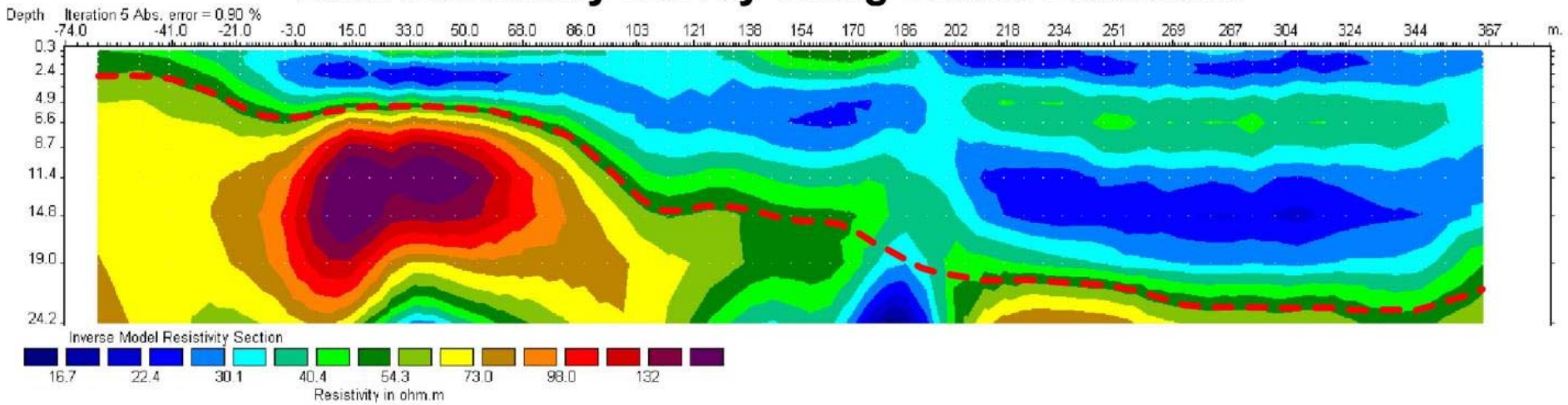
Lake Resistivity Survey Using Towed Elecrodes



The water depth (dashed red line) has been estimated from a depth map. The lake bottom consists of limestone. Resistivity changes within the water column possibly depends on water temperature.

The SuperSting with towed electrode array. The electrode cable is connected in the top left corner of the front panel, the power (12 V DC) is connected at the lower left corner and the GPS is connected at the top to the right.
The SuperSting is an 8-channel instrument, meaning that it records 8 readings for each time it injects current. By having the receiving electrodes at different spacing from the current electrodes, 8 depth readings is measured for each current injection.

The sea electrode is made of graphite (patent pending), the advantage is that it does not corrode as current is passed through it. The towing cable has a kevlar member and water block.

The Marine Module of the Administrator software is used to plot the survey line. The black line shows the total path run, the red line shows the extracted resistivity profile in the resistivity image above.

Objective: Test of towed electrode array
Survey date: January 10, 2002
Survey site: Lake Travis, Austin, Texas
Instrument: SuperSting with 11 electrodes at 10 meter spacing towed at the surface behind a boat
Array type: Dipole-dipole
Units: Meter and Ohmmeter

AGI Advanced Geosciences, Inc.
Tel: +1 (512) 335-3338
Fax: +1 (512) 258-9958
E-mail: sales@agiusa.com
Web: http://www.agiusa.com