**FEBRUARY 2012** 



# GULF COAST SECTION N E W S L E T T E R

**Gulf Coast Section** 

General Meeting: SPE Distinguished Lecturer Drilling Automation: New Prospects and Prospectors? 2012 Houston Engineer of the Year George E. King

Reservoir: SPE Distinguished Lecturer Streamlines in Modern Reservoir Engineering

# CHAIRMAN'S CORNER

by Hiep Vu, Shell 2011-12 SPE GCS Chair

# Houston Area Engineer of the Year – SPE's George E. King

It is my privilege and honor to report that the Gulf Coast Section's candidate for the TSPE Houston Area Engineer of the Year, George E. King, was selected from amongst a pool of highly qualified candidates from other professional engineering societies to receive this year's prestigious award! George has been a part of our industry for over 40 years, and as a lifelong SPE member, he



continues to contribute to the SPE mission of education and dissemination. His list of accomplishments reads like an encyclopedia of our industry today! He has been very instrumental in utilizing science and research to find the solutions necessary to unlock the potential of oil and gas fields throughout the world. I was very fortunate to get to meet and briefly work with George when I started my career at Amoco Production Company. He was a part of Amoco's brain trust based at the Tulsa Research Center. I remember how George was always ready to help us with any of our production and operational issues, no matter how large or small. George has been a very distinguished representative for the oil and gas industry throughout his career, and we are proud that he will represent our industry during Engineers Week (February 19-25). He will be the guest of honor at the 2012 Engineer of the Year Banquet on Thursday, February 23<sup>rd</sup> at Minute Maid Park. I invite you to attend the banquet to help celebrate his achievement.

# SPE-GCS Young Engineer of the Year - Kenji Furui, PhD

The Gulf Coast Section will also be honoring Kenji Furui as this year's Young Engineer of the Year. Kenji is a staff completion engineer for ConocoPhillips with a focus on well completion performance, rock mechanics, well stimulation, and intelligent well technology. A member of SPE since 2001, he has written or co-authored over 15 technical papers on these subjects. He has been recognized multiple times by ConocoPhillips for his contributions to the industry as a scientist. In addition, he has been active with SPE at the ATCE and the ATW level. During E-Week, Kenji will be recognized along with the other winners from various professional societies at the Young Engineers Banquet on Monday, February 20th, at Treebeard's downtown. Please join us in congratulating Kenji as this year's SPE-GCS Young Engineer of the Year!

#### Succession on the SPE-GCS Board

As I mentioned in my December column, Mark Peavy and the SPE-GCS Succession Planning and Nominating Committees have been hard at work in identifying qualified candidates to fill various board positions for the 2012-2013 program year. During the SPE-GCS December Board meeting, For all SPE GCS topical luncheons and social activities, please register online at www.spegcs.org. You must provide your SPE member number to receive member prices. Guests who have not made a reservation online will be charged an additional amount at the door. Walk-ins are not guaranteed admittance.

- Reservations and cancellations required for all events.
- No-shows will be billed.
- Walk-ins will be charged extra.

Mastercard, Visa, American Express, Discover, and Diner's Club are accepted for advance reservations only. The technical and other opinions expressed by speakers at the Gulf Coast Section meetings may not have been reviewed by SPE and do not necessarily reflect the position of SPE, the Gulf Coast Section, its officers, or members. The only forum for rebuttal and discussion is during the meeting.

# **SPE Houston Office**

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For comments, contributions, or delivery problems, contact gcsnewsletter@spemail.org. The deadline for each issue is 6 weeks before publication on the first of each month. The SPE Gulf Coast Section newsletter is published eleven times each program year and is mailed to more than 15,000 SPE members in Houston.

# Advertising

For information on advertising in this newsletter or on the SPE GCS web site at www.spegcs.org, please contact Pat Stone, Star Lite Printing, at (281) 530-9711, starlite1@sbcglobal.net or rstone51@comcast.net.

# **Change of Address**

Society of Petroleum Engineers Member Services Dept. P.O. Box 833836 Richardson, Texas 75083-3836 1.800.456.6863 service@spe.org

# **GENERAL MEETING**

# Drilling Automation: New Prospects and Prospectors?

#### SPE Distinguished Lecturer 2011-12

Speaker:	Fred Florence National Oilwell Varco
Date & Time:	11:30 a.m luncheon Thursday, February 9
Location:	Petroleum Club 800 Bell Street, 43 <sup>rd</sup> Floor Houston, TX 77002
Cost:	\$35 per member preregistered \$40 for nonmembers preregistered Additional \$5 for walk-ins
Registration: Deadline:	www.spegcs.org Noon, Tuesday, February 7

Valet parking is available at the ExxonMobil Building for \$7. If you have special dietary needs, please note your meal request when you register on-line in the box labeled "Optional comments for the event planner."

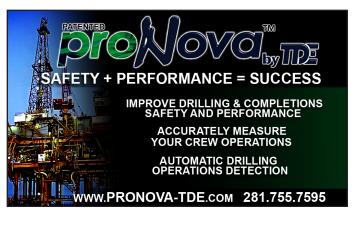
Rig automation is often seen only as drill floor robots that mechanize pipe handling to improve safety. By integrating surface and downhole data with dynamic drilling models and the rig's drilling machines, we can automate and optimize the drilling process occurring below the rotary table. The resulting efficiency gain and reduced risk lower drilling costs and create new drilling opportunities.

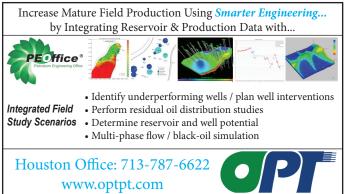
This presentation outlines the current industry efforts in automation to develop and implement automation tools and real-time models connected to rig control systems, for conventional rigs as well as high-end deepwater units. Florence looks at the changing roles for the rig crews, addressing concerns when deploying this new technology to various locations around the globe. He closes by discussing how drilling automation can add value to various types of drilling programs. **Fred Florence** is the Product Champion at National Oilwell Varco (NOV), ensuring that machine controls are compatible not only with each other but also with new industry-developed drilling models. He joined NOV in 1996 and has held a number of engineering, project management, and operational positions, including managing



the design of control stations to link drilling machines to mechanize surface drilling activities. He has led the commercialization efforts for worldwide deployment of new drilling systems. Prior to joining NOV, he worked for Sedco-Forex (now Transocean), where he held various positions in engineering and operations.

Florence holds a BS degree in electrical engineering from Southern Methodist University, Texas, as well as an MA in international management and an MBA in marketing from the University of Texas at Dallas. He is a member of SPE and is an SPE Distinguished Lecturer for the year 2011–2012. He is also the Deputy Chairman of the new SPE Drilling Systems Automation Technical Section (DSATS) and he was a panelist at a plenary session of the 2010 IADC/SPE Annual Conference in New Orleans.





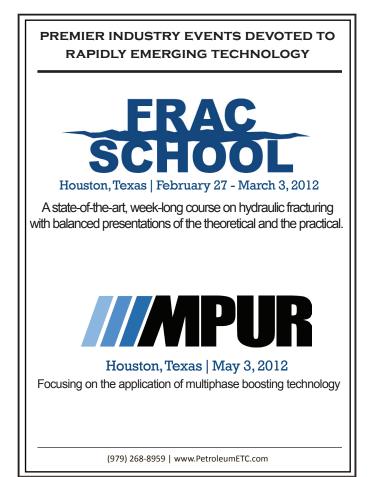
Mark presented the following slate of candidates for the Board's consideration:

Vice-Chair: Michael Strathman, The Trinity Group, Inc. Vice-Treasurer: Robert G. Bruant, Jr., BP America, Inc. Secretary: Lucy King, Kinder Morgan 2012-2014 Director-at-Large: Alexander McCoy, Oxy 2012-2014 Director-at-Large: Wolfgang Deeg, Shell 2012-2014 Director-at-Large: Kevin Renfro, Anadarko

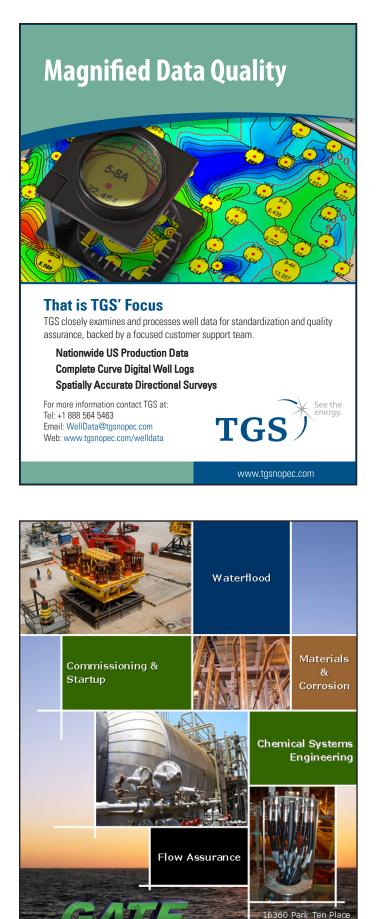
The Board voted unanimously to accept the proposed candidates for the upcoming program year. The biographies of our candidates are featured in this month's newsletter. I'd like to take this opportunity to thank Mark and his committees for providing the Board with a solid slate of section officers. I am confident that our future officers will help the section continue to deliver on its mission.

# February Board Meeting

The Gulf Coast Section board of directors meeting will be held from 7:30 to 10:30 a.m., Thursday, February 16 at the SPE Houston office, 10777 Westheimer Road, Suite 1075 (77042). Board meetings are open to any SPE member, but you must register in advance because seating space is limited. If you would like to attend, please register online at www.spegcs.org or contact Sharon Harris at 713.457.6821 or sharris@spe.org.







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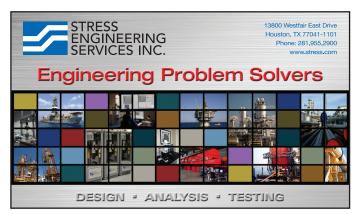
# Young Engineer of the Year Awardee



Kenji Furui

Kenji Furui is a Staff Completion Engineer for ConocoPhillips' Global Completion Engineering Group based in Houston, Texas. Furui is a subject matter expert in various technical areas including well completion performance evaluation, sand control, borehole and casing stability analysis, well stimulation, and intelligent well technology. In addition, he has worked on many aspects of geomechanics and petroleum engineering technology for optimizing well completion and stimulation designs in several of ConocoPhillips' local and international business units. Prior to ConocoPhillips, Furui worked as an Applications Engineer for Baker Oil Tools Cased-Hole Completion Systems in Houston, Texas.

He holds a BS degree in mineral resources and environmental engineering from Waseda University in Japan and MS and PhD degrees in petroleum engineering from the University of Texas at Austin. Furui was a recipient of the SPE Young Professional Paper Certificate at the 2009 SPE ATCE Conference for his paper on well completion. He was also the recipient of the ConocoPhillips' Outstanding Young Scientist Award in 2009 and Technology Achievement Award in 2011. He has served as a member of the ATCE Technical Subcommittee for Production Monitoring and Control during 2007–2009. Furui is the author or coauthor of seventeen technical papers on drilling, production, and completion topics.



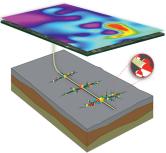
# **AUXILIARY**

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Date & Time:	11:00 a.m. Friday, February 10
Location:	Rainbow Lodge 2011 Ella Blvd. @ East TC Jester Houston, TX 77084 713-861-8666
Cost:	\$30 (Checks Only, Please)
Deadline:	Noon, Tuesday February 7 (Deadlines are Firm)
Program:	Shara Fryer A Fixture on the Houston scene Former TV News Anchor
Contacts:	
	Nancy Hill
nancyl	nill2444@sbcglobal.net
	281-435-1619

Evelyn Earlougher eearlougher@comcast.net 1-281-419-1328

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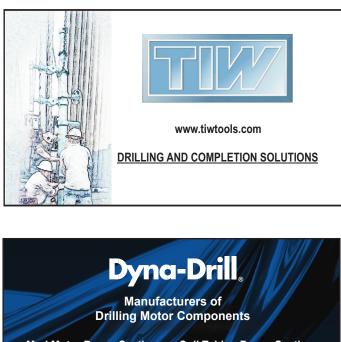
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# **CAREER MANAGEMENT**

### **Ethics Training**

Speaker:	David Howell, P.E. Texas Board of Professional Engineers
Date & Time:	11:30 a.m luncheon Tuesday, February 21
Location:	SPE Houston Training Center 10777 Westheimer Road Houston, TX 77042
Cost:	\$40 per member preregistered \$50 for non member and walk-ins
Registration: Deadline:	www.spegcs.org Noon, Friday, February 17

The Society of Petroleum Engineers Gulf Coast Section will present a continuing education seminar for ethics. This one hour seminar will qualify for annual ethics training requirement by the Texas Board of Professional Engineers.



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**David Howell, P.E.**, is the Director of Licensing for the Texas Board of Professional Engineers (TBPE). He has over 20 years of engineering experience working for the State of Texas, five of them with TBPE. As the Director of the Licensing Division, he oversees the review of all PE applications, firm registrations, EIT certifications and renewals in the State of Texas. The licensing division reviews more than 2,500 PE applications per year and handles the renewals for close to 54,000 licensed Texas PEs and approximately 8,400 registered engineering firms. The licensing division also coordinates the exams for more than 6,900 examinees each year.

Howell has a BS degree in mechanical engineering from the University of Texas at El Paso. Prior to coming to the TBPE, his work was primarily in the field of environmental engineering.

PetroSkills	PetroSkills will offer over 250 sessions in the Houston area in 2012, including new Unconventional Resource, Operations & Maintenance, and Virtual offerings. Here is what is coming up in late March and April:
Drilling, Production, and Completions	<ul> <li>Directional, Horizontal, and Multilateral Drilling; Larry Wolfson, Apr 16-20</li> <li>Drilling Fluids Technology; Hector Moreno, Mar 12-16</li> <li>Electrical Submersible Pumps; Dr. James Lea, Apr 23-27</li> <li>Flow Assurance for Offshore Production; Dr. Phillip Notz, Mar 26-30</li> <li>Gas Lift; Thomas Nations; Mar 12-16</li> <li>Gas Production Engineering; Dr. Mohan Kelkar, Mar 19-23</li> <li>Hydraulic Fracturing Applications; Altred Jennings, Apr 9-13</li> <li>Managing Wellsite Operations; Morgan Jones, Apr 16-20</li> <li>Primary Cementing 1. Cementing 1; Jerry Calvert, Apr 23-26</li> <li>Water Management for Unconventional Gas; Dr. Mukul Sharma, Apr 2-4</li> <li>Well Design and Engineering; Marc Summers, Mar 19-30</li> </ul>
Reservoir Engineering	<ul> <li>Oil and Gas Reserves Evaluation; Robert Wagner, Mar 26-30</li> <li>Well Test Design and Analysis; Dr. John Spivey, Mar 26-30</li> </ul>
Geology, Geophysics, and Petrophysics	<ul> <li>Basin Analysis Workshop: An Integrated Approach; Dr. John Pigott, Apr 16-20</li> <li>Petroleum Geochemistry: Tools for Effective Exploration &amp; Development; Dr. Mark McCaffrey, Apr 16-20</li> <li>Applied Seismic Anisotropy for Fractured Reservoir Characterization; Dr. Heloise Lynn, Apr 16-20</li> <li>Seismic Velocities and Depth Conversion; Dr. David Muerdler, Apr 9-13</li> <li>Applied Rock Mechanics; Dr. Robert Skopec, Apr 2-4</li> <li>Capillarity in Rocks; David Patrick Murphy, Mar 21-23</li> <li>Coring and Core Analysis, Dr. E.C. Thomas, Mar 19-23</li> <li>Foundations of Petrophysics; Robert Lippincott, Mar 26-30</li> <li>Petrophysics of Unconventional Reservoirs; Mr. Richard Bateman, Mar 12-14</li> <li>Well Log Interpretation; Dr. E.C. Thomas, Mar -9.16</li> <li>Wireline Formation Testing and Interpretation; Dr. Andrew Chen, Mar 12-16</li> </ul>
Introductory & Multi- Discipline	<ul> <li>Basic Petroleum Engineering Practices; Robert Lippincott, Apr 16-10</li> <li>Overview of the Petroleum Industry; Dr. George Slater, Mar 19-20</li> </ul>
Operations & Maintenance	Production Field: Field Operations, Apr 23-May 4
Petroleum Business	<ul> <li>Fundamentals of International Oil and Gas Law; William Hughes, Apr 9-13</li> <li>International Petroleum Contracts; Dr. Richard Seba, Apr 9-13</li> </ul>
Health, Safety, Environment	Strategic Thinking: A Tool-Based Approach; John Scruton-Wilson, Apr 2-4     Applied HSE Management; Stephen Asbury, Mar 19-23     Risk Based Process Safety Management; Clyde Young, Apr 9-13

# 2012-2013 SPE GCS Board of Directors Nominees Selected

The SPE Gulf Coast Section Board of Directors approved the following slate of officers and directors as nominees for 2012-2013 at the December 2011 board meeting. According to SPE-GCS Bylaws (see Bylaws 2009 under About SPEGCS/Governance on www.spegcs.org), this slate will stand as elected unless an alternative candidate (or candidates) is put forth by February 16, 2012. If, by that date, a petition for an alternative candidate is signed by 100 active SPE-GCS members, an election will be held at a meeting in May with at least 50 active SPE-GCS members in attendance. Other open board positions for 2012-2013 will be appointed by the incoming section chair.

#### **Nominating Committee**

Mark Peavy	Immediate Past Chair
Steve Baumgartner	Vice-Chair
Jeanne Perdue	Membership Chair
Bill Davis	Programs
Chris Reinsvold	Director At-Large
Subash Kannan	Web Technology Chair
James Pappas	At-Large Member

### **Succession Planning Committee**

Mark Peavy	Immediate Past Chair Chair
Hiep Vu John Medler	Vice-Treasurer
Sid Smith, Jr.	Regional Director
Andrea Hersey	YP Chair
Fady Chaban	Reservoir Study Group Chair

### Vice Chair Michael Strathman, The Trinity Group, Inc.

Michael Strathman is the President of The Trinity Group, Inc., which focuses on strategy, technology and turning knowledge into business opportunity. He has 40+ years experience as an energy executive working for operating, software and consulting companies. Mike has worked in many phases of the energy business including exploration and production, strategic planning, technology, finance and refining and marketing. His past experience includes working with Marathon Oil Company, Aspen Technology, a technology solution provider, the US government and several major consulting firms.

Mike has an MBA degree in finance from Northwestern University's Kellogg Graduate School of Management and a BS degree in systems analysis from Miami University. He has been active with the SPE via the Digital Energy Study Group, Digital Energy Conference and a secretary of the GCS Board of Directors.

### Vice Treasurer Robert Bruant, Jr., BP America, Inc.

Rob Bruant is a Reservoir Engineer/Petroleum Systems Analyst for BP America, Inc., currently supporting BP's Gulf of Mexico operations. Prior to BP, he was a research associate and instructor in the Department of Civil and Environmental Engineering at Princeton University.

Rob has served as secretary for the SPE-Gulf Coast Section Board of Directors and Emerging Leaders Program, chairperson for the SPE-GCS Magic Suitcase committee, and as SPE-GCS Board Director. He has received the SPE-GCS Service award, the SPE-North American Region Service award, and the SPE Outstanding Technical Editor award.

Rob received his BA degree in geosciences from Franklin and Marshall College and a PhD degree in hydrology from The University of Arizona.

#### Secretary Lucy King, Kinder Morgan

Lucy King is a Reservoir Engineer with Kinder Morgan CO<sub>2</sub> Company, L.P., and has been responsible for the company's SEC reserves reporting since 2004. She has over 30 years experience in reservoir engineering, financial analysis, production engineering and operations with emphasis on secondary and tertiary recovery. Prior to Kinder Morgan, Lucy spent seven years with Miller and Lents, Ltd. and over 15 years with Amoco Production Company. While at Amoco, she worked on all aspects of the Slaughter Field CO<sub>2</sub> projects (pilots, project approval, implementation and start-up), and subsequently worked in West Texas for the start-up of the projects.

Lucy currently serves on the SPE-GCS Board as 2010-2012 Director. She is also a member of the SPE Technical Interest Group (TIG) Coordinating Committee and has been the chair for the SPE Reservoir Management TIG since 2003. She has been a long-standing member of the Gulf Coast Section General Meeting Committee serving in all positions, including chairman. While in West Texas, she was an active member of the South Plains Section in Lubbock, Texas and chaired the section in 1986-1987. In 1987, Lucy received the SPE Young Member Outstanding Service Award and in 2009, she received a Section Service Award from the Gulf Coast Section.

Lucy holds a BS degree in chemical engineering from Tulane University. She is a registered professional engineer in the State of Texas, a 30+ year member of the SPE and a member of the Society of Petroleum Evaluation Engineers (SPEE).

#### Director

#### Alexander McCoy, Occidental Petroleum Corp.

Alexander McCoy is a Senior Reservoir Advisor for Occidental Petroleum Corporation. His responsibilities include the development and reservoir characterization within Occidental's South Texas Asset. He has worked several different areas in the US and in Qatar for Occidental Petroleum. His current focus is in tight and unconventional resource play development. He has worked for Occidental Petroleum for over 20 years and prior to that, was with Mitchell Energy in The Woodlands.

Alex holds a BS degree in petroleum engineering from the University of Tulsa, and an MBA degree in finance from the University of Texas at Austin. Alex has been an active SPE member for over 25 years and is currently serving as chairman of the SPE-GCS Westside Study Group. He has co-authored one SPE paper on low pressure horizontal development in Carthage Field. Alex received a Section Service Award from Gulf Coast Section in 2011.

#### Director Kevin Renfro, Anadarko

Kevin Renfro is the Gulf of Mexico Compliance and Regulatory Affairs Manager at Anadarko. His team's responsibilities include the development and implementation of Anadarko's SEMS Program for the Gulf of Mexico. He has been with Anadarko Petroleum for the past 19 years, the first 3 in Midland and the last 16 in Houston, primarily in offshore production and completions engineering, serving as both Completions and Production Engineering Manager prior to assuming his current role last year.

Prior to Anadarko, Renfro was with ARCO Oil and Gas in both Oklahoma and West Texas as a production engineer, and 4 years with ARCO Alaska in both Anchorage and onsite on the North Slope working the Kuparuk Field as an operations engineer.

Kevin holds a BS degree in petroleum engineering from the University of Missouri-Rolla. Renfro has been an active SPE member for over 25 years, and currently serves as chairman of the SPE-GCS Completions & Production Study Group. He has authored or is the coauthor of numerous SPE papers, serves on the SPE Program Committee for OTC, and has participated on the planning committees of numerous industry technical conferences. He received the SPE Gulf Coast North America Region Award for Excellence in Production Engineering & Operations in 2006.

# Director Wolfgang Deeg, Shell

Wolfgang Deeg is a Staff Production Technologist for Shell International Exploration and Production Company assigned to Shell's worldwide oil shale efforts. Past assignments include the waterflood implementation and steam-drive pilot in the South Belridge Field and a research engineering assignment in conducting hydraulic fracturing research for Shell's Production Technology Department. He also worked for Halliburton Technology conducting stimulation research and development.

Dr. Deeg is a 25+ year member of SPE and has been active in many capacities. These include: Co-chair of the Completions & Workover Technical Interest Group, SPE Editorial Review Committee, Review Chairman for SPE Production & Facilities journal, and a member of the organizing committee for SPE/ISRM OilRock Conference. He previously served as chairman and program chair in the SPE Southwest Oklahoma Section. Wolfgang was also the webmaster and served on the electronic communications committee in the Gulf Coast Section.

Wolfgang holds a BS degree in mechanical engineering and BA degree in mathematics from the University of Connecticut, an MS degree in materials science from the California Institute of Technology, and a PhD degree in materials science from Stanford University.



# 2012 Houston Engineer of the Year



George E. King Houston Engineer of the Year

SPE is proud to announce that our candidate for Houston Engineer of the Year, George E. King, Global Technology Consultant at Apache, was selected out of a field of candidates submitted by other local engineering societies and will be honored at an awards banquet on Feb. 23, 2012 at Minute Maid Park.

George began his career at the Amoco Tulsa Research Center in 1971 after earning a BS in Chemistry from Oklahoma State. He went on to earn a BS in Chemical Engineering and an MS in Petroleum Engineering at the University of Tulsa, where he later taught night courses as an adjunct professor. After BP bought Amoco, George was honored as one of only five BP Distinguished Advisors worldwide. For SPE he has been a Distinguished Lecturer, chaired an Annual Meeting, taught short courses, and won the 2004 SPE Production Operations Award. We interviewed George about his career achievements.

# What would you say was your most important contribution to the oil industry?

It's a toss-up between establishing pressure differential relationships for permeability in underbalanced perforating, and creating a 2200-well database on sand control failure predictions with input from 40 companies. These were both well received technically. However, the part that I've enjoyed the most is helping people with well problems. I love a challenge. To be presented with the "weird and unusual" problem that no one else has solved is probably my biggest motivator.

#### What was your most difficult challenge as an engineer?

Being asked to teach a university level engineering course and realizing that I really didn't know nearly as much as I thought I did. I was asked to teach completions and workovers at the University of Tulsa in 1988, and that first semester was a deep and frantic dive into the knowledge needed for a senior and graduate level course. I taught that course for 11 years and still consider that to be the time and place where I learned the most. You have a lot of experience in fracturing. What do you think needs to be done to help the public understand fracking and feel more comfortable about us using it?

Fracturing isn't perfect or foolproof, but the furor about fracturing is largely being driven by lack of understanding and some purposeful misstatements to attack the practice, which is the primary enabler of U.S. oil and gas production increases. The public needs to have information that explains fracturing and the actual potential for pollution, earthquakes, and other hazards at a level that they can understand, without attempts to glorify or vilify. I'll be presenting SPE 152596, Hydraulic Fracturing Risk Analysis, at the SPE Hydraulic Fracturing Conference in February 2012 in The Woodlands, TX.

# What has been your greatest contribution to SPE and how has SPE influenced your career as an engineer?

The most effective contribution -- and interestingly the most rewarding -- has been the networking that is common at every SPE meeting, ATW, and Forum. Technology is not resident in the color of the iron or the company logos; technology is resident in people. SPE, as a living society, has seen the generation of technology that has literally shaped this world by providing cheap, safe energy that has powered every other invention. The networking opportunity that SPE provides is a seed-bed for ideas, innovations and adaption. It is the one place where a highly mobile and inventive workforce of engineers can "hand off the baton" to the next generation.

# What advice would you give to schoolchildren considering a career in engineering?

Engineering is the heart and soul of technology. It is, by far, the most influential force in leading humanity into the future. Technology has generated advances in energy, food, medicine, and transportation that have prevented our exploding population from overwhelming the limits of earth's resources. Engineering allows a person to leave a mark on this world in the most positive way and see that effect last well beyond one's own life. Engineering is never-ending learning. To a person that loves to learn and help others, engineering offers challenge, reward and satisfaction. I'm 40 years into this career, and I enjoy it every day. I just don't see me retiring -- this is way too much fun.

# RPSEA Research Experiments on Hydraulic Fracturing in the Marcellus Shale

Speaker:	Kent Perry RPSEA
Date & Time:	11:30 a.m luncheon Wednesday, February 22
Location:	Greenspoint Club 16925 Northchase Drive Houston, TX 77060
Cost:	\$35 per person preregistered \$40 for walk-ins
Registration: Deadline:	www.spegcs.org Noon, Monday, February 20

RPSEA (Research Partnership to Secure Energy for America) is conducting a research experiment on hydraulic fracturing in the Marcellus Shale with a consortium of researchers led by Gas Technology Institute. The wells are Marcellus Shale wells drilled by Range Resources.

The presentation will review the drilling and completion of 7 horizontal wells from a single pad and then fracture treated with approximately 100 treatments. Downhole microseismic, surface seismic, geologic research, and other information regarding the project will be discussed.

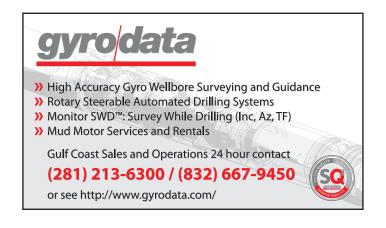
Additionally, RPSEA has an ongoing research portfolio of over 30 projects addressing unconventional gas. An overview of those projects addressing well completion and hydraulic fracturing will be provided. Kent Perry is Vice President, Onshore Programs, for RPSEA, a research program targeting unconventional gas in the United States. His responsibilities for RPSEA include planning and managing a research



program, with the overall objective of developing new technology for enhanced recovery of unconventional gas in the lower 48 United States.

Perry's past experience includes 30 years of natural gas engineering and gas production responsibilities, including gas storage engineering for Northern Illinois Gas Company, production engineering with Kansas-Nebraska Natural Gas Company, and exploration and production for Michigan Energy Resources Company. He has participated in National Petroleum Council studies on the potential for natural gas in the United States and has authored several papers on low-permeability natural gas resources and hydraulic fracturing.

He holds a BS degree in petroleum engineering from the Colorado School of Mines. He is a member of SPE and a past SPE Distinguished Lecturer on the topic of tight gas sands in the United States.





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*by Buddy Woodroof, ProTechnics Features Editor* 

# February 1994

Industry experts predict that Mexico will face a shortfall of at least 8 tcf of natural gas during the period 1994-2010, due largely to slowing economic growth in Mexico, its inadequate natural gas infrastructure, and its current glut of unmarketable high-sulfur fuel oil which is co-produced with the natural gas.

- How does the DOE view the future of natural gas vs coal vs renewable energy as per its 1995 budget? Their R&D budget numbers tell it all...natural gas \$153 million, coal \$128 million, and renewables \$1.36 billion.
- Marathon's Sakhalin Island PSA (production sharing agreement) with the Russians is nearing realization. All that remains is approval by the Russian Parliament (OK) and agreements regarding the project's tax, legal, and financial constraints (caveat emptor!).
- In 1993, for the first time in history, the value of natural gas production in the U.S. exceeded that of crude oil output. (My, how things have changed!).

Light sweet crude oil - \$14.11/bbl Natural gas - \$2.33/MMbtu U.S. active rig count – 752

#### February 2000

The FTC's attempt to halt the \$26.8 billion merger of BP Amoco and ARCO is shaping up as the biggest oil antitrust legal battle since the government broke up Standard Oil nearly a century ago. Both sides vow a court battle that could go all the way to the U.S. Supreme Court.

- Meanwhile, across the pond, the European Commission approves TotalFina's takeover of Elf, based on pledges by TotalFina to sell certain assets, including French service stations and LPG assets.
- The day of the "virtual" oil company draws closer, as witnessed by Burlington Resources outsourcing operations of its Gulf of Mexico properties to Houston's Baker Energy. Under the contract, Baker will operate and maintain all of Burlington's OCS Gulf properties, which include 54 manned and unmanned oil and gas facilities.
- More than 70 U.S. congressmen—primarily Democrats sign a letter urging President Clinton to ask the U.N. to lift sanctions against Iraq, claiming that the trade embargo is hurting the people of Iraq, not Saddam Hussein.

Light sweet crude oil - \$28.82/bbl Natural gas - \$2.55/MMbtu U.S. active rig count - 762

#### February 2005

EnCana spuds a wildcat in the Columbia River basin in otherwise nonproducing Washington state. They are reportedly taking a second look at a potential unconventional gas play discovered there in the 1980's.

• Venezuelan President Hugo Chavez declares that his government plans to sell its interests in eight Citgo Petroleum refineries in the U.S. along with an undetermined number of its Citgo retail outlets in the U.S. Chavez stated that Citgo should be sold because it was denying PDVSA adequate revenue and because it was, in effect, "contributing tax money to the government of President George W. Bush rather than to Venezuela." (Those two just need to drop the gloves and get it on!)

- A group led by ExxonMobil spuds one of the mostwatched wells ever in the Gulf of Mexico, an ultradeep Miocene well in 70 ft of water that could reach a depth of more than 30,000 ft and take a year to drill.
- The DOE reports plans to budget \$3 million/year to fund their microhole systems program, which targets reduced borehole sizes (3 ½ in. to 4 ½ in.) and miniaturized downhole equipment to reduce the cost of drilling and simplify access to drill sites.

Light sweet crude oil - \$46.08/bbl Natural gas - \$6.11/MMbtu U.S. active rig count – 1,280

# The Rest of the Yarn

This month we continue our look-back at the life and times of Clint Murchison, one of the "Big Four" oilmen who laid the foundations of a flamboyant lifestyle that would come to define the image of Texas Oil.

With Southern Union Gas Company now up and running, Murchison began looking for customers outside of Texas and Oklahoma. While vacationing in New Mexico, he discovered that neither Albuquerque nor Santa Fe used natural gas. Instead of hunting and fishing, Murchison and Wofford Cain ended up spending weeks negotiating the acquisition of a small oil company that had found gas in the mountains near Farmington. Once the gas supply was secured, Murchison had little trouble obtaining a franchise to supply Santa Fe.

Albuquerque was another story. A half-dozen competitors sprang up to bid against him for the Albuquerque franchise. At a city council meeting the mayor of Albuquerque asked whether any of the bidders could supply a \$25,000 cash bond to insure its financial viability. Everyone raised their hands. When the mayor asked for \$50,000, Murchison and one other bidder raised their hands. When the bidding went to \$100,000, only Murchison raised his hand. He scribbled out a check and left with the franchise. As they walked out of the meeting, Wofford cornered him and said, "We don't have that kind of money in the bank." Murchison responded, "We'll worry about that when we get back."

Murchison operated this way the rest of his life; as the son of a banker, he knew he could find a gullible loan officer somewhere that would lend him the money. In this case he took a train to Dallas and met with one of his father's oldest friends, Nathan Adams, president of First National Bank of Dallas. Adams was a crucial building block in the budding Murchison empire and would remain so for years. One meeting was all Murchison needed to get the \$100,000. "If you are honest and you are trying, your creditors will play ball," he told Cain afterward.

Next month, Murchison takes a page from Alexander the Great. (Article excerpted from "The Big Rich.")

#### **History Quiz**

In 1959, what operator overtook Standard Oil of New Jersey as the nation's largest crude producer?

If you would like to participate in this month's quiz, e-mail your answer to contest@spe.org by noon February 15. The winner, who will be chosen randomly from all correct answers, will receive a \$50 gift card to a nice restaurant.

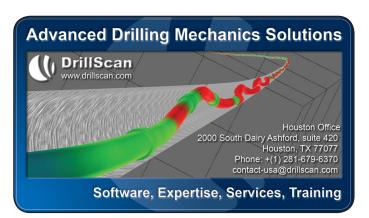
#### Answer to January's Quiz

In 1962 the world's deepest LPG storage involved Dakota Salt and Chemical's salt-layer storage operations which were conducted through a trio of wells at 8,400 to 8,500 ft near Williston in Williams County, North Dakota (surrounded by all that Bakken oil!).

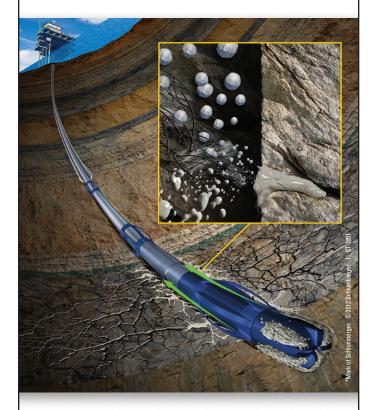
# Answer to December's Quiz

In 1961, Illinois ranked third (behind Texas and Oklahoma) in total footage for completed wells in the U.S.

No winner this month, probably because the question was too ambiguous.



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# **DIGITAL ENERGY**

# The Adoption of Intelligent Energy Solutions: The People Effect

Speaker:	Mark J. Lochman Halliburton
Date & Time:	11:30 a.m luncheon Wednesday, February 15
Location:	Courtyard at St. James 1885 Saint James Place Houston, TX 77056
Cost:	\$35 per members \$40 for nonmembers and walk-ins
Registration: Deadline:	www.spegcs.org Noon, Monday, February 13

The oil and gas industry is still trying to resolve the issues surrounding the widespread adoption of intelligent energy (IE) solutions. One such issue is the misalignment of corporate goals and individual motivators.

Factors inhibiting the adoption of IE solutions include the workforce's reluctance to change, the principles of Maslow's Hierarchy, and the 10,000-Hour Rule. Industrywide circumstances such as data overload (as illustrated by Miller's Magical Number 7 concept) and the need to minimize operational risk are driving the need to adopt IE practices. Ultimately, widespread adoption of IE principles is highly dependent on acceptance by the individual.

Transformation requires change, and change threatens the status quo. Maslow's work tells us that change will be deeply resisted by the Hierarchical Cultures defined by Cameron and Quinn.

People, as manifested and represented by their culture, are a major factor in our industry's slow pace of change and limited adoption of IE principles.

Successful adoption of IE principles will only be mastered with an extended period of deliberate practice, which means learning through many cycles of trial and error.

The Magical Number 7 (now reduced to 3) suggests a limitation on the type and number of issues that can be processed or handled in short-term working memory. This means that as long as the industry relies on individuals

to oversee and monitor more than 3 critical aspects of an operation without appropriate decision-support systems, an element of excessive operational risk will be present.

**Mark J. Lochman** is the Global Business Development Manager for Halliburton's Landmark Software and Services business. Previously at Landmark, he oversaw the research and development of reservoir and production solutions and worked with Halliburton's other business divisions and customers to establish reservoir and production strategy.

Prior to that, he was the General Manager of Oil & Gas Upstream Business at Aspen Technology, where he was responsible for the strategy and adaptation of Aspen's process simulation suite of tools for the upstream market. He has also served as Chief Operating Officer at Production Access, Global Business Development Manager at Schlumberger GeoQuest, Executive Vice President at Dwights Energydata, and as Director of Marketing for Pengo Industries.

Lochman was educated at the US Coast Guard Academy and the University of Missouri-Rolla. He is a member of SPE and SPWLA.



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# Courses Available at the SPE Houston Training Center

7–8 February	Oilfield Data Mining	Shahab Mohaghegh
9 February	Fundamentals of Reservoir Simulation	J. Robert Gochnour
15 February	Artificial Lift	Rajan Chokshi
16 February	Reservoir Aspects of Horizontal and Multilateral Wells	Sada Joshi
1 March	Shale Gas Development	Steve Hennings
6 March	Practical Aspects of $\rm CO_2$ Flooding EOR and Introduction to $\rm CO_2$ Geosequestration	Charles Fox, Michael Stein, Sam Avasthi, Jay Avasthi
20–21 March	Project Risk, Uncertainty, and Decision Analysis	Mark McLane
22–23 March	Modern Production Data Analysis of Unconventional Reservoirs	David Anderson
26–27 March	Reservoir Simulation for Practical Decision Making	Miles Palke, Dean Rietz

# Courses Available at SPE Events

6-8 February	SPE Hydraulic Fracturing Technical Conference and Exhibition, The Woodlands
6–8 March	Horizontal Well Completions in North American Shales Workshop, Scottsdale
6–8 March	IADC/SPE Drilling Conference and Exhibition, San Diego
27–28 March	Coiled Tubing and Well Intervention Conference and Exhibition, The Woodlands
24–27 April	ASME-IPTI/SPE Petroleum Training Week, Houston

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# Performance Drilling – Turning Challenges Into Opportunities Speaker: Graham Mensa-Wilmot Chevron

Date & Time:	Wednesday, February 8
Location:	Petroleum Club 800 Bell Street, 43 <sup>rd</sup> Floor Houston, TX 77002
Cost:	\$35 per member preregistered \$40 for nonmembers and walk-ins
Registration: Deadline:	www.spegcs.org Noon, Monday, February 6

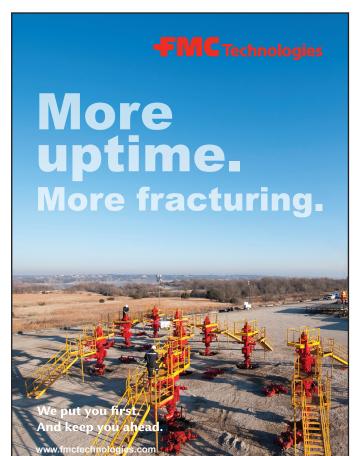
Performance drilling has become a mainstay with regards to drilling operations support. Although the benefits of this initiative have clearly been established, performance challenges still persist. As an example, directional drilling even with the introduction of advanced and sophisticated drive systems, is yet to fully benefit from performance drilling. Several other applications, notably large diameter drilling, dual diameter drilling, hard and/or abrasive formations, and deep drilling, still present challenges.

Discussions will identify the reasons why performances in these applications still leave much to be desired. Insights into assumptions fueling current ineffective performance drilling solutions and strategies, combined with the urgency for different approaches, will be presented. Additional applications needing industry attention and developmental support will also be presented.



**Graham Mensa-Wilmot** is a Drilling Engineering Advisor for Chevron's Global D&C - Performance Improvement Team. Graham is the MAXDRILL (Performance Drilling) project leader. He has more than 25 yrs experience in drilling applications research, downhole tool development, vibrations identification and remediation, and drilling performance improvement. He has authored 38 technical papers, most of which have focused on drilling performance and applications. He holds 24 patents on drilling technology, and has lead the development of several products and technologies.

Graham is a recognized industry leader, and serves on the SPE Drilling Technical committee, SPE/IADC Drilling Conference Program Committee and the technical review committee of SPE Drilling and Completions. He holds an MS degree in drilling engineering from the University of Petroleum and Gas at Ploiesti, Romania.



# Global Competitiveness: The Impact of Local Taxes

Speaker:	Kenny Hawsey PwC
Date & Time:	11:30 a.m luncheon Wednesday, February 1
Location:	Petroleum Club 800 Bell Street, 43 <sup>rd</sup> Floor Houston, TX 77002
Cost:	\$35 per member preregistered \$45 for nonmembers and walkins
Registration: Deadline:	www.spegcs.org Noon, Monday, January 30

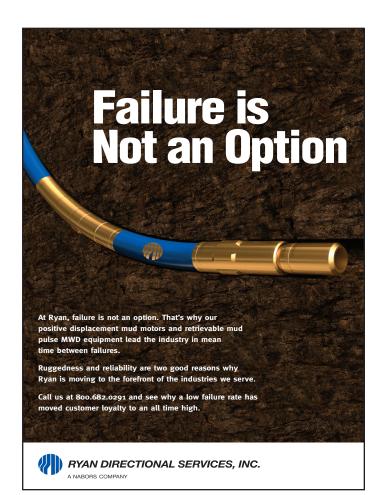
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PwC will present an overview of current and proposed legislative changes applicable to upstream operations in some key countries around the world, with a focus on the US, Brazil, Iraq, Norway, and Nigeria. The competitive impact these legislative changes are having on inbound investment into select territories and some of the challenges companies are facing from a tax perspective will be covered. Kenny Hawsey, a US Energy Tax Leader for PwC, will lead the presentation and discussion to help attendees understand the impact on competitiveness in the global upstream business.

**Kenny Hawsey** is a partner in PwC's Houston office and is part of the global energy group and specializes in taxation of upstream oil and gas operations.

Hawsey has over 21 years of US and international tax experience working with large and mid-cap multinational corporations (MNCs). His experience includes international assignments to Russia (Moscow), Azerbaijan (Baku), The United Arab Emirates (Dubai), and Saudi Arabia (Riyadh). He has worked with many MNC clients investing into these foreign jurisdictions. Hawsey's experience includes negotiating and dealing with many concession agreements in different locations and many cross-border transactions in upstream energy companies as well as with international oilfield service companies. In the last 2 years, he has also worked on a number of acquisitions in the Middle East including tax due diligence and tax structuring.

Hawsey has a BS degree in accounting and a Master's degree in accounting (tax emphasis) from Auburn University. He is a member of the AICPA and the Alabama Society of CPAs. Hawsey was the President of the American Chamber of Commerce for 3 years while in Azerbaijan and in that role worked very closely with the US Embassy and the Azerbaijan Government in their development into a free market economy. He recently served on the Steering Committee for the American Business Group of Riyadh.



### Unconventional Reservoir Fracture Evaluation Utilizing Shear-Wave Imaging

Speaker:	Doug Patterson Baker Hughes
Date & Time:	11:30 a.m luncheon Tuesday, February 14
Location:	Greenspoint Club 16925 Northchase Houston, TX 77060
Cost:	\$30 per member preregistered \$35 for nonmembers preregistered Additional \$5 for walk-ins
Registration: Deadline:	www.spegcs.org Noon, Friday, February 10

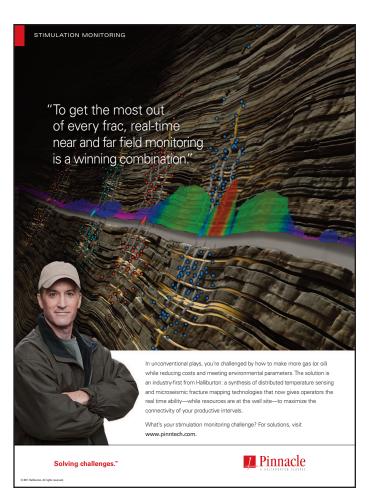
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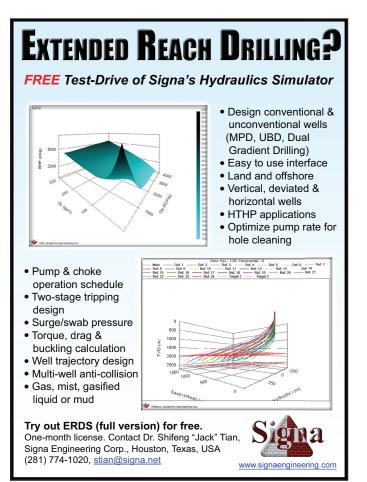
Unconventional shale reservoir evaluation and development are extremely challenging. Fracture variation across the reservoir can be substantial, leading to large production variations even in adjacent wells. Gaining insight about the natural fracture system, both intersecting and around the borehole, is crucial and can often help determine the economic success of a well and/ or reservoir.

The standard means of fracture evaluation can only investigate a limited area around the borehole. Deep shear-wave imaging permits the evaluation of fractures over a much larger area around the well, often looking out in excess of 60 ft from the borehole and even detecting major fractures that do not intersect the well.

Our review includes conventional methods and the deep shear-wave imaging analysis, showing its value in gaining important insight about the natural fracture system around the borehole. **Doug Patterson** is the Acoustic and Seismic Center of Excellence Manager in Drilling & Evaluation Research at the Baker Hughes Houston Technology Center and the Acoustic Subject Matter Expert for Baker Hughes. His latest research projects involve using shear waves created by a dipole source to look deeply into a formation, making it possible to map structures up to 60 ft away from the borehole. He is also Principal Investigator for the Geothermal Ultrasonic Imager project under joint contract with the US Department of Energy.

Patterson received his BS degree in mechanical engineering from Memphis University as magna cum laude. He is the principal author of the Acoustic Logging chapter of the SPE Petroleum Engineering Handbook, and is the author or coauthor of over 50 papers and 20 patents. He is a member of the SPE, SPWLA, ASME, and Tau Beta Pi, and is an SPWLA Distinguished Speaker for 2011–2012.







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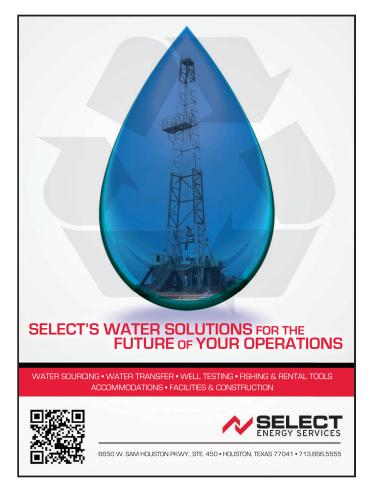
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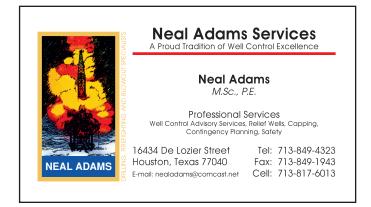


## Successful Stimulation of Openhole Carbonate Formations Utilizing Coiled Tubing

Speaker:	Jeff Harris Baker Hughes
Date & Time:	11:30 a.m luncheon Tuesday, February 21
Location:	Westlake Club 570 Westlake Park Blvd. Houston, TX 77079
Cost:	\$35 per member preregistered \$40 for nonmembers preregistered Additional \$5 for walk-ins
Registration: Deadline:	www.spegcs.org Noon, Friday, February 17

This presentation will address how coiled tubing, combined with advanced acidizing technologies, can improve the ability to optimize treatment coverage in openhole completions. Two methods that have been very successful in the Permian and Anadarko Basins are foam diversion and self-diverting acid systems.

When acid is pumped into an openhole completion, it is difficult to determine precisely where the acid is going. It is vitally important to ensure that the entire interval is being treated adequately to optimize production. Many techniques to achieve total zonal coverage have been attempted throughout the years with mixed results. Coiled tubing and advanced acidizing technologies have shown tremendous promise with these stimulation techniques.



**Jeff Harris** works for Baker Hughes in Midland as the Permian Area Technical Representative for coiled tubing and nitrogen services. He has 34 years of oilfield experience from the North Atlantic to West Texas and has specialized in coiled tubing and nitrogen services.

Harris majored in math at the University of Arkansas at Little Rock. He is an SPE member for more than 30 years, has served in numerous roles in the Trans-Pecos and Permian Sections. He received the Trans-Pecos Service Award in 2004 and the Southwest Regional Service Award in 2005.







# Applications should be completed online:

Log on to the SPE Gulf Coast Section homepage and select the Scholarship/Internship committee page. A link to instructions and the online application are located in the center. See link addresses below.

If you should have any questions, please email Gabrielle\_Guerre@ryderscott.com



# **Gulf Coast Section**

Online Application: <u>http://spegcs.org/forms/2011-2012-Scholarship-Application/</u> Instructions: <u>http://spegcs.org/scholarship-app/instructions/</u>

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Professional Reference letters

Financial need (if applicable, not required)

Short essay (approx. 500 words)

• The process:

Scholarship committee reviews each application

Selected applicants are interviewed in the second round (April 2012)

After the interviews, the scholarship committee meets and collectively decides the 2012-13 scholarship recipients (May 2012)

• Each 2012-13 first-time scholarship recipient <u>may</u> be eligible for a summer internship with an oil & gas company on availability

# **PETRO-TECH**

### How Impending Rule Changes at the Railroad Commission of Texas May Affect You and Your Company

Speaker:	Dorsey Twidwell PGH Petroleum and Environmental Engineers, L.L.C.
Date & Time:	11:30 a.m luncheon Tuesday, February 14
Location:	Brookhollow Sheraton 3000 North Loop West Houston, TX 77092
Cost:	\$38 per member preregistered \$48 for nonmembers and walk-ins
Registration: Deadline:	www.spegcs.org Noon, Friday, February 10

The 2011 legislative session passed two critically important bills affecting the oil and gas industry: First, the hydraulic fracturing bill that outlines hydraulic fracturing chemical disclosure requirements and second, the creation of the Oil and Gas Regulation and Cleanup Fund and provision for the imposition of reasonable surcharges as necessary on fees imposed by the Railroad Commission of Texas (RRC). The RRC is currently moving forward with rulemaking and procedural changes to implement these legislation changes and both could directly impact oil and gas companies' daily operations.

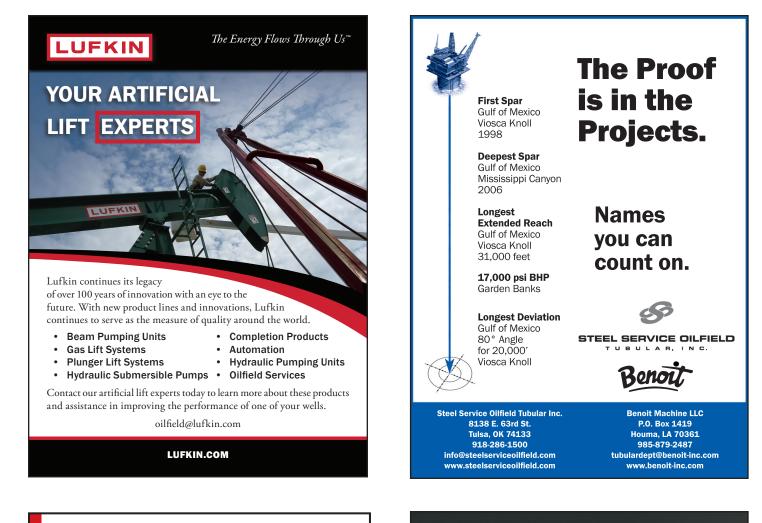
The proposed rules, Statewide Rule 29 for fracturing disclosures and Statewide Rule 78 for the new surcharges and fees, and how the RRC intends to implement them will be the subject of the February 14, 2012 lunch talk. The new Statewide Rule 29 requires an operator to submit information about the chemical ingredients and volume of water used in the hydraulic fracturing treatment of a well. Revisions to the Statewide Rule 78 add an additional surcharge of 150% to severance fees, drilling permits, and exception fees, along with other charges. By February 2012, we should have some details of how the RRC will be implementing these changes.

**Dorsey Twidwell** is currently the Senior Regulatory Specialist for PGH Petroleum and Environmental Engineers, LLC, a petroleum, environmental, and regulatory consulting firm in Austin, Texas. He is also an instructor at Midland College's Petroleum Professional Development Center. His next class at Midland College, "Gas Well Regulation in Texas" will be held in the spring of 2012.

Twidwell retired in December 2010 from the Railroad Commission of Texas (RRC) after nearly 30 years of state service. He finished his career as an Assistant Director in the Oil and Gas Division in charge of Administrative Compliance. Twidwell was the Proration Unit Manager for many years prior to his final position and traveled extensively for the RRC teaching proration at seminars across the state. During his Railroad Commission career, he worked on such diverse projects as online filing systems for drilling permits, production and completion filings, gas proration rule revisions, administrative review of legislation affecting the oil and gas industry, and integration of the oil and gas departments within the Commission.







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# Use of Composite Material in the Oil and Gas Industry

Speaker:	Dr. Mamdouh M. Salama ConocoPhillips
Date & Time:	11:30 a.m luncheon Tuesday, February 21
Location:	Norris Center City Center 803 Town and Country Lane Suite 210 Houston, TX 77042
Cost:	\$35 per member preregistered \$40 for nonmembers preregistered \$45 for walk-ins
Registration: Deadline:	www.spegcs.org Noon, Friday, February 17

Composite materials offer many potential advantages for oil and gas developments based on their low density, corrosion resistance, and excellent fatigue performance. In addition, the use of composites allows for greater design flexibility for tailoring the properties to meet specific design requirements, thus promoting better systemoriented and cost-effective solutions.

The presentation will review current applications of composites and present information on composite materials that are candidates for use in the oil and gas industry. Information will include discussion of material properties, fabrication methods, design philosophy, safety requirements, and regulation issues.

The presentation will also cover the potential application of composites in deepwater oil and gas developments. A discussion of the financial incentives to develop composite applications, ways to identify the main challenges facing the introduction of composites into service, and steps currently being taken to address these issues will follow. **Dr. Mamdouh M. Salama** is a Senior Engineering Fellow at ConocoPhillips' Drilling & Production Department, and a Fellow of the American Society of Mechanical Engineers. He is well recognized within the oil and offshore industry for his contributions to several technical areas related to innovative materials applications and structural integrity.

Salama is considered a pioneer in promoting the application of advanced composite materials for deepwater systems, for which he received the 2009 International Offshore Mechanics & Arctic Engineering Conference Industry Achievement award. He is also recognized for his publications in the areas of erosional velocity limits, reliability-based allowable strength model for high-strength steels, reliability on pipeline in-line inspection tools, fatigue and fracture performance of titanium riser.

Salama holds a BS degree in mechanical engineering (with distinction) from Ain-Shams University, Egypt, and Master and Doctor of Science degrees in mechanical engineering from Massachusetts Institute of Technology. He has published over 120 technical papers, was awarded 23 patents, edited proceedings for 26 international conferences, and has served as chairman of several international conferences on offshore and arctic developments.





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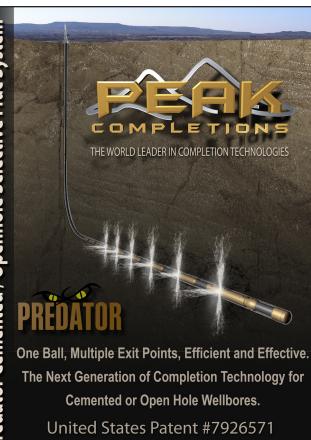
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# Streamlines in Modern Reservoir Engineering

#### SPE Distinguished Lecturer 2011-12

Speaker:	Marco R. Thiele Streamsim Technologies
Date & Time:	11:30 a.m luncheon Thursday, February 23
Location:	Courtyard on St. James 1885 St. James Place Houston, TX 77056
Cost:	\$35 per person preregistered \$45 per person walk-in
Registration: Deadline:	www.spegcs.org Noon, Tuesday, February 21

This talk is aimed at giving a high-level description of streamline simulation (SLS) and focusing on the use of the technology to help manage and optimize flood performance. Advantages and disadvantages of SLS are highlighted throughout the presentation for a balanced presentation of the methodology. The talk concludes with a look to the future by commenting on the directions SLS is evolving.

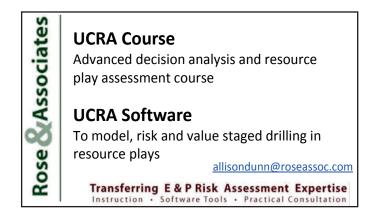
Since streamlines connect source (injectors) and sinks (producers), the bundle of streamlines connecting quantifies the volumetric flux between the two—a key piece of information when considering flood management. The most valuable information that can be extracted from SLS for flood management is instantaneous injection efficiencies and conformance plots for each injector. A significant paradigm shift caused by SLS is looking at well patterns as being time-varying and centered on an injector and its connected offset producers. Moving away from having to define static well patterns is a significant development that has significant repercussions as to how one might go about improving performance of a flood.

SLS hinges on moving components along 1D, timevarying streamlines rather than on a static 3D structured or unstructured grid, and often there is a significant speed advantage that becomes essential when trying to optimize field performance. Speed, together with the novel information provided by the streamlines, is a significant aid to flood optimization. However, SLS also makes some significant assumptions that might not be appropriate for all reservoirs and this will be highlighted throughout the talk.

**Marco R. Thiele** is President of Streamsim Technologies, a software company specialized in the development and application of streamline simulation technology to modern reservoir simulation practices. He is also a Consulting Professor in the Department of Energy Resource Engineering at Stanford University and an Associate of Quantum Reservoir Impact.

He has published widely on reservoir flow modeling and application of streamline-based flow simulation to reservoir engineering, and is a frequent invited speaker on the topic at international conferences and symposiums. Most recently, he was the coauthor of a distinguished author article in JPT entitled "Streamline Simulation for Modern Reservoir Engineering Workflows" which appeared in the January 2010 issue. Thiele was an invited speaker at the 2009 SPE Annual Technical Conference and Exhibition special session on The Challenges of Reservoir Management.

Thiele received his PhD in petroleum engineering from Stanford University in 1994 and his Masters and Bachelors degrees in petroleum engineering from the University of Texas at Austin in 1989 and 1986, respectively. He is the recipient of the 1996 Cedric K. Ferguson Medal and a winner of the 1994 International SPE Student Paper Contest. He is an associate editor for the SPE Reservoir Evaluation and Engineering journal and has served on the SPE Books Committee from 2004 to 2010.



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# WESTSIDE

# Increasing Production with Better Well Placement in Unconventional Shale Reservoirs – Challenges and Solutions

Speaker:	Jason L. Pitcher Halliburton-Sperry Drilling		
Date & Time:	11:30 a.m luncheon Wednesday, February 15		
Location:	The Westlake Club 570 Westlake Park Blvd Houston, TX 77079		
Cost:	\$35 per person preregistered \$40 per person walk-in		
Registration: Deadline:	www.spegcs.org Noon, Monday, February 13		
Please print a	nd bring credit card receipt		

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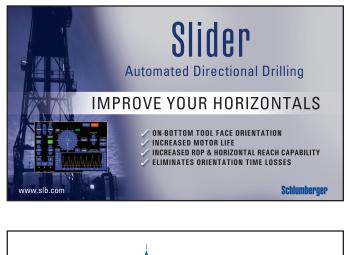
The idea that the stimulation process "will take care of the geology" in unconventional reservoirs is proving false.

Unconventional reservoirs are often regarded as resource plays with little demand for reservoir analysis beyond simple geosteering techniques during the development campaign. This leads to the common practice of stimulating wells with equally spaced stages and treating all the stages exactly the same, with no regard to the nature of the rock being treated. As a result, production can vary from each stage, with some stages either not contributing or doing poorly.

Clearly, the stimulation process alone cannot mitigate the impact of geology in unconventional reservoirs; however, mechanisms do exist for improving results in these reservoirs. Mapping the distribution of geomechanical properties for optimal stimulation is one example of unconventional thinking that can be applied. The practice of "steering to brittleness" or similar techniques can have a direct impact beyond simple well placement. Given a map of geomechanical properties along the wellbore, completion engineers can optimize the position of plugs or packers, and stimulation engineers can fine tune the design of the treatment applied to the rock. By re-establishing the link between production and geology, these methods can decrease the exploitation costs of unconventional reservoirs.

**Jason Pitcher** is the Global Well Placement Solutions Champion for Halliburton-Sperry Drilling based in Houston, Texas. He has over 20 years of experience with Sperry Drilling, having worked in multiple areas of data acquisition and interpretation. He also has developed and managed well placement operations around the world, contributing to multiple national and international geosteering campaigns.

Pitcher received his BS degree in geology from the University of Derby and his MS degree in mineral exploration from Imperial College in London. He is the coauthor of over 15 papers and articles on LWD tools, petrophysics, geosteering, and geosteering tools. Pitcher currently sits on the technical paper review committee of the SPWLA and is an active educator in geosteering.





# YOUNG PROFESSIONALS

# **Networking Social**

16 February 2012 • 5:30-7:30PM Black Finn American Grill 1910 Bagby Street, Houston 77002 Cost: FREE!!!

Please join SPE-GCS Young Professionals for an evening of mixing and mingling at the brand new Black Finn in Midtown! Come out to catch up with your fellow YPs, socialize, have some food and drinks. In addition, we will have the opportunity to interact with college students. Please check the SPE website, www.SPEGCS.org for more information.



# Event Contact: Pavitra (pavitra.a.timbalia@exxonmobil.com)

# **SPE-GCS Young Professionals Executive Club**

We are extremely excited to introduce you to the prestigious SPE Gulf Coast Young Professionals Executive Club. The Executive Club aims at recognizing our dedicated members who are truly leaders of tomorrow. Being a part of the SPE YP Executive Club is easy! It's a simple 3 step process - Participate, gain points and win gift cards, prizes and recognition every quarter!

- 1. Attend SPE YP Networking events (100 points per event attended)
- 2. Attend SPE YP Professional events (225 points per event attended)
- 3. Volunteer for SPE YP events (50 points per hour volunteered)

We certainly hope you become either a Platinum, Gold or Silver member of the Executive Club soon. For questions or inquiries, please contact **Sanup Sebastian at sanupmathew@gmail.com.** 

# **SPE-GCS Young Professionals Sponsorships**

Are you or your company interested in sponsoring an upcoming Young Professionals event? If so, please fill out the "Sponsorship Form" document that is located under Young Professionals' webpage on www.spegcs.org under the "Documents" section.

Please contact **Kehinde Adesoye (kadesoye@hess.com)** if you have any questions or for more information regarding sponsorship levels.



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# **February Events**

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Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
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5	6	7	8 Drilling, p17	9 Gen Meeting, p3	10 <b>Auxiliary, p6</b>	11
12	13	14 Northside, p19  Petro-Tech, p23	p15	16 Board Meeting, p4 YP, p30	17	18
19	20	<sup>21</sup> Ethics, p7 Permian, p21 PF&C, p25	22 C & P, p11	23 Reservoir, p27	24	25
26	27	28	29			