

A New Product from EMIT

Atlantis

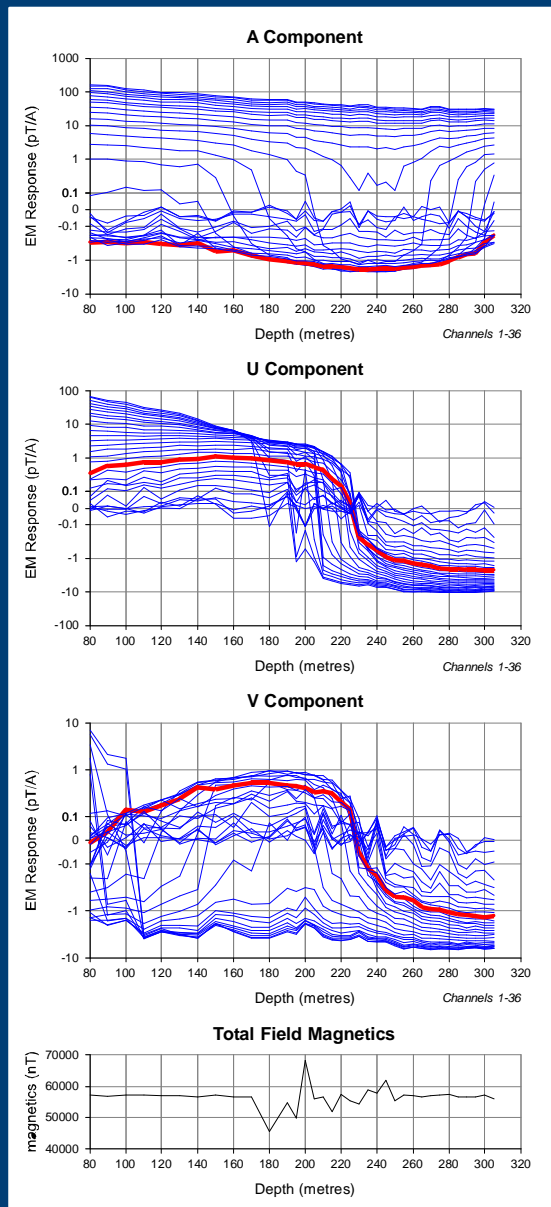
3-Component Borehole Magnetometer Tool for EM

A Powerful System To Locate, Discriminate & Interpret Conductors

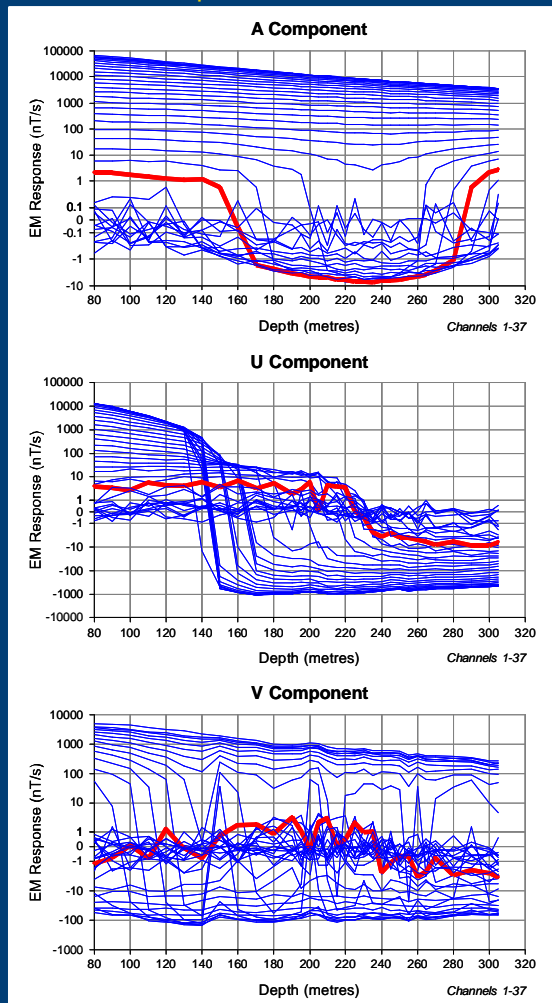
The Atlantis system uses low-noise fluxgate magnetometers to provide high quality 3-component DHEM data from a single borehole tool. EM data can be collected at significantly better production rates than with standard dB/dt systems and all 3 Atlantis components have the same instrument noise level. A seamless interface to the SMARTem receiver means that the system is ideal for working in-mine or where electrical interference is normally a problem.

EXAMPLE ONE, WESTERN AUSTRALIAN NICKEL EXPLORATION - Atlantis and conventional dB/dt data from the same borehole, using the same transmitter geometry and time-base. In the B-field data, the slowly decaying off-hole response from the good conductor is far easier to discriminate from the host response. This is especially the case in the cross-hole U and V components.

Atlantis B-field data - collected 2004



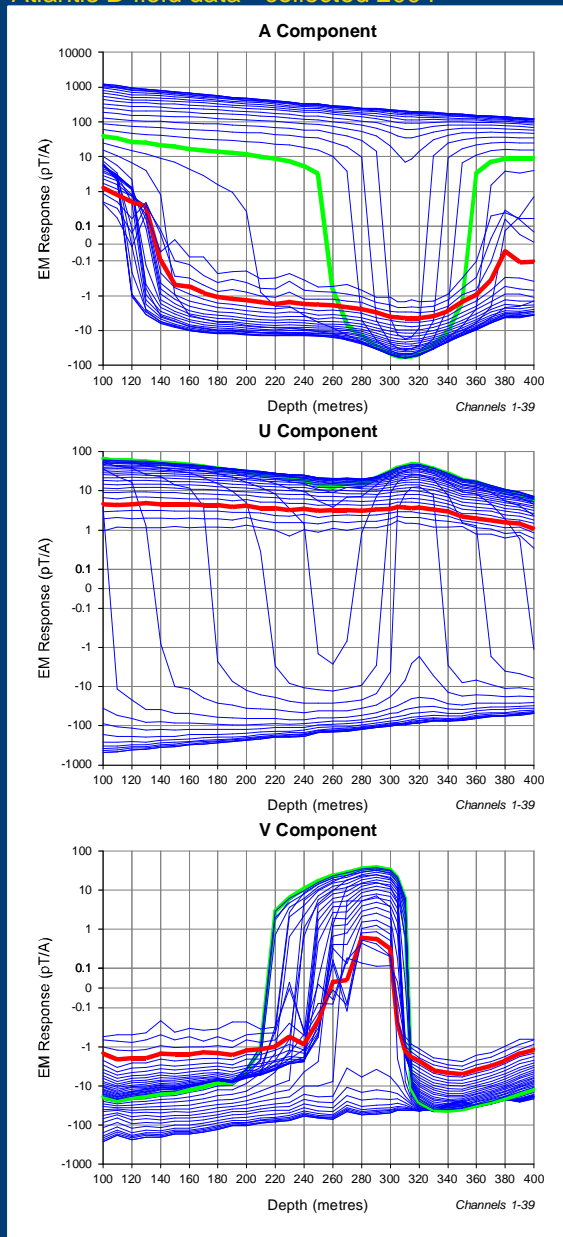
Standard dB/dt probe data - collected 2004



— Delay Time ~4 msec

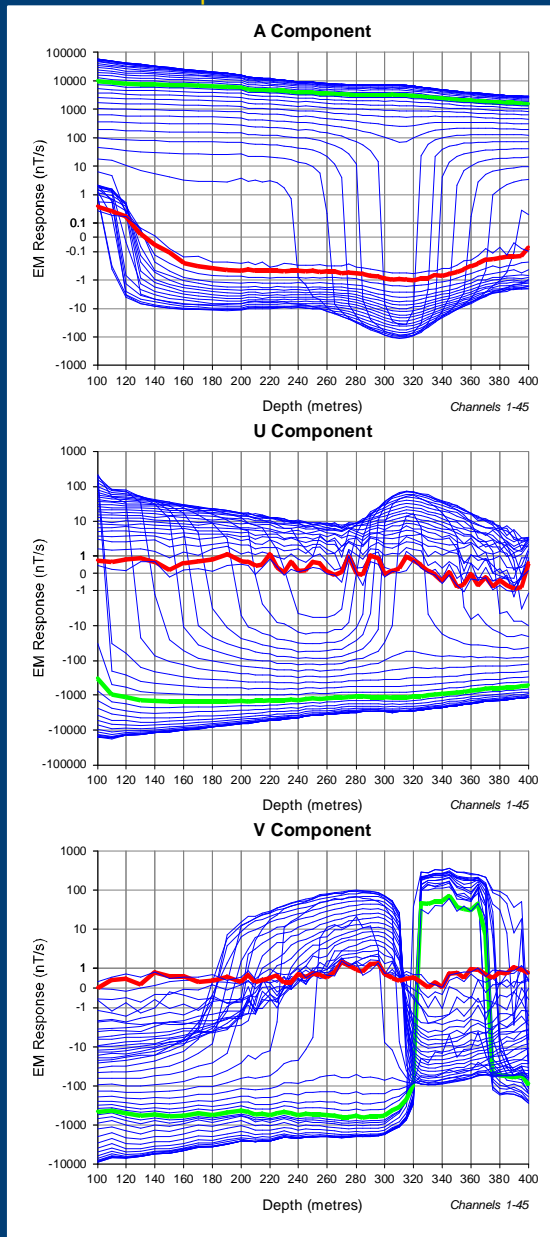
EXAMPLE TWO, NEW MORNING NICKEL DEPOSIT, W.A. - Atlantis and standard dB/dt data collected in the same borehole, using the same transmitter geometry. Both data sets acquired with a similar long time-base. The B-field data set was collected in a fraction of the time required for the dB/dt data, however the signal/noise at the latest times is higher for B than dB/dt on the cross-hole components. The axial component B-field response from the off-hole conductor at 310m has late-time decay constant far higher than that observed in the dB/dt data.

Atlantis B-field data - collected 2004



— Delay ~3 msec
— Delay ~200 msec

Standard dB/dt probe data - collected 2004



Data courtesy Western Areas NL & Newexco Services

- A single tool compatible with standard winch systems.
- Significantly improved discrimination of conductors from host responses by measuring B.
- A range of data products available. Data easily imported into Maxwell & other software for interpretation.
- Significantly better signal/noise at the important long delay times compared with dB/dt systems.
- Automated data collection and cross-hole component rotation with SMARTem receiver.
- Automated recording of magnetic data, probe attitude and temperature from Atlantis probe.
- SMARTem receiver can control most types of transmitter systems and record full time series data.

680 Jarrrah Road, Mundaring WA 6073, AUSTRALIA. Ph (+61 8) 9295 1456. Fax (+61 8) 9295 1429. Email aduncan@emit.iinet.net.au

For more information
contact us or see
our web site.

www.emit.iinet.net.au



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ElectroMagnetic Imaging Technology Pty Ltd