



GEOPHYSICAL INVESTIGATIONS OF GEOCRYOLOGICAL HAZARDS IN NAIN, NUNATSIAVUT

Madison Power¹, Robert Way¹, Yifeng Wang^{2,1}, Jessica Korn¹, Rachel Tian¹, Antoni Lewkowicz³

¹*Northern Environmental Geoscience Laboratory, Department of Geography and Planning, Queen's University, Kingston, ON, Canada*

²*Natural Resources Canada, Geological Survey of Canada, Ottawa, ON, Canada*

³*Department of Geography, Environment and Geomatics, University of Ottawa, Ottawa, ON, Canada*

GEOCRYOLOGICAL HAZARDS

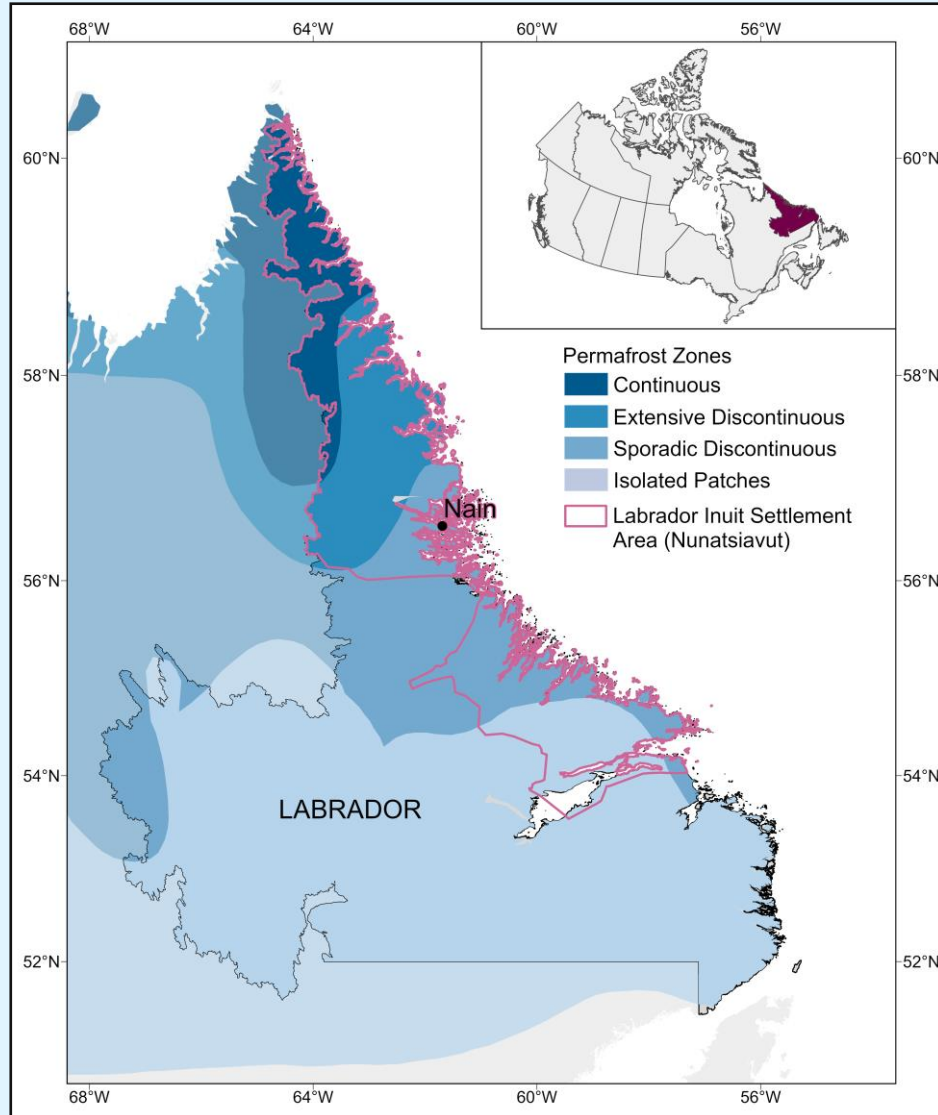
Geocryological hazards

Hazards from:

- thaw of ice-rich terrain;
- cryosphere-influenced mass-wasting;
- thermal erosion;
- frost processes.



NAIN, NUNATSIAVUT

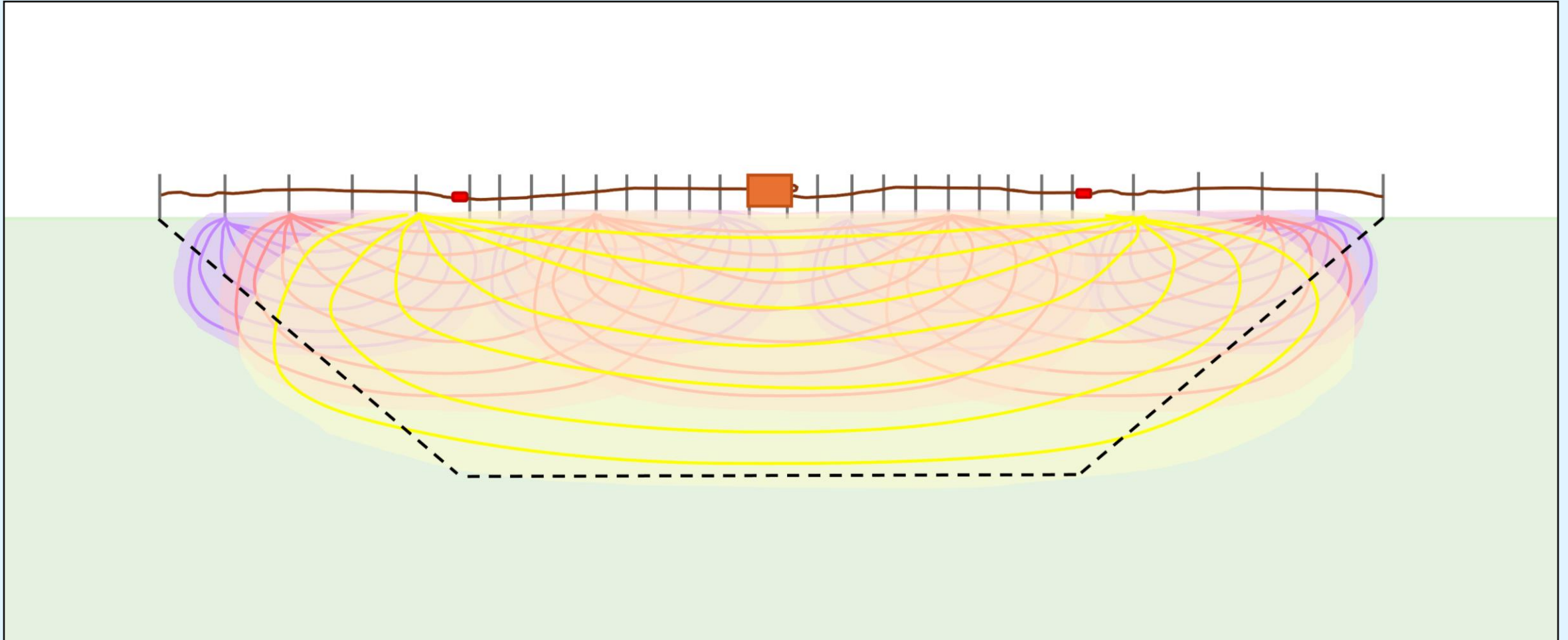


NAIN, NUNATSIAVUT



METHODS

Electrical resistivity tomography (ERT) is a geophysical method that can be used to differentiate frozen and unfrozen regions in the ground by exposing contrasts in material resistivities

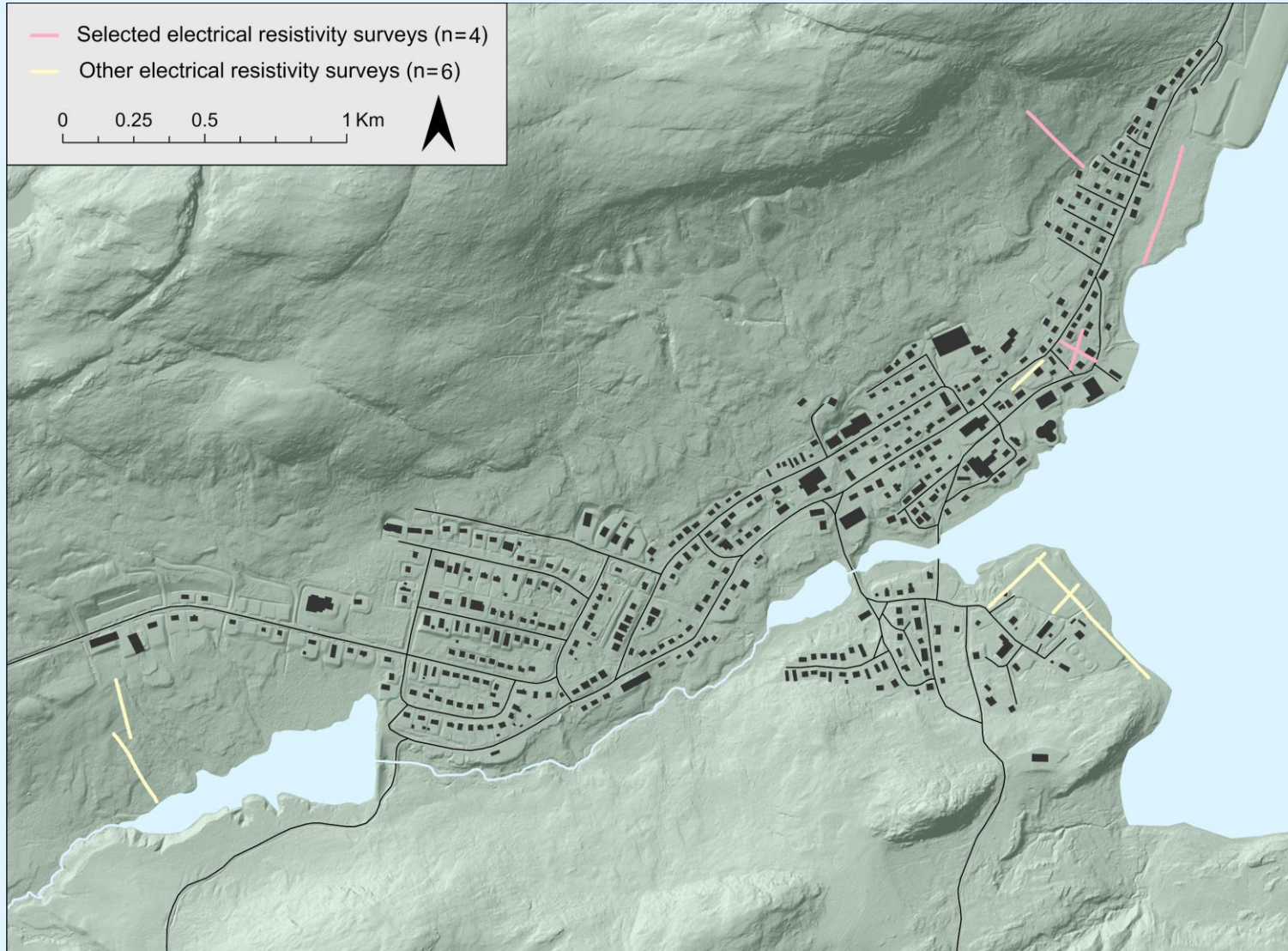


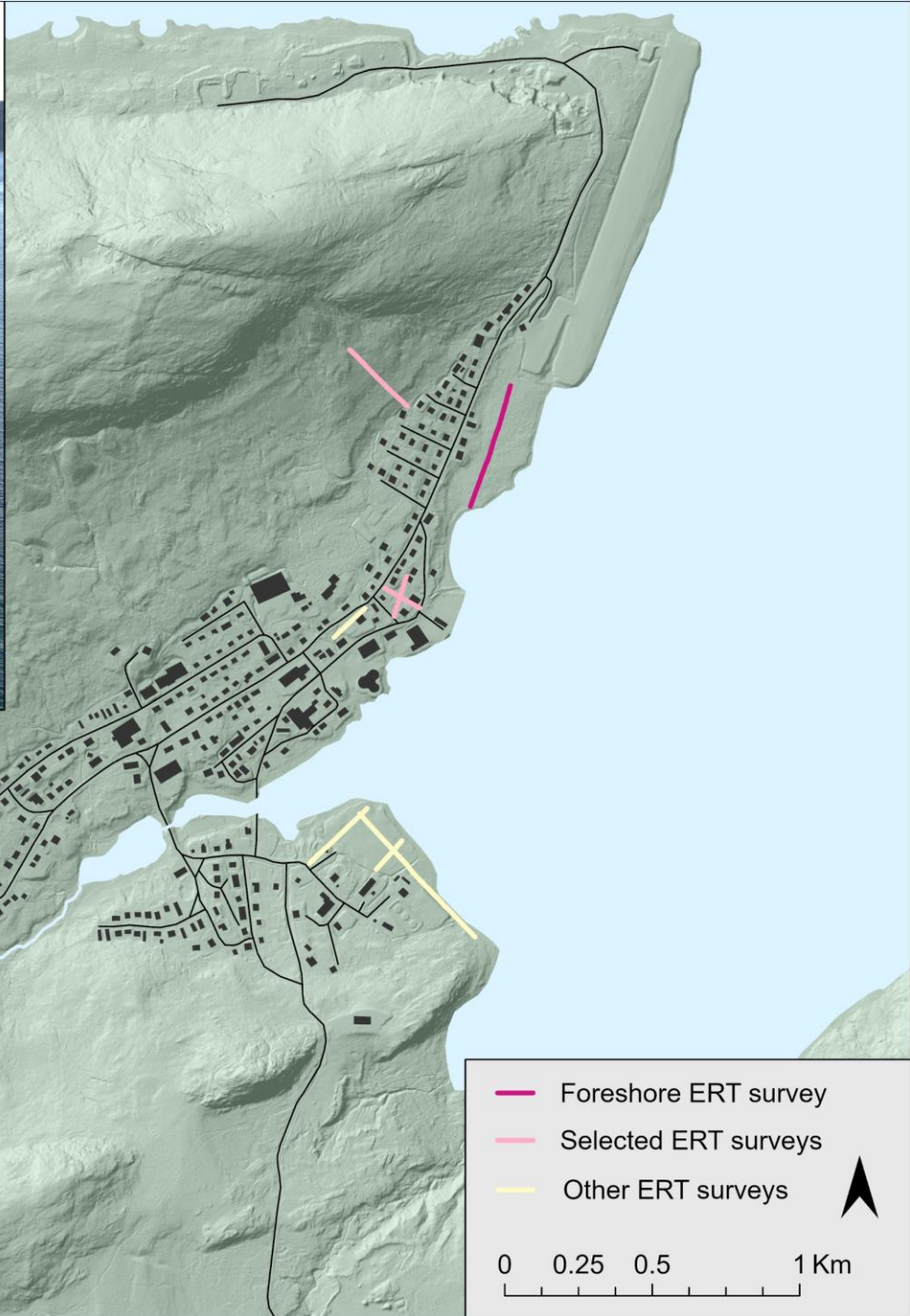
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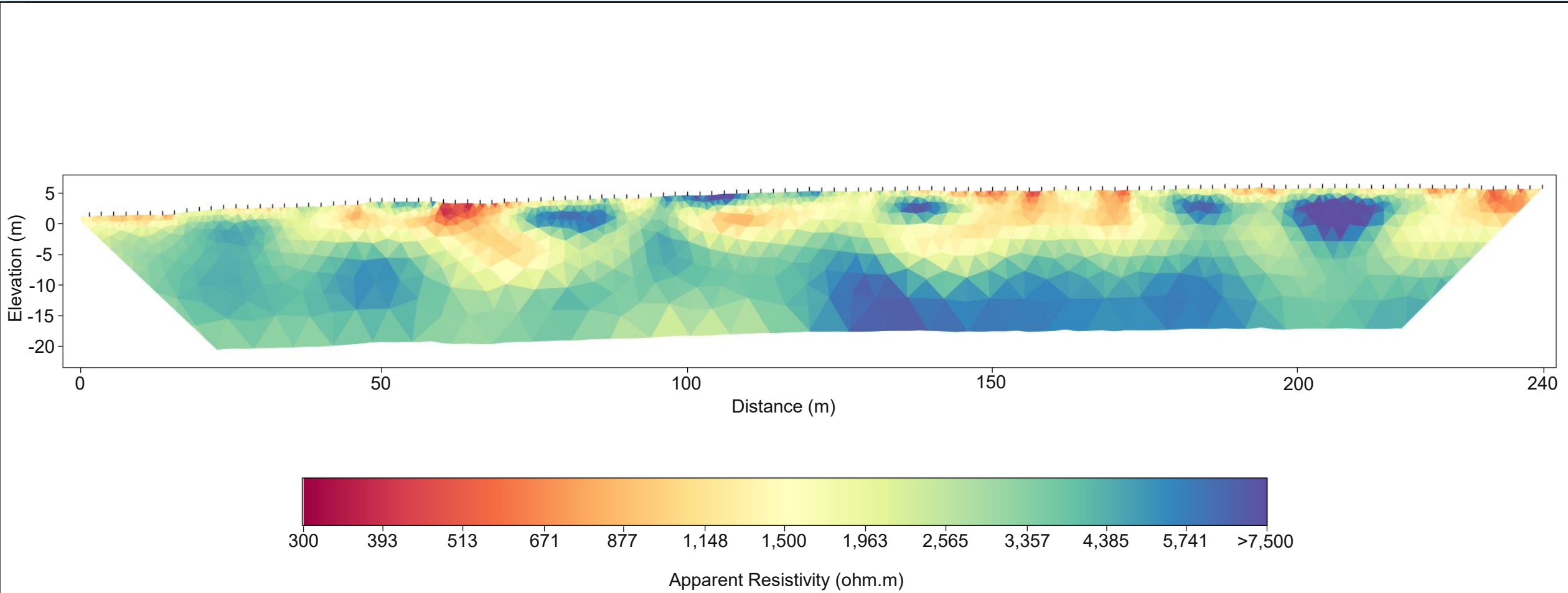


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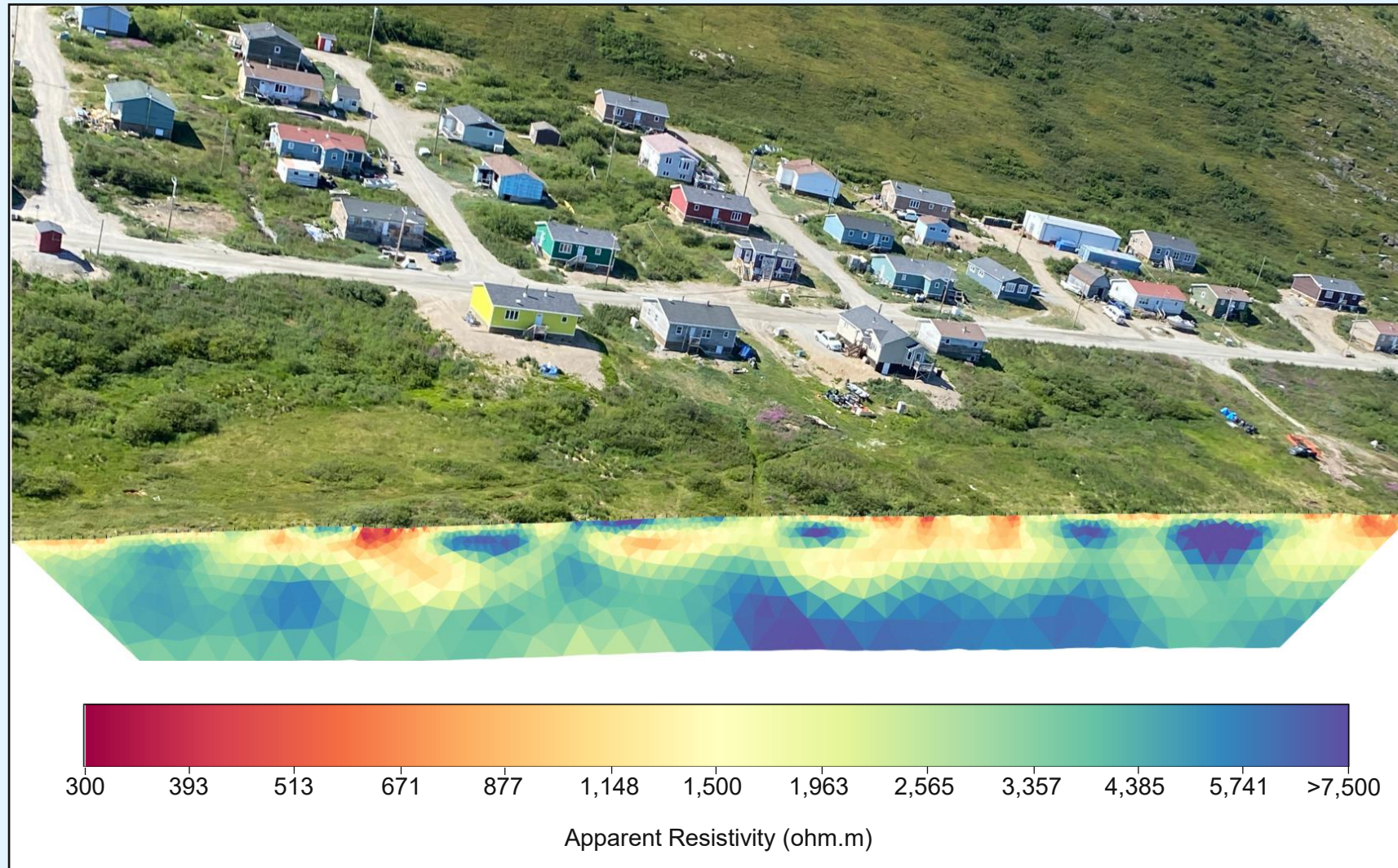




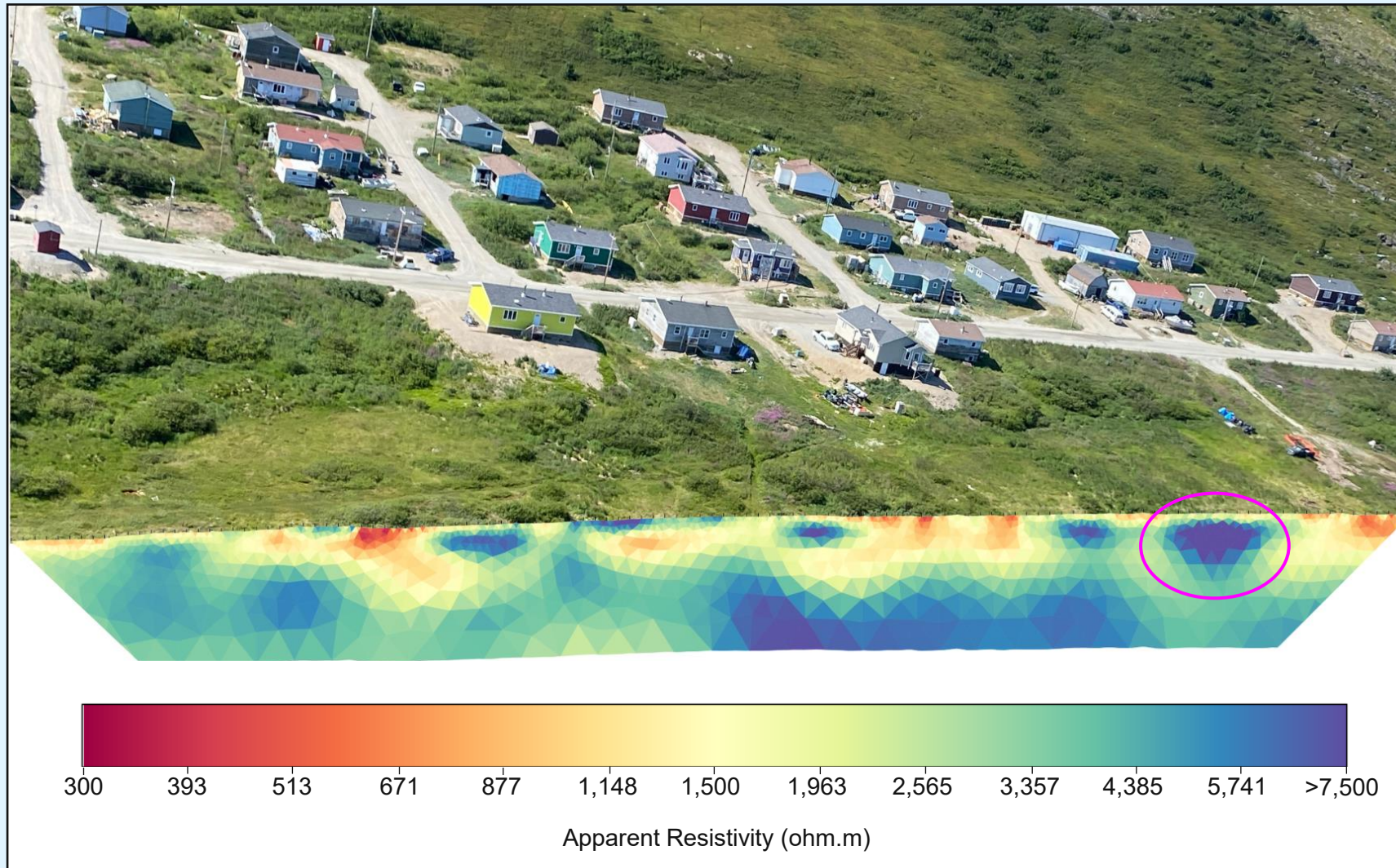
FORESHORE ERT SURVEY



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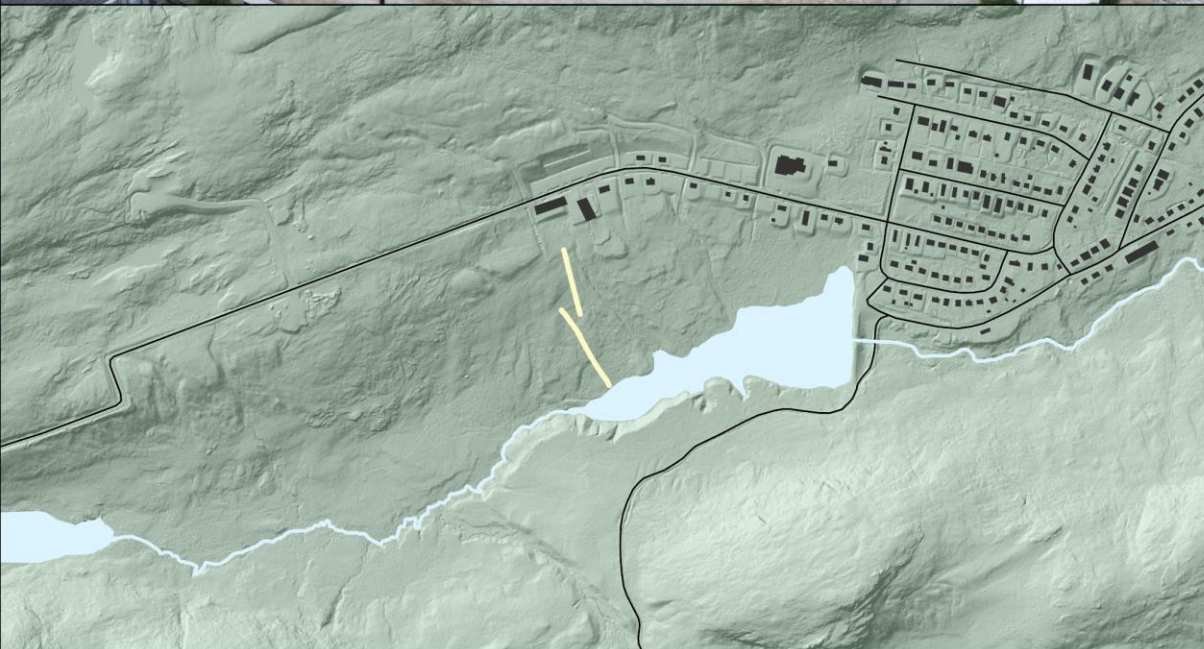
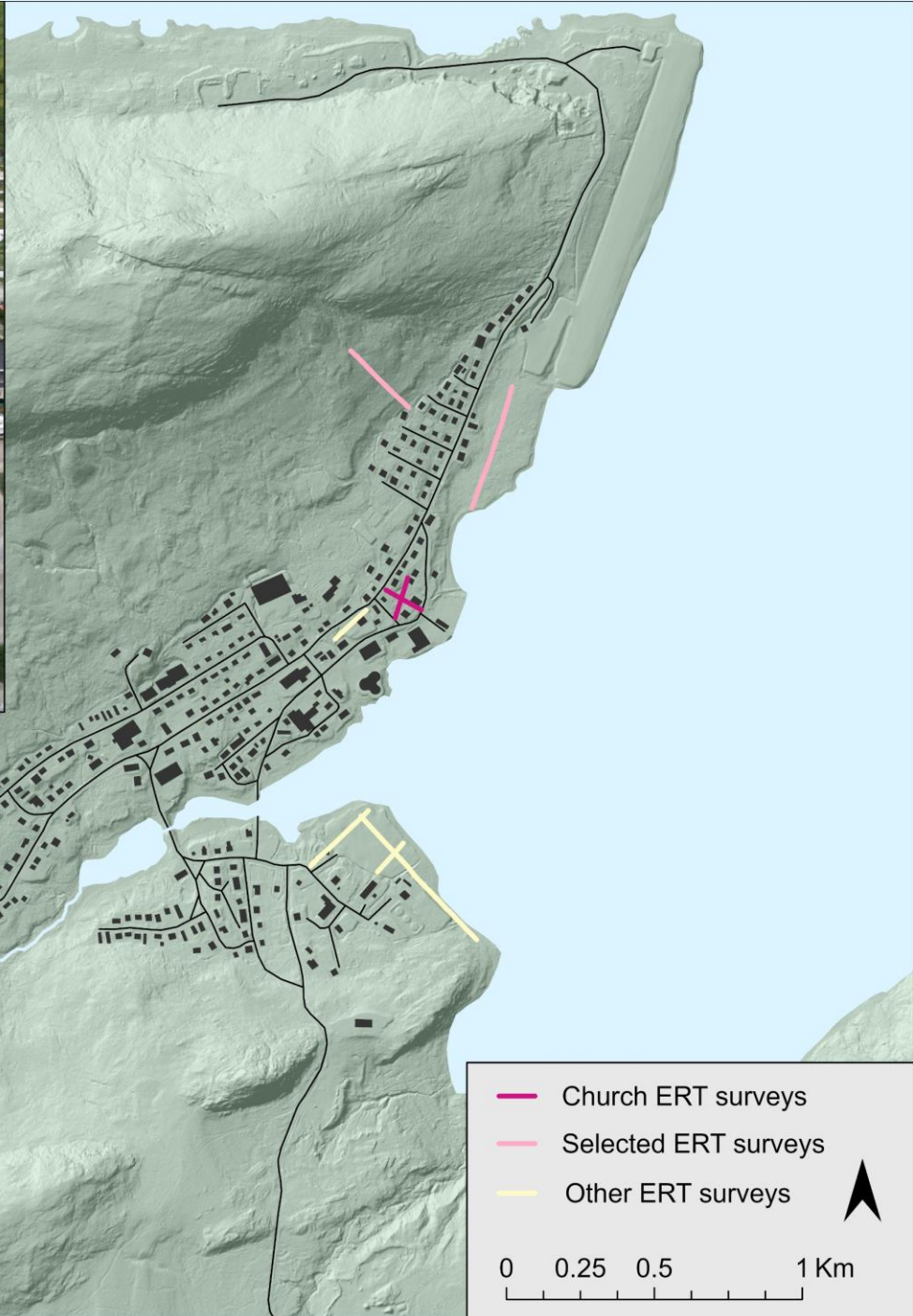
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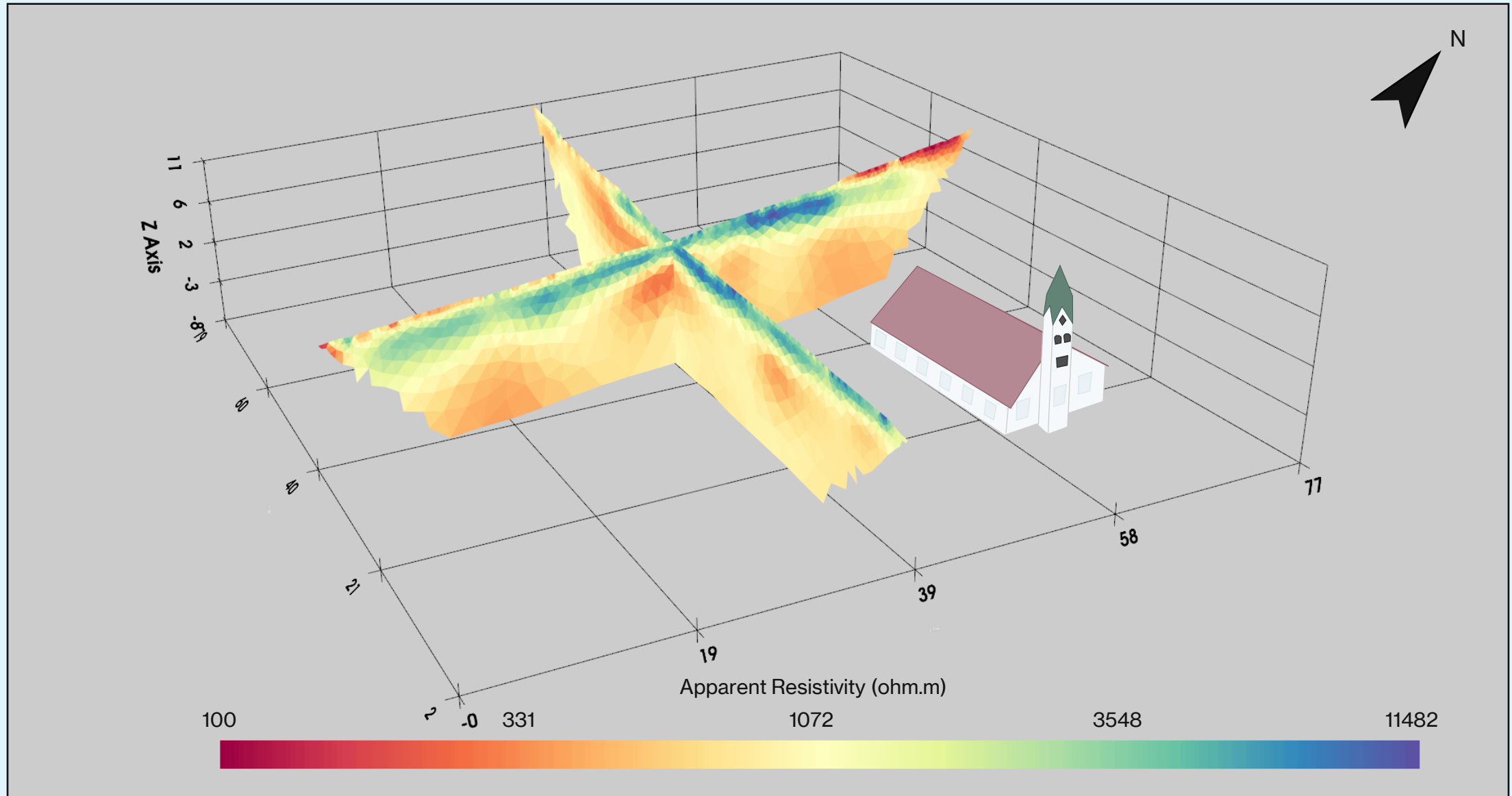
Ice Ice Baby



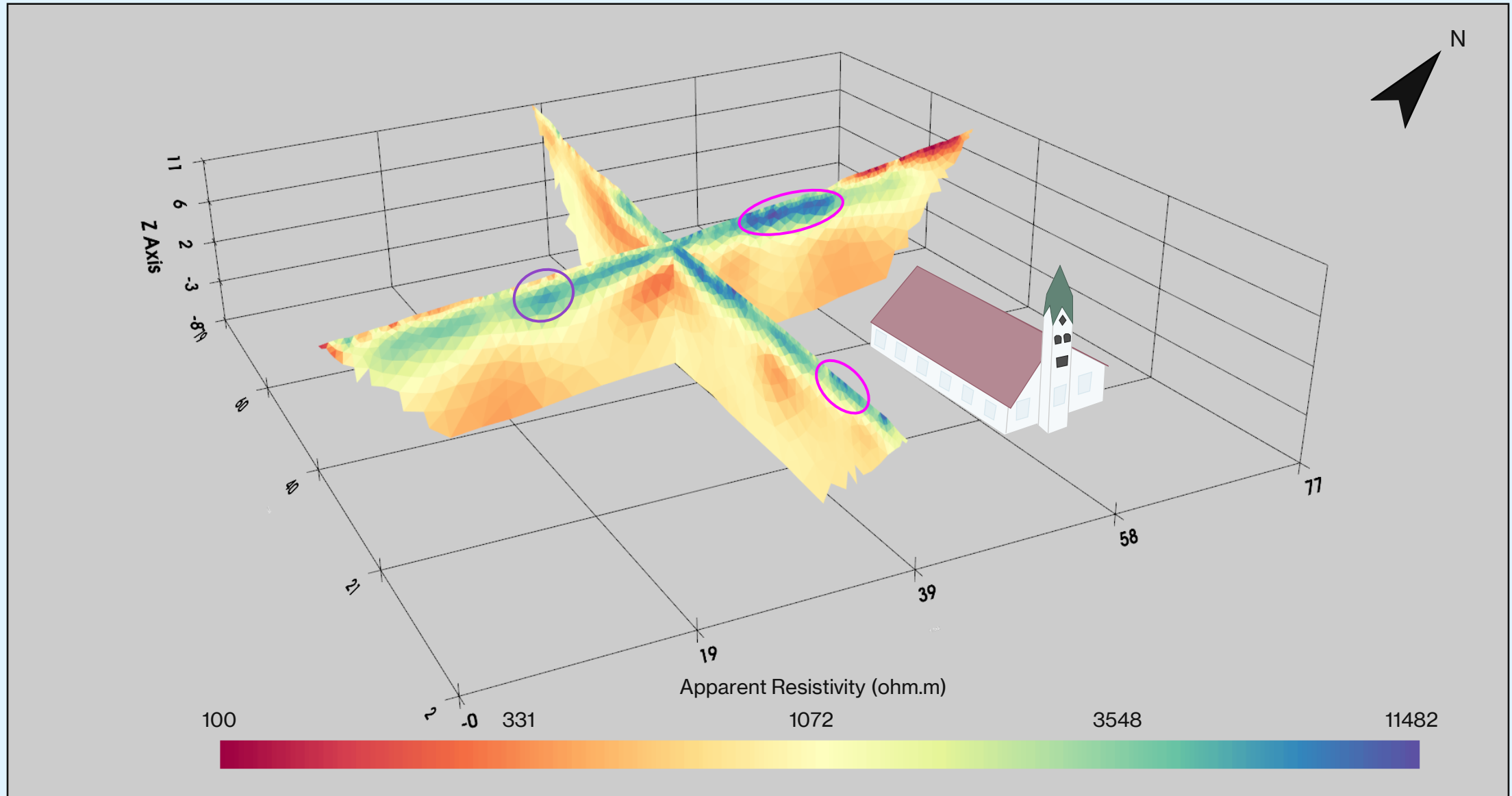
Drone image from Roger Paulen

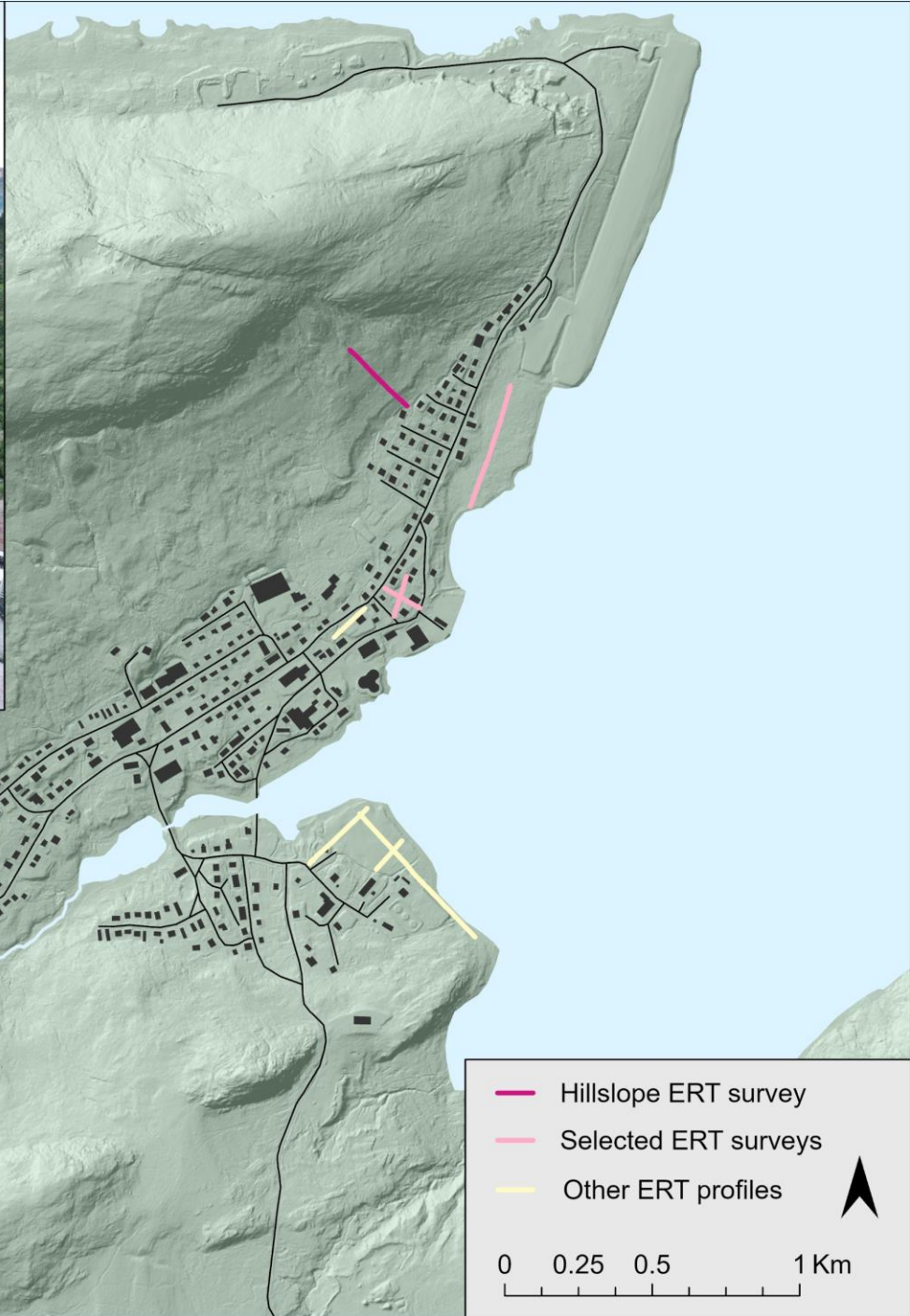


CHURCH ERT SURVEY

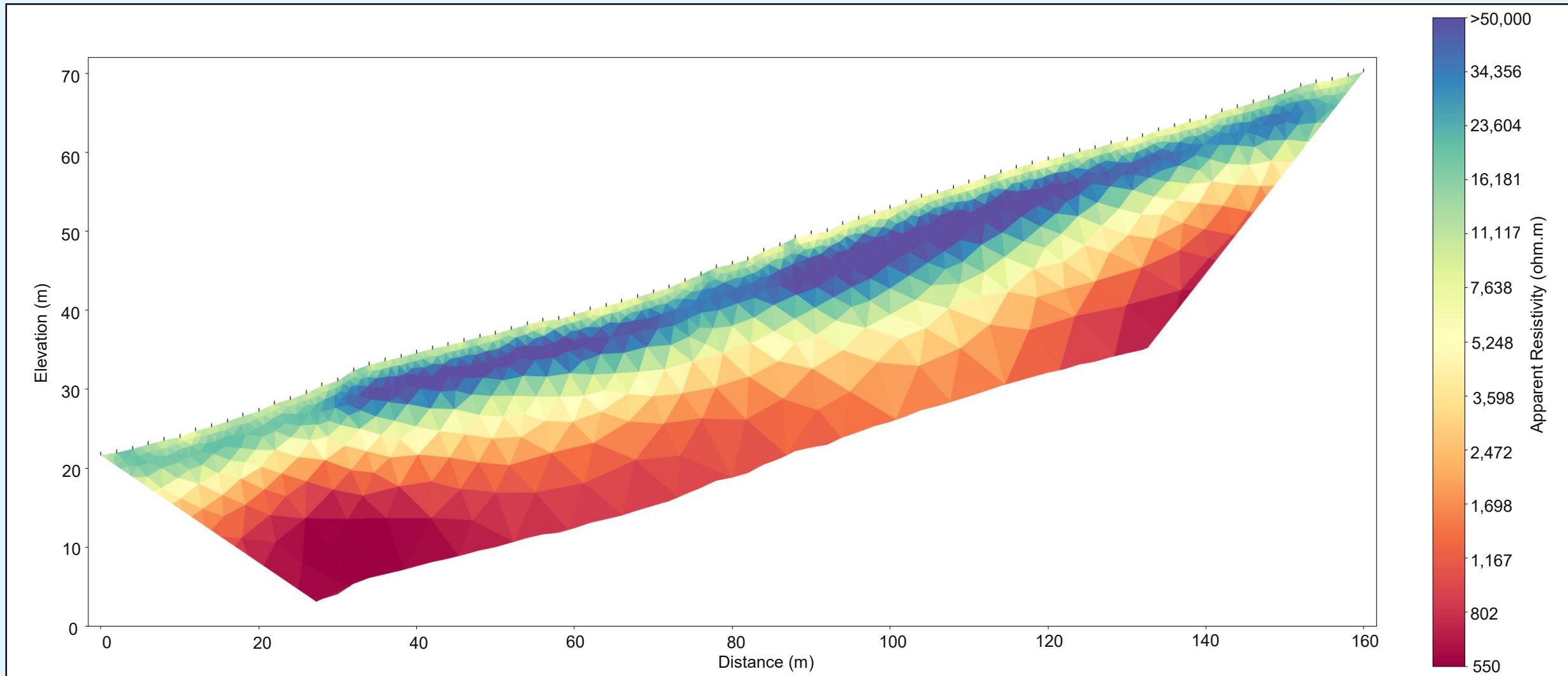


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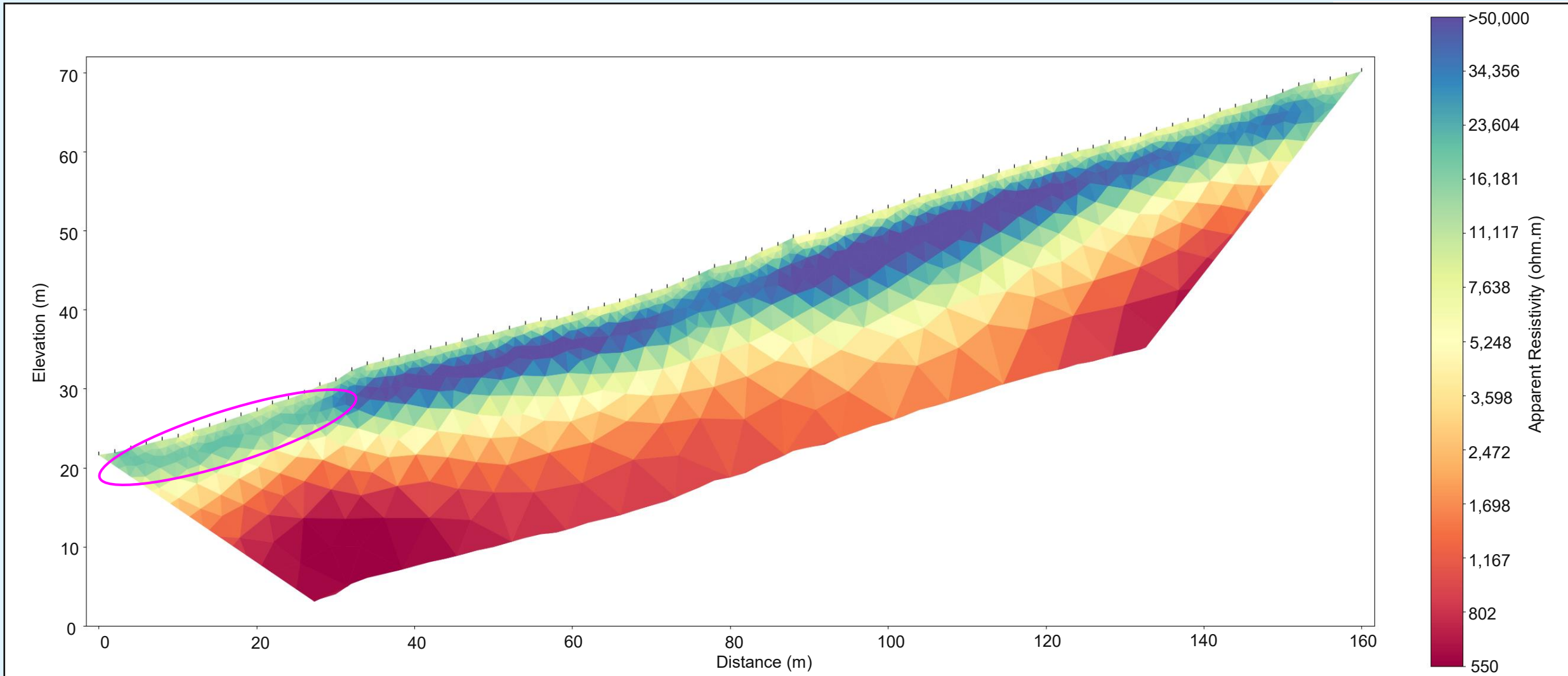




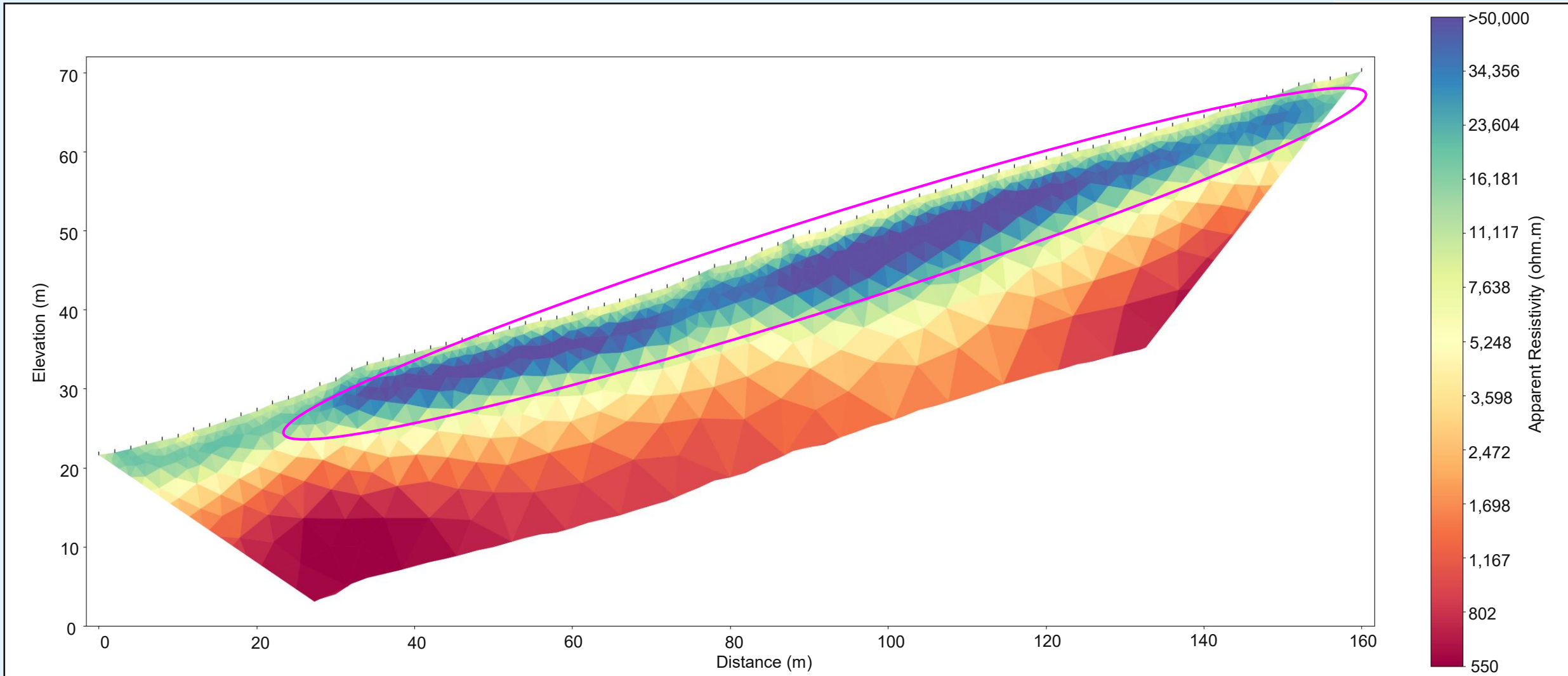
HILLSLOPE ERT SURVEY



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HILLSLOPE ERT SURVEY



IMPLICATIONS

Permafrost is mostly found in undeveloped areas of the community

High risk of ground settlement on the undeveloped foreshore

The results contribute to a permafrost geohazard assessment to support climate resilient infrastructure development in Nain



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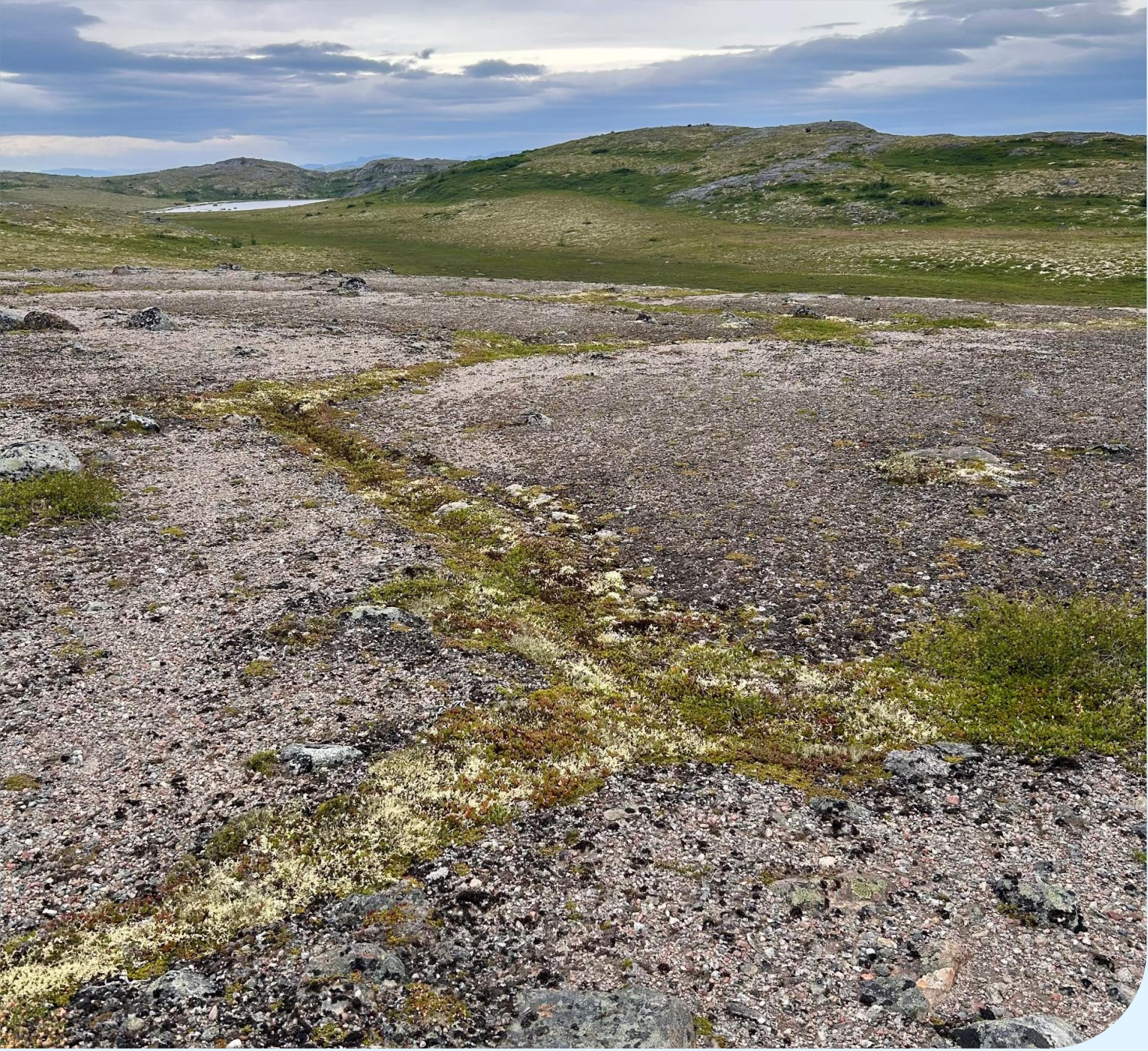
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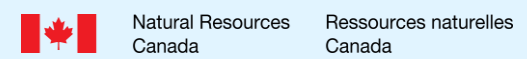
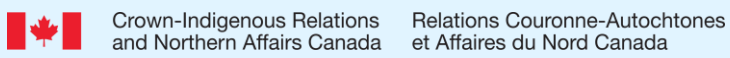
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THANK YOU!



madison.power@queensu.ca