



**IADC Well Control Committee
Meeting Minutes
26th August 2019
Moody Gardens Hotel & Conference Center
Galveston, TX USA**

Welcome & Introductions

Peter Bennett of Pacific Drilling opened the meeting and welcomed the attendees. A member of the Moody Garden security staff then provided a building safety briefing. Steve Kropla of IADC reminded everyone the meeting was subject to the [IADC Antitrust Policy and Guidelines](#).

Mr. Bennett asked those present to introduce themselves.

IOGP “Weak Signals” Video

Jim Powers of Chevron showed the group a video focusing on “Weak Signals” that had been developed by part of IOGP’s Well’s Expert Committee (WEC). The video can be accessed from IOGP’s YouTube channel or from the well control section of the IOGP website at: <https://www.iogp.org/well-control/>

He noted the video is intended to be used during a rig-based safety meeting for personnel involved in managing Wells Process Safety. It is intended to be used to facilitate discussions relevant to both the individuals in the discussion, the team and the rig. A facilitation guide for those presenting the video is also available.

The video has six different scenes and includes voices of key individuals involved with controlling process safety. After each scene there are some questions to be discussed by the audience, so the facilitator needs to stop after each scene. It is suggested that drilling contractors, service providers and operator personnel participate.

In total, the video lasts 17 minutes without discussion. Total time including discussion is expected to be about 1 hour.

Some of the audience found the audio difficult to hear, partly due to technical limitations in the meeting room but also due to some of the accents of the characters in the video. They suggested adding subtitles might be helpful. Others felt the video was too long with too many simultaneous complications, which could have been separated into different videos.

Mr. Powers noted that since the video has already been released there will likely be no extensive edits. However, he said he would pass feedback received from the group on to the WEC for consideration in future projects of this type.

WellSharp Update

Gerardo Barrera of IADC gave a WellSharp update. He started by showing the new well servicing course activity since his last presentation at the March meeting. He stated that for 2019 year-to-date, of 8,291 trainees assessed, a total of 7,920 had passed. The average score was 87 percent.

For drilling courses, a total of 28,495 trainees had been assessed. Of these 26,258 had passed, with an average score of 85 percent.

He noted that IADC regularly reviews questions that students appear to consistently miss to learn if there is a problem in a question's construction that might be corrected.

The group suggested in future they would like to review trends over a five year period, since WellSharp started. Mr. Barrera said he would do this for his next presentation.

The group took a short break.

Learn to Drill/Relyontec Presentation

Fenil and Ruchir Shah of LearnToDrill/Relyontec provided a demonstration of their computer-based well control simulation software. This system differs from conventional well control simulators by offering a flexible and realistic simulator interface that can be used on virtually any computer or mobile platform.

One of the drivers to develop this type of simulator software has been the growth of the internet and the "Cloud," Ruchir said. In particular, an advantage to using the cloud as a platform is the ability to update software automatically rather than on a machine-to-machine basis. He said one of the big values of the system is the ability to provide a well control simulation at any time, not just within the confines of a class every two years.

Ruchir gave a demo to show how the system worked, operating the choke and pumps. He also demonstrated performing a well kill problem. Hints are available on-screen to guide the student when performing an exercise, though these can be removed if desired.

The software is currently being used by a number of companies to train and provide refresher courses for their employees. Ruchir said the system has not yet been approved for WellSharp testing purposes. However, he said it has been presented to and is currently being considered by WellSharp Advisory Panel for use in testing.

Prior to the meeting, a link to download the software was sent to the Committee. LearnToDrill will offer 30 days free usage to those who wish to review the software in detail.

Leading Indicators in Well Control and Process Safety in Wells

Capt. James Pettigrew of the Ocean Energy Safety Institute (OESI) gave a presentation on Leading Indicators in Well Control and process Safety in wells. Despite technological advancements, he said, kick detection continues to be basic for many drilling operations. Challenges include high cost, induced complexity and lack of adaptability.

Lagging indicators are incapable of revealing barrier weaknesses and unable to provide early indication of potential events. Existing recommended practices and guidelines are not completely applicable to well drilling, completion or intervention operations. The primary focus tends to be on process operations and production related losses, with little focus on incorporating leading indicators into blowout risk assessment studies.

OESI coordinated research at Texas A&M University has developed a robust framework for identifying sets of leading indicators to predict kicks and blowouts including a proposed systematic methodology. This framework includes using categorized sets of leading indicators for well operations to construct predictive models. These predictive models correlate different levels of leading indicators to evaluate well control barrier performance.

Captain Pettigrew said OESI has been approached by Shell to develop a dashboard for leading indicators in well control. The dashboard will function as an interpretive layer across multiple data sources.

Update on WCC Subcommittees & Workgroups

There were no subcommittee reports at this meeting. Ed Geissler of WCS noted that the subcommittees had become rather inactive. He suggested that IADC consider restructuring the subcommittees or giving them a more prominent role in the general Committee meeting.

Other Business

Steve Kropla noted that Bruce Humphries of Independence Contractor Drilling, who had been the Committee Vice Chairman, had retired from the company. This created a vacancy for the Vice Chair position. Nial Shepherd of Ensign was nominated to replace Mr. Humphries and was elected as vice chair. He will assume Committee chair duties after the first of the year.

Leesa Teel of IADC noted that the next International Well Control Conference will be held 14-15 October 2020 in Oslo, Norway.

Mr. Kropla stated that notice of the next Well Control Committee meeting will be distributed once the date has been established. Mr. Bennett then adjourned the meeting.

Attendance:

First Name	Last Name	Company Name
David	Conroy	ABERDEEN DRILLING SCHOOL
John Maxie	Broussard	BP GLOBAL WELLS INSTITUTE
Frank W	Pearson	CHEVRON
Todd	Regalado	CONOCOPHILLIPS
Cason	Swindle	CONTEXT ASSOCIATES INC
Nial	Shepherd	ENSIGN SOUTHERN DRILLING LLC
Albert	Goicochea	HELMERICH & PAYNE
Mitch	McKinnis	HELMERICH & PAYNE
Shane	Singleary	HELMERICH & PAYNE
Steve	Kropla	IADC
Leesa	Teel	IADC
Wafik	Beydoun	INTERNATIONAL ASSOCIATION OF OIL & GAS PRODUCERS
Julio C	Ochoa	INTERNATIONAL TRAINING SERVICES
Fenil	Shah	LEARN TO DRILL
Richard	Grayson	NABORS CORPORATE SERVICES, INC.
Chris Spanky	McGehee	NOBLE DRILLING
Peter D	Bennett	PACIFIC DRILLING
James	Murray	PRECISION DRILLING
Erica	Barron	RELYONNUTEC
Larry	Schmermund	SMITH MASON & COMPANY, LLC
James	Pettigrew	TEXAS A&M OCEAN UNIVERSITY OCEAN ENERGY SAFETY INS
Santo	Endieveri	TRANSOCEAN
Phillippe	Tinchon	TRANSOCEAN
Ed	Geissler	WELL CONTROL SCHOOL-SYSTEM 21
Kevin A	Braggs	XCEL SAFETY TRAINING SOLUTIONS