

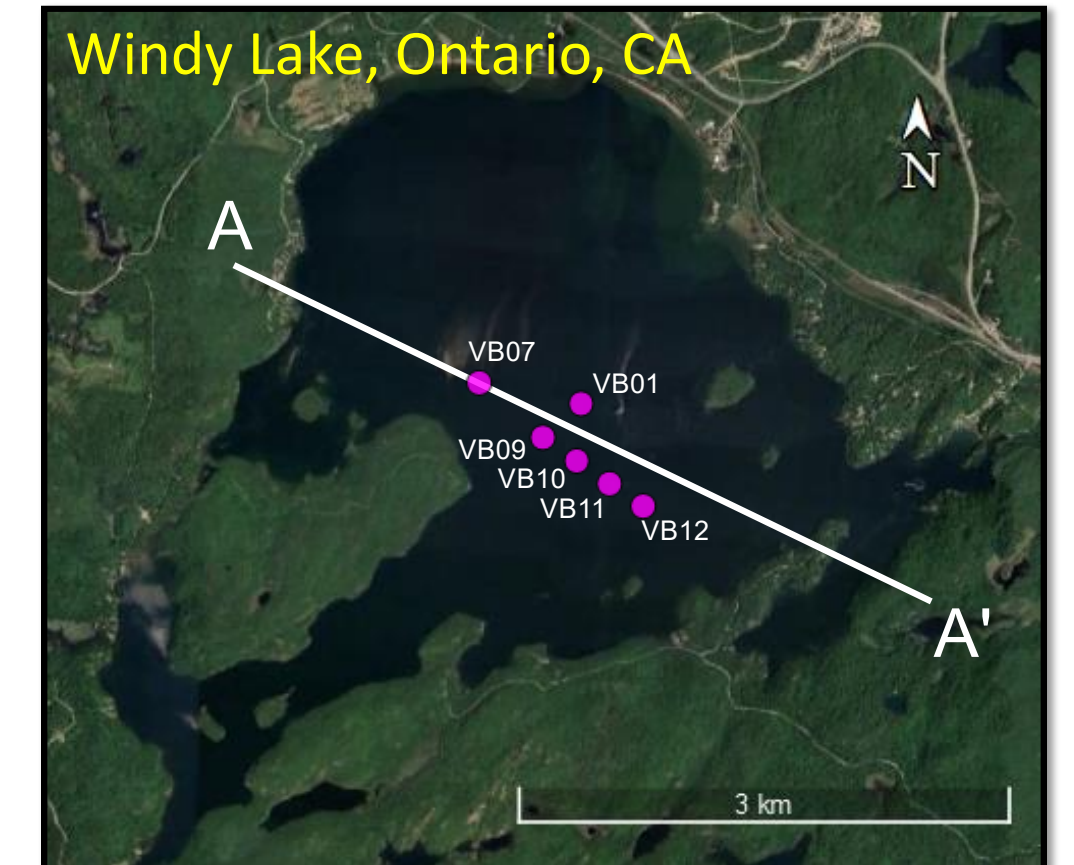
# WHO?



# WHAT?

## PULSED EM SURVEY IN ONTARIO, CANADA: PART 1

# WHERE?

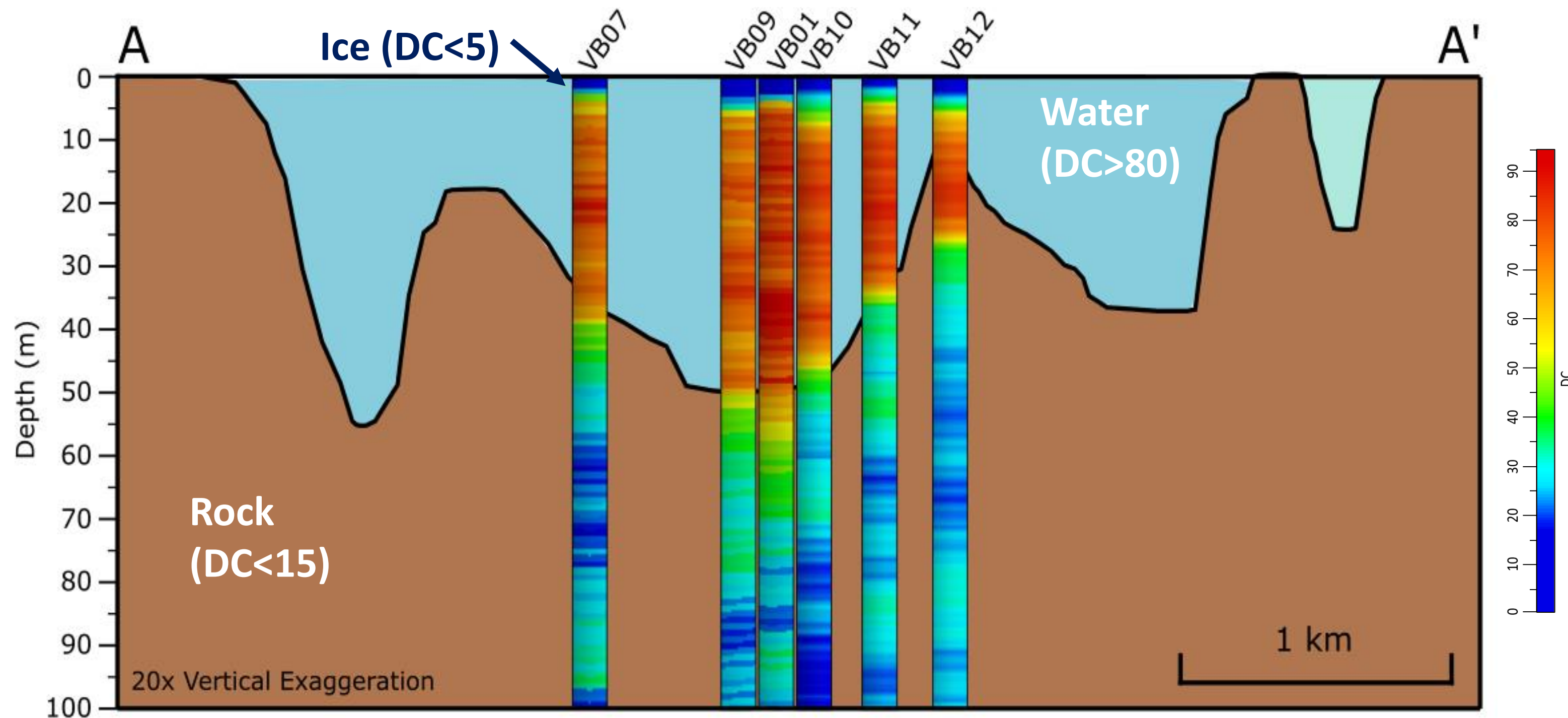


**Adrok** have completed phase 1 processing of its pulsed EM survey data collected at Windy Lake in Ontario, Canada. The surveys were completed as part of a mineral targeting exercise at the famous Sudbury Complex. Here we present some results showing the impact of the lake on the dielectric (DC) values recorded in the scan.

Adrok collects a plethora of data in each of its vertical field scan. One of these is a measurement of the dielectrics of the material that the EM pulse is interacting with. The Dielectric Permittivity ( $\epsilon_r$ ) value for rocks is usually below 15 whereas water has a high dielectric of around 80 and higher if it contains dissolved salts and other minerals for example. The DC value measured by Adrok is indicative of the material dielectrics, therefore water appears as DC highs and the rocks and sediments as a low measurement.

Adrok's pulsed EM can measure layers of water beneath the ground but here we show what the DC results look like when a scan is carried out over the top of a lake and projected downwards into the rocky substrate.

The results turned out exactly as predicted with high dielectrics coinciding with the fresh liquid water making up most of the lake to a depth of around 20-50meters. The low dielectric at the top of the scan corresponds to Ice. The lake was frozen at the time the survey was completed which allowed scans to be easily collected in the field.



**Figure 1:** Dielectric results from ADR scans overlain on bathymetry derived from public domain datasets. The top 100m of each scan is shown.

When we overlay the first 100m of Dielectrics results onto a bathymetry cross-section of Windy Lake, we see that **ADR has detected the water-sediment/rock contact at the bottom of the lake to a high degree of accuracy.** In the figure above, water is present where the value of DC is  $>80$  (orange and red).

**Using the same measurement of DC, Adrok's ADR technology can be used to provide accurate depths of buried aquifers beneath the surface and reduce the need for exploratory drilling.**