

## **Effective Appraisal of a Tight Gas Sandstone Reservoir in North Oman**

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### **ABSTRACT**

Oman is an established hydrocarbon producing province with many conventional oil and gas fields. The challenge in more recent years has been to appraise and economically develop unconventional resources. In this case study we will consider the appraisal of a Cambrian tight gas sandstone in northern Oman. Appraisal of conventional resources typically assesses gas in place and then estimates a recovery factor. In low permeability sandstones the direct evaluation and predictability of deliverable pay intervals, rather than total in place volumes, is a key aim. This requires a different data acquisition strategy for effective appraisal with cross disciplinary integration of differing data types across a range of scales. The application of seismic attributes, well log interpretation and core analyses as part of an integrated data acquisition strategy has been used to reduce the uncertainty on the distribution and quality of productive pay zones. The relative values of these different data types and the results of their integration to predict tight resource distribution will be demonstrated, along with potential pitfalls and lessons learned.