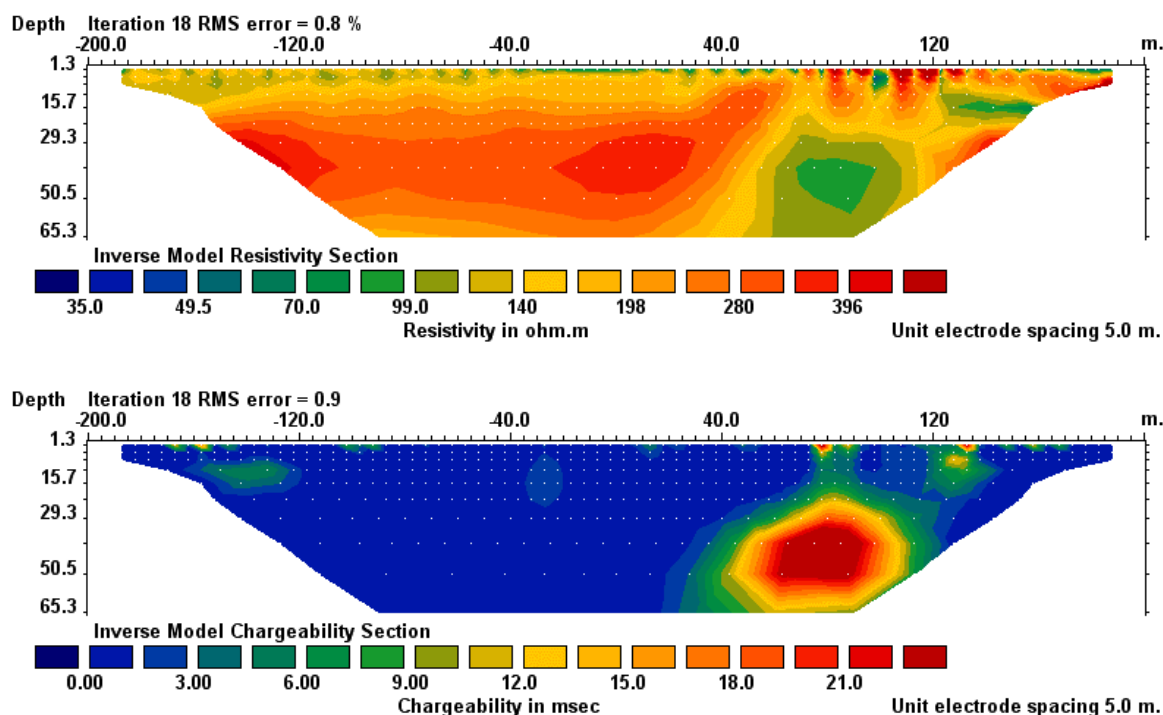


Resistivity / Induced Polarization Imaging: Odarslöv

A resistivity / IP section was measured by Dr. T. Dahlin, of Lund Technical University. Measurement was made using the ABEM Terrameter SAS 4000 together with an ABEM LUND Imaging System equipment was conducted on the Östra Odarslöv site, located a few kilometers north of Lund in southern Sweden. The site is characterized by a few metres of quaternary till resting on Silurian shale with dolerite intrusions. Depth to the bedrock in the vicinity varies between 1.4 metre and 2.6 metre according to drilling records. The topography is very gentle.

Basic findings:

The profile crosses a known dolerite dyke at approximately coordinate 120-140 in the measured section. The line could not be extended across the dyke at the time of surveying due to limited land access. The dyke is surrounded by fractured and weathered rock, characterized by low resistivity. This is seen in the resistivity section from coordinate 70 to 110 at depth exceeding approximately 25 m. On the IP section there is a very clear correspondence to high chargeability values in this zone. It is interesting to observe that the low resistivity values surrounding the dyke corresponds closely to high chargeability values. One possible explanation is the presence of mineralizations in the fractured area.



Resistivity section (upper diagram) and corresponding IP section (lower diagram) from the site Östra Odarslöv. Low resistivity and high chargeability characterize the fractured and weathered zone surrounding the dolerite dyke. Data courtesy of Dr. T. Dahlin, Lund Technical University.

A Wenner-Schlumberger electrode configuration was used in the field, and the interpretation was performed using the 2D inversion software RES2DINV. It is seen that the fitting is good, with a RMS error less than 1 percent. The section consists of 466 resistivity and IP data values. All readings were taken with 200 mA transmitted current, and the IP was measured in the time window 10-110 msec. The number of stackings varied between 2 and 4.