Elgin – Franklin: what could we have done differently?

Eric Festa, Ole-Petter Hansen (Total E&P UK)

The Elgin and Franklin fields were discovered respectively in 1991 and 1986 in the Central Graben Area of the North Sea. The reservoirs (shoreface sandstones of the upper Late Jurassic periodage) are 5,500m deep and present abnormally high pressures (1100bar), extreme temperatures (1100bar and 200ºC) and significant levels of CO_2 and H_2S.

At the time of project sanction in 1997, Elgin/Franklin was the largest HP/HT development in the world. It required innovation across the full range of operator activities, from fluid modeling, through development concept definition, HP/HT drilling and platform design to commercial framework.

Seven years after production first began, it is fair to say that Elgin / Franklin has not only achieved the aims of the initial project, it has clearly surpassed them. The increased gas export capacity compared to initial design, the successful development of Glenelg (2006) and West Franklin (2007) satellites using High Departure Drilling techniques and the recent drilling of an infill well in highly depleted reservoir are some of the key contributors to the success of Elgin / Franklin.

The high level of technical innovation from project conception right through to recent drilling achievements has provided a valuable experience, not only for the Total group and Elgin/Franklin partnership, but also for the industry's HPHT challenges. With hindsight, using this experience, combined with a decade of further progress in technology, some of Elgin / Franklin development features could have been further optimised. This presentation details some of the most significant feedbacks and provides an insight into the future of Elgin / Franklin as a mature, yet promising asset, which today is at the .crossroads for further investments to ensure its continued growth.