

Why Re-Examine Your Titan 24 Data?

Titan 24 data is costly, deep-penetrating data that is applicable for continuing exploration. But today, there is a new opportunity to gain more valuable information and knowledge from your Legacy Titan 24 data. With new approaches developed by Complete MT Solutions, we can now generate higher detail from both shallow and deeper sources in your existing Titan 24 data and drive you to the next generation of targets.

CMTS experience with a number of datasets shows that the most effective way of modelling Titan24 data is to execute our unique 3D inversion which, importantly, takes into account the correct sensor locations. These inversions (and also accounting for galvanic distortion effects), give high quality and high resolution images of the vertical and lateral variation in electrical resistivity across as many lines of data as you want to re-examine.



How Can We Dramatically Improve Titan 24 Results?

When working with Legacy Titan 24 data, there are a number of issues in the data that can be dealt with through post-processing and analysis. CMTS first reprocesses the original Titan24 time series using the very latest proprietary code of Alan Chave, the world's leading scientist in developing MT time series processing algorithms.

With the 2D inversion, the Titan24 MT impedance responses, either the original ones or new ones derived by Chave, are analyzed for galvanic distortion effects and most are removed. We also test the assumption of the geoelectric strike direction being perpendicular to the profile. The corrected responses are then evaluated for internal consistency using a proprietary robust version of Parker and Booker's Rho-Plus code. This analysis is performed by Alan Jones, the world's leading expert in galvanic distortion of MT data.

With the 3D inversion, we invert either the original impedance responses, or the newly-derived ones from Chave, using the novel and unique 3D inversion code of Avdeeva. This code correctly places the sensors (electrical and magnetic) in the appropriate locations so we do NOT invert the pseudo-MT impedance responses as if they are real MT impedance responses. We show explicit MT responses from the local electric-field over base magnetic-field.

We additionally can invert the corrected MT impedance responses in 2D using the very latest code by Randy Mackie as implemented in the new version of Geotools marketed by CGG. This is done by Jessica Spratt, a very experienced geologist / geophysicist with over 15 years experience in modelling/inverting MT data

The result is a high-definition, sharper and more reliable image or model that improves targeting exponentially. And since you have already invested in the data, there is no time like the present to explore deeper and more intimately into the Legacy of Titan 24 data in which you have already invested significant resource but may not have yet realized the data's maximum potential.