



SPE & PESA South Australian Sections Joint February Meeting



Linking Risk and Uncertainties to Field Development Planning in Challenging Environment

Stephen S. Kuo

2011-2012 SPE Distinguished Lecturer
BP Exploration

Tuesday 21st of February 2012

Ayers House, 288 North Terrace, Adelaide
12:00 for 12:30 hrs

RSVP by 1400 hrs Friday 17th February to Helena.Wu@santos.com

\$45 SPE or PESA members / \$55 non-members / \$15 students

*Bookings are essential. Payment to be made on the day with cash or cheque made to "Society of Petroleum Engineers – SA Section" (No Credit Card Facilities). "No shows" and cancellations made after the RSVP date **WILL** be charged. Members arriving without a confirmed booking will be charged non-members prices.*

Please advise at RSVP, if you have any special dietary requirements.

Abstract:

The complex geological architecture in deepwater turbidite reservoirs, coupled with multi-billion dollars development schemes, i.e, dry or wet tree wells, subsea pipeline system and floating facilities, makes field development planning a very challenging task. The reservoir engineer is often faced with tough questions: "How many wells are required and what the reserve volume is and its range". To answer these questions requires a complete assessment of risk and uncertainties of the reservoir to be developed. Even with the most rigorous technical approach the uncertainties will still remain. It is equally important to communicate the risk and uncertainties to key stakeholders so that an informed business decision can be made. This lecture will discuss a systematic approach to frame the risk, link the risk to uncertainties, assess the uncertainties and develop an activity plan. The activity plan should be tied to reservoir surveillance program so that risk is mitigated and the uncertainties are reduced as the project moves into execution and production phases. Key take-away is to keep risk and uncertainties analysis simple by looking at a big picture and only focus on the uncertainty parameters that have a material impact on the business. A few examples of field development plan will be discussed in the lecture.

Biography:

Stephen S. Kuo, a veteran of BP with 30+ years of global experience, is responsible for field development planning and risk and uncertainty assessment for BP's deepwater fields in Gulf of Mexico. Steve holds BS, MS and PhD in Chemical Engineering from University of Wisconsin, USA. Throughout Steve's career with BP, he has made significant contributions towards business success worldwide. This includes Integrated Gas Business in Vietnam, LNG development in Angola and miscible flooding in Prudhoe Bay of Alaska, just to name a few. He contributed to field development activities in Alaska, Colombia, Venezuela, North Sea, Russia and China. A seasoned subsurface professional, Steve specializes in oil and gas development from appraisal to production, reservoir management, prospect evaluation, new venture, and gas supply planning for LNG plant. He also specializes in SEC reserves reporting and the certification process. An SPE member for 20+ years, Steve served on Organizing Committee in numerous SPE meetings and was the Program Chair for Vietnam Section from 2006 to 2009 where he significantly increased member participations during his tenure. He received SPE Asia Pacific Regional Service Award in 2009.