



## **Welcome and Facility Orientation/Safety**

Meeting host Goran Andersson, Chevron, welcomed attendees and provided building safety information before beginning the Well Control Committee meeting.

## **Introductions and IADC Antitrust Policies & Guidelines**

Brian Maness, Diamond Offshore, Committee Chairman, welcomed member to the meeting and reviewed IADC Anti-Trust Policy and Guidelines. Steve Kropla directed attendees to the IADC website for a copy. The latest revision of the Anti-Trust Policy and Guidelines dated March 2009 is available at <http://www.iadc.org/antitrust>.

## **Negative Pressure Testing**

George Armistead, Chevron, made a presentation on "[Negative Pressure Testing](#)". During his presentation, he defined a negative pressure test as simply a normal well process that results in negative pressure.

There are two situations on the cementing operation:

- The cement is circulated up inside the previous string of casing -- This is routine for both conductor and surface casing that most often are cemented to near the surface. In this situation, the BOP equipment should not be removed until a pressure integrity test is conducted.
- An intermediate string of casing that is usually not cemented up inside the previous string of casing – In this situation, you must wait until the cement fully goes through the transition period before removing the BOPs and, with management concurrence, to discuss and review well conditions before commencing to remove BOPs.

Mr. Armistead pointed out several operational tips concerning negative pressure testing.

- Prevention is key when it comes to loss of well control.
- Unintentional negative pressure testing can result during cementing operations.
- Negative pressure testing only tests the integrity of the well from depth at which the tool is set, downward to the bottom of the hole. It does not provide any information about well integrity above the set point of the tool.
- Negative pressure test should never be conducted with the well open. Conduct the test only when the well is closed and under pressure.
- When cementing surface casing, do not remove the surface barriers (i.e., BOP or diverter) until a positive pressure test result is obtained.
- Cement slurry that can still be in the transition period or state is not a barrier.
- Any volume flow during a negative pressure test is considered a failed test.
- It is better to look for small pressure changes than to focus on fluid flow.
- Insure that the right people are involved with the decisions before commencing to remove BOPs when the consequences can be VERY SEVERE.

He also encouraged members to perform risk assessment before implementing a well operation.

During the discussions that followed Mr. Armistead responded to the many questions asked by attendees. Some of the questions and answers are recorded below.

Q: Has WellCAP introduced or could WellCAP introduce negative pressure test scenarios into simulation exercises?

A: Mr. Armistead stated that he prefers emphasizing procedure, design and calculations. In his opinion, negative pressure testing is not an issue for simulation.

Q: How do we train people to recognize what they do not know about well conditions?

Q: While responding to inquiries coming into the API website, Mr. Hal Kendall senses that those inquiring seem completely ignorant about what to do concerning negative pressure testing. Does a study group need to be formed?

A: no response

Q: Have you had management question your decisions to take more time to take precautionary steps?

A: He has never been questioned and has never experienced a blowout.

Q: How long should it take to perform a negative test? Is there a safe minimum guideline you can offer?

A: During a well operation, so many things are changing simultaneously that every situation is different. No, there is no set time I would suggest. This is a situation where we need to respect the need for good engineering. If an operator specifies 1 hour (or any set time), the drilling contractor needs to challenge the operator. Be sure you understand and have confidence that the operator knows what he/she is doing. He recommend drilling contractor have pressure expectations rather than a specific amount of time in mind to wait.

Q: Multiple barriers?

### **WellCAP Review Panel Member Selection**

Brian Maness, DODI

Mr. Maness reported that two WellCAP Review Panel members need to be replaced.

Jerome Schubert's term has expired. Jay O'Connor, formerly Chevron and representing operators, has changed employment and now works for a service company (and is thus ineligible to represent the operator position).

Nominees for the 2 positions were:

- university/academic representative -- Darryl Bourgoyne
- Operator representative – John Bridenthal (Chevron) and Cliff Neve (Occidental Petroleum).

A confirmation vote was first held for Darryl Bourgoyne.

Operator nominees were introduced and given opportunity to tell about their qualifications for the Review Panel. Both candidates have many years industry experience in field operations before becoming WellCAP-approved well control instructors.

The vote for operator representative was held by paper ballot, one vote per company represented at the meeting. Call-in attendees were given opportunity to vote by email.

In the final tally, John Bridenthal was selected to be the operator representative.

Both new Panel members will serve a three year term.

While the next speaker set up for his presentation, Brian Maness introduced two new subcommittees of the Well Control Committee. He reported that the newly formed Accreditation Subcommittee will focus on WellCAP accreditation issues from review of new program documents to making recommendations for change in accreditation criteria. This subcommittee needs a chair and members.

The second newly reorganized subcommittee is the Quality Assurance and Audits subcommittee. A. J. Guiteau chairs this subcommittee. Mr. Guiteau pointed out that one of his first focus areas for the subcommittee is to develop a methodology for “spot checking” knowledge retention following well control training. He invited Committee attendees to join this subcommittee.

### **Advanced Well Control Training (link)**

Bernd van den Brekel, Shell International Exploration and Production B.V.

Mr. van den Brekel described new supervisory level Advanced Well Control courses being developed by Shell. Three courses are in various stages of design: Well Engineers – Surface, Well Engineers – Subsea, and Completion and Well Intervention.

[Click here](#) to view presentation.

#### **Courses:**

- Consist of 2 parts, a pre-course “virtual” web-based well control course following the WellCAP and IWCF curriculums and a 5-day face-face course with exercises, case studies and assessment;
- Include topics of barriers, management of change, equipment, well design, procedures, competence, and other topics;
- Require IWCF exam;
- Are for a maximum of 8 students;
- Involve ½ day simulation each day;
- Require 2 cycles of well control certification (either WellCAP or IWCF) as prerequisites;
- Are designed for Shell personnel, but eventually will be available to drilling contractor tool pushers.

A pilot course was run, with course adjustments made following the pilot. A one-day version is being offered 28 February in conjunction with the SPE/IADC conference in Amsterdam. Going forward, Shell plans to incorporate elements of the WellCAP Plus model into their courses.

In developing the courses, Shell seeks to achieve one standard for advanced well control training.

### **Report and Discussion on Current BOEMRE NTL**

Joe Savoy, Wild Well Control Inc.

Mr. Savoy presented his perspective on the current Bureau of Ocean Energy Management, Regulation and Enforcement (BOEMRE).

Highlights of his presentation are as follows:

- Deepwater permitting now requires submission of pictures of every piece of equipment to be used in spill containment and written procedures for assembly of containment equipment. No deepwater permits will be issued without this.
- Workplace safety management systems (SEMS) are already in place for many companies, but will be a challenge for smaller, independent operators to develop.
- New U.S. regulations may be adopted internationally. Saudi Aramco may mirror U.S. requirements for both onshore and offshore. DEC is basically mirroring NTL-6 and NTL-10.
- U.S. Environmental Protection Agency now reports that NEPA reviews can take as long as 30 to 90 days to complete.
- Relief well design has to be in place but the well does not have to be drilled simultaneously with the original well.
- Liability issues for the Professional Engineer (PE) signing off on well and cementing design are significant. An in-house PE can sign off on the designs. Also BOEMRE staff will be reviewing and approving designs.

Steve Kropla indicated that API is developing a checklist for RP 75 as a means of demonstrating compliance with new regulations.

#### **WellCAP—Discussion of items to be decided by WellCAP Review Panel**

Brian Maness, Diamond Offshore

Mr. Maness brought to the attention of Committee members two WellCAP accreditation issues that need resolution:

- WellCAP Testing Protocol, which is particularly the issue of whether or not open book testing will be permitted; and
- Elimination of WellCAP Certification "Grace Period" – The "Grace Period" refers to the extension automatically being granted to certificate holders whose WellCAP certificate expires. A 90-day grace period permits certificate holders to retrain and renew the certificate up to 90 days after certificate expiration without a lapse in certification.

The need for those submitting IWCF certificates to satisfy instructor qualifications, to attend a separate training provider other than their own, and the overall suitability of IWCF certificates to satisfy instructor requirements (See "Open Discussion" section).

Because these issues have been discussed several times in recent Committee meetings, Mr. Maness proposed to submit each issue to the WellCAP Review Panel accompanied with members' comments for review, discussion, and a recommendation for action.

Steve Kropla indicated the process would involve:

- Preparation of a "brief" describing the issue and request for Committee members' comments;
- A 30-day comment period permitted;
- Compilation of comments by IADC staff;
- Review by the Panel with recommendations drafted;
- Submission of Panel recommendations to the Well Control Committee for a vote.

## **Subcommittee Reports**

Curriculum Subcommittee – Goran Andersson

Mr. Andersson reported that the Curriculum Subcommittee has investigated Instructional System Design (ISD) as a tool for restructuring the WellCAP curriculums.

Mr. Andersson reviewed the features and benefits of ISD, stating that ISD:

- Adds transparency to the system;
- Adds define standards that include differing levels of performance;
- Addresses length of course
- Adds flexibility on what to teach when;
- Follows the ANSI standard;
- Adds credibility to the training program.

The subcommittee recommends use of ISD approach going forward.

In other discussion, Mr. Andersson stated that subcommittee members agree that the 2-year certification cycle is not ideal. Proficiency decay is believed to occur although the rate of decay is not known. Member concluded that there is a need for refresher training, but they do not know what it should look like. “Virtual” training may be beneficial for refresher training.

Mr. Andersson invited Matt Mao (Check 6) to provide additional explanation of ISD.

Mr. Mato explained that ISD is criteria-based training with the criteria being objective, observable, and measurable. ISD manages design by fact, not feeling. Mr. Mato said that development of ISD curriculum is a tedious process, but the payoff is huge. Tasks are catalogued with each task having conditions of conduct defined. ISD’s standards of performance are tied to KSAs (Knowledge, Skills and Attitude), instructional media, proficiency standards, and periodicity. The process of developing ISD curriculum requires 1 ISD qualified person working with many subject matter experts to identify all known tasks, performance levels, etc.

Mr. Andersson indicated that the next subcommittee meeting is 22 February at Diamond Offshore Drilling Inc. In order to expedite the work of the subcommittee, the subcommittee will meet every two weeks.

## **Other WellCAP Issues**

Brenda Kelly, IADC

Facilitator Certification Course: The course held in January was considered successful with 7 students participating. Three course dates are set for 2011: 24-27 May; 26-29 September and 5-8 December. IADC is looking for a host for each of these courses. Please contact Marlene Diaz if interested in attending the course or hosting one of the events. Malcolm Lodge, Transocean, offered to host one of the courses.

Upcoming Events: Well Control Conference of the Americas, 15-16 August 2011 at the Westin Riverwalk in San Antonio.

Need for Feedback – During IADC’s ISO 9001 audit, the auditor pointed out that, in his opinion, IADC does not qualify for exemptions to the ISO standard currently listed in the Quality Management System. The only new requirement that may require action by the Committee as a result of this change in status would be that requirements for defining equipment specifications used in the program. This means WellCAP requirements stated in WCT-01 would need to specify

simulator requirements. The standard may be satisfied by the fact that functional requirements for the simulators are currently stated in WCP-01.

Ms Kelly asked whether or not requirements for simulators used in WellCAP courses has been previously discussed or defined in any parameters other than software functionality? The response was, "No".

### **Open Discussion**

IWCF Certificate acceptability as Instructor Qualification – Marlene Diaz, IADC, asked members to address the issue of acceptability of IWCF certificate as satisfying the new requirements for Instructor Maintenance status. At issue is whether or not an IWCF test taken at a school where the instructor teaches qualifies as his valid well control certificate required for Maintaining Instructor Approval. It was recommended that this issue be referred to the WellCAP Review Panel for a determination.

REMINDER: The deadline for submitting qualifications for Maintaining WellCAP Instructor Approval under the new requirements is 30 June, 2011. All currently approved WellCAP instructors must submit their documentation for maintaining instructor approval by this date. Given the approximate 700 instructors that need to be re-qualified, IADC expects a large backlog in processing applications. A second WellCAP Review Panel may need to be established to help process the volume of applications in the required timeframe. Instructors were encouraged to submit their documentation early.

**Next meeting** will be at Wild Well Control Inc., 2201 Oil Center Court, Houston. Steve Vorenkamp is the contact. Tentative dates being considered are 11 May and 18 May.

Suggested next meeting topics:

- None identified

### **Action Items:**

- IADC staff to prepare "Brief" for each of the three WellCAP issues raised at the meeting today. IADC to distribute briefs to Committee members for comments.

**Adjournment** – Meeting adjourned at 2:30 p.m.

### **Attendance:**

<b>Name</b>		<b>Company Name</b>
H. Gene	Wilson	<b>Aberdeen Drilling Schools, Ltd.</b>
David	Egbert	<b>Baker Hughes Inc.</b>
Gareth	Williams	<b>BG Group</b>
Patrick	Ljungdahl	<b>Boots &amp; Coots</b>
Johnny	Richard	<b>Boots &amp; Coots</b>
Ron	Bohuslavicky	<b>Boots &amp; Coots</b>
Matt	Mato	<b>Check 6 Training Systems</b>
Goran	Andersson	<b>Chevron</b>
John	Breidenthal	<b>Chevron</b>
Allen	Kelly	<b>Chevron</b>
George	Armistead	<b>Chevron</b>
Chuck	Boyd	<b>CS Inc.</b>
A.J.	Guiteau	<b>Diamond Offshore Drilling, Inc.</b>

Brian	Maness	<b>Diamond Offshore Drilling, Inc.</b>
Petar	Radulovic	<b>Diamond Offshore Drilling, Inc.</b>
Shawn	Geissler	<b>Drilling Systems Inc.</b>
Ed	Ramsay	<b>Drilling Systems Inc.</b>
Clive	Batisby	<b>Drilling Systems Inc.</b>
Aaron	Scheet	<b>ExxonMobil Development</b>
Simon	Ward	<b>Fearnley Procter</b>
Sean	Roach	<b>Global Manager Pressure Control</b>
Dameng	Zhang	<b>HongHua America, LLC</b>
Al	Marciante	<b>HongHua America, LLC</b>
Jack	Li	<b>HongHua America, LLC</b>
Brenda	Kelly	<b>IADC</b>
Marlene	Diaz	<b>IADC</b>
Steve	Kropla	<b>IADC</b>
Hal	Kendall	<b>Kenda Enterprises</b>
Zhiyong (Yancy)	Xiong	<b>Landy Energy Services, Inc.</b>
Jim	Jiang	<b>Landy Energy Services, Inc.</b>
Darryl	Bourgoyne	<b>Louisiana State University Craft &amp; Hawkins Dept. of Petroleum Engineering</b>
George	Murphy	<b>MI Swaco</b>
Cheryl	Francis	<b>Occidental Oil &amp; Gas</b>
Cliff	Nevé	<b>Occidental Oil &amp; Gas</b>
James	Dech	<b>Ocean Riser Systems</b>
Gary	Franklin	<b>Petroleum College International</b>
Scott	Randall	<b>PlusAlpha Risk Management Solutions</b>
Helio	Santos	<b>SafeKick</b>
Erdem	Catak	<b>SafeKick</b>
Paul	Sonnemann	<b>SafeKick</b>
Richard	Quick	<b>Shell International E &amp; P</b>
Gabe	Gibson	<b>Shell International E &amp; P</b>
Bernd	van der Brekel	<b>Shell International E &amp; P</b>
Jeff	Purvis	<b>Subsea Solutions</b>
Jay	O'Connor	<b>Tesco Corp</b>
Malcolm	Lodge	<b>Transocean</b>
Barry J.	Cooper	<b>Well Control School</b>
Manuel (Manny)	Miranda	<b>WEST Engineering Services</b>
Steve	Vorenkamp	<b>Wild Well Control</b>