



# SPWLA

## Houston Chapter News

### FEBRUARY 2008 LUNCHEON MEETINGS

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**Westside**

BP Plaza  
Wednesday, February 13

To be announced - see [www.spwla-houston.org](http://www.spwla-houston.org) for latest information  
by TBA

**Greenspoint**

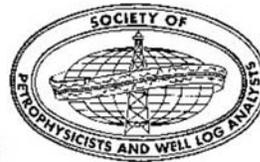
Halliburton  
Wednesday, February 20

A Comparative Study of Capillary-Pressure-based Empirical Models for Estimating Absolute Permeability in Tight Gas Sands  
by Joe Comisky

**Downtown**

Hess Office  
Wednesday, February 27

Core Analysis: Challenges of Offshore Ultra Deepwater Reservoirs  
by John Shafer



This month, I would like to bring attention to the upcoming elections for next year's Houston chapter board of directors. This year, we will be accepting nominations for office through March 31, sending out electronic ballots by April 15, and reporting back to the membership with results on May 21 at the annual Spring Topical Conference. Please discuss opportunities to serve this chapter either on the board or on the 2009 Conference team with any of the current board members.

On December 12, we held our annual software show at the Omni on the west side of Houston. There were 15 vendors, some new and some who were regulars. Printrex traveled from California to participate. Iterra flew in from Florida. I managed the time to discuss the show format and location with those manning each of the booths. My questions were centered on, "What is the value to your company" or, "Do you see real benefit from attending the Houston SPWLA annual software show in December". Without exception, everyone indicated that they indeed felt there was value and they looked forward to the December gathering each year. If you made it to the Omni for the complimentary lunch, I hope you enjoyed the few hours to browse the booths and meet with friends and colleagues.

Our next event is the Houston Chapter Spring Topical Conference. This year's conference will be held downtown in the Chevron auditorium as an all day event on May 21. The topic for this year's conference will be "Residual Oil Saturation". Brian Driskill, Joe Comisky and Paul Connolly will be framing this up over the next few months. We will update the information on our web site [www.spwla-houston.org](http://www.spwla-houston.org) as it becomes available.

At January's board meeting, in addition to our regular business of web site updates and annual event planning, Hani Elshahawi, General Chair for the 2009 Symposium, met with those of you who volunteered. The response to our request for assistance was huge. Over the next months, I'm sure Hani will need the support of others as we begin the detailed planning for the SPWLA symposium to be held in The Woodlands in the summer of 2009. To those of you who have already stepped up to the plate, thank you.

Jose Silva and Joe Comisky, West and Downtown VPs respectively, have let me know that recent monthly luncheons have become very well attended. We have had as many as 60 or more on the West Side in recent months while Downtown meetings have been nearly full at more than 30 in attendance. It's good to see our membership is becoming more active.

**Furman Kelley**  
**Houston Chapter President**



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## Westside Luncheon Meeting

To be announced - see [www.spwla-houston.org](http://www.spwla-houston.org)

by

TBA

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Date:	Wednesday February 13	Place:	BP Plaza Conference room next to the Cafeteria. Westlake 4 200 Westlake Park Blvd.	Reservations:	Email: <a href="mailto:jose.silva@techsia.com">jose.silva@techsia.com</a>
Time	Lunch: 11:30 am Talk: 12:00 Noon	Price:	Purchase lunch in cafeteria and bring to adjacent conference room.	Parking	BP Plaza Garage
Special Instructions	Everyone MUST sign in AND out at the Lobby Security desk! After receiving security badge, get your lunch and come to the 3rd floor. Follow the SPWLA signs to the conference room.				

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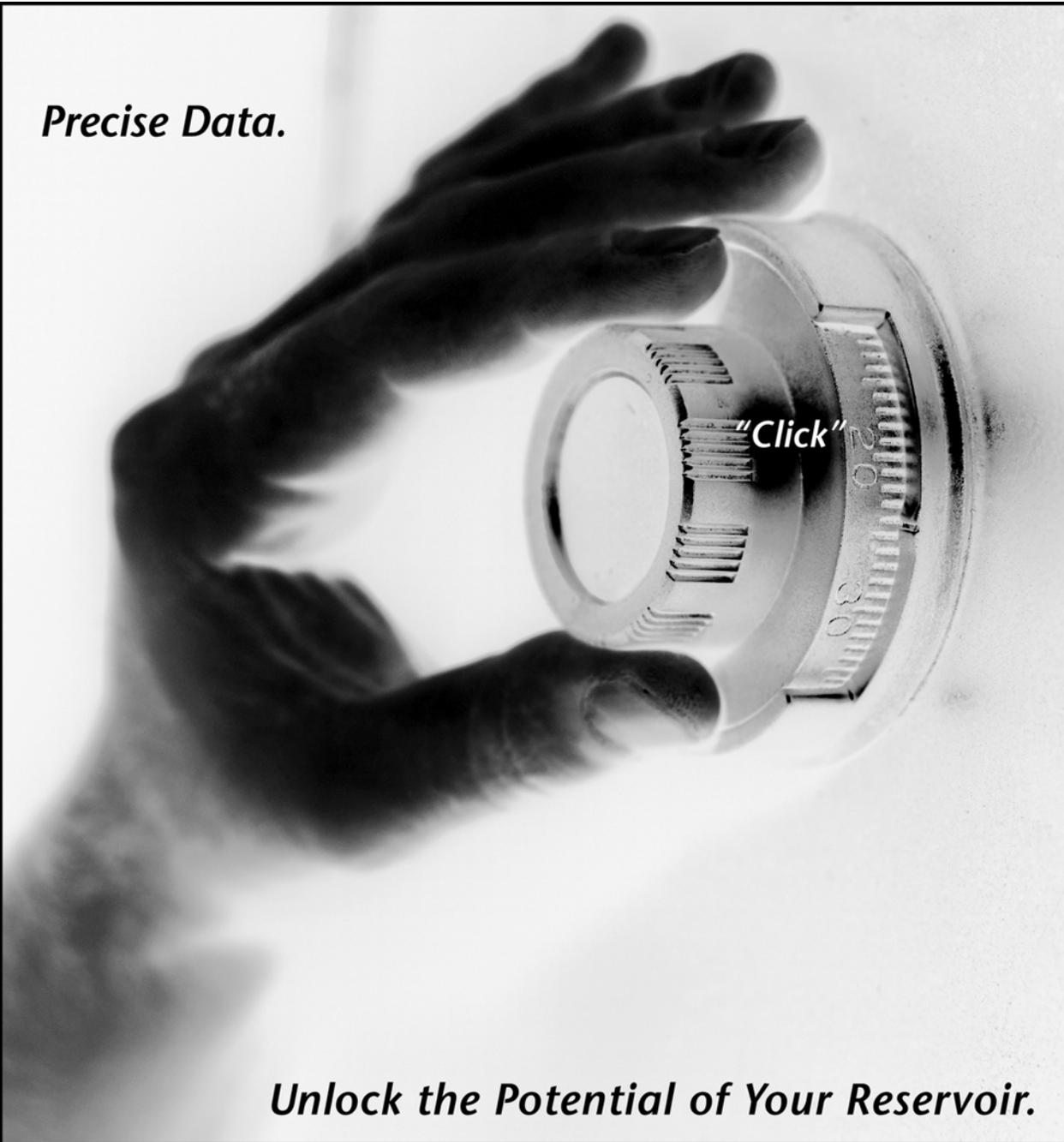
### Abstract

TBA - please see [www.spwla-houston.org](http://www.spwla-houston.org) for the latest details.

### Biography

TBA

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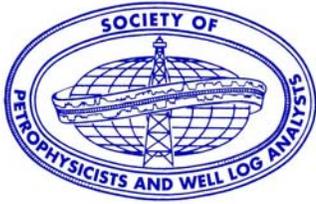
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## Greenspoint Luncheon Meeting

*A Comparative Study of Capillary-Pressure-based Empirical Models for Estimating Absolute Permeability in Tight Gas Sands*

by

*Joe Comisky*

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Date:	Wednesday February 20	Place:	Halliburton Rm. 113, Bldg E 3000 N. Sam Houston Pkwy East	Reservations	none required
Time	Lunch: 11:30 am Talk: 12:00 Noon	Price:	Select food and pay (typically \$3-6)	Parking	Enter Halliburton, proceed to the "T" just past Bldg A, turn right to park.

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### Abstract

This paper presents the results of a laboratory study where we compare permeability estimates from several mercury-injection capillary-pressure-based models to a set of measured steady-state Klinkenberg-corrected permeability in tight gas sands. We evaluated 63 core samples from several prolific tight gas reservoirs in the U.S. Steady-state permeability and mercury-injection capillary pressure tests were completed on each sample. The sample permeability range is from 0.0001 mD to 0.2 mD. We review a variety of currently-used models that are classified belonging to either Poiseuille or Percolation/Characteristic Length models. We identify those correlations that are best applied in tight gas sands by quantifying each method's accuracy and precision and force rank each based on error analysis score.

### Biography

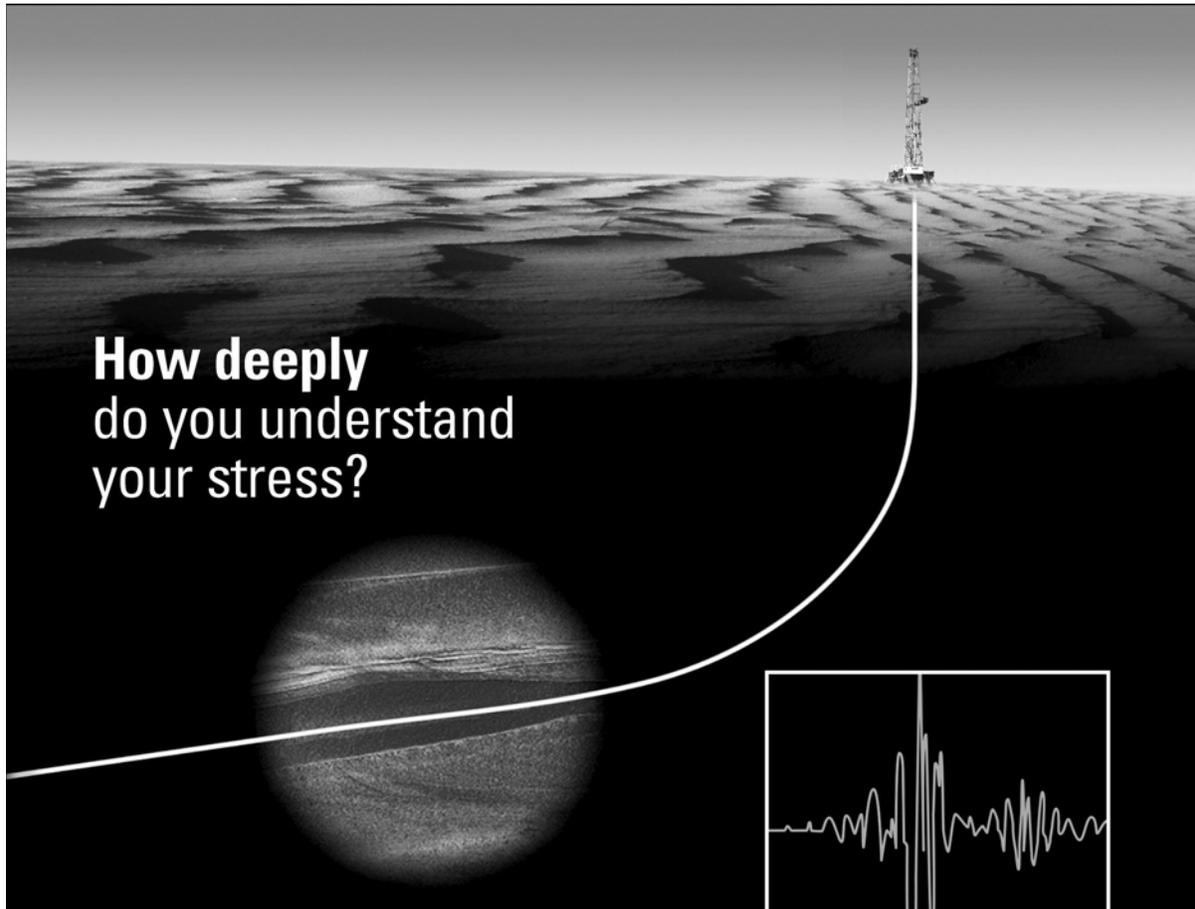
**Joe Comisky** is a petrophysicist with Apache Corporation in Houston, TX. His particular interests within the field of petrophysics include the measurement and estimation of permeability, capillary pressure and electrical properties. Other areas of expertise lie in seismic rock properties, geomechanics, and pore pressure analysis. Joe is a graduate of the Penn State Petroleum Geosystems Initiative with a MS (2002) and BS (1999) in Geosciences. Previous employers include Anadarko Petroleum and ConocoPhillips.

### Co-Authors

K.E. Newsham - Apache Corp

J.A. Rushing - Anadarko Petroleum Corp.

T.A. Blasingame - Texas A&M University



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## Downtown Luncheon Meeting

*Core Analysis: Challenges of Offshore Ultra Deepwater Reservoirs*

by

*John Shafer*

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Date:	Wednesday February 27	Place:	Hess Office One Allen Center 500 Dallas Street	Reservations:	Make reservations as early as possible. Call 713-609-5960 and leave a message for SPWLA Reservations or email at Kkemp@hess.com
Time	Lunch: 11:30 am Talk: 12:00 Noon	Price:	\$15 with reservation	Parking:	Regency Parking at 1100 Smith Allen Center Visitor Garage Various outdoor lots
Special Instructions:	One Allen Center is at the corner of Smith and Dallas. The Hess lobby is on the second level adjacent to the Smith Street entrance. You will need to check in through Security. Please arrive prior to 11:30 am to allow time to check in and get to the meeting room. There are numerous parking places in the area, a few of which are listed above.				

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### Abstract

For the Lower Tertiary play in the ultra deep water (water depths > 5,000 feet) Gulf of Mexico the wells are drilled to depths in excess of 30,000 feet (9144m) some have set near depth records of about 33,000ft (TVD). These wells are very expensive to drill and complete with costs up to about \$100 million. Reservoir challenges are pore pressures that often exceed 20,000 psia (138MPa) pushing the limit of some current logging tools while the temperatures are not as extreme being in the range of 230°F to 260°F.

While logging service companies are busy upgrading their logging tools for current High Temperature-High Pressure (HTHP) conditions, how about core analysis services companies? We are not aware of any commercial lab that can obtain relative permeability, capillary pressure, IFT measurements, and uniaxial pore volume compressibility (PVC) with transverse perm under these conditions. Do we need to?

Several aspects of high reservoir pore pressures are that few service company labs are equipped to measure viscosity at and above 20,000 psi and there are no HTHP certified viscosity standards to calibrate lab viscometers. Also routine core analysis permeability at low pore pressure may significantly underestimate permeability at reservoir pore pressure because of the effective stress law for permeability. Likewise transverse permeability measured during uniaxial PVC tests at constant pore pressures may underestimate perm reduction during pore pressure depletion.

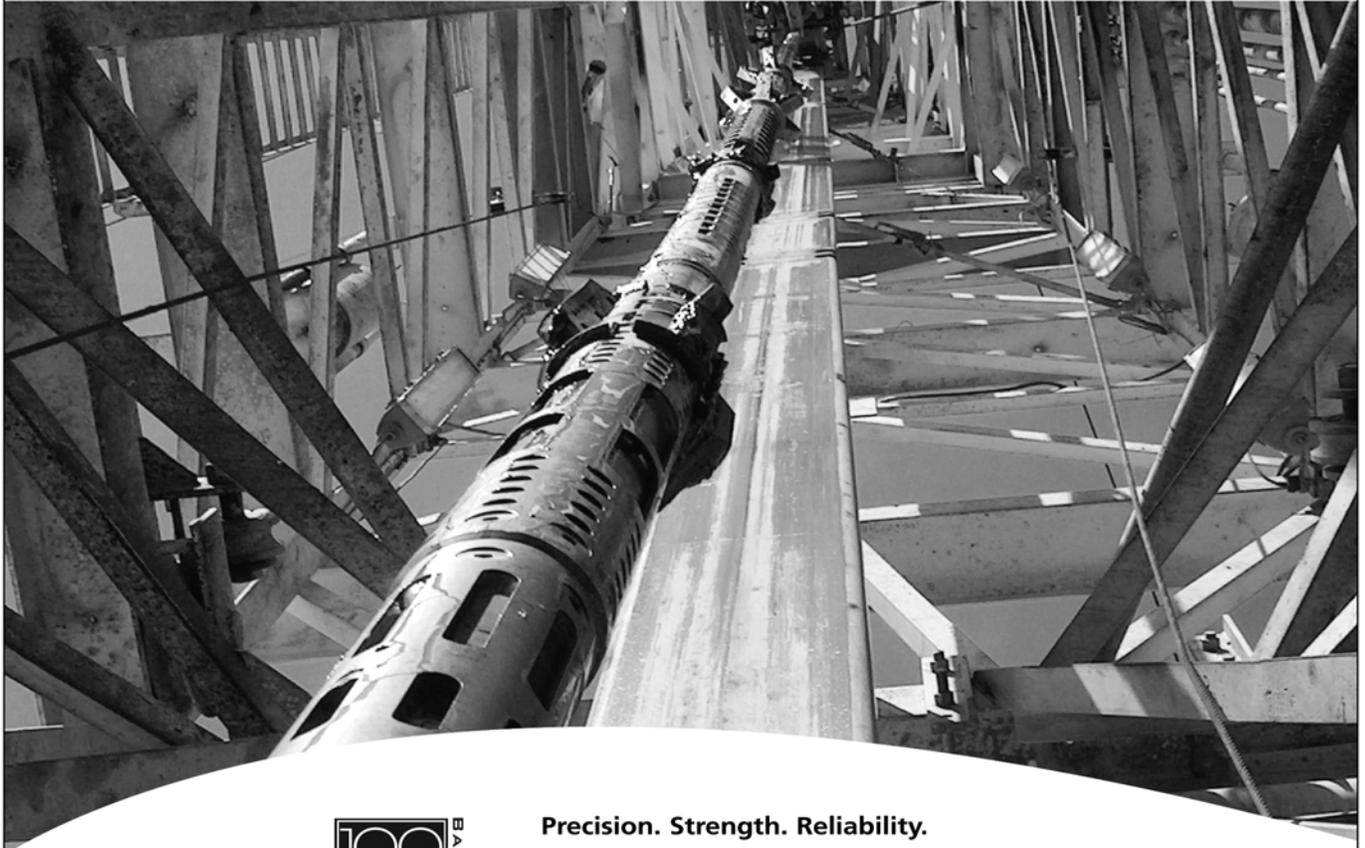
The core and fluid data from the exploration wells are often the only data available for the reservoir engineers to use in developing the reservoir model, so the data are required to be provided in a short time and must be of good quality.

### Biography

**John L. Shafer** has been a consultant to Reservoir Management Group for the past ten years since retiring from Exxon after 19 nineteen years where he provided core analysis/formation evaluation technical support to most of Exxon's West Africa E & P projects. For the past five years he has been a consultant to Devon Energy's Gulf Division as a member of the appraisal asset evaluation team providing technical support on core analysis/formation evaluation, rock mechanics and fluid properties. Quantification of reservoir quality with low field NMR, core image analysis, and petrology has been the focus of his research interests. He is a past President of the Society of Core Analysts (SCA), a chapter of SPWLA.

John obtained a B.S. in Chemistry from Allegheny College in 1963, his Ph.D. in chemistry from University of California, Berkeley in 1970, and a M.S. degree in petroleum engineering from the University of Houston in 1992.

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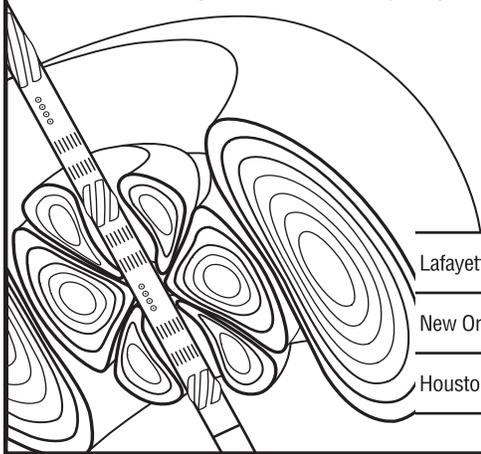
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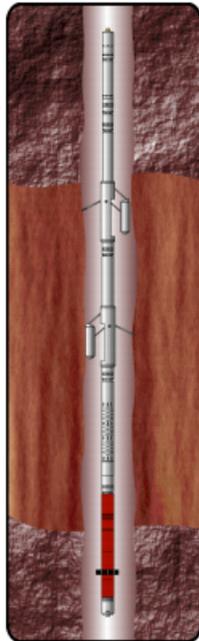
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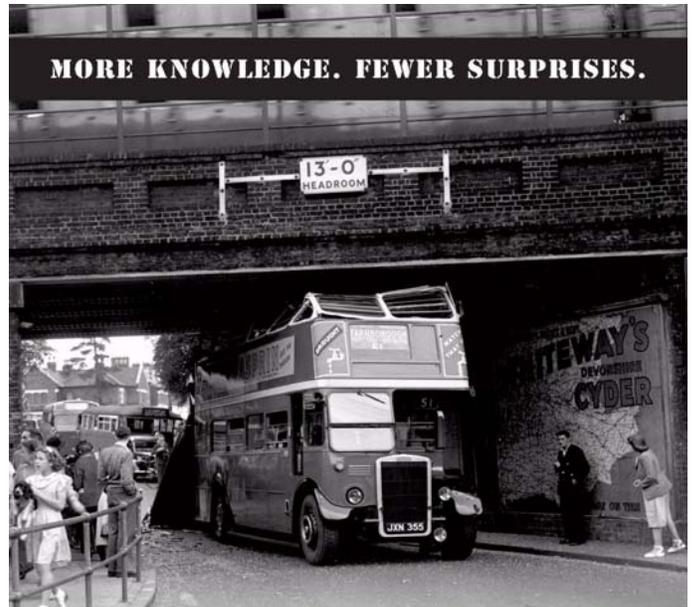
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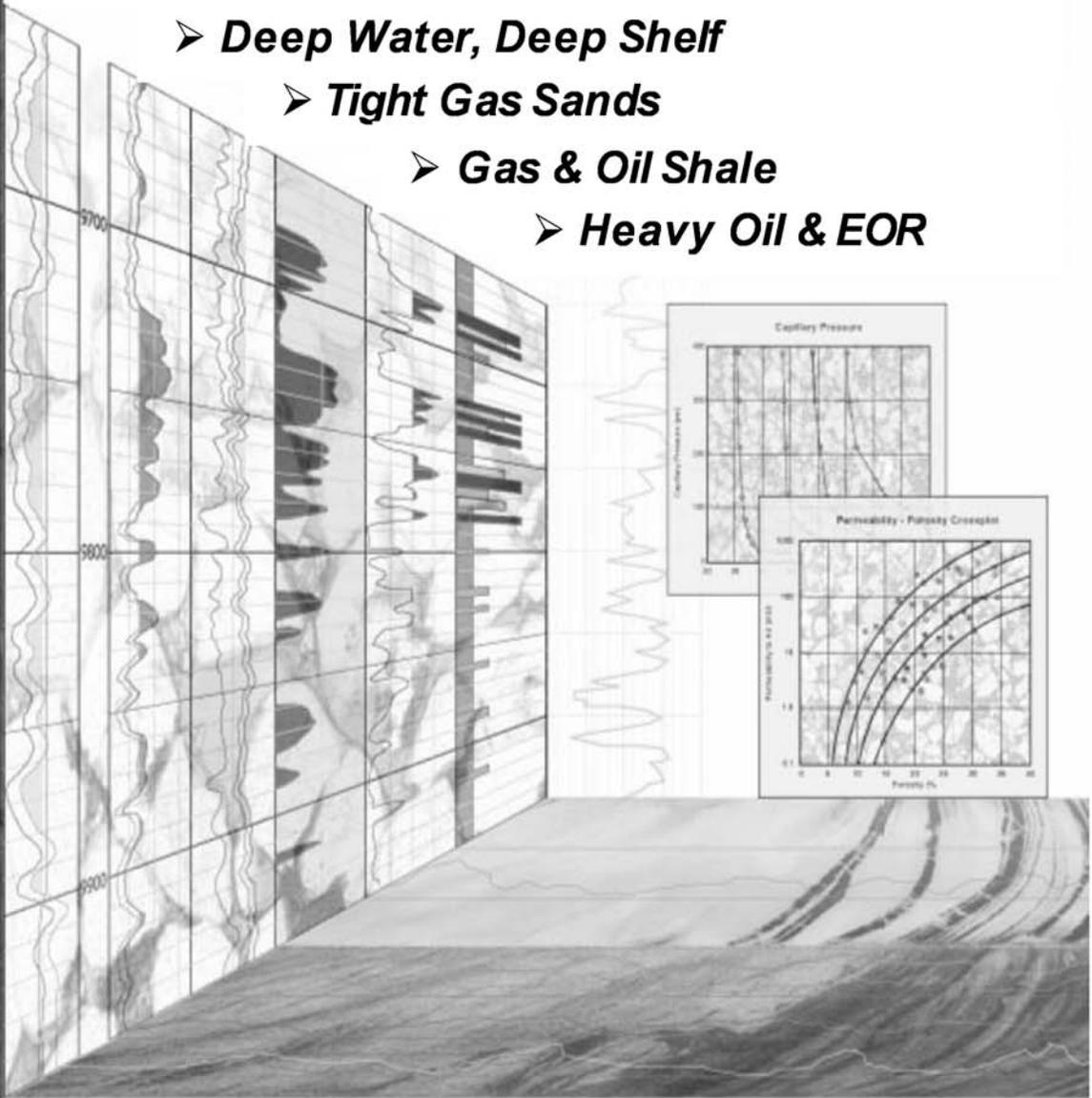
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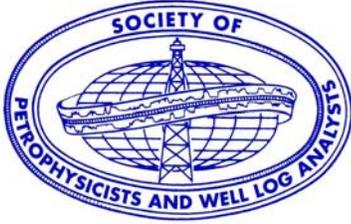


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# *SPWLA Houston Chapter News*

*February 2008*

SPWLA meetings are open to members and non-members.

For the Downtown meeting, reservations should be made no later than noon of the day before the meeting. If you reserve and cannot attend, please call to cancel or you may be billed.

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