ModelGeo

MGO VLITH Velocity Inversion

The MGO VLITH Velocity Inversion software calculates lithology, porosity, pore pressure and uplift/erosion attributes based on compaction theory. This leading software is used in exploration and pore pressure studies.

Method

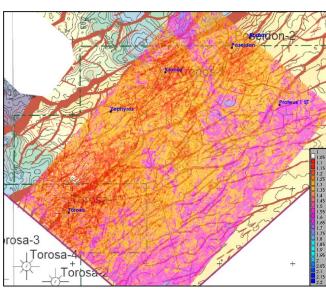
- Normal Compaction Trend (NCT) and Normal Porosity models define depth of burial - velocity and porosity - velocity relationships
- High-resolution seismic velocity can be calculated by post-stack seismic inversion in VLITH if required
- Velocity data are transformed to the Pseudo Lithology domain by subtraction of the depth trends in the NCT model
- Uplift/erosion and pore pressure can be calculated for layers with known lithology, where these have velocities relative to depth which are higher (uplift) or lower (pore pressure) than reasonable

1000 2000 3000 4000 4000 4000 4000 5000 5000 7000 7000 7000 11000 11000 11000 11000 11000

ModelGeo's global default NCT model

Areas of use

- Sediment type and thickness in frontier exploration
- Net apparent erosion in basin modelling
- Reservoir presence and quality in play and prospect evaluation
- Pore pressure prediction in well planning



High-resolution overpressure attribute map

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