



POSTER PRESENTATION

“Let the Geology Do the Talking”: Simple Wins to More Accurate Pore Pressure Prediction

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Pore pressure prediction in SE Asia presents a unique set of challenges. Although exploration has for many decades targeted “young” rocks i.e. Tertiary-aged reservoirs, with the implication being these sediments are cool and relatively undeformed as in similarly-aged rocks in other parts of the world, in SE Asia, high heat flow, complex burial history and compressional tectonics means that interpreting pore pressure can be extremely problematic.

Therefore, a full integration of burial history, geothermal gradients, and the effect of unconformities – that is, the “geology” etc is required for successful pore pressure prediction, rather than an over-reliance on seismic velocities and simple, generic workflows. Indeed, velocity-based approaches, whether wireline or seismic, have frequently has been shown to under-predict pore pressure, leading to some very expensive mistakes whilst drilling.

This poster will focus on highlighting how critical the “geology” can be, and how if it is understood, a realistic envelope of uncertainty can be developed with (relatively) minimal effort. Indeed, in some basins, simple geological models are the only way to predict pore pressure. There is a general noted reluctance to combine more thoughtful data acquisition strategies with the confidence to “let the geology do the talking” via simple back of the envelope thinking. Pore pressure is there (or indeed, absent) for a reason or reasons and it's the geology that dictates this. Process is all.

This poster is a reminder perhaps of what we have forgotten or at least, what we should be doing more of.