

# HGS Bulletin

Volume 55 Number 8

Houston Geological Society

April 2013

**ELECTION ISSUE**

**PASSIVE-MARGIN SALT  
BASINS: HYPEREXTENSION,  
EVAPORITE DEPOSITION,  
AND SALT TECTONICS**

**PAGE 29**





# TGS WELL DATA DELIVERS THE WORLD



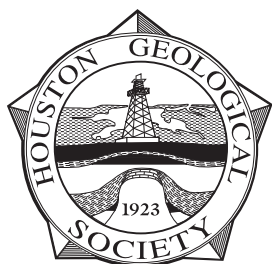
With over **6,000,000** well logs available, TGS provides high quality data from the most popular hydrocarbon plays around the globe.

TGS has expanded its well data library to include production data, directional surveys, mud log data and formation tops. Each format can be conveniently accessed online, through the online well data portal LOG-LINE Plus!®.



Learn more at [WWW.TGS.COM](http://WWW.TGS.COM)





# The Bulletin

## Houston Geological Society

Volume 55, Number 8

April 2013

### In Every Issue

- 5 From the President**  
*by Martin Cassidy*
- 7 From the Editor**  
*by Patricia Santogrossi*
- 34 GeoEvents Calendar**
- 55 HGS Membership Application**
- 56 HPAC**
- 57 Professional Directory**

#### Houston Geological Society

##### OFFICERS

Martin Cassidy *President*  
Barry Katz *President-elect*  
Justin Vandenbrink *Vice President*  
Mike Erpenbeck *Treasurer*  
Shannon Lemke *Secretary*  
Patricia Santogrossi *Bulletin Editor*  
*Bulletin Editor-elect*

##### DIRECTORS

John Adamick  
Beverly DeJarnett  
John Dombrowski  
Gary Coburn

##### HGS OFFICE STAFF

Nina Hoeny *Office Manager*  
Christina Higginbotham *Office Committee Chair*

##### EDITORIAL BOARD

Patricia Santogrossi *Editor*  
*Editor-elect*  
Fang Lin *Advisory Editor*  
Ed Marks *Advisory Editor*  
James Ragsdale *Advisory Editor*  
Charles Revilla *Advisory Editor*  
Nina Hoeny *Advertising Editor*  
Lisa Krueger *Design Editor*

The Houston Geological Society Bulletin (ISSN-018-6686) is published monthly except for July and August by the Houston Geological Society, 14811 St. Mary's Lane, Suite 250, Houston, Texas 77079-2916. Phone: 713-463-9476; fax: 281-679-5504

**Editorial correspondence** and material submitted for publication should be addressed to the Editor, Houston Geological Society Bulletin, 14811 St. Mary's Lane, Suite 250, Houston, Texas 77079-2916 or to [psanto@statoil.com](mailto:psanto@statoil.com)

**Subscriptions:** Subscription to this publication is included in the membership dues (\$24.00 annually). Subscription price for non-members within the contiguous U.S. is \$30.00 per year. For those outside the contiguous U.S. the subscription price is \$46.00 per year. Single-copy price is \$3.00. Periodicals postage paid in Houston, Texas.

**POSTMASTER:** Send address changes to Houston Geological Society Bulletin, 14811 St. Mary's Lane, Suite 250, Houston, Texas 77079-2916

### Technical Meetings

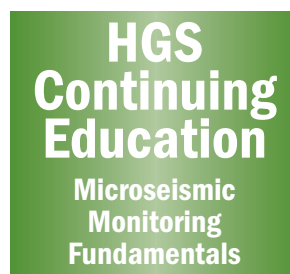
- 21 HGS General Dinner Meeting**  
Old Playgrounds with New Games to Play
- 25 HGS Environmental & Engineering Dinner Meeting**  
The Technical and Practical Aspects of Underground Storage Tank Installation and Repair
- 27 HGS Northsiders Luncheon Meeting**  
Controls on Reservoir Development in the Toca Formation of Block 0, Offshore Cabinda, Angola
- 29 HGS Joint North American and International Dinner Meeting**  
Passive-margin Salt Basins: Hyperextension, Evaporite Deposition, and Salt Tectonics

### Other Features

- 12 Candidates for the 2013-2014 HGS Executive Board**
- 39 SIPES Luncheon Meeting**  
Ancient Backwaters and Baylines: Slope Magnitude and its Control on Deltaic Facies Partitioning in Ancient Deltaic Systems
- 45 Government Update**  
*Henry M. Wise and Arlin Howles*



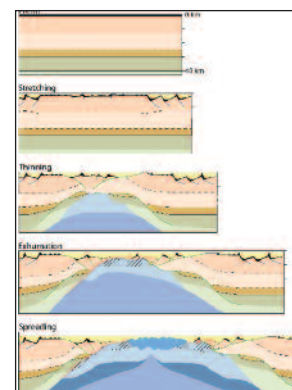
page 4



page 6



page 21



page 29

**About the Cover:** Outcrops of the Carboniferous Ross Sandstone, western Ireland.

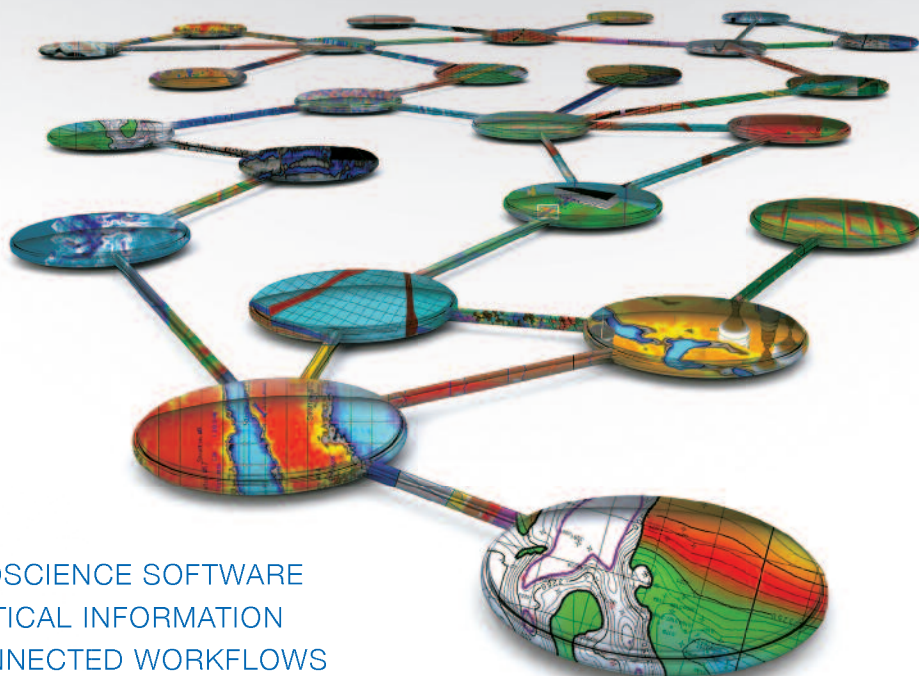
Photo by Claudio Bartolini ([www.internationalshot.com](http://www.internationalshot.com))

© Copyright 2013 Claudio Bartolini. All rights reserved.

#### Ross Formation - Upper Carboniferous Deepwater Sediments

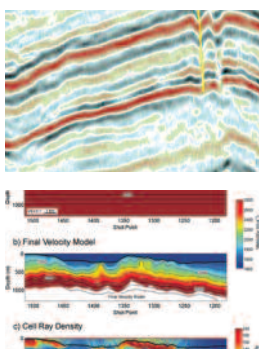
The Ross Formation outcrops range from cliffs such as these that can be viewed from a boat or small plane to rocky foreshores that are accessible from the nearby roads and fields. The quality of these outcrops makes it possible to examine the principal architectural elements of deepwater lobes and channels that form the Ross Sandstone.

The Ross Sandstone Formation is thickest in the area of south Clare (c. 380-460 m) and thins towards the north, east and south. It is primarily composed of sandstone with subordinate interbedded shales and slumped deposits of mixed lithology. Up to nine thin, yet laterally extensive, 'marine bands' also occur within the formation. These indicate that the duration of the Ross Formation may have been of the order of 500-900ky (Martinsen et al., 2008).



- > GEOSCIENCE SOFTWARE
- > CRITICAL INFORMATION
- > CONNECTED WORKFLOWS

# CONNECTED AT EVERY TOUCH POINT



Streamline data transfer and simplify project sharing with IHS geoscience software and critical O&G information.

The IHS suite of geoscience software—which includes IHS Petra®, Kingdom®, LOGarc™ and GeoSyn™—is designed to seamlessly connect to the industry's leading source of critical Oil & Gas information, eliminating the need to move data manually from source to source and project to project. With this powerful new combination, users can streamline data transfer, enhance database performance and simplify project sharing. The result? Workflows that connect like never before.

Connected workflows mean that IHS customers spend less time looking for data and more time looking for the next big opportunity. It's just one of the many ways that IHS helps to advance the decisions that advance the Oil & Gas industry.

**Find out more at [IHS.com/geoscience](http://IHS.com/geoscience)**





## Board of Directors 2012–13

[http://www.hgs.org/about\\_hgs/leadership.asp](http://www.hgs.org/about_hgs/leadership.asp)

President (P)	Martin Cassidy	University of Houston	713-503-8331	mcassidy.hgs@gmail.com
President-elect (PE)	Barry Katz	Chevron	832-854-6989	bjkatz.hgs@gmail.com
Vice President (VP)	Justin Vandenbrink	Weatherford	832-205-4063	justin.vandenbrink@weatherford.com
Secretary (S)	Shannon Lemke	Vitruvian Exploration	832-458-3150	shannon.lemke@gmail.com
Treasurer (T)	Mike Erpenbeck	Ziff Energy	832-418-0221	mike.erpenbeck@hotmail.com
Editor (E)	Patricia Santogrossi	Statoil	832-228-6245	editor@hgs.org
Editor-elect (EE)				
Director 11-13 (D1)	John Adamick	TGS	713-860-2114	john.adamick@tgs.com
Director 12-14 (D2)	Beverly DeJarnett	BEG	713-381-6522	bev.dejarnett@beg.utexas.edu
Director 12-14 (D3)	John Dombrowski	Peace River Group, LLC	281-920-0055x12	jdombrowski@peacrivergroupplc.com
Director 11-13 (D4)	Gary Coburn	Murphy Oil	281-782-7021	GaryCoburn.hgs@gmail.com

Committee	Chairperson	Phone	Email	Board Rep.
AAPG House of Delegates	Bonnie Milne	832-661-6666	bonniemilne@gmail.com	P
GSH Liaison	Steve Earle	281-435-5020	steve.hgs@gmail.com	P
Ad Hoc Advertising	Nina Hoeny	713-463-9476	nina@hgs.org	E
Africa Conference	Al Danforth	713-780-8622	al.danforth@att.net	P
Arrangements (hotel contracts)	Justin Vandenbrink	832-205-4063	justin.vandenbrink@weatherford.com	VP
Awards	Mike Deming	281-589-6093	michael.deming@deepwater.com	VP
Ballot/Elections	Paul Hoffman	713-871-2350	phoffman@jlaev.com	S
Calvert Fund	Carl Norman	713-461-7420	dod895@aol.com	PE
Christmas Party	Kelly Limbaugh	713-922-2913	KF.limbaugh@gmail.com	D3
Continuing Education	Rosemary Laidacker	713-805-9672	rmlgeo@gmail.com	D1
Directory	Michael S. Benrud	713-785-8700 x104	mhenrud@sbres.com	D1
Earth Science Week	Martha McRae/Marc Fagelman	713-869-2045	mcrae_1125@comcast.net	D2
Educational Outreach	Jennifer Burton	832-607-0074	jlbgeo@comcast.net	D2
Engineering Council of Houston	Claudia Ludwig	713-723-2511	petra@hal-pc.org	D2
Environmental & Eng. Geologists	Matthew Cowan	713-777-0534	mrcowan1@hal-pc.org	VP
Exhibits	Bill Mason/Bryan Guzman	281-367-0357	bill@masonenergy.com	D3
Field Trips	Anton Wroblewski	281-293-2923	Anton.F.Wroblewski@conocophillips.com	D1
Finance	Joe Lynch	281-496-9898 x134	jly@sptgroup.com	T
Foundation Fund	John Adamick	713-860-2114	john.adamick@tgs.com	PE
General Meeting	Justin Vandenbrink	832-205-4063	justin.vandenbrink@weatherford.com	VP
Golf Tournament	Mark Dennis	281-494-2522	mdennis@petrolog.com	D4
Government Affairs	Arlin Howles/Henry Wise	281-753-9876/281-242-7190	tideny@yahoo.com/hmwise@yahoo.com	D4
Guest Night	Dave Reynolds	281-636-5178	dreynolds@fairfieldnodal.com	D4
HGS New Publications	Bill Rizer	281-392-0613	rizerwd@gmail.com	D1
Houston Energy Council	Sandi Barber	713-935-7830	sandibarber@ihs.com	PE
HPAC	Edie Bishop	713-467-8706	ewbishop@bishorb.com	S
Imperial Barrel	Connie Mongold	713-857-9958	connie.mongold@shell.com	D2
International Explorationists	Scott Thornton	713-210-8318	sthornton@paexploration.com	VP
Legends Night	vacant			P
Membership	Sharie Sartain	281-382-9855	smsartain1@comcast.net	S
Membership Growth	Jeff Allen	713-871-2350	jeffallen@allen.hoffman.com	D3
Mudstone Conference	Frank Walles	832-472-8496	fwalles@talismanusa.com	P
Museum of Natural Science	Inda Immega	713-661-3494	immega@swbell.net	D2
NeoGeos	Sameer Baral	440-941-7121	sameer.baral@gmail.com	D3
Nominations	Steve Earle	281-435-5020	steve.hgs@gmail.com	P
North American Interest Group	Steve Getz/Donna Davis	713-304-8503	sgetz@sbcglobal.net	VP
Northsiders	David Tonner	713-264-2167	david.tonner@weatherford.com	VP
Office Management	Christina Higginbotham	281-620-7835	christina.hgs@att.net	PE
Publication Sales	Dennis McConnell	281-362-4743	dennis.mccConnell@morganstanleysmithbarney.com	D1
Remembrances	Art Berman	713-557-9067	bermanae@gmail.com	EE
Shrimp Peel	Lee Shelton	281-381-1093	clshelton4@yahoo.com	D4
Skeet Shoot	Tom McCarroll	713-419-9414	tom_mccarroll@yahoo.com	D4
Social Media	Dianna Phu	281-236-3131	hgs.socialmedia@gmail.com	D3
Tennis Tournament	Steve Brachman	713-268-8810	sbrachma@petro-hunt.com	D4
Vendor's Corner	Paul Babcock	713-859-0316	Pbabcock@nfrenergy.com	TE
Volunteer Coordinator	Lucy Plant	713-369-6122	lplant@fugro.com	P
Web Management	Sandi Barber	713-935-7830	sandibarber@ihs.com	D3
HGS Office Director	Nina Hoeny	713-463-9476	nina@hgs.org	





# HGS Tennis Tournament

*Friday, April 5th, 2013*

Houston Racquet Club  
10709 Memorial Drive  
11:30 a.m. until 5:00 p.m.



Registration Fee is \$55. Registration Deadline is March 29th.

This will be a round-robin tournament, doubles only, no elimination. Partners determined by random draw in each round. Players with the four highest individual scores will advance to finals. Trophies awarded for first and second place in each division. Divisions may be combined based upon number of players. Door prizes will be awarded by blind drawing. All competitors are automatically entered into the door prize drawing, but you must be present to win.

Lunch will be provided prior to the event. Refreshments will be available throughout the day.

For more information, contact: Steve Brachman at 713-268-8810 off, 713-562-8415 cell or sbrachma@petrohunt.com

## HGS TENNIS TOURNAMENT REGISTRATION FORM

Name: \_\_\_\_\_ Company: \_\_\_\_\_

Email: \_\_\_\_\_ Phone: \_\_\_\_\_

Division (Circle one):    **A**       **B**       USTA Rating (if known) \_\_\_\_\_

Registration Fee: **\$55** + Sponsor Contribution: \$ \_\_\_\_\_ = Total: \$ \_\_\_\_\_

Make Checks Payable to: The Houston Geological Society.

Mail Check and Registration Form to:

*Houston Geological Society  
14811 St. Mary's Lane  
Suite 250  
Houston, TX 77079-2916  
Attn: Steve Brachman, HGS Tennis Tournament*





**Martin Cassidy**  
mcassidy.hgs@gmail.com

## Spread the Word Through Science, Fellowship, and Fun

Communication is central to science, to business, and to our society. Have you ever said to your colleagues — “Oh, I had that idea years ago!” A professor recently said to me, after such a remark, “So why didn’t you publish the idea? Thinking of things is of limited use if you do not publish.” That is a little harsh, perhaps, but rings true. One is tempted to respond with all the reasons, all valid, that one doesn’t write and/or publish. Yet each excuse can be overcome, and there are many good reasons to spread the word of new ideas. Science is built on ideas of workers like us. Ideas are passed on via the spoken word, and also in writing.

But why write? First of all, it may help consolidate your ideas. It is one thing to talk to your peers, even to prepare a PowerPoint presentation, but quite another to write it out. Illustrations do not stand by themselves but require explanation. Written in longhand or typed into a computer, the words are specific, the ideas they describe call for facts to confirm them, and / or compelling images to convey them. The words remain ready for review, for crafting, for further elaboration. Are there others who should be co-authors? Get their input. Later one can go back to your words and determine if they convey exactly what you want to say. Are the ideas clear and explicit?

Wisely, one can sleep on the words and come back a day, or days, later after mature deliberation, and perhaps a dream or two. The work will be there as you left it. If you are pleased with it in the cold light of morning, then it is ready to share!

Many of us work in companies where the next step is to submit the work to obtain permission to publish. This is a positive step because it will get a more serious review than an initial presentation to management. As a representation of the company; perhaps management will be pleased to showcase how clever the company is. On the other hand they may reject publication because they value the competitive advantage of idea. Is that not what we want? We want exposure or at least appreciation of our work. Perhaps the company may want just a section of sensitive

data removed and will then approve publication. It is a winning situation all round.

There are many places to publish, with varying methods of submission and levels of prestige. *AAPG Bulletin* submissions are peer reviewed, as are many of the more specialized publications such as those for *SEPM*. Meetings, forums, symposia, both national and local, all seek papers for presentation. Your publication may take the form of an extended abstract, a Search and Discovery article for the AAPG, or of a conference paper. Having created the work, you can then reduce it to a short oral presentation. Once you’ve “taken it on the road”, the full paper might be published later once you’ve gained feedback from audiences.

*Science is built on ideas  
of workers like us.  
Ideas are passed on via  
the spoken word, and  
also in writing.*

Some companies favor meeting attendance by those who plan to present papers and you may get to travel to a location of interest to you at company expense. Local luncheon meetings, dinner meetings, and conferences of the Houston Geological Society (HGS), provide an opportunity to present and give exposure of both yourself and your ideas to friendly crowds, at little expense, and with little risk.

### Fellowship

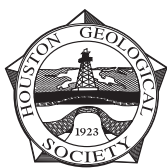
Why expend the effort in what probably is your personal time? The material may help your peers, our science in general, and your personal development. You may become known in the greater community outside your company. You gain knowledge as the listeners relate to you their experiences with the topic. Within your company, there may be technology transfer forums to which you may be invited.

Fellowship is enhanced within the HGS, and any organization, when you have something interesting to present. Your good talk may bring in non-members to a meeting, introduce them to HGS, and result in increases to our HGS membership. Your open communication encourages others to do the same.

From The President continued on page 9



The Houston Geological Society Continuing Education Committee Presents



## Microseismic Monitoring Fundamentals

**Speaker: Joël Le Calvez, Ph. D.**

**Schlumberger**

**Thursday, April 4, 2013**

### Overview and Outline

Understanding fracture geometry is key to effective stimulation treatments and well economics. Microseismic fracture monitoring provides imaging of the geometry of a hydraulic fracture to accurately measure fracture geometry. Accurately measuring the fracture geometry offers precise data on hydraulic fracture systems to increase understanding of the fracturing process. This increased understanding in real time will:

- Reduce well stimulation costs
- Optimizes field drilling plans
- Allows changes in perforation strategies and plan diversion schemes to be made on fly.

The course is intended for geologists and geophysicists who need to have fundamental understanding about microseismic and/or identify and interpret fracture geometry from microseismic data.

### The following will be covered in this one-day course:

- Source of microseismic signals
- Detection and location in microseismic acquisition
- Select monitoring systems
- Interpret and integrate microseismic data

### Pricing

HGS GSH Member:	\$105.00
Non-Member:	\$125.00
Emeritus/Life/Honorary	\$70.00
Student Member	\$70.00
Student Non-Member	\$85.00

**There is room for 150 attendees.**

**Date:** Thursday, April 4, 2013 • 8 a.m. – 5 p.m.

**Location:** Western Geco, 10001 Richmond Ave., Houston, TX 77042

**Please make your reservations on-line through the Houston Geological Society website at**

**[www.hgs.org](http://www.hgs.org)**

For more information about this event, contact HGS Office • 713-463-9476 • [office@hgs.org](mailto:office@hgs.org)



### Biographical Sketch

Joël Le Calvez graduated with a B. Sc. degree in Physics from the University of Nice. He completed a M. Sc. degree in Geosciences from the University of Nice-Sophia Antipolis prior to graduating from the University of Paris VI with a pre-doctoral degree in Geodynamics. He has since earned a Ph. D. in Geology at the University of Texas at Austin where he specialized in structural geology, salt tectonics and physical modeling. He worked for the Bureau of Economic Geology at the Applied Geodynamics Laboratory, where he developed an interest in graben and fault linkage, extensional tectonics, and modeling. Since 2001, Joel has been working for Schlumberger as a geologist, focusing on the field of induced microseismicity and hydraulic fracturing. He actively participates in the development of the processing, visualization and

interpretation software which Schlumberger currently uses in monitoring of the induced microseismicity coupled with hydraulic fracture treatment and other applications (e.g., CO<sub>2</sub> sequestration, geothermal injection, etc.) utilizing downhole, shallow wellbores and surface arrays. He is currently the North America Microseismic Domain Expert for Schlumberger and manages the processing groups in US Land while providing training and support to the international processing groups.





Patricia Santogrossi  
editor@hgs.org

## HGS Members Pursue Their Call to Aid Our Community in Retirement

A friend recently requested that I write a humorous column. Well, I am so joke-challenged, I can rarely retell a joke I have heard, even minutes later. I like to tell stories and I have used this column to tell a few of mine. This month I would like to tell another's stories.

My good friend and fellow HGS member, Rosemary Mullin, sent me a recent article from the *Houston Chronicle* by Jayme Fraser on Citizen Scientists that included a bit about our mutual friend, Neal Immega. It occurred to me that though Neal and his perfect "other half," Inda, had been honored and recognized many times before, (eg. the *Shell Alumni News*, August 2008) I still felt they might be a good subject for a members' profile in the *HGS Bulletin*.

One of the things I personally recognize that one may miss when you retire or go to a smaller company is access to tools and data. That's especially true when one's scientific interest requires investments in costly equipment whether it be a workstation; or saws, sanders, and pneumatic airbrushes; or access to extensive libraries.

*Neal and Inda's expertise  
and infectious enthusiasm  
make exhibits come alive  
for listeners.*

The *Chronicle* article centered on Neal's affiliation with the clubhouse of the Houston Gem and Mineral Society (HGMS, see 100 Word Wonder, p. 11) which makes a variety of hobbies affordable for beginners and keeps a facility in southwest Houston for the use of amateur and or "semi-pro" paleontologists, archaeologists, "rock hounds" and jewelry makers. Some people

with home workshops prefer to work there because HGMS' equipment reliably works thanks to machinists, mechanics, and skilled tinkerers who are among their treasured club members.

Not all retired geoscientists should be called amateurs. Two of our HGS members are experts who have enriched visitors' experiences as docents at Houston Museum of Natural Science (HMNS) for many years.

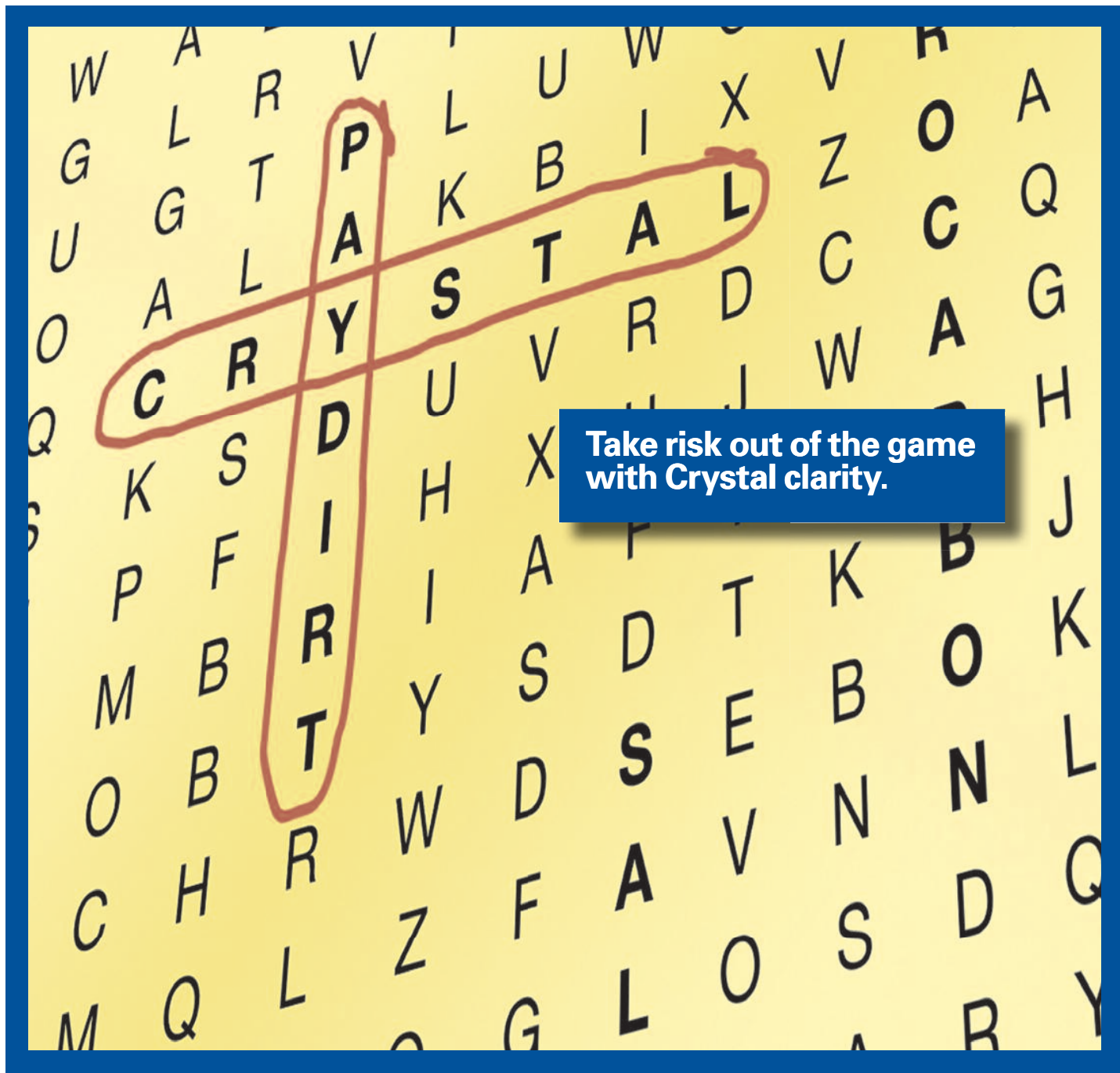
When you sign up for a tour with either Dr. Neal or Dr. Inda Immega at HMNS you will experience some of the best HGS members have to offer to the community. Visitors have access to the storehouse of knowledge the couple has gleaned through their life-long love of learning. Neal and Inda's expertise and infectious enthusiasm make exhibits come alive for listeners.

Since they retired in 1999, Neal from Shell E&P Technology Co. and Inda from Shell E&P International Ventures, the two have led tours for thousands of people whose "importance" ranges from kindergarteners to heads of state. You decide which group is most critical (**Figure 1**) and which may be most fun for them and their audience. "We love to interact with people and we always learn something new," says Inda, who logged more volunteer hours last year than any other museum volunteer. She considers herself and Neal ambassadors for the profession; their job to spread enthusiasm for science.



**Figure 1:** Inda works to identify and label specimens at the Fort Worth Gem and Mineral Society in 2012. Photo by Susan Thielker, FWGMS.

From The Editor continued on page 9



**Take risk out of the game  
with Crystal clarity.**

## PGS MultiClient GULF OF MEXICO

### **Revolutionary technology reveals Garden Banks/Keathley Canyon like never before.**

SEE IT ALL. SEE IT NOW. With the clearest seismic data to-date in the Gulf of Mexico's most promising region, it's nothing less than a game changer.

- hyperTomo™ increases velocity conformity to geology with more detailed and accurate modeling
- Dramatically improved subsalt imaging via TTI RTM
- Best of all, it's **AVAILABLE NOW**

[gominfo@pgs.com](mailto:gominfo@pgs.com)

**A Clearer Image**  
[www.pgs.com](http://www.pgs.com)





### Fun

Now for fun: I urge each of you, in whatever specialty in geoscience or the business of oil and gas, to think through some of the hot topics of the day. We are all representatives of the business, our company, the HGS. In any social situation someone may ask, for example, “What is this fracking controversy?” Are you knowledgeable enough and prepared to answer that question?

As was pointed out in the AAPG Playmakers forum in late January, for any presentation one should have three versions, the “elevator” version that is 30 seconds to one minute long, the short discussion version of 4-5 minutes, and the less used, full presentation version. For many topics, I use the short version. For example, I particularly enjoy telling others the following about global warming: “Yes, it is a fact, the ice just left New York only 22,000 years ago.” The opportunity to interact with others comes up suddenly and we need to be ready.

## From the Editor

continued from page 7

Neal, a paleontologist, and Inda, a mineralogist, also research the museum’s special exhibits and prepare presentation materials. They also train other volunteers. When possible, their work is likely to start as much as a year before the exhibit is scheduled to arrive, Inda says.

Their preparation is apparent in the current exhibit “Maya 2012”, which made its worldwide premier in Houston. It features artifacts that represent thousands of years of Mesoamerican history. On tour through the galleries, the Immegas are able to speak easily about the languages, culture and religion of the region as visitors explore cases filled with rarely seen rubbings from Mayan carvings, stone tools, pottery, and recreated mural rooms. In a display that focuses on natural resources, Inda uses a geologic map to underline the difference between the karst terrain of the northern part of the

A special opportunity to explain geoscience topics to friends and relatives will occur at the annual HGS Guest Night which will be held at the Houston Museum of Science on June 8<sup>th</sup>. The topic will address the findings of the new Mars rover. Invite friends and family, adults and children. You can see the “makeover” of the Paleontology Hall and its new dinosaur exhibit before the presentation.

A major mission of the HGS is communication of the value of our science. Here I have commented on three aspects of communication within the Houston Geological Society: communication of scientific ideas through publication and presentation, informal exchange of ideas as a form of fellowship, and communication during social activities. Hope you will all help spread the word about the value of our science and of the HGS! ■

Maya’s range and the volcanic Mayan highlands. “Everything is geology”, claims Neal gleefully, as he points out pyrite mirrors, jade ornaments, and knapped flint objects.

A visitor on one of Neal’s paleo tours cannot avoid catching some of his enthusiasm for the subject and, if you encounter Inda in the Fabergé exhibit, you are likely to hear about metamorphism and the formation of jade on your way to stories of the Romanovs.

The couple’s love for geology began when they were children. When Neal was about six years old, he discovered his father’s rock collection in the basement of the family home in St. Louis, Mo. The specimens had been collected in West Texas near where Big Bend National Park is now located. Neal says that he was fascinated and believed every one of those rocks had a story to tell. His interest in fossils grew so that while in high school he spent hours in the recovery of fossils, primarily blastoids a kind of sea lily, from an area near Millstadt, Ill. He found he could earn spending money if he sold some of his collections to Ward’s Natural Science in Chicago, a large supplier of scientific material to schools and universities.

Inda grew up in Giddings, TX about 60 miles east of Austin. Giddings is situated on an outcrop of some Tertiary formations that are full of petrified wood, jaspers, and other colorful rocks she recalls. One of her favorite escapes from her nine younger siblings was to go off rock hunting with her grandmother.

### Higher Education Together

It was kismet that two such people would someday meet. While in

From The Editor continued on page 11



**Figure 2:** Neal leads a children’s program at the Harris County Public Library.

# Get More



# from your Core

**With reservoirs becoming increasingly complex, you need the most accurate information you can get to better understand your reservoir.**

Weatherford Labs helps you get more from your core by combining an unsurpassed global team of geoscientists, engineers, technicians and researchers with the industry's most comprehensive, integrated laboratory services worldwide. From core analysis, sorption, geochemistry and isotopic composition to detailed basin modeling and comprehensive data packages, we provide you with real reservoir rock and fluid information that hasn't been distilled by a simulator or iterated by software.

We call it **"The Ground Truth™"** – giving you the accurate answers you need for better reservoir understanding. You'll call it a better return on your reservoir investment. To learn more, contact [TheGroundTruth@weatherfordlabs.com](mailto:TheGroundTruth@weatherfordlabs.com).



**Weatherford®**  
LABORATORIES

[weatherfordlabs.com](http://weatherfordlabs.com)



high school Neal and Inda attended separate National Science Institute summer workshops on geology at Texas A & M University (TAMU). The couple met as undergraduates at TAMU, where both majored in geology. Inda was the first woman to graduate from A&M with an undergraduate geology degree. They married, and then moved to Indiana University (IU) to pursue their doctorates. “Our honeymoon was a field trip down the Grand Canyon with IU’s geology club,” Inda says with a smile.

### The Shell years.

Neal and Inda went to work for Shell. That is where I had occasion to meet them. I met Neal first in the Pacific division where we both had roles in the 1979 Santa Barbara Channel sale. I do know that I bought, and still have, a beautiful gold with garnet ring and a necklace that he made. I don’t think I met Inda until later while I was at Pecten in the mid 80’s. She now admits that she has been involved in her follow-on career nearly as long as she was with Shell.

### And to the present

For Neal, geology is an avocation as well as a career. As president of the Houston Gem and Mineral Society’s (HGMS) Paleontology section and longtime member of the Houston Geological Society (HGS), he leads fossil-collection field trips, teaches classes, and oversees the HGMS’s education outreach program, which provides rock, gem and mineral kits which are collected and assembled by society members, to area schools.

Inda chairs the HGS’s committee for recruiting museum volunteers. At the museum, she also created the volunteer mentoring program, teaches classes in gems and minerals, and



**Figure 3:** Rare photo of Neal and Inda taken together, used courtesy of the Houston Museum of Natural Science.

serves as co-chair for the weekend docent program. A special delight for Inda is to help design children’s activities for special events — she says that a geologist never has to give up her colored pencils. (Here, Here, I am with her on that!)

“The coolest thing about volunteerism is that people say please and thank you, and if you don’t want to do something you can say no,” Inda says. “Neal and I consider our volunteer work as jobs — a reason to get up in the morning and an excuse to get things done.” Please enjoy these photos of Neal and Inda at work and at play! ■

### One Hundred Word Wonder

The Houston Gem and Mineral Society (HGMS) is a not for profit organization dedicated to study in areas of earth science and related arts. The society is open to rock hounds and fossil nuts of all ages. Originally founded in 1948 as a Lapidary club, HGMS (1955) produces exhibitions and shows. Today HGMS features special interest sections in paleontology, mineralogy, lapidary, faceting, “Day Light” (for daytimers), archaeology, and youth. They hold monthly meetings (see [hgms.org](http://hgms.org) for location and times) and membership fees are reasonable. In addition, HGMS maintains clubhouse facilities with extensive lapidary and fossil preparation facilities open for member use on Saturday afternoons.

## Letter to the Editor

Dear Patricia,

I am in awe of the effort you put into your role as editor of the HGS Publication. Your commentaries, especially the tutorial aspects are excellent. I do not see how you have the time to get it

done. In any case I am one appreciative reader.

Regards and continued success,

Norman Neidell



# Candidates for the 2013–2014 Executive Board

## Houston Geological Society Officer Election

The candidates put forth by the Nominations Committee are:

**President-elect:** Tarek Y. Ghazi, Kenneth E. Nemeth

**Vice President:** Tom Bjorklund, Mike Deming

**Secretary:** Bryan Guzman, Kelly Forrest Limbaugh

**Treasurer-elect:** Grant Fergeson, Joe Lynch

**Editor-elect:** David Miller

**Directors (2 positions):** Jim Beck, Allan Filipov,

Richard J. Germano, Allen Mattis

### HGS Election Voting Instructions

HGS members will soon receive a ballot with biographical sketches of the candidates.

Members will be able to vote in one of two ways:

by returning the paper ballot that will be delivered in the mail,

OR

by voting online following instructions that will be delivered by e-mail.

**PLEASE VOTE** – Upon receiving the paper ballot or the e-mailed instructions!

The voting period opens April 10, 2013 and continues to May 10, 2013.

## President-elect (two candidates)



### Tarek Y. Ghazi

#### Education:

B.S. Geology, Stanford University, 1976

M.S. Geology, Stanford University, 1982

#### Experience:

2010–Present Canadian International Oil (USA) Corp. - IT and Geoscience Technology Manager  
2007–2010 Aramco Services Company - Geoscience Specialist  
2005–2007 GeoKnowledge USA, Inc. - Technical Director  
2002–2005 Gaffney, Cline & Assoc. - Senior Geologist  
2000–2002 Delta R, LLC - Operations Manager  
1996–2000 Landmark Graphics Corp. - Product Marketing Director  
1976–1996 Conoco, Inc. - Staff Geologist

#### Professional Affiliations:

HGS, AAPG, SPE

Texas Professional Geoscientist License #5204

#### Professional Activities:

2012–present HGS Website Committee  
2009–2011 HGS Board – Director  
2009–2010 HGS Website Manager and E-Mail Blaster  
2007–2008 HGS International Explorationists Group Committee Chairman



### Kenneth E. Nemeth

#### Education:

M.A., Geology, University of Texas @ Austin, 1976

B.A., Geology, Albion College, Albion, Michigan, 1973

#### Experience:

Schlumberger (1998–current)  
Browning Oil Co., Inc. (1991–1998)  
Contract Employment (1987–1991)  
Adobe Resources (Adobe Oil & Gas Corp.) (1982–1987)  
BlueSky Oil & Gas (1981–1982)  
Louisiana Land & Exploration (1980–1981)  
Shell Oil Company (1976–1980)

#### Professional Affiliations:

AAPG  
Houston Geological Society  
Dallas Geological Society  
West Texas Geological Society  
Corpus Christi Geological Society

#### Professional Activities:

##### Houston Geological Society:

Honorary Membership, 2010  
Office Committee Chairman, 2007–2010  
Outstanding Service Award, 2007

Tarek Y. Ghazi continued on page 18

Kenneth E. Nemeth continued on page 18





# Candidates for the 2013–2014 Executive Board *(continued)*

## Vice President (two candidates)



**Tom Bjorklund**

**Education:**

Ph.D., Geology, University of Houston,  
2002  
M.A., Geology, University of Texas, 1962  
B.S., Geology, Caltech, 1960

**Experience:**

2003–present Research Scientist, Department of Earth and  
Atmospheric Sciences, University of Houston  
Petroleum Geology Consultant, Houston  
1995–2002 Graduate student, University of Houston  
Petroleum Geology Consultant, Consultant  
1993–1994 Senior Geological Associate, Amoco Production  
Company, Houston  
1992–1993 Director of Exploration, Amoco Pakistan  
Exploration-Islamabad, Pakistan  
1991–1992 Senior Geological Associate, Amoco Production  
Company, Houston  
1990–1991 Chief Geologist, Amoco Orient Oil Company-  
Shekou, PRC  
1989–1990 Chief Geologist, Amoco Trinidad Oil Company,  
Port-of-Spain  
1981–1988 Division Exploitation Geologist, Amoco  
Production Company, Denver  
1978–1981 Staff Geologist, Amoco Production Company-  
Denver  
1966–1978 Senior Geological Engineer, Shell Oil Company-  
Los Angeles, Houston and New Orleans  
1962–1966 Geologist, Chevron Oil Company, Denver,  
Salt Lake City and Vernal, Utah

**Professional Affiliations:**

American Association of Petroleum Geologists  
American Geophysical Union  
Geological Society of America  
Houston Geological Society  
Pioneer Oil Producers Society  
Sigma Xi  
Society of Independent Professional Earth Scientists  
Texas Board of Professional Geoscientists License #3734

**Professional Awards and Activities:**

I regularly participate in local and national meetings of  
professional societies as presenter, volunteer, attendee, and publish  
scientific articles.

**Tom Bjorklund** *continued on page 19*



**Mike Deming**

**Education:**

M.S. Geology and Geophysics, University  
of Missouri, Rolla, Missouri  
B.S. Earth Science, Missouri State  
University, Maryville, Missouri

**Experience:**

2012–present Applied Drilling Technology International  
2008–2012 Challenger Minerals Inc.  
2003–2008 Swift Energy International  
2000–2003 Phillips Petroleum  
1979–2000 Amoco Production Co.

**Professional Affiliations:**

HGS, AAPG, AAPG HoD, DPA, SIPES, AGS, SEAPEX, IPA

**Professional Awards and Activities:**

HGS Distinguished Served Awards (2011)  
HGS President's Award (1997)  
“Best Geologist in the World” from Mrs. Nolte's 4<sup>th</sup> Grade Class  
(2012)  
HGS Awards Chairperson (2004–2013)  
HGS Poster Chairperson (2000)  
HGS Treasurer (1998–1999)  
HGS Membership Chairperson (1993–1997)  
AAPG HoD (1998–2001, 2004–2006, 2012–2014)  
TGS Cont. Ed Chairman (2001–2003)

**Statement:**

When I moved to Houston in 1979 one of my first stops was the  
HGS office to fill out an application form for membership in the  
Houston Geological Society. Back then, the HGS Office was a small  
cubicle in the back of a printing company. The HGS has really  
grown since the 70's. Due to committed volunteers the HGS  
delivers numerous talks each month, puts on conferences, authors  
and sells publications, has a first class website, field trips, classes,  
scholarships, and more. Personally, I have found HGS to be a great  
organization for learning, keeping up with industry trends,  
networking, and fellowship. I have been a volunteer for the HGS  
since 1993 in many different facets of the organization. As a  
committed volunteer I am honored to accept candidacy for the  
office of Vice President of the HGS. ■



# Candidates for the 2013–2014 Executive Board *(continued)*

## Secretary (two candidates)



### Bryan Guzman

#### Education:

B.S. Geology University of Texas at San Antonio

#### Experience:

2007–2008 Geo-Tech Balcones Energy Library  
2008–2013 Geologist Ingrain Inc.

#### Professional Affiliations:

HGS  
AAPG

#### Professional Activities:

Judge AAPG Conventions/Poster Sessions  
AAPG Annual Convention & Exhibition 2009 Speaker  
2011–Present HGS Co-Chairman Exhibits Committee

#### Statement:

From first time I joined the HGS I have enjoyed the benefits of education, networking, and friendship. I am honored to be considered for HGS Secretary. While with the HGS, I have spent much of my time working on the Exhibits Committee which organizes the set-up and transportation of the HGS booth for various conventions throughout the year. It has been a pleasure meeting many people along the way and I am thankful for the opportunities the HGS has provided me with such a position. Now that I have become more familiar with the society and its members, I would like to have the opportunity to serve on its Board in the capacity of HGS Secretary. ■



### Kelly Forrest Limbaugh

When I began my career in this industry, one of the first events I attended was an HGS luncheon. I have been involved ever since and have enjoyed being a part of this wonderful organization.

When I attended the annual Christmas Party, I offered to take over and with the blessing of the previous chairman. I have chaired the event for three years. It has grown slowly to become a popular winter party. I am proud that this accomplishment earned me the HGS Rising Star award in 2010.

Due to my volunteer spirit, I wish to become more involved and be a part of this ever-improving organization, so I am running for Secretary.

In 2008, I joined Global Geophysical Services selling multi-client services. From there, I moved into the marketing department where I planned, organized and implemented trade show strategy for NAPE, SEG, AAPG and other venues for nearly four years. I am currently with Tsunami Development where I sell seismic processing software and help with marketing, trade shows, newsletters and events.

The skills I gained as a teacher and the knowledge I have acquired while in HGS will assist in my success.

On a personal note, I have a daughter who is a freshman at UT, three boys, two of whom are teenagers and the other an 11-year old. I also have a two-year-old Cavalier King Charles Spaniel. I enjoy reading, yoga, skeet shooting and running. I just completed my eighth half marathon. One of my firm beliefs is: "If you want something done, give it to a busy person". If you see me around, please stop me and say "hello" as I would love to meet as many HGS members as possible.

Thank you and I look forward to the opportunity to continue to serve HGS. ■



## Treasurer-elect (two candidates)



### Grant Ferguson

Grant Ferguson is a geologist with over thirty years of experience in onshore and offshore exploration and development. He is currently employed in Houston, TX by Devon Energy Corporation as a Senior Geological Advisor. His experience ranges

from Paleozoic to Mesozoic resource plays in Texas, Louisiana, and Michigan, to Tertiary conventional plays throughout the Gulf Coast Basin.

Mr. Ferguson has been engaged in diverse roles in his career as an independent consultant and business owner, and in affiliation with private and public E&P companies. He is a graduate of the University of Texas at Austin with a B.S. degree in Geological Sciences. He is certified as a Petroleum Geologist by the Texas Board of Professional Geoscientists and by the Division of Professional Affairs of the American Association of Petroleum Geologists. He is also a member of the Society of Professional Earth Scientists and the Houston Geological Society.

Mr. Ferguson is past President and Treasurer of the South Texas Geological Society in San Antonio, TX, and has served as Technical Session Chairman and Entertainment Coordinator for the AAPG Convention.

#### Statement:

The HGS has been an invaluable source of technical education, business connections and social interaction throughout my career. To be asked to stand for Treasurer-elect is an honor. I welcome the opportunity to serve the HGS and give back in this way. To serve on the HGS board in this capacity is a significant responsibility and, if elected, I will apply the time and energy necessary to effectively carry out the duties required of that role. ■



### Joe Lynch

#### Education:

B.S., Geology, University of Nottingham (UK)

M.B.A., Business, University of Warwick (UK)

#### Experience:

My oil industry career started in 1980, working mostly exploration wells in West Africa and North Sea. Following a short time as an independent consultant in the mid 1980's, I started and managed a thriving consultancy company, Barrel Consultants Ltd. Afterwards, it was back to technical work as an Operations and Development Geologist, which included three years with Kerr McGee, London. This was followed by an exciting time with a start-up company that investigated oil & gas opportunities in recently opened-up Russia in the early 1990's.

The mid 1990's saw me with Roxar's reservoir modeling group, first in London, and then in Houston as Regional Manager for the Americas. Subsequently I went to Landmark where I became Product Manager for their engineering optimization solution, DMS. I now work for SPT Group in Houston, managing their Reservoir Optimization group in North and South America.

#### Professional Affiliations:

HGS, AAPG, SPE.

#### Professional Activities:

2003–2006 HGS Vendor Corner Committee Chair.

2006–present HGS Finance Committee Chair.

2009 HGS President's Award.

2010 HGS President's Award.

#### Statement:

I am delighted to have been asked to stand for election as Treasurer-elect of the HGS. I have been Chair of the Finance Committee since 2006. This has involved me in the budgeting process of the HGS and given me a good understanding about how the organization works as most of the HGS committees either raise funds, need funds, or both. During my time on Finance, I have steadily tried to simplify the budget process for the committees. The Finance Committee also coordinates management of the HGS investment funds, which have grown healthily despite the turmoil in financial markets over the last few years. ■



# Candidates for the 2013–2014 Executive Board *(continued)*

## Director – Two-year term *Vote for two candidates*



**Jim Beck**

**Education:**

B.S. Geology, Iowa State University

**Experience:**

2006–2013 President, Tiger Eye Resources  
 2006–2011 Chairman, Foundation for Energy Education  
 1996–2006 President, Seneca Resources  
 1989–1996 Vice President Geology, Seneca Resources  
 1970–1989 Transco, ANR, Schlumberger

**Professional Affiliations:**

HGS, AAPG, IPAA, TAEP, Texas Professional Geologist #6760  
 Board Member Texas Alliance of Energy Producers

**Statement:**

The Houston Geological Society is the premier society in Texas to help train, develop and promote geologists in the energy industry. I would consider it a privilege to use my experience as a geologist, manager, director, and energy educator to help the HGS continue its successful programs and expand its outreach into new areas. A successful organization is only as good as the members who work to make it a success. If elected, my job as a director would be to ensure that the staff and membership have the necessary resources to continue to grow our society, educate our fellow members, and encourage new candidates into our profession. Thank You for your consideration. ■



**Allan Filipov**

**Education:**

M.S. Geology, University of Massachusetts  
 B.S. Geology, University of Rhode Island

**Experience:**

Current: GSFI, Principle/Geologist  
 2012 NEOS GeoSolutions, Business Development  
 2004–2012 Fairfield Industries, Sales Manager, GOM and southeast Asia  
 2003 Tricon Geophysics, Sales and Marketing  
 1993–2003 Seitel, Inc. Offshore Marketing Manager  
 1989–2003 First Seismic Corporation, Sales Rep  
 1985–1989 Amoco Production Company, Geologist  
 1981–1983 Welex, A Halliburton Co., Well Logging Engineer

**Professional Affiliations:**

American Association of Petroleum Geologists  
 AAPG Division of Professional Affairs Petroleum Geologist #6069  
 Society of Exploration Geophysicists  
 Houston Geological Society  
 Geophysical Society of Houston  
 Southeast Asia Petroleum Exploration Society  
 Indonesian Petroleum Association

**Professional Activities:**

2010–Present SEAPEX Houston Chapter organizer  
 2009–Present Houston Gem and Mineral Show  
 2002–2006 HGS Golf Tournament Chairperson  
 1996–2002 Volunteer geologist at area schools  
 1997–2000 Volunteer geologist Houston Museum of Natural Science

**Statement:**

I would be honored to serve on the Board of the Houston Geological Society as a Director. I've enjoyed my previous volunteer experience and I look forward to be able to give back to the society that provides so much to area students and professionals. ■





# Candidates for the 2013–2014 Executive Board *(continued)*

## Director – Two-year term *Vote for two candidates*



### Richard J. Germano

#### Education:

B.S., Earth and Space Sciences, State University of New York, Stony Brook  
M.S., Geology, University of Minnesota

#### Experience:

My career began as a petroleum geoscientist with Chevron, USA, where I conducted development well programs, field, and regional studies in the guts of the Mississippi Delta's Shelf deposits. My exploration experience broadened at Superior Oil (now ExxonMobil), and at Wainoco Oil where I enhanced my understanding of and extended my experience in Gulf of Mexico, South Texas Frio/Vicksburg, and South Louisiana sediments, as well as Oklahoma's Golden Trend.

The 80's oil price shock prompted a career adjustment which resulted in employment by Petroleum Information, now IHS, where I managed, enhanced, developed and marketed computerized geological databases, global interpreted exploration studies, associated digital data, and upstream software applications. This ultimately led to progressively more encompassing, full time sales roles there and, subsequently, at Energy Graphics, Inc.

In 2004, I established Fast Energy Data, LLC to provide subscription based, detailed activity maps for the Gulf of Mexico and South Louisiana as well as associated GIS data and services.

#### Professional Affiliations:

AAPG, HGS

#### Statement:

As a survivor of several industry boom and bust cycles, as well as acquisitions and mergers, I can relate to the demands and challenges the Houston Geological Society and its membership face in the coming years. To keep the HGS an energetic, meaningful and viable organization it must focus on issues of direct relevance to the membership. Among them are the attraction of new members from newly minted and seasoned colleagues, the encouragement of members to submit articles for publication, the provision of training that is of practical use to all geoscience professionals, and the promotion of fiduciary responsibility. If elected Director, it would be an honor to focus my skills and abilities on these and other challenges as I represent fellow members of the Houston Geological Society. ■



### Allen Mattis

#### Education:

B.S. Geology and Speech, University of Wisconsin – Superior  
M.S. Geology, University of Minnesota – Duluth  
Ph.D. & M.Phil. Geology, Rutgers University

#### Experience:

2011–Present Knowledge Reservoir, Geological Consultant  
2011 INEXS – Interactive Exploration Solutions, Inc., Geological Consultant  
2009–2010, IHS CERA, Geological Consultant  
2003–2009 Total E&P USA, Geological Advisor  
1998–2002 Phillips Petroleum Company, Senior Geological Specialist  
1997–1998 Norcen Explorer Inc., Deepwater Geologist  
1980–1996 Amerada Hess Corporation, Division Geologist  
1975–1980 Texaco Inc., District Geologist

#### Professional Affiliations:

AAPG, GSH, HGS, SEG, SEPM, SIPES  
AAPG Certified Petroleum Geologist #2585  
SIPES Certified Earth Scientist #2952

#### HGS Activities:

1985–1986 HGS/GSH Directory Committee  
1997–Present Mentor Docent, Museum of Natural Science Committee  
1996, 2001, 2006 & 2011 AAPG Convention Teachers Program Committee

#### Statement:

In 1985 during the “Great Oil Bust” I was transferred from Tulsa to Houston and immediately joined the Houston Geological Society. Over the years I have benefitted greatly from hearing the talks at HGS luncheon and dinner meetings, attending short courses, and in recent years, attending the excellent AGC Mudrocks Conference. HGS social activities have provided me with abundant networking opportunities. At this point in my career, I feel it would be a good time for me to give something back to HGS and I would therefore like to serve as a Director. ■



# Candidates for the 2013–2014 Executive Board *(continued)*

## Editor-elect (one candidate)



### David Miller

#### Education:

Bachelor of Science in Geology,  
University of Wisconsin – Madison  
Master of Science in Geology, University  
of Wisconsin – Madison

#### Experience:

2012 Present Statoil North America, Inc., Leading Geologist  
1981–2011 Total, various domestic and international, such as  
Nigeria, Venezuela, and Brunei, technical and  
management positions.  
1979–1981 Mobil, Geologist

#### Professional Affiliations:

AAPG, HGS, Texas Licensed Professional Geologist (#2667)

#### Statement:

I consider this position as an opportunity to help to maintain the very high standards set by past editors and, as I have recently returned to the United States after several years in expatriation, an excellent opportunity for me to re-integrate into the vibrant Houston geological community. The editor's position is challenging and, to be honest, a bit daunting, but I am confident that I can serve well the Houston Geological Society well.

*continued from page 12*

### Tarek Y. Ghazi—*Candidate for President-elect*

2006–2007 HGS International Explorationists Group Treasurer  
2011–2012 AAPG Houston-Area House of Delegates Foreman  
2010–2013 AAPG Houston-Area House of Delegates  
2004–2005 AAPG Continuing Education Courses (2) –  
Assessment, Classification and Reporting of Oil  
and Gas Reserves – Co-Instructor  
2010–2011 SPE Books Development Committee Chairman  
2007–2010 SPE Books Development Committee Member  
2003–2006 SPE Forum Series – Co-Chairman for one Forum,  
and SPE Liaison for a second Forum. Served on  
the Forum Series Implementation Committee -  
Western Hemisphere.

#### Statement:

In the summer of 2010, I had some time on my hands during an assignment with Aramco Services in Dhahran, and filled part of it by reading an unassuming little book called *A Country Doctor* by Sarah Orne Jewett. While reading the mildly entertaining story, I happened upon an unexpectedly powerful passage that explains my whole approach to the pursuit of happiness in a few elegantly crafted words. It reads, "... the secret to happiness in this world is not only to be useful, but to be forever elevating one's uses." By running for President, I hope to further elevate my uses to the HGS, which began when I served as Treasurer and then Chairman of the International Explorationists Group, rose through my work as manager of the HGS website and e-mail communications, and culminated with my participation on the HGS Board as a Director. In each of these roles, I have sought to elevate the uses of our

Society to its members, our local community and the world at large through very enjoyable collaborations with my fellow HGS volunteers. I look forward to continuing those collaborations in a leadership role, as we focus together on building membership, attracting more youthful participation, and keeping pace with a rapidly evolving energy industry. ■

*continued from page 12*

### Kenneth E. Nemeth—*Candidate for President-elect*

Guest Night Committee, 2005–2007  
Treasurer, 2004–2006  
Treasurer-Elect, 2004–2005  
Finance Committee Chairman, 2001–2005  
Website Committee, 2003–2004  
President's Award 2005  
Rising Star Award, 2003  
Entertainment Committee, Annual Shrimp Peel 1981–1985,  
Chairman 1983–85  
Employment Committee, 1986–1991  
Publicity Committee 1982 GCAGS Convention

#### AAPG:

AAPG IBA Committee, 2012–current  
Candidate for Vice President of Sections, 2011–2012  
Vice Chairman, Imperial Barrel Award Committee, 2009–2012  
Houston Geological Society, Alternate Delegate, 2012  
Employment Committee Chairman, 1997 National Convention,  
Dallas



# Candidates for the 2013–2014 Executive Board *(continued)*

*continued from page 18*

## **Kenneth E. Nemeth**—*Candidate for President-elect*

Dallas Geological Society, Alternate Delegate 1996–1998,  
1998–2000  
Dallas Geological Society, Delegate Vice-Chairman 1998–2000

### **GCAGS:**

Continuity Committee Chairman, 2010–2012  
Continuity Committee, 2006–2012  
Awards Committee, 2008–2011  
Past President, 2008–2009  
President, 2007–2008  
President-Elect/Vice-President, 2006–2007  
Section Point Coordinator and Committee for AAPG Imperial  
Barrel Award, student exploration contest, 2007.

### **SWAAPG:**

Candidate for President, 1999  
Southwest Section Secretary, 1998–1999  
Dallas Geological Society Delegate, 1997–1998  
Dallas Geological Society Alternate Delegate, 1996–1997

### **Dallas Geological Society:**

Newsletter Editor, Awards Committee Chairman 1998–1999  
Co-Founder and Steering Committee Chairman 1998  
Former Board Member, and Instructor, Ellison Miles  
GeoTechnology Institute, Brookhaven College, Dallas, TX  
1998–1999  
Outstanding Service Award, 1998  
Past President, Nominating Committee Chairman, 1997–1998  
President, News letter staff/editor, 1996–1997, Host Society for  
AAPG Convention  
President-elect/Secretary 1995–1996  
Employment Committee 1991–1995, Chairman, 1992–1995 ■

*continued from page 13*

## **Tom Bjorklund**—*Candidate for Vice President*

### **Statement:**

I thank the HGS leadership for the invitation to run for Vice-President. I accepted this invitation because I have enjoyed the benefits of HGS membership for nearly 20 years and service as Vice-President would be an opportunity to give back to the HGS.

The HGS was formed to effectively disseminate geological information to geoscientists. The most visible way that this objective is accomplished is through the HGS speaker program, which is the main responsibility of the Vice-President and the Technical Program Committee. If elected, I would hope to continue the excellent work of past Program Committees in bringing outstanding speakers to our meetings. To expand participation of geoscientists in HGS activities, I would work towards adding a geoscientists' blog to the HGS website. The blog could serve as a focal point to facilitate discussions of a wide range of local and national issues important to geoscientists, aid in identifying future speakers and educational programs, and provide feedback on how we are doing. I also would look forward to working with all of the HGS committees and volunteers on plans to host the 2014 AAPG convention. ■

# Vote in the HGS election.

## **One Hundred Word Wonder**

Crater Lake partly fills a nearly 2,148-foot (655 m) deep caldera that was formed around 7,700 years ago by the collapse of the volcano Mount Mazama (1896). No rivers flow into or out of the lake; the water's evaporation is compensated for by rain and snowfall at a rate such that the total amount of water is replaced every 250 years. While having no indigenous fish population, the lake was stocked from 1888 to 1941 with a variety of fish. Several species have formed self-sustaining populations. Crater Lake has two islands within it, Wizard Island (March 2013 cover) and "Phantom Ship" (inset) which is an exposure of the oldest rock of Mt Mazama in Crater Lake caldera.





# Marcellus Fairway Program

## Exploring Boldly



To date over 1,000 square miles, of the proposed 1,500, have been acquired of the multi-client data consisting of four high quality 3D surveys in the heart of the Marcellus. The CGGVeritas programs will be completed next year with imaging objectives ideal for the Marcellus Shale. Explore boldly with high-quality data in the right location.

Contact: Dennis Langlois  
+1 832 351 1052  
dennis.langlois@cggveritas.com

**Delivering SeisAble Benefits**  
[cggveritas.com/multi-client](http://cggveritas.com/multi-client)



Monday, April 8, 2013

Westchase Hilton • 9999 Westheimer  
Social Hour 5:30–6:30 p.m.  
Dinner 6:30–7:30 p.m.

**Cost: \$28 Preregistered members; \$35 non-members/walk-ups**

**To guarantee a seat, pre-register on the HGS website & pre-pay by credit card.**

**Pre-registration without payment will not be accepted.**

**Walk-ups may pay at the door if extra seats are available.**

## HGS General Dinner Meeting

*Carol Law*

*Fastnet Oil and Gas*

HGS General Dinner Meeting

# Old Playgrounds with New Games to Play

**F**astnet Oil and Gas, a Dublin-based independent exploration company, is breaking new ground in old areas. Fastnet has compiled an excellent acreage position (**Figure 1**) in offshore Morocco and offshore Ireland in the Celtic Sea where others dared to go in the past on the chase for the conventional plays of their day. However, times change, and while geology doesn't, our understanding of it certainly can. Modern seismic data and the success of new play concepts have made another serious look at both of these areas worthwhile.

Offshore Ireland has been given new life by high expectations for the Exxon well to be drilled later this year in the Porcupine Basin. The Celtic Sea in particular has become the focus of attention of many with the potential billion barrel field at Barryroe. Fastnet has built a significant operated lease position in the Celtic Sea (**Figure 2**) with all the trappings of success: a proven petroleum system, proximity to existing infrastructure, access to local markets, improved imaging on modern seismic data, and available running room to build on success.

This presentation will focus on the previous discoveries in the Shanagarry and 49/13 blocks, and will emphasize how behind-pipe pays in both blocks are being evaluated with modern technologies. Times have changed and so have price decks since these discoveries were made in the late '70s and early '80s, which significantly have changed the economic profile of these accumulations. The Molly Malone and Mizzen blocks offer the potential for implementation of an aggressive exploration program that started with the acquisition of modern 3D seismic data this spring. ■

### Biographical Sketch

**CAROL LAW** is a geologist by profession. She has over 28 years experience in the petroleum industry in exploration management, exploration geology, research, and consultation in a variety of geological settings worldwide. During her career, Ms. Law has been involved in exploration activities in more than 40 countries and has been a member of teams responsible for discoveries such as



**Figure 1:** Fastnet Oil and Gas Global Portfolio

Rovuma Gas in Mozambique, Jubilee in Ghana, multiple Campos Basin discoveries in Brazil, Nikaitchuq in Alaska, Bohai Bay in China, Angola, the Gulf of Mexico, and elsewhere. Most recently she was Exploration Manager for East Africa and the Caribbean for Anadarko Petroleum Corporation, responsible for the play that found the Prosperidade gas complex in Rovuma Area 1, offshore Mozambique. She earlier held a number of senior roles with Kerr McGee and BP/Amoco.



**HGS General Dinner** continued on page 23



IF YOU THINK INVESTING IN CABLE-FREE SEISMIC IS EXPENSIVE,

**CHECK  
YOUR  
DOWNTIME  
FIGURES.**

For cable-free seismic done right,  
go to **[fairfieldnodal.com/truecablefree](http://fairfieldnodal.com/truecablefree)**



S Y S T E M S   A C Q U I S I T I O N   L I C E N S I N G   P R O C E S S I N G   I M A G I N G

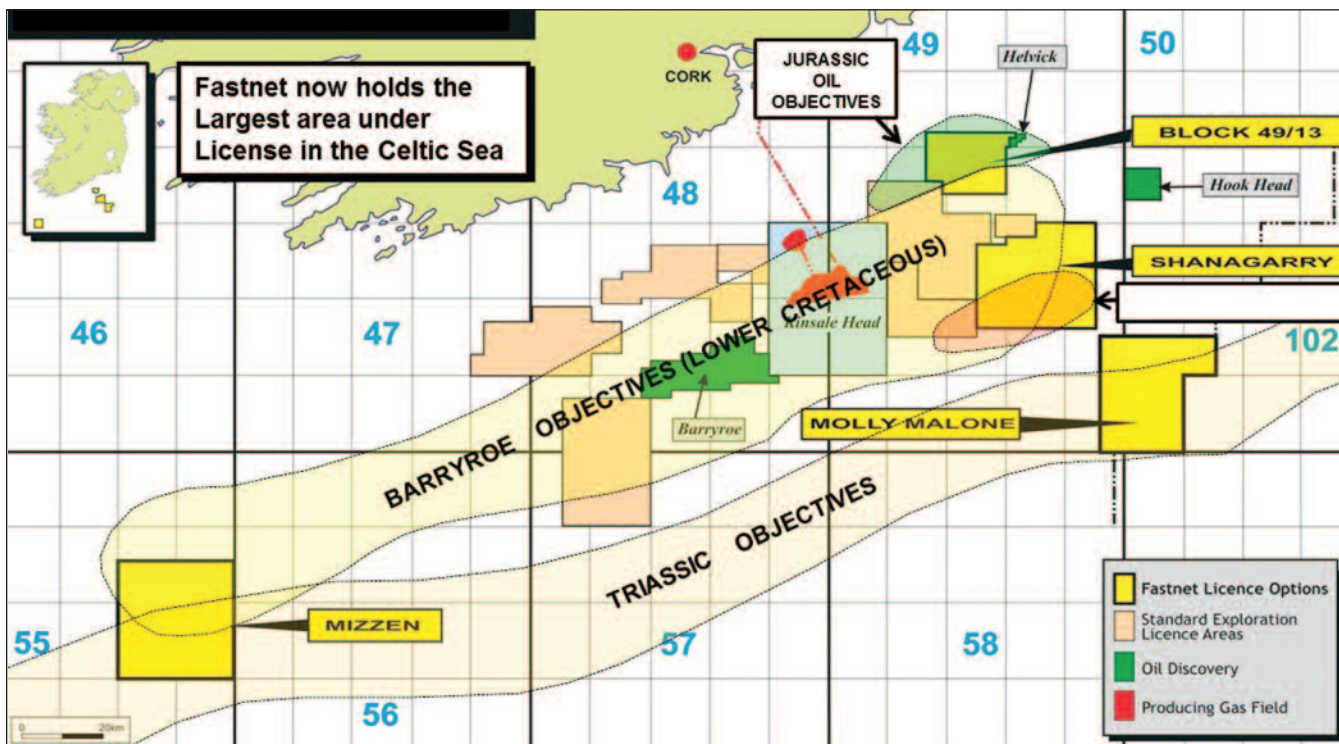



Figure 2: Fastnet Oil and Gas Celtic Sea License Areas



blueback reservoir  
GeoScience Solutions Partner

Blueback Reservoir the preferred and chosen **GeoScience Solutions Partner**

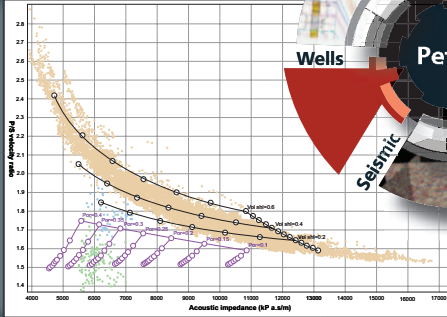
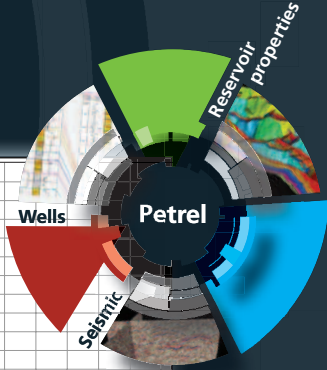
Try something new. Find something better.

## Blueback Rock Physics


plug-in for Petrel\*

**Bridging the gap between geology and geophysics**

The complete suite of rock physics tools for quantitative interpretation across multiple domains within Petrel.

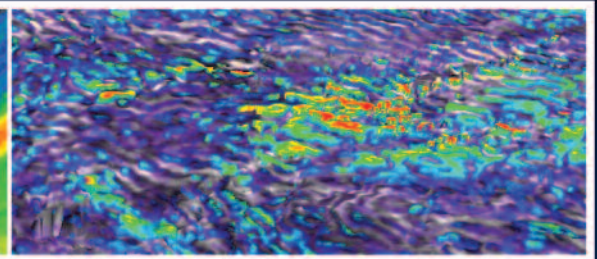
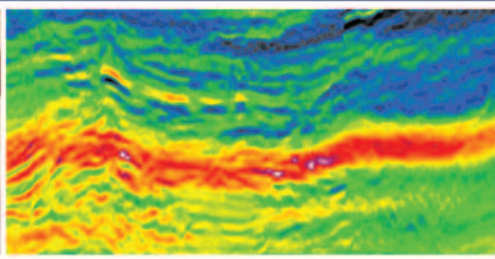
\*Mark of Schlumberger



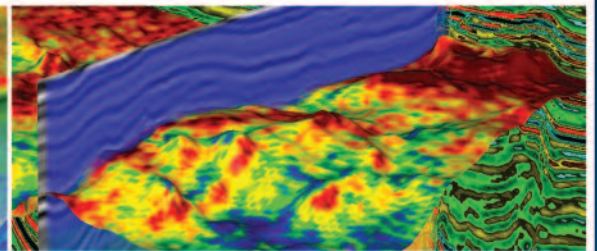
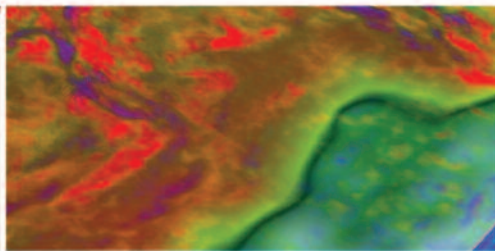
**Blueback Reservoir** [blueback-reservoir.com](http://blueback-reservoir.com)

E [sales@blueback-reservoir.com](mailto:sales@blueback-reservoir.com) | T +1 832 327 5400

[blueback-reservoir.com/rockphysics](http://blueback-reservoir.com/rockphysics)



# a ROCK SOLID OPPORTUNITY



Are you interested in working with a team of dedicated geoscience professionals to create and apply leading-edge technology to geophysical problems?

*If so, Rock Solid Images, an acknowledged leader in Quantitative Interpretation grounded in rock physics, is interested in hearing from you about your interest in the following positions:*

## Vice President, Quantitative Interpretation Technology

This senior scientist will play an integral role in the development and implementation of our reservoir characterization services through their expertise in rock physics and seismic inversion methods. This key team member will work directly with our clients, our QI services organization and our R&D group to deliver solutions for complex exploration and production challenges. As an industry recognized expert in seismic processing and rock-physics, a passion for mentoring and learning is paramount.

## Senior Research Geophysicist

As a senior member of our R&D team, this geophysicist will make major contributions to our need-driven research in the areas of seismic and electromagnetic reservoir characterization, and interact regularly with our services group. With a working knowledge of signal and seismic processing, seismic inversion algorithm processes and practice, and seismic attribute analysis, the successful candidate will have an intuitive feel for seismic data. A wide degree of creativity and latitude is expected.

Contact our CTO, Lucy MacGregor, in confidence at:  
[opportunity@rocksolidimages.com](mailto:opportunity@rocksolidimages.com)

Rock Solid Images is an equal opportunity employer and ensures equal opportunity in regards to race, color, age, religion, sex, disabilities, national origin or veteran status.



**Extraordinary Results. By Any Measure.**

[RockSolidImages.com/Careers](http://RockSolidImages.com/Careers)



Wednesday, April 10, 2013

Black Lab Pub, Churchill Room • 4100 Montrose Blvd.

Social 5:30 p.m., Dinner 6:30 p.m.

Cost: \$25 Preregistered members; \$30 non-members/walk-ups

To guarantee a seat, pre-register on the HGS website & pre-pay by credit card.

Pre-registration without payment will not be accepted.

Walk-ups may pay at the door if extra seats are available.

## HGS Environmental & Engineering Dinner Meeting

Paul R. Dunphey

Dunphey Petroleum Services, Inc.

# The Technical and Practical Aspects of Underground Storage Tank Installation and Repair

With over twenty years in the storage tank business, I have rare insight in the complex business of the installation of huge underground storage tanks that hold explosive and carcinogenic substances, namely gasoline and diesel fuels. The systems must be designed and installed with strict observance of federal and state regulations involving engineering and environmental practices. Since the 1990s, the complexity of these systems has rapidly expanded to include integrated dispenser systems, electronic fleet management software, point of sale interfaces, additional fuel types such as ethanol and low sulfur fuel, air pollution management systems, overfill and spill capture systems, leak detection monitoring and reporting, corrosion protection, and a myriad of other man-made and nature-induced challenges. See how the TCEQ rules impact this business with a rare glimpse inside the industry from an expert in the typically unobservable world of underground storage. ■

### Biographical Sketch

PAUL DUNPHEY attended Northrup University and studied Aerospace Engineering in Los Angeles, California in the mid 1980s. He worked

for Continental Airlines in the late 1980s in airplane production and then switched to the oil and gas business in the 1990s. From 1991 until 1997, Mr. Dunphey was involved in the building of fueling service stations and the manufacture of underground and above ground storage tanks. Founded in 1993, Paul owns and operates Dunphey Petroleum Services, Inc, one of the largest installation and repair businesses that deals with underground storage tanks in Harris County. He is involved with many civic and charitable organizations that include service as a City Council Member for the City of Seabrook, and as a Board Member for Boys & Girls Harbor and for the Galveston Bay Foundation.



### THUNDER EXPLORATION, INC.

Celebrating 30+ years of prospect generation and exploration in the following South Texas plays and trends.

Frio	San Miguel	Edwards
Jackson	Austin Chalk	Pearsall
Yegua	Eagle Ford	Sligo
Wilcox	Buda	Cotton Valley
Olmos	Georgetown	Smackover

Thunder is currently seeking non-operated working interest participation in projects and prospects.

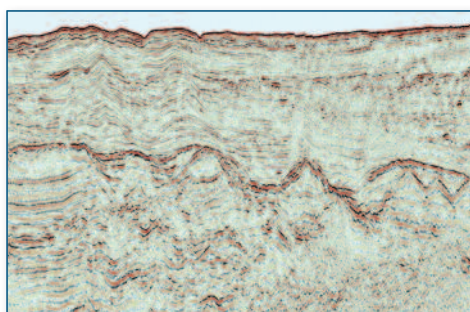
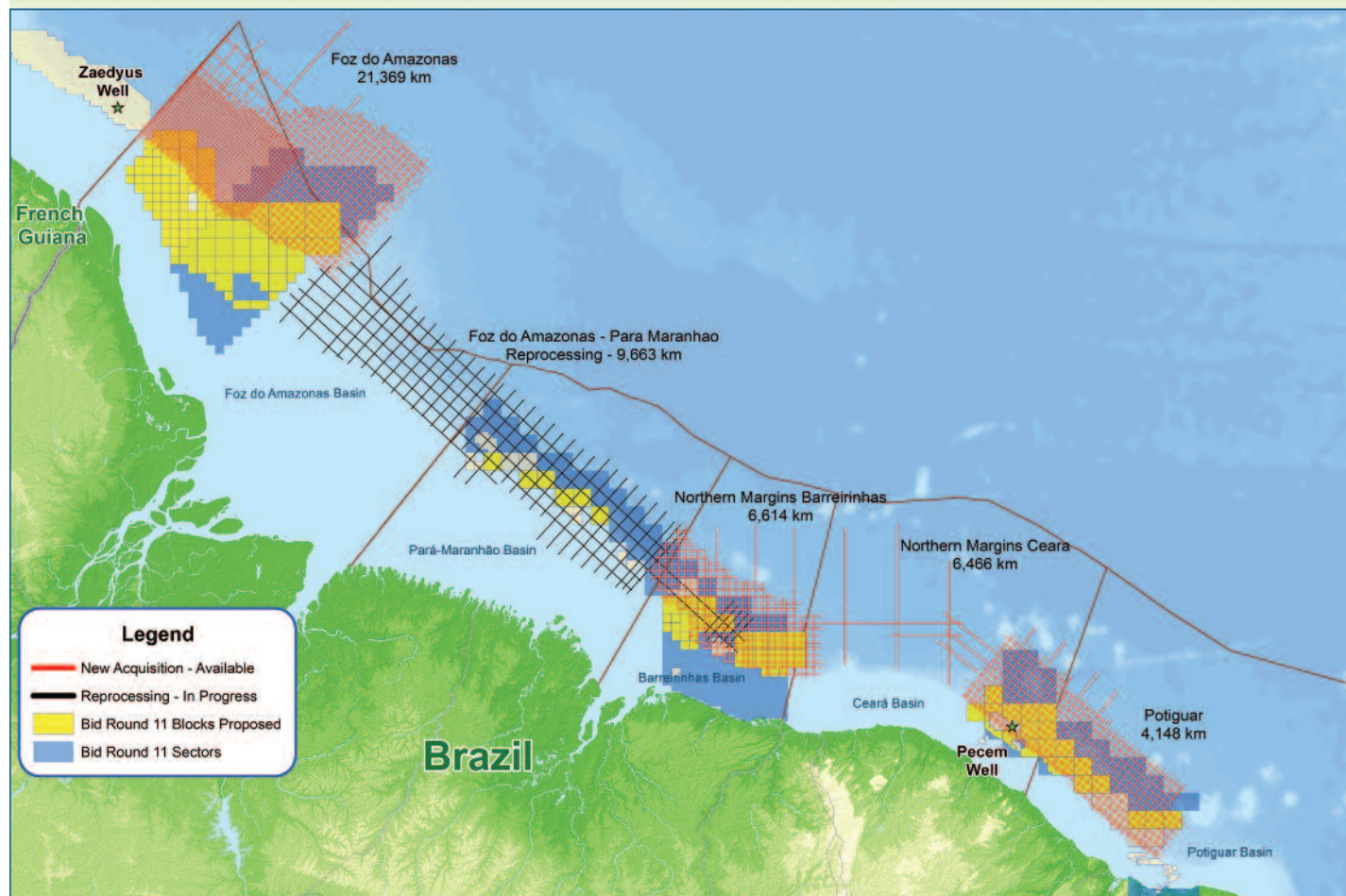
Contact Walter S. Light Jr.  
President/Geologist

713.823.8288  
EMAIL: wthunderx@aol.com



# Equatorial Margins Brazil

Multi-Client Seismic - Amazonas, Ceara and Barreirinhas Basins



Canyon Features from Foz do Amazonas Survey (Phase I)

Brazil's President Dilma Rousseff has now ratified the long-awaited licensing Round 11 and the ANP has released the blocks to be included in Round 11 which is anticipated to close in May 2013.

Spectrum is active in five basins along the Equatorial Margins of Brazil. We have PSTM and PSDM data available for each of the Foz do Amazonas, Barreirinhas and Ceara surveys all of which were acquired with 10,000 m offsets and 13 second record lengths. In addition we have completed acquisition of a 4,200 km survey in the Potiguar basin and fast track migrated stacks are now available for this survey. Final data from the Potiguar survey will be available in April.

Spectrum has also started reprocessing 26,000 km of recently released public domain data from the Foz do Amazonas, Para-Maranhao, and Barreirinhas basins which will be available in Q2 2013.



+1 281 647 0602  
@ mc-us@spectrumasa.com  
www.spectrumasa.com

Tuesday, April 16, 2013

Hyatt North Houston (former Crowne Plaza Hotel - Greenspoint)  
425 North Sam Houston Pkwy E

Social 11:15 AM, Luncheon 11:30 AM

Cost: \$31 pre-registered members; \$35 for non-members/walk-ups

To guarantee a seat, pre-register on the HGS website & pre-pay by credit card.

Pre-registration without payment will not be accepted.

Walk-ups may pay at the door if extra seats are available.

## HGS Northsiders Luncheon Meeting

Matt Wasson, Art Saller, Dan Self  
Chevron Energy Technology Company

HGS Northsiders Luncheon Meeting

# Controls on Reservoir Development in the Toca Formation of Block 0, Offshore Cabinda, Angola

Lacustrine carbonates are important reservoirs in Block 0, Offshore Cabinda, Angola, with total production from Toca carbonate reservoirs of more than 450 MMBO mainly from three fields. A recent discovery in the Toca in western Block 0 has led to renewed interest in Toca reservoirs. Toca carbonates are interbedded with Bucomazi shales and were deposited during the early sag stage of the break-up of Gondwana during the early Cretaceous. The Toca contains fossiliferous grainstones to wackestones with variable amounts of microbially-mediated grains such as oncoids, ooids, and other facies including boundstones similar to those deposited in today's East African Rift Lakes (Cohen and Thouin, 1987). The main reservoirs in the Toca are hydrothermally-dolomitized fossiliferous grainstones and packstones, formerly mollusk coquinas. Grainstones to wackestones and boundstones with microbially-mediated grains like oncoids are common, but are generally not productive reservoir facies within Block 0.

The diagenetic history of Toca deposits was critical to the development of reservoirs. Early diagenesis of the Toca includes recrystallization and dolomitization. In places, later burial diagenesis was influenced by faulting and hydrothermal fluids. Stable carbon and oxygen isotopic analyses of cores and cuttings show a distinction between early, syndepositional dolomite with heavy oxygen values and later, hydrothermal dolomite with light oxygen values. Isotopic variations in the Toca have also helped interpret lake chemistry and how that influenced depositional patterns and diagenesis.

Stratigraphic correlation of the Toca between western and eastern Block 0 has been difficult due to the rifting across the block. Biostratigraphy was used for correlations within the Toca and for determination of the age of the Toca. Core description and facies stacking patterns helped refine correlations along strike.

Results of this study indicate that the optimal conditions for Toca reservoir formation are proximity to rift-related faults and fracture systems that acted as conduits for dolomitizing hydrothermal fluids, and depositional facies with good primary permeability and porosity intersected by faults and fractures. Hence, the best reservoirs are hydrothermally-altered grainstones and packstones. Dolomitization is also critical for preservation of reservoir porosity during deep burial. Dolomites commonly have porosity while adjacent limestones have lost porosity due to compaction. ■

### Biographical Sketch

MATTHEW WASSON is a geologist in the carbonate technical services group for Chevron Energy Technology Company in Houston, Texas. Before he took that position in 2011, he worked as a geologist for Chevron in Midland, Texas, from 2006 on a variety of fields in the Permian Basin. He received a Bachelor of Science degree in Geology from New Mexico State University in 2003 and a Master of Science degree in Geology from the University of Michigan in 2005.





### Domestic & International Services

Specialists for 26 Years

#### Integrated Biostratigraphic and Seismic Sequence Stratigraphy

Specialists in 80 countries, 15 different Microfossil Groups, Cambrian -Recent

#### Gulf of Mexico

Onshore / Offshore / Subsalt

#### Shale Gas

Bossier / Haynesville / Eagleford / Marcellus

#### Rocky Mountain Basins

Overthrust / Uinta / Powder / Big Horn

#### Nevada - California



#### Africa

#### Poland

#### Middle East

#### Southeast Asia / China

#### Eastern Mediterranean

#### Central & South America

### MICRO-STRAT INC.

5755 Bonhomme, Suite 406, Houston, TX 77036  
Phone: 713-977-2120, E-Mail: msiw@Micro-Strat.com  
Website: www.Micro-Strat.com

Correlate Biostratigraphy, Logs and Seismic on  
MICRO-STRAT's SMT Workstation



Lowstand Sand Distribution in  
Deepwater Basin with Shelf Slope Break





# Welcome to the New World: Petrophysics that Pays Off.



Petrophysical Solutions, Inc.

DISCOVERIES DRIVE VALUE™

[www.petrophysicalsolutions.com](http://www.petrophysicalsolutions.com)

Presenting the PSI "Gulf of Mexico Database."

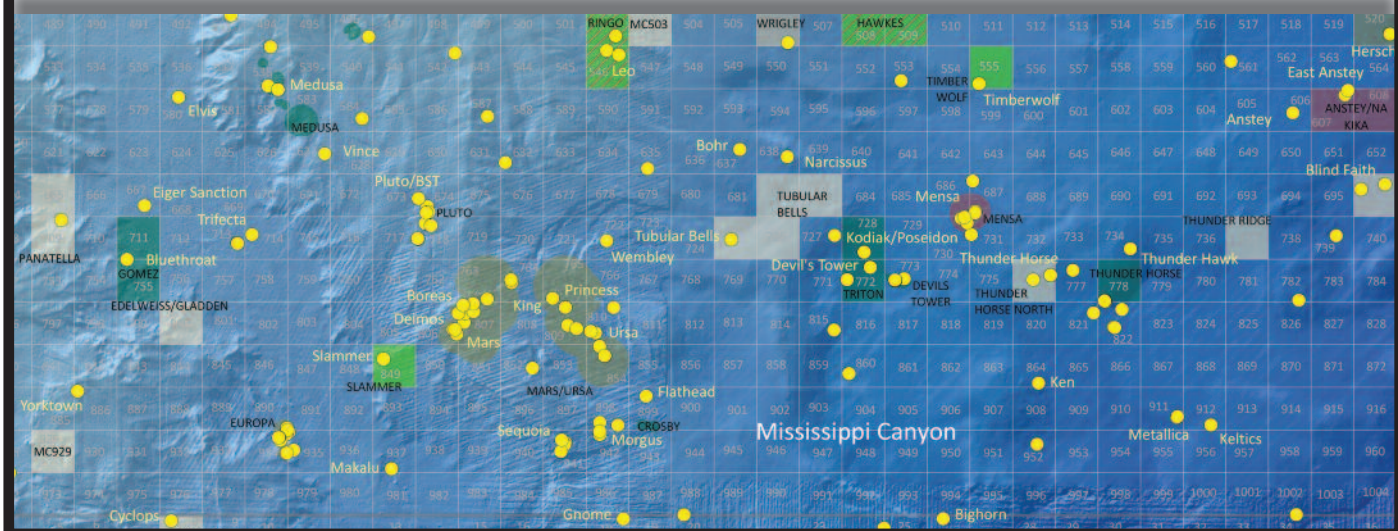
Our experienced petrophysicists have edited and evaluated over 1,200 wells drilled in deepwater.

The result is a library of interpretations for the DWGOM that includes rock physics, shale volume, porosity, and water saturation. They're easy to use, with properly edited curves and consistent curve names.

The PSI brand of petrophysics is analytical, trustworthy – and independent. Find out how we can power your new world of discovery.

Call (281) 558-6066 today.

© 2009 Petrophysical Solutions, Inc. All rights reserved.





Mark G. Rowan

Rowan Consulting Inc.

Boulder, CO

## Passive-margin Salt Basins: Hyperextension, Evaporite Deposition, and Salt Tectonics

Salt on passive margins is traditionally classified as **prerift**, **synrift**, or **postrift**. However, these categories are based on outdated models of crustal-scale extension. Here, I propose a revised classification that links salt basins to modern concepts of hyperextended margins that invoke a four-stage history: stretching, thinning, exhumation, and spreading (Péron-Pinvidic and Manatschal, 2009). I will examine the implications for evaporite deposition and subsequent deformation and will illustrate each type with specific passive-margin salt basins (**Figure 1**).

**Prerift salt** (**Figure 2**) is extended along with its substrate and cover. First it decouples the two levels. Eventually, dependent on evolving salt thickness, it links them on larger stretching faults, particularly on thinning and exhumation faults. The base salt has considerable structural relief, and diapirs initiate via thick-skinned extension. Gravitational deformation is influenced by the ramp-flat geometry of the salt detachment. Examples are the Western/Basque Pyrenees and Bay of Biscay. There, Upper Triassic salt was subjected to Lower Cretaceous stretching, thinning, and exhumation.

**Syn-stretching salt** is deposited during extension on steep faults. It is concentrated in proximal areas, and its thickness distribution is determined by the rift geometry and is modified during ongoing extension. The salt decouples extension of any cover and the substrate, again dependent on the evolving thickness. Diapirs initiate during thick-skinned extension, and gravitational deformation is minor. The best examples are the conjugate margins of Iberia and Newfoundland. Here salt was deposited in proximal Upper Triassic to Lower Jurassic rift basins, but not in distal areas where Upper Jurassic to Lower Cretaceous thinning and exhumation were concentrated.

**Syn-thinning salt** is deposited in a mostly symmetric basin initially centered over the H-block. The base salt develops significant relief due to continuing extension on thinning faults, and the salt is highly attenuated or completely offset on the largest faults. Attenuation also occurs during mantle exhumation as the salt is stretched and thinned over the widening zone of exhumation. Salt deformation is triggered by both thick- and thin-skinned (gravitational) processes, and allochthonous nappes may form at the toe. A probable example is the northern Red Sea, where the base salt overlies steep stretching faults but is offset by lower-angle thinning faults. This results in a ramp – i.e., a flat décollement that accommodates proximal extension, complex translational geometries, and distal contraction and salt inflation.

HGS Joint North American and International Dinner continued on page 31



**Figure 1.** Map showing distribution of passive-margin salt basins discussed.

# Register now for URTeC — the integrated event for asset teams

## UNCONVENTIONAL RESOURCES TECHNOLOGY CONFERENCE

FUELED BY SPE • AAPG • SEG

12–14 AUGUST 2013 • DENVER • COLORADO CONVENTION CENTER

REGISTRATION AND HOUSING  
OPENS 1 APRIL AT [URTEC.ORG](http://URTEC.ORG)

Make plans to attend the Unconventional Resources Technology Conference (URTeC), 12–14 August 2013 in Denver. URTeC is a multi-disciplinary event focusing on multiple resource plays and is supported by three of the world's leading scientific organizations — SPE, AAPG and SEG.

URTeC will kick off with an unforgettable Plenary Session — Unconventional Resources: Breakthrough Integration Changes Everything. This dynamic session will explore the foundational scientific, technical, and business technologies and practices that, when leveraged by innovative integration in a multi-disciplinary environment, differentially “moves the needle” across the value chain of unconventional resource identification, assessment and monetization.

#### Plenary Speakers:

- **Scott D. Sheffield**, Chief Executive Officer, Pioneer Natural Resources
- **John Richels**, President & Chief Executive Officer, Devon Energy Corporation
- **Vello Kuuskraa**, President, Advanced Resources International
- **William Scoggins**, President, Colorado School of Mines

#### Other Panels Include:

- Nimble Independents: “Moving the Needle” with Innovation and Execution Excellence
- Technologies that May Transform the Future
- Making it Happen in the Field: Converting Technology into Dollars
- Sustainability, Job Creation, and Public Image
- Transportation and Processing Capacity of Market Infrastructure in Emerging Plays
- Energy Policy Forum: Government Regulations that Affect Unconventional Resource Development

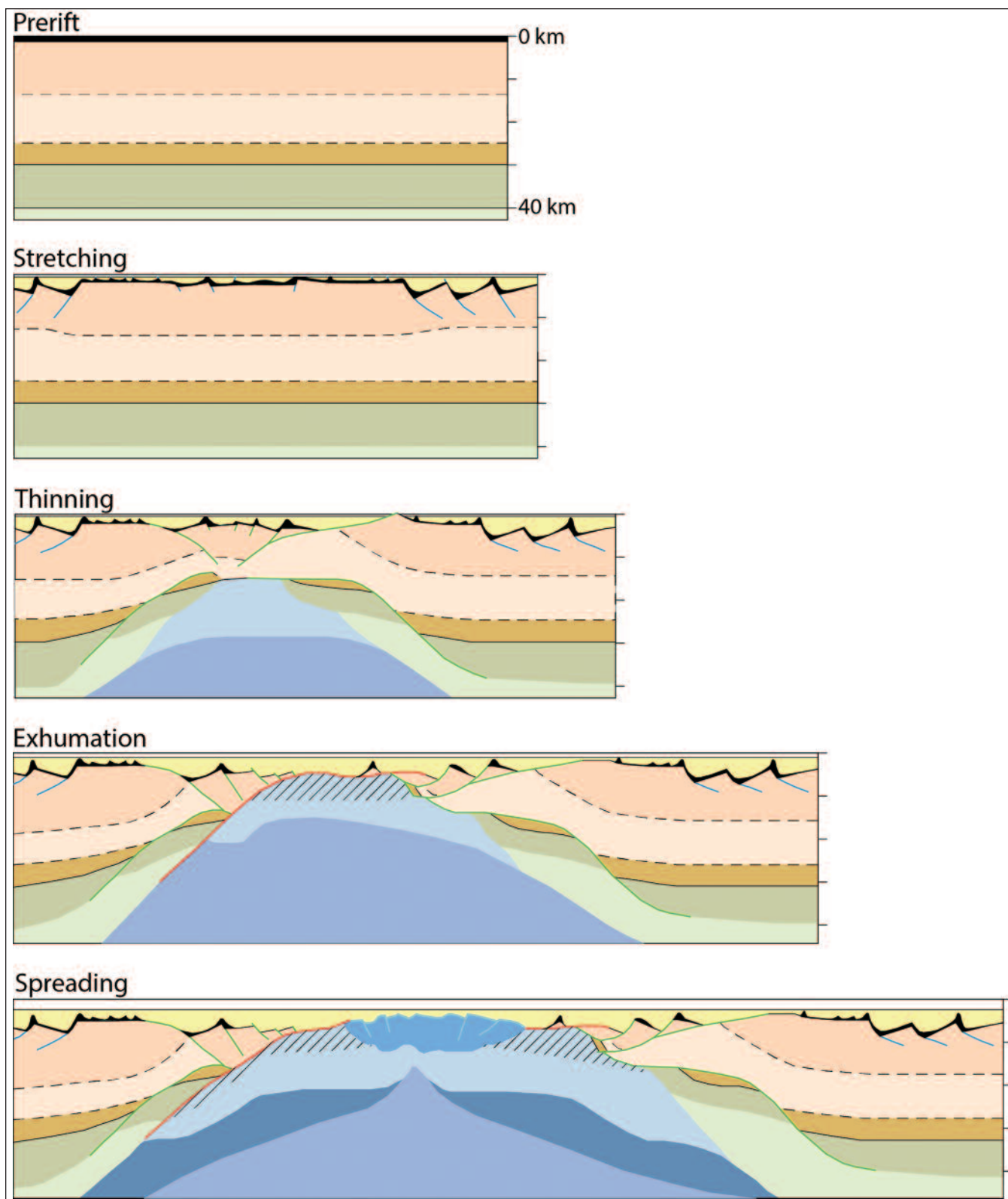


TECHNICAL PRESENTATIONS | E-PAPERS | NETWORKING RECEPTION | TOPICAL BREAKFASTS AND LUNCHEONS | EXHIBITION HALL

[URTEC.ORG](http://URTEC.ORG)







**Figure 2:** Example of adding prerift salt (black) to four-stage model (Péron-Pinvidic & Manatschal, 2009) for magma-poor hyperextended margins.

HGS Joint North American and International Dinner *continued on page 33*



# AAPG ANNUAL CONVENTION & EXHIBITION 2013

AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS  
WITH SEPM (SOCIETY FOR SEDIMENTARY GEOLOGY)

19-22 MAY 2013 • DAVID L. LAWRENCE CONVENTION CENTER • PITTSBURGH

[WWW.AAPG.ORG/ACE](http://WWW.AAPG.ORG/ACE)

GO DEEP: MAKING THE PLAY WITH GEOTECHNOLOGY

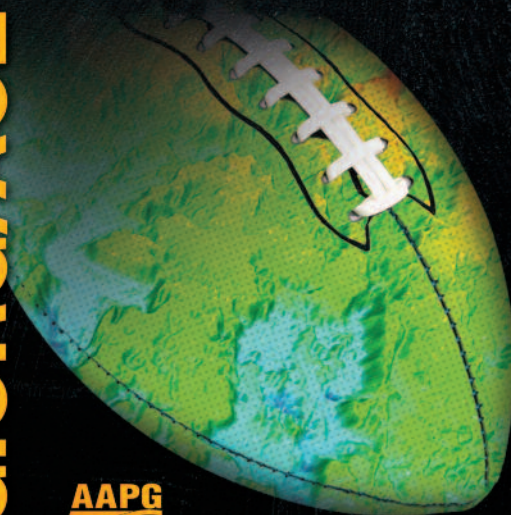
LAST CHANCE SAVINGS

**SAVE \$100** IF YOU REGISTER BY **29 APRIL**

## Get off the bench and suit up for the AAPG Annual Convention and Exhibition 19-22 May 2013.

With a lineup of 16 Short Courses, 15 Field Trips, 350+ Oral and 550+ Poster Presentations covering 11 themes, and more than 200 exhibitors from around the world, you'll find plenty to tackle at this world class event. And if you register by 29 April, you'll save \$100!

**AAPG.ORG/ACE**



Hosted by



Co-supporting society



Co-supporting society



**Search**

## Because answers are rarely on the surface.

Our history can be traced back more than 100 years. While some companies might use that as an excuse to rest, we use it as an inspiration to work even harder to deliver energy in a safe, environmentally and socially responsible manner.

### You will:

- Play an active role in determining your career path, working in a rewarding, collaborative environment
- Maintain a positive work-life balance at a company that encourages working hard and playing hard
- Have opportunities for continuing education and professional development, supported by proactive mentorship
- Enjoy the best of both worlds in a career that combines the stability of a global company with the agility of an independent

### Available positions include:

- Domestic L48 Unconventional Exploration Geoscientist
- Lower 48 Exploration Petrophysicist
- International Unconventional Exploration Geologist/Geophysicist
- International Exploration Geochemist
- Gulf of Mexico Exploration Geologists/Geophysicists
- Gulf of Mexico Operated Assets Geologist/Geophysicist
- Gulf of Mexico Pore Pressure Geologist/Geophysicist
- Gulf of Mexico Exploration Maturation Geologist or Geophysicist
- Development Geologist
- Operations Geologist - Horizontal Drilling/Unconventional Focus
- Exploration Seismic Stratigrapher
- Exploration Petrophysicists
- Petrophysicist



We're looking for people who look harder.

**CPGeoJobs.com/hgs**

© 2013 ConocoPhillips Company. All rights reserved. EOE.

**ConocoPhillips**



**Post-thinning salt** is deposited as part of the “sag” sequence marking regional subsidence during the latest thinning to exhumation stages, but predates final breakup and accretion of normal oceanic crust. The salt stretches and thins with widening of the ocean-continent transition zone, but there is little relief on the base salt and generally minor, gradual thickness variations. Salt deformation is triggered by gravity gliding and allochthonous salt flows out over newly formed oceanic crust. Examples include some of the largest (and most hydrocarbon-prolific) salt basins, such as those in the South Atlantic and Gulf of Mexico, where the base salt has only local and minor relief. Deformation is dominated by gravitational failure with proximal extension and distal contraction, allochthonous salt is common, and there is a bulk movement of salt basinward.

Post-thinning salt basins are unusual in ways other than the relative lack of base-salt offset. First, whereas syn-stretching and syn-thinning salt basins are defined and limited by rift structures, post-thinning salt has more regional extent. It thins and onlaps onto subaerial highs formed by seaward-dipping reflectors (SDRs) of laterally equivalent magma-rich margins. Second, post-thinning salt forms the upper part of large “sag” basins that reflect a poorly understood uplift and subsidence history on magma-poor hyperextended margins. Third, post-thinning salt basins contain remarkably pure evaporite

sequences dominated by halite, with other subordinate evaporites, and little to no non-evaporative interbeds. ■

## Biographical Sketch

**Mr. ROWAN** earned a Bachelor of Science in Biology from CalTech in 1976, a Master of Science in Geology from Cal-Berkeley in 1982, and a Ph.D. in Structural Geology from the University of Colorado at Boulder in 1991. He worked for Sohio Petroleum Co. from 1982 to 1985, Geo-Logic Systems from 1985-1989, and for Alastair Beach Associates in Glasgow, Scotland from 1989-1992. He then returned to the University of Colorado as a Research Assistant Professor before he founded his own company in 1998. He currently consults and teaches for the petroleum industry worldwide and conducts research sponsored by industry.

Although Mr. Rowan’s background includes study of many types of tectonic environments, his primary research and consulting interests are focused on the styles and kinematics of salt tectonics, the processes of salt-sediment interaction, the architecture and evolution of passive margins, and their applications to petroleum exploration. He is the author or co-author of approximately 75 papers and 150 abstracts, is the regular instructor for AAPG’s Salt Tectonics School, and has been an AAPG Distinguished Lecturer and an AAPG International Distinguished Instructor.

<p><b>www.GeoSteering.com</b></p> <p><b>281-573-0500</b> <b>info@geosteering.com</b></p>	<p><b>Personnel with degrees &amp; 20+ years of oilfield experience</b></p> <p><b>Proprietary software</b></p> <p><b>TST interpretation for GR only jobs</b></p> <p><b>Image displays / interpretation for jobs with azimuthal GR, resistivity or density</b></p> <p><b>Resistivity modelling / interpretation for jobs with LWD propagation resistivity</b></p> <p><b>Real-time (always)</b></p>



## Wednesday

**24-hour wellsite service hotline: 713-328-2121**



# GEOEVENTS

Thursday

Friday

Saturday



## Upcoming GeoEvents

**May 6-10, 2013**  
The 13<sup>th</sup> Multidisciplinary Conference on Sinkholes and the Engineering and Environmental Impacts of Karst  
Carlsbad, NM

**May 16-18, 2013**  
Petroleum History Institute  
Pittsburgh, PA

**May 19-22, 2013**  
AAPG Annual Convention & Exhibition  
David L. Lawrence Convention Center, Pittsburgh, PA

**August 12-14, 2013**  
Unconventional Resources Technology Conference  
Colorado Convention Center  
Denver, CO

**September 11-12, 2013**  
12th PESGB / HGS Conference on African E & P  
London, UK

**October 12-15, 2013**  
2013 AAPG Mid-Continent Section Bi-Annual Meeting  
"New Technologies in the Mid-Continent"  
Wichita, KS

**November 6-7, 2013**  
Applied Geoscience Conference  
Interdisciplinary Micro to Macroscale Geomechanics  
Westin Memorial City  
Houston, TX

**April 6-9, 2014**  
AAPG Annual Convention & Exhibition  
Houston, TX

**4**  
**HGS Continuing Education**  
**Microseismic Monitoring**  
**Fundamentals**  
8 a.m. – 5 p.m.  
Western Geco, Houston  
Page 6

**5**  
**HGS Tennis Tournament**  
11:30 a.m. – 5 p.m.  
Houston Racquet Club  
Page 4

**6**

**11**

**12**

**13**

**18**  
**SIPES Luncheon**  
**Meeting**  
"Ancient Backwaters and Baylines: Slope Magnitude and its Control on Deltaic Facies Partitioning in Ancient Deltaic Systems," Dr. Janok P. Bhattacharya,  
Houston Petroleum Club, Houston, TX,  
Page 39

**19**

**20**

**25**

**26**

**27**

### Reservations:

The HGS prefers that you make your reservations on-line through the HGS website at [www.hgs.org](http://www.hgs.org). If you have no Internet access, you can e-mail [reservations@hgs.org](mailto:reservations@hgs.org), or call the office at 713-463-9476. **Reservations for HGS meetings must be made or cancelled by the date shown on the HGS Website calendar, normally that is 24 hours before hand or on the last business day before the event.** If you make your reservation on the Website or by email, an email confirmation will be sent to you. If you do not receive a confirmation, check with the [Webmaster@hgs.org](mailto:Webmaster@hgs.org). Once the meals are ordered and name tags and lists are prepared, no more reservations can be added even if they are sent. **No-shows will be billed.**

**You can make  
your reservations  
NOW  
online at  
[www.hgs.org](http://www.hgs.org)**



**Collarini Energy Staffing Inc.**

**Full-Time and Temporary Exploration and Production Personnel**

**Geoscience ♦ Facilities ♦ Drilling ♦ Production ♦ Reservoir Engineers ♦ Landmen ♦ Management  
Procurement ♦ Information Technology ♦ Health and Safety ♦ Accounting ♦ Administrative Support**

11111 Richmond Avenue, Suite 126  
Houston, Texas 77082  
Phone (832) 251-0553  
Fax (832) 251-0157

[www.collarini.com](http://www.collarini.com)

4200 South I-10 Service Road, Suite 230  
Metairie, Louisiana 70001  
Phone (504) 887-7127  
Fax (504) 887-7162

*Connecting the Industry's Experts*



## The 12th PESGB/HGS Conference on African E&P



# ***Africa: Success in Rift, Sag and Passive Margin Settings***

Wembley Stadium, London,  
September 11th-12th, 2013

This annual conference, alternating between London and Houston has established itself as the primary technical E & P conference on Africa, with an attendance regularly exceeding 400. There will be about 25 high quality talks plus a large poster session covering E & P in all regions of Africa. Keynote presentations already confirmed include:

Origin of Palaeozoic Sag Basins - Mike Daly (BP)

Cretaceous Fan Fairway of West Africa - Paul Dailly (Kosmos) and Robin Sutherland (Tullow)

Exploring giant turbiditic reservoirs offshore Mozambique - the ENI experience - F. Fonnesu

African Rifts and Source Rocks - Alain Huc

Details of sponsorship opportunities and display booths will be available from Rebecca Dibley at PESGB office: Email: [rebecca@pesgb.org.uk](mailto:rebecca@pesgb.org.uk) or Tel: +44(0)20 7408 2000

Main Conference on 11th-12th. Additional events on Tuesday 10th include a course 'Petroleum Basins of Sub-Saharan Africa' by D. Macgregor, stadium tours, an evening talk and an icebreaker reception. For details see website [www.pesgb.org.uk](http://www.pesgb.org.uk)

***Registration will open on 1 April 2013 – Early Bird rates will be available***



# Petroleum Basins of Sub-Saharan Africa



This one day course presented in conjunction with the PESGB/HGS Africa conference but available for separate registration, aims to provide an overview of the tectonic, climatic and topographic controls exerted on Sub-Saharan petroleum systems and resulting hydrocarbon distribution.

The course will concentrate on two main settings, rifts and deepwater turbidite plays, examining the various influences on charge and reservoir in these settings. Short exercises on play cross-sections and petroleum systems charts will be used to segment the lectures on each set of basins, ordered as follows:

**Overviews** - Plate and Intraplate Tectonic History, Play Development and Exploration History

**Pan** - African Foreland Settings

**Rifts** - Karroo, Jurassic, Cretaceous, Neogene

**Marginal and Deepwater Plays** - SW Africa, Equatorial Margin, NW Africa, East Africa



PESGB Tanqua Karroo field trip, 2007 outcropping turbidite fan systems in foreland setting

## Target Audience:

Young Geoscientists working on Africa & experienced staff working within licences and requiring a regional overview or refresher.

## The course fee includes:

Lunch and refreshments, USB memory-stick containing non-copyright course material and all stationery.

## Registration:

Registration will open early next year and is limited to 50 places.

Registration cost £250 or £75 students\*

Please check the website for more information.

**[www.pesgb.org.uk](http://www.pesgb.org.uk)**

\*Limited to 5 places, proof of status required

Petroleum Exploration Society of Great Britain, 5th Floor, 9 Berkeley Street, London, W1J 8DW

Tel: +44 (0)20 7408 2000 ▲ Fax: +44 (0)20 7408 2050 ▲ Web: [www.pesgb.org.uk](http://www.pesgb.org.uk) ▲ Email: [pesgb@pesgb.org.uk](mailto:pesgb@pesgb.org.uk)



# HOUSTON

## FINE MINERAL SHOW

**APRIL 26<sup>TH</sup> - 28<sup>TH</sup>**  
**2013**

Embassy Suites Hotel near The Galleria  
2911 Sage Road, Houston, TX

**FREE PARKING**  
**FREE ADMISSION**  
**OPEN TO THE PUBLIC**

### DEALERS

Kristalle | Geokrazy Minerals | Monarch Mineral and Fossil  
Unique Minerals | Saga Minerals | Alpine Mineral Company  
Fenn's Gems and Minerals | Crystal Classics | IC Minerals  
The Arkenstone - Rob Lavinsky | Columbia Trading Company  
Open Adit West | Green Mountain Minerals | Rocksaholics  
Petaca Fine Minerals | Tucson Store Fixtures | Lehigh Minerals  
Investments From Earth | Don and Gloria Olson | Gemnasty  
Joe Budd Photography | Judy and Richard Rome Jewelry Designs  
World Mineral | The Uncarved Block | Collector's Edge Minerals  
The Sunnywood Collection | Voelter Minerals | Stone Age Gifts  
Earth's Treasury | Crystal Springs Mining Company | Gemas N.O.  
Gallery of Lapidary and Jewellery Artists | Graeber and Himes  
Crystal Monster | Wendy's Minerals and Gems | D.A.W. Trading  
Pinnacle 5 Minerals | Khyber Mineral Company | Top Shelf Minerals  
Superb Minerals India | American Fine Mineral Consortium  
Mineral Masterpiece | Cornerstone Minerals

For more information contact Dave Waisman at 509.458.2331  
[www.FineMineralShow.com](http://www.FineMineralShow.com)

Like us on Facebook. [facebook](#) /Fine-Mineral-Show for show updates



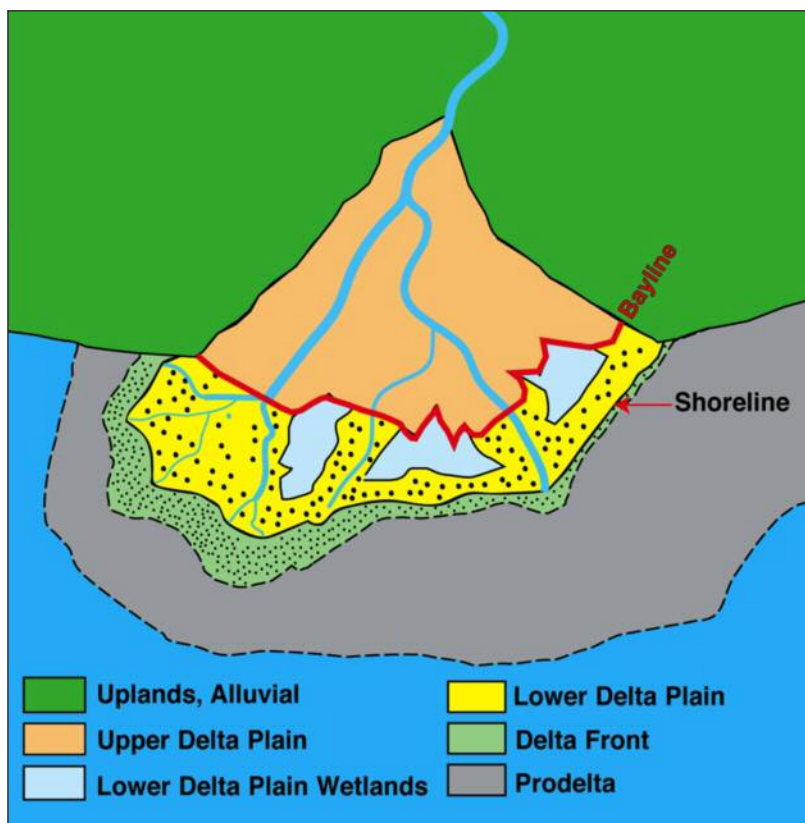
# *SIPEs April Luncheon Meeting* Ancient Backwaters and Baylines: Slope Magnitude and Its Control on Deltaic Facies Partitioning in Ancient Deltaic Systems

by Dr. Janok P. Bhattacharya

A common observation in many ancient clastic wedges is that shoreline deposits are commonly significantly finer than associated fluvial deposits. Abrupt downstream fining in rivers, and increase in tidal or marine influence, may mark the backwater and bayline limits, which are controlled primarily by slope, tidal range, and river discharge. In modern continental-scale low-slope river systems (i.e., slope  $< 0.0001$ ), such as the Mississippi and Amazon, backwaters may reach many hundreds of kilometers upstream, whereas they may be on the order of a few kilometers in steeper gradient systems.

Ancient deltaic systems of the Cretaceous interior seaway of North America, which include the micro-tidal Turonian Ferron Sandstone Member in Utah, show coarse-grained pebbly-sandstone bedload river deposits that feed shorelines that are medium-to fine-grained sandstones. Cross-sections of channels allow estimates of depth and area. Grain size and bedforms can be used to estimate formative channel discharge ( $Q_w < 1500 \text{ m}^3/\text{sec}$ ). Within the clastic wedge, the pebble-to sand transition typically occurs several tens of kilometers from co-eval shoreline deposits. Slope estimates can be made based on

onlap distances of associated coastal prisms, as expressed in stratigraphic cross sections. For the Ferron, slopes  $> 0.001$  are an order-of-magnitude steeper than for low-gradient continental scale systems such as the Mississippi. This explains the position of the transition from pebbles to sand in the fluvial systems, at tens versus hundreds of kilometers from the shoreline, as well as the lack of pebbles in co-eval shorelines. Estimation of slope and discharge thus can be made in ancient clastic systems and allow prediction of the partitioning of coarse versus fine-grained facies at choke-points, as defined by the backwater and bayline limits. ■



SIPEs Luncheon continued on page 41

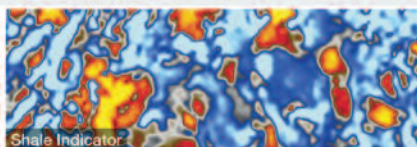


## **BTA OIL PRODUCERS**

- ◆ **ACQUIRING:** Drilling prospects in the Texas and Louisiana Gulf Coast onshore and state waters.
- ◆ **PREFERRED:** Operations, 3D support, Minimum 25% participation
- ◆ **CONTACT:** David Childers, ph: 713-658-0077, e-mail: dchilders@btaoil.com  
Total Plaza, 1201 Louisiana St., Suite 570, Houston, TX 77002



# ROCK SOLID ATTRIBUTES



E&P's favorite seismic attribute package, available for Petrel® in Summer 2013.

See a preview at EAGE London, Booth #716

PETREL is a registered trademark of Schlumberger Information Systems

Extraordinary Results. By Any Measure.

[www.rocksolidimages.com/attributes](http://www.rocksolidimages.com/attributes)

## Stay in the Zone

Experts in Geosteering

[www.horizontalsi.com](http://www.horizontalsi.com)



**HSI** HORIZONTAL  
SOLUTIONS  
INTL.

The Geosteering Experts

Maximize Target Penetration  
Maximize Production  
Avoid Costly Redrills

Carrollton, Texas  
972.416.1626



**TrueTime**  
Operations Center

24/7 TrueTime Geosteering  
and Drilling Optimization

Drilling Surveillance, Active Geosteering,  
and Strategic Procedures for Faster, Safer,  
More Cost-Efficient Drilling Operations



[www.horizontalsi.com](http://www.horizontalsi.com)



### Biographical Sketch

**DR. JANOK P. BHATTACHARYA** is the Robert E. Sheriff Professor of Sequence Stratigraphy and Chairman of the Department of Earth and Atmospheric Sciences at the University of Houston. His main research interests are in the areas of fluvio- deltaic sedimentology and sequence stratigraphy. He received a Bachelor of Science in 1981 from Memorial University of Newfoundland, Canada. He worked at ESSO Resources Calgary, before he completed his Ph.D. in 1989 from McMaster University in Hamilton, Ontario, Canada.

Following a post-doc at the Alberta Geological Survey, Dr. Bhattacharya worked for the Texas Bureau of Economic Geology, ARCO Exploration and Production Research in Plano, Texas, and the University of Texas at Dallas before he joined the University of Houston in 2005. He is an AAPG Grover Murray Distinguished Educator, GCAGS Outstanding Educator, AAPG Distinguished Lecturer, and AAPG SW Section Distinguished Educator. He was the 2008 GCSSEPM President, and has served on various AAPG committees. He is an associate editor for the *Journal of Sedimentary Research* and the *AAPG Bulletin*. He has authored or co-authored over 100 abstracts and over 60 technical papers. He is an active member of AAPG, SEPM, GSA, HGS, and IAS.

### Thursday, April 18, 2013

Houston Petroleum Club in the Discovery Room, 800 Bell St. (downtown Houston). Social 11:15 AM, Luncheon 12 noon

**Reservations Required:** Make reservations by telephone (713-651-1639), fax (713-951-9659), website ([www.sipeshouston.org](http://www.sipeshouston.org)), or e-mail [bkspee@aol.com](mailto:bkspee@aol.com) to B. K. Starbuck-Buongiorno by 12:00 noon on Tuesday preceding the meeting. You can now sign up for the meeting online at [www.sipes-houston.org](http://www.sipes-houston.org), but payment is still required by regular mail or at the door.

**Cost:** \$30 for SIPES Members and Chapter Affiliates who register by 12:00 Noon Tuesday; \$35 for new registrations at the door. The price for guests, non-members and walk-ins is \$35. No-shows will be billed.



Geological, Geochemical, Paleontological  
and Personnel Solutions

- **Wellsite Services**
  - Paleontologists/Geologists
  - Mud Logging Audits
  - HSE Specialists
  - Advanced Mobile Services
- Biostratigraphy
- Sample Preparation, Layout Facilities, Archiving, Storage & Management
- Mineral Analysis (XRD)
- Elemental Analysis (XRF)
- LECO TOC and Total Sulfur
- ChromaLog® & ChromaStratigraphy®
- Consulting Services

**Visit us at AAPG Booth #510**

1414 Lumpkin Road, Houston, TX 77043  
Ph: (713) 956-2838 – Fax: (713) 481-5333

**[www.ellingtongeologic.com](http://www.ellingtongeologic.com)**

## PENNINGTON OIL AND GAS

**SEEKING**  
**Land/Inland Water drilling prospects in the  
Gulf Coast Region**

**PREFERRED**  
**Seismic Based Plays**  
Will consider deals at any stage: from *Idea* to *"Drill-Ready"*

Contact:

### BRUCE E. ARCHINAL

Independent & Consulting Geoscientist

Consulting for

Pennington Oil & Gas Interests, LLC

4 Coralvine Court  
The Woodlands, Texas 77380

(713) 502-9187  
[barchinal@comcast.net](mailto:barchinal@comcast.net)

### RICHARD W. HISE, P.E.

Exploration and Production

Pennington Oil & Gas Interests, LLC

230 Heymann Blvd.  
Lafayette, Louisiana 70503

(337) 235-0590  
[rhise@hisecompanies.com](mailto:rhise@hisecompanies.com)





# Applied Geoscience Conference

## Interdisciplinary Micro to Macroscale Geomechanics

November 4 - 5, 2013

**WESTIN MEMORIAL CITY**  
945 Gessner Road  
Houston, TX 77024

### Geomechanical Approaches for Optimization of Unconventional Reservoirs

Geomechanical rock properties are dependent on factors from the nano-pore scale to the seismic scale. Examining case studies where an interdisciplinary approach was utilized to understand the value of geomechanics at all reservoir scales is fundamental to further characterization of unconventional reservoirs.

Day 1 sessions will focus on:

- Petrophysical & Geomechanical Integration
- Engineering & Geomechanical Integration

Day 2 sessions will focus on:

- Microseismic & Geomechanics
- Seismic, Structure, & Geomechanics

**Speakers include technical experts from industry, government, and university.**

**Be a corporate sponsor!**

More information on registration, sponsorship, and the speaker line-up can be found at [www.hgs.org](http://www.hgs.org)

**HOSTED BY THE HOUSTON GEOLOGICAL SOCIETY**





# Applied Geoscience Conference

## Interdisciplinary Micro to Macroscale Geomechanics November 4-5, 2013

### Main Conference - \$15,000

Availability: 2 of 2

- 4 complimentary Conference registrations
- Company name & logo prominently displayed at event, online event website and related HGS communications
- Dedicated directional signage & logo laynards
- Complimentary vendor table

### Student Technical Poster Session - \$10,000

Availability: 2 of 2

- All sponsored student Conference registrations
- Company name & logo prominently displayed at event, online website event and related HGS communications
- Dedicated signage at student technical poster session
- Complimentary vendor table

### Reception - \$5,000

Availability: 5 of 5

- 2 complimentary Conference registrations
- Company name & logo displayed at event, online event website, and related HGS communication
- Dedicated signage during Conference reception
- Complimentary vendor table

### Program - \$5,000

Availability: 5 of 5

- 2 complimentary Conference registrations
- Company name & logo displayed at event, online event website and related HGS communications
- Dedicated signage during Conference

### Speaker Reception - \$3,500

Availability: 2 of 2

- Company name & logo displayed at event, online event website, and related HGS communication
- 10 complimentary passes for speaker reception

### Lunch - \$2,500

Availability: 5 of 5

- Company name & logo displayed at event, online event website, and related HGS communications
- Dedicated signage during Conference lunch

### Coffee - \$1,000

Availability: 4 of 4

- Company name & logo displayed at event, online event website, and related HGS communications
- Dedicated signage at Conference break stations

### General - \$500

Availability: Unlimited

- Company name & logo displayed at event, online event website, and related HGS communications

To sponsor, please indicate your sponsorship level \_\_\_\_\_ with payment (payable to HGS) to:  
HGS - 14811 St. Mary's Lane, Ste. #250 - Houston, Texas 77079 - Attn: Nina, or you can email your sponsorship form to Nina@hgs.org

Name \_\_\_\_\_ Phone \_\_\_\_\_ Amt. Enclosed \_\_\_\_\_

Company \_\_\_\_\_ Email \_\_\_\_\_

Billing Address \_\_\_\_\_

Credit Card # \_\_\_\_\_ Exp. Date \_\_\_\_\_ Sec. Code# \_\_\_\_\_

Approved by \_\_\_\_\_ Date \_\_\_\_\_

If you would like HGS to invoice your sponsorship please complete the section below:

Invoicing Address \_\_\_\_\_

Accounting Contact Name \_\_\_\_\_ Contact Email Address \_\_\_\_\_

Special Billing Codes \_\_\_\_\_

Approved by \_\_\_\_\_ Date \_\_\_\_\_

Please email your company logo to Nina@hgs.org. **Note: Please send only company logos at 300+ dpi**

If there are any questions, please contact Heather Davey @ hedavey.mymail.mines.edu or Lans Taylor @lxtaylor@talismanusa.com

HGS - 14811 St. Mary's Lane #250 - Houston, TX 77079 Office: 713-463-9476 Fax: 281-679-5504



## Specialist Stratigraphic Services

### CHEMOSTRAT

- ➔ Chemostratigraphy
- ➔ Stable Isotope Stratigraphy
- ➔ Re/Os Geochronology
- ➔ Mineral Stratigraphy
- ➔ Magnetic Susceptibility Stratigraphy

Please see [www.chemostrat.com](http://www.chemostrat.com) for further details or contact:

Chemostrat Inc.  
750 Bering Drive, Ste 550,  
Houston, TX 77057  
Tel: 832-252-7200 or [USoffice@chemostrat.com](mailto:USoffice@chemostrat.com)

Carlsbad, New Mexico • May 6-10, 2013

<https://sites.google.com/site/sinkholeconference2013/>



## The Thirteenth Multidisciplinary Conference on Sinkholes and the Engineering and Environmental Impacts of Karst



## Logs, Maps, Scout & Production Data

**Texas, Louisiana,  
Arkansas, Mississippi,  
Alabama, Georgia, Florida**

### WELL LOGS

Over 1.4 million well logs,  
digital raster format  
clean and marked copies

Core data  
driller's logs  
paleo reports  
velocity surveys  
historical scout cards  
scout check books

IHS production & well data,  
weekly IHS drilling activity

### BASE MAPS

Well base maps  
Tobin lease maps  
historical maps

[www.gcglib.com](http://www.gcglib.com)

[srizoli@gcglib.com](mailto:srizoli@gcglib.com)

713-658-8449

Gulf Coast Geological Library

## 2013 Houston Open Enrollment Course Schedule

Rose & Associates

### Risk Analysis, Prospect Evaluation & Exploration Economics

April 15 – 19  
September 23 – 27

### Risk, Uncertainty & Economic Analysis for Resource Assessment & Production Forecasting in Shale, Tight Clastics

May 13 – 16  
October 28 – 31

[www.roseassoc.com](http://www.roseassoc.com) 713/528-8422

Transferring E & P Risk Assessment Expertise  
Instruction • Software Tools • Practical Consultation





# Government Update

by **Henry M. Wise, P.G. and Arlin Howles, P.G.**

*If you'd like the most up-to-date Texas rules, regulations, and governmental meeting information, we direct you to the HGS website to review The Wise Report. This report, which comes out as needed but not more often than once a week, offers the most up-to-date information that may be of interest to Texas geologists.*

## **AGI Government Affairs Monthly Review (January 2013)**

### **Senator Vitter Introduces Bill to Prevent Emissions Regulations**

Senator David Vitter (R-LA) introduced legislation (S. 163) on January 28, 2013 to prevent the enactment of greenhouse gas (GHG) emission reduction regulations in the U.S. until China, India, and Russia enact similar regulations.

Senator Vitter is the new ranking member of the Senate Environment and Public Works Committee which is the committee most likely to produce a climate bill this Congress. Chairwoman Barbara Boxer (D-CA) has reiterated that climate change legislation will be a priority for her and for the committee over the next two years. Senator James Inhofe (R-OK), the former ranking member of the committee, has co-sponsored S. 163.

### **DOE Releases Strategy for Management and Disposal of Nuclear Waste**

On January 11, 2013 the Department of Energy (DOE) released a report (<http://energy.gov/downloads/strategy-management-and-disposal-used-nuclear-fuel-and-high-level-radioactive-waste>) that details its strategy for management of the disposal of the nation's used nuclear fuel and high-level radioactive waste. The report calls for a pilot interim storage facility to be built by 2021, a larger interim facility in 2025, and a final geologic repository in 2048.

The report largely follows the recommendations put forth in the final report of the Blue Ribbon Commission (BRC) on America's Nuclear Future. Former Senator and Chairman of the Senate and Energy and Natural Resources Committee, Jeff Bingaman (D-NM), introduced the Nuclear Waste Administration Act (S. 3469) in the 112th Congress. The bill, which died at the end of the Congress, was also based off the BRC's recommendations; it would have blocked the approval of temporary storage sites until a permanent repository was identified.

Another hotly debated aspect of the nuclear waste issue is whether nuclear utilities should continue to pay fees to DOE for the transportation and storage of their waste if no permanent storage site exists. The National Association of Regulatory Utility Commissioners (NARUC) and the Nuclear Energy Institute's (NEI) suit against the DOE in 2010 challenged whether the fees remained necessary. In 2012, the court ordered DOE to submit a report in January 2013 on how the fees were being used to advance nuclear waste storage efforts. DOE filed a response to the court in January

in which they determined that the fees are necessary as the administration and Congress pursue a new nuclear waste strategy. NARUC and NEI disagreed with DOE's report, claimed that it was based on the assumption that Congress would pass a nuclear waste policy, and submitted a motion to reopen the case with the U.S. Court of Appeals for the District of Columbia Circuit.

### **Bureau of Land Management to Redo Draft of Hydraulic Fracturing Rule**

The Department of the Interior (DOI) announced on January 18, 2013 that it would revise the Bureau of Land Management's (BLM) draft rule to regulate hydraulic fracturing on public lands. The draft rule (<https://www.federalregister.gov/articles/2012/05/11/2012-11304/oil-and-gas-well-stimulation-including-hydraulic-fracturing-on-federal-and-indian-lands>) was first proposed by the agency in May 2012 and would require disclosure of chemicals used in the hydraulic fracturing process on federal and Indian lands within a month of a fracturing job. A new proposal is expected sometime in the first quarter of 2013.

### **EIA 2011 Natural Gas Report Outlines Shifts in Production and Consumption**

On January 7, 2013, the U.S. Energy Information Administration (EIA) issued the 2011 Natural Gas Annual which outlines data on natural gas gross production between 2007 and 2011.

The report provides a series of data tables and figures that illustrate the natural gas cycle in the U.S. from production to consumption. It includes data on the supply, import and export, movements and storage, consumption, and price of natural gas at the national and state levels. The report found that gross production from shale formations rose from 8 percent of total gross production in 2007 to 30 percent in 2011, whereas gross production from coalbed methane fell from 8 percent in 2007 to 6 percent in 2011. A total of 28.5 trillion cubic feet of oil and gas and 22.9 trillion cubic feet of dry gas was withdrawn from domestic wells. While national consumer prices increased for vehicle fuel use from 2010 to 2011, prices decreased for residential, commercial, industrial, and economic power uses.

### **EPA Releases Climate Change Indicators 2012 Report**

The U.S. Environmental Protection Agency (EPA) released the 2012 updated version of the Climate Change Indicators in the United States report which details changes in 26 indicators which are

**Government Update** continued on page 47

# — UPCOMING — EDUCATION SCHEDULE

## LAST CHANCE

Deep-Water Siliciclastic Reservoirs Northern California	April 14-19, 2013
Basic Well Log Analysis Austin, TX	April 15-19, 2013
Petrophysical Analysis and Integrated Approaches to the Study of Carbonate Reservoirs Austin, TX	April 16-18, 2013
E-Symposia: Successful Oilfield Water Management 2:00 p.m., CST	April 16, 2013
Clastic Reservoir Facies and Sequence Stratigraphic Analysis of Alluvial-Plain, Shoreface, Deltaic, and Shelf Depositional Systems Utah	April 20-26, 2013

## SHORT COURSES

Basic Tools for Shale Exploration Pittsburgh, PA (with AAPG Annual Convention & Exhibition)	May 18, 2013 <i>Early-bird rates end April 19!</i>
Integrating Data to Evaluate Shale Resources Pittsburgh, PA (with AAPG Annual Convention & Exhibition)	May 18-19, 2013 <i>Early-bird rates end April 19!</i>
Faults in the Northern Appalachian Basin and Their Effects on Black Shale Pittsburgh, PA (with AAPG Annual Convention & Exhibition)	May 19, 2013 <i>Early-bird rates end April 19!</i>
Application of Organic Petrology for Shale Resource Evaluation Pittsburgh, PA (with AAPG Annual Convention & Exhibition)	May 23, 2013 <i>Early-bird rates end April 19!</i>
Summer Education Conference – 11 courses over 5 days! Fort Worth, TX	June 10-14, 2013

## FIELD SEMINARS

Geology of Grand Canyon, Bryce Canyon and Zion National Park Nevada	June 1-7, 2013
Play Concepts and Controls on Porosity in Carbonate Reservoir Analogs Almeria, Spain	June 2-7, 2013
Folding, Thrusting & Syntectonic Sedimentation Central Pyrenees, Spain	June 3-7, 2013
Lacustrine Basin Exploration Utah	June 9-16, 2013



## Registration and Information:



Toll-free (U.S. and Canada) (888) 338.3387, or (918) 560.2650 • Fax: (918) 560.2678 • email: [educate@aapg.org](mailto:educate@aapg.org)  
Download a registration form at <http://www.aapg.org/education/index.cfm>



**Government Update** continued from page 45

grouped into five categories: greenhouse gases, weather and climate, oceans, snow and ice, and society and ecosystems.

**Court Rejects EPA's Request to Reconsider Cross-State Air Pollution Rule**

The U.S. Court of Appeals for the District of Columbia Circuit announced January 24, 2013 that it will not reconsider its August 21, 2012 ruling on the U.S. Environmental Protection Agency's (EPA) Cross-State Air Pollution Rule (CSAPR). The court's initial 2-1 ruling rejected the CSAPR as it overstepped the EPA's authority under the Clean Air Act (P.L. 88-206).

The initial ruling claimed that the EPA could not require, as it did in CSAPR, that states reduce pollutants by more than the amount they contributed to other states. The court also indicated that states should have the authority to develop plans to reduce emissions before being required to follow a federal plan.

The CSAPR intended to respond to the transport of air pollution from one state to another by a requirement that 28 upwind states reduce sulfur dioxide and annual and/or ozone seasonal nitric oxide and nitrogen dioxide (NO<sub>x</sub>) emissions. These regulations would assist downwind states achieve EPA standards for clean air.

The EPA must now either revise the CSAPR or request an appeal before the U.S. Supreme Court.

**DOI Forms Strategic Sciences Group to Manage Future Environmental Crises**

Secretary of the Interior Ken Salazar announced the Department of the Interior's (DOI) establishment of the Strategic Sciences Group to provide scientific evaluations of environmental crises that threaten natural resources and to assist the development of effective responses.

Salazar's Secretarial Order details the group's role: scientifically assess environmental crises, develop scenarios, and perform research during crises. DOI has been involved in crisis response and recovery for a number of environmental disasters in recent years. These included Hurricane Katrina and the 2010 Deepwater Horizon oil spill. The group's results will be used by DOI leadership to improve their crisis management.

**NRC Reviews Federal Plans for Responding to Ocean Acidification**

In January 2013, the National Research Council (NRC) released its review of the Strategic Plan for Federal Research and Monitoring of Ocean Acidification. The strategic plan was generated by the Interagency Working Group on Ocean Acidification (IWGOA) which was established by the Federal Ocean Acidification Research

**Government Update** continued on page 49



*Logs Since 1971*

***www.mjlogs.com***

**LOGS LOGS LOGS**

**OVER 6 MILLION LOGS**

**FROM THE ARCTIC TO THE GULF OF MEXICO**

**EAGLEFORD**

**BAKKEN**

**BARNETT**

**WOODFORD**

**FAYETTEVILLE**

**HAYNESVILLE**

**NIOBRARA**

**PERMIAN**

**HORN RIVER**

**1-800-310-6451**



## DIG DEEPER WITH THE EXPERTS

### WOODFORD SHALE FORUM

11 April 2013 • Oklahoma City / Skirvin

#### PROGRAM:

The Woodford Shale produces across a fairly wide area, and an understanding of the lithology, structure, geochemistry, and formation fluids is vital. This forum brings together experts in geology, geophysics, engineering, and geochemistry to take an integrated view of the reservoir, with the goal of improved exploration, completion, stimulation, and fluids management.

Join us for presentations by experts, discussion, and a networking reception in the hub of the Woodford, Oklahoma City.

#### WHO SHOULD ATTEND?

- Geologists, engineers, and geophysicists
- Individuals in companies seeking to evaluate leases
- Companies seeking to purchase companies or producing properties
- Individuals wishing to discuss the latest findings regarding integrated exploration techniques
- Individuals wanting to discuss effective completion and stimulation practices

#### ATTENDANCE FEES:

Includes: course program, course presentations, articles and "test your knowledge" quizzes, continuing education credit, luncheon, two networking breaks, reception.

\$395.00  
\$425.00

AAPG or Affiliated Society Member  
Non members

FOR DETAILS CONTACT  
EDUCATE@AAPG.ORG

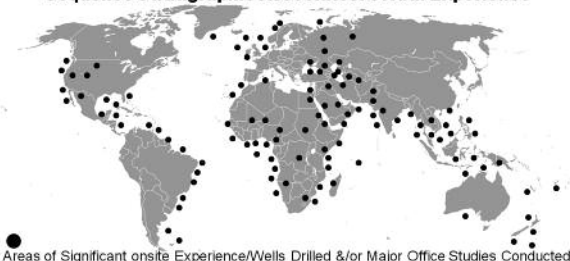
AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS

#### SSA: Sequence Stratigraphic Associates

[www.SequenceStratigraphicAssociates.com](http://www.SequenceStratigraphicAssociates.com), [SequenceSA@aol.com](mailto:SequenceSA@aol.com)  
1-888-846-4894

Hydrocarbon Exploration/Development Utilizing the Principles of Reconstructive, Paleogeographic analysis of Stratigraphic Sequences, Sedimentology, Regional Geology, Petroleum Systems Analysis and High Resolution Biostratigraphy

#### Sequence Stratigraphic Associates: Global Experience



Areas of Significant onsite Experience/Wells Drilled &/or Major Office Studies Conducted

Daniel C. Huston  
Holly Hunter Huston



### HUNTER 3-D, Inc.

3-D Seismic Interpretation, Gravity/Magnetics, Hampson/Russell Inversion / AVO analysis.

Since 1996

6001 Savoy, Suite 110 • Houston, TX 77036  
(713) 981-4650

E-mail: [hunter3d@wt.net](mailto:hunter3d@wt.net)

Website: [www.hunter3dinc.com](http://www.hunter3dinc.com)

Gulf Coast Exploration Consultants for **McMoRan Oil and Gas**



**Kevin J. McMichael**

First City Tower 713-655-9700  
1001 Fannin, Suite 777 Fax 713-655-9709  
Houston, TX 77002 [kmcmichael@claymoreexpl.com](mailto:kmcmichael@claymoreexpl.com)

### Remote Gas Analysis & Logging Services, LLC

*Unmanned gas monitoring at its finest!*

- Featuring a variety of the latest chromatograph types for your unmanned gas logging needs
- Real time monitoring from any computer or smart phone & twice daily updates
- No minimum charges on number of logging days

**Call & schedule a free demo with  
Jay Leeper 325-716-9401**

[www.remotegasllc.com](http://www.remotegasllc.com)



and Monitoring (FOARAM) Act of 2009, part of the Omnibus Public Land Management Act of 2009 (P.L. 111-11), and was tasked to create a National Ocean Acidification Program. The NRC review, titled Review of the Federal Ocean Acidification Research and Monitoring Plan, recommended that the strategic plan prioritize natural science research that focuses on areas of socioeconomic concern.

The FOARAM Act set out seven themes for the IWGOA to address: monitoring; research; modeling; technological developments; socioeconomic impacts; educational outreach and engagement strategies; and data management and integration. The NRC review indicated that the strategic plan needs to better integrate the seven themes outlined in the FOARAM Act. It expressed the need to provide processes for setting priorities; improving interagency, national, and international coordination; and reevaluating priorities and the implementation progress. The review advised the establishment of a more detailed plan for the creation, function, and governance of the National Ocean Acidification Program Office.

Establishment of the FOARAM Act stemmed from an increase in ocean acidification, or the lowering of ocean water pH due to more carbon dioxide dissolved in the oceans. Since pre-Industrial Revolution time, ocean acidity has increased 30 percent and is predicted to have increased a total of 100-150 percent by the end of the century. Research is needed into the effects of rising acidity on marine life as fish represent 6.5 percent of the world's protein and coral reefs are valuable habitats and coastal protection systems. Shifts in the socioeconomic systems that rely on these marine systems should, as the review advises, drive marine research.

## Climate Change Could Severely Impact Coastal Communities

The National Oceanic and Atmospheric Administration (NOAA) and the U.S. Geological Survey (USGS) released a report titled Coastal Impacts, Adaptation, and Vulnerabilities: A Technical Input to the 2013 National Climate Assessment. The report details the potential effects of climate change on the nation's coastal

environments and economy while calling for improved coastal management efforts.

About 50 percent, or \$8.3 trillion, of the U.S. annual gross domestic product in 2010 was from coastal economies. The population that lives in coastal areas represents over 50 percent of the country's population and is expected to increase over the next century by 144 percent. The report finds that all coastal communities are vulnerable to increased rates and intensity of sea-level rise, erosion, storms, flooding, and ocean acidification, which result from climate change.

The report argues policymakers need to implement measures to build sustainable coastal communities and many of these measures must be taken at the local level. Challenges include gaps in scientific knowledge, primarily with regard to extent and speed of glacial melting and the lack of an agreed-upon rate of sea-level rise.

## BP Seeks to Reduce Clean Water Act Violation Fine

On January 11, 2013 BP submitted a motion with federal judge Carl Barbier to request a decision on whether the 810,000 barrels of oil captured at the well head as a result of the 2010 BP Deepwater Horizon blowout should be counted in the final total discharge figure. Fines for Clean Water Act violations are calculated based on the total amount of oil discharged.

In August 2010, the Flow Rate Technical Group, made up of scientists and engineers from academia, industry, and the federal government and chaired by then Director Marcia McNutt of the United States Geological Survey, estimated that 4.9 million barrels of oil had been discharged from the wellhead. BP points out in its motion that several courts have interpreted the law to mean oil has to be discharged into the water or environment to be part of the total figure and claims it should not be liable for the oil it collected. The U.S. government estimates BP could face penalties as low as \$5 billion and as high as \$21 billion. If the company is successful in reducing the total discharge amount, it could reduce its penalties to between \$4.5 billion and \$17.6 billion.

## Unconventional Wells Produce Less Wastewater Per Unit, More Overall

A new study published in Water Resources Research reveals that unconventional wells that are productive in the Marcellus Shale in Pennsylvania produce considerably less wastewater per unit than do conventional wells. However, these unconventional wells extract many more units of natural gas than conventional wells.

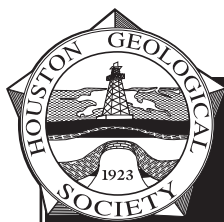
The authors examined data from 2,189 wells and found that, in addition to producing only about 35 percent as much wastewater per unit gas recovered as conventional wells, wastewater from unconventional wells is also only 32.3 percent from flowback.

**Government Update** *continued on page 51*

Website • Brochure  
Ad • Logo • Catalog  
Newsletter Design

**Lisa Krueger Design**  
*Design and Art Direction for Print and Web*

LisaKruegerDesign.com  
713.664.7267



# HGS Welcomes New Members

## New Members Effective March 2013

### ACTIVE MEMBERS

Fabian Aniekwensi  
Austin Cardneaux  
Chelsea Cassel  
Ryan Elmore  
Frederic Gallice  
Travis Hagler  
Kevin Jordan  
Norbie Juist  
Ray Leonard  
Jason Mailloux  
Maybe Martinez  
Lisa Meyer  
Nathaniel Meyer  
John Mohr  
Prasad Mutalik  
Forrest Pace  
Laura Roberts  
Travis Stollendorf  
Toshio Todoroki  
Lisa Tuck  
Nadia Veleva

### ASSOCIATE MEMBERS

Gladys Reyes  
Donna Sphar

### STUDENT MEMBERS

Ayed Ali Asghar  
William Betts  
Han Chi  
Rachel Funk  
Shaun Mahmood  
Karen Martinez  
Glen Penfield  
Jordan Sayers  
Elizabeth Thompson  
Edward Thorpe  
Emalee Tunney

*Welcome New Members*

### **NPC Engineering Group, LLC International Petroleum Consultants**

Texas Registered Professional Engineer &  
Texas Registered O&G Operator services  
Let NPC compete for the work you outsource, such as:  
Drilling Consultants  
Contract Field Operations  
Field Redevelopment Studies  
Acquisition & Divestiture Valuations  
Expert Witness Testimony

Lonnie McDade, President, 817-454-5954  
(Dallas/Ft. Worth)  
Vance Usher, PE, Sr. Manager, 817-437-9661 (Houston)

### **GEMS & TREASURES**

A Rock Shop,  
Silver Jewelry, Carvings and more.

Ph: 832-615-3128  
14520 Memorial Dr. Ste 32  
Calliope center, Houston, Tx 77079



Overall, unconventional wells still produce 10 times more waste than conventional wells as 30 times more units of gas are extracted. Rapid development of the Marcellus shale increased wastewater generation from these wells by 570 percent since 2004. Up to 70 percent of wastewater results as late as four years after initial drilling. Disposal of the wastewater has threatened to exceed the capacity of municipal infrastructure. Some companies have chosen to dispose of wastewater in the Ohio River basin, given stronger regulations in the Susquehanna River basin.

### **Legislation to Lift Virginia Moratorium on Uranium Mining Gains Support**

In a meeting of the Virginia Coal and Energy Commission on January 7, 2013, the commission voted 11-2 to support legislation to lift the state's 30-year moratorium on uranium mining.

This vote followed Governor Bob McDonnell's (R-VA) Uranium Working Group's (UWG) presentation of their findings at the end of last year. The UWG report, titled Commonwealth of Virginia 2012 Uranium Working Group Report, makes no recommendation with regard to the moratorium; rather, it outlines a regulatory framework under which uranium mining could be conducted if the moratorium was lifted.

Following the release of the UWG report and the commission's vote, state Senator John Watkins (R-VA) announced that he will be introducing a bill to lift the ban on and regulate uranium mining, but only for the deposit at Coles' Hill in Pittsylvania County. Walter Coles owns the property, mineral rights, and the company Virginia Uranium Inc. which he established to press for a lift of the ban when uranium prices rose in 2007. The approximately 119 million pounds of uranium oxide at Coles' Hill make it the country's largest undeveloped uranium deposit. It would provide an estimated two million pounds of uranium per year, a significant increase in overall domestic uranium production which was about four million pounds in 2011.

Supporters emphasize the ability to mine safely, the prospect of increased domestic production, and job creation should the legislation be passed. Opponents raise concerns over the potential for mining to spread beyond Coles' Hill and the potential for environmental contamination. Many worry that mining within the Coles' Hill area's watershed, which feeds the water supply for many coastal cities including Virginia Beach, will contaminate the state's drinking water. ■

### **One Hundred Word Wonder**

A stratovolcano, also known as a composite volcano, is a tall, conical volcano built up by many layers of hardened lava, tephra, pumice, and volcanic ash. Unlike shield volcanoes, stratovolcanoes are characterized by a steep profile and periodic explosive eruptions and quiet eruptions, while there are some with collapsed craters called calderas. The lava that flows from stratovolcanoes typically cools and hardens before spreading far due to high viscosity.

Two famous stratovolcanoes are Krakatoa, best known for its catastrophic eruption in 1883 and Vesuvius, famous for its destruction of the towns Pompeii and Herculaneum in 79 AD. Two active stratovolcanoes are Mt Fuji in Japan and Tavuvur in Papua New Guinea.

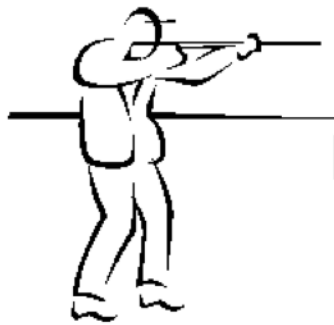


## **HGS Guest Night**

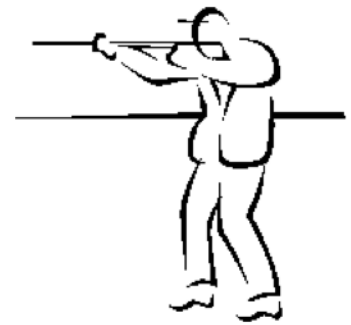
**Who: speaker Dr. Dawn Sumner, a self-described Geo-Biologist from University of California at Davis. Her experience has been called on to guide the study of Mars through the Curiosity rover as the search for signs of life on Mars continues.**

**When: Saturday, June 8, 2013 6:30pm**

**Where: New Paleo Hall, Houston Museum of Natural Science.**



# 30th Annual HGS SKEET SHOOT



Saturday, June 22, 2013  
Greater Houston Gun Club  
6702 McHard Road, Missouri City

This tournament is a 50 target event. Shells are provided, however **you must bring eye and ear protection**. Greater Houston Gun Club and National Skeet Shooting Association safety rules will be in effect. Trophy winning shooters will be determined by the Lewis class system. Door prizes will be awarded by blind drawing after the conclusion of shooting. All competitors are automatically entered into the door prize drawing, but you must be present at the time of the drawing to win. BBQ lunch will be provided from 11:30 until 1:30. Refreshments will be available throughout the day.

## IMPORTANT!!

**WE ARE LIMITED TO 160 SHOOTERS IN FOUR ROTATIONS. ENTRY FEE IS \$80 PER SHOOTER FOR REGISTRATIONS RECEIVED BY FRIDAY, JUNE 14. AFTER JUNE 14, REGISTRATION WILL BE STRICTLY ON A "SPACE AVAILABLE" BASIS AND THE ENTRY FEE WILL BE \$95 PER SHOOTER. REGISTER EARLY!!**

For more information, contact: Tom McCarroll at (713) 419-9414 or [tom\\_mccarroll@yahoo.com](mailto:tom_mccarroll@yahoo.com).

For directions to the club, visit [www.greaterhoustongunclub.com](http://www.greaterhoustongunclub.com).

\*\*\*\*\*

**ONLINE REGISTRATION INFORMATION AT: <http://www.hgs.org/eventskeetshoot>**

**If you prefer to pay by credit card, please call the HGS office, (713) 463-9476.**

If you prefer to pay by check, mail this form with a check made out to HGS to:

**Tom McCarroll, 2668 HWY 36S #329, Brenham, TX 77833**

Name: \_\_\_\_\_ Company: \_\_\_\_\_

Email: \_\_\_\_\_ Phone: \_\_\_\_\_

Preferred time: (circle one) 9:00 10:00 11:00 12:00 Ammo: (circle one) 12 gauge 20 gauge

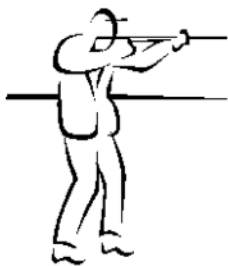
Registration Fee: \$ \_\_\_\_\_ + Sponsor Contribution: \$ \_\_\_\_\_ = Total: \$ \_\_\_\_\_

If you wish to register as a squad, please return forms for all squad members together.

.....

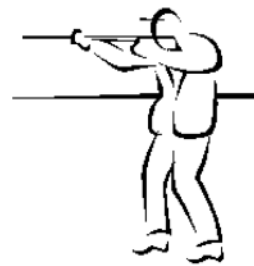
**ALL SHOOTERS WILL BE REQUIRED TO SIGN A DISCLAIMER OF RESPONSIBILITY  
BEFORE THEY WILL BE ALLOWED TO SHOOT!**





# 30th Annual HGS SKEET SHOOT

Saturday, June 22, 2013  
Greater Houston Gun Club  
6702 McHard Road, Missouri City



## SPONSORSHIP APPLICATION

### Ammo Sponsor- \$ 750.00

- Paid squad of 5 Shooters
- Recognized signage at the Club
- Recognition at Awards

### Field Sponsor - \$ 750.00

- Paid squad of 5 Shooters
- Recognized signage at the Club
- Recognition at Awards

### Cigar Sponsor - **Sold**

- Paid squad of 5 Shooters
- Recognized signage at the Club
- Recognition at Awards

### Beverage Sponsor- \$ 750.00

- Paid squad of 5 Shooters
- Recognized signage at the Club
- Recognition at Awards

### Flurry Sponsor- \$ 750.00

- Paid squad of 5 Shooters
- Recognized signage at the Club
- Recognition at Awards

To sponsor, please indicate your sponsorship level \_\_\_\_\_ with payment (payable to HGS) to:

HGS - 14811 St. Mary's Lane, Ste. #250 - Houston, Texas 77079 - Attn: Nina

Or you can email your sponsorship form to [Nina@hgs.org](mailto:Nina@hgs.org)

Name \_\_\_\_\_ Phone \_\_\_\_\_ Amt. Enclosed \_\_\_\_\_

Company \_\_\_\_\_ Email \_\_\_\_\_

Billing Address \_\_\_\_\_

Credit Card # \_\_\_\_\_ Exp. Date \_\_\_\_\_ Sec. Code# \_\_\_\_\_

Approved by \_\_\_\_\_ Date \_\_\_\_\_

If you would like HGS to invoice your sponsorship please complete the section below:

Invoicing Address \_\_\_\_\_

Accounting Contact Name \_\_\_\_\_ Contact Email Address \_\_\_\_\_

Special Billing Codes \_\_\_\_\_

Approved by \_\_\_\_\_ Date \_\_\_\_\_

Please email your company logo to [Nina@hgs.org](mailto:Nina@hgs.org). Note: Company logos (300+ dpi) must be received no later than MAY 1ST, 2013

If there are any questions, please contact Tom McCarroll—713-419-9414 or [tom\\_mccarroll@yahoo.com](mailto:tom_mccarroll@yahoo.com)

TO REGISTER ONLINE GO TO: <https://www.hgs.org/civicism/event/info?reset=1&id=1298>



**Full Color Ads  
Now Available!**

## HGS *Bulletin* Instructions to Authors

All materials are due by the 15th of the month, 6 weeks before issue publication. Abstracts should be 500 words or less; extended abstracts up to 1000 words; articles can be any length but brevity is preferred as we have a physical page limit within our current publishing contract. All submissions are subject to editorial review and revision.

**Text** should be submitted by email as an attached text or Word file or on a clearly labeled CD in Word format with a hardcopy printout to the Editor.

**Figures, maps, diagrams**, etc., should be digital files using Adobe Illustrator, Canvas or CorelDraw. Files should be saved and submitted in .ai (Adobe Illustrator) format. Send them as separate attachments via email or CD if they are larger than 1 MEG each, accompanied by figure captions that include the file name of the desired image. DO NOT EMBED them into your text document; they must be sent as separate files from the text. DO NOT USE POWERPOINT, CLIP ART or Internet images (72-DPI resolution) as these do not have adequate resolution for the printed page and cannot be accepted. All digital files must have 300-DPI resolution or greater at the approximate size the figure will be printed.

**Photographs** may be digital or hard copy. Hard copies must be printed on glossy paper with the author's name, photo or figure number and caption on the back. Digital files must be submitted in .tif, .jpg or .eps format with 300-DPI or greater resolution at the printing size and be accompanied by figure captions that are linked by the file name of the image. The images should be submitted as individual email attachments (if less than 1 MB) or on CD or DVD.

### Advertising

The *Bulletin* is printed digitally using QuarkXPress. We no longer use negatives or camera-ready advertising material. Call the HGS office for availability of ad space and for digital guidelines and necessary forms or email [nina@hgs.org](mailto:nina@hgs.org). Advertising is accepted on a space-available basis.

**Deadline for submitting material is 6 weeks prior to the first of the month in which the ad appears.**

Random Inside (Black & White)					Page 2 (B&W)	Inside Front Cover (Full Color)	Inside Back Cover (Full Color)	Outside Back Cover (Full Color)	Calendar Back (Full Color)	Calendar Page (Full Color)
No. of Issues	Random* Eighth	Random* Quarter	Random* Half	Random* Full	Full	Full	Full	Half	Full	Quarter
10	\$823	\$1,387	\$2,488	\$4,734	\$5,680	\$7,830	\$7,560	\$6,858	\$6,750	\$2,700
9	\$823	\$1,387	\$2,488	\$4,734	\$5,680					
8	\$750	\$1,260	\$2,242	\$4,307	\$5,169					
7	\$665	\$1,123	\$2,014	\$3,834	\$4,600					
6	\$590	\$990	\$1,782	\$3,392	\$4,069					\$1,890
5	\$497	\$837	\$1,503	\$2,860	\$3,432	\$4,698	\$4,536	\$4,104		
4	\$405	\$683	\$1,223	\$2,326	\$2,792					
3	\$327	\$550	\$990	\$1,886	\$2,262					\$1,080
2	\$232	\$392	\$704	\$1,339	\$1,607					
1	\$146	\$246	\$443	\$842	\$1,010	\$1,404	\$1,296	\$1,080		\$810
<b>FULL COLOR AD</b> * add 30% to B&W charge for full (4) color ad						<b>BUSINESS CARD</b> \$160 per 10 Issues – Send two cards (\$30 for each additional name on same card)				

### Website Advertising Opportunities

HGS has multiple website advertising opportunities for your company! We've expanded our offerings to include a 275 x 800 pixel, rotating banner ad on the front page of the website. We have kept the popular Event Calendar and Geo-Job Postings advertisement locations!

	Home page Banner	Home Page (200 x 400 pixels)	Event Calendar (200 x 400 pixels)	Geo-Jobs (120 x 90 pixels)	Website Business Card (Members Only)	Personal Resumes (Members Only)
<b>One year</b>	\$3,000.00	\$2,800.00	\$2,500.00	\$1,400.00	Free	Free
<b>6 months</b>	\$2,000.00	\$1,800.00	\$1,500.00	\$750.00	Free	Free
<b>3 months</b>	\$1,500.00	\$1,300.00	\$1,000.00	\$450.00	Free	Free
<b>Monthly</b>	\$700.00	\$500.00	\$400.00	\$200.00	Free	Free

We still offer Geo-Jobs - where your company can post job openings for 14 days at \$50.00 or 30 days at \$100.00.

For more information regarding website advertising visit [HGS.org](http://HGS.org) or email [nina@hgs.org](mailto:nina@hgs.org).





# Application to Become a Member of the Houston Geological Society

## Qualifications for Active Membership

- 1) Have a degree in geology or an allied geoscience from an accredited college or university; or
- 2) Have a degree in science or engineering from an accredited college or university and have been engaged in the professional study or practice of earth science for at least five (5) years.

## Qualifications for Associate Membership (including students)

- 1) Be involved in the application of the earth or allied sciences.
- 2) Be a full-time student enrolled in geology or in the related sciences.

## Apply online at [www.hgs.org](http://www.hgs.org) and click on Join HGS

*Annual Dues Expire Each June 30. (Late renewals – \$5 re-instatement fee)  
Annual dues are \$24.00; emeritus members pay \$12.00; students are free.*

Mail this application and payment to:

*Houston Geological Society*

*14811 St. Mary's Lane, Suite 250 • Houston, TX 77079-2916*

*Telephone: 713-463-9476 Fax: 281-679-5504*

Payment method:

☐ Check, ☐ VISA, ☐ MasterCard, ☐ American Express, ☐ Discover  
Card # \_\_\_\_\_

Expiration Date: \_\_\_\_\_ Card I.D. \_\_\_\_\_  
(Card I.D. – 3 or 4 digit number on front or back of card )

*To the Executive Board:* I hereby apply for ☐ Active or ☐ Associate membership in the Houston Geological Society and pledge to abide by its Constitution and Bylaws. ☐ Check here if a full-time student.

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Home Phone: \_\_\_\_\_ Spouse's Name: \_\_\_\_\_

Email: \_\_\_\_\_

Job Title: \_\_\_\_\_

Company: \_\_\_\_\_

Company Address: \_\_\_\_\_

Work Phone: \_\_\_\_\_ Fax Number: \_\_\_\_\_

Circle Preferred Mailing Address: Home Office \_\_\_\_\_

Professional Affiliations: \_\_\_\_\_

☐ AAPG member No.: \_\_\_\_\_

Professional Interest: \_\_\_\_\_

☐ Environmental Geology ☐ North American E&P (other than Gulf Coast)

☐ International E&P ☐ Gulf Coast E&P (onshore & offshore)

School \_\_\_\_\_

Degree \_\_\_\_\_ Major \_\_\_\_\_ Year \_\_\_\_\_

School \_\_\_\_\_

Degree \_\_\_\_\_ Major \_\_\_\_\_ Year \_\_\_\_\_

Earth Science Work Experience \_\_\_\_\_

Applicant's Signature \_\_\_\_\_ Date \_\_\_\_\_

Endorsement by HGS member (not required if active AAPG member)

Name: \_\_\_\_\_

Signature \_\_\_\_\_ Date \_\_\_\_\_

Membership Chairman \_\_\_\_\_ HGS Secretary \_\_\_\_\_

# Houston Petroleum Auxiliary Council News

*Edie Bishop, HGS Liaison 713-467-8706 or ewbishop@bishorb.com*



One of the pleasures of living in Texas is enjoying the wildflowers that are abundant this time of the year. Much is made about the bluebonnets but one should never overlook the Indian paintbrush, wine cups, and, as our beloved Houston Geological Auxiliary past president **Gwinn Lewis** use to say, "those darn yellow flowers!" The mix of color and flowers is not to be missed.

With Texas in the springtime in mind, mark your calendars now! **Martha Lou Broussard** has planned a great Spring Road Trip for HPAC Exploring Houston. On April 11<sup>th</sup>, the group will be going to Columbus (Texas) hopefully to see these beautiful wildflowers and to Stephen F. Austin's first choice for the Capitol of his new colony on this lovely curve of the Colorado River. However, the Indians who were there first had other ideas and Austin moved his Capitol to San Felipe. Settlers first came to Columbus (known then as Beason's Ferry) in 1823. Sam Houston burned the town when running from Santa Ana in 1836. It was eventually rebuilt with lovely old Victorian homes, many of which are still standing. We will see the Alley Log Cabin, built in 1836 just after Texas Independence, tour the Dilue Rose Home of 1860 and see the Stafford Opera House of 1866 which has been beautifully restored. Of course there are shops around the old Courthouse Square! Other highlights of these trips are the luncheons with local flair. This promises to be an field trip to remember. Spouses and guests are welcome to attend these events.

Be sure to put April 11<sup>th</sup> on your calendar for this interesting trip. For more information or questions contact **Martha Lou Broussard** at (mlbrou@rice.edu) or **Linnie Edwards** at (linnieedwards@sbcglobal.net). It continues to amaze that Martha Lou is able to provide these wonderful trips at such a low cost. Don't miss the fun.

A grand time was had by all in attendance at the March luncheon



*The Beer Can House — L to R: Wanda Shaw, Edie Bishop, Sherie McQuinn, Mickey Murrell, Donna Parish, Rosann Hooks, Georgeann Massell, Sandra Pezetta, Jennifer Biancardi, Lori Coffelt, John Biancardi, Winona and Marvin Smith*



*L to R: Sally Blackhall, Daisy Wood, and Suzanne Howell*

and program at the Junior League of Houston. Kudos to Chairs **Millie Tonn, Diana Gittelman** and their committee **Sally Blackhall, Lois Matuxzak, Donna Parrish, Helen Thomas, Cherry Yvette, and Ruby Wagner** for the lovely decorations and luncheon. Next up, on May 3<sup>rd</sup>, is the ever popular luncheon and style show at the Houston Racquet Club with fashions from Scruples which are being modeled by our own members. Watch next month's *Bulletin* for further details. Thanks to our First Vice President **Barbara Peck** for sharing her talents and time to provide such wonderful programs. This has been a banner year for HPAC.

A special thank you to **Winona LaBrant Smith, Sally Blackhall, Norma Jean Jones, Suzanne Howell, Mara Brachman, and Ann Koster** for agreeing to help put together the Guest Program at the 2014 AAPG Annual Conference and Exhibition. These talented individuals should make the Houston delegation proud! If you or someone you know are interested in being part of this group, please contact either myself or **Winona Labrant Smith** at wlabrant@att.net.

Remember that in addition to our regular luncheon programs and these special interest groups, we have other interest groups: **Cinco Mas Bridge: Audrey Tompkins, 713-868-0005, and HPAC Exploring Houston: Martha Lou Broussard, 713-665-4428 or Linnie Edwards, 713-785-7115. Spouses and guests are also welcome to attend these events.**

Geologists, please encourage your spouses to join HPAC, where they will have the opportunity to meet other spouses of Geologists, Geophysicists, Engineers, and Landmen. They will participate in informative and entertaining programs, delicious lunches, and welcoming fellowship. The HPAC membership form is included in the HGS *Bulletin*. Please contact **Edie Bishop** at 713-467-8707 or at ewbishop@bishorb.com. ■



You are invited to become a member of

# HPAC

2012–2013 dues are \$20.00 Mail dues payment along with the completed yearbook information to **Winona LaBrant**, 10123 Valley Forge Drive, Houston, Texas 77042

## YEARBOOK INFORMATION

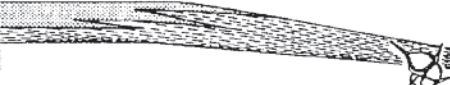



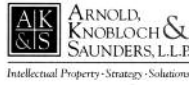











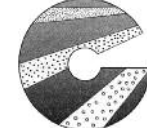


Last Name	First Name	Name Tag
Spouse Name	Name Tag	HGS Member's Company
Home Phone	Business Phone	Business Fax
Street Address	City	Zip
Email Address	Home Fax	

Please choose a committee assignment if you are interested.

- |  |                                       |                                       |                                     |
|--|---------------------------------------|---------------------------------------|-------------------------------------|
| <input type="checkbox"/> Fall Event      | <input type="checkbox"/> Yearbook     | <input type="checkbox"/> SOS          | <input type="checkbox"/> Membership |
| <input type="checkbox"/> Christmas Event | <input type="checkbox"/> Spring Event | <input type="checkbox"/> Notification | <input type="checkbox"/> Game Day   |
|  | <input type="checkbox"/> May Luncheon | <input type="checkbox"/> Courtesy     |                                     |

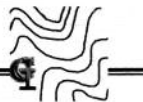
## Professional Directory

<p><b><u>SED-STRAT Geoscience Consultants, Inc</u></b>          TBPB Firm Registration #50056  <i>Petroleum Geology, Play Analysis, Stratigraphic Traps, Sequence and Seismic Stratigraphy, Clastic Reservoirs, Basin Analysis.</i></p> <p><b>George Devries Klein, PhD, PG</b>          President          Texas Registered Geoscientist #440</p> <p>5554 South Peek Rd, Suite 55          Katy, TX. 77450-7130, USA          E-mail: gdkgeo@earthlink.net      281-344-0875          MOBILE: 832-244-2394</p>	<p>Daniel C. Huston          Holly Hunter Huston</p>  <p><b>HUNTER 3-D</b>          3-D Seismic Interpretation, FTG Gravity Modeling,          Seismic Inversion and AVO analysis          6001 Savoy, Suite 110 • Houston, Texas 77036          (713) 981-4650 • (281) 242-0639          E-mail: hunter3d@wt.net          Website: www.hunter3dinc.com</p>	<p>1390 Main Street          Post Office Box 81          Montara CA 94037-0081</p> <p>650.728.3373          Facsimile and E-mail:          by request</p> <p><b>VICTOR H. ABADIE III</b>          CONSULTING GEOLOGIST</p> <p>CERTIFIED PETROLEUM GEOLOGIST, AAPG, NO. 3936          SOCIETY OF INDEPENDENT PROFESSIONAL EARTH SCIENTISTS, NO. 2085          CALIFORNIA REGISTERED GEOLOGIST, LIC. NO. 4040          TEXAS REGISTERED GEOLOGIST, LIC. NO. 1843</p>
<p><b>Rose &amp; Associates</b></p> <p><b>Gary P. Citron, Ph.D.</b>          Managing Partner          garycitron@roseassoc.com</p> <p>4203 Yoakum Blvd., Suite 320          Houston, TX 77006          United States of America          713-528-8422          713-528-8428 fax          www.roseassoc.com</p> <p><b>Transferring E &amp; P Risk Assessment Expertise</b>          Instruction • Software Tools • Practical Consulting</p>	 <p><b>Focus Exploration, LLC</b></p> <p><b>Marc H. Helsing, Ph.D.</b>          Vice President, Exploration &amp; Business Development          10333 Richmond Avenue • Suite 750 • Houston, Texas 77042          713.435.0021 • Fax 713.435.0035 • Cell 281.773.9509          mhelsing@focusexploration.com</p>	<p><b>WILLIAM M. COBB &amp; ASSOCIATES, INC.</b>          WORLDWIDE PETROLEUM CONSULTANTS</p> <p><b>BRIAN D. NICLOUD, P.G.</b>          Senior Geological and Petrophysical Advisor</p> <p>12770 Coit Road, Suite 907          Dallas, TX 75251          USA</p> <p>Tel: 972-385-0354          Cell: 214-212-7196          Fax: 972-788-5165          E-mail: bnicloud@wmcobb.com</p>
<p><b>JEFFREY J. DRAVIS, Ph. D.</b>          Applied Carbonate Geology          Regional Play Evaluation          Core Studies • Reservoir Zonation          Depositional Models • Porosity Evolution          In-House and Field Carbonate Seminars  <b>WEBSITE: www.dravisinterests.com</b>          (713) 667-9844</p>	 <p><b>Amir Zaman</b>          Vice President, Business Development</p> <p>Ph: 713.278.0400      2500 Wilcrest Drive, Suite 202          Cell: 832.576.1368      Houston, Texas 77042          azaman@crescentgeo.com      www.crescentgeo.com</p>	<p>Tsunami Development, Inc.          10111 Richmond Ave.          Suite 230          Houston, Texas 77042</p>  <p><b>Scott Wallace</b>          Senior Business          Development Manager</p> <p>scott.wallace@tsunamidevelopment.com          O: 713-900-2090          C: 713-775-9338          F: 713-532-5076</p>

<p><b>PCI</b></p> <p><b>BOB LISKA</b> PALEO CONTROL, INC.</p> <p><b>WILCOX &amp; Lower Tertiary BIOSTRATIGRAPHY</b></p>  <p>7706 Green Lawn Drive, Houston TX 77088 Ph 281-847-0922    rlsika@hal-pc.org</p>	<p><b>EXTERRA GEOSCIENCE LTD.</b> <i>DIPMETER AND BOREHOLE IMAGING SPECIALISTS</i></p> <p>ERIC F. PAAUWE PRESIDENT</p> <p>28702 DOBBIN HUFSMITH RD. MAGNOLIA, TX 77354 WWW.EXTERRALTD.COM</p> <p>832.484.9200 281.252.0131 ERIC@EXTERRALTD.COM</p>	<p><b>LOYD TUTTLE</b> <b>PCI PALEO CONTROL, INC.</b></p> <p><b>MICROPALAEONTOLOGY PALEOECOLOGY</b></p>  <p>P.O. BOX 41751 HOUSTON, TEXAS 77241-1751 OFFICE 713-849-0044    RESIDENCE 713-466-7922</p>
<p>Where is your business card? \$160 per 10 issues 713.463.9476</p>	 <p><b>WAVEFRONT</b> ERIC GETZ 713-305-5089 ERIC@WAVEFRONT.PRO</p> <p>WWW.WAVEFRONT.PRO <b>GEOSCIENCE DATA AND IT</b></p>	<p> <b>Kara C. Bennett</b> Consulting Geoscientist</p> <p>14119 E. Cypress Forest Dr. Houston, TX 77070 832-452-3747 kcbhgs@gmail.com</p> <p>Prospect Generation Integrated Basin, Play and Prospect Analysis 2D and 3D Interpretation</p>
 <p><b>ARNOLD, KNOBLOCH &amp; SAUNDERS, LLP</b> Intellectual Property - Strategy - Solutions</p> <p>Charles S. Knobloch Attorney at Law Registered Patent Attorneys Texas Professional Geoscientist - Geophysics</p> <p>4900 WOODWAY, SUITE 900 HOUSTON, TEXAS 77056 Phone: 713-972-1150 Direct: 713-335-3021 Fax: 713-972-1180 CHARLES@AKSLAW.COM CKNOBLOCH@ARNOLD-IFLAW.COM WWW.ARNOLD-IFLAW.COM</p>	 <p><b>JAMES M. NORRIS</b> CONSULTING GEOLOGIST</p> <p>Certified Petroleum Geologist Development/Exploration</p> <p>713-376-9361    jmnor@suddenlink.net</p>	 <p><b>GENERAL GEOPHYSICAL SERVICES</b> Fugro Gravity &amp; Magnetic Services Inc. 6100 Hillcroft, Suite 115 (77081) P.O. Box 740010 Houston, Texas 77274 Direct : 713-369-6106 Main : 713-369-6100 Fax : 713-369-6137 Cell : 281-739-0000 E-mail : lbraga@fugro.com www.fugro.com www.fugro-gravmag.com</p> <p><b>LUIZ BRAGA</b> vice president global business development geophysicist, Ph.D.</p>
<p><b>BILL KALIL</b></p>  <p><b>INDEPENDENT PETROLEUM GEOLOGIST</b></p> <p>P.O. BOX 1781 MIDLAND, TEXAS 79702 blikalil@juno.com</p> <p>PHONE      FAX      CELL (432) 683-0990    (432) 683-0992    (432) 349-4448</p>	<p>Philip B. Moran, MBA, ChFC, CFP® <i>A Registered Investment Advisory Since 1986</i></p>  <p><b>Portfolio Advisory Council, L.L.C.</b></p> <p>3 Greenway Plaza, Suite 1960    Phone: (713) 574-6030 Houston, Texas 77046    Fax: (713) 622-3950 www.pacadvisory.com    email: pmoran@pacadvisory.com</p>	<p><b>Sequence Stratigraphic Associates</b> Thomas Stump, Ph.D.</p> <p>Specializing in Sequence Stratigraphy Prospect generation Acreage Evaluation High Resolution Biostratigraphic Analysis</p> <p>www.SequenceStratigraphicAssociates.com</p> <p>1-888-846-4894 (phone/fax) SequenceSA@aol.com</p> 
 <p><b>SIPES</b> <b>Houston Chapter</b></p> <p><i>Society of Independent Professional Earth Scientists</i></p> <p>Certification for Oil &amp; Gas Independents Cutting edge technical &amp; industry related presentations Network with Prospect and Production Buyers and Sellers www.sipes-houston.org or 713 651-1639 for info</p>	 <p><b>energyprofessionalsearch</b> Technical and Executive Recruiting</p> <p><b>SOFIA CAMPBELL</b> B.Sc. Geology &amp; Geophysics, Hon.</p> <p>713-668-5406 Houston, Texas USA sofia.campbell@comcast.net www.energyprosearch.com</p> 	<p><b>Consulting Biostratigraphy</b></p> <p>Domestic and International Foraminifera, Calpionelids, Thin Sections</p>  <p><b>RASHEL N. ROSEN</b> 2719 S. Southern Oaks Dr., Houston, TX 77068-2610 (281) 893-6646 fax: (281) 586-0833 cell phone: 832-721-0767 email: rashed-rosen@comcast.net</p>
<p><b>SeismicVentures®</b></p>  <p><b>Robert D. Perez</b> Business Development Manager r_perez@seismicventures.com</p> <p>Seismic Ventures, LLC    tel: 281-240-1234 (x3233) 4805 Westway Park Blvd.    cel: 713-256-8737 Suite 100    fax: 281-240-4997 Houston, Texas 77041    www.seismicventures.com</p>	 <p><b>Ellington &amp; Associates, Inc.</b></p> <p>Doug Kneis Senior Sales Advisor</p> <p>Cell: (713) 252-3526 Office: (713) 956-2838 Fax: (281) 693-3022 Office Fax: (713) 481-5333 dougk@ellingtongeologic.com</p> <p>1414 Lumpkin Road Houston, TX 77043 USA</p>	 <p><b>Cossey &amp; Associates Inc.</b> geoconsulting</p> <p>Steve Cossey Chief Geoscientist</p> <p>P.O. Box 1510 Durango, CO 81302, U.S.A. phone/fax: +1 (970) 385-4800 e-mail: cosseygeo@aol.com web page: www.cosseygeo.com</p> <p>Specializing in Deepwater Clastics: - Reservoir modeling - Analogue Studies - Field Courses - Databases</p> <p>Nov 2013</p>
<p><b>Goodale Exploration</b></p> <p>Jonathan Goodale</p> <p>+1-832-671-8261</p> <p>4201 FM 1960 WEST, Suite 400 Houston, Texas 77068</p> <p>junglenail@gmail.com</p>	 <p><b>Eriksfiord Inc</b></p>	<p><b>Beicip Inc.</b></p>  <p>an IFP Group Company Basin to Reservoir - Modeling &amp; Simulation</p> <p><b>Angela Simmons</b> Account Manager</p> <p>1880 S. Dairy Ashford, Suite 630 • Houston, TX 77077 • USA Phone: (281) 293-8550 • Cell: (832) 278-9323 • Fax: (281) 293-8294 Toll Free: (877) 605-2439 • angela.simmons@beicip.com • www.beicip.com</p>



## Geosolutions & Interpretations, LLC



Geology Geophysics Engineering

Phone: (281) 679 0942  
Fax: (281) 679 0952  
Mobile: (281) 772 5826

14760 Memorial, Suite 207, Houston, TX, 77079  
15207 Gatesbury Drive, Houston, TX, 77082  
E-Mails: [geertjager@att.net](mailto:geertjager@att.net); [gj@geointerpretations.com](mailto:gj@geointerpretations.com)  
<http://www.geointerpretations.com>

Gerardo Jager  
President

## CLASSEN EXPLORATION, INC.



JAMES S. CLASSEN

Looking for close-in deals

P.O. BOX 140637  
BOISE, ID 83714

BUS. 208-854-1037

RES. 208-854-1038

FAX. 208-854-1029



Petrophysical Solutions, Inc.

Neal Peeler  
VP, Business Development  
Senior Petrophysicist

11767 Katy Freeway  
Suite 380  
Houston, TX 77079

o (281) 558-6066  
m (713) 213-3468  
f (281) 558-5783

[tnp@petrophysicalsolutions.com](mailto:tnp@petrophysicalsolutions.com)  
[www.petrophysicalsolutions.com](http://www.petrophysicalsolutions.com)

# BSE

JAMES B. BENNETT  
Geology

RANDALL SCHOTT  
Geophysics

811 Dallas  
Suite 1020  
Houston, Texas 77002

Bus. (713)650-1378

## E.H. STORK, JR.

E.H. Stork, Jr. & Assoc.'s, Inc.  
Consulting Geologists & Paleontologists  
Specializing In

Biostratigraphy - Paleoecology - Geologic Interpretation

207 Pecore St.  
Suite #2  
Houston, Texas 77009

Office (713) 802-9731  
Fax (713) 802-9732  
Home (713) 466-9064



Larry Miller  
Vice President, Exploration  
& Business Development

10333 Richmond, Suite 225  
Houston, Texas 77042

office: 713-630-8970  
cell: 281-467-9170  
fax: 713-630-8981

[lmiller@peregrinepetroleum.com](mailto:lmiller@peregrinepetroleum.com)



ROBERT BEAL  
Director of Operations

Agile Seismic LLC  
10590 Westoffice Dr.  
Suite 250  
Houston, TX 77042  
Office: 713-334-5091  
Fax: 713-334-5691  
Direct: 281-779-4513  
Cell: 713-751-9280  
[www.agileseismic.com](http://www.agileseismic.com)  
[robert.beal@agileseismic.com](mailto:robert.beal@agileseismic.com)

## FUGRO INFORMATION SERVICES



Fugro Robertson  
6100 Hillcroft, Suite 115 (77081)  
P.O. Box 740010  
Houston, Texas 77274  
Direct: 713-369-6122  
Main: 713-369-6100  
Cell: 281-520-9920  
Email: [lpplant@fugro.com](mailto:lpplant@fugro.com)  
Website: [www.fugro-robertson.com/roqscan](http://www.fugro-robertson.com/roqscan)

LUCY PLANT  
snr. business development manager  
RoqSCAN



George Gunn  
972.416.1626

• Geosteering Experts  
• Over 8,000 Wells  
in North America  
• 24/7 Operations

[www.horizontalisi.com](http://www.horizontalisi.com)

## GEORGE N. MAY & ASSOCIATES

Consulting Geologists  
and Paleontologists

WILLIAM S. GRUBB

201 HEYMANN BLVD.  
P. O. BOX 51858  
LAFAYETTE, LA 70505

OFFICE (337) 234-3379  
FAX (337) 234-3389  
HOME (337) 235-1923

## MICRO-STRAT INC.

Seismic Sequence Stratigraphic Analysis  
High Resolution Biostratigraphy  
Field Reservoir Sequence Stratigraphic Analysis  
MFS and Sequence Stratigraphy Courses



Gulf of Mexico • West and East Africa • South and Central America • Egypt • China

Walter W. Wornardt, Ph.D.  
CEO & President

5755 Bonhomme, Suite 406  
Houston, TX 77036-2013  
Off: 713-977-2120, Fax: 713-977-7684  
Cell: 713-822-4412

E-mail: [msiw@micro-strat.com](mailto:msiw@micro-strat.com)  
Web-Site: [www.micro-strat.com](http://www.micro-strat.com)  
Reg. Geologist CA. 076, TX 5368



Royce Landman

(281) 240-2777 • FAX (281) 240-0043  
Toll Free: (800) 758-1771  
Email: [rcl@rcl.com](mailto:rcl@rcl.com) • <http://www.rcl.com>

Geophysical Workstations • Hardware/Software  
LAN's • Systems Analysis • Custom Programming



Kyle Hill  
SALES REPRESENTATIVE

EMAIL  
[kyle.hill@zbytedata.com](mailto:kyle.hill@zbytedata.com)

TELEPHONE  
713.532.5006

CELL NUMBER  
713.899.3054

10111 Richmond Ave, Ste.230,  
Houston, TX 77042

[www.zbytedata.com](http://www.zbytedata.com)

## TAUBER EXPLORATION & PRODUCTION CO.

Seeking Drilling Ideas to Drill Ready Prospects  
Onshore US Gulf Coast

Contact Terry Stanislav – Vice President  
Exploration & Business Development

713.869.5656 phone 713.869.1997 fax  
55 Waugh Drive, Suite 600 ■ Houston, TX 77007

[www.tauberexploration.com](http://www.tauberexploration.com)

Graham Gifford  
VP US Operations

[graham.gifford@getech.com](mailto:graham.gifford@getech.com)  
D. +1 713 979 9902  
M. +1 832 715 8082

3000 Wilcrest Drive,  
Suite 155,  
Houston TX 77042,  
USA  
T. +1 713 979 9900  
F. +1 713 979 9960

[www.getech.com](http://www.getech.com)

getech

## Geological & Environmental Investigations on Oil & Gas and Mining Properties

- Site Assessments
- Brine Investigations
- Hydrochemical Studies
- De-Watering Studies
- Property Evaluations
- Forensic Investigations

Michael D. Campbell, P.G., P.H.



I2M Associates, LLC  
<http://I2MAssociates.com>  
Houston and Seattle • 713-807-0021



Robert E. Pledger  
President

ASHFORD OIL & GAS COMPANY, LLC  
14520 Memorial Drive, M126 • Houston, TX 77079  
Tel: 832-512-0495 • Email: [rpledger@hotmail.com](mailto:rpledger@hotmail.com)

PalCon Database  
PALEO CONTROL  
SOUTH HALF TEXAS GULF COAST  
FRIO-VICKSBURG-JACKSON TOPS  
(& CONTROL WELL DATA)  
22 SO. TX Counties  
plus Matagorda County



JOHN PICKERING AAPG CPG #2234  
PICKERING ENTERPRISES, INC.

PALEO DATABASE

(281) 498-5249 11203 SHARPVIEW DR / HOUSTON TX 77072  
[jpickering4@comcast.net](mailto:jpickering4@comcast.net) [www.southtexaspaleo.com](http://www.southtexaspaleo.com)

Geologist

Geophysicist

John W. Tumilson  
Petroleum Exploration

2406 Middle Creek  
Kingwood, Tx 77339

(713) 358-8672



HSI HORIZONTAL SOLUTIONS INTL.

- Geosteering Experts
- Over 8,000 Wells  
in North America
- 24/7 Operations

KC, Oren  
303.249.9965

[www.horizontalisi.com](http://www.horizontalisi.com)

HAMPSON-RUSSELL  
A CGGVeritas Company

Neil Peake  
US Sales Manager

10300 Town Park Drive  
Houston TX 77072 USA  
Tel.: +1 832 351 8250  
Mobile: +1 713 298 3401  
Fax: +1 832 351 8743  
[neil.peake@cgveritas.com](mailto:neil.peake@cgveritas.com)



### BIG "6" DRILLING COMPANY

7500 SAN FELIPE, SUITE 250  
HOUSTON, TEXAS 77063

CHESTER B. BENGE, JR.  
PRESIDENT

OFFICE: 713-763-2300  
FAX: 713-763-4463  
RES: 713-439-0903

CERT. PETR. GEOL. #4014 CERT. PETR. GPHY. #02 SIPES #1271

### DEBORAH KING SACREY PRESIDENT

#### AUBURN ENERGY

8588 KATY FREEWAY SUITE 260  
HOUSTON, TEXAS 77024  
E-MAIL: dsacrey@auburnenergy.com

OFFICE: 713-468-3260  
FAX: 713-468-3210  
MOBIL: 713-816-1817

### Nomad Geosciences LLC

Geology - Petrophysics - Geophysics  
www.NomadGeosciences.com  
11429 Purple Beech Drive  
Reston, VA 20191-1325



Al Taylor - President & Chief Scientist  
E-mail: Al@NomadGeosciences.com CPG, LPG, RPG

Prospect Generation, Exploration and Development, Acreage  
Evaluation, Reservoir Characterization and Consulting Services

Voice/Fax: 703.390.1147 Cellular: 703.489.8787

## For Gravity and Magnetic Data Count on Fugro...

Brenda Robinson: +1 713-369-6072

brobinson@fugro.com

Jeff Rowe: +1 613-520-7713

jrowe@fugro.com

www.fugro-gravmag.com



## PADGETT EXPLORATION

Carl M. Padgett

Dianne B. Padgett

Consulting Geophysicists

800 Wilcrest Drive, Suite 225  
Houston, Texas 77042

Office: (713) 781-8139  
Res: (713) 784-1827



SeaBird Exploration

Matthew J. Padon  
Business Development Manager

SeaBird Exploration Americas  
1155 N. Dairy Ashford, Ste. 206  
Houston, TX 77079 USA  
www.sbxexp.com

Telephone: +1-281-556-1666  
Mobile: +1-281-686-4374  
Fax: +1-281-556-5315  
Matthew.Padon@sbxexp.com



THUNDER EXPLORATION, INC.

WALTER S. LIGHT, JR.  
PRESIDENT  
PETROLEUM GEOLOGIST

P.O. BOX 541674  
HOUSTON, TEXAS  
77254-1674

US MOBILE: +713 823 8288  
UK MOBILE: +44 (0)794 755 1693  
EMAIL: wthunderx@aol.com



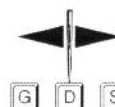
Petrophysical Solutions, Inc.

William G. Price  
President

11767 Katy Freeway  
Suite 380  
Houston, TX 77079

(281) 558-6066  
m (713) 206-2008  
f (281) 558-5783

wgp@petrophysicalsolutions.com  
www.petrophysicalsolutions.com



### Geotech & Design Services

7171 Highway 6 North, #202  
Houston, Texas 77095

Tel: (281) 858-7100  
Fax: (281) 500-8534

heather.wilson@geotechmap.net

Heather Wilson  
Account Manager

www.geotechmap.net

## SeismicVentures

Sara Davis

Business Development Manager  
s\_davis@seismicventures.com

Seismic Ventures, LLC tel: 281-240-1234 (x3206)  
4805 Westway Park Blvd. cel: 713-256-8737  
Suite 100 fax: 281-240-4997  
Houston, Texas 77041 www.seismicventures.com



William E. Ellington Jr., PE  
President

Ellington & Associates, Inc.

Phone: (713) 956-2838  
Fax: (713) 481-5333  
Mobile: (713) 829-1590  
bill@ellingtongeologic.com

1414 Lumpkin Road  
Houston, TX 77043 USA  
www.ellingtongeologic.com

## PALEO CONTROL, INC.

WWW.PALEOCONTROL.COM



JIM THORPE  
Gulf Coast Paleontology

713-849-0044  
jthorpe@paleocontrol.com

P.O. Box 41751  
Houston, TX 77241



Nicola Coronis  
Account Manager

431 Mason Park, Suite B  
Katy, Texas 77450

Office: 713-972-6209  
Cell: 281-507-6552  
Fax: 281-395-6999

www.resolvevego.com

E-mail: ncoronis@resolvevego.com



Sophia Hak  
Account Manager

431 Mason Park, Suite B  
Katy, Texas 77450

Direct: 713-972-6213  
Cell: 832-250-4823  
Fax: 281-395-6999

www.resolvevego.com

E-mail: shak@resolvevego.com



Katherine Pittman  
Vice President of Sales & Marketing

431 Mason Park, Suite B  
Katy, Texas 77450

Direct: 713-972-6206  
Cell: 281-615-3339  
Fax: 281-395-6999

www.resolvevego.com

E-mail: kpittman@resolvevego.com



### ETROA Resources LLC

Join us in pursuing gulf coast production,  
acquisitions and low-risk opportunities.

John C. Ebert  
Kevin McVey

128 Northpark Blvd.  
Covington, LA 70433  
(985) 809-3808

www.etroa.com



Basin to Reservoir - Modeling & Simulation

Angela Simmons  
Account Manager

1880 S. Dairy Ashford, Suite 630 • Houston, TX 77077 • USA  
Phone: (281) 293-8550 • Cell: (832) 278-9323 • Fax: (281) 293-8294  
Toll Free: (877) 605-2439 • angela.simmons@beicip.com • www.beicip.com



Scott Wallace

Senior Business Development Manager

c: 713-775-9338  
o: 570-376-2777  
f: 570-376-2779  
e: swallace@fr-usa.com

P.O. Box 771521  
Houston, Texas 77215

PalCon Database  
PALEO CONTROL  
SOUTH HALF TEXAS GULF COAST  
FRIO-VICKSBURG-JACKSON TOPS  
(& CONTROL WELL DATA)  
22 Counties



JOHN PICKERING AAPG CPG #2234  
PICKERING ENTERPRISES, INC.

(281) 498-5249 11203 SHARPVIEW DR./HOUSTON TX 77072  
jpickering4@houston.rr.com www.pickrecords.com/palcon.html



Tammy Price  
Account Executive

Z-Terra Inc.  
17171 Park Row, Suite 247  
Houston, TX 77084  
E-mail: tammy@z-terra.com  
www.z-terra.com

Main: +1 281 945 0000 x111  
Fax: +1 281 945 0001  
Cell: +1 713 303 4502

Where is your  
business card?  
\$160 per 10 issues  
713.463.9476



# It's no illusion...Core Lab offers everything you need.



©2009 Core Laboratories. All rights reserved.

## **Unconventional resource exploitation**

No service company has more technology or talent to apply to your gas shale or tight gas reservoir. We are the gas shale experts.

## **Integrated services**

The more complex your opportunity, the more our multidisciplinary approach of reservoir description, production enhancement, and reservoir management can benefit you.

## **High-quality people**

Our team focuses on your needs. Their knowledge, their experience, are yours.

## **Capacity for fast turnaround**

We have the people and facilities to handle the largest projects, such as thousands of feet of core, very expeditiously.

## **Quick answers**

Need onsite oil and gas sampling and analysis, laboratory-quality PVT data at your wellsite, or rapid analysis when your samples reach our lab? You got it.

## **Global support**

Our team works in every oil-producing province in the world. Someone half a world away can bring the exact experience and skill set needed to your project.

## **Industry leadership and reliability**

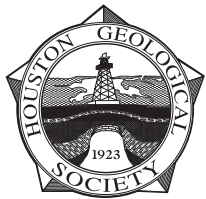
For over 70 years, Core Laboratories has defined the standards for petrophysical science and service. You can always depend on us.

## **Proprietary and patented technologies**

Core can apply technologies that no one else has to bring you specific solutions.

## **Experience**

Now and again, you may encounter a new challenge. Odds are that challenge is not new to our diversified, global team. Rely on us to provide the solution.



# HOUSTON GEOLOGICAL SOCIETY

14811 St. Mary's Lane, Suite 250 • Houston, TX 77079

Periodicals  
U.S. Postage  
PAID  
Houston, Texas



## Looking for Solutions?

SCM provides upstream E&P consulting and specializes in geological modeling, Petrel training, and customized workflows to enhance productivity and improve quality of results.

To find out more about how SCM's solutions could help support your specific needs, visit [www.scm-inc.com](http://www.scm-inc.com).

\* mark of Schlumberger



SCM E&P Solutions, Inc.

*Reliability* you need  
Experience you can *trust*

[www.scm-inc.com](http://www.scm-inc.com)

E & P Consulting

Petrel Training

Custom Workflows

Business Management