

The interpretation of Utem data is generally carried out on the basis of qualitative rules of thumb, type curves, parametric curves, and computer modeling routines for more complex situations.

Despite the above, the Utem III system can have certain disadvantages and these need to be accounted for carefully in the planning of surveys and interpretation of data. Firstly, because the system utilises a fixed transmitter loop which generates a quasi-static primary field pattern, conductors in certain positions and with certain dip directions can be difficult to detect due to shielding and loss of coupling sensitivity respectively (- this is a common consideration to all fixed loop systems). Secondly, because of the triangular waveform, the high frequency end of the output power spectrum is more subdued than that of an impulse system and very poor conductors exhibit lower absolute amplitude early-time secondary field responses.

Finally, because Utem secondary field data is normalised with respect to the primary field strength, secondary field measurements very close to the transmitter loop (where the primary field is strong) can result in a loss of sensitivity.

The latter problem is usually solved by overlap of successive loop positions while the former are