



fault seal analysis

THE MOST COMPREHENSIVE TOOLKIT AVAILABLE

The basis of a reasoned assessment of the sealing characteristics of faults is a validated interpretation and 3-dimensional structural model. This is often the single largest source of uncertainty in the risking procedure which is why TT6 provides comprehensive tools for generating a structurally robust model.

For "first order" fault seal analysis the correct geometry is both the starting point and end point. TT6 provides tools for the detailed mapping of the juxtaposition of reservoir units at any scale from mapped horizons (with or without stratigraphic infill) to discretized properties from inverted seismic cubes and/or CurveMapped well data.

TrapTester6 also provides the most comprehensive toolkit available for modelling the properties of the fault rock at reservoir-reservoir contacts. Given property logs and/or a vshale cube or other estimate of the clay content of the wall rocks, TT6 will generate the raw property predictions, such as Shale Gouge Ratio, Clay Smear Potential etc. It also provides empirical (or user-defined) relationships between these properties and threshold capillary entry pressure. The latter is the key to using TrapTester6 in a predictive context since it enables the geologist to estimate contact depths and column heights.

Mapping known pressure regimes onto fault surfaces and plotting them against a fault-rock property means that local, field-specific calibrations are easily derived.

Given a sound geometry and model of the fault zone properties, TrapAnalyst and StressTester can then be used to find critical leak points and to test for the likelihood of fault reactivation.

