

IADC UBO/MPD Committee 10 – 12 September 2012

Attendance Sheet		
Name		Company Name
John	Cohen	AGR Subsea Inc.
Nigel	Alvares	Blade Energy Partners
Lei	Zhou	BP America
Louis	Romo	BP America
Stuart	Butler	Canrig Drilling Technology Ltd.
Ken	Smith	Chevron
Tim	Mournian	GE-Hydril
Anton	Arnt	Halliburton
Joseph	Karigan	Halliburton
Mike	Vander Staak	Hess Corporation
Clayton	Mykytiw	Hess Corporation
Joe	Hurt	IADC
George	Michaud	Managed Pressure Operations (MPO)
Dennis	Moore	Marathon Oil Company
Shantur	Tapar	National Oilwell Varco
Tracy	Mossman	Nexen Petroleum USA Inc.
James	Dech	Ocean Riser Systems
Frederic	Jacquemin	Pacific Drilling
Paul	Guirlet	Pacific Drilling
Kenneth	Downs	Pruitt Tool & Supply Co., Inc.
Cris	Braun	Pruitt Tool & Supply Co., Inc.
Shawn	McBride	Pruitt Tool & Supply Co., Inc.
Stephen	Taylor	Pruitt Tool & Supply Co., Inc.
Ossama	Sehsah	Schlumberger
Jaye	Shelton	Schlumberger
Brian	Tarr	Shell E&P



Tom	Askeland	SIEM WIS AS
Knut	Karstensen	SIEM WIS AS
Harry	Bolle	SIEM WIS AS
Robert	Goodwin	Signa Engineering Corp
Sagar	Nauduri	Signa Engineering Corp
Dag Ove	Molde	Statoil
Ivar	Kjøsnes	Statoil
Nils	Rolland	Statoil
John-Morten	Godhavn	Statoil
Gavin	Humphreys	Stena Drilling
Wade	Cornelson	Transocean
lain	Sneddon	Transocean
Brian	Grayson	Weatherford
Thomas	Bailey	Weatherford
Andrew	Barry	Weatherford
Don	Hannegan	Weatherford
Guy	Feasey	Weatherford

10th September

Welcome, Announcements & Safety Moment

Dag Ove Molde (Statoil), Committee Chairman, opened the meeting and thanked Pacific Drilling for hosting the meeting. Frederic Jacquemin (Pacific Drilling) gave the attendees general information about the building and a safety briefing.

Introduction of New Committee Members and Guests

Dag Ove Molde (Statoil) then asked everyone to introduce themselves, see the attached attendance sheet. Each attendee introduced themselves including their company name and position. The IADC Anti-Trust policy was presented.

Review & Approval of 2nd Quarter 12 Meeting Minutes

A brief discussion regarding minutes brought forth some recommended changes. A motion was made to approve the amended minutes by Andrew Barry (Weatherford) and was seconded by James Dech (Ocean Riser Systems). The 2Q12 Meeting minutes were approved with minor adjustments.



Sub-Committee Reports

Status on the Submission of US BOEMRE Draft NTL on Dual Gradient Drilling

The DGD NTL was submitted to George Conner, BSEE Chief Technology Assessment Group on 30 March 2012. Several emails were sent by Joe Hurt (IADC) to George Connor enquiring on the status of the draft NTL but there has been no response thus far. After an informal discussion with the BSEE, Don Hannegan (Weatherford) shared that the BSEE believed that most of the value of the IADC DGD Subcommittee had already been received by them. The goal of the NTL was to provide some information/guidance to the BSEE and to educate the regulatory community. Also based on an informal discussion with the BSEE, Robert Goodwin (Signa) shared that that the BSEE is waiting for an Operator to propose the DGD technology and submit an APD (Application for Permit to Drill). It was generally agreed that the editing work on the NTL was complete. It was proposed that John Cohen (AGR) create a draft email to the BSEE enquiring whether the IADC DGD subcommittee can do anything else for them at this time.

Status from DGD subcommittee, workshop planning etc.

A DGD workshop is booked for Thursday, May 9, 2013 at the Norris Conference Center in Houston during OTC week. The IADC Well Control Committee met last week and the DGD NTL, including the operational matrix, was reviewed. A final list of the glossary of terms and a well barrier schematic were requested. Joe Hurt (IADC) sent the draft version of the MPD Best Practices on August 8 as well as a well barrier schematic from NORSOK D-010. Brian Grayson (Weatherford), Guy Feasey (Weatherford), and Robert Goodwin (Signa) volunteered to liaise with IADC Well Control Committee mainly to increase awareness of NORSOK D-010.

Discussion of MPD Candidate Screening Tool (Report of Usage)

An email on the MPD Screening Tool site has been sent to all committee members. The tool is in the public domain now and can be found under "Completed documents" on the IADC UBO -MPD Committee website at: http://www.iadc.org/iadc-committees/iadc-underbalanced-operationsmanaged-pressure-drilling-committee/completed-documents. Joe Hurt (IADC) reported that there have been sixty downloads of the program. Both Tracy Mossman (Nexen) and Dag Ove Molde (Statoil) trialed the tool and reported that the results made sense. Future work will include further refining of the scoring after additional experience using the various MPD techniques. The group needs to revisit the tool in 6 to 8 months when there is more experience to better define how well or poor the problems can be addressed by a particular technique. Mike Vander Staak (Hess) suggested that additional information, including vendor technical specifications, procedures, and best practices, should be added to the tool to help foundation level drilling engineers. He also suggested a work flow process chart, showing lead time for technology implementation including the procurement of long lead items and rig modifications, would be valuable. It was decided to leave the tool as it is for now due to the fact that the technologies are constantly evolving so the information would always be out of date. A new task group would be required if the tool is to be further developed to include this functionality.

Discussion of UBO/MPD Training Initiative

Nothing new to report at this time.



3rd Quarter Meeting Date 10 – 12 September 2012

Status of the Re-affirmation of API Spec 16RCD

This document will continue to be worked on by the task group. The IADC Well Control Committee met last week and several issues were discussed regarding RCD/MPD and well control. Robert Goodwin (Signa) brought up that the main concern was riser gas handling and use of the RCD. An informal committee is going to be created to look into these issues and create procedures. This committee needs input from the IADC MPD & UBO Committee. RCD is considered pressure control equipment. It cannot meet well control equipment specifications. The RCD can be part of the primary barrier but it cannot be part of the secondary barrier. Brian Grayson (Weatherford), Guy Feasey (Weatherford), and Robert Goodwin (Signa) volunteered to liaise with IADC Well Control Committee mainly to increase awareness of NORSOK D-010.

Status of Draft HSE Planning Guidelines

There were several comments/suggestions made during the meeting. Derek Hibbard (Weatherford) could not attend the meeting and asked that he review the feedback so the voting could be done on Tuesday.

Status of the Re-affirmation of API RP 92 U

Nothing new to report at this time.

Status of MPD Best Practices Document

Good progress was made on the committee-wide review of the document in Oslo. A conference call / meeting was scheduled on August 8 to work further on the document. The draft was posted on the website and feedback requested via email on August 30. There are 10 pages left to review.

Suggestions for Subcommittee and Task Groups Work

It was decided to break the large group up into two smaller groups. One group did the initial planning for the DGD workshop and finish editing the MPD Best Practices document. The other group worked on the API Spec 16 RCD document. Note that the entire group agreed that the smaller group would be acting on behalf of the entire committee when reviewing the MPD Best Practices document.

Review of 2012 – 2013 Meeting Plans

- 4Q12 03-05 December to be held in Copenhagen, hosted by Hess
- 1Q13 15-16 April to be held in San Antonio TX, need a host, GE/Weatherford/AGR looking into sharing the expense 3 ways, Holly Shock to confirm cost of facility/meals/refreshments
- MPD / UBO Conference, 17 18 April, 2013, San Antonio, TX
- DGD Workshop 9 May, 2013, Norris Conference Center, City Centre, Houston, TX
- 2Q13 to be held in Europe close to an international airport, no host or date established, Louis Romo (BP) to check availability of office space in Sunberry or Aberdeen, Andrew Barry (Weatherford) suggested their facility in Abu Dhabi
- 3Q13 IADC offered its new Conference center to host the meeting, need dates to be established Sept 16-18 suggested, sponsor needed to provide lunch.
- 4Q13 No dates or host established. To be organized at a later date.



Any Other Business

Dave Dowell (Chevron) gave an update on their upcoming DGD operation. They are currently in the middle of FAT on the pump at GE which will be finished in the next couple of weeks. They are also in the process of reviewing the well schedules. The APD was prepared following the draft NTL written by the DGD Subcommittee. The BSEE has been quite receptive. Chevrons are open to sharing their contacts within the BSEE to reduce the educational process for other operators looking to implement DGD in the US GOM.

Brian Grayson (Weatherford) asked the committee to consider supporting a UT consortium, Center for Petroleum Asset Risk Management (CPARM) which is being sponsored by BP, Chevron, Hess, Statoil, and Weatherford. It consists of an annual sponsorship of a PhD student who is researching the drilling-related risks of MPD versus conventional drilling. They would like more operator and service company participation by means of activity within the organization and monetary support (\$50,000 per year). Dr Eric Bickel is the main contact. His contact information is as follows: J. Eric Bickel, Assistant Professor Operations Research & Industrial Engineering, University of Texas, <u>ebickel@mail.utexas.edu</u>, <u>http://faculty.engr.utexas.edu/bickel</u>, 512.232.8316 (office), 281.705.3633 (mobile) It was generally agreed that this is a useful initiative. Brian Tarr (Shell) said that the DEA had a risk analysis of MPD done by Stress Engineering and there was not much numerical output.

Nils Rolland (Statoil) suggested that an API specification was needed for subsea pumps and control systems. This future potential work will be discussed within the DGD Subcommittee.

Dual Gradient Drilling Workshop 9 May 2013, Houston Texas Led by John Cohen, AGR Subsea, Inc.

The DGD Workshop group lead by John Cohen developed a proposal for the workshop and it was submitted to Leesa Teel, Vice President IADC Conferences, to finalize and distribute the Workshop brochure.

MPD – UBO 2013 Conference, San Antonio, Texas Planning Committee

Leesa Teel, Vice President IADC Conferences, lead the group in developing the conference program. Leesa will provide the members minutes of the planning session.

Tuesday 11 September 2012

Review and vote on HSE Guidelines

It was decided to allow the group to review the document and send comments to Joe Hurt (IADC) who will forward them on to Derek Hibbard (Weatherford). The comments will be reviewed by Derek and a final vote will be conducted at the next meeting.



Breakout Sessions

The task groups worked on API Spec 16 and MPD Best Practices documents.

Wednesday 12 September 2012

Breakout Sessions

Each task group continued on each API Spec 16 and MPD Best Practices

Briefing on Breakout Sessions Progress and Meeting Closeout

MPD Best Practices Closeout Report

The group completed the editing of the document. The final draft will be uploaded to the IADC website. The entire committee will be asked to review the document at a very high level and respond if there are any major items missed or suggestions for re-organization of the document. Final comments will be due one month prior to the Q4 meeting in Copenhagen. No comments will be accepted at the meeting. A motion to accept the document will be proposed at the Q4 meeting in Copenhagen.

API Spec 16 Closeout Report

The group completed the editing of the document. The final draft will be uploaded to the IADC website. The document is to be reviewed by the entire committee with comments due one month prior to the Q4 meeting in Copenhagen. One day of the meeting in Copenhagen will be used by the task group to review the comments.

Wrap-Up

Frederic Jacquemin (Pacific Drilling) reviewed a draft agenda for the DGD workshop.

A new Vice Chair is required for the DGD Subcommittee replacing Kristin Falk (Ocean Riser Systems) who will be taking over from John Cohen (AGR) as Chair. The Subcommittee is looking for candidates.

Potential agenda ideas and duration for the Q4 meeting in Copenhagen were discussed. It was agreed that 2.5 to 3 days was sufficient. Day 1 would include a split work session to review comments on the MPD best practices and API Spec 16RCD. Day 2 would include a vote on the HSE Planning Guidelines, MPD best practices, and API Spec 16RCD. Day 3 would include the planning for the DGD workshop and the MPD/UBO conference in San Antonio and also some planning for focus areas for 2013.