TG17

Comparisons and Contrasts of Tight Gas Sand and Shale Gas Developments - Drawing upon North American Experience and Trends

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SUMMARY

“All Shale Gas reservoirs are not the same” and “there are no typical Tight Gas reservoirs,” are two statements found numerous times in the literature on shale gas and tight gas reservoirs. The one common aspect of developing these unconventional resources is that wells in both must be ‘hydraulically fractured’ in order to produce commercial amounts of gas. Operator challenges during each phase of the asset life cycle (Exploration, Appraisal, Development, Production, and Rejuvenation) of both shale gas and tight gas are similar. Drilling, well design, completion methods and hydraulic fracturing are similar; but reservoir analysis and formation evaluation techniques are quite different.

Much of the experience in shale and tight gas has been developed in the U.S.; and most of the technologies that have been developed by operators and service companies are transferable to Middle East, North Africa and other parts of the world. However, the infrastructure, including equipment and service company availability, governmental regulations, logistics, processing, environmental considerations, and pricing are not the same as in the U.S.; which may impact the rate of the technology transfer as well as the selection of the technology. It is likely that environmental concerns and the drive to reduce development costs of tight and shale gas reservoirs will drive a new “factory” approach to the development of these two types of developments.

Whilst shale gas and tight gas reservoirs are no longer considered to be ‘unusual’ projects by investors in the U.S., elsewhere they are regularly referred to as “unconventional resources”. As a subsequence of the technical, logistical and cost challenges mentioned above, shale and tight gas reservoirs require special attention in terms of economic analysis. The economics of producing shale gas and tight gas reservoirs will be discussed in this workshop, with case studies that can demonstrate the challenges of evaluating the commercial viability of projects.