4.4 HOLE-TO-HOLE IP

Applications in Mineral Exploration

- Detection of disseminated to massive sulphides occurrences missed by drilling.
- Helps define the geometry of conductive and polarizable intersections.
- Applies to gold bearing sulphides mineralization and base metal exploration, particularly in sphalerite-rich environment.

Pros and Cons

- The radius of investigation may exceed 500 m (gradient array) and is directly proportional to borehole spacing.
- Investigation depth exceeds that of the drill-hole and is not affected by conductive overburden.
- Every additional pair of holes will provide better delineation of the source geometry.
- Survey cost is less than 5% of the drilling cost.
- Inexpensive probe and cable is used.

Survey Parameters

- Measurement of apparent resistivity and chargeability every 10 m using the gradient array.
- Current electrodes spread (C1-C2) is at least twice the target depth.
- The in-hole pole-dipole array is also available, but its radius of investigation is generally < 120 m.
- In-Field complete QC, processing and plotting are performed using our proprietary Refusilo ® software.
- Receiver: ELREC-PRO from IRIS Instruments (10 input channels and 20 decay curve sampling windows).
- Transmitter: Tx-III from GDD Instruments (7.8 kW).

Supplied Products

- ***image3D***® sections showing the location of all resistive, conductive and polarizable features within the array's investigation radius.