Inductive Thin-Sheet Inversion

The plate inversion has been extended to allow multi-separation Slingram TDEM data which has been very useful for interpreting wide offset B field data for deep targets where multiple conductors are present in the data.

Additionally, the inversion has been extended to allow up to 10 plates in an inversion model introducing a complexity in interpretation not yet seen in TDEM data.

We now offer this as a service and have had several successful interpretations this year in regard to mining exploration in Canada.

Three Dimensional Earth Models from a ground current source (CSEM)

We have offered 3D inversion of CSEM data applying the source as 3D for some years. But, the previous work was focused on the inversion of multi-component electric and magnetic fields due to the source. However, there is much legacy so-called CSAMT data which has to date only being interpreted assuming plane wave sources which we have shown to be badly representative of structures. In many legacy cases, the electric and magnetic fields cannot be interpreted with a 3D source as the source effects at the transmitter has not been removed. Thus, the only remaining data that can be utilized is the ratio of electric to magnetic fields (impedances). We have made a successful breakthrough in inverting this data.

3D Magnetic Inversion

Our multi-core solutions for magnetic inversion using a linear inversion approach has been very successful not suffering non-uniqueness problems to the same degree as other commercial apps. We have been involved with our clients in the inversion of large scale airborne magnetic data over the areas of high topographic relief (BC Rockies). The magnetic inversion has been extended to offer new capabilities in depth resolution in such environments.

AeroMagnetic Compensation:

We have been told many times that our compensation is extremely good and this has been for fixed wing, towed helicopter and stinger applications. We have now extended this capability to drone data allowing compensation using custom calibration flights at the maximum heights allowed for drone operations (typically 200m)