



During spring of 2003, Abitibi Geophysics Inc., with the participation of SOQUEM, NRC and CED, launched a project aiming to improve the performances of the traditional TDEM (Time Domain ElectroMagnetics) method. In September 2003, *InfiniTEM*® was born, and kept being improved with ongoing testing over 100's of km surveyed prior to its commercial launching in March 2005.

Following this period of development and the combined experience of more than 4000 km of surface surveying and 300 borehole investigations, we can say without hesitation that *InfiniTEM*® has indeed supplanted conventional TDEM.

The proven radius of investigation of the technology (500 m versus 200 m for conventional TDEM), coupled with its relative insensitivity to overburden have made *InfiniTEM*® the tool of choice for most base metal exploration companies. Some benefits of *InfiniTEM*® are described on the backside.

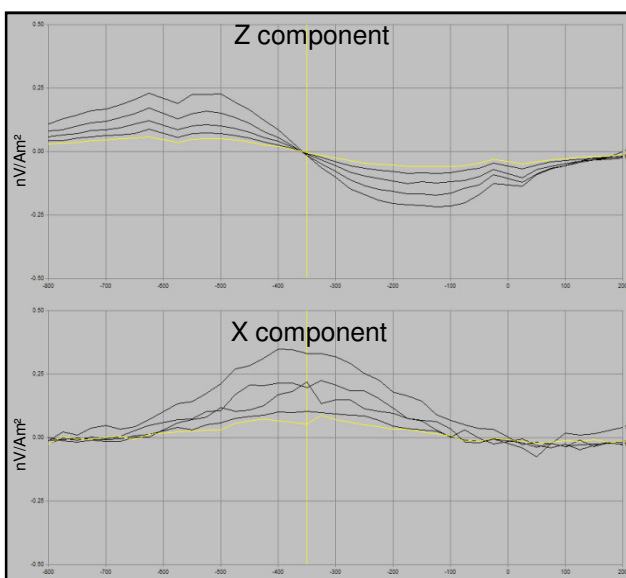


Figure 1. *InfiniTEM*® profile measured over Caber North deposit (Abitibi, Qc) with our new TerraScope transmitter. The conductor is located under station 3+75W at a depth of 350 m.

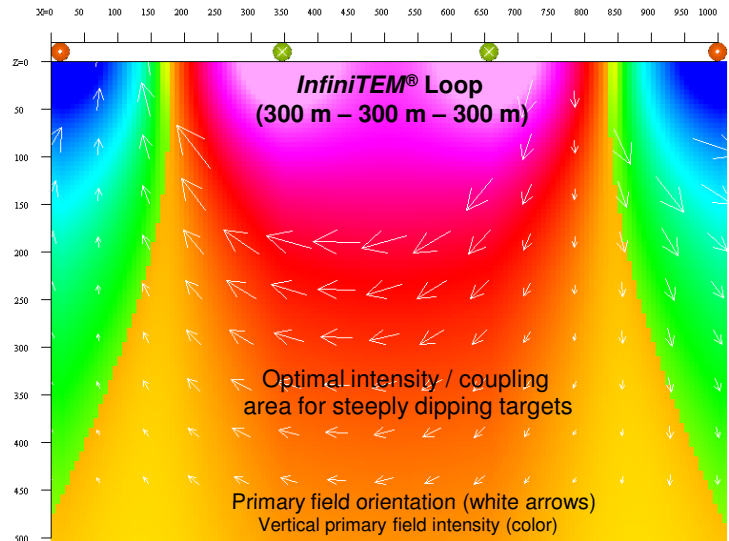


Figure 2. *InfiniTEM*® primary field cross-section

To carry out *InfiniTEM*® surveys, we had to use commercial transmitters to their maximum capacity, allowing us to demonstrate that *InfiniTEM*® could detect a massive sulphide deposit up to 500 m deep. However, a study on synthetic model has revealed that the scope of investigation of *InfiniTEM*® could even reach 1 km deep using a more efficient instrumentation based on newer technology.

That is when TerraScope Instruments Ltd. entered the scene. Its first mandate was to build instrumentation perfectly suited to the specific needs of *InfiniTEM*®. The aim is to exploit the full potential of this original technique, already patented in several countries including Canada, USA, Russia and Morocco.

The first tests carried out with this prototype instrumentation are exceeding our expectations (figure 1). This innovated technology should be available at Abitibi Geophysics Inc. and *InfiniTEM*® licensees at the beginning of summer 2009.

What you should know about *InfiniTEM*®

- ✓ The *InfiniTEM*® loop generates a primary field with an optimal coupling for subvertical targets.
- ✓ The magnetic moment is at a maximum throughout the *InfiniTEM*® area of investigation resulting in a better signal-to-noise ratio.
- ✓ Within the *InfiniTEM*® zone, the primary field is at minimum coupling with the overburden, as opposed to conventional TDEM for which it is at an undesirable maximal coupling. This negligible overburden coupling allows the use of larger *InfiniTEM*® loops, while minimising overburden masking effects.
- ✓ The *InfiniTEM*® configuration has no blind spot as opposed to conventional TDEM (in-loop and out-of-loop). This feature has been demonstrated by field tests over the Caber and Caber North deposits as well as with computer modeling.
- ✓ An *InfiniTEM*® ground survey was the only EM technique who detected the challenging Caber North deposit (1.3 Mt @ 4% Zn and 1.7% Cu). The latter is buried at more than 350 m deep under a thick cover of overburden in the Matagami mining camp. See Geo Echoes no. 7.
- ✓ *InfiniTEM*® has been proven to contribute to the discovery of several new mineralized bodies including:
 - Discovery of the WEST lens (20 m @ 1% Cu and 8% Zn at a depth of 450 m) on the Scott Lake property, Chibougamau (Cogitore Resources Inc.). Read the upcoming Geo Echoes (no. 20).
 - Discovery of the polymetallic lens 43 on the Coulon property of Virginia Mines Inc. (16 m @ 9% Zn, 1.7% Cu and 50 g / t Ag at a depth of 350 m). This lens is covered by a 20-25 meters thick overburden and was not detected by the original VTEM survey. See the Geo Echoes no. 17.
 - Intersection of 35.5 m of massive sulphides at a depth of 150 m on the Tamarack property in the McFauld's Lake area (Probe Mines Ltd.). See Geo Echoes no. 13.
 - A new massive sulphide zone at a depth of 200 m along strike of the Wye Lake Cu-Zn zone on the Redfox Lake property belonging to Freewest Resources Inc.
 - And finally, the discovery of a new key tuffite horizon on the DuDôme-Matagami property (Metco Resources Inc. and SOQUEM Inc.) in the Matagami mining camp. And this, after unsuccessfully trying many techniques (IP, HLEM, DeepEM, MegaTEM, etc.).
- ✓ The *InfiniTEM*® is an excellent tool for:
 - Grass root exploration (the right tool at first);
 - The follow-up and ground probing of anomalies from the VTEM, AEROTEM, MEGATEM or any other airborne systems;
 - The definition of DDH targets through 3D modeling.
- ✓ With *InfiniTEM*®, boreholes spacing along a prospective horizon can be increased up to 1 km horizontally without fear of missing a target of economic size. Indeed, borehole *InfiniTEM*® has detected the Caber deposit (0.48 Mt @ 11.7% Zn and 1% Cu) from a negative hole located 475 m away. See Geo Echoes no. 8 and 9.

Be ready for summer 2009, the *InfiniTEM*® PLUS (1000 m range) will offer an economic alternative from costly titanic approaches.

Surveys and Consulting in Airborne, Ground and Borehole Geophysics

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