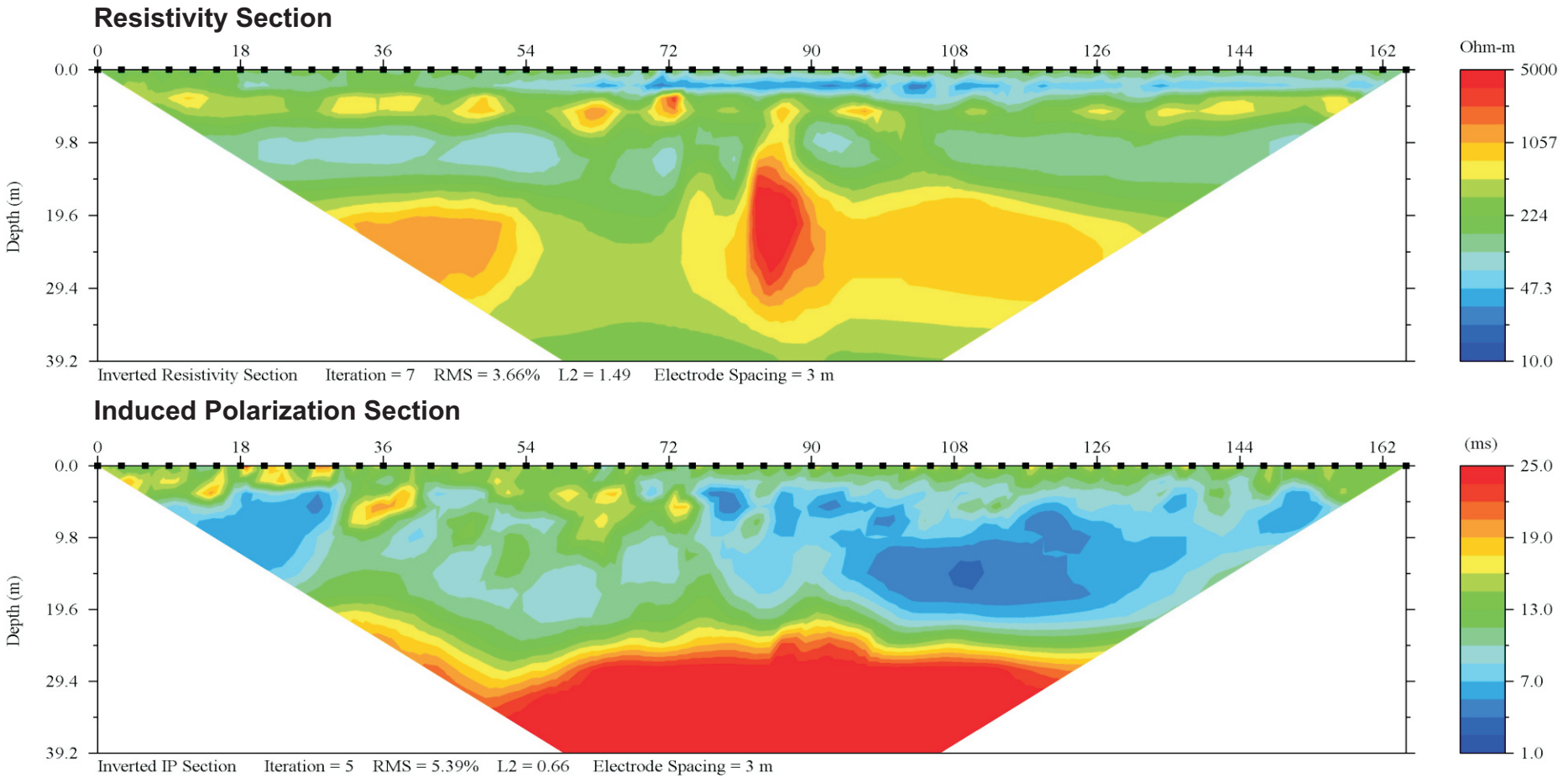
# Road Subsidence Geotechnical Investigation in Historic Iron Ore Mining Area

Road Subsidence Investigation

AGI Advanced Geosciences, Inc.




Resistivity and Induced Polarization Imaging was performed to help characterize a roadway area that was subject to collapse and settling problems resulting from historic iron ore mine workings. The goal was to map the extent of the detected collapse zone for roadway remediation purposes. Both Resistivity and IP data highlight the mine shaft zone that is responsible for the surface roadway problems. Additionally, IP data defines the top of the iron ore bedrock extremely well (as confirmed by later drilling).

**Objective:** Roadway geotechnical survey for collapse features due to old mines
**Survey date:** May, 2007
**Survey site:** Hibbing, Minnesota, USA
**Instrument:** SuperSting R8/IP with 56 electrodes at 3m spacing
**Electrode array:** Dipole-dipole
**Processing:** Inversion of data using EarthImager 2D inversion software
**Units:** Meter and Ohmmeter

**Data courtesy of the Minnesota Dept. of Transportation, MN USA**

SuperSting 8-channel Resistivity Instrument by

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