



Geophysical Services

Environmental • Groundwater • Geotechnical

GPS in Geophysics

Global Positioning System Fully Integrated with Geophysical Data Acquisition Systems



Geonics EM31 Terrain Conductivity Meter with Trimble Ag132 GPS unit, swathing light bar, Allegro field computer, and non-conductive backpack.

Northwest Geophysical Associates (NGA) has fully integrated the data acquisition from our magnetic and electromagnetic (EM) instruments with our Trimble Ag132 differential GPS unit. The Ag132 system obtains real-time, submeter accuracy by receiving a differential correction signal from the Omnistar satellite.

The system is equipped with the “swathing option” which allows us to obtain data on parallel, closely spaced survey lines without pre-staking a grid. A navigation light bar tells the operator when they are off line and how far to correct.

The GPS system can also be used for general mapping applications to create and/or enhance a site map, and to tie with known survey control, exploratory borings, and other site features.



Geometrics G858 Magnetometer/gradiometer with Trimble Ag132 GPS unit, swathing light bar and non-magnetic backpack.

Scintrex CG3 Gravimeter used with a Trimble Real-Time Kinematic (RTK) “Survey Grade” rover unit. This system, with radio link to local base station, obtains position and elevation with centimeter precision.



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