

## **2009 SPE Forum Series**

### **GETTING TO ROBUST PRODUCTION FORECASTS**

Accurate production forecasting is proving to be an elusive science. As an industry we too often fail to meet both short and long term production targets. In addition, we tend to systematically underestimate the impact of uncertainty. Why is that?

Production forecasting is based on input parameters derived from a number of very disparate sources: from seismic and core data to facilities and downstream market predictions. Added into the mix are ambitious management targets and performance contracts as well as human factors such as cooperation and integration across technical disciplines. Overall, production forecasting is a highly coupled and complex task.

Different techniques are often applied in short and long term production forecasting. The associated uncertainties are of a different nature for the different time scales. The handling of these uncertainties has proven to be highly challenging for most companies. We tend to underestimate uncertainty and completely fail to account for “unforeseen” events which can erode our forecasts.

The forum will address strategic, tactical and planning issues in production forecasting and their interactions, as well as the need for improved methodologies and workflows. Main topics will include:

- How valid are the historic learning's
- Where are the main gaps in today's methodology and workflows
- What data do we need and how is the data applied
- How to take into account both upstream and downstream factors
- How to effectively incorporate a “Train Wreck” factor
- Handling of uncertainty in all input data types, and how to capture a realistic span of uncertainty
- How much should we rely on reservoir modelling, simulation and history matched models
- What are the implications of management target setting
- How to address human factors
- How to integrate short and long term forecasting