SUMMARY

The industry shift down the resource triangle to unconventional resources such as tight gas has led to new challenges. Tight gas reservoirs cannot be produced economically without hydraulic fracturing. As a result, the strategies for drilling, completion, and stimulation workflows are changing to enable hydraulic fracturing. This includes the application of horizontal wells and completion designs to enable the ultimate objective of multi-stage fracturing. With these changes comes a shift in the cost structure that can put as much as 60% of the overall well cost on the fracturing operation.

This presentation will provide a snapshot of how the overall well cost shifts as we move down the resource triangle from conventional to unconventional reservoirs. Well cost distribution examples from the Middle East and around the world will highlight differences for the development of various reservoir types such as carbonate, sandstone, tight gas, and shale gas.