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AAPG



EAGE/AAPG Tight Reservoirs Workshop

25-27 NOVEMBER 2019 • DHAHRAN, SAUDI ARABIA

- **Technical Programme**

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WORKSHOP OVERVIEW

Tight reservoirs have become a very important resource that most oil operators are headed towards, to sustain the supply of hydrocarbons resources; Where there are many unique and specific challenges associated with all exploration and production aspects.

The need to optimize the production capacity and recovery potential from this type of reservoirs have risen. Unconventional resources, including tight reservoirs, constitute some of the largest components of remaining hydrocarbon resources in the Middle East reservoirs.

The fifth edition of EAGE/AAPG Tight Reservoirs Workshop in the region will highlight case studies and new ideas from industry and academia in the Middle East and worldwide where a multitude of topics will be discussed from both the exploration and production side including:

- Reservoir Geology
- Petrophysics / Rock Physics / Geomechanics
- Integrated Projects
- Tight Fields Economics

The 2019 edition of EAGE/AAPG Tight Reservoirs Workshop aims to promote discussions related to tight reservoirs based on both local and international experiences.

This workshop welcomes attendance of all scientists and engineers interested or involved in exploring and developing tight reservoirs from a diverse range of disciplines.



CRASH COURSES

Tuesday, 26 November 2019

Geomechanics for Tight Reservoirs.

Geomechanics plays a vital role in exploring and developing unconventional reservoirs especially tight reservoirs. It starts from drilling and completing the well to stimulation, where Geomechanics analysis and input are key at each and every phase. We would like to achieve “Drill the Well for Stimulation” where we can achieve good quality of borehole for cementing and completion followed by stimulation. This short course will give you an overview on Geomechanics, data requirement for building Geomechanical model, application of Geomechanics to Oil and Gas industry with specifics to Tight Reservoirs. Understanding the role of natural fractures and hydraulic fracturing (induced fractures) in Tight reservoirs will pay very important role for maximizing the production. Set of natural fractures favorable to Geomechanics stress orientation can be made hydraulically conductive by using Geomechanics-based stimulation called critically-stressed fractures. Similarly, well placement and hydraulic fractures can be optimized using Geomechanics input on stresses and rock properties. At the end, we will present few case studies from the region to understand the practical application of Geomechanics to real-life problems.

Ashok Shinde, Baker Hughes

Wednesday, 27 November 2019

Zonal isolation evaluation for more efficient frac operations in tight reservoirs and production profile acquisition to close the loop in tight reservoir evaluation.

Well completions in tight reservoirs generally involve fracturing multiple zones along a horizontal well bore. For more efficient fracturing operations effective zonal isolation between the fracture stages is necessary and a poor cement job can result in reduced productivity and could also lead to critical leak paths that can cause aquifer contamination or major safety issues during the life of the well.

Different techniques including longer laterals, more fracture stages or perforation clusters per stage, larger volumes of proppant or pumped fluids and geo-engineered completions are used to complete tight reservoir wells to increase productivity and recovery factors. As these techniques often result in greater completion costs, large-scale adoption usually requires observing clear changes in well performance in the field.

This short course gives a brief overview of cement evaluation in tight reservoir completions with some typical examples and discusses some considerations for zonal isolation improvement techniques in these wells. Downhole evaluation of completion efficiency to close the feedback loop and reduce implementation time of specific completion strategies will also be reviewed considering logging techniques and some case studies.

Neil Sookram, Schlumberger



OVERVIEW OF REGISTRATION FEES

REGISTERED AND PAID	FROM	FROM	ON-SITE
	20 JUNE 2019 UNTIL 27 OCTOBER 2019	28 OCTOBER 2019 UNTIL 22 NOVEMBER 2019	
Member	€ 995	€ 1,095	€ 1,095
Non - Member*	€ 1,100	€ 1,200	€ 1,200
Student Member	€ 400	€ 400	€ 400
Student Non-Member*	€ 425	€ 425	€ 425

*Memberships are provided for Non-Member registrations and the activation will only take place after the event, between 2-3 weeks.
All fees are in Euros (€).

Please note: The deadlines are following the Local Time in the Netherlands.

Members please note: To qualify for the member registration fee, your EAGE membership dues for 2019 must have been paid and confirmed. The processing time for membership applications or renewals is 10 working days.

1. To qualify for the reduced student registration fee:

- Students must be enrolled in a full time study programme at a recognized university or institute
- The registration must be accompanied by a copy of a student ID card and/or official proof of enrolment.

2. Please note: Student non-members cannot be older than 34 years of age (when registering).

3. The non-member fee includes EAGE membership for the remainder of 2019.

4. Please note that EAGE reserves the right to cancel the workshop due to low participation. In this case, payment will be refunded in full.

We recommend that you register for the workshop online via the EAGE event website.

VISA

All travelers (except GCC citizens) are required to obtain a visa prior to arrival in Saudi Arabia. For more information, please visit the event website.

VENUE – MÖVENPICK HOTEL AL KHOBAR

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Email: khurram.javed@movenpick.com
Website: movenpick.com

SOCIAL PROGRAMME

Icebreaker Reception

Monday 25 November 2019 from 18:00
Pool Terrace @ Mövenpick Hotel Al Khobar

Workshop Dinner

Tuesday 26th November 2019 from 19:00
Maharaja Restaurant @ Mövenpick Hotel Al Khobar

TECHNICAL PROGRAMME

Oral Presentations | 25 November 2019

AL MAHA BALLROOM

08:00	Registration & Welcome Coffee
08:40	HSE Announcement
08:45	Opening Address - Mohamed Tafat, Saudi Aramco
09:00	Keynote Address - Fahad Al Amry, Saudi Aramco

Reservoir Geology: Sedimentology & Diagenesis and Fracture Characterization (Core? FMI?)

Session Chairs: L. de Vincenzi (Dragon Oil),
M. Tafat (Saudi Aramco)

09:30	TR12 - Deterministic facies modelling in tight gas reservoirs based on the architectural elements of the fluvial deposits - M.J. Briceño Montilla ^{1*} , S. Wu ¹ , L. Zhihao ^{1,2} , L. Zhaowei ^{1,2} , O. Mammadov ^{1,2} ¹ College of Geosciences, China University Of Petroleum (Beijing); ² State Key Laboratory of Petroleum Resources and Prospecting, China University of Petroleum (Beijing)
10:00	TR29 - Cleat characterization using Advance Sonic-Image logs for Production Optimization in CBM wells Damodar coal belt, India - D.Rezig ^{1*} , M. Mishra ¹ , K. Prasad ² , D. Halder ³ , P. Singh ⁴ ¹ Schlumberger; ² Schlumberger; ³ ONGC; ⁴ ONGC
10:30	Coffee Break
11:00	TR09 - The DMX Protocol: A New Generation of Geology Driven 3D Discrete Fault and Fracture Modelling - J. Van Dijk ^{1*} ¹ Dragon Oil
11:30	TR25 - Fracture aperture estimation using electrical image logs (FMI)and Acoustic (SS) - D. Rezig ^{1*} ¹ Schlumberger
12:00	Discussion: Reservoir Geology
12:30	Lunch

Integrated Projects

Session Chairs: L. de Vincenzi (Dragon Oil),
J. Tavares (CGG)

13:30	TR11 - A modelling approach for predicting scale formation triggered by hydraulic fracture stimulation in tight carbonate reservoirs - Y. Fu ^{1*} , M. Dahlan ¹ ¹ Saudi Aramco
14:00	TR21 - Sea water compatible viscoelastic surfactant gels as an alternative to Linear and Crosslinked fracturing fluids. - S. Shankar ^{1*} , R.M. Jalil ¹ , M. Al-Rabah ¹ , F.F. Chang ² ¹ Baker Hughes; ² Saudi Aramco
14:30	Coffee Break
15:00	TR08 - Paleozoic Tight Reservoirs in Algeria; Fault and Fracture Network Modeling in a Challenging Complex Geological Environment - J.P. Van Dijk ^{1*} , A.T. Ajayi ¹ , L. De Vincenzi ¹ , H. Ellen ¹ , H. Guney ¹ , P. Holloway ¹ , M. Khdhaouria ¹ ¹ Dragon Oil
15:30	TR23 - Using Non-Corrosive Enzymatic Breakers to Remove Reservoir Drill in Fluid Filter Cake and Protect Downhole Tools - Z. Alabdulmohsen ^{1*} , M. Alrabah ¹ , D. Bakr ¹ , A. Kumar ¹ , B. Zoghbi ¹ , M. Alohal ¹ ¹ Baker Hughes
16:00	TR26 - Optimization Of Hydraulic Fracturing Operations and Production of Shale/Tight Reservoirs Considering operational Costs and Benefits - H. Pourpak ¹ , J. Will ^{2*} , S. Eckardt ² ¹ Total; ² Dynardo
16:30	Discussion: Integrated Projects
17:00	Close of Day
18:00	Icebreaker



Oral Presentations | 26 November 2019

AL MAHA BALLROOM	
9:00	Crash Course: Overview of Geomechanics & Applications - Ashok Shinde, Baker Hughes
10:30	Coffee Break
11:00	Crash Course: Geomechanics for Tight Reservoirs & Case Studies from the Region - Ashok Shinde, Baker Hughes
12:30	Lunch
Petrophysics/Rock Physics/Geomechanics	
Session Chairs: A. Alali (Tatweer Petroleum), H. Pourpak (Total), A. Shinde (Baker Hughes)	
13:30	TR22 - Successful well delivery with Real-Time Geomechanics support within tight reservoir - S. Mitra ^{1*} , P. Chakrabarti ¹ , J. Vossen ¹ , W. El Sherbeny ¹ , E. AlAbdulmuhsin ¹ , A. Al Dhamen ¹ , T. Podder ¹ , D. Upreti ¹ , S. Saha ¹ , A. Baghdadi ¹ ¹ Baker Hughes, a GE Company
14:00	TR27 - High-resolution Mechanical Earth Models in Highly Laminated Formations. Measuring Elastic Properties at the Centimetric Scale. - H. Pourpak ^{1*} , A. Padin ¹ ¹ Total
14:30	TR30 - Understanding the geomechanics controlling factor of hydraulic fracturing stimulation of tight sandstone reservoirs – A case study in Saudi Arabia - Francis Elisabeth ^{1*} ¹ Saudi Aramco
15:00	Coffee Break
15:30	TR28 - Permeability enhancement in a fractured reservoir through critically stress fracture analysis and stimulation zone optimization - S. Saha ^{1*} , A. Shinde, S. Perumalla ¹ Baker Hughes, A Ge Company
16:00	TR24 - Petrophysical Evaluation for Unconventional Reservoirs: application to Abu Gabra Tight Sand Formation, Muglad Basin, Sudan - A. Osman ^{1*} ¹ Exploration & Development, 2B Operating Company (2B OPCO)
16:30	Discussion: Petrophysics/ Rock Physics / Geomechanics
17:00	Close of Day
19:00	Workshop Dinner

Oral Presentations | 27 November 2019

AL MAHA BALLROOM	
09:00	Crash Course: Zonal isolation diagnostics and improvement for better tight reservoir performance - Neil Sookram, Schlumberger
10:00	Short Break
10:15	Crash Course: Downhole flow profile diagnostics in tight reservoirs to evaluate completion strategies - Neil Sookram, Schlumberger
11:15	Coffee Break
Tight Fields Economics	
Session Chairs: L. de Vincenzi (Dragon Oil), B. Vos (Fenix Consulting Delft)	
11:45	TR06 - Proven Alternative Approach to Stimulation of Tight Reservoirs - G. Paterson ^{1*} ¹ Fishbones
12:15	TR10 - OBA H18 Success Story for Long Horizontal Well in Tight Gas, Obaiyed field, Western Desert, Egypt. - A. Hafeez ^{1*} ¹ Bapetco
12:45	Discussion: Tight Fields Economics
13:15	Closing Address: Mohamed Tafat
13:30	Lunch and Close of Day

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CONTACT

For more information please contact EAGE Middle East at middle_east@eage.org or +971 4 369 3897 or please contact AAPG Middle East at aapgme@aapg.org or +971 4 372 4201

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