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15-18 June 2008

Hyatt Regency Hangzhou

Hangzhou, China

SPE Applied Technology Workshop

TIGHT GAS DEVELOPMENT AND PLANNING

Registration deadline:

16 May 2008

Apply inside or online

at www.spe.org/atws

WORKSHOP DESCRIPTION

In their 2007 study, Wood Mackenzie identified heavy oil, tight gas, coal bed methane and shale oil as "The Hidden Opportunity". By 2025 unconventional oil is expected to have a market share greater than 20% of the global oil supply. Unconventional gas is likely to be as significant; for example, it will potentially account for over 40% of U.S. gas supply by 2010. The driver of this growth is the concern of secure future gas supply in a close North America gas system. Asia Pacific will have a lesser market share, but the growth in unconventional gas will definitely be substantially higher. Nevertheless, natural gas from unconventional reservoirs is being targeted to contribute a greater share of the world's natural gas supply in the next two decades.

Unconventional resources are distributed widely around the globe; its development potential can be realised in the near term. These resources have common characteristics, but also have geographical uniqueness, both technically and economically. Their developments have several obstacles remain. The key risk is not in discovering the resource, but in identifying the critical dynamics to enable economic development. The biggest challenge is the lack of a comprehensive policy that encourages development of unconventional gas fields using existing technology and knowledge. Also missing are funding and appropriate technology transfer to support exploration and development of these new unconventional resources. Other challenges facing the industry are the problem of water pollution associated with coal bed methane and gas shales, and the management of green house gas emissions.

WORKSHOP OBJECTIVES

This limited attendance workshop is to provide a good opportunity for technical geoscientists and engineers to interact with decision and policy makers. The informal and small group discussions will enhance the communication among stakeholders. The intended outcome of the workshop is to accelerate the development of the regional tight gas activities with shared knowledge, concerns, and best practices from lesson learnt on tight gas technical development and complimentary policy.

WORKSHOP FORMAT

This workshop will provide two and a half days of open discussion without formal presentation and proceeding. The workshop will attract global decision makers, financial and technical leaders that can contribute and will be benefited from multidisciplinary exposure. Dialogue will cover strategic planning, policy issues, and advanced technologies that can identify, characterise, and recover tight gas efficiently and economically. Keynote speakers from both management and technical disciplines will be invited to provide a short synopsis of the regional development and the state-of-the-art technology in tight gas, respectively. An evening reception will be held on Monday evening, and there will be a group outing on Tuesday afternoon. Posters will be displayed throughout the workshop period.

Participants are expected to actively participate in discussions. Also individuals and organisations are encouraged to contribute in presenting their case studies (successes, failures, and lessons learnt) and other experiences for discussion.

TIGHT GAS DEVELOPMENT AND PLANNING**Preliminary Daily Activities Agenda**

Note: While every attempt will be made to adhere to the schedule, the status/availabilities of session topics, discussion leaders and moderators are subject to change. For updated technical agenda information, please visit the SPE website at www.spe.org/atws.

Sunday, 15 June 2008

9:30 a.m. – 12:30 p.m.	Programme Committee Meeting
3:00 p.m.	Hotel Check-in
4:30 p.m. – 6:30 p.m.	SPE Registration
5:00 p.m. – 6:00 p.m.	Poster Set-Up
5:30 p.m. – 6:30 p.m.	Discussion Leaders and Session Managers/Moderators Briefing
7:00 p.m. – 9:00 p.m.	Welcome Reception/Dinner

Monday, 16 June 2008

7:00 a.m. – 8:00 a.m.	Breakfast
8:00 a.m. – 9:00 a.m.	Session 1: Introduction/Opening/Keynote Addresses
9:00 a.m. – 9:30 a.m.	Group Photo/Coffee Break
9:30 a.m. – 12:00 noon	Session 2: Macro Issues
	<ul style="list-style-type: none"> • Definition of Tight Gas • Global Perspectives • Where are we exploiting in tight gas • Unconventional Gas (low productivity?)
12:00 noon – 1:30 p.m.	Lunch
1:30 p.m. – 3:00 p.m.	Session 3: Breakout Session
	<ul style="list-style-type: none"> • Best Practices • Challenges and Options • Key Technologies • Developing Resources • Economic and Market Issues • Gas Condensate (production from tight gas formation)
3:00 p.m. – 3:15 p.m.	Coffee Break
3:15 p.m. – 5:00 p.m.	Session 4: Coal Bed Methane Lesson Learnt
5:00 p.m. – 6:00 p.m.	Session 5: Poster Session
6:30 p.m. – 9:30 p.m.	Dinner with Cultural Performance

Tuesday, 17 June 2008

7:00 a.m. – 8:00 a.m.	Breakfast
8:00 a.m. – 10:00 a.m.	Session 6: Key Technologies I – Drilling and Completions
	The ability to effectively integrate drilling technology and completion principles is the key to the successful development of many tight gas unconventional resources in the world. Several relatively new drilling technologies such as underbalanced drilling, multilateral drilling, smart well are aggressively pursued by many operators and service companies worldwide resulting a significantly reduction of challenges and barriers confronted in conventional drilling methods and equipment.
	This session will facilitate the discussion on the benefits and challenges observed when implementing the emerging new technologies such as underbalanced drilling, multilateral and horizontal drilling and smart well completion in tight gas fields worldwide. Hopefully from the outcome of this panel discussion, it will lead into a continuous improvement and disciplined application of these new technologies to achieve consistent, low cost drilling and completion performance.
10:00 a.m. – 10:15 a.m.	Coffee Break
10:15 a.m. – 12:30 p.m.	Session 7: Key Technologies II – Hydraulic Fracturing
	<ul style="list-style-type: none"> • Water Frac • Hybrid Frac • Multilateral Frac • Realtime Monitoring
12:30 p.m. – 2:00 p.m.	Lunch
2:00 p.m.	Group Outing/Networking Opportunity
Evening	Dinner on own arrangement

TIGHT GAS DEVELOPMENT AND PLANNING

Wednesday, 18 June 2008

7:00 a.m. – 8:00 a.m.	Breakfast
8:00 a.m. – 10:00 a.m.	Session 8: Key Technologies III - Reservoir
	<ul style="list-style-type: none"> • Reservoir Surveillance • Performance Monitoring & Optimisation
10:00 a.m. – 10:15 a.m.	Coffee Break
10:15 a.m. – 12:15 p.m.	Session 9: Midstream and Economic
	<ul style="list-style-type: none"> • Sour Gas (CO₂, H₂S) • Processing and Gathering • Transportation
12:15 p.m. – 1:30 p.m.	Lunch
1:30 p.m. – 3:30 p.m.	Session 10: Breakout Session Presentation
	<ul style="list-style-type: none"> • Process/Finding – Full cycle of tight gas
3:30 p.m. – 3:45 p.m.	Coffee Break
3:45 p.m. – 4:30 p.m.	Session 11: Environment and Policy
4:30 p.m. – 5:00 p.m.	Session 12: Summary and Wrap Up
Evening	Dinner on own arrangement

Thursday, 19 June 2008

7:00 a.m. – 10:00 a.m.	Breakfast at Leisure
12:00 noon	Hotel Check-Out

Poster Solicitation and Information

As an adjunct to the scheduled presentations, the Programme Committee will incorporate a poster presentation session in this Workshop. The poster session will allow participants an opportunity to present additional new ideas to those interested. The poster session is scheduled from **5:00 p.m. – 6:00 p.m. on Monday, 16 June 2008.**

All participants are encouraged to prepare and bring a poster presentation to the Workshop. Posters will be on display for the entire Workshop period and provide participants an excellent opportunity for networking. As with the session discussions, the poster session will be conducted off the record to encourage frank discussion and presentation of unconfirmed or partial results. Presentations on both research and field experience are solicited.

SPE WORKSHOPS AND COMMERCIALISM

The Workshop Programme Committee has a stated policy against the use of commercial trade names, company logos, or language that is commercial in tone. **Note that the Workshop Programme Committee will review all posters prior to display, and reserves the right to refuse permission to display any poster considered by the committee to be commercial in nature.**

The poster display should be designed for eye-level viewing and made from simple graphic materials. Size of the poster board will be advised at a later time. The poster display may include printed materials, tables, graphs, photographs, or illustrations. All the materials should be of sufficient size so as to be easily read and should be prepared in a manner that will accomplish the following:

- Identify topic by title, presenter, 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 sequentially; beginning with the main idea or problem, method used, result, 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).

Whether or not you elect to participate in the poster session or have been invited by the Programme Committee to present during one of the regular sessions, please come prepared to participate actively in the discussions. Open interaction is encouraged. With the full cooperation and participation of all attendees, we anticipate an outstanding Workshop.

Documentation:

1. Proceedings will not be published; therefore, formal papers and handouts are not expected from speakers.
2. Work in progress, new ideas, and interesting projects are sought.
3. Professionally-prepared visual aids are not required; handwritten viewgraphs are entirely acceptable.
4. Note-taking by participants 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 the highlights of the Workshop discussions. This report will be circulated to all attendees. A one-page summary will be prepared by the Workshop Co-Chairperson, which will be posted on the SPE Web Site, and published in the Journal of Petroleum Technology (JPT), if space permits. The copyright of the Summary Report will belong to SPE.
- PowerPoint presentation materials will be posted on a specific SPE URL address after the Workshop. Provision of the materials by the discussion leaders will signify their permission for SPE to do so.

Commercialism:

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

Attendance Certificate:

All attendees will receive an attendance certificate attesting to their participation in the Workshop. This certificate will be provided in exchange for a completed Workshop Questionnaire.

Continuing Education Units:

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

Attendees' Information:

General and detailed accommodation information will be forwarded to registrants with the attendee package prior to the scheduled Workshop, in April 2008.

Transportation/Visa:

Delegates are advised to book their international/domestic airline tickets early from their country/city to Hangzhou, China. Further detailed transportation information will be available and included in the attendee package, which will be sent to registrants in April 2008.

All travellers to China must be in possession of passports valid for at least six (6) months on arrival. Delegates must hold a visa issued by the appropriate Chinese officials prior to departure from their home countries. Official invitations to apply for Chinese visas for this event are available from the Society of Petroleum Engineers (SPE).

Dress Code:

Casual clothing is recommended. The Workshop atmosphere is informal.

Workshop Venue & Hotel Accommodation:

Hyatt Regency Hangzhou
28 Hu Bin Road
Hangzhou, Zhejiang 310006, China
Tel: +86.571.8779.1234; Fax: +86.571.8779.1818

REGISTRATION FEES:

Registration Deadline 16 May 2008

- **SPE MEMBER: US\$3,000.00/person**
- **NONMEMBER: US\$3,100.00/person**

Fee includes the following:

- Three-day registration fee for all Workshop sessions;
- Four nights accommodation based on single occupancy with arrival Sunday, 15 June 2008 and departure Thursday, 19 June 2008;
- Welcome reception followed by dinner (Sunday Evening);
- Three meals per day except on Tuesday and Wednesday;
- Daily coffee/tea-breaks;
- Workshop Workbook and Certificate of Continuing Education Unit (CEU);
- A half-day group outing;
- Airport round trip transfer (Airport-Hotel-Airport).

Note: Registration fee does not include hotel accommodation and meal costs for additional family member(s).

Registration Policy:

- Registration fee **MUST** be paid in advance for attending the Applied Technology Workshop.
- Full fixed fee plus **US\$100.00** handling fee will be charged for registration received after the registration deadline: **16 May 2008**.
- Full Fixed fee is charged regardless of the length of time that the registrant attends the Workshop.
- Fixed fee cannot be prorated or reduced for anyone (Workshop chairpersons, committee members, speakers, discussion leaders, students and registrants).
- Attendees are expected to attend all Workshop sessions and are not permitted to attend on a partial basis.

Cancellation & Refund Policy:

- A processing fee of **US\$100.00** will be charged for cancellation received before the registration deadline **16 May 2008**.
- For cancellation received after the registration deadline **16 May 2008**, a 25% refund will be made to the registrant.
- No refund on cancellation received seven (7) days prior to the starting of the Workshop date, on or after **8 June 2008**.
- Substitutions will not be accepted without prior Programme Committee approval.
- **No refund** will be issued, if a registrant fails to show up at the Workshop on-site.

ATTENTION NON-MEMBERS:

**JOIN SPE DURING THIS WORKSHOP AND RECEIVE
YOUR FIRST YEAR'S MEMBERSHIP FREE!
SUBMIT YOUR MEMBERSHIP APPLICATION ONSITE!**

TIGHT GAS DEVELOPMENT AND PLANNING

Poster Participation Form

You are invited to prepare a poster display for presentation. If you are interested in participating, please complete the form and return it to the SPE Asia Pacific Office (Kuala Lumpur, Malaysia), address as indicated below by **16 May 2008**.

(Please print in black ink)

DATE:

SPE Member:

Yes Membership No. _____

No

NAME:

POSITION:

COMPANY:

ADDRESS:

TELEPHONE:

FAX:

E-MAIL ADDRESS:

Please provide the topic with a short abstract of the proposed poster:

Topic:

Abstract:

PLEASE RETURN THE POSTER PARTICIPATION FORM BY 16 May 2008 TO:

Karen Khooi, SPE Event Administrative Manager
Society of Petroleum Engineers
Suite 23-02, Level 23, Centrepoint South, Mid Valley City
Lingkaran Syed Putra, 59200 Kuala Lumpur, Malaysia
Tel: +60.3.2288.1233 • Fax: +60.3.2282.1220
E-mail: kkhooi@spe.org • Web Site: www.spe.org/atws

TIGHT GAS DEVELOPMENT AND PLANNING

Registration Form

Please Print or Type in Black Ink

SPE Member: Yes Membership No. _____ No

Name: _____
 (First/Forename) (Middle) (Last/Family Name)

Position: _____

Company: _____

Address: _____

Town/City: _____ Zip/Postal Code: _____ Country: _____

Tel: _____ Fax: _____

E-mail: _____

Would you be willing to give a brief (10 minute) presentation ____ (Yes/No) or a poster presentation ____ (Yes/No)?

If yes, please provide a title and a detailed description of the presentation in the space below. (Use additional paper if required). One of the Programme Committee members will contact you to discuss your presentation.

Important: Registrants for SPE Applied Technology Workshops are accepted on the basis of information submitted by each registrant.

Technical Disciplines (Check One)

- | | |
|--|--|
| <input type="checkbox"/> Drilling and Completions | <input type="checkbox"/> Health, Safety, Security, Environment and Social Responsibility |
| <input type="checkbox"/> Management and Information | <input type="checkbox"/> Production and Operations |
| <input type="checkbox"/> Projects, Facilities & Construction | <input type="checkbox"/> Reservoir Description and Dynamics |

Primary Responsibility (Check One)

- | | | | | |
|-------------------------------------|------------------------------------|-------------------------------------|------------------------------------|--------------------------------------|
| <input type="checkbox"/> Drilling | <input type="checkbox"/> Economics | <input type="checkbox"/> HSE | <input type="checkbox"/> Geology | <input type="checkbox"/> Geophysics |
| <input type="checkbox"/> Management | <input type="checkbox"/> Operation | <input type="checkbox"/> Production | <input type="checkbox"/> Reservoir | <input type="checkbox"/> Other _____ |

List background and experience. (Use additional paper if required).

List your expectation for the Workshop, so that the committee can tailor a portion of the Workshop to answering attendees' concerns. (Use additional paper if required).

REGISTRATION FEE: (Please select appropriate box)

Registration Deadline 16 May 2008

*Note: Full fixed fee plus **US\$100.00** handling fee will be charged for registration received after the registration deadline: **16 May 2008**.*

- SPE MEMBER: US\$3,000.00/person**
 NONMEMBER: US\$3,100.00/person

*Fee includes workshop registration, workbooks, certificate, 4 nights **SINGLE** accommodation with daily breakfast, airport round trip transfer, 1-welcome reception/dinner, 3 luncheons, 1 dinner and daily coffee breaks and a half-day group outing.*

PAYMENT BY CREDIT CARD

Credit Card Payment will be in U.S. Dollars only

- | | |
|---|--------------------------------------|
| <input type="checkbox"/> American Express | <input type="checkbox"/> Master Card |
| <input type="checkbox"/> Visa | <input type="checkbox"/> Diners Club |

(Discover Cards are not accepted)

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Card Number

--	--	--	--

Exp. Date

Signature (as it appears on your credit card)

Name as it appears on Card _____

Billing address of Card _____

PAYMENT BY CHEQUE

U.S. Dollars Cheque to **Society of Petroleum Engineers**.
 Payment Enclosed (Check No. _____)

Zipcode/Postal Code of Card _____

Note: Forms will not be processed and space cannot be guaranteed unless accompanied by payment for total amount due.

CANCELLATION POLICY:

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- For cancellation received after the registration deadline, **16 May 2008**, a 25% refund will be made to the registrants.
- No refund on cancellation received seven (7) days, **8 June 2008**, prior to the starting of the Workshop date.
- Substitutions will not be accepted without prior Programme Committee approval.
- No refund will be issued, if a registrant fails to show up at the Workshop.

THIS FORM MAY BE USED AS A COMPANY INVOICE

Mail completed registration form with remittance and any supporting material to:
Society of Petroleum Engineers
 Suite 23-02, Level 23, Centrepoint South, Mid Valley City
 Lingkaran Syed Putra, 59200 Kuala Lumpur, Malaysia
 Tel: +60.3.2288.1233 • Fax: +60.3.2282.1220 • E-mail: kkhooi@spe.org

To submit your registration online, please visit the SPE website at www.spe.org. The online payments are secured by VeriSign. (Credit Card Registration Only)