



P441

Reducing Risk & Uncertainty in Unconventional Play Development

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Summary

The primary key to the success of the US shale market has been the volume of legacy data that has been able to be used by oil companies and contractors alike to identify shale play potential, quantify reserves in place, qualify the better areas of the play and so ensure maximum return on investment. This simple workflow process using the wealth of available historic well data, has proven itself time and again to be the right way forward, and it is something that NuTech has adopted, adapted and optimized with our Reservoir Intelligence service.

It is a fact that far too many newly drilled and completed wells fail and, currently, that failure rate in the US is running at 40% - nearly one in two. More often the failures come at the stimulation phase, but the mistakes being made here come from not having thoroughly or fully implemented the necessary exploratory steps at earlier stages in the workflow.

Internationally, the newly drilled unconventional well failure rate is far higher, at times exceeding 75%; a factor that is impeding progress of shale play production outside of North America, and which means the vast majority of experience and technical development continues to be centred in the US market. However, the same rich legacy data position exists in the oil company and state archives of many international shale contenders and the appropriate use of such data will assist our understanding of the nature of these opportunities.

This presentation identifies the key characteristics of both the shale play workflow and the Reservoir Intelligence process, which demonstrates how the use of legacy data sources in all the key disciplines can reduce risk and uncertainty, and improve success rates from newly drilled completed and stimulated wells.