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Geosteering: Selecting the Right Technology to Optimize Well Placement

J.M. Denichou* (Schlumberger)

SUMMARY

Keynote Address
Abstract

Drilling horizontal wells successfully required to address various challenges, and accurate well position monitoring and trajectory adjustment are certainly ones highly affecting future production and recovery. Due to the versatility and the uncertainty attached to the precise location and description of the reservoir targeted, it is often necessary, to minimize risk on the overall project, to adopt a fit for purpose strategy to geosteer horizontal wells.

Each project has specific requirements that will drive the selection of the measurements needed. Nevertheless, it is already possible to categorize options based on three main types of compulsory information needed in real time:

Delineation of the reservoir and evaluation of the geological structure drilled.
Evaluation or confirmation of the reservoir petrophysical properties.
Identification of the fluid type as well as pressure regimes along the borehole.

In parallel to game-changing-technology developments aiming at addressing those needs, the industry is quickly gaining experience in planning and conducting geosteering operations. Benefiting many operators in all types of environments, rigorous procedures are getting in place that cover planning, real time operations and post job analysis.

This communication will review progress made since last EAGE geosteering conference and will introduce some of the new measurements available today for the industry.