

# DEA proposals include ERD tools, HT chips, pre-installed conductors

**ATTENDEES AT THE** 19 Aug meeting of the Drilling Engineering Association heard news on technical proposals ranging from pre-installed conductors and high-temperature computer chips to tools designed to enhance extended-reach drilling. The event was held at the **Houston Research Center** and sponsored by the Petroleum Technology Transfer Council. For more information on any of the presentations, please visit the DEA website, [www.dea.main.com](http://www.dea.main.com).

Among the new proposals for a joint industry project was DEA-157, "Step Change in Directional Drilling Control and Efficiency when using Motor Steerable Systems." The project is sponsored by DEA member **ChevronTexaco** and was presented by **Eric Maidla, Slider LLP**. Mr Maidla also made a presentation on the technology at the DEA Workshop, held during June in Galveston. (For more details on the workshop, please see the separate article beginning on p 26.)

According to Mr Maidla, the new technology is a surface system that significantly increases the efficiency of a downhole motor/MWD directional system. Field tests in the Austin Chalk showed that the surface system increased sliding rates of penetration from 60% to 200%, for estimated savings of 11% to 23% of total well costs. Hardware and software components in the new system integrate surface and MWD data to provide several benefits in the sliding mode: improved ROP and horizontal reach capability through automatic rocking, using torque as an input; improved tool-face correction through a torque pulse method, using the drillstring; improved well trajectory through a step-change in tool-face correction while on bottom; improved motor life, because stalling is practically eliminated; and elimination of orientation time losses through a semi-

automatic transition from rotating to sliding. This development evolved over the course of one year of laboratory experimentation and has undergone alpha and beta testing in the field.

**Jim Chitwood, Smart Drilling & Completions (SDCI)**, discussed DEA-156, the "Smart Shuttle". The proposal was submitted by SDCI and **Triangle Technology A/S**, with sponsorship from DEA member **ENI Norway**.

The Smart Shuttle targets improved drilling of long-reach wells (up to 30 km) and to perform future services for these wells. The Shuttle performs as a "well tractor" that can run in or out of the well at up to 12 ft/sec. Mr Chitwood said the

technology could significantly reduce the number of platforms on offshore developments, and secure more optimal placement of wells for better reservoir drainage. He also indicated the Smart Shuttle will reduce subsea tiebacks, as well as significantly reducing total drilling time.

**Paul Alcock and George Morrison** of the **UWG Group** made a presentation on "Pre Installation of Conductors (PICO)". UWG Group, a consortium of companies, separately held a launch meeting on this proposed JIP on 17 August in London and 20 August in Houston. According to information provided to DEA and others in the industry, that meeting included discussion on the installation of conductors by "deep driving" techniques using a hydraulic hammer.

A recent UWG study suggests that an installation depth of 200 m could be achieved with either a 20-in. or 30-in. conductor with a scope to achieve up to 300-m penetration.



"UTT-erly deserved: DEA Chairman Emeritus Mike Utt (center), was recognized for his long service to DEA. The gift was presented by (from left) DEA Chairman Morris Keene, Oxy, and Advisory Board members David Dowell, Chevron-Texaco; Gary Collins, ConocoPhillips; and Ron Bland, Baker Hughes Drilling Fluids.

## DEA award 'lights the way' for Mike Utt's retirement

DEA Chairman Emeritus **Mike Utt**, recently retired Manager-Deepwater Technology for **Unocal**, was recognized by the DEA Advisory Board for his long service to the organization. Mr Utt received a desk lamp fashioned from a core sample.

Mr Utt has not yet vanished entirely from the scene, however: An SPE Distinguished Lecturer, he will address the IADC Houston Chapter on 19 Oct on the history of offshore drilling. See [www.iadc.org/checklist.htm](http://www.iadc.org/checklist.htm). ■

Three updates regarding ongoing projects were presented:

- "Proposal to Develop an Improved Methodology for Pre-drill Pore Pressure and Fracture Gradient Prediction for Deepwater Wells" (DEA-119)—**Jim Bridges, Knowledge Systems**;
- "Hard Rock Drilling Performance Improvement Through Impregnated Drill Bit Technology" (DEA-148)—**Arnis Judzis, TerraTek**;
- "Modernization of Connection Performance Properties" (DEA-151)—**Brian Schwind, PPI Technology**.

In addition, attendees heard special presentations on:

- "Long-term High Temperature Well Demonstration at Sandia National Laboratories" by **Randy Norman, Sandia**. More information is available at [www.sandia.gov/geothermal/htwell/](http://www.sandia.gov/geothermal/htwell/);
- "Deep Trek" update by **Gary Covatch, National Energy Technology Laboratory**, US Department of Energy. See [www.netl.doe.gov/sceng/](http://www.netl.doe.gov/sceng/). ■