3D Resistivity Survey for Control Irrigation of
Heap Leach in Mining Copper

The 3D study was made to determine dry and saturated areas in order to improve the irrigation of Heap Leach and increase the production of concentrate of copper. AGI SuperSting WiFi R8 RES/IP instrument with 56 electrodes and 2 meters electrode spacing are used with dipole-dipole extended array. Five parallel 2D Resistivity Lines were made to generate a 3D model. EarthImager 2D and EarthImager 3D were used for data processing and inverse modeling. Dry and saturated zones are successfully mapped.

Objective: Determine dry and saturated areas to improve the irrigation of Heap Leach in a copper mining.
Survey site: Chile.
Instrument: SuperSting WiFi R8/IP/SP, 56 electrodes at 2 m. spacing, using dipole-dipole extended array.
Software: EarthImager 2D and EarthImager 3D

Data courtesy of http://tectramin.com
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Five parallel 2D resistivity lines were made in order to generate a 3D model of the heap leach to identify the dry and saturated zones which were successfully mapped showing high resistivity values associated with a poor irrigation of Heap Leach in the dry zones and low resistivity values associated with saturated zones.

Data courtesy of http://tectramin.com
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Z Slices of Inverted Resistivity Showing Dry and Saturated Zones

Y Slices of Inverted Resistivity Showing Dry and Saturated Zones

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