

A Wake Up Call – Optimising Drilling Fluids, Waste Management, and Cementing to Address the Challenges of Increased Activities

19 – 20 AUGUST 2019 | KUALA LUMPUR, MALAYSIA



An increased transition in drilling activities in Asia Pacific since the downturn have been impactful to both operators and services providers. Therefore, it is imperative that the industry continues to be on top of their game, by replicating best practices to achieve optimum drilling objectives, while ensuring the economic value and safety are kept as priorities.

Drilling and completion fluids, waste management and cementing are integral components in well construction. Well construction is becoming more complex as wells are being drilled in deeper waters and in areas with stringent environmental requirements. Drilling and completion fluids and cementing design must consider all facets of a well construction, including maintaining well integrity throughout well life cycle, minimising formation damage to maximise productivity and reducing overall environmental impact.

An optimum drilling and completion fluids and cementing design will assist in delivering the well safely, and within technical limits and budget. This workshop will focus on design improvements, best practices, lessons learnt and technological advancements in the sphere of drilling fluids and cementing, to maximise drilling performance in the current challenging environment. In addition, the workshop will also review and identify current and future drilling waste management technologies while complying with local environmental regulations.

Session Highlights

Drilling and Completion Fluids – Current Best Solution and New Drilling and Completion Fluids System in the Market

New Technologies in Low Cost Environment for Deepwater, HPHT, ERD – Challenges and Case Studies

Innovation and Technology Advancement – New Product, Technology Available for Cementing, Waste Management, and Fluids Automation

Waste Management and Environment- New Technologies, Best Practices and Environment Regulation

MPD and Formation Damage – Challenges and Case Studies

Water-Based Drilling Fluid Design for HPHT and Deepwater in Asia Pacific



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Who Should Attend

Professionals involved in:

- Artificial Lift
- Cementing
- Drilling and Completion Engineering
- Drilling and Completion Fluids
- Equipment Specialists
- Formation Damage
- Health, Safety and Environment
- Production Chemistry
- Production Enhancement
- Production Technology
- Regulators
- Reservoir Management
- Waste Management



Technical Programme Committee

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Head of Wells Development Sabah - Wells Delivery Malaysia
PETRONAS Carigali Sdn Bhd
Member, SPE Asia Pacific Regional Technical Advisory Committee

GROUP REGISTRATIONS AVAILABLE!
Contact us at spek1@spe.org to arrange your group.

Workshop Objectives

This workshop provides a platform for industry professionals to have in-depth discussions with subject matter experts, covering areas such as:

- Design optimisations and best practices in drilling and completion fluids as well as cementing for safe and value-added well delivery
- Technologies available for safe and technically sound delivery of complex wells such as in extended reach drilling (ERD), deepwater, HPHT and wells under extreme corrosive environment
- Latest innovation and technology advancement to maximise well productivity throughout the well life cycle
- Identify improvement opportunities from existing waste management practices and technologies application in compliance with local environmental requirements

WORKSHOP STATISTICS



10+
hours of peer-to-peer
networking opportunities



30+
hours of knowledge sharing
and technical discussion



30
expert-led technical
discussion topics



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- Enhance your leadership skills
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- Demonstrate thought leadership in your area of expertise and interest at both local and international levels

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Technical Programme Preview

MONDAY, 19 AUGUST 2019

0800 – 0850 Arrival of Delegates and Registration

0850 – 0900 Safety Announcement by Hotel

0900 – 1000 **Session 1: Welcome and Introduction**

Co-Chairs: Mohd Mizuar Omar, **PETRONAS Carigali Sdn Bhd**; Rozali Sidek, **Baker Hughes, a GE company**

1000 – 1030 Group Photo / Coffee and Tea Break

1030 – 1230 **Session 2: Drilling and Completion Fluids – Current Best Solution and New Drilling and Completion Fluids System in the Market**

Session Managers: Ian Everhard, **Baker Hughes, a GE company**; Guy Stout, **PTTEP Malaysia**

In a period of increased oil and gas activity across the Asia Pacific region, the implementation of differentiating technology is critical to ensure sustainable growth of the industry. The utilisation of new fluid systems that are designed to increase efficiency and manage costs for drilling operations in new ways, is the focus of this session.

New drilling and completion fluids systems featuring unique properties to tackle common issues with drilling in Malaysia and across Asia will be reviewed, including:

- Heavy brine alternatives that are new to the industry and driving higher market delivery
- Economical, high-tech options that allow for more efficient fluid maintenance and product addition
- Fluid additives and packages with special features that allow better control over different aspects of the rheological profile for unprecedented ECD management
- Speciality fluids that help to quickly manage major loss situations without traditional cement and casing utilisation

1230 – 1330 Networking Luncheon

1330 – 1530 **Session 3: New Technologies in Low-Cost Environment for Deepwater, HPHT, ERD – Challenges and Case Studies**

Session Managers: Arnold Goonoo, **Baker Hughes, a GE company**; Vernon Rajoo, **Repsol Ltd Malaysia**; Sasha (Aliaksandr) Syrapushchynski, **Impact Fluid Solutions**

This session will investigate the correlation between Asia's market needs for cost management and application of new technologies in deepwater, HPHT and ERD wells. Oilfield companies' cost savings have rendered research and development initiatives stagnant in the past few years, and with growing drilling activities, it is crucial to regain momentum. Main topics taken in consideration for development and implementation of new drilling technologies include:

- Narrow ECD windows
- Requirement for drilling fluids with "Flat Rheologies"
- Fluids and equipment tolerant to high temperatures and high pressures
- Requirement for High-Performance WBM suitable for HPHT applications
- Requirement for reservoir non-damaging additives and systems
- Hole cleaning challenges in complex directional and extended-reach wells
- Requirement and availability of weighting agents
- Desire for automation and real time properties monitoring
- Availability of experienced and competent personnel
- Rig equipment limitations
- Bottom hole assembly (BHA) limitations
- Logistic challenges

POSTER SOLICITATION & INFORMATION

All participants are encouraged to prepare a poster for the Workshop. Presentations on both research and field experience are welcomed. Posters, including unconfirmed / partial results, are to be presented at an assigned time and are open for discussion. Posters will be on display for the entire Workshop period.

When preparing your poster:

- Avoid commercialism. No mention of trademarks / product name
- Poster size should be approximately 0.8m x 1.2m (W x H) or size A0 in portrait layout
- Identify topic by title, affiliation, address, and phone number
- Include a brief abstract that summarises the technology to be addressed
- Make the display as self-explanatory as possible
- Place the information in sequence: beginning with the main idea or problem, method used, results, etc. (Draw a plan keeping the size and number of illustrations in mind)
- Keep illustrations simple by using charts, graphs, drawings, and pictures to create interest and visually explain a point
- Use contrasting colours
- Use large print for narrative materials. (We suggest a minimum of 24 points or 3" high letters for the title)

*Note that the Workshop Programme Committee will review all poster abstracts / materials prior to display, and reserves the right to refuse permission to display any poster considered to be commercial in nature. If you are interested to participate, please email your proposed topic with a short abstract (between 200-300 words) to **Hanna-Rose Abdul Jalil** at hajalil@spe.org by **31 July 2019**.

The Society of Petroleum Engineers (SPE) is a not-for-profit organisation. Income from this event will be invested back into SPE to support many other Society programmes. When you attend an SPE event, you help provide even more opportunities for industry professionals to enhance their technical and professional competence. Scholarships, certification, the Distinguished Lecturer programmes, and SPE's energy education programmes Energy4me are just a few examples of programmes that are supported by SPE.

Discussion will include the implementation of new technologies to address these challenges, with various case studies from operating and service companies, to encourage improvements for future investments.

1530 – 1545 Coffee and Tea Break

1545 – 1745 **Session 4: Innovation and Technology Advancement – New Product, Technology Available for Cementing, Waste Management, and Fluids Automation**

Session Managers: Nandakumar Supramaniam, **PETRONAS Lubricants International Sdn Bhd**; Siv Howard, **Sinomine Specialty Fluids**

The latest oil industry downturn has triggered better focus on overall cost efficiency whilst maintaining maximum well productivity. This session will cover latest innovation, fluid automation, and technology advancement for drilling fluids, cementing, and waste management that have been made available to achieve this in the challenging conditions of deepwater, ERD, HPHT as well as in stricter environmental regulations.

1745 – 1845 **Session 5: Poster Session**

Session Managers: Siv Howard, **Sinomine Specialty Fluids**
Philip Moses, **Chevron Philips Chemical Company**

1845 onwards Welcome Dinner

TUESDAY, 20 AUGUST 2019

0900 – 1100 **Session 6: Waste Management and Environment – New Technologies, Best Practices and Environment Regulation**

Session Managers: Arnold Goonoo, **Baker Hughes, a GE company**; Sasha (Aliaksandr) Syrapushchynski, **Impact Fluid Solutions**

This session will cover innovations, technologies for solids removal/control along with established or new “Best Practices” in the current, implemented environmental regulations, and any possible changes anticipated in the near future. Factors that will drive the introduction of new technologies include:

1. **New equipment release – process rate, particle removal size/weight**
2. **Best practices for drilling waste management/handling**
3. **Performance**

1100 – 1115 Coffee and Tea Break

1115 – 1315 **Session 7: MPD and Formation Damage – Challenges and Case Studies**

Session Managers: Myat Thuzar **PETRONAS Carigali Sdn Bhd**; Mohammad Hafiz Latip, **Roc Oil (Sarawak) Sdn Bhd**

This session will review the current outlook in the oil and gas industry; the low-cost environment, highly challenging well designs and depleted reservoirs. These are now the common denominators for drilling operations. In general, this will lead all of us to consider, assess and evaluate whether:

- a) Formation damage primarily happens during drilling (highly overbalance) or production phase (fines migration) - What are the best practices established by the industry, if any?
- b) With latest technologies availability, could we plan proactively prior to drilling and mitigate the risk of formation damage to ALARP?
- c) From an economic standpoint, is it fair to compare the drilling cost between conventional drilling and Managed Pressure Drilling (MPD)?
- d) What would be the main drivers in choosing MPD?
- e) Any limitation/envelope exist for choosing MPD (i.e. rig equipment/BHA/logistics)?
- f) Is underbalanced drilling really a proven technology, given the “scarce” reference available in the market, especially in the low-cost and highly depleted environments? Is this due to availability of experienced and competent personnel?

1315 – 1415 Networking Luncheon

1415 – 1615 **Session 8: Water-Based Drilling Fluid Design for HPHT and Deepwater in Asia Pacific**

Session Managers: Michael M Pepple; **Halliburton – Baroid**; Cheng Yusheng, **China Oilfield Services Limited Oilfield Chemicals**

This session will cover the challenges faced by mud companies in designing drilling fluids system for HPHT wells and the best approach to tackle them. Drilling fluid properties must be stable at high pressure and temperature to ensure the well can be drilled safely while maintaining wellbore integrity and minimum formation damage. These are the key items that will be addressed and discussed in designing fluids for HPHT wells:

- Controlling and ensuring stable drilling fluids rheology
- Preventing lost circulation
- Minimising reservoir damage

The session will review a case history on application of properly designed HPHT drilling fluid system which was applied in the Yinggaihais basin in South China Sea, characterised by high temperature gradient, high formation pressure and a narrow ECD window.

1615 – 1630 Coffee and Tea Break

1630 – 1700 **Session 9: Workshop Summary and Closing Remarks**

Co-Chairs: Mohd Mizuar Omar, **PETRONAS Carigali Sdn Bhd**; Rozali Sidek, **Baker Hughes, a GE company**

SPONSORSHIP SUPPORT INFORMATION

Sponsorship support of the event helps offset the cost of producing workshops and allows SPE to keep the attendance price within reach of operation-level individuals, those who benefit most from these technical workshops.

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In addition to onsite recognition, SPE will recognise sponsors on the SPE website and in all printed materials for the workshop. Based on the category selected, supporting companies also receive logo visibility on promotional workshop items.

FOR MORE INFORMATION

For a detailed list of available sponsorship opportunities, including benefits and pricing, contact **Hanna-Rose Abdul Jalil** at hajalil@spe.org.

GENERAL INFORMATION

DOCUMENTATION

- Proceedings will not be published; therefore, formal papers and handouts are not expected from speakers.
- Work-in-progress, new ideas, and interesting projects are sought.
- Note-taking by attendees is encouraged. However, to ensure free and open discussions, no formal records will be kept.

WORKSHOP DELIVERABLES

- The committee will prepare a full report containing highlights of the Workshop and the report will be circulated to all attendees.
- Powerpoint presentations will be posted online and provided to attendees after the Workshop. Provision of the materials by Discussion Leaders will signify their permission for SPE to do so.

COMMERCIALISM

In keeping with the Workshop objectives and the SPE mission, excessive commercialism in posters or presentations is not permitted. Company logos must be limited to the title slide and used only to indicate the affiliation of the presenter.

ATTENDANCE CERTIFICATE

All attendees will receive a Workshop attendance certificate. This certificate will be provided in exchange for a complete Attendee Survey Form.

CONTINUING EDUCATION UNITS

This Workshop qualifies for SPE Continuing Education Units (CEU) at the rate of 0.1 CEU per hour of the Workshop.

TRAVEL/VISA

Attendees are advised to book their airline tickets early. All travellers must be in possession of passports valid for at least six (6) months with proof of onward passage. Contact your local travel agent for information on visa requirements.

DRESS CODE

Business casual clothing is recommended. The Workshop atmosphere is informal.

REGISTRATION FEE

- Registration fee ONLY includes all workshop sessions, coffee breaks and luncheons for the registrant. Accommodation is NOT included.
- SPE will provide details of recommended hotels upon receipt of your registration.
- Taxes: Registration Fees are made free and clear of, and without any deduction or withholding for and on account of, any taxes, duties or other deductions. Any such deduction or withholding, if required by the laws of any country are the sole responsibility of the Participant.

REGISTRATION POLICY

- Registration fee MUST be paid in advance for attending the Workshop.
- Full fixed fee is charged regardless of the length of time the registrant attends the Workshop, and cannot be prorated or reduced for anyone.

REGISTRATION FORM

SPE WORKSHOP:
**A Wake Up Call – Optimising Drilling Fluids,
 Waste Management, and Cementing to Address
 the Challenges of Increased Activities**
 19 – 20 August 2019 | Kuala Lumpur, Malaysia



ATTENDEE INFORMATION					
SPE Member	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Membership Number		
First Name			Last Name/Family name		
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Company Name					
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City			State/Province		
Postal Code			Country		
Office Phone		Office Fax		Company URL	
Direct Line			Mobile Phone		
Email Address					

Do you wish to be considered a Discussion Leader (10-15 minutes presentation)? Yes No
 If yes, please indicate the subject/topic on which you would like to present:

Please state your Technical Discipline (Select one ONLY):

Completions
 Drilling
 Health, Safety and Environment
 Management and Information
 Production and Operations
 Reservoir
 Projects, Facilities and Construction

Please state your expectation for the Workshop, so that we can tailor a portion for the Workshop to answer attendees' concerns

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REGISTRATION CATEGORY						
Description		Fee Per Person			Tick (✓)	Amount (USD)
		Super Early Bird by 21 June 2019	Early Bird by 19 July 2019	Standard after 19 July 2019		
Workshop	Member	USD 1,500	USD 1,600	USD 1,700		
	Non-Member	USD 1,700	USD 1,800	USD 1,900		
TOTAL AMOUNT (USD)						

TERMS & CONDITIONS

Registration Fee

- Fee includes workshop sessions, workbook, certificate, daily luncheons and coffee breaks.
- Fee DOES NOT include accommodation. SPE will provide details of recommended hotels upon receipt of your registration.
- Registration of participant will only be confirmed upon registration and receipt of full payment or an acceptable employer's letter of guarantee.
- All outstanding payments must be received on or prior to the date of the event for participants to be allowed to attend. SPE reserves the right to cancel the registration if no payment is received prior to or on the date of the event.
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Cancellation Policy

- A processing fee of USD150.00 will be charged for cancellation received thirty (30) days or more prior to the first day of the workshop.
- Registration cancelled between fifteen (15) days to twenty-nine (29) days prior to the first day of the event will be refunded 25% of the registration fees.
- Registration cancelled fourteen (14) days or less prior to the first day of the workshop will not be eligible for a refund.
- Participant who failed to attend will not be eligible for a refund.
- Cancellation must be notified in writing to SPE.

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