

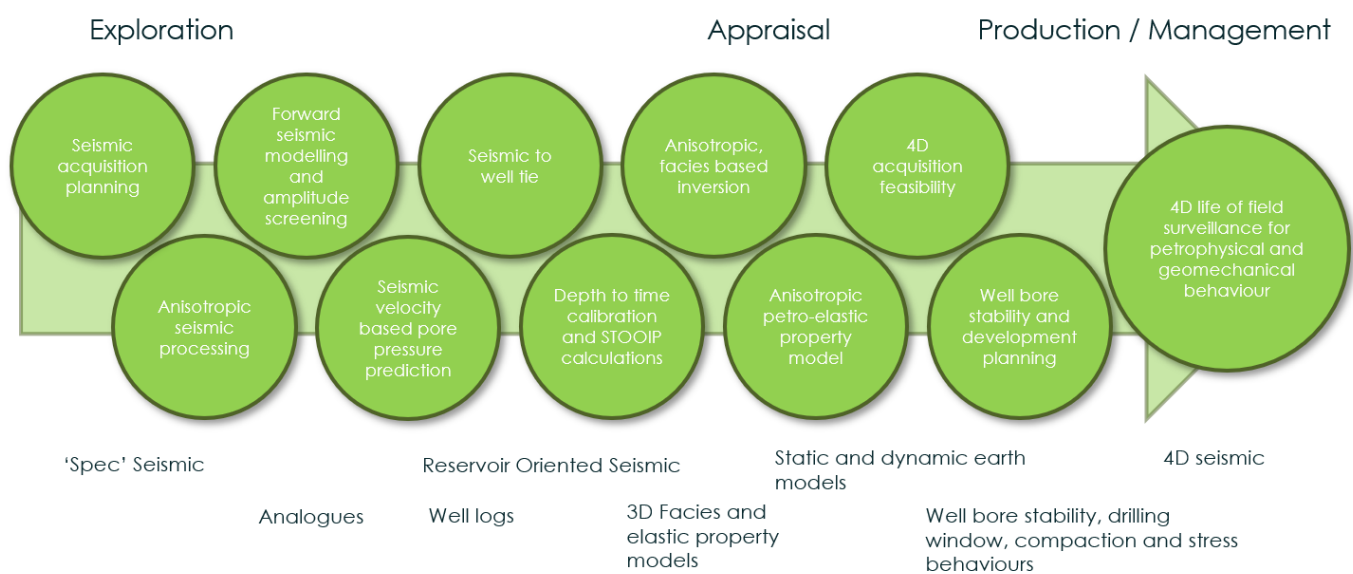
Understanding Anisotropy



From Well Log Analysis and Correction to Well Ties and 3D Anisotropic Inversion

When interpreting seismic amplitudes, we need to consider the impact of elastic anisotropy on our workflow, and the decisions we make – after all some level of anisotropy is present in all rocks.

Many geological processes result in the preferred horizontal orientation of minerals, mineral assemblages, lithologies and sequences, which in addition to the intrinsic elastic anisotropy of many minerals means that Vertical Transverse Isotropy (VTI) is very common in the subsurface. This elastic anisotropy will have an impact on both log and seismic measurements and therefore can be a crucial variable to account for and consider.



Several questions naturally arise when we look to incorporate anisotropy into the subsurface workflow:

- What is elastic anisotropy, and why should you care about it?
- How can we identify and measure anisotropy?
- How can we account for VTI in the subsurface workflow?
- What options do we have for handling the effects of VTI in seismic inversion?

In this talk we discuss and attempt to provide some answers to these questions, and generally discuss the impact of elastic anisotropy on the decisions we make in the quantitative interpretation workflow. This discussion is illustrated by reference to examples and case studies.

Presenter



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With over 10 years at Ikon, Nick has held various roles including Software Support, Senior Geoscientist, Quantitative Interpretation (QI) Team Leader, and Technical Sales Manager for Europe and Africa. His current role as Product Manager, QI Applications, involves defining and managing the development strategy for all of the QI Applications within Ikon Science's software. This includes the maintenance and communication of the product roadmap, product positioning and competitive landscape.

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