IADC Future Technology Subcommittee Meeting
9:30 am, Thursday, 19 April 2012
IADC – Houston, TX

Attendees:
Steve Ronan, GE Oil & Gas
Michael Dines, Kittiwake Americas
Tim Mournian, Marine Cybernetics
Niels Meissner, National Oilwell Varco
Tony Scott, OCS Group
Ibrahim Meshref, Saudi Aramco
Dustin Torkay, Seadrill Americas Inc.
Rolf Gullaksen, TTS Energy Houston

Minutes:

1. Next workshop Topic-BOP Technologies discussed.
   a. Random Ideas
      i. Challenges in the industry
         1. Limited talent pool. No similar industry to pull subsea expertise from.
         2. Several varying levels of standards.
         3. There was discussion on creating a feedback loop between OEMs and Contractors. Contractors tend to say that feedback is given and ignored. OEMs tend to say feedback is not received and problems are not fixed.
         4. BOP changes managed with 'Tribal Knowledge'
      ii. Are BOPs a Control System or a Safety System? This would affect the design basis for BOPs.
      iii. Down time was discussed as being an encompassing issue that touches on all facets of BOP technologies from equipment, to training, procedures, etc.
      iv. Are there any enabling or disruptive BOP technologies?
         1. Modular controls systems.
         2. Auto Kick Detection
         3. Others?
         4. Are technology step changes enough?
   b. Workshop Format adjustments.
      i. It was discussed to possibly remove the technology presentations as these are typically the lowest rated part of the workshop and replace it with a guided panel discussion.
   c. Goals, objectives & draft workshop format to be established for next meeting.

   a. Presentation went well.
   b. US Shale has changed a lot in the last year.
   a. Presentation draft ready for review next meeting.
   b. Topic: **Is Well Construction Behind the Innovation Curve** - Comparisons in R&D investment and adoption with other industries

4. Next meeting Date May 31\textsuperscript{th}, 2012 @ 9:30am