Coiled tubing, special operations

**SPE/IADC 52788**

"The Lean Profile: A Step Change in Drilling Performance"

This paper presents the “Lean Profile”, which aims at maintaining 1-in. clearance throughout the whole caving program, leading to a slimmer well profile, but keeping the same size for the production casing.

The “Lean Profile” has been successfully applied to some wells drilled from onshore clusters with parallel vertical sections long as much as 2,000 m. It is part of the drilling strategy for some 30 wells in the Val d’Agri, southern Italy.

— A Calderoni, et al, ENI-Agip E&P Div

**SPE/IADC 52789**

"Casing Drilling— A Revolutionary Approach to Reducing Well Costs"

Drilling with casing would completely eliminate the use of a drill string as defined in the rotary drilling process. Instead, the drill string would consist of the thinner walled casing that for the majority of the wells is run for protection to either eliminate pressure transition zones or guard against sloughing formations. Drilling with casing would commence by inserting a wireline retrievable bottom hole assembly (WRBHA), including a bit and an under-reamer, inside the bottom joint of casing. The WRBHA would latch into the bottom joint of casing, with the bit and under-reamer protruding out the end and held rotationally and axially secure in relation to the casing. Rotation of the bit would be achieved by spinning the casing with a top cave or pumping drilling fluid down the casing. Most other drilling functions would proceed as normal.

— R M Tessari, Tesco Corp

**SPE/IADC 52790**

"Implementation of “Tw in Well” Technology Offshore Sarawak"

This paper will present the application and construction of Petronas Carigali’s first “Tw in Well” with 2 separate wells (one single and one dual completion) from one conductor. The paper will highlight how this new technology was applied in the Tukau field and has reduced project costs and has made infill drilling economically more attractive. Applying “Tw in Well” technology has allowed two wells to be drilled from one platform structure saving the cost of visiting an additional jacket and having to install an additional conductor to achieve the same project objectives.

— S Hashim, et al, Petronas Carigali

**SPE/IADC 52791**

"Electric Coiled Tubing Drilling— A Smarter CT Drilling System"

The paper describes a joint industry project to develop an electrically powered bottom hole assembly for use in coiled tubing drilling (CTD) applications. This offers several distinct advantages over conventional CTD which are considered in depth. These include fluid-flow-independent drive power; longevity of motor life, underbalanced-drilling applications and more.

— D R Turner, XL Technology Ltd, et al

**SPE/IADC 52792**

"Evaluation Process for Implementing a Through 3 1/2-in. CTD Program in Kuparuk Field"

This paper will describe the planning and selection process followed by a multi-disciplined team (MDT) assembled to design and implement a 3-well CTD pilot program in the Kuparuk Field in Alaska. Details on the well screening and candidate ranking processes will be discussed.

— D E Hembling, Arco Alaska
— U Cassee, Dowell
— D B Dicky, AAI

**SPE/IADC 52793**

"Cuttings Flux measurement and Analysis for Extended Reach Wells"

A mechanical device was build to measure the amount of cuttings “produced” from the wellbore. The combination of this information with the real-time data acquisition or other drilling parameters was used to analyse the hole cleaning behaviour of the wellbore.

— G Thornhauser, Univ of Leoben

**SPE/IADC 52795 (ALT)**

"Slimwells Without the Pain"

A unique liner-hanger system and innovative modes of fluid circulation were central to slimming down well geometry while avoiding frequent problems of specialised equipment needs, reduced drilling rates and flow path, and complex well evaluation.

— P Head, XL Technology Ltd, et al