

Supporting Information for

**Dissolved inorganic geogenic phosphorus load to a groundwater-fed lake:
Implications of terrestrial phosphorus cycling by groundwater**

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Introduction

This supporting information provides a figure with two Electrical Resistivity Tomography (ERT) profiles. The profiles were conducted in December 2016, near a Danish lake, Nørresø. The exact location of the profiles can be seen in the main article in Figure 2.

Section S1.

The inverted data shows with certainty a sloping layer of sand, and thus a connection between the deep-lying sand layer and the sand layer close to the terrain.

Although the visual inference of the inverted ERT profiles may suggest pinpointed locations of connections between shallow and deep sand units, it should be stressed that determination of vertically thin geological layers is very limited in the ERT interpretation. This is due to two factors: (1) The resolution of measurement points are too pure, and (2) the interpretation software mostly searches for horizontal geological structures, and hence, does not resolve vertical structures very well.

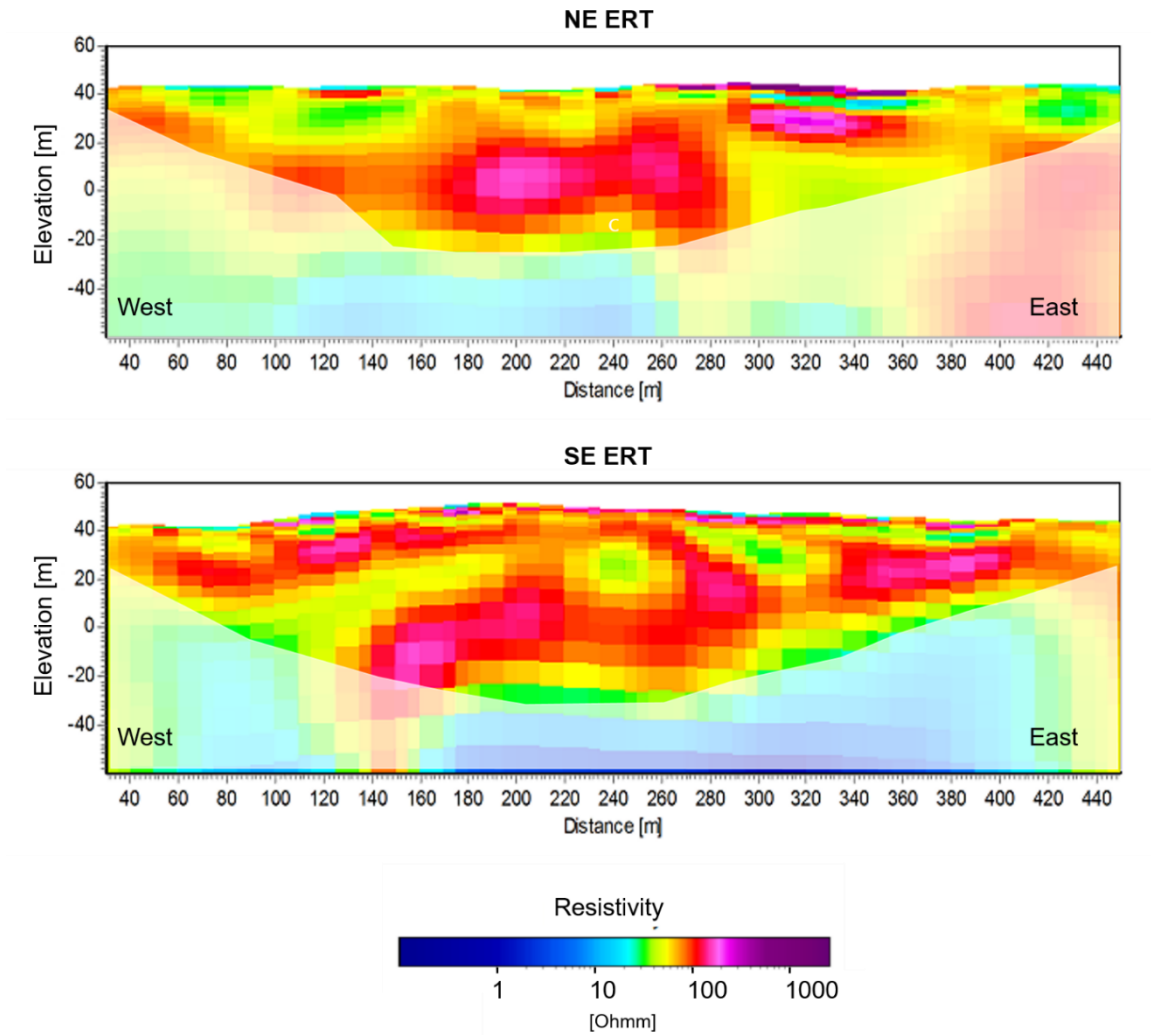


Figure 1. Inverse model results (AarhusInv) of the electrical resistivity tomography (ERT) profiles, indicating the connection between the deep-lying confined sand unit at Nørresø terrain (For location of the two ERT profiles, please see Figure 2 in the article).