

Advanced Technologies in Pre-salt Exploration and Production, Brazil

Mauricio Moraes¹ and Umberto Borges¹

¹Petrobras

ABSTRACT

What should we expect from pre-salt wells in the next five years in terms of well technologies and operational efficiency? This presentation aims to answer that question by describing the learning curve of the pre-salt wells over the years, as well as giving a flavor of advanced well technologies expected to be adopted for pre-salt wells in the near future. One of the examples to be shown is the Open Hole Intelligent Completion (OHIC). This new solution defines an innovative completion philosophy for pre-salt wells. The design adds a separated lower completion that can temporarily isolate the formation during the upper completion installation and heavy workover operations. This design has the ability to quickly isolate the reservoir, which is especially important when major fluid losses are expected during drilling and completion phases. One of the major benefits of this approach is the possibility of installing the lower completion using Managed Pressure Drilling (MPD) techniques. Other benefits are related to reservoir management due to the significant difference between the injectivity of the zones completed. The presentation will provide a brief overview of other drilling and completion technologies incorporated into pre-salt wells, which lay the groundwork for a remarkable evolution of drilling and completion efficiency while also continuing to seek operational safety.