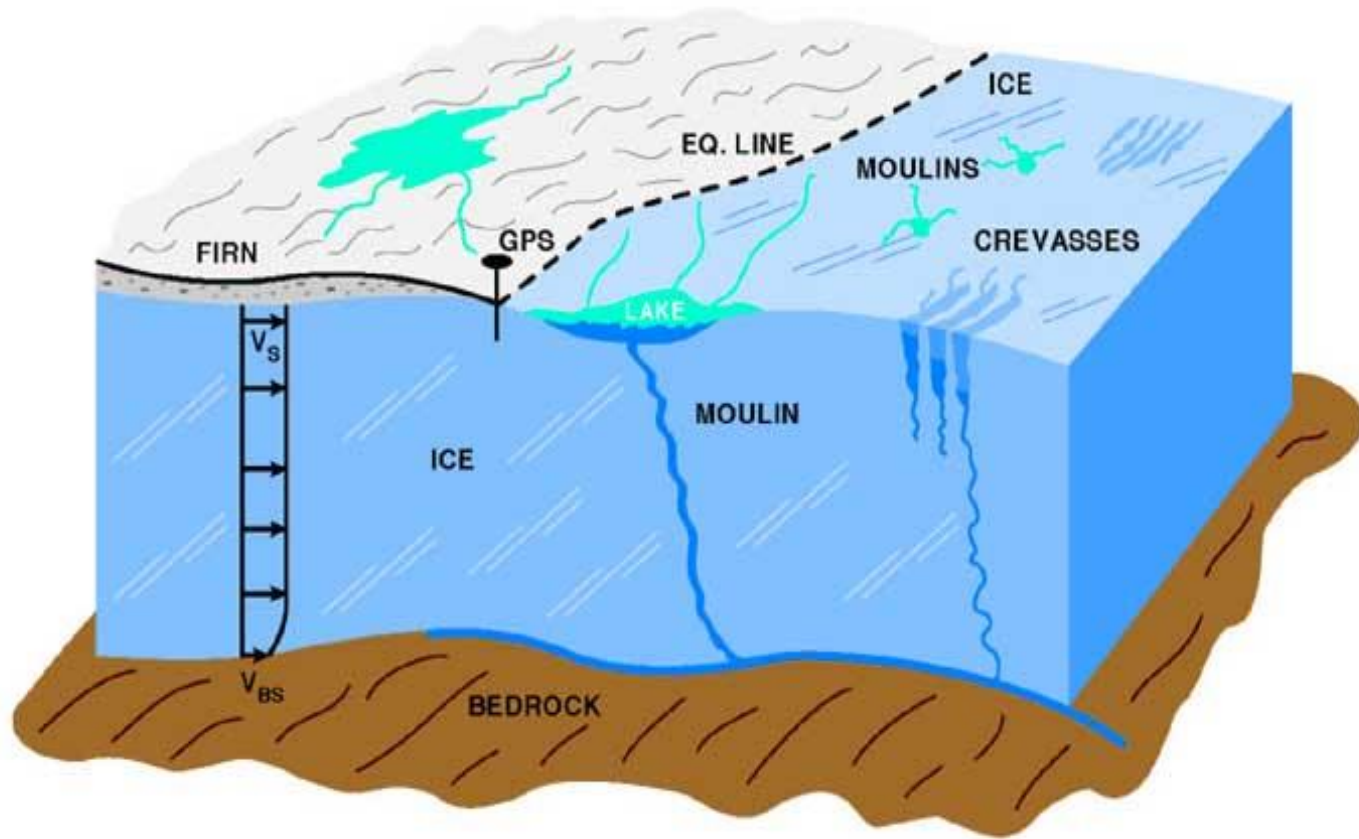


GAP Study Area



- Surface based ice sheet studies
- Geosphere studies
- Ice drilling & direct studies of basal conditions
- Automatic Weather Stations (AWS)

Meltwater – where it forms, where it goes

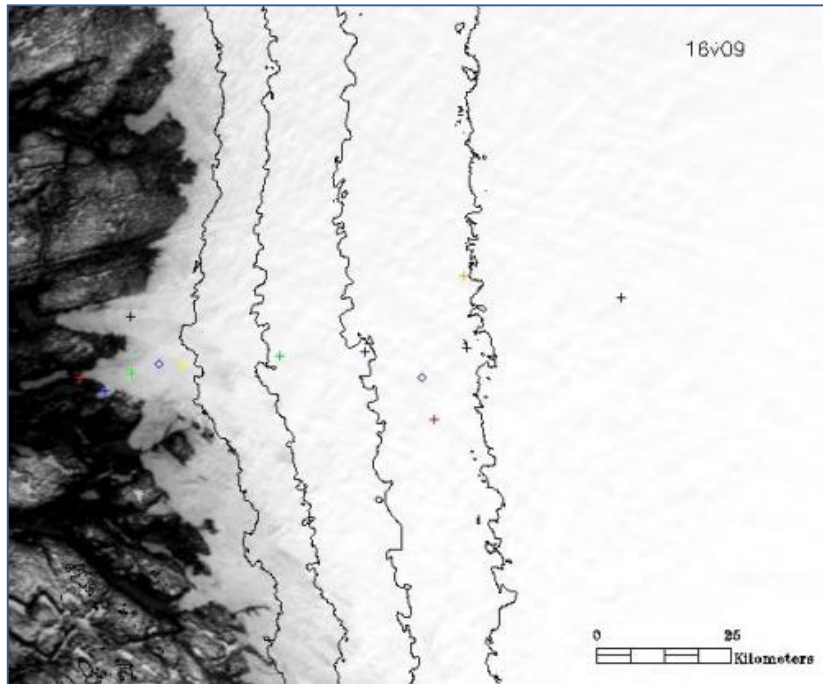


At the ice sheet surface

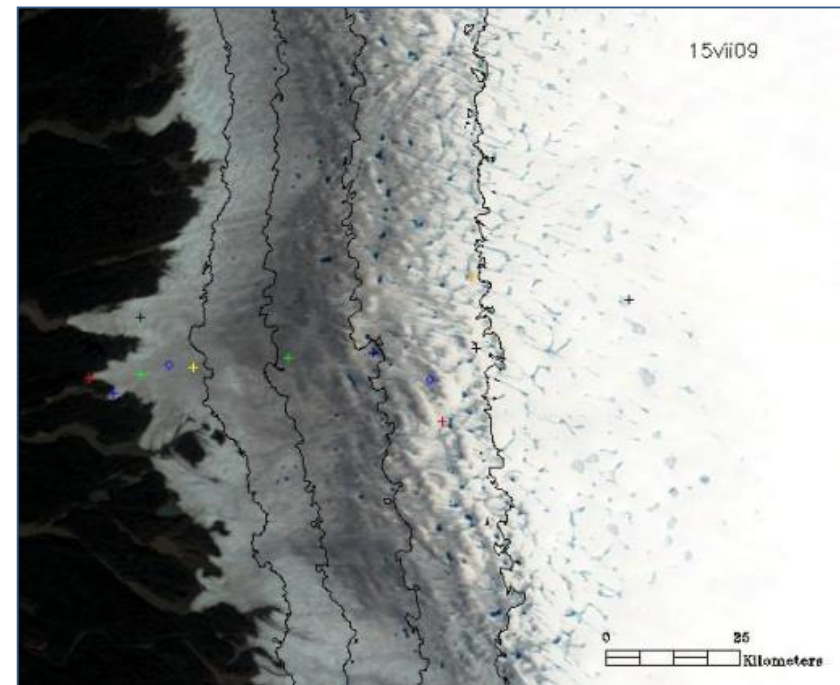


Lakes form on top of the ice sheet

Spring



Summer

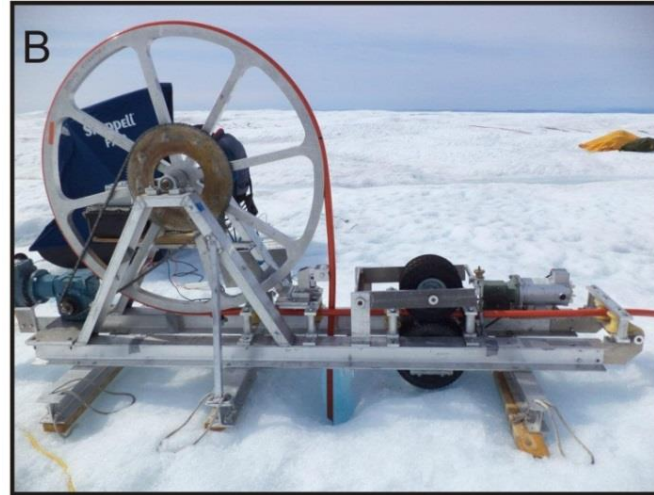
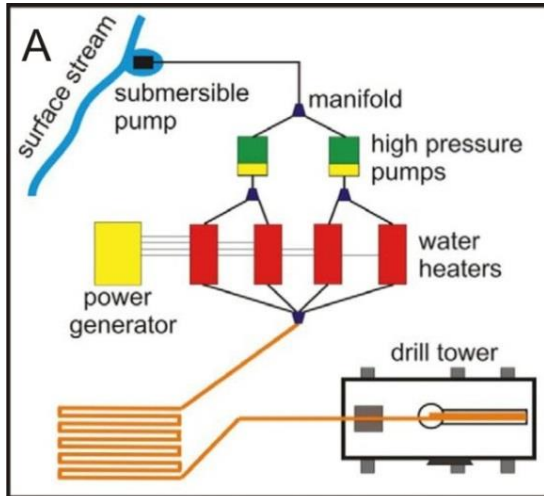


Remote sensing images

Within & below the ice sheet

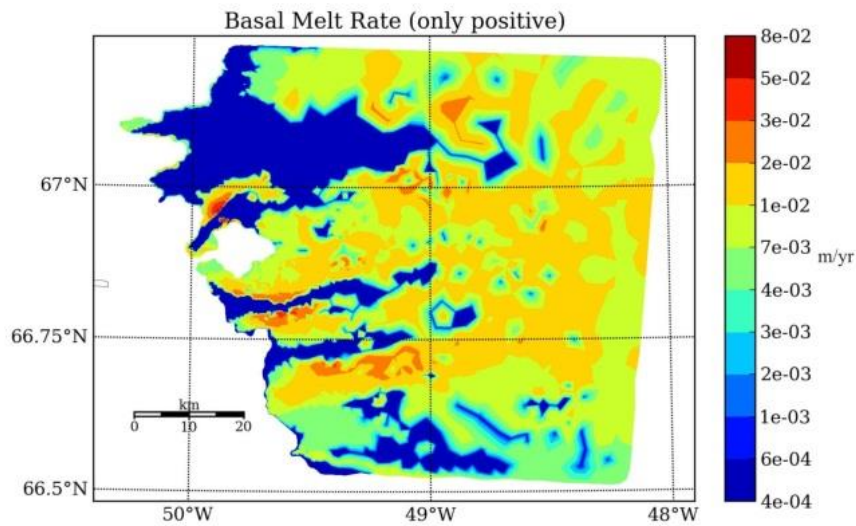


Drilling through the ice sheet

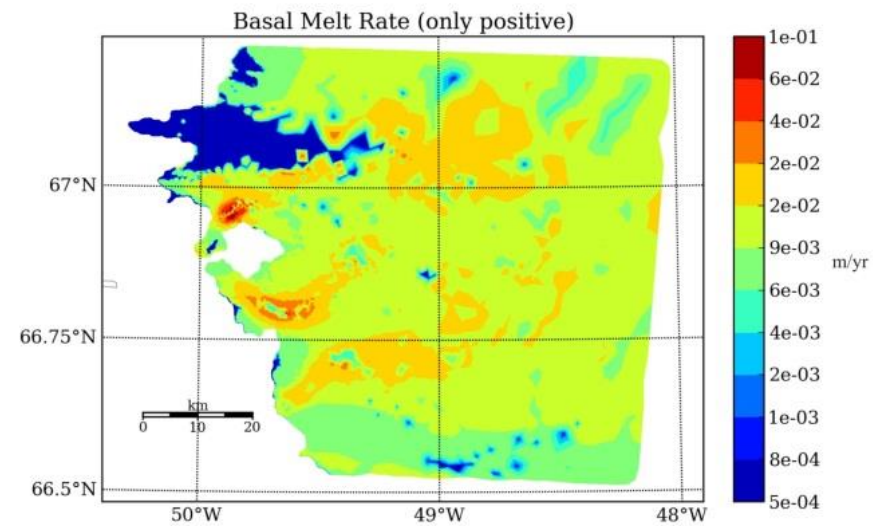


Melt water formed under the ice sheet

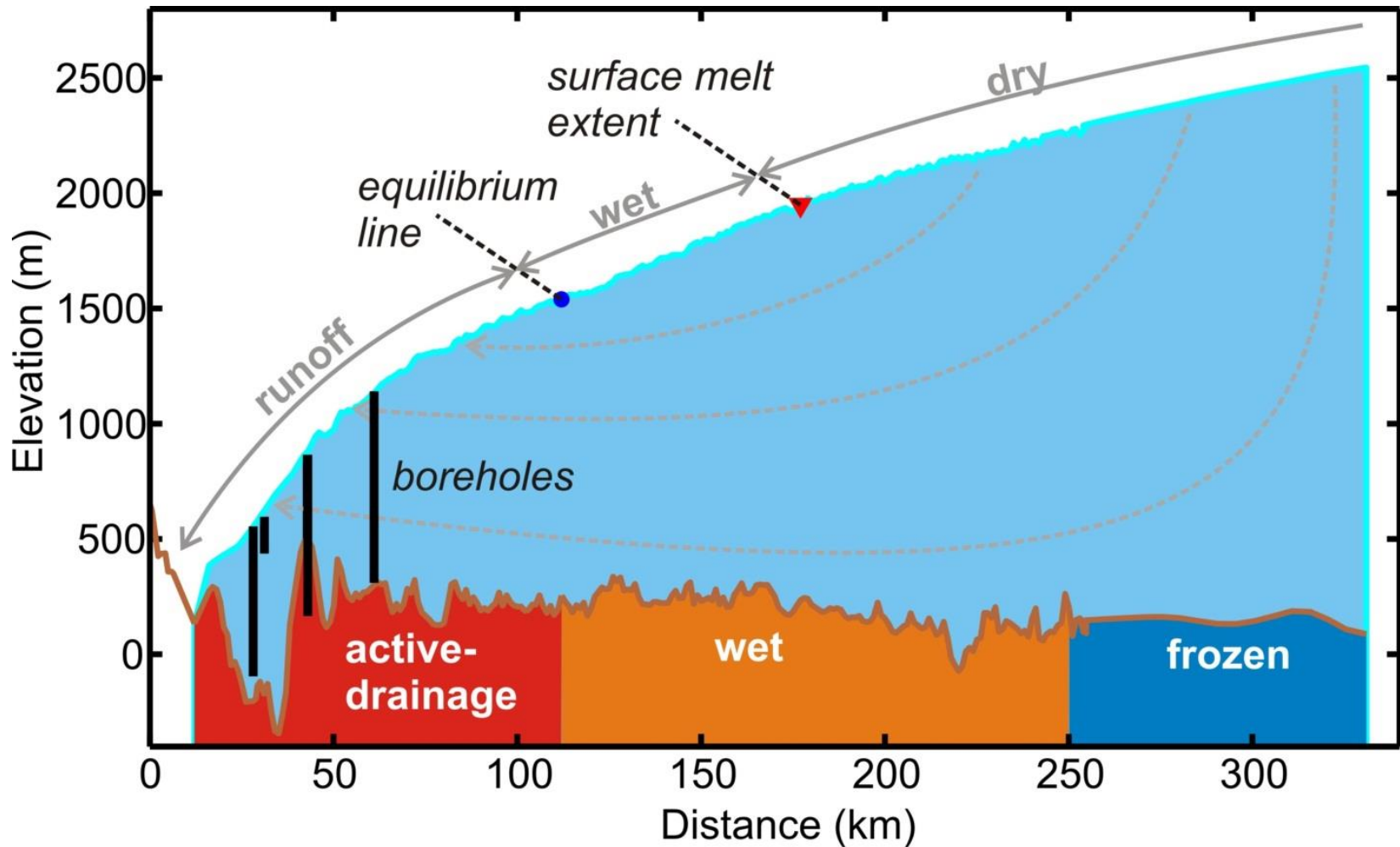
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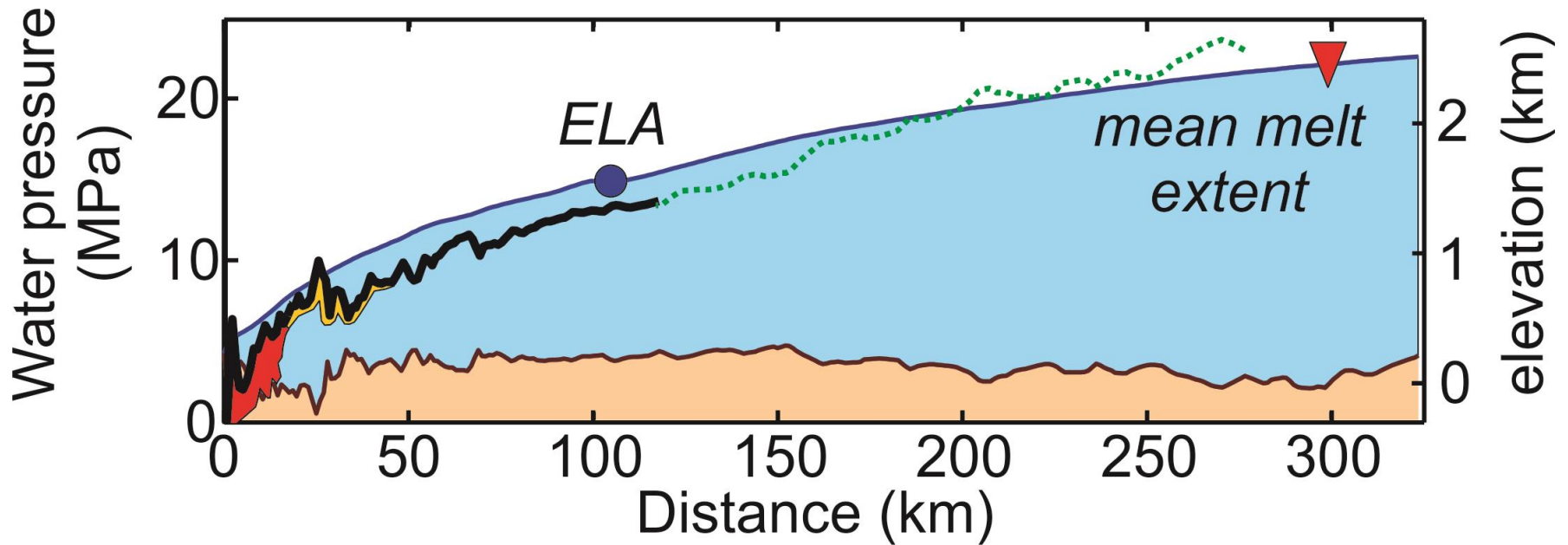
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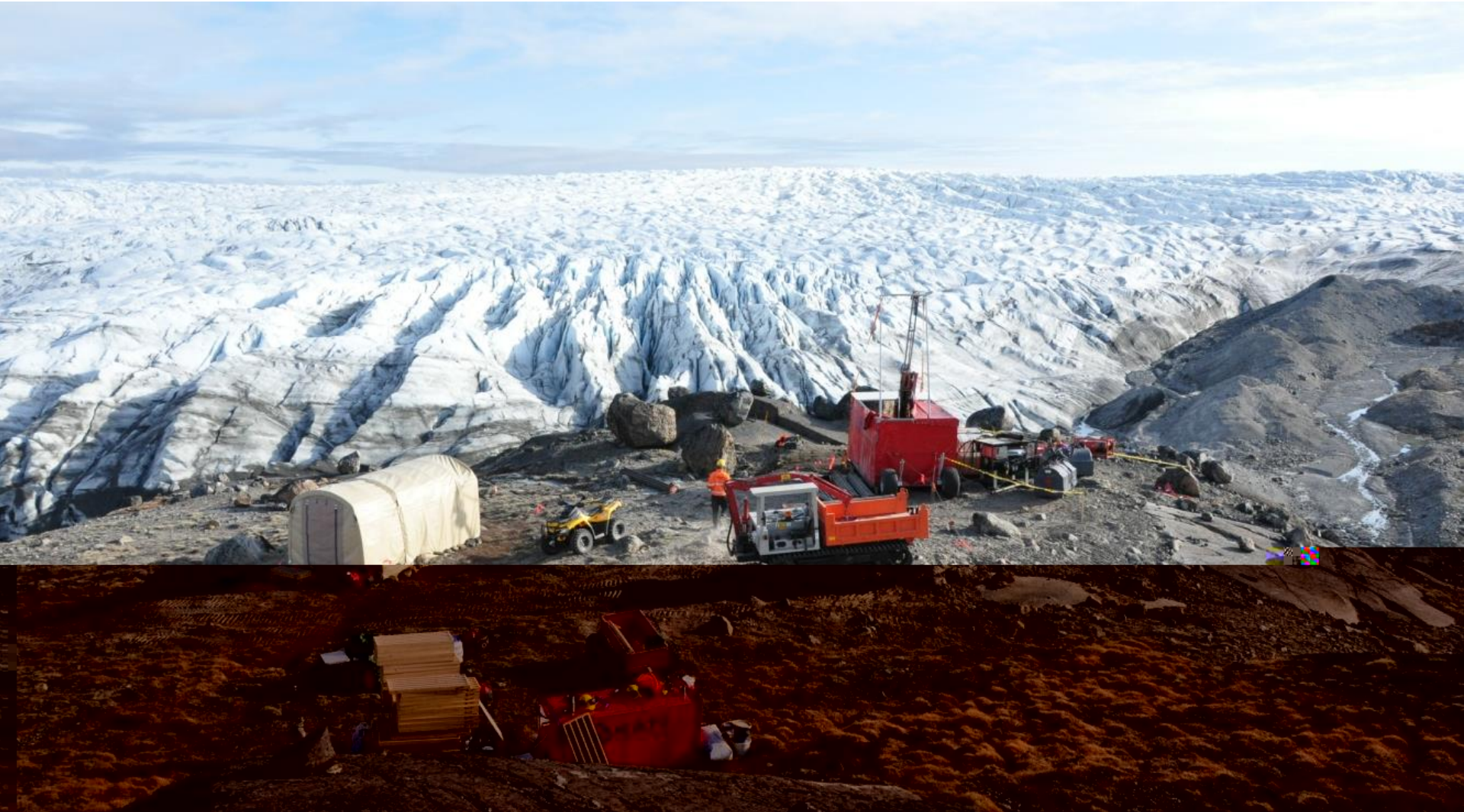
Under the ice sheet



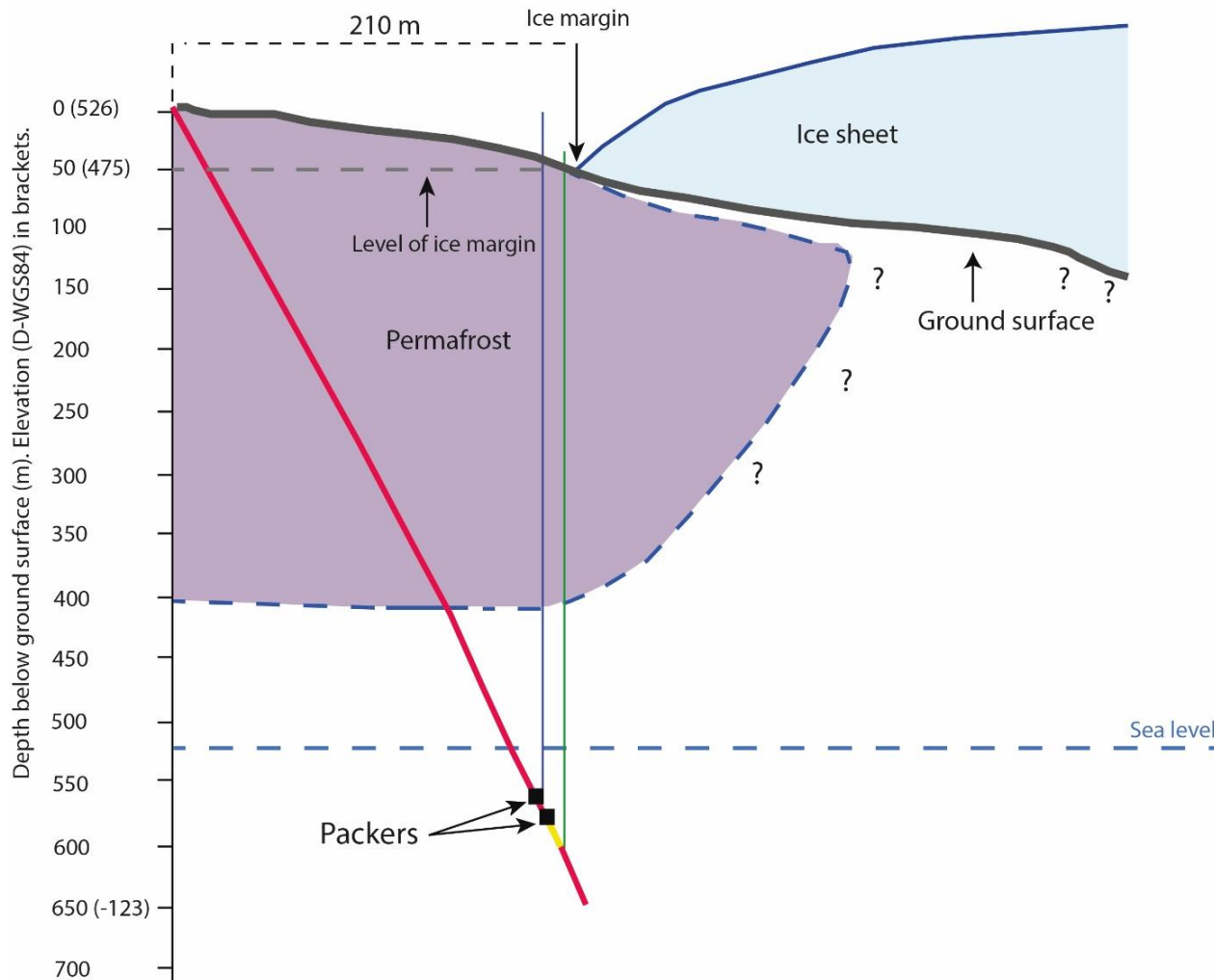
Water pressure under the ice sheet



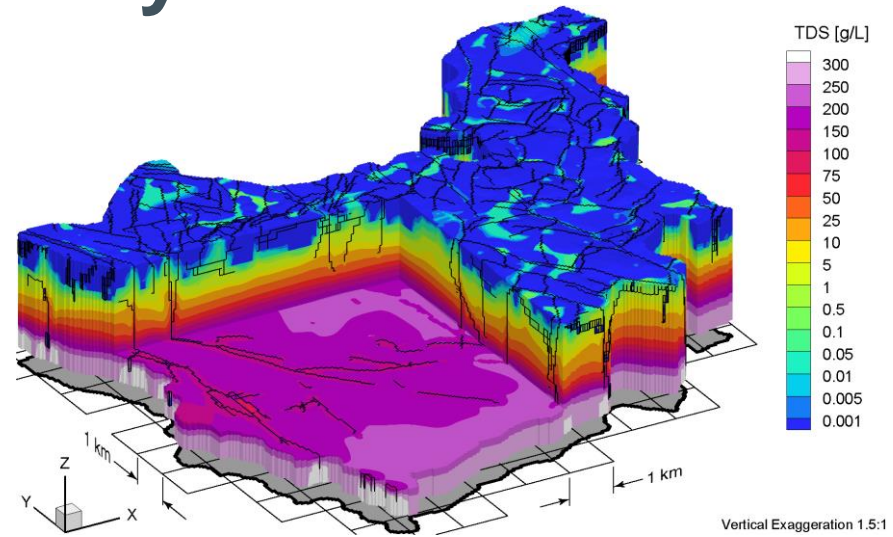
Through the rock & underneath the ice



Depth of frozen ground (permafrost)



Building a case for safety



Thank you!

