

All meetings must have a written agenda that is circulated prior to the meeting. Attendees must strictly follow the agenda. Topics not on the agenda must be deferred until the next meeting. An attendee shall be assigned to record and distribute the minutes of each meeting. The minutes shall include a record of who attended the meeting.



Well Control Committee Meeting

19 August 2013

Moody Gardens Hotel
 Seven Hope Boulevard
 Salons F-G
 Galveston, Texas 77554
 +1 409.741.8484

AGENDA

	<p>DRILLING CONTRACTORS' FOCUS MEETING No Focus Group Meeting</p>
	<p>WELL CONTROL COMMITTEE (All members)</p>
<p>13:00 – 13:20</p>	<p>Welcome <i>Dan Munoz (DM)</i>, Transocean, Committee Chairman DM challenged the WCC to continue their participation, collaboration. This committee is one of the most important at IADC and many changes are on the horizon. The participation and support of WCC members will be needed more than ever.</p>
	<p>Facility Orientation & Safety <i>Hotel staff</i>—Security officer explained fire and emergency equipment. Exit out glass doors and to the left to Vietnam Memorial area.</p>
	<p>IADC Antitrust Guidelines & Policies <i>Brenda Kelly (BK)</i>, IADC Discussed methods of operation, “playing fair” (e.g., not hiring each other’s employees).</p>
	<p>Introduction of New Committee Vice Chairman and Attendee Introductions <i>Dan Munoz (DM)</i> Introduction of Mike Garvin as new vice chairman of the Well Control Committee (WCC). All attendees introduced themselves. Approximately 90 people in attendance.</p>
<p>13:20 – 13:30</p>	<p>Lessons Learned</p> <p>No one volunteered to share a lesson learned until later in the afternoon. DM explained the lessons learned form and the importance of sharing even if doing so anonymously. Members can download the form from the IADC website and email it to BK, or turn it in to her at any Committee meeting. Action Item (BK): Have form uploaded to the Committees’ page on the website.</p> <p>Later in meeting, an attendee submitted an anonymous lesson learned. DM read the event description of a Plug and Abandonment operations that resulted in a well control incident. A BOP was not installed at time of incident. The depths were not correct in the information sent to the rig. Lesson is to ensure that the well prognostics are correct. A committee member made a comment about the cement log.</p>

WellCAP Advisory Panel Update

Cason Swindle (CS), Noble Drilling, Panel Chairman

CS presented an update on the WCT Advisory Panel's (the Panel's) recommendations. The final draft will be presented at the WCC's November meeting. To help increase well control competence, the Panel is expanding the course levels from three to five and expanding the number of people and positions to be trained. The WCC will soon begin developing the curricula and other details needed for the new program.

The Panel will deliver the final recommendations to the Steering Team, who will review them and manage the development process. The tasks will be divided among the WCC subcommittees with new work groups formed as needed. When the details are developed, they will pass them back to the Advisory Panel for review. The whole WCC will then vote on the new standard/program. The new standard will be a living document.

Questions & Answers:

- What is the timeline for implementation of the new Standard? Answer: The Panel would like to see some deliverables by Q1 of 2014, Particularly the development of the standard. Implementation is expected to take 1 to 1 ½ years. Full participation of the committee members is required to achieve this timeline.
- When will IADC be ready to implement the five course levels and other program requirements? Answer: We do realize that Training Providers all over the world will have to then develop their curricula and make other program changes.
- What new positions will be added to the list requiring training? Answer: We compared our list to that of the WEC and added many more positions from every type of company (Operators, Drilling Contractors, and Well Service Companies).
- We already have fundamental and supervisory certifications, but we cannot get our own drilling contractor (DC) members to send their Drillers to fundamental school. How can these new recommendations address that problem? Answer: IADC will have to put pressure on the DCs to get them to send their Drillers to the fundamental (Driller) course. CS explained the Panel's conversations about the Driller and Supervisory levels. In our recommendations, we have added some structural requirements to rectify this problem. Drillers will be required to take the Driller-level course.
- DM discussed the recommendations and the involvement of the WCC and subcommittees. One of the ways we can move forward with this is to divide the curriculum into positions/levels. Answer: The WCC may need to create some additional subcommittees and call upon existing subcommittees to drive this effort. During the next break, take that opportunity to talk with each other and with us about how we can move forward and how you can help.
- Are we going to attempt to implement on the same schedule as the OGP, which requires implementation on Jan. 1, 2014? Answer from CS: We will not be implementing on Jan. 1. We have looked at the OGP recommendations very closely.
- How can we ensure that people are sending their Drillers to appropriate training? Answer from CS: The Panel will recommend what is required and what is optional. We cannot require implementation. The Operators are the ones who drive the requirements. We are hopeful that, because Operators have been a part of the conversation from the beginning, they will have buy-in to our recommendations. When the Operators do not step up, we are all left with competency gaps. From the IWCF perspective, we need to focus on the fact that there are more similarities than differences and we need to focus on what we can do. Someone else has to enforce these requirements. M. Denkowski: If we include this as a requirement in

13:30 –
13:50

	<p>the program, then a company will have to prove in our audit that they are following the rules. We will have some control over what the companies are doing.</p> <ul style="list-style-type: none"> • Is the IADC schedule and approach going to be communicated back to OGP? Answer: Yes. We have had a regular dialogue with OGP. Both groups have had a chance to comment on the recommendations of the other. DM: The customers and the regulators drive requirements. It is incumbent upon us to step up and follow through with these recommendations rather than wait for regulators to drive change. • Chevron is in favor of this effort, but are the DCs stepping up to follow through? Answer: Yes. Our new Standard will require the Drillers to take the Driller course. The Training Providers do not want to put a lot of work into developing the course if no one is going to take the course.
<p>13:50 – 14:05</p>	<p>Break</p>
<p>14:05 – 14:35</p>	<p>Review of Action Items (from previous committee meetings) <i>Dan Munoz</i></p> <p>The following action items from previous WCC meetings were addressed:</p> <ul style="list-style-type: none"> • Drilling Manual Update - WCC members were to contact Fran Kennedy-Ellis to contribute to the Drilling Manual, etc. Mike Killalea encouraged everyone to consider contributing because these manuals do need to be revised. They are 20 years old. • API RP 97 - No report from Andy Frazelle. • Barrier Management - Subcommittee has been created. • Expand international participation - At least 4 or 5 international reps are in attendance. • Nothing to report on gas-in-riser white paper. However, that workgroup did report back about their objectives, etc. • Charge to Simulator Subcommittee - Simulator subcommittee has reported their objectives, etc., to IADC. • Committee member survey – Template was to be provided by a member; have been unsuccessful in obtaining this template; will need to start from beginning. Purpose of survey: to find out whom the SMEs are in different areas, who we can call from among our WCC members on specific topics. Interest remains high among attendees. • API activities on blind shear rams - Yes. API has subcommittee addressing blind shear rams. API 16A is still under development. Standard 53 already has it called out. We are awaiting further information. This will be further covered in the group updates. Action Item: Remove this topic from action items list. It will now be ongoing monitoring and will be discussed in the updates rather than being a standalone action item.
<p>14:35 – 15:05</p>	<p>Update on WCC Subcommittees & Workgroups</p> <ul style="list-style-type: none"> • Simulator Subcommittee – <i>Benny Mason</i>, Rig QA <p>All service providers are attending subcommittee meetings; more DC and operator participation is needed. The subcommittee is currently reviewing the Drilling Surface Supervisor’s curriculum, line by line, to determine whether the topic can be taught on the simulator and should be taught by simulator. When they finish</p>

this type of review for each Drilling course, they will publish best practices for utilizing simulation in well control training. While there are multiple types of training simulators that can be used, the subcommittee is focusing on the kinds that are most used right now. The subcommittee is focusing on ways to better utilize current simulators rather than adding to the simulator requirement. They are also going to develop a standard template for the simulator assessment. This guidance will not be mandatory, but can be incorporated into any WellCAP program.

Comment: OGP and Chevron management are in alignment that written and simulator testing should include a list of questions that must be answered correctly in order for the student to pass. Currently, they are recommending six pass/fail points on the simulator (e.g., maintaining bottomhole pressure). The Chevron CEO is happy to share all their work on well control simulation and testing. Note: Chevron representative to Chevron's simulator assessment guidelines to BK, who will then forward materials to the subcommittee. DM: The WellCAP Advisory Panel has been looking at this same issue. What 30% of training content is ok for a student NOT to know on the test? There are certain topics that must be understood 100%.

- Gas in Riser Workgroup – *Paul Sonnemann, SafeKick*

This group has been active, meetings three times since the last Committee meeting. Their activity to date involves 23 people and 16 companies/orgs. Others are welcome to join the effort. Meetings are open to those who cannot attend in person.

They first identified their work scope and are now working towards identifying best practices for gas in the riser. They would like input on a gap analysis. Finally, they would like to provide guidelines on mitigating gas-in-the-riser issues. The subcommittee is also collecting examples of existing equipment configurations to provide some information on what may be on the horizon in terms of systems (e.g., they may also look at MPD operations). They want to define the parameters. How do the existing models help us to understand the effects? A full understanding is necessary for developing valuable guidelines and appropriate equipment and processes.

The group's initial and most active priority has been to contribute to the revision of the Deepwater Well Control Guidelines. The subcommittee completed a review of materials and provided an expanded write-up on gas in the riser for inclusion in the Guidelines. Paul provided a key to their color-coding in the original document (e.g., green highlighting is acceptable language, red is incorrect).

See Paul's PPT.

Action Item: Email Paul or BK if you want to participate.

- Barriers Workgroup – *Scott Randall, PlusAlpha Risk*

Randall reported that this workgroup has been developing the Group's purpose statement and reviewing the background, which will lead to the definition of project scope. They are working in phases. Phase 1 is deepwater offshore Gulf of Mexico. Phase 2 is onshore and shallow water. They will develop a list of issues. More members' involvement in this workgroup is encouraged and requested. Some of the issues they have discussed: Different barrier definitions, standardized well control diagrams (what are barriers for different scenarios?), looking at risk assessment and verification, and incorporating a broader audience at IADC. At the Well Control Conference Barriers Panel discussion, they will solicit information about barriers issues. An active dialog with IADC's membership is sought. Could use a university-level researcher (e.g., graduate student who can dig down into

case studies) to look at what barriers have failed and why. Deliverables include barrier definition, diagrams, risk assessment strategies for single-barrier issues, verification criteria, and a responsibility matrix. See Randall's PPT for more information.

Industry Groups Update (*standing listing-status report may or may not be given*)

- API Recommended Practice (RP) 16 (RP16A, 16C, 16D, & 16AR): Alex Sas-Jaworsky (SAS Industries)

Brian Wright presented on Sas-Jaworsky's behalf because he is involved in the work group. These are all subject to change. RP 16AR will involve three to four levels (getting away from "service levels"). Companies will be required to know the entire history of a BOP. 16D has been very active and has been looking at what the industry's needs are. Deepwater and surface are treated separately. Several different workgroups have been active in producing design requirements. The biggest issue has been in shear systems; there is a consensus on seeing dedicated volume and pumping capacity for shears (and accumulators). The Coil Tubing industry is moving to separate closing units. There is no change to report on 64. Sas-Jaworsky reported that we will be focusing on shearing the thickest part of the pipe/drillstring in the well. When they asked the Operators what they wanted to do, they realized the most important issue to them was being able to shear pipe. Some of the regulatory direction involves the participation of the land drillers and what order rams should be closed, etc. What was acceptable in the past may not be in the future (e.g., what is in your accumulator when you close?). Working to ensure consistency with other efforts. No longer just looking at what the pumps can deliver, but now looking at what the shearing units can deliver and looking at subsea trees. Accumulator systems. A lot of barrier concept issues are being discussed. The barrier is no longer just the mechanical device; it's the muscle behind that device.

- API Standard 53: Gary Nance (Chevron)

Doesn't have much to add to this meeting today, but there is a meeting scheduled for tomorrow about this topic. Chevron is heavily involved in this area, but he doesn't have anything to add to the Standard 53 discussion at this time.

- API RP59: Bill Rau (Chevron)

Frazelle has had no participation, so he wants to remove his name from this one (**Action Item**).

- API RP64: Alex Sas-Jaworsky (see above)

- API RP75: Scott Randall

See next item. See also Julia Swindle's comments

- API RP96: Scott Randall, Bill Rau, or Julia Swindle (IADC)

There has been very little news on how RP96 is being implemented. Randall encourages everyone to get a copy of the document and study it because it will affect us all. It relates to RP75 and 97 also. WCC could take the lead on this. DC need to particularly review and consider the impacts of Ch. 5 and Annex A of RP96.

- API RP97: Andy Frazelle & Bill Rau

Ballots are in and the final response is currently being recorded.

- BSEE SEMS update: Julia Swindle (Report given earlier in program to

15:05 –
15:35

accommodate Ms. Swindle's schedule)

Ms. Swindle reported on the standards-making processes (safety-management) and the SEMS rule. There have been three meetings so far, and there is a disproportionate number of regulators as opposed to industry representatives (Operators, DCs, Well Service Companies, Training Providers, etc.) participating. She requests that the DCs get involved in the revision process. **Action Item:** Email Julia if you or someone you know can participate in this. RP75 has a number of different sections, so you can get involved in the section you want. Get on the distribution list, so you will know in advance what is going to be discussed at the meetings.

DM encourages everyone to take ownership of some of these issues. "If we don't step up and do something, it will be done FOR us." Munoz has seen a lot of issues come up that affect not just our industry but our individual jobs and incomes. There are a number of issues that have been brought up today. There is a great deal of knowledge in this room, and we need to tap into it. Experience is leaving our industry as we speak. What are we going to do to help move our industry forward? We need to make sure that the people stepping up have the right tools and support. We all need to be contributing.

Sas-Jaworsky: If we would go ahead and develop that survey, we would KNOW who the SMEs are and who to go to. It's easier to shame people into doing work rather than trying to get people to step up. If we can get this list together of SMEs, that will help us to know who to go to. The bottom line is if we don't get involved and find out what our expertise is, we will be stuck with what is mandated for us. **Action Item:** BK and Patty Tydings will take this charge. Please everyone respond to this survey when it goes out before the next committee meeting. Originally, we had discussed providing top three areas of expertise. BK requests that people submit their suggestions for the survey. We want our efforts in this industry to be worth something after we are gone.

IADC & WellCAP News

- KSA project status – Brooke Comeaux, IADC

The KSA groups are mapping competency elements to 73 positions. The database is being designed to house the competencies and should be rolled out in October. A mock version of the KSA database will be pilot-tested at end of August. We are expanding some of the groups (e.g., Company Man Group). When the KSAs go live, IADC needs everyone's feedback on the KSAs. Feedback can be provided via our wiki page. The workgroups will reconvene, go through all of the comments, and determine what needs to be revised. We can still use help with the Marine and Technical Maintenance groups. **Action Item:** Contact Brooke Comeaux if you want to help.

- WellCAP Quality report, Elfriede Neidert, IADC Quality Assurance/Quality Control Division (QA/QC)

Bulletin 13-01 announcing Drilling Supervisory curriculum revision asked for revised cross-reference to be sent back to the IADC by 31 March. The deadline was later extended to 30 May. At that time, IADC issued corrective actions to those WellCAP-accredited training providers who had not complied. Those Training Providers were told to cease operations until they provided evidentiary documentation of compliance. After 25 June, 14 Training Providers had their accreditation revoked, 4 of whom have since reapplied. One of the main reasons providers gave for not complying with the new requirement was that the training providers didn't understand what evidence of implementation was requested (i.e., an addendum to the Well Control Manual). Some providers chose to not reply at all. Only 2 chose to close their program on their own before revocation took place.

15:35 –
16:00

QA/QC met with Accreditation & Credentialing Division to determine how to better communicate with the Training Providers so they understand what our expectations are.

Finally, IADC has begun to push out WellCAP audits to those Training Providers who have been conditional or haven't been audited in a long time. Lloyd's Register is now conducting these audits. If you are audited, please respond to the post-audit survey, so we can get a sense of how well they are doing and what we can all do better.

- IADC Publications update (*Deepwater Well Control Guidelines, Drilling Manual, and IADC Lexicon Project*), Mike Killalea (MK)

We have exciting things going on at IADC. The Lexicon Project will go live in mid-Sept. When President Colville visited with the new European Union Authorities Forum, they said a list of regulatory, legislative, etc. terms would be very valuable. IADC's Lexicon project currently has identified 6,000 terms and 10,000 definitions for inclusion in the Lexicon. Alan Spackman and Anthony Garwick have been driving this effort. M. Killalea provided a demonstration of Lexicon. Definitions from multiple sources are being included rather than trying to be the arbiters of what is good and bad definitions. Many terms are also provided in different languages from translations by actual native speakers. When we first started this project, the only three companies using responsive technology were Google, Apple, and IADC.

Update on the IADC publications, including work from the IADC Technical Publications Committee. Photos of rig activities are needed for multiple publications being updated. Let MK know if you would welcome our photographers going out to take pictures on a rig. We can use more action pictures. Discussed advertising on the rig. The Drilling Manual currently has more than 100 people working on the 30 chapters. The 12th edition will have all the new technologies and job positions. We welcome more help, especially DCs to review the material. Timeline is to have the book out next year. **Action Item:** Contact MK or Fran Kennedy-Ellis if you can help. Contact info provided on the PPT.

- Instructor cards, Gerardo Barrero, IADC

We have seen companies issuing fake instructor cards, so we have developed a new verifiable card for instructors. These cards have QR codes that can be scanned for verification of their certifications. Certificates can also be purchased, but the card will be required for all instructors. Existing instructors will have to submit a photo for creation of their instructor cards. A fee will be associated with the card.

- Nominees for: 1. 2014 Vice Chairman (Offshore Drilling Contractor); 2. WellCAP Review Panel – Brenda Kelly, IADC

DM's tenure as Chairman will end at the end of the year. Mike Garvin will assume the duties of the Chairman at the beginning of 2014. Nominations are needed for a new vice chair. **Action Item:** Contact BK to nominate someone for Vice Chairman position.

Please submit nominations for Review Panel member to fill a current vacancy. Candidate should represent drilling contractor company. Submit to Brenda Kelly. **Action Item:** Submit nominees for consideration for drilling contractor members of the WellCAP Review Panel.

- No Other News

16:00 –
16:30

Open Discussion/Next Meeting Topics

BK: Curriculum subcommittee has offered to help realign the WellCAP curriculum

to match the 5 levels being proposed by the WellCAP Review Panel. Gary Nance needs help on this subcommittee. He may not want to be the Chair of the subcommittee but will participate. The realignment should not be difficult, but they do need a broad representation from the industry. Those volunteering to help with curriculum review were: John Breidenthal and Gary Nance (Chevron), Steve Redgrave (?), Larry Schmermund (Intertec), Victor Fleming (Rowan), Schulenberg (Check 6), and Jason Sasarak (BP), with Dave Moyer (H & P) and Mike Garvin (Patterson UTI) agreeing to monitor activities and help facilitate review and new curriculum development. We can manage remote participation.

Action Item: Contact BK if you can help, or if you know someone who can join this effort.

Discussion about what the levels are and what is involved in each. It will involve carving up the current curriculums into 5 levels and incorporating the additional topics recommended by OGP and the Panel. Some members can volunteer people they work with. They need to email Brenda the names of their people who can help with this. We are going to have to get busy on this immediately and work fast. This is a great opportunity for the members to have input on what is critical to know and who needs to know it.

The big challenge is not putting new material in, but at what to take out. What is not necessary to teach a Driller? If you want to be involved in this discussion, you need to volunteer to help with this effort.

One of our drivers was teaching the Driller the right material. Then, that is the course they are REQUIRED to take.

Barrier management needs a standard; everyone has different requirements, a different standard. The current WellCAP Supervisory course does talk about barriers but not in a systematic way. We need to decide on our definition of barriers first and then lead to a standard, which may require us to revisit our priorities. We will need to change our mindset. The person closest to the problem needs to do a hazard assessment. This is a broader issue that we will need to address. Should this issue about barrier management go into Scott Randall's bucket, or in a broader IADC bucket? Randall sees that his committee should be the one to tackle this issue. Randall's way forward is to work with the other IADC groups that are working on issues that affect barrier management. We need to make sure that what we are saying doesn't conflict. Randall encourages us all to fill out the questionnaire so crucial things don't get missed.

Paul Sonnemann: Is there something already available for designing and utilizing mud/gas separators? Is there an API document that addresses that? People mentioned several documents (e.g., a Chevron paper). This topic merits attention. This has come up in the API committees. There was consensus to try to address it. Brian Wright will be at the conference tomorrow, and he can find out where that discussion ended up.

We need to train our rig hands to understand about circulating through based on rig design limitations. The hands need to know the numbers and stay within them as they are circulating a kick. Shell's barrier design spreadsheet shows not only the barriers but everything around them. There is a big difference between a mud-gas separator and a separator. One member mentioned working with a client in the field about how it works. If there is a way we could further discuss how we use mud-gas separators that would be beneficial. How can people assess the capacity of their systems so they know the limits? That is the question. This committee should pull together what information is out there that we could start with. We need to know the limits of surface equipment. The way to handle it is to have a panel discussion and to have the different perspectives represented. This would provide

the current subcommittees with valuable information in moving forward on this.
Action Item: D. Munoz set up a panel discussion on some aspect of gas in the riser for the next meeting. Panel members would be Richard Quick (Shell), a Transocean representative, and Ron Crotzer or Gene Wilson as Training Provider representative. Jason Sasarak, BP, offered a BP representative as an alternate. The Panel would be moderated by Paul Sonnemann. This panel discussion will be added to the November 13 (at IADC) meeting agenda.

Action Item Note: We need a DC for the WellCAP Review Panel. Members to go back to their companies and solicit for help and email BK with the names.

16:30

ADJOURNMENT

Everyone invited to an IADC event in the Ivey Room.

**An important announcement regarding IADC's future well control plans will immediately follow the Committee meeting.
More details soon!**

Action Items Only

#	Responsible Party	Timeline (on or before)	Action Item
1	Kelly	1 wk	Send the Lessons Learned form to Holly for uploading to the Committees' web page.
2	Kelly	Before next meeting	Remove Andy Frazelle from Standard 53 as a reporting source.
3	All members	Before next meeting	Email Julia Swindle (Julia.swindle@iadc.org) if you or someone you know can participate in revision of RP75.
4	All members	Before next meeting	Email Paul Sonnemann (paul.sonnemann@safekick.com) or Brenda Kelly (Brenda.kelly@iadc.org) if you want to participate in the Gas-in-Riser Workgroup.
5	Kelly & Tydings	Before next meeting	Review next Agenda with regards to Sas-Jaworsky's comment on difference between RP and Standard. (Private conversation. See Patty Tydings.)
6	All members	2 wks	Email BK (brenda.kelly@iadc.org) ideas for survey questions.
7	Kelly & Tydings	Before next meeting	Prepare and distribute survey.
8	Kelly	Before next meeting	Remove Frazelle's name from RP59 on next Agenda.
9	All members	2 wks	We need a DC for the WellCAP Review Panel. Members to go back to their companies and solicit help and email BK (brenda.kelly@iadc.org) with the names.
10	All members	2 wks	Contact BK (brenda.kelly@iadc.org) if you can help on the Curriculum Subcommittee, or if you know someone who wants to join this effort.
11	All members	2 wks	Contact Brooke Comeaux (brooke.comeaux@iadc.org) if you can help on the Marine and Technical Maintenance KSA groups.
12	All members	2 wks	Contact MK (mike.killalea@iadc.org) or Fran Kennedy-Ellis (fran.kennedyellis@iadc.org) if you can help with the <i>Deepwater Well Control Guidelines</i> .
13	All members	Before next meeting	Contact BK (brenda.kelly@iadc.org) to nominate someone as the 2014 WCC Vice Chair.
14	All members	Before next meeting	Submit to BK (brenda.kelly@iadc.org) nominees for drilling contractor member of WellCAP Review Panel

15	??	??	D. Munoz set up a panel for the next meeting (Shell, a Training Provider, and an Operator) moderated by Paul Sonnemann. This panel discussion will be added to the November 13 (at IADC) meeting agenda.
16	Chevron representative		Chevron representative to Chevron's simulator assessment guidelines to BK, who will then forward materials to the subcommittee

Attendance:

Name		Company Name
H. Gene	Wilson	Aberdeen Drilling School, LTD
Steven	Redgrave	Aberdeen Drilling School, LTD
Harish	Patel	ABS
David	Hetherington	Asatte Press, Inc
Dave	Demski	Atwood Oceanics
Ron	Crotzer	BladeStone
Jason	Sasarak	BP America
Lei	Zhou	BP America
Mark	Mazzella	BP America
Andy	Frazelle	BP America
Brian	Wright	CAD Control Systems, Inc
Stuart	Butler	Canrig Drilling Technologies
Michael	Schulenberg	Check-6 Training Systems
Matt	Mato	Check-6 Training Systems
William	Schafer	Chevron
Gary	Nance	Chevron
John	Breidenthal	Chevron
Ambar	Acevedo	Chevron
William	Rau	Chevron Energy Technology Co
Jimmy	Stark	Chevron Energy Technology Co
Gary	Landrum	Consolidated Pressure Control
Chuck	boyd	CS Inc
A.J.	Guiteau	Diamond Offshore
Clive	Battisby	Drilling Systems (UK) Ltd
Ian	Davidson	Drilling Systems (UK) Ltd
Vance	Williams	EFC Group
David	Martin	Ensco plc
Alexey	Zernov	ExxonMobil Development Co
LeDale	Dassinger	Gulf Coast Training Technologies

Dave	Moyer	Helmerich & Payne
Bob	Burnett	Hercules Offshore
Jim	Henry	Hickman Sales & Service Inc
Don	Hickman	Hickman Sales & Service Inc
Jay	Jager	Hickman Sales & Service Inc
Elfriede	Neidert	IADC
Marlene	Diaz	IADC
Mark	Denkowski	IADC
Brenda	Kelly	IADC
Julia	Swindle	IADC
Brooke	Comeaux	IADC
Gerardo	Barrera	IADC
Patty	Tydings	IADC
David	Price	International Well Control Forum
Larry	Schmermund	Intertek
Neil	York	Lamunyon Drilling
Ruchir	Shah	Learn to Drill
Covey	Hall	Lloyd's Register
Ron	MacInnes	M-I Swaco
Bastiaan	Liezenberg	M-I Swaco Dynamic Pressure Management
William (Bill)	Murchison	Murchison Drilling Schools Inc
Richard	Grayson	Nabors Offshore Corporation
Mark	Crider	Nabors USA, Offshore, AK
Lonnie	Mills Jr.	Nabors USA, Offshore, AK
Geoffery	Nielsen	Newfield Exploration Mid-Continent Inc
Cason	Swindle	Noble
John	Bottrell	Nomac Drilling Corporation
Chad	Lacour	Parker Drilling Co
Mike	Garvin	Patterson UTI
Scott	Randall	PlusAlpha Risk Management Solutions
Hiett	Ives	PlusAlpha Risk Management Solutions
Benny	Mason	Rig QA International Inc
Johnny	Richard	Rig QA International Inc
Victor	Fleming	Rowan Companies PLC
Paul	Sonnemann	Safekick Limited
Helio	Santos	Safekick Limited

Luiz	Guimaraes	Safekick Limited
Alex	Sas-Jaworsky	SAS Industries, Inc
Iqbal	Ahmed	Saudi Aramco
Cheryl	Frances	Statoil
Gary	Miller	Texas A&M University
Dan	Munoz	Transocean
Earle	Findley	WCI, Intl
Brian	Grayson	Weatherford
Bhavin	Patel	Weatherford
Barry	Cooper	Well Control School
Dan	Eby	Wild Well Control Inc
Rich	DeBuys	Wild Well Control Inc
Clinton	Moss	Wild Well Control Inc