



NEW DELHI

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SPENDSEC

Volume 1 • Issue 9 • June-July 2006

NEWS

From the Editorial Desk

SPENDSEC's First Year journey

SPE New Delhi section is just over one year old and has been able to make strides to catch up with the other sections of the world. We were able to successfully achieve our short term goals set for the year. We believe that we have provided strong foundation to this section so that it becomes model for the other New Sections in the World. Despite being one of the youngest sections of the world we have been highly successful in serving our members through our technical meetings with a timeline as given below.

- ? Kickoff Meeting December 13, 2004
- ? Establishment of SPENDSEC, March 13, 2005
- ? First Formal Meeting, April 2005
- ? Website Hosting, May / June 2005
- ? First Section Newsletter August 2005
- ? 2005 SPE President Visit -December 2005
- ? Student Chapter Established at IIT Delhi, April 2006
- ? SPENDSEC Family Get-together, May 2006



Founder Chairperson - Mr. N.K. Mitra (left) displaying the New Delhi Section Charter on April 26, 2005. Also seen in picture are Mr. S.P. Singh and founder secretary Mr. Rahul Bali.

Continued..... page 5

SPENDSEC's Social Get Together

Sunil Kumar Singh

A spread out city like Delhi has acute problem in socializing. In this backdrop, SPENDSEC's evening turned out to be an opportunity not to miss. So every body was there on the terrace dot on time looking for a pretext to meet families that we thought we knew so well, but had not seen before.



SPENDSEC Get Together - Children's Dance Competition

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In Response to SPENDSEC Activities

Dear Prof. Kshirsagar,

My warmest congratulations on a well deserved award. I still preserve as precious memories the terrific hospitality received in Pune, your outstanding motivation to deliver the best education, the high level of preparation and enthusiasm of your students, the extraordinary sense of ethical behaviour permeating your University under the leadership of your Rector.

Special thanks to my friend Rahul, for keeping me informed every once in a while on SPE matters in India.

Very honestly, my visit to India will be perpetually impressed in both my brain and my heart as one of the top experiences in my capacity of SPE President.

Hoping to see you all again in the future All the best

Giovanni Paccaloni
SPE President 2005

July Technical Section Meeting

The Challenge of Waxy, High Pour Point Oil Production in Rajasthan

Stuart Wheaton,
Head of Sub-surface,
Cairn Energy India Limited, New Delhi, India

Heterogeneity, Geostatistics, Horizontal Wells, and Blackjack Poker

Dennis Beliveau,
Principal Reservoir Engineering Consultant
Cairn Energy India Limited, New Delhi, India



Venue:

Jacaranda 1, India Habitat Centre,
Lodhi Road, New Delhi-110001

Tuesday, July 25, 2006 at 1900 Hrs
To check details visit events section at
our website at <http://newdelhi.spe.org>

Sponsors



Continued from..... page 1



Little girl receiving a prize from S. Roychaudhury, SPENDSEC Director.

Greetings and thoughts poured in faster than liquor and ladies dazzled in their elegance. The children, on the other hand, had a gala time with the magician and dance numbers. Monkey business (courtesy Black Eyed Peas) is our chore pleasure and had been in abundance at the party. And the food was simply delicious.....

I would say parents were equally indulging in the magical hiss. Who could have imagined, but the good Samaritans, led by Roger, , were articulating best of gossips and pushing

forward the agenda to invite young ones to know and join the industry. At the height of all these, SPENDSEC could have hardly avoided felicitating and rightfully gave away awards to its die hard volunteers, though the night had been pitching on higher decibels every passing minute.

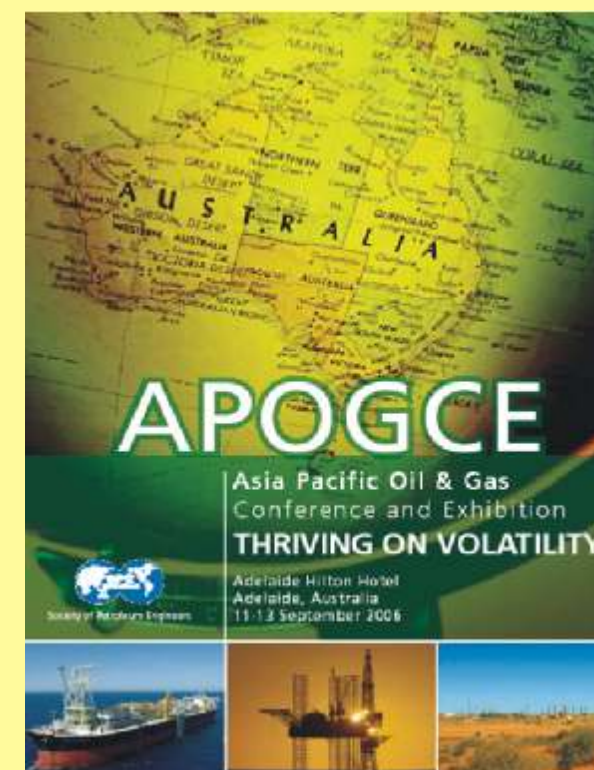
SPE is becoming a forum that is finally packaging petroleum industry as wholesome unit. It was simply fabulous, bringing us all together. Let us continue with the bonhomie.



Ladies busy playing a round of tambola.

FORTHCOMING REGIONAL AND INTERNATIONAL EVENTS

Dates	Meeting	Location
10 - 13 Sep 2006	Logging while Drilling: Stretching the Limits of Technology - ATW	Dubai, UAE
11 - 13 Sep 2006	Asia Pacific Oil and Gas Conference and Exhibition	Adelaide, Australia
24 - 27 Sep 2006	Annual Technical Conference and Exhibition	San Antonio, USA
16 - 18 Oct 2006	SPE/IADC Indian Drilling Technology Conference and Exhibition	Mumbai, India
5 - 8 Nov 2006	Abu Dhabi International Petroleum Exhibition and Conference	Abu Dhabi, UAE
5 - 8 Nov 2006	Deepwater Technology - ATW	Hong Kong, SAR China
13 - 15 Nov 2006	IADC/SPE Asia Pacific Drilling Technology Conference	Bangkok, Thailand
26 - 29 Nov 2006	Integrated Asset Management - ATW	Goa, India



2006 Asia Pacific Oil & Gas Conference and Exhibition

11-13 September 2006 • Adelaide, Australia

Keynote Session:

Don Henry, Executive Director,
Australian Conservation Foundation
Azhar Noordin, Head,
Development Division, PETRONAS Carigali Sdn. Bhd.
Kardaya Warnika, Chairman, BPMIGAS
Vinod Kumar Sibal, Director General,
Directorate General Hydrocarbons- New Delhi (Invited)
Fang Zhi, President, CNOOC SES Ltd. (Invited)



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SPENDSEC Membership Status

Rahul Bali
Member, SPE International Membership Committee

SPENDSEC welcomes our New / Transferred in members:

New

Mr. Prabhat Kumar, *Director, Parveen Industries Pvt. Ltd.*
Mr Rama Rao V Rachapudi, *Production Engineer ITA, TCS*
Mr. Ian A Ross, *General Manager-Drilling, Premier Oil India*
Mr. Arvinder P Singh, *Principal Petroleum Engineer, Cairn Energy India Pty. Ltd.*

Transferred in:

Mr. Timothy O Green *General Manager Drilling, Premier Oil India (From: London)*
Dr. Michael K Jackson *Country Manager India, Premier Oil India (From: London)*
Mr. Bhaskar C Nettem, *Superintending Engineer, Oil and Natural Gas Corp. Ltd. (From: India)*
Mr. Mukesh C Srivastava, *Chief Reservoir Manager, Oil and Natural Gas Corp. Ltd. (From: India)*

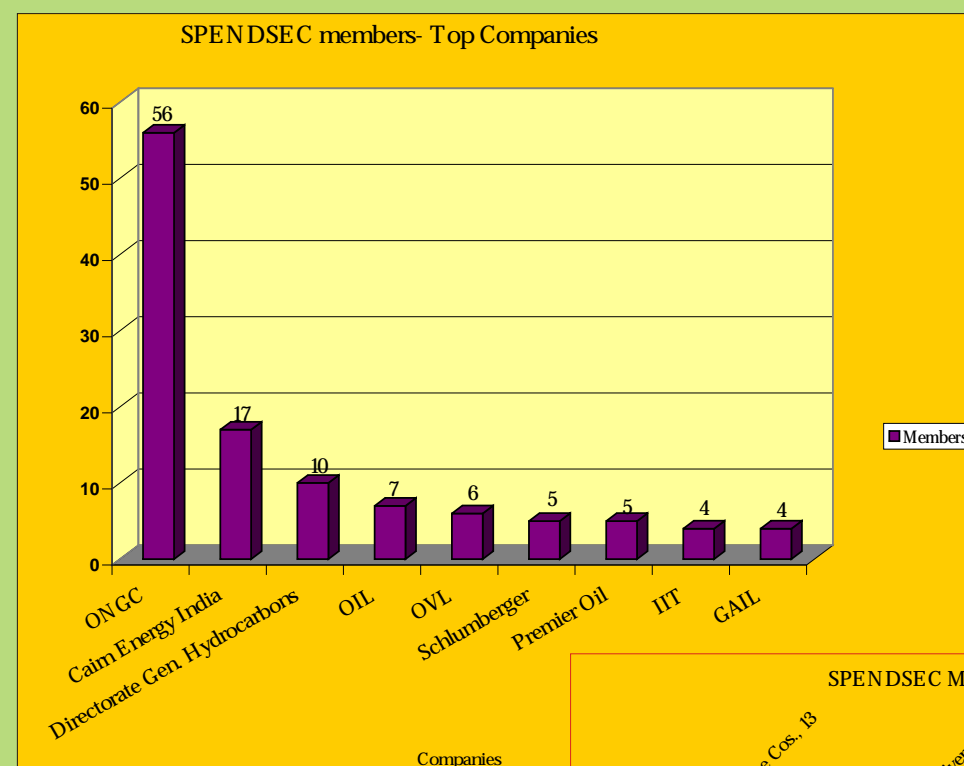
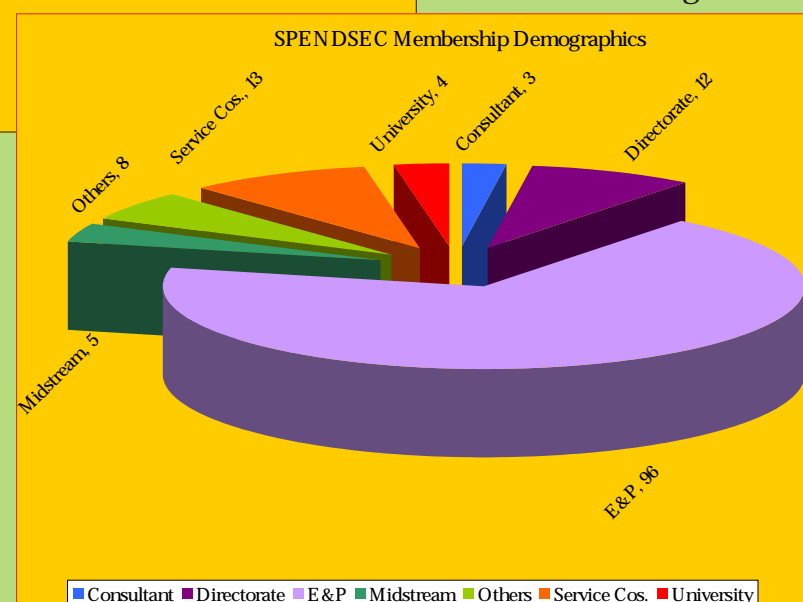


Figure 1

Figures 1 & 2 show the membership status update till May end. Out of total 141 members, top nine employers are shown in Figure 1. ONGC takes the lead with 56 members followed by Cairn Energy and DGH.

Categories of employers are shown in Figure 2. Majority of members are from E&P followed by service companies. We also have 4 members from Academia. Figure 2



SPENDSEC congratulates Dr. Michael K Jackson for receiving SPE New Members level award CR05 and Mr. Ramendra Sinha for CR10. We recognize the great work that our members are putting in recruiting professionals of our industry. As per May end Update on Membership contest, New Delhi section is leading in its group.



Middle East Regional Council Meeting attendees at Bahrain.

Technical Programme: During the year we brought to our members best of the speakers (Eleven) through the monthly section meetings. These included three SPE Distinguished Lecturers and Giovanni Paccaloni, SPE President 2005. Through an active annual calendar we were able to attract members and Sponsors to our meetings. To give value to our sponsors, as a small gesture, we have hosted their logos on our website free of additional cost.

Website: Within two months of section establishment, we launched our website <http://newdelhi.spe.org/> for information sharing within and outside the section (First SPE section website in India).



Mr. Ian Galbreath, Programme Chair, presenting a memento to Mr. Steve Cheung, SPE Distinguished Lecturer (Right)



SPENDSEC Anniversary Cake

Glimpses of Family Get Together, May 13, 2006



Newsletter: We launched our section Newsletter SPENDSEC News in August'05 and eight issues of the same have been published since then. All the issues of our newsletter are hosted on ONGC Reports that is visited by all its employees. Based on the feedback of our members, we have standardized the design and thus created a Brand Identity of our section. We send these to the Corporates to publicize about section activities and SPE.

Student Chapter: Within this one year we supported establishing a Student Chapter at Indian Institute of Technology Delhi. To enhance the image of our industry we arranged an interaction between Student Chapter members and Giovanni Paccaloni, SPE President 2005 during his visit to New Delhi in December'05. The chapter was formally established on April 16'06.

Membership: With an emphasis on inducting young members, our membership growth is phenomenal i.e., from merely 51 members in Mar'05 we are currently at 141 of which 127 are paid members. With this we are at no. 2 position in Group B of Section Membership Contest 2005-06. Our emphasis is on retaining the members and then on recruiting new members.

Communication: We send personalized invitations to all our members through email using mail merge. The invitations are also sent to Section Officers of other sections in India and Middle East Region. We interact with other sections to improve our newsletter and website. We also interact with other organizations as TERI (Tata Energy Research Institute) and invite their officers to our section meetings.

Social Event: To enhance the image of SPE and New Delhi section amongst section members' families, we hosted our first Family Get Together in May 2006 that involved programmes for Spouse and Children.

Our section's Middle East council representative shared the Best Practices and ideas as well as concerns with the other section leaders in the region during the council meetings at Doha and Bahrain. A presentation on section activities was recently given on May 24'06 to the SPE President-Eve Sprunt and Middle East Council in Bahrain.



We strongly believe that we have had very successful first year as attested by the responses to our section activities by our members and others. All this is attributed to the efforts put in by our active members, commitment of our section officers and wholehearted support from our corporate sponsors.



Left to Right: Ali Al-Hasan - Council Chair, Eve Sprunt - SPE 2006 President, Rahul Bali - Secretary SPENDSEC. Presenting SPENDSEC News.

Corporate Sponsors during the year.



The Challenge of Waxy, High Pour Point Oil Production in Rajasthan

Stuart Wheaton

Head of Sub-surface, Cairn Energy India Limited, New Delhi, India

Abstract:

Rajasthan in north-west India, the majestic and ancient land of Indian princes, forts, and tigers, is now also home to a truly world scale oil project. In the last 5 years, Cairn Energy has made 18 discoveries in the Barmer-Sanchor basin with some 3.5 billion barrels of oil in place. Total block reserves are estimated to now exceed 700 million barrels, and the overall production target is 150,000 barrels per day by the time of the start of the next decade. The Mangala field is the largest oil discovery with its reserves alone estimated to exceed 400 million barrels and it has a plateau production target of 100,000 barrels per day starting in 2008.

The Mangala location is remote in India but what really sets the project apart is its scale and that the oil is highly waxy; at room temperature the raw 27

degree API oil will not flow. In the world this oil type has been produced for many years in various locations, but probably never on this scale before. The fluid type leads to many interesting and what may even seem surprising requirements; all the way from reservoir to refinery. The talk will cover some of the special technical features of the plan including its oil recovery aided by a hot water flood, the design of artificially lifted wells assisted by hot water diluents and heater strings, and the hot water heated gathering and separation process. Time will also be taken to give an oversight of the total project in what is undoubtedly a fascinating part of the world.



Stuart has been based in India for just over the last 3 years and has lived through the exploration and appraisal phase of the major finds in Rajasthan with Cairn. A 17 year career with Exxon, Lasmco, and now Cairn, has involved production and developments in the North Sea, Australia, Libya, Venezuela, Iran and India. He leads the sub-surface team based in Cairn, Delhi, whose main responsibility is now to get Rajasthan on line.

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Heterogeneity, Geostatistics, Horizontal Wells, and Blackjack Poker

Dennis Beliveau,

Principal Reservoir Engineering Consultant
Cairn Energy India Limited, New Delhi, India

Abstract:

This talk presents data from more than 2,500 horizontal wells, specifically comparing their production performance to offsetting vertical wells. The data are striking, revealing an approximate log-normal distribution of productivity improvement factors (PIF). This distribution is ascribed primarily to geological heterogeneities compounded by mechanical drilling and completion effects. Horizontal wells in "conventional reservoirs" have a mode or "most-likely" PIF=2, a median or "50/50" PIF=3, and a mean or "average" PIF=4. The data clearly shows that an operator's "expectation" should be based on the number of wells planned, with a larger number of wells yielding a higher "average" production per well.

In some cases, it was also possible to compare actual production results with those predicted by the operator. This also showed some rather interesting results. Although our "predictive models" are quite accurate when averaged over several wells, the error expected when predicting a production rate for any individual horizontal well is $\pm 50\%$.

The talk concludes with a general discussion of heterogeneity, error bars, and some of the practical aspects of dealing with uncertainty.



Dennis Beliveau was a reservoir engineer with Shell for over 22 years and now consults for Cairn. Except for a stint in Houston from 1982-84, he spent his Shell career with Shell Canada, acting as Chief Reservoir Engineer from 1991-2001. In 2001, he left Shell to begin acting as an independent reservoir engineering consultant. His primary areas of activity and research have been in water flooding and EOR, advanced reservoir characterization and simulation, reservoir surveillance, the use of horizontal wells, and the study of risk and uncertainty. Dennis has been extensively involved in industry committees and societies. He was a Technical Editor for the SPE for 5 years and a Review Chairman for 4 years, culminating in his 2-year appointment as Executive Editor of SPE's Reservoir Engineering journal. Dennis also worked on and chaired committees for numerous international conferences, including acting as General Program Chairman for the 1997 SPE Annual Meeting in San Antonio. Dennis was elected a "Distinguished Member" of the SPE in 2000, and received the SPE "Reservoir Engineering Award" in 2001. He also traveled as the first inter-society Distinguished Lecturer for the SPE-AAPG during 2002.

Symposium on People and Leadership



SPE 2007 President
Abdul-Jaleel A. Al-khalifa
to visit New Delhi Section

August, 2006

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