

HGS Bulletin

Volume 55 Number 10

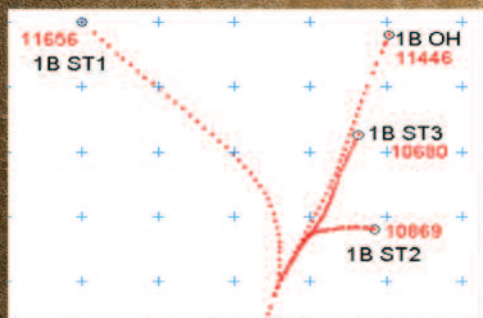
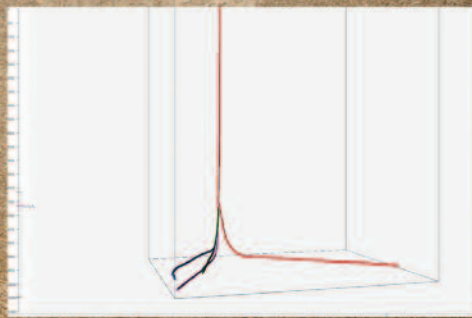
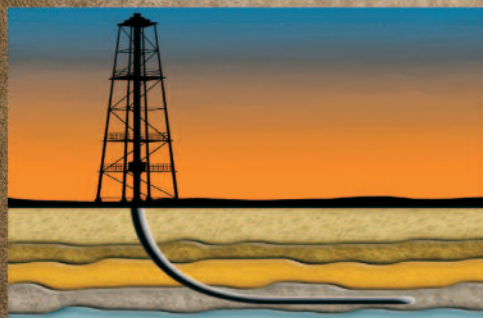
Houston Geological Society

June 2013

**SPECIAL
AWARDS
ISSUE**

GUEST NIGHT
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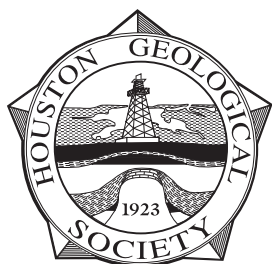
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The Bulletin

Houston Geological Society

Volume 55, Number 10

June 2013

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Technical Meetings

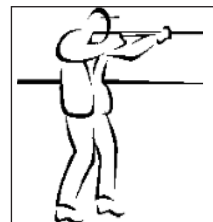
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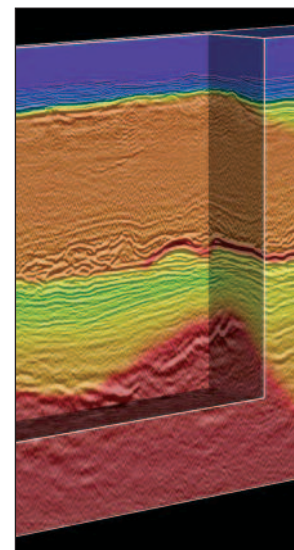
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About the Cover: Mount Sharp, also called Aeolis Mons, is a layered mound in the center of Mars' Gale Crater, rising more than 3 miles (5 kilometers) above the crater floor, where Curiosity has worked since the rover's landing in August 2012. Lower slopes of Mount Sharp are the major destination for the mission, though the rover will first spend many more weeks around a location called "Yellowknife Bay," where it has found evidence of a past environment favorable for microbial life.

This mosaic was assembled from dozens of images from the 100-millimeter-focal-length telephoto lens camera mounted on the right side of the Mastcam instrument. The component images were taken September 20, 2012 during the 45th Martian day, or sol, of Curiosity's mission on Mars. The sky has been filled out by extrapolation of color and brightness information from the portions of the sky that were captured in images of the terrain. A raw-color version of the mosaic is available (PIA16769). Raw color shows the scene's colors as they would look in a typical smart-phone camera photo.

The mosaic of images from the Mast Camera (Mastcam) on NASA's Mars rover Curiosity shows Mount Sharp in a white-balanced color adjustment that makes the sky look overly blue but shows the terrain as if under Earth-like lighting (<http://photojournal.jpl.nasa.gov/catalog/PIA16768>). White-balancing helps scientists recognize rock materials based on their experience looking at rocks on Earth. The Martian sky would look more of a butterscotch color to the human eye. White balancing yields an overly blue hue in images that have very little blue information, such as Martian landscapes, because the white balancing tends to overcompensate for the low inherent blue content. See page 11.

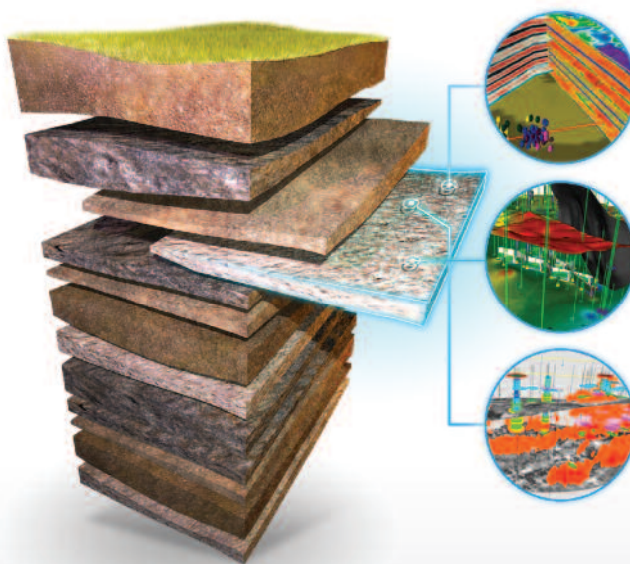
Curiosity's Mastcam was built and is operated by Malin Space Science Systems, San Diego. NASA's Jet Propulsion Laboratory, Pasadena, Calif., manages the Mars Science Laboratory Project and the mission's Curiosity rover for NASA's Science Mission Directorate in Washington. The rover was designed and assembled at JPL, a division of the California Institute of Technology in Pasadena.

More information about Curiosity is available online at <http://www.nasa.gov/msl> and <http://mars.jpl.nasa.gov/msl/>.

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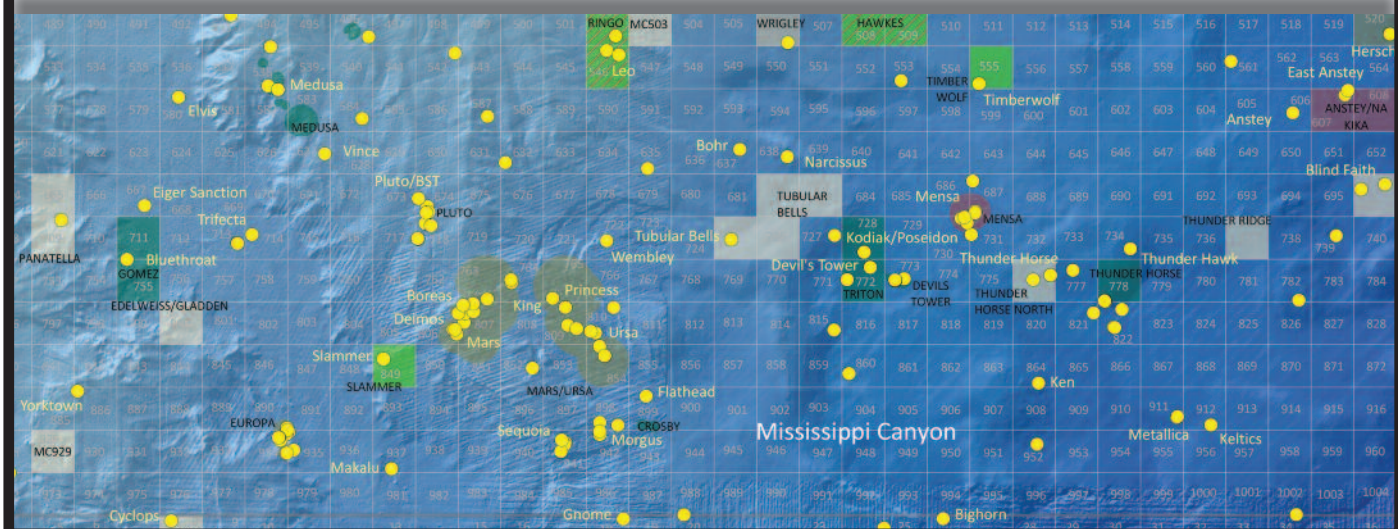
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Martin Cassidy
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Looking Back and Looking Forward

This is the last of my pages from the president and I shall miss the opportunity to communicate with the members. We are a large active organization and there are stories within stories. I have been honored to serve as your president and to work with a really dedicated Board of Directors. It has been a pleasure to meet members at the many meetings that I have attended. Service as president gives one an interesting overlook of HGS' large and complex organization. I have seen our member volunteers overcome obstacles and achieve major goals.

Looking back we can take particular satisfaction in success of four major conferences. First, there was the HGS-PESGB African Conference in September which drew 300+ people from the United States, the United Kingdom, and Africa. The new large venue was much appreciated. There was room for South African native dancers to dance through the area of technical booths. Second, was Technofest in November which was held despite a fierce rain storm. Third, was HGS Legends' Night in January that cleared a profit of over \$17,000. Many corporate and individual donors made this result possible. The amount was matched from HGS general funds and the total divided equally between the graduate and undergraduate scholarship funds and funded scholarships for next year. Fourth, there was the remarkable Mudrocks Conference in February with 515 attendees. Displayed cores of unconventional oil and gas reservoirs were a particular attraction.

All that was in addition to HGS General luncheon and dinner meetings, HGS International and North American dinner meetings, dinner meetings of the HGS Environmental and Engineering group, and not least, the HGS Northsiders' luncheon meetings.

More than 350 members attend technical meetings each month. Attendance is on the rise as we use social media to spread the word about our programs. Our meetings generally attract walk-ups, some of whom later become members. This contributes to addition of new members at the rate of 10 to 50 a month. In

addition, our NeosGeos, new employees of companies and graduates looking for jobs, now number more than 550 people on their distribution list.

The HGS continuing education program of one-day courses continues to offer important training; outreach that includes the Houston Science Fair has been supported.

The HGS needs to continue to grow and volunteers are needed in even greater numbers to carry forward not only the technical programs, but the outreach programs to students and the community at large.

All of these meetings and activities are organized by dedicated committee chairmen and their committee members, that is, volunteers. If I were to list all of them this president's page would be full and I fear that I would miss someone! Thus I shout out a general THANK YOU to all who worked in any of our committees.

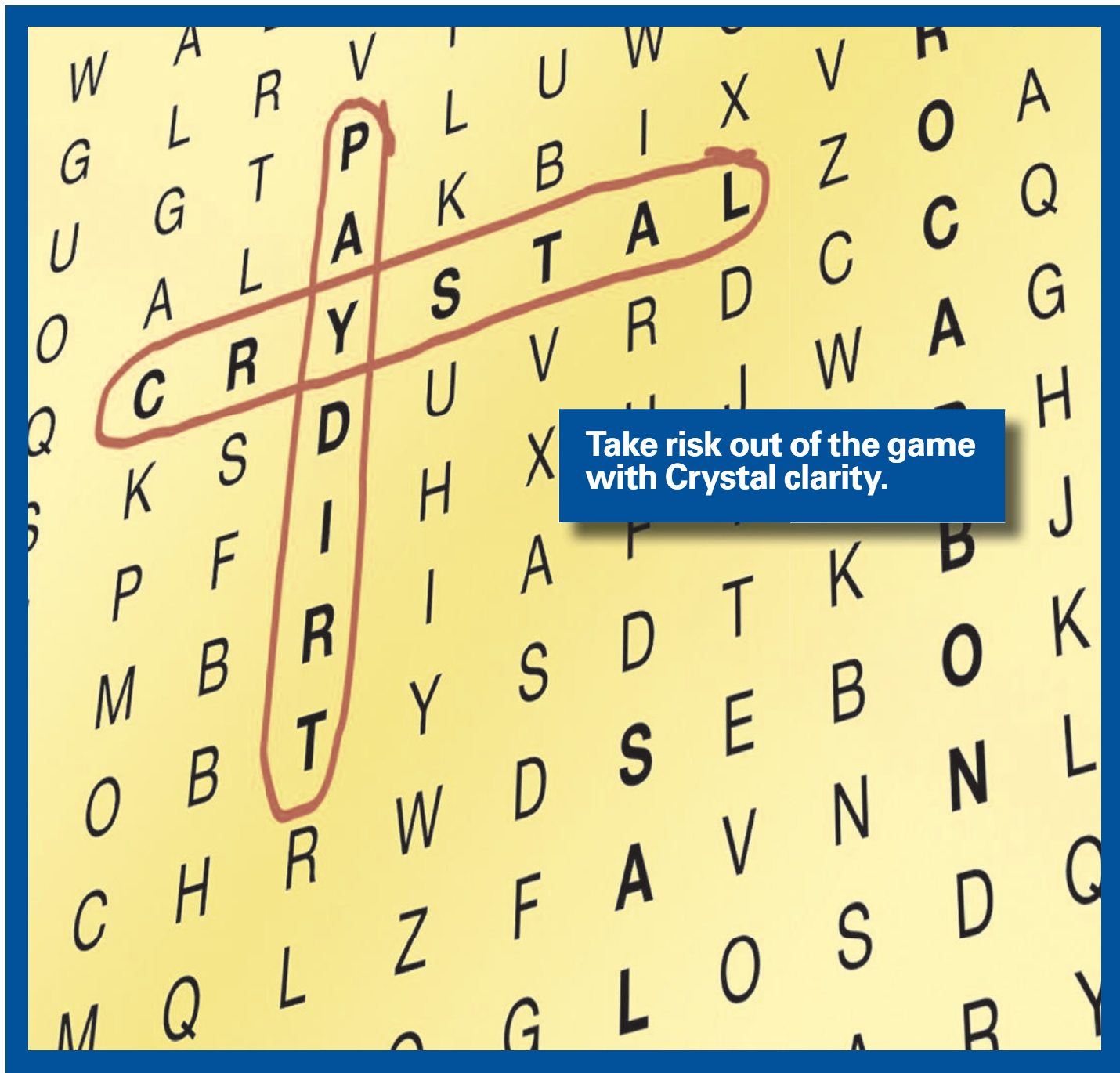
Now to look forward:

The leadership of committee chairmen is remarkable. HGS is always in need of more leaders, and leaders are often developed from the ranks of committee members.

Please look at page three (3) of the HGS *Bulletin* and note all of the activities for which there are committees. I became involved early in the HGS International committee by simply asking if I could help pick programs for the next year. We sat around one evening in the HGS office and discussed what international plays and areas were hot. Different members had various exposures and opinions. It was a learning experience. Next we had to find experts to make presentations for us. In each step, one sees what the chairman must consider.

What are the advantages of participation? To list a few: exposure to new data you never considered, experience leading a committee, meeting new people, conversations with experts outside your company, consideration given to opinions counter to popular theories, such as Bob Shoup's talk about climate change, and finally, the food service!

From The President continued on page 9



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Patricia Santogrossi
editor@hgs.org

Ciao Baby!

This is the time when the Editor gets to thank all of the people who aid in the production of the Houston Geological Society *Bulletin*. First, I must start with the Society's phenomenal office staff who handle the *Bulletin* and Website advertising. **Nina**, our Office Manager, has a wide range of skills and expertise. She can only be described as grace under pressure. **Troy Fearnow**, our fearless Webmaster, has been a great addition. Together we have endeavored to make the email blast more consistent and informative. He is a joy with whom to work. **Jill Kimble** is relatively new to us, yet she fits right in! I value her calm steadiness.

The last member of the 55th volume of the *Bulletin*'s Editorial Board is Lisa Krueger, our design editor. I could not have done this job without the benefit of her ten years' experience, her dedication, and guidance.

Next, I could hardly go further without acknowledgement of our intrepid pre-editors who go where others may fear to tread. They have volunteered for some years to preview the talk abstracts and speaker bios. **James Ragsdale**, **Charles Revilla**, and this year's new addition, **Ed Marks**, have literally been my right hand men! They are bright, colorful, and conscientious.

I'd like to honorably mention those members and friends who graciously supplied cover art from their personal collections. These include **Denise Stone**, **Claudio Bartolini**, and **Marli Miller** at the University of Oregon.

Also in my pantheon of greats are the three people who were each my co-editor for a column this year: **Dianna Phu** on Social Media, **Inda Immega** on the famous Immegas, and **Bob Shoup** on climate change. Thank you all for your inspiration, valuable content, and aid in getting outside my own box.

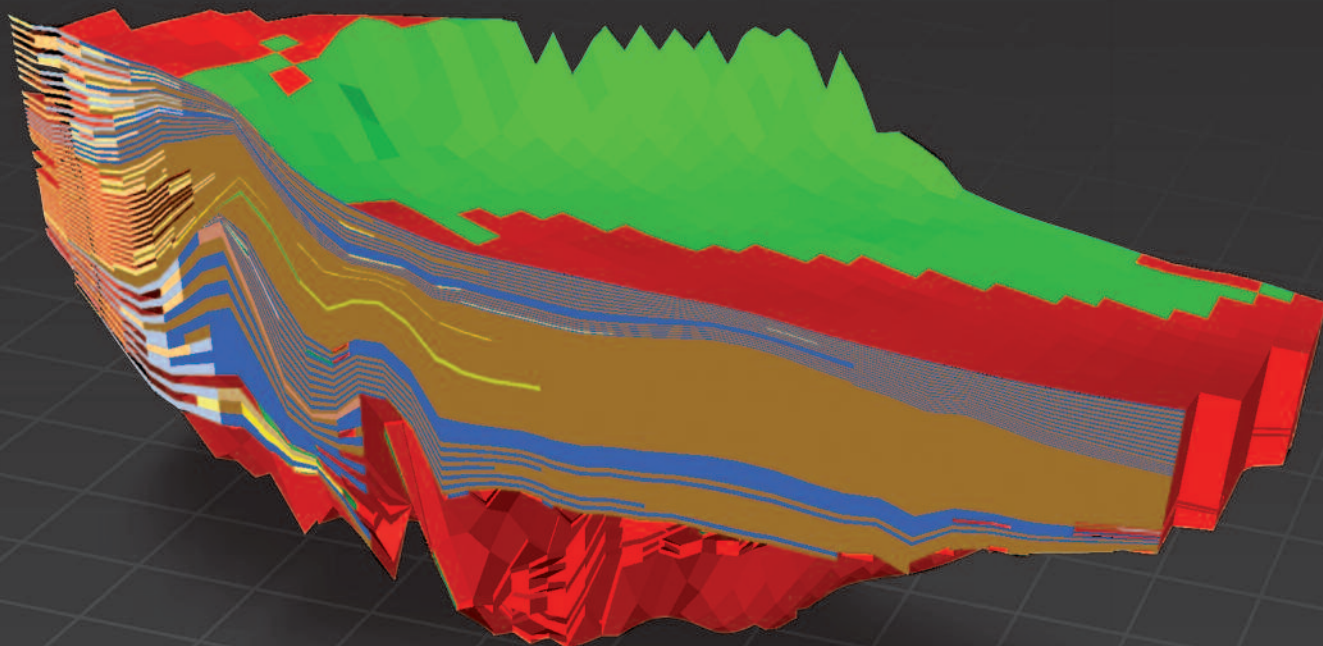
Thank are due to **Mike Forlenza** for his willingness to step up and serve next year as editor. We will all benefit from his prior experience on the job.

Special thanks go to **David Miller** who has been a valued colleague since coming to Statoil in February of 2012. Dave was kind enough to offer his assistance approximately mid-year to be a final reader for the content of the *Bulletin*. This was especially important for the Editor's column itself as it was usually late-breaking and I am not that great a typist!

I am really looking forward to going to my first Guest Night this year. You see, I have an affinity for things "Mars". First, there was the Mars Field I worked on in the '89-91 period as the Appraisal Lead for Shell. Then, there was the cat that I adopted from the Harahan, LA Home Depot whilst I lived in New Orleans. I named him Mars though in my head I thought of him as "Marz" so when in cat-mother mode I could call him Marzipan (!); silly as he was not tawny but all black. I had him for 17 years.

Anyway back to Guest Night, the Curiosity rover reminds of Johnny Five from the *Short Circuit* movies of the 1980's. Love that name, Curiosity, as it is one of the common characteristics of geoscientists. It certainly is one of mine. I have enjoyed learning more about the subjects of our cover photos and the references in some abstracts and government updates that have sent me to the internet for more information, much of which I chose to share with you in short side articles.

It has been a privilege to serve the membership of the HGS this past year as Editor, to serve with my fellow Board members, and to help present the hard work of all of the committee chairs and members who represent the speakers, talks, courses, and events that comprise the mission of the Houston Geological Society. ■



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Now Explore



Currently, we have new advantages. Our new, large multi-room office is now complete. We have three permanent employees to help us: Nina Hoeny, our Office Director, Jill Trimble, Administrative Assistant, and Troy Fearnow, our Webmaster. The revamped HGS website is now up and running. And our membership has grown again to nearly 4400 members!

And so to the future! We have two more special events this fiscal year: President's Night at which we take time to honor volunteers and supporters, and the large, general event open to one and all, Guest Night. See articles to preview each in this issue.

Guest Night is a great opportunity to enjoy an evening with the family in a fascinating location, the new Paleontology Hall of the Houston Museum of Natural Science which includes a flying giant dinosaur from West Texas. The Guest Night speaker is an expert from NASA who navigates the new rover Curiosity and will tell us about its new findings on Mars.

Now to think even further ahead, to next Fall, HGS will introduce a new Applied Geoscience Conference, "Interdisciplinary Micro to

Macro Scale Geomechanics", to be held November 4th and 5th, 2013. Corporate sponsors are desired. Please sign up to attend at your first opportunity.

Still further ahead, but critical to the HGS, is the AAPG Annual Meeting to be held in Houston next spring. Thousands of guests will arrive. A couple of hundred HGS volunteers will be needed in support of the giant meeting. The Chairman is Steve Brachman, and committees are being assembled even now. We hope you are set to prepare abstracts, papers, and posters; to get them approved by your companies; and submit them when the AAPG announces the opportunity.

In summary, we look back at success, but we look forward to more activity and responsibility. The HGS needs to continue to grow and volunteers are needed in even greater numbers to carry forward not only the technical programs, but the outreach programs to students and the community at large.

Come, volunteer to join committees to carry forward the Houston Geological Society, and I shall join you. ■

Letters to the Editor

To: The Houston Geological Society:

I hope you can find time to read the attached (references to a book by H. Leighton Stewart entitled "Fire-Ice Paradise", a study by the Center for the Study of Carbon Dioxide and Global Change that refutes IPCC conclusion, and to The Right Climate Stuff (TRCS) preliminary findings). I strongly feel that the impact of CO₂, as to how it affects our climate, is being severely misrepresented by the media, government regulatory agencies, and other parties. This, if correct, could lead to punitive rules and regulations on our oil and gas companies by our energy agencies, and thus further impede development, production, and transport, for example the Keystone XL pipeline, of North American oil and gas reserves.

We must recognize that CO₂ is neither a pollutant nor driver of climate change. In fact, it is essential for the welfare of our earth and its ever increasing population.

In light of the above, I hope the attached information will be of use to you in your decision making, as such relates to the oil and gas industry, pipelines, and development of our bountiful oil and gas reserves on federal lands. Also, cooperation with Canada and Mexico is very important in the matters that relate to oil and gas transport across our borders with each of our neighbors.

Sincerely,
R. A. (Dick) Baile

Patricia,

My compliments and thanks for your fine rendition of Bob Shoup's talk on February 27. I'm an old retired geologist and long time HGS member who, as interested as I was, couldn't get up enough gumption to make the trip to downtown Houston for the talk. Some years ago I stumbled onto Ryan Maue's Global Tropical Cyclone Accumulated Cyclone Energy chart and a chart of the Pacific Decadal Oscillation at about the same scale. It was like a rather good correlation between two electric logs. Ryan was kind enough to exchange emails about the correlation which he agreed was there but as yet not fully explained. I have enjoyed your editorials, a step up in interest from past ones.

Jim Kirk, Spring TX



Dr. Sherwood Idso, a research Physicist with the United States Department of Agriculture's Research service at the United States Water Conservation Service Laboratory in Phoenix, AZ is shown as he holds ambient and CO₂ enrichment levels of +150, +300, and +450% signs above Eldarica Pine trees. Imagine the earth's forests in a CO₂ enriched future.

HGS GUEST NIGHT – SATURDAY, JUNE 8, 2013

HOUSTON MUSEUM OF NATURAL SCIENCE 6:00 P.M.–10:00 P.M.

CURIOSITY ON MARS: THE LATEST RESULTS FROM THE FIRST GREY ROCKS ON THE RED PLANET

Speaker:

Dr. Dawn Sumner
co-investigator for NASA's
Mars Science Laboratory
team



The rover in the background is Curiosity's twin at JPL, used to test commands before sending them to the real rover.

The Guest Night Program includes a Social Hour, Buffet Dinner and Featured Speaker Presentation:

6:30 – 7:30 Cash Bar and Buffet Dinner – Tour the Museum Exhibits and Visit with Guests

7:30 Move into Theater for Presentation of Awards and Speaker

Short Intermission

9:00 Movie (to be determined)

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Guest Night 2013

Dr. Sumner to Speak on the Most Recent Results from the Mars Science Laboratory Mission, a Roving Geochemist on Mars!

by Dave Reynolds



<http://photojournal.jpl.nasa.gov/catalog/PIA16768>



This year our annual Guest Night event at the Houston Museum of Natural Science will feature Dr. Dawn Sumner talking about the most recent results from NASA's Curiosity mission on Mars. Dr. Sumner is a key part of that mission as a science team member who coordinates geological mapping and helps interpret depositional environments. She describes herself as a geobiologist whose research on Earth is focused on

carbonate rocks. She seeks to understand microbial evolution and to develop ways to constrain the early evolution of life. This research also involves stratigraphy and sedimentology to constrain depositional environments, and employs 3D visualization software from the KeckCAVES group to show these features of her research. These skills are now being applied to sedimentology and stratigraphy on Mars.

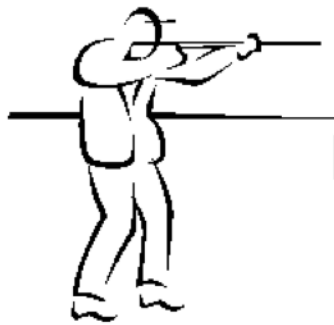
Dr. Dawn Sumner earned a Ph.D. from Massachusetts Institute of Technology in 1995 and is currently a Professor at University of California at Davis. Her research has looked at the way life has shaped the atmosphere we breathe by producing oxygen and removing carbon dioxide. Carbonate rocks record the history of Earth's ocean chemistry and, indirectly, atmospheric chemistry and life processes. Any change in one of these processes feeds back and affects the others as well as future chemical conditions. Eventually, these processes produced an Earth that is habitable by humans. How that happened is an intriguing question that can be partially answered by looking at Earth's history as preserved in carbonate rocks.

As a co-investigator for NASA's Mars Science Laboratory team, Dr. Sumner helped develop and test scientific interpretations of what is observed by the Curiosity rover on Mars, including planning science campaigns and observations. She expects to bring some 3D visualization of the landing site to show during her talk at Guest Night.

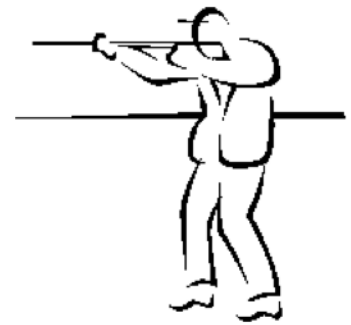
Make your reservations for Guest Night early to be sure to hear this fantastic lecture and to visit with friends! We will start at 6:30 with

cash bar and a buffet dinner in the new Paleo Hall. After dinner there will be awards presentations in the IMAX Theater followed by Dr Sumner's talk. Tickets to the event are a great value at \$30 each and must be purchased from the HGS web site in advance only. There will be no tickets sold at the door. ■





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.

For directions to the club, visit 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: _____

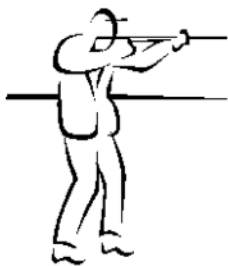
Preferred time: (circle one) 9:00 10:00 11:00 12:00 Ammo: (circle one) 12 gauge 20 gauge

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

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

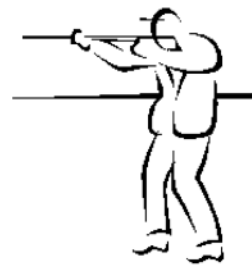
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**ALL SHOOTERS WILL BE REQUIRED TO SIGN A DISCLAIMER OF RESPONSIBILITY
BEFORE THEY WILL BE ALLOWED TO SHOOT!**



30th Annual HGS SKEET SHOOT

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



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- Recognized signage at the Club
- Recognition at Awards

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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: 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

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

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Monday, June 10, 2013

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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 International Dinner Meeting

Michael A. Zinger
Chief Explorationist,
Red Sea Area Exploration Division
Western Area Exploration Dept.
Saudi Aramco

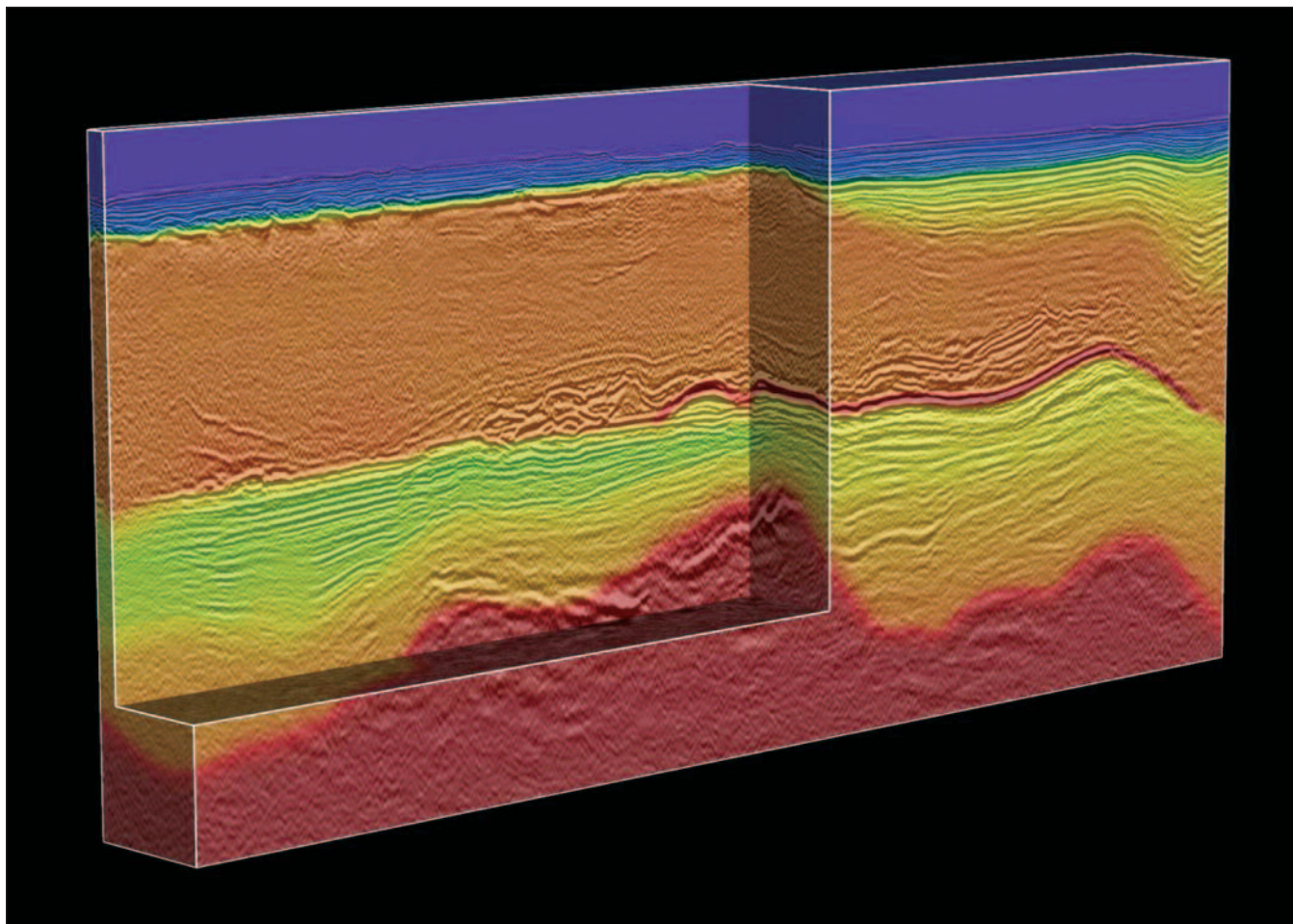
Red Sea Frontier: Embracing the Challenge

This presentation deals with Saudi Aramco's experience in one of the truly frontier areas of pre-salt exploration, the Red Sea. Nine (9) wells were drilled back in the 1960's by international companies in shallow waters of the Saudi Arabian portion of the Red Sea that resulted in one discovery. No deepwater wells have been drilled in Saudi Red Sea waters. Saudi Aramco established a team to explore in the marine portion of the Red Sea six years ago. They have acquired a regional grid of 2D seismic data and several large 3D Wide Azimuth surveys which are accompanied by Full Tensor Gradiometry, Marine Magneto-Telluric, and Controlled Source Electromagnetic datasets.

Though drilling began in early 2012, the first discovery in the shallow waters of the Red Sea was announced in October, 2012. The Sha'ur-1 well, located in 56 feet of water in the northern portion of the Red Sea, discovered natural gas in four separate zones below the salt. Deepwater drilling began in December, 2012 with the spud of the Duba-1 well some 30 kilometers offshore in 2200 feet of water.

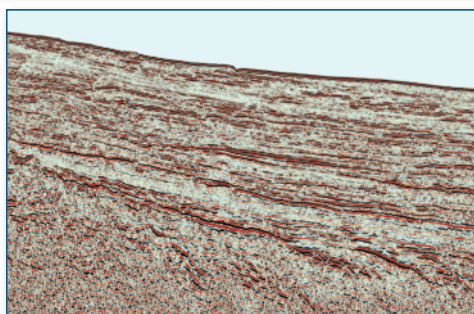
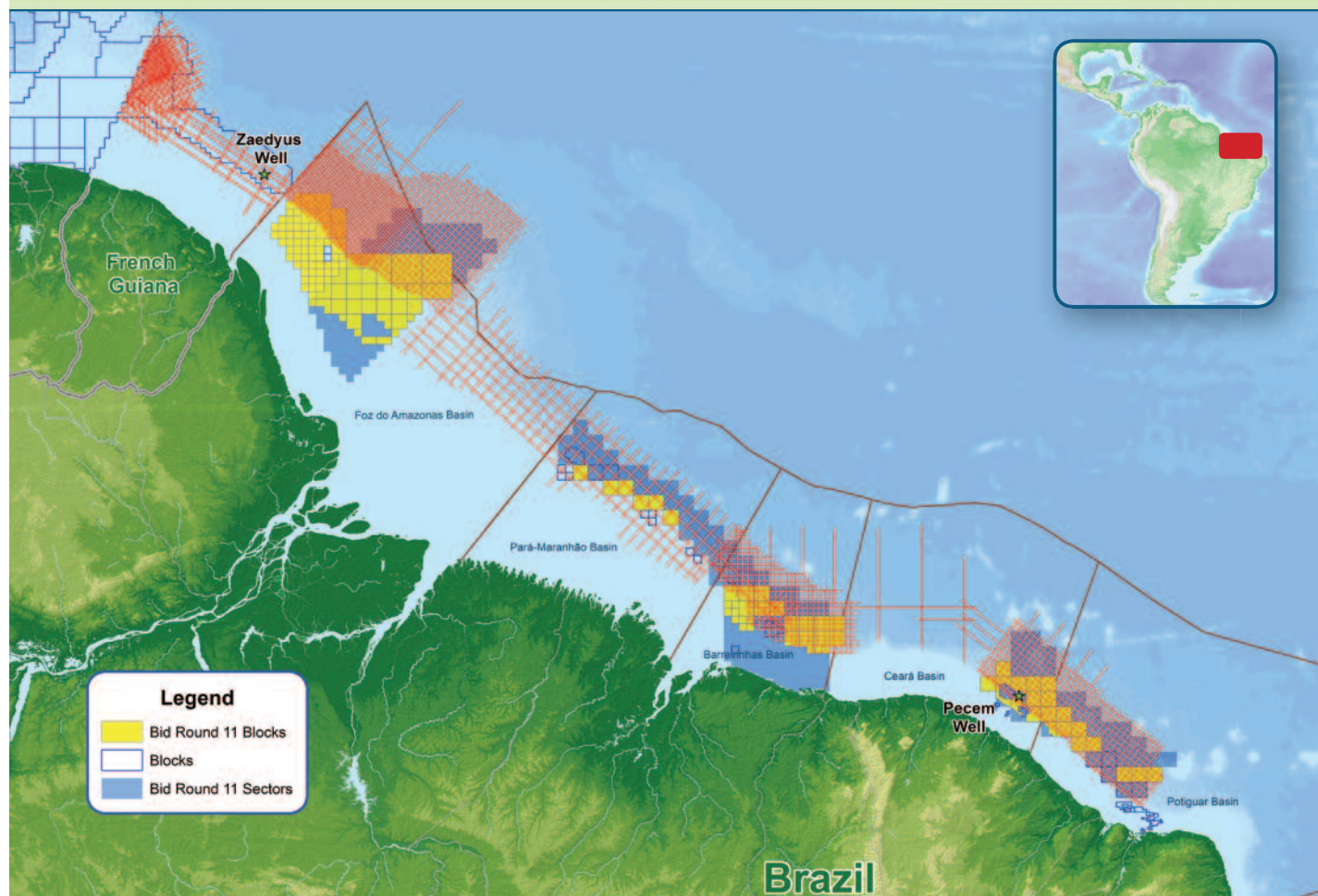
Challenges include a total lack of deepwater well control for calibration of earth models and a poorly understood regional

HGS International Dinner continued on page 17



Equatorial Margins Brazil

Multi-Client Seismic - Data Available for Brazil Round 11



Seismic section from the Potiguar Basin data

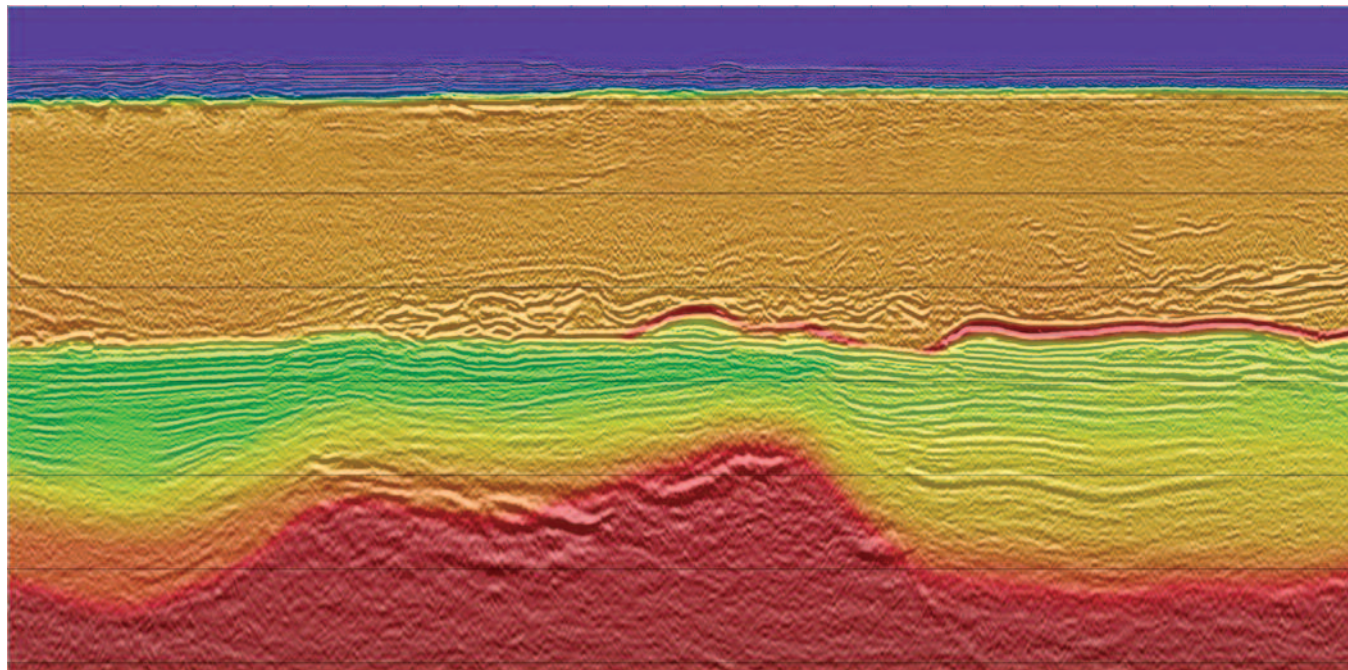
Spectrum is active in five basins along the Equatorial Margins of Brazil that are on offer in Round 11. We have new PSTM and PSDM data available for each of the Foz do Amazonas, Barreirinhas, Ceará and Potiguar surveys all of which were acquired with 10,000m offsets and 13 second record lengths.

Two reprocessing efforts are underway along the Equatorial Margins, one a 9,600 kilometer program in the Para-Maranhão basin that links the Foz do Amazonas basin to the Barreirinhas Basin. The second project is an 7,783 kilometer project in the deep waters of French Guiana, which will link the Zaedyus discovery with the recently acquired data in Brazil. The well tie data will be available in late March and the remaining data in April.

Our Multi-Client team is committed to delivering high quality data in advance of the upcoming Round 11. Companies participating in Spectrum's programs will have a competitive advantage in this round.



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framework. Pre-salt imaging is also a huge challenge. The Red Sea contains up to 10,000 feet of evaporite section in many areas which is layered and internally complex. The Santos Basin in Brazil is considered to be an appropriate analog for the layered evaporite section which includes clastics, anhydrites, and halites.

The result of all the complex salt is extremely poor pre-salt imaging. Saudi Aramco has recently acquired wide azimuth marine 3D seismic data that has greatly improved the imaging of the pre-salt and comparisons can now be made between 2D and 3D seismic datasets. In addition, in an effort to obtain a better earth model for pre-salt depth imaging, Saudi Aramco has opened a Red Sea Joint Technology Center, a project that includes Saudi Aramco's Western Area Exploration Department, our Advanced Research Center, and non-seismic experts from Schlumberger whose goal it is to integrate the three non-seismic datasets and the Wide Azimuth 3D datasets to constrain and add detail to the layered evaporite portion of the earth model. This presentation should be able to show some of these early results.

The seafloor of the Red Sea, comprised of a thin post-salt section lying above active salt, is also extremely complex. Seafloor instabilities exist that closely resemble the Sigsbee Escarpment in the Gulf of Mexico. This presentation will also show comparisons between the exploration 3D seismic data, the high resolution 3D seismic data, and the ultra-high resolution site survey data from the first 1500 feet below the seafloor. ■

Biographical Sketch

MICHAEL ZINGER received a Bachelor of Science degree from the University of Iowa in Geophysics in 1980. He worked for Amoco Corporation for 18 years and explored West Texas, Ghana, Trinidad, and the Gulf of Suez, in Egypt, where he lived for 7 years.



During the last 13 years with Saudi Aramco, he worked onshore for several years, discovered a large gas field in the established Eastern Province, and then led the team that initiated offshore gas exploration in the Arabian/Persian Gulf. This team discovered several giant gas fields including the supergiant Karan Gas Field.

In 2006, Mr. Zinger initiated, and has since led, Saudi Aramco's Red Sea Exploration effort with the goal of finding natural gas for power generation within the highly populated west coast of Saudi Arabia. This project has successfully delineated and developed a large Miocene gas field onshore, and late last year, made a gas condensate discovery with the drilling of Saudi Aramco's first Red Sea jack-up well in the shallow coastal waters.

The Division is currently drilling Saudi Aramco's first "deepwater" well in the Northern Red Sea in 700 meters of water.

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Wednesday, June 12, 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

Thomas O. Jackson, Ph.D., AICP, MAI, CRE, FRICS
Real Property Analytics, Inc.
College Station, TX

Evaluating Environmental Risk and Stigma

Decisions to proceed with real estate transactions are affected by the degree of risk vs. the potential reward for the investor and the lending entity. A variety of factors determine the amount of risk that a particular property may entail. Environmental risk is one of the major factors that determine whether a real estate deal proceeds or not. A potential investor may be willing to acquire properties that have environmental issues, but many times the lending institutions have a very high degree of aversion to any property that may have such an issue. As a result, properties with any environmental concerns may have associated stigmas which may or may not be justified. This presentation will give the environmental practitioner, real estate agent, real estate investor, and lending institution a perspective on how to understand and manage the risks associated with environmentally impaired properties. ■

Biographical Sketch

TOM JACKSON is the President of Real Property Analytics, Inc., based in College Station, Texas. He specializes in analysis of real estate that may be impacted by environmental contamination and other complex valuation-related assignments. He has over 30 years of experience in the evaluation of real property, real estate consulting, and urban planning. Dr. Jackson is the G. Steven Dawson Fellow in Real Estate and a Clinical Associate Professor in the Department of Finance of the Mays Business School at Texas A&M University. For over 10 years he has taught real property valuation in the Master of Real Estate Program, one of the oldest and largest graduate real estate programs in the United States. He has also taught courses on land development and land use planning in the College of Architecture. Dr. Jackson is a member of the American Institute of Certified Planners (AICP), an MAI member of the Appraisal Institute, a Counselor of Real Estate (CRE), and a Fellow of the Royal Institution of Chartered Surveyors (FRICS). He is a former member of the Appraisal Standards Board (ASB) of The Appraisal Foundation. The ASB establishes the *Uniform Standards of Professional Appraisal Practice* (USPAP), the generally accepted and legally enforceable standards for real estate appraisers in the United States. Dr. Jackson was the principal author of the ASB's Advisory Opinion 9 (AO-9) on valuation of real property that may



be impacted by environmental contamination. He currently serves on the Appraisal Standards and Guidance Committee of the Appraisal Institute.

Dr. Jackson's research has been published in the *Journal of Real Estate Research*, *Journal of Real Estate Practice and Education*, *Journal of Real Estate Literature*, *The Appraisal Journal*, *Real Estate Review*, and *The Real Estate Finance Journal*, and in books published by the American Real Estate Society and the Appraisal Institute. He writes the Environment and the Appraiser column in *The Appraisal Journal*, in which he addresses issues in the valuation of contaminated properties and other environmental topics. Dr. Jackson was the principal author of the Environmental Issues section in *The Appraisal of Real Estate, 13th Edition* (2008), the leading appraisal textbook in the United States. Dr. Jackson also prepared definitions related to environmental contamination in *The Dictionary of Real Estate Appraisal, 5th Edition* (2010).

Through the Appraisal Institute, Dr. Jackson developed the national seminar *Analyzing the Effects of Environmental Contamination on Real Property* which he has presented to Institute chapters in Texas, Florida and Louisiana. Dr. Jackson also developed and presented the Appraisal Institute's webinar *Oil Spills and Property Values*. He recently (2012) co-instructed, with Dr. Marvin Wolverton, the Appraisal Institute's new Advanced Education Course on *Quantitative Analysis*, that focuses on the use of multiple regression analysis in valuation assignments.

Dr. Jackson has provided expert witness testimony in cases that involved the impacts of soil, groundwater, airborne and surface

HGS Environmental and Engineering Dinner continued on page 21



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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.

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water contamination and alleged contamination on property values; real estate issues related to proposed environmental class actions; the impacts of high voltage electric transmission lines; the valuation and highest and best use of properties subject to eminent domain; development feasibility; planning and land use regulation; and other real property issues.

Dr. Jackson has a Ph.D. in Urban and Regional Science from Texas A&M University, Master's degrees from the University of North

Carolina at Chapel Hill and The Ohio State University, and is an honors graduate of the University of South Florida. Dr. Jackson's dissertation at Texas A & M University focused on analysis of the effects of environmental contamination on real estate and was funded by the National Science Foundation and the Lincoln Institute of Land Policy.

Dr. Jackson is a Certified General Real Estate Appraiser in Texas (TX-1327090-G), Florida (RZ1721), and Louisiana (G2118).

HGS and HGMS Team Up at the 2013 Scout Fair

by Jennifer Burton



For the second year in a row, the Houston Geological Society (HGS) and the Houston Gem and Mineral Society (HGMS) had a geology booth at the Sam Houston Area Council Annual Scout Fair held at Reliant Arena, April 13th. HGS Educational Outreach Committee members Jim and Janie Schuelke and Jennifer Burton teamed up with HGMS member Al Robb to teach the Cub Scout geology belt loop and pin requirements to over 100 scouts and their families. Over 40 examples of rocks, minerals, and fossils were displayed for the youngsters to study. The team discussed rock families and the rock cycle, as well as fielded questions on energy and paleontology. The HGMS supplied wonderful touch specimens including mammoth bones, whale vertebrae, and petrified wood which were extremely popular with the scouts. The HGS and HGMS donated Bureau of Economic Geology (BEG) rock kits and fossil shark teeth to each scout who earned their beltloop. ■



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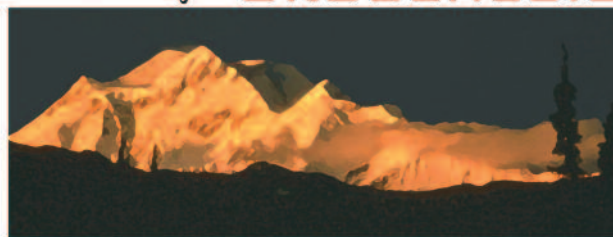
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URTeC will kick off with an unforgettable Plenary Session — Unconventional Resources: Breakthrough Integration Changes Everything. This dynamic session will explore the foundational scientific, technical, and business technologies and practices that, 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



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Houston Geological Society Awards

2012-2013 Gerald A. Cooley Award

The Gerald A. Cooley Award is given to members who have continued to serve the Society well above and beyond the call of duty over many years. It is the highest recognition given by the HGS.

JOHN TUBB has been a respected Gulf Coast geologist for many years. His first geology degree in 1959 was from what is now the University of Louisiana in Lafayette. He followed that with a Master of Science in geology in 1961 and then a Ph.D. from the University of Illinois in 1963. He studied with famous sedimentologists there including H.R. Wanless with whom he, and others, published a paper in *Geological Society of America Bulletin*.

Upon graduation Dr. Tubb immediately joined the oil and gas industry with Tenneco in Lafayette, LA.; he moved to Signal oil in 1969, still in Lafayette, and continued with them through three company name changes. He rose in ever more responsible jobs and became Division Geologist. By 1977 he joined the Michigan-Wisconsin Pipeline Co. as District Manager and later became Vice President of Exploration. In 1981 John became a consulting geologist.

Even in early years he did volunteer to help local societies. John served as an AAPG delegate from the Louisiana Geological Society from 1973 to 1975 and also as Secretary of the Lafayette Geological Society from 1974-1975. In addition he has been active in the AAPG.



John Tubb, Jr.

John moved to Houston in 1975 and joined the Houston Geological Society (HGS) where he has served for many years. Year after year he has held positions of responsibility. He remained active as a geological consultant and then joined Japex as Exploration Manager from 1987-1996.

He served as an AAPG delegate from HGS from 1983 to 1985, 1994 to 1998, and again from 2000 to 2007. He also served as HGS Treasurer 2008-2009, President-Elect 2009-2010, and President 2010-2011. Since then he has continued active as a valuable advisor to this president and the Board of Directors.

John lent his strong leadership as the committee chairman for Technofest for two successive years' events. His work with three different Legends' Nights contributed greatly to their successes and provided the necessary support for the HGS scholarship funds. He served as a negotiator of hotel contracts for the HGS-

PESGB Africa conference when that event was held here in Houston. He was a valuable member of that HGS committee, well organized as always, and willing to spend time on details. John has been an asset to HGS for many years and is very deserving of this prestigious award. ■

Martin M. Cassidy

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2012-2013 Honorary Life Membership

Honorary Life Membership is bestowed upon persons who have distinguished themselves in the science of geology or have contributed outstanding service to the success and welfare of this organization.

STEVEN L. GETZ is awarded Honorary Life Membership in the Houston Geological Society (HGS) for his outstanding efforts on behalf of the society and its members.

Steve has had a long and varied career as both a professional geologist and geophysicist. He worked for almost a decade with Cities Service Oil Company before he spent the next 26 years as a consultant within the oil and gas industry. During this time, he generated prospects that led to large discoveries in such diverse places as West Africa, China, Gulf of Mexico, Central America and Trinidad. More recently, from 2005-2010, Steve worked as Chief Geologist with Allen Hoffman Exploration. Since then, he has been Chief Geophysicist and Exploration Manager with Fortesa International at work on onshore plays in Senegal.

Steve has always been a visible volunteer for the HGS working both behind the scenes on

various annual projects and as the face of some of the Society's most well-attended committees. He is currently the Chairman of the HGS' North American group where he is responsible for the

arrangement of the year's lineup of interesting speakers with talks related to domestic exploration. In addition to this chairmanship, Steve is also Chair of the AAPG Geophysical Integration Group.

Steve Getz is the type of volunteer the HGS wishes they could clone; he generously lends his experience, makes available his time, is responsible in his decisions, and protective of the Society's goals.

This Honorary Life Membership is presented on behalf of the HGS with appreciation for Steve's past, and expectations of his future, efforts. ■



Steven L. Getz

Justin Vandenbrink

28th Annual GSH Sporting Clays Tournament

*Saturday, August 24, 2013
American Shooting Centers
16500 Westheimer Pkwy.*

This year's Sporting Clays Tournament will be held on the weekend prior to the Texas Central Zone Dove Opening Day at the American Shooting Centers. The tournament is a morning event (**Check-in at 7:15 a.m.**) and family members are welcome. **Non-GSH members are eligible to enter; however, pre-registration is required as there will be no on-site registration.** To speed up the check-in, we will register teams by the assigned captain who will then distribute shooting cards and tickets from the team packet to the members of his/her group.

The tournament is a **50-bird** event, designed to simulate actual field conditions. Good-quality shells (12 or 20 gauges) will be provided; however, **you must bring your own eye and ear protection devices and attend the safety briefing at 8:15 a.m., with shooting beginning at 8:30 a.m.** Prizes will be awarded for shooting prowess in various levels of expertise. Door prizes, made possible through corporate and private sponsorship, will be awarded after the conclusion of shooting and lunch. Refreshments will be available throughout the day.

Last year we ran out of space — so sign up now!!! Sponsors will get priority, as they are the backbone of this event. Please ask your company to help sponsor this GSH Annual Event. It is through the sponsor donations that we are able to give away good door prizes each year.

Sponsorship forms and Registration available online @ gshtx.org.

Early Bird Registration:

\$100 per shooter / \$500 per Team of 5.

DISCLAIMER: Neither the Geophysical Society of Houston nor the American Shooting Centers will be held responsible for injury or accidents during this event. **PRACTICE SAFETY!!**

For more information, please contact:

Kenneth Mohn ▶ (713) 397-6866
Kenneth.Mohn@mcgeophysical.no

Karen Blakeman ▶ (281) 741.1624
karen@gshtx.org

Or go to ▶
<http://www.gshtx.org/en/cev/939>

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Silver Sponsors - \$800

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- ▶ Includes two shooters
and station sponsorship

Bronze Sponsors - \$300

- ▶ Station sponsorship

All sponsors will receive recognition on the GSH Event webpage, in on-site signage and at the awards ceremony.

2012-2013 Distinguished Service Awards

This award was created to honor members who have rendered long-term valuable service to the Society.

JOHN DOMBROWKI has been an HGS member for a number of years and been active in the International Committee and a major help in the two HGS-PESGB Africa Conferences. He has served as an HGS delegate to the AAPG for two terms.

Since 2012, John has served as a Director on the Executive Board during a year of transition. He has been a steady influence as the HGS has revamped its website. John worked with the office committee to hire a new webmaster and to acquire a new website software contractor.

John suggested and presided over a special dinner meeting at which HGS committee chairs

and other interested members could meet and discuss website issues and developed a plan for the order in which changes to the website were to be implemented.



John Dombrowski

John's special attention to detail and steady negotiation skills among different parties has improved member communications to the Board, to the website committee, and through them, to our software contractor. His service in the past and his accomplishments this year are outstanding and worthy of the Distinguished Service Award. ■

Martin M. Cassidy



13th ANNUAL GSH / HGS SALTWATER TOURNAMENT



Friday, October 11, 2013

The TopWater Grill Marina
815 Avenue O, San Leon, TX
Galveston Bay Complex and Offshore

This year's Saltwater Fishing Tournament will include an Offshore Division to be held on Friday, October 11, 2013 at The TopWater Grill Marina, San Leon, Texas. We are looking forward to a big event this Fall and we encourage full family participation.

Galveston Bay Complex Division

Trophies will be awarded for

The Heaviest Individual:
Redfish (Non-Tagged)
Speckled Trout
and Flounder

The Heaviest Individual Stringer:
1 Redfish
3 Speckled Trout
and 1 Flounder

Galveston Offshore Division

Trophies will be awarded for:

The Heaviest Individual:
Ling (aka - Cobia)
King Mackerel
and Mahi-mahi

Registration will be online at: <http://www.gshtx.org/en/cev/997>

Fishing Participants are \$60 in advance which includes:

Launch Fee, GSH/HGS Fishing Cap, Fish Fry Meal after weigh-in, Refreshments, Trophies, and DOOR PRIZES.

Non-fishing family and guests are \$10 in advance for the Fish Fry Meal.

For more information, please contact:

Bobby Perez (HGS & GSH)
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281-240-4997 Fax
281-787-2106 Cell
281-495-8695 Home

E-mail: rdphtx@aol.com or r_perez@seismicventures.com

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DISCLAIMER:

The Geophysical Society of Houston / Houston Geological Society will not be held responsible for injury or accidents during this event. PRACTICE SAFETY!!!!

2012-2013 Distinguished Service Awards

This award was created to honor members who have rendered long-term valuable service to the Society.

PATRICIA SANTOGROSSI has done an outstanding job as Editor of the HGS *Bulletin*. She has been a member of the HGS for many years and has been a delegate to the AAPG from the HGS from 2007 to 2013. She has been active with the AAPG in committees and was co-editor of AAPG Memoir 48 on Divergent Margin Basins. Patricia has also been active in the Gulf Coast Association of Geological Societies (GCAGS) and is a longtime member of SEPM. She is currently a Trustee for the Gulf Coast Society of Sedimentary Geology (GCSSEPM) Foundation; as Chairman of the Trustees, she was Mistress of Ceremonies for their 32nd Annual Bob Perkins Research Conference in December 2012.

Her prior experience as an editor and service during the key Editor-Elect 2011-2012 year were especially valuable as the Editor-Elect 2012-2013 was not able to undertake the position and much additional work fell on Patricia's capable shoulders. She supervised the *Bulletin* and worked well with the office and design staff. Unbeknownst to most, this was done while

she underwent successful treatment for breast cancer from January to September 2012.



Patricia Santogrossi

The *Bulletin* received high praise from HGS members and others for good articles, the attractive new binding, and good photographs that included attractive covers. Patricia made good use of the photographic efforts of the HGS members who provided pictures of HGS events and places such as the Grand Canyon, Alaska, and Ireland. Several of her editorials drew favorable comment from HGS readers.

The *Bulletin* always went to the post office on time, for Patricia can be persuasive in asking that its content be delivered to her with time to do it justice.

For all her work for the HGS, directly and indirectly, and especially for the heroic and successful effort to put out an HGS *Bulletin* worthy of the society, Patricia Santogrossi is given a Distinguished Service Award. ■

Martin M. Cassidy



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Montana August 17-25, 2013

Sedimentology and Sequence Stratigraphic Response of Paralic
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2012-2013

HGS/HPAC Distinguished Service Award

This award was created to honor members who have rendered long-term valuable service to the Auxiliary.

EDIE BISHOP has been selected by the HGS Board to receive the HGS/HPAC Distinguished Service Award. We are pleased to honor Edie for her sense of dedication to the venerable Auxiliary mission and her many years of service to HGS.

Edie Bishop has been a longtime member of the Houston Geological Auxiliary (HGA), with many years of support to HGS through her volunteer efforts and leadership in the Committee itself. Within HGA she has served as President, 1st Vice President, and 3rd Vice President. Her 25+ years of service have included organization of the old drillers' logs for the downtown library while at work with the HGS Library Committee. She originated the HGA column in the HGS *Bulletin* to inform HGS Members of HGA contributions. Among her many other volunteer efforts have been assistance to the AAPG Convention, NAPE, and various HGS committees in co-chairmanships of spouses' activities and organization of Auxiliary volunteers to assist with event registrations. She has helped fill in

the gaps in HGS office functions and even acted as interim staff when searches for replacement managers were being conducted.



Edie Bishop

In more recent years, Edie was instrumental in the vision for a new expanded Auxiliary which helped to consolidate the Houston geological, geophysical, engineering, and land auxiliaries into a single HPAC organization. Within this organization she served as President in 2010/2011, is the current HPAC liaison with HGS, has served on the SPE scholarship Committee, and will co-chair the AAPG Guest Program Committee this coming year. She has recruited the current leadership of the Exploring Houston field trip series and, in recent years, started up the HPAC website which is now entirely run by HPAC members.

This list of Edie's activities and leadership serves as but a summary of her contributions made over several decades of service. For this we are proud to award Edie Bishop the 2013 HGS/HPAC Distinguished Service Award. ■

Winona LaBrant

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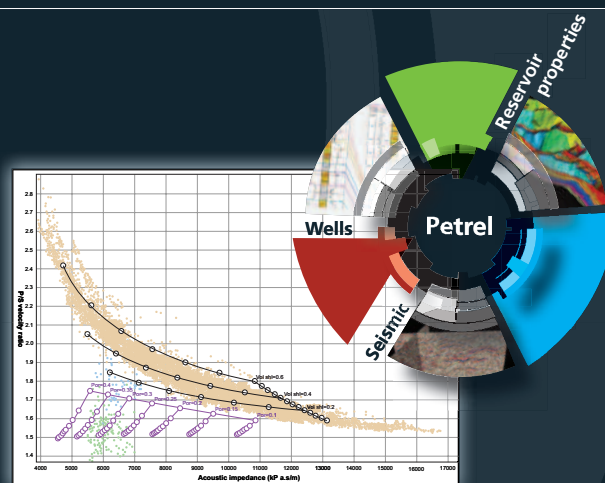
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2012-2013 President's Awards

This award has been established to honor members whose extraordinary efforts or unique contributions deserve special recognition.

PAUL BABCOCK has worked tirelessly for the Houston Geological Society (HGS) on a number of committees. Paul recruits the companies who display their services at Vendor's Corners at HGS meetings. Vendors showcase interesting technical services which can be useful to our members. The monies collected from vendors go to our scholarship funds.

Paul has also applied his notable fundraising efforts to the Applied Geoscience "Mudrocks" Conference which had 24 sponsors for various portions of the event this last February. The sponsors provide a very important service to the conference because allow HGS to afford many

of the amenities of the conference. In return, their names and logos are prominently displayed.



Paul Babcock

In addition, for the last years Paul has edited the Directory of Oil Company Name Changes. This HGS publication is sold by the Texas Bureau of Economic Geology. Paul took over the task from William K. Peebles at edition 12 and has edition 23 in preparation for possible May release. The book is a valuable reference for HGS members. Paul continues to be active and we look forward to his valuable service for many more years. ■

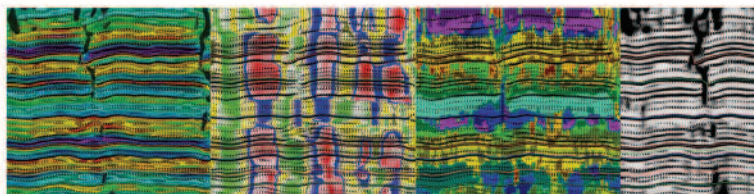
Martin M. Cassidy



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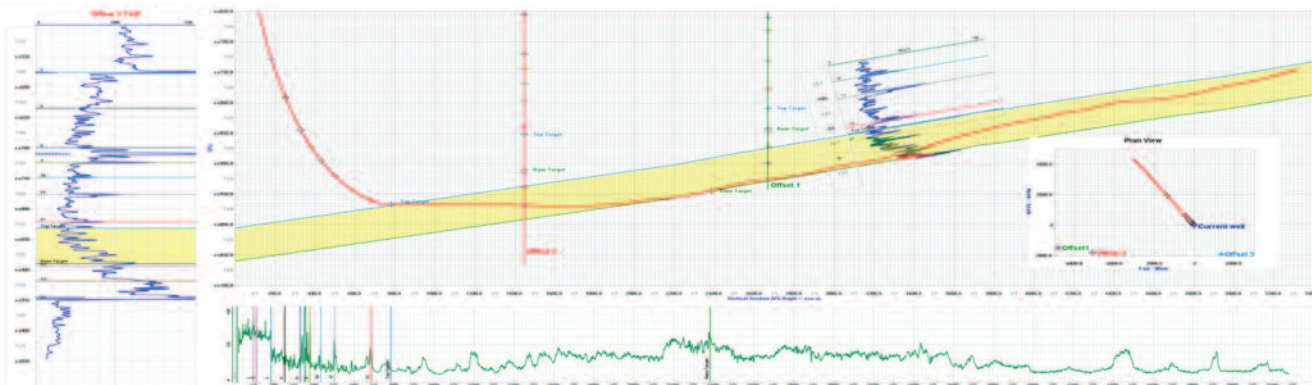
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2012-2013 President's Awards

This award has been established to honor members whose extraordinary efforts or unique contributions deserve special recognition.

MICHAEL "MIKE" CAMERON is awarded the President's Award in recognition of his five years of professional dedication to the Houston Geological Society. Mike's contribution in serving the HGS membership includes his position as a Technical program Co-Chair of our annual HGS Applied Geoscience Conference titled: Integrated Approaches to Unconventional Reservoir Assessment and Optimization. Of special note, for the 2013 event, Mike developed a new four-part conference format and took the full responsibility for the extensive author communications. This included recruitment, follow-up, materials consolidation for the full event brochure, event coordination responsibilities, as well as service as a Session Co-Chair.



Michael Cameron

His Houston professional society volunteerism began in 2008, after he transferred from Oklahoma City with Devon Energy. He quickly became a Technical Program Co-Chair of the annual HGS AGC Mudrocks event. Mike's sincere interest and expertise in the unconventional reservoirs field, combined with his extensive contacts within the developing unconventional reservoir characterization community, provide an important basis for the quality technical program that the annual HGS event is well known to deliver. Mike, as Senior

Geological Advisor Global New Ventures Exploration with Hess Corporation, is very active in the unconventional reservoir characterization field. His support within the HGS AGC Committee, in the form of advice, duties, and influence on financial support from his employer has also been continuous through these annual events.

Personal and professional components of contributions on a HGS committee, such as the HGS Mudrocks AGC, include the professional friendships that are developed. Teams are often focused on the important common goal to enhance the profession and enlarge the professional society. Within these committees, members contribute their personal skill sets within a framework where committee members truly appreciate each other's skills. Mike should be commended and recognized for those personal contributions that have helped to develop an open and contributive basis for all on the committee.

HGS offers its sincere thanks for Mike's efforts in support of the greater Houston Geological Society's membership. ■

Frank Walles

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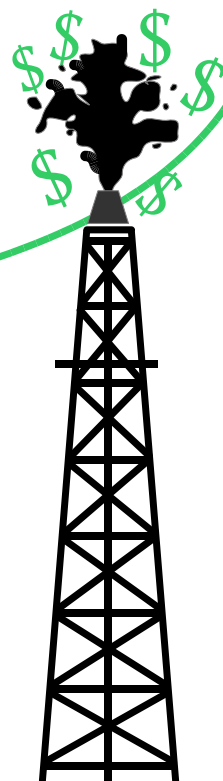
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2012-2013 President's Awards

This award has been established to honor members whose extraordinary efforts or unique contributions deserve special recognition.

LINDA STERNBACH has earned once again a President's award. She was awarded one previously in 2003. Linda has been active for many years in the Houston Geological Society (HGS) and has garnered other awards that include an Honorary Life Membership. She has not rested upon her laurels. She continues to come up with and initiate new ideas for the benefit of the Society and its members.

This award is in recognition of her latest very successful effort to bring the HGS further into the digital age by video recording presentations at HGS meetings with, of course, the agreement of the presenter. To develop her idea of video recording speakers at events, she arranged the equipment, researched and then purchased software that she learned to use to create high quality video presentations. These videos are now loaded to the HGS website and can be viewed by anyone who visits www.hgs.org. The presentations she has recorded and posted have been very popular!

The video recording project requires that Linda be present at any

presentation that is to be recorded. Many members have seen Linda setting up her equipment at an HGS meeting.



Linda Sternbach

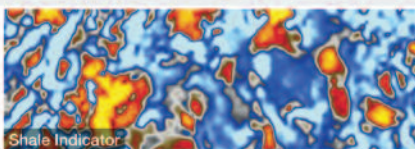
Linda also prepares the recorded videos for display; editing them to produce good quality movies of presentations. For example, the recent presentation by Bob Shoup about global climate change, upon request, has been downloaded by geologists as far away as Southeast Asia. HGS' outreach is in this way recognized worldwide!

Given the success and value of the project, the HGS Board of Directors has agreed with Linda's proposal that a Video Committee be set up so that more people may become involved and help share the considerable effort. Linda will stand as chair of the new committee.

In recognition of Linda Sternbach's initiative and dedication to establish the valuable video program for HGS, she is awarded this President's award. ■

Martin M. Cassidy

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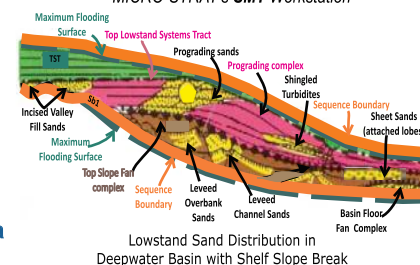
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2012-2013 President's Awards

This award has been established to honor members whose extraordinary efforts or unique contributions deserve special recognition.

DAVID TONNER is awarded the President's Award in recognition of his eight+ years of exceptional professional dedication to the Houston Geological Society. David's significant contribution in service to the HGS membership includes his current Chair position of the HGS Northsiders group, where he and his team continue to be responsible for the Northsiders' technical program and event. In addition, he is a key organizer/committee member of the annual HGS Applied Geoscience Conference titled: Integrated Approaches to Unconventional Reservoir Assessment and Optimization. In this additional HGS position he continues to provide technical program support, important conference financial support from his employer Weatherford, and event volunteers.



David Tonner


His professional society volunteerism began in early 2005, when he became the Co-Chair of the HGS Northsiders group and began his continuous dedication in service to the 2400+ HGS members who reside on the North side of Houston. David's friendliness, exceptional personality, sincere interest, and expertise in the geological sciences benefits our membership. David has been, and continues to be, an important, positive influence within our professional organization.

David is a maven in our industry who belongs to more than 25 groups and associations. He is an expert in relationship and opportunity management in the geosciences – especially as it pertains to added value to his customers' operations. David rarely forgets a contact or a face and he uses that ability for a positive effect on all. We are especially fortunate that he has utilized those skills towards the benefit of our membership.

David was part of the original team that initiated the HGS Applied Geoscience Conference in 2006. His company, through David, helped provide the support seed money that allowed the organizers to cover the reservation expenses for that first event. His support in the form of advice, duties, and influence on financial support has been continuous through each of these annual events. An extraordinary attribute of a professional society member is their reliability. David should be especially commended and recognized for his skills applied on our behalf.

HGS offers its sincere thanks for David's efforts, in support of the greater Houston Geological Society's membership. ■

Frank Walles



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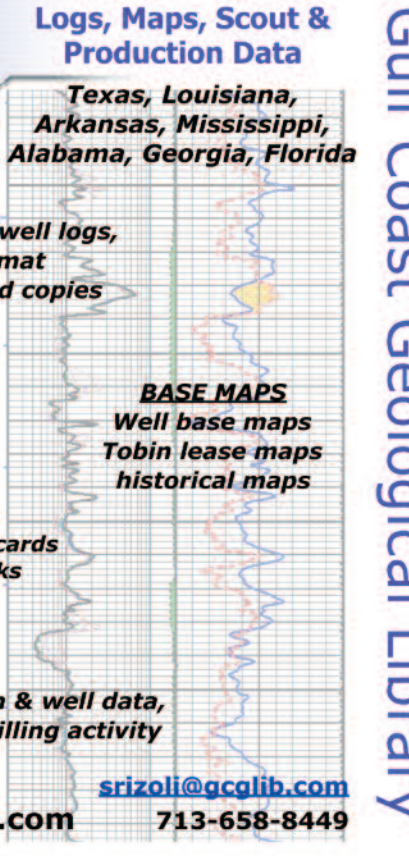
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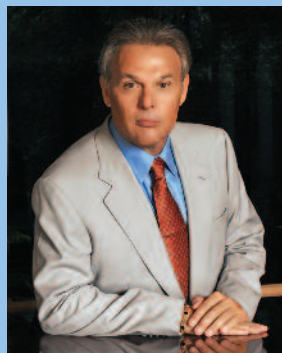
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2012-2013 President's Awards

This award has been established to honor members whose extraordinary efforts or unique contributions deserve special recognition.

MICHAEL VAN HORN is awarded the President's Award in recognition of his five plus years of exceptional professional dedication to the Houston Geological Society.

Mike's contribution in service to the HGS membership includes his multiple contributions as a Technical Session Co-Chair of our annual HGS Applied Geoscience Conference titled: Integrated Approaches to Unconventional Reservoir Assessment and Optimization. Of special note, Michael is also a founding committee member of the new upcoming November 4-5, 2013 HGS AGC event titled: Unconventional Reservoir Interdisciplinary Micro to Macroscale Geomechanics. Michael has always been an important voice in the development of these multi-part conferences comprised of four oral sessions, a poster session, and a core session. He has taken on full responsibilities of author and session communications. His assistance to obtain critical industry financial sponsorship required to stage these events is also truly appreciated.

Michael, as Vice President Geoscience with NewField Exploration, is very active in the unconventional fields of training, geoscience leadership development, technology transfer, reservoir characterization, as well as support for the development of unconventional new ventures. Michael is a graduate of Colorado School of Mines where he developed the initial skill sets of

petroleum geology and geological engineering. His ongoing connection with that university has also been very important in bringing research advances to our membership.



Michael Van Horn

Quality technical programs of our two annual HGS Applied Geoscience Conferences are highly desirable for the HGS membership. Michael, as a management representative on our AGC committees, helps provide the critical insights as to the organization, applicability, and importance of specific content of the technical program.

Michael's positive and gracious, giving personality, combined with his sincere interest and expertise in the unconventional reservoirs field, provides a strong basis for his contributions. His extensive contacts and relationships also provide ongoing contributions

to our membership.

We are extremely fortunate to have such an important and distinguished professional on these two committees. Michael should be commended and recognized and given sincere thanks for his personal contributions that have helped so many in our profession through his dedication in service to the membership of the Houston Geological Society. ■

Frank Walles

2012-2013 Rising Star Awards

This award has been established to honor individuals who are relative newcomers to the Houston Geological Society who have made significant and promising contributions to the enhancement and success of the HGS.

After ENRIQUE GUASH graduated from the University of Houston with a degree in Business Marketing and a minor in Sales, he joined Weatherford International as a Technical Sales Representative in their Surface Logging Systems division. Since day one, Enrique has demonstrated great leadership and organizational skills. He has from the outset been a team player and a fast learner. In his spare time, he enjoys running and biking throughout Houston and has recently started to play golf.

As an active member of the HGS and AAPG, Enrique helps organize and coordinate the monthly meetings for the different groups in the City of Houston. He started by helping the

Houston Geological Society with the Northsider's group this year.



Enrique Guasch

Enrique has in him all of the traits one would like to see in a young man his age. He is gracious, considerate, and intelligent. He also has a keen sense of humor and a complete willingness to throw himself whole heartedly into any project in which he becomes involved. Enrique will be, without a doubt, very successful as he continues down this path and we expect that he will continue to be an important asset to the Houston Geological Society. ■

David Tonner

2012-2013 Rising Star Awards

This award has been established to honor individuals who are relative newcomers to the Houston Geological Society who have made significant and promising contributions to the enhancement and success of the HGS.

STEVEN MACALELLO is awarded the Houston Geological Society (HGS) Rising Star Award in recognition of his three+ years of professional dedication to the HGS. As a young professional, who earned a Master's degree in Geochemistry in 2009 from Colorado School of Mines, his early career contributions to the Houston Geological Society are especially notable. Steven's applied enthusiasm, personal drive, and intelligence truly assists the HGS in providing access to quality geoscience technical insights for its members. Steven is doing so through his ongoing contribution in his position as Poster Program Co-Chair of our annual HGS Applied Geoscience Conference titled: Integrated Approaches to Unconventional Reservoir Assessment and Optimization.



Steven Macalello

Steven currently holds the position of Geologist/Geochemist with ConocoPhillips where he helps provide important insights into petroleum source rock systems. His previous employer, Devon Energy, provided continuous encouragement for him to contribute his developed skills to the Houston Geological Society and that support is also appreciated.

For the 2013 event, while he was with Devon Energy, Steven and his Co-Chair Amy Garbowicz of Shell, developed an enhanced Poster session that included 15 graduate student poster presenters from six (6) universities who specialize in unconventional reservoir characterization through industry consortium support. Co-Chair

responsibilities included recruitment from all of the major university consortia, author follow-up to acquire materials for the full event brochure, event coordination responsibilities, and at-event Session Co-Chairmanship. The Poster team also developed a special HGS framework poster template that provided our professional society recognition. With his Co-Chair's help, new generous sponsorship was provided by Shell to help cover travel and registration fee costs for each of the student poster presenters.

Many young professionals, for whom so much time is required to establish oneself within their early careers, often find it difficult to contribute their skills to a professional organization. A special person understands that to contribute their valuable efforts to a volunteer-based professional organization such as the HGS will only fast-track that process. Steven should be commended and recognized for those personal contributions that have helped our professional society provide important benefits for the greater membership.

HGS offers its sincere thanks for Steven's efforts, in support of the greater Houston Geological Society's membership. ■

Frank Walles

2012-2013 Rising Star Awards

This award has been established to honor individuals who are relative newcomers to the Houston Geological Society who have made significant and promising contributions to the enhancement and success of the HGS.

ELLYA SAUDALE from Schlumberger deserves the Houston Geological Society's (HGS) Rising Star Award this year. She has been on the HGS Continuing Education Committee for several years and has done an outstanding job for us. She has scheduled excellent industry-leading Schlumberger speakers to give short courses on Geomechanics and Microseismic at no cost to the HGS. This last year she persuaded Schlumberger to provide the HGS with venues for these talks and others. For our "When This Geologist Talks People Listen" short course Ellya arranged for

Schlumberger to provide the room, refreshments, and lunch for our participants. Through her exceptional efforts in obtaining speakers, venues, and other in-kind contributions, the HGS Continuing Education Committee has been able to continue to offer beneficial, low cost courses to HGS' members and the geoscience community. We have been fortunate to have her serve as an HGS volunteer on our Committee. ■

Rosemary Laidacker



Ellya Saudale

2012-2013 Rising Star Awards

This award has been established to honor individuals who are relative newcomers to the Houston Geological Society who have made significant and promising contributions to the enhancement and success of the HGS.

MICHAEL SALAZAR has worked in the oil & gas industry for over eight years. He began his career as a mud logger and worked for 6 years in numerous fields in Texas, Louisiana and North Dakota.

Mike is a keen student and has acquired specialist knowledge in X-ray Fluorescence (XRF), X-ray Diffraction (XRD), and Source Rock Analyzing (SRA) at the wellsite. He also has significant experience in fluid typing using advanced hydrocarbon gas detection systems. He recently moved into a business development position with Weatherford.

Mike Salazar is a fine young man who this year has begun to work on the Houston Geological Society (HGS) Northsider's committee.

Mike is a great person to have around. He is always willing, helpful, courteous, and friendly. He has embraced this volunteer position with great enthusiasm and has been a real asset to the team. We expect that he will contribute his organizational skills to the HGS for many years to come.

David Tonner



Michael Salazar

HGS Teacher of the Year Winner

This award has been established to honor individuals whose extraordinary efforts or unique contributions are in earth science education.

A dynamic and energetic educator, **CAROLYN KLEIN**, of Westside High School, Houston ISD, Houston, Texas, brings environmental science to life in the classroom. Through her higher level questioning strategies, Mrs. Klein exposes her students to current environmental issues and complex social dilemmas which require new and thoughtful solutions. Her innovative teaching style encourages students to research and learn about how humans effect Planet Earth.

Mrs. Klein takes students on learning excursions beyond the classroom as well and models a proactive, environmentally-friendly lifestyle. For example, her classes participate annually in Texas Native Prairie Restoration projects, both on campus and in preserves. Approximately 99% of the Texas tall grass prairie has been lost to agriculture, urbanization and invasive species. Each October, a bus loaded with her students arrives at Armand Bayou to plant the

native grasses which support many threatened species. Her students can also be frequently found at creeks and ponds practicing water quality measurements and experiments. On campus, she sponsors the Ecology Club, which manages the school recycling program. In nearby neighborhoods, her students participate in tree planting projects. Her students learn to contribute to their community in many different ways.



Carolyn Klein
Westside High School
HISD

These hand-on activities promote experiential learning about native habitats and environmental quality; they excite students about the scientific method. Many of her students are inspired to broaden their earth studies into additional geosciences. Because of her effect on students, Houston Geological Society has chosen Carolyn Klein to receive the Outstanding Teacher of the Year Award. ■

Letha Slagle

2012-2013 Editor's Award

This award has been established to honor individuals whose extraordinary efforts or unique contributions to the Bulletin deserve special recognition.

DAVID MILLER came to Statoil in February of 2012 after a 30-year career with Total. He had recently returned to the United States after several years in expatriation. He was to become the Project Manager of Statoil's first operated project in the Gulf of Mexico. As Statoil's Non-operated Project Manager, I had taken all but one of our half dozen recent projects through the "booking" or early decision gate process, so it made sense for him to "shadow" me on the one I was doing at the time, Heidelberg. The interaction that we fashioned was a great gift to me, and not only because I was going through six months of chemotherapy at the same time. It is always good to have a second pair of eyes on a thing such as reserves estimation. And Dave's skills and interests, sometime parallel and sometimes complementary, were very welcome.



David Miller

I welcomed that second set of eyes to do the final editing read of the *Bulletin*. This was especially important for my own column as it was usually a late addition and was not been pre-edited as were the talks. His turnaround was phenomenally fast and his attention to detail helped with on-time delivery.

When asked, Dave agreed to run for Editor-Elect – without any undue pressure from me I hope! He recognized the job as an excellent opportunity to re-integrate into the vibrant Houston geological community. From that time, Dave agreed to attend our mock-up meetings for the last couple of months and has become acquainted with the overall process. He has rendered a very thoughtful and critical eye that has helped ensure the quality of the *Bulletin*.

So it came to pass that David commented the he would be willing and able to help if I needed any assistance on the *Bulletin*. I had carried the entire burden for months as the duly elected Editor-Elect had found it untenable to serve after only a couple of issues.

For his willingness to enter into the breach and his many skills, David Miller is the Houston Geological Society's 2013 recipient of the Editor's Award. ■

Patricia Santogrossi

2012-2013 Corporate Star Awards

The Houston Geological Society is pleased to present these companies with the Corporate Star Award for 2012 – 2013 in grateful appreciation for their support and special contributions to our events and programs during the year.

Core Lab



Core Lab is recognized as Corporate Star for its long term support of Houston Geological Society (HGS). This year, Core Lab was not only a generous sponsor, they also coordinated and assumed the costs for the pick-up, delivery, and set-up for a first-ever core display at the 2013 AGC “Mudrocks” Conference. The rock display, along with description panels, was an exciting addition to the 2013 conference. This landmark event would not have been possible without Core Lab’s logistical and financial support. Core Lab employees are also active supporters of the HGS. We are grateful to have Core Lab as a vital partner in the presentation of the annual AGC “Mudrocks” Conference. ■

Kathy McDonald

Devon



Devon Energy is awarded the HGS Corporate Star Award in recognition of their continuous professional and financial support to the Houston Geological Society. Devon Energy truly assists the HGS as they provide access to quality geoscience technical insights for its members through both their financial support and their encouragement of their employees to participate on HGS committees. Of special note is their early, since the conference originated in 2006, and continued professional and financial support of the HGS Applied Geoscience Conference titled: Integrated Approaches to Unconventional Reservoir Assessment and Optimization.

Devon’s generous sponsorship included not only professionals to assist with the organization of the event, but also in the provision of the event programs, posters, and event registration materials.

Devon Energy and their management is a great example of corporate support through the Houston Geological Society towards the benefit of professional development and enhanced communication between industry, government, and universities. Devon Energy should be commended and recognized for their contributions that have helped our professional society provide important benefits for the greater HGS membership.

Sincere thanks to Devon Energy for their support of the greater Houston Geological Society’s membership enrichment. ■

Frank Walles

ExxonMobil



ExxonMobil is recognized for their special support of Legends’ Night and consequently of our two scholarship funds, one for undergraduate and another for graduate students. Among other corporations and individuals, ExxonMobil has supported the Houston Geological Society scholarship funds year after year. In addition, their employees’ participation as speakers has been an important element of the success of our conferences that include the AGC “Mudrocks” Conference. ■

Martin M. Cassidy

2012-2013 Corporate Star Awards

The Houston Geological Society is pleased to present these companies with the Corporate Star Award for 2012 – 2013 in grateful appreciation for their support and special contributions to our events and programs during the year.

Fugro



Fugro is recognized for their extensive aid to the HGS PESGB Africa Conference in our new larger meeting space in the Westin Memorial Hotel. Their special effort added to the success of the event. Fugro's several divisions have often been represented at Vendor Corners at Houston Geological Society evening meetings. The support of Vendor Corners provides funds for our two scholarship funds, one for undergraduates and one for graduate students and exposes interesting services to our members. Now that Fugro has concentrated its geology services in one division, we look forward to their continued participation at HGS meetings. ■

Martin M. Cassidy

Schlumberger



Schlumberger has been a generous sponsor of the HGS Continuing Education Committee short course efforts for the past several years. They have allowed the HGS to use their WesternGeco auditorium for numerous short courses and in return received free attendance for a limited number of their employees. They have also provided Schlumberger speakers without charge for our Geomechanics and Microseismic courses. This year they also provided free refreshments, lunch, and the venue for our "When This Geologist Speaks, People Listen" short course.

We are grateful for Schlumberger's outstanding support to provide high quality, low cost continuing education courses for our members and the Houston geoscience community. ■

Rosemary Laidacker

Shell



Shell is recognized as Corporate Star for its generous support of the Houston Geological Society (HGS) and the AGC "Mudrocks" Conference. HGS was pleased to have Shell generously sponsor our student poster session at the AGC Mudstones conference. Shell and its employees supported the core room at the conference with donated core, description panels, and a docent. They supported the technical sessions with several well-received, high quality technical talks and participation in the question and answer periods. Finally, Shell volunteers work in a variety of capacities on the AGC committees. HGS is fortunate to have such a committed industry partner. ■

Kathy McDonald

Weatherford Labs



Weatherford Labs is recognized as Corporate Star for its long term support of Houston Geological Society (HGS) and of the AGC "Mudrocks" Conference. Weatherford was the initial sponsor of the first AGC conference in 2006 and has been a major sponsor every year since. Weatherford not only donates sponsorship funds, its employee-volunteers serve in vital roles that contribute to the resounding success of this annual conference. Thank you, Weatherford, for your continued support of HGS and the AGC "Mudrocks" Conference. ■

Kathy McDonald

June 2013

Sunday

Monday

Tuesday

Wednesday



<p>Reservations:</p> <p>The HGS prefers that you make your reservations on-line through the HGS website at www.hgs.org. If you have no Internet access, you can e-mail 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. 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.</p>			
2	3	4 HGS Board Meeting 6 p.m.	5
9	10 HGS International Dinner Meeting "Red Sea Frontier: Embracing the Challenge," Michael A. Zinger, Westchase Hilton, Houston, TX, Page 15	11	12 HGS Environmental & Engineering Dinner Meeting "Evaluating Environmental Risk and Stigma," Thomas O. Jackson, Black Lab Pub, Houston, TX, Page 19
16	17	18	19
23 30	24	25	26

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GEOEVENTS

Thursday

Friday

Saturday

**You can make
your reservations
NOW
online at
www.hgs.org**

Members Pre-registered Prices:

General Dinner Meeting.....	\$28
Nonmembers & walk-ups	\$35
Env. & Eng.	\$25
Luncheon Meeting	\$30
Nonmembers & walk-ups	\$35
International Explorationists	\$28
North American Explorationists	\$28

1

6

7

8

HGS Guest Night

*Houston Museum of Natural Science
6:30 p.m.
Page 11*

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20 SIPES Luncheon Meeting

*"Exploring for Tight Oil in the
Pennsylvanian Cleveland Sandstone on
the Nemaha Ridge Using High Resolution
3D Seismic and Stratigraphic Analysis,"
Tony Lupo and Lee F. Krystinik, Houston
Petroleum Club, Houston, TX, Page 59*

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HGS 30th Annual Skeet Shoot

*Greater Houston Gun Club
Page 12*

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Upcoming GeoEvents

July 16-17, 2013

Geomechanics and Reservoir
Characterization of Carbonates
and Shales *Baltimore, Maryland*

August 6-7, 2013

Sweet Spots, Reservoir
Compartmentalization and
Connectivity
Houston, TX

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 6-8, 2013

Gulf Coast Association of Geological
Societies (GCAGS) Convention
63rd Annual, New Orleans, LA

October 12-15, 2013

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

October 27-30, 2013

Geological Society of America
(GSA) Convention
125th Anniversary, Denver, CO

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



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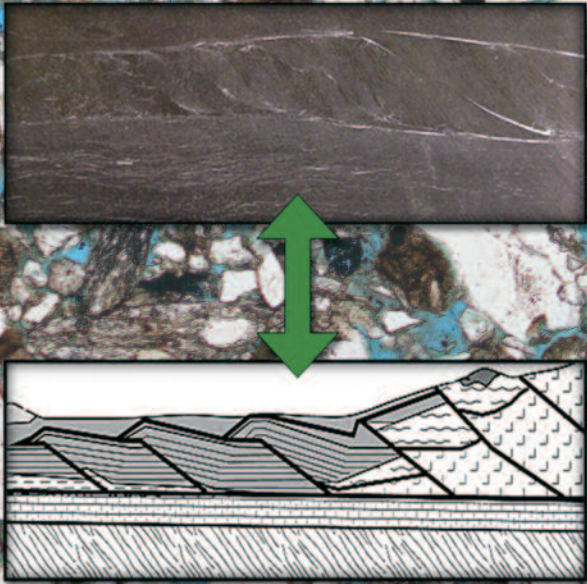


Applied Geoscience Conference

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

Presenters and attendees will represent a broad spectrum of industry professionals, including those in the disciplines of geology, geophysics, and engineering. The integrated topics will cover advantages of using geomechanical characterization to reduce difficulties in de-risking 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

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 lanyards
- 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

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

Wifi - \$1,500

Availability: 1 of 1

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

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

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

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Approved by _____ Date _____

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

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 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

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

*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 • Email: pesgb@pesgb.org.uk

Preliminary Timetable

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Africa: Success in Rift, Sag and Passive Margin Settings

Wednesday & Thursday, 11-12 September 2013

Wembley Stadium Conference Centre, London

Tuesday 10th – day course – Petroleum Basins of Sub-Saharan Africa, D. Macgregor

Tuesday 10th 6.30 pm talk - West Africa Pre-Salt Rush: new ideas on proven and emerging trends. Fabio Lottaroli, ENI (combined with normal PESGB monthly talk at WEMBLEY)

Wednesday 11th September

8.30	Registration & Coffee	
9.20	Welcome and Introduction	John Austin – President PESGB
	Session 1: INTRACRATONIC SAG BASINS AND NORTH AFRICA Session Chairs : Richard Moody, Mike Daly (BP)	
9.30	KEYNOTE: Palaeozoic Sag Basins	Mike Daly, BP
10.00	Oil and gas exploration in the Ghadames Basin of Southern Tunisia	P. Krois, F. Adouani, K. Pelz & G. Cantarella, OMV
10.25	Appraising and developing a tight gas reservoir in the Illizi Basin, Algeria.	K. English, J. Valentine, Petroceltic
10.50	Coffee & Poster Presentations	
11.20	The Tamar Field from Discovery to Production	D. Needham, J. Hosler, S. Nowak, C. Christensen and J. French, Noble Energy
11.45	Sources and pathways of Levant Basin deposits, offshore Cyprus and Lebanon	J. Fürstenau, J. Comstock, C.J. Lowrey, PGS Norway
12.10	Oil exploration and ore mineral data: a new model of Tethyan rifting, hydrocarbon maturation, Atlasic thrusting and fluid flow in northern Tunisia.	A. W. Baird, Univ of Kingston & C. J. Clayton, Mejerda Exploration
12.35	Lunch & Poster Presentations	
	Session 2: WEST AFRICA DEEP WATER TURBIDITE PLAYS SESSION CHAIRS : Richard Dixon (BP), Fabio Lottaroli (ENI)	
13.45	KEYNOTE – Exploring the Deepwater Cretaceous Play in West Africa and the Discovery of the Jubilee Field	P. Dailly, Kosmos
14.10	KEYNOTE – Post-Jubilee Exploration of African and South American Equatorial Margins	R. Sutherland, Tullow Oil
14.35	Influences of Tectonics, Drainage and Sediment Supply on Upper Cretaceous Deepwater Deposits in the Deep Ivorian Basin of Western Ghana and Cote D'Ivoire.	D. Addis, A. Brown, J. Grant, P. Kline, J. Layman, and P. Towle*, Anadarko Petroleum Corporation
15.00	Structural Control of Slope Morphology and Depositional Setting in Parts of the Douala Basin	T. Akingbade, A. Gogola, G. Olson, Noble Energy and P. Nguema, SNH
15.25	Coffee & Poster Presentations	
16.00	Structural Deformation, Traps and Reservoir Distribution in Deepwater Southern Equatorial Guinea: A Tale of Two Basins	S. E. Thomson, G. Kidd, T. Stellman, P. Mullin and E. Goter, Panatlantic Petroleum
16.25	Angola – Lower Congo Basin (Blk. 15/06) – Rupelian Channel Complexes & their exploration potential	P. Gaj-Via, L. Baglioni, Y. Amokrane, B. Yacine, R. Brajucha, M. Mantovani, G. Knezaurek, F. Lottaroli, E. Trincianti, Ahmad W., L. Baruffini, Eni E&P
16.50	Integrated analysis of shallow fluid flow phenomena and hydrocarbon migration in the southern Kwanza Basin, offshore Angola	C. Serié, M. Huuse, Univ of Manchester , N. H. Schødt, Maersk, J.M. Brooks, and A. Williams, Fugro NPA
17.15	TBA	
17.45	Evening Reception, Entertainment and Exhibits	

Preliminary Timetable

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Thursday 12th September

8.30	Registration & Coffee	
	Session 3: WEST AFRICAN RIFTS AND PRE-SALT SESSION CHAIRS : Shane Cowley (Tullow), Prof. Abera Mogessi (Geological Society of Africa)	
9.00	Rifting & opening above a mantle plume in the Central South Atlantic	<i>D. Quirk, E. Willersely, J. Jeppesen, M. Hertle, M. Raven, M. Howe, A. Madsen, J. Kofoed, M. Winfield, N. Schmidt, Maersk</i>
9.25	First Commercial Oil Discovery Pre Salt in Onshore Cabinda (Angola), after more than three decades	<i>A. Viera, M. Rosso, E. Gobbo, M. Pereira, E. Tudisca, Pluspetrol</i>
9.50	Warp, rift, invert and sag: new insights into the tectono-stratigraphy of Gabon	<i>R. Crossley, V. Cole CGG, S. McKenna, T. Kubli, Addax</i>
10.15	Coffee & Poster Presentations	
	Session 4: EAST AFRICAN RIFTS AND PASSIVE MARGIN SESSION CHAIRS : Shane Cowley (Tullow), Prof. Abera Mogessi (Geological Society of Africa)	
10.45	KEYNOTE : African Rifts and Source Rocks	<i>A. Y. Huc, University Pierre and Marie Curie</i>
11.15	The Cretaceous and Cenozoic Palaeoclimatological Evolution of African Hinterlands	<i>P.J., Markwick, B.M. Harland, Getech, P.J. Valdes, D. Lunt, Univ of Bristol</i>
11.45	Hydrocarbon Migration and Trapping Mechanism in the Lake Albert Basin, Uganda.	<i>P. Lays, P. Chavagnac and S. Tenepalli, Total Exploration & Production Uganda</i>
12.10	The Ruwenzori Mtns, Albertine Rift: Thermal evolution on the long run	<i>F.U. Bauer, U.A. Glasmacher, Heidelberg Univ., U. Ring, Stockholm Univ., R.W. Grobe, GmbH, V.S. Mambo, Ruwenzori Univ.</i>
12.35	Lunch & Poster Presentations	
	Session 4 continued SESSION CHAIRS : Andrei Belopolsky (Premier), John Argent (BG Group)	
13.40	Understanding the structural history of the Livingstone Basin, Malawi Rift	<i>D. Jones, Surestream Petroleum</i>
14.05	Geophysical Exploration in the Tanzanian Rift Valleys	<i>B. Smith, B. Downie, P. Holley, Heritage Oil</i>
14.30	Why have there been no oil discoveries so far in Tanzania? - How advanced basin modelling may progress their discovery.	<i>M. C Pereira-Rego, Aminex, A.D. Carr, Global Exploration Services and N.R. Cameron, GeoInsight</i>
14.55	Coffee & Poster Presentations	
15.25	KEYNOTE - The Mamba Complex supergiant gas discovery (Mozambique): an example of turbidite fans modified by deepwater tractive bottom currents.	<i>Franco Fomesu – ENI E & P</i>
15.55	Mozambique and its role in the downfall of Gondwana	<i>C.V. Reeves, Earthworks, E.S. Mahanjane, INP</i>
16.20	Rifting of the Zambezi Delta region, northern Mozambique Basin and its implications for a Jurassic marine source rock	<i>L. Anderson, A. Caillot, L. Gatter, C. Barrere, CEPSA and E. Mahanjane, INP</i>
16.45	Closing Address and Invite to Houston, 2014	<i>Al Danforth, HGS</i>

Preliminary Timetable

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POSTERS

Poster Session : throughout conference	
Strike-Slip Nature of the Structure of the Levant Basin offshore Lebanon	<i>J. Comstock et al, PGS</i>
Using sequence stratigraphy and geochemistry to highlight the petroleum potential of the conjugate North-West African and eastern North American margins	<i>N. Harper et al, Neflex</i>
The Story of Petroleum Plays in Western Desert, Egypt	<i>V. de Feo et al, IHS</i>
Play Fairway Mapping and Risk Assessment of the Sirt Rift Province, Libya	<i>G. Williams and D. Boote, Lynx/DBS Consulting</i>
Taoudeni Basin: Frontier exploration in a data-poor basin	<i>K. Gould et al, Neflex</i>
Cretaceous Salt Tectonics Of The Douala Basin	<i>T. Akingbade et al, Noble Energy</i>
Geometry of Upper Miocene deepwater plays	<i>S. Baer et al, PGS</i>
Harper Basin – exploration potential identified from 2D and new 3D seismic data	<i>R. Masotti et al, TGS</i>
3D modelling offshore Ivorian Basin, African equatorial margin: Application of a sequence stratigraphic framework in regional exploration screening	<i>C. Saunders et al, Neflex</i>
Petroleum Potential of the Offshore Namibe Basin, Angola	<i>J. Greenhalgh, C.Koch, R.Borsato, PGS</i>
New insights into South West Africa margin evolution; integrating reconstructions and restorations	<i>D.A. Paton, M. Mohammed, R.E.L.I. Collier, Leeds Univ, A. Quallington, P. Markwick, Getech</i>
Use of Public-Source Data to High-Grade Areas For Detailed Exploration: An Example From Offshore SW Africa	<i>M. Alexander et al, Consultant / IGC</i>
Defining Frontier Petroleum Systems with Higher Granularity: Examples with Plate Reconstructions of the Atlantic Margins	<i>W. Dickson et al, DIGS</i>
A New Structural and Tectonic map of West Africa	<i>A. Quallington et al, Getech</i>
Ultradeep Lower Congo basin	<i>S. Tewari, WesternGeco</i>
West Africa Pre-Salt Carbonates (title tba)	<i>A.McAfee et al, CoreLabs</i>
New insights on the prospectivity of the Morondava Basin, Offshore Madagascar based on new seismic data.	<i>G. Roberts et al, SpecPartners</i>
A development and interpretation history of borehole imaging through a range of lacustrine and fluvial successions and the consequences for depositional understanding, Albert Basin, Uganda	<i>C. Buchan, Task Geoscience</i>
Structural complexities of the East African rifts and the implications for exploration and production.	<i>D. Brown, Gaffney Cline</i>
Variable age of breakup along the Kenya-Tanzania-N Mozambique margin	<i>A.Danforth et al, ION</i>
De-risking exploration plays in East Africa: Integrating seismic data with bio and lithostratigraphy	<i>D.J.A Spofforth et al, Robertson Geospec/CGG</i>
Hinterland control on East African turbidite plays : The effects of successive regional kilometre-scale uplifts	<i>D. Macgregor, Surestream/MacGeology</i>
The tectonic development of Africa's elevated passive continental margins and implications for exploration	<i>P. Green et al, Geotrack</i>
NW-Namibia's passive continental margin, thermochronological data and interpretation.	<i>U. Glasmacher et al, Heidelberg Univ.</i>
Defining the outer continental shelf beyond 200 nautical miles – extending to the final limits of Africa's oil wealth	<i>L. Parsons and R. Edwards, Maritime Zone Solutions/Nat. Oceanography Centre</i>

SIPEs June Luncheon Meeting Exploring for Tight Oil in the Pennsylvanian Cleveland Sandstone on the Nemaha RidgeUsing High Resolution 3D Seismic and Stratigraphic Analysis: A New Play in an Old Area

by **Tony Lupo and Lee F. Krystinik**, Fossil Creek Resources, LLC

Tight sands in the Upper Pennsylvanian Cleveland Formation are an active development target in the panhandles of Texas and Oklahoma. Since drilling started in the 1920's along the Nemaha Ridge of north central Oklahoma and south central Kansas, the Cleveland has traditionally been viewed as a shallow 2,500'-3,000' depth, thin, tight-oil "teaser", or as a tertiary objective on the way down to other more economic objectives. By the integration of high-resolution 3D seismic data with detailed sequence stratigraphic analysis, thicker, productive Cleveland reservoir fairways can be identified and economically drilled on the Nemaha Ridge.

Cleveland depositional systems in the Nemaha Ridge area include river-dominated deltas and incised valleys, each with distinctive log and seismic characteristics. Deltaic reservoir successions occur in the upper two thirds of the Cleveland interval and are usually the best reservoirs. The deltaic reservoir units are composed of very fine to fine-grained "sanding upward" successions that exhibit dip-elongate behavior and rapid changes along strike. Cleveland valleys in the study area have fills with blocky to fining-upward log signatures and are lower medium to very fine grained units that occur in the lower part of the Cleveland succession.

Optimal drilling locations are best identified by fine-scale correlations and seismic mapping linked to subtle syn-sedimentary tectonics. High-resolution 3D seismic data of up to 1.4 million traces per square mile and seismic-facies analysis have proven to be key tools that help differentiate and predict optimal reservoir trends in this new play concept on the Nemaha Ridge. Their application provides an opportunity for focused horizontal exploitation. This type of analysis is broadly applicable to a number of other similar plays in old development areas. ■

Biographical Sketch

MR. LUPO has 13 years of oil and gas industry experience and currently works at SM-Energy on the Corporate Exploration Team where he evaluates new play entries and supports a nascent exploration drilling program. Prior to joining SM-Energy, Mr. Lupo worked at Cimarex Energy in the Cana Woodford and Gulf Coast teams where he developed new play concepts, supported the development program, and mentored young geoscientists. Prior to Cimarex Mr. Lupo was V.P. of Geophysics at Fossil Creek Resources where he was responsible for the entirety of the geophysical program that included play fairway mapping, 3D acquisition design, seismic data processing QC, and advanced interpretation. Before joining Fossil Creek, he worked with Samson Resources where he helped establish the acquisition and interpretation technologies currently in use for various deep gas plays that were a significant component of their E&P portfolio. Also at Samson, he built the groundwork for the horizontal Woodford and Wapanucka Limestone gas plays and integrated 3D seismic data into their directional drilling program.

Mr. Lupo began his career at ConocoPhillips (COP) where he worked with various asset teams that included West Africa, GOM, Alaska, and the Mid-Continent. There he was focused on interpretation, rock physics, seismic acquisition, and high resolution seismic data processing. Particularly in the Mid Continent, his efforts bumped their key stratigraphic play success from 15% to 80% and identified several previously undocumented plays. Recognized by COP for his integrative skills, he also worked in the Integrated Geologic Analysis Group that bridged their applied research with all of their operating divisions. Mr. Lupo holds a Bachelor of Science degree in Geology from Grand Valley State University and a Master of Science degree in Geophysics from New Mexico Tech.

Thursday, June 20, 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), or e-mail 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, 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.

Vendor Corner Recognition and Thanks

The Houston Geological Society would like to recognize and thank its many vendors who showed their support as hosts of “Vendor Corners” for our 2012-2013 evening technical meetings. These companies presented poster session displays of their products, studies, and/or services. Each provided a great focal point for the attendees as they gathered for the social period prior to HGS’ dinner meetings. Vendor Corner fees are entirely donated to the HGS Scholarship Fund for undergraduate geosciences students and to the HGS Student Membership Initiative.

The HGS would like to thank the following:

A&B Labs – Bethany Sapp, Ram Ramakrishnan
*Dickson International Geosciences (DIGS) – Bill Dickson
*Fugro GeoConsulting – Dan McConnell
Fugro Gravity & Magnetics (Now CGG) – Jeff Rowe
Fugro Multi-Client (Now CGG) – Mike Whitehead
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*Saudi Aramco – Kristoffer Rollins
MILCO Safety Rental – Tim Beyer
TGS-Nopec Geophysical Company – Mike Hebert, John Adamick
Wildcat Technologies – Albert Maende
**Hosted more than one vendor corner*



Houston Petroleum Auxiliary Council News

Mickey Murrell, HPAC President



When asked by Edie Bishop to be a guest writer for the *HGS Bulletin*. I was honored but nervous. What would I write? I decided the experience of being President of HPAC for this past year is probably the only thing of interest that I have to offer to the readers of the *HGS Bulletin*. Certainly many of the names that I mention will be familiar to those readers. This is our fifth year operating as HPAC and I feel our auxiliary has truly become a group of women who carry out our Mission Statement "To promote and foster social relationships among its members and to assist the Engineering, Geological, Geophysical and Land Societies in their various requests." Pardon me for my bias, I do feel that the 2012-2013 HPAC Executive Board members, Board Committee Chairmen, Liaisons and Special Interests groups' Chairmen are an extraordinary group of women that I have had the privilege to serve with this year. I would like to acknowledge and praise each of them for all their efforts and their time spent in the service of HPAC.

Our Executive Board consists of seven HPAC members as follows:

- President, yours truly **Mickey**.
- First Vice President – **Barbara Peck** is a very organized woman who has been so capable throughout this year planning our programs, selecting the venues, and coordinating these programs

with HPAC event hostesses, committee members and venue personnel to provide all our members with excellent luncheon events.

- Second Vice President – **Winona LaBrant** manages our membership information and does so with great diligence. Because of Winona's hard work, initial and follow-up phone calls and emails to returning as well as prospective or new members, we have a membership of 179 wonderful women in our auxiliary this year.
- Secretary – **Sally Blackhall** stepped in to take over the responsibilities of that position when it was necessary for another member to resign the post. Sally does a splendid job of keeping up with all the discussions and chatter of the board meetings and succinctly transcribes them in her reports. She also printed the invitations for our final two events.
- Treasurer – **Georgeann Massell** performed her duties with great confidence and kept our finances in very good shape. Georgeann worked closely with **Winona LaBrant** to make certain that our membership dues payments equaled the membership roster number. This is my first year to become acquainted with Georgeann, and I have really enjoyed her company and sense of humor. Thankfully, all the Board members have a good sense of humor and enjoy a good laugh!

HPAC continued on page 70



2012-2013 HPAC Executive Board members, Board Committee Chairmen, Liaisons and Special Interests groups' Chairmen



HGS Welcomes New Members

New Members Effective May 2013

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Ben Anunne
Alberto Barud
Blake Blackwelder
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Barbara Tillotson

Lance Wilson

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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 (March 2013)

Obama Announces Nominations to Head DOE, EPA, and NRC

President Obama announced, on March 2013, his nomination of Ernest Moniz for Secretary of Energy, Gina McCarthy for Administrator of the Environmental Protection Agency (EPA), and Allison Macfarlane for a complete term as Chairwoman of the Nuclear Regulatory Commission (NRC).

Ernest Moniz would replace outgoing Secretary of Energy Steven Chu. Moniz is a nuclear physicist at the Massachusetts Institute of Technology (MIT) and heads the MIT Energy Initiative (MITEI) and the Laboratory for Energy and the Environment. A hearing on his nomination is scheduled for April 9, 2013 before the Senate Committee on Energy and Natural Resources.

Gina McCarthy would replace former EPA Administrator Lisa Jackson. Currently, McCarthy is the Assistant Administrator for the EPA's Office of Air and Radiation. Allison Macfarlane has been nominated to continue as Chairwoman of the NRC for a five-year term. She has served as interim Chairwoman for the past nine months after former Chairman, Gregory Jazcko, stepped down amid controversy in July. Macfarlane is a geologist and former professor at George Mason University.

PCAST Announces Key Components for Addressing Climate Change

The President's Council of Advisors on Science and Technology (PCAST) released a report to President Obama on March 22, 2013 that identified six key components for addressing climate change.

The report lists national preparedness, decarbonizing the economy, leveling the "playing field for clean-energy and energy-efficiency technologies," continuing next-generation clean-energy technology research, increasing U.S. global leadership on climate change, and initiating a Quadrennial Energy Review as key steps the government must make to respond to climate change. The letter highlights the need to take action to mitigate as well as adapt to the impacts of climate change.

Obama Advocates for Creating Energy Security Trust

President Obama delivered his March 16, 2013 weekly address from the Argonne National Laboratory. In his address, he reiterated the need for an "all-of-the-above" energy strategy and his support for the creation of an Energy Security Trust to apply offshore oil and gas revenues from public lands to research into transitioning cars and trucks away from (sic) oil.

Obama indicated that the \$2 billion trust would lessen the spikes in oil prices at the pump and carbon emissions while generating jobs and saving money. The funds would support research into technology such as more efficient batteries as well as biofuel, biocell, natural gas, and electricity powered vehicles. Chairman Lamar Smith (R-TX) of the House Science, Space and Technology Committee and Subcommittee on Energy Chairwoman Cynthia Lummis (R-WY) criticized the trust for not effectively addressing the country's energy challenges and not opening additional public lands for production. House Energy and Commerce Ranking Member Henry Waxman (D-CA) praised the proposal.

Senate Energy Committee Approves Sally Jewell Nomination

The Senate Committee on Energy and Natural Resources approved the nomination of Sally Jewell to be the next Secretary of the Interior on March 21, 2013 with a vote of 19-3. The nomination now goes to the full Senate for consideration.

Three senators opposed the nomination: John Barrasso (R-WY), Mike Lee (R-UT), and Tim Scott (R-SC). Barrasso indicated concerns over Jewell's level of experience and what he considered incomplete responses to committee questions. Committee Chairman Senator Ron Wyden (D-OR) praised Jewell for her love of the outdoors and various careers in petroleum geology, banking, and business.

Multiple New Critical Minerals Bills Introduced in House

Several members of the House Natural Resources Committee introduced critical minerals legislation in March 2013. All three of the bills were first introduced in the 112th Congress.

On March 12, 2013, Representative Doug Lamborn (R-CO) introduced the National Strategic and Critical Minerals Policy Act of 2013 (H.R. 1063) to mandate that the Department of the Interior evaluate the nation's supply of and foreign dependence on critical minerals. Representatives Hank Johnson (D-GA) and Ed Markey (D-MA) introduced the Resource Assessment of Rare Earths Act of 2013 (H.R. 981) on March 6, 2013 to require a survey of global rare earth element resources. On February 15, 2013, Representative Mark Amodei (R-NV) introduced the Critical and Strategic Minerals Production Act (H.R. 761) to increase mine permitting efficiency. H.R. 761 would characterize all mines that "will provide strategic and critical minerals" to be considered an "infrastructure project" as defined by an Executive Order (EO)

Government Update continued on page 65

Focused Workshops to Enhance Your Career



Geomechanics and Reservoir Characterization of Carbonates and Shales

16-17 July 2013 • Baltimore, Maryland USA

The goal of this intensive two-day workshop is to engage geologists, geophysicists, engineers, and geochemists in a lively, multi-disciplinary discussion of new findings, lessons learned, and emerging ("young") technologies related to shale and carbonates geomechanics and reservoir characterization as they relate to finding sweet spots, mapping fractures and fracture behavior, optimizing hydraulic fracturing, understanding fracturing fluid behavior, selecting proppants, optimizing horizontal drilling and staged completions. The focus will be on established and emerging plays.

Topics and themes:

- Rock mechanics of shales and carbonates
- Variability of geomechanical properties in shales and carbonates
- Sequence stratigraphy
- Fracture sizing and orientation
- Fracture behavior
- Chert behaviors
- Geomechanics and reservoir fluid behavior(s)
- "Must have" core studies
- Seismic imaging and reservoir characterization
- Cluster analysis, neural networking, mathematical methods and reservoir modeling
- Geochemistry and reservoir characterization

Reservoir Compartmentalization and Connectivity: Multiple Methods for Shales, Carbonates, Deepwater

6-7 August 2013 • Houston, TX

The goal of this workshop is to bring together multiple methods of understanding and describing reservoir connectivity and compartmentalization across different plays and reservoir types, including shales, carbonates, and deepwater plays. Presentations will focus on describing and identifying the factors that give rise to both connectivity and compartmentalization, and will look at geological models, as well as geophysical interpretations and engineering models.

Topics include fluvial architectures, predicting facies changes, fluid flow models, thermodynamic modeling, seismic imaging, and reservoir characterization.

Examples will include Jubilee (offshore Ghana) and the Mississippian Lime (chat), as well as other illustrative and instructive examples.

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For information on these AAPG GTW's, please log on to our website at <http://www.aapg.org/gtw>.

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Directory of Oil Company Name Changes

23rd Edition (April 2013)

The new 23rd edition, of the HGS publication, "Directory of Oil Company Name Changes", is now available through the Bureau of Economic Geology. This publication is a cross-referenced list of domestic oil and gas, exploration and production companies that have sold major assets or have changed their names due to a merger, acquisition, or reorganization. The purpose of this directory is to provide an oil company road map that may assist geologists in tracking down logs, samples, cores, paleo, drilling reports, production histories and other well data that may be obscured by these numerous name changes.

The cost of the directory is \$20.00 and it can be obtained from the BEG.

The contact information is as follows:

Bureau of Economic Geology
University of Texas in Austin
Attn: Publication Sales
University Station, Box X
Austin, Texas 78713-8924
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Government Update continued from page 63

issued in March 2012. In the EO, all infrastructure projects deemed regionally and nationally significant will be reviewed by a Steering Committee of multiple federal agencies in an effort to reduce the amount of time it takes to make permitting decisions. The bill would designate the federal agency responsible for issuing a mineral exploration or mine permit as the lead agency and require that agency to coordinate and consult with other permitting agencies to minimize permitting delays. The House Committee on Natural Resources Subcommittee on Energy and Mineral Resources held a hearing on March 21, 2013 to examine recently introduced legislation on mining and critical minerals.

Soda Ash Bill Seeks to Reduce Royalties

On March 5, 2013, Representative Cynthia Lummis (R-WY) introduced the American Soda Ash Competitiveness Act (H.R. 957) to temporarily decrease the soda ash royalty rate. For five years, the bill reduces royalties on sodium compounds and related products produced on federal lands to two percent from the current six percent. The current rate was set in October 2011.

House Helium Bill Approved by Natural Resources Committee

The House Committee on Natural Resources held a full committee markup of the proposed Responsible Helium Administration and Stewardship Act (H.R. 527) on March 20, 2013. The bill, which aims to keep the Federal Helium Reserve open past its projected closure date later this year, was approved unanimously in committee by voice vote. The Federal Helium Reserve provides 42 percent of the domestic and 35 percent of the global helium supply.

The Helium Preservation Act of 1996 (P.L. 104-273) directed the Bureau of Land Management (BLM) to sell the helium supply until the Reserve's debt was paid. The debt is set to be paid in October and the Reserve will close ahead of the predicted closure date with significantly more helium remaining than the target amount.

H.R. 527 would keep the Federal Helium Reserve open until nearly all the helium is sold, raise BLM helium prices closer to market value, establish a semiannual auction, improve transparency, and prevent supply disruptions. It would require studies of international and domestic helium resources as well as the development of domestic and global helium demand forecasts, domestic helium use accounts, and assessments and research into the extraction and refining of the isotope helium-3 and the viability of creating a facility to separate the isotope helium-3.

During a hearing on February 14, 2013, helium refiners and distributors expressed concern that the auctions would occur too frequently, prevent them from making long term contracts, and add uncertainty to the market.

Government Update continued on page 66

Senate Committee Releases Draft Helium Legislation

On March 22, 2013, Senators Ron Wyden (D-OR) and Lisa Murkowski (R-AK) released draft legislation that addresses the impending closure of the Federal Helium Reserve later this year and requests comments on the draft before introducing legislation during the spring. The draft proposes establishment of an auction of 10 percent of the reserve in fiscal year (FY) 2015 and an increase in the percentage auctioned annually by another 10 percent. Operations would remain unchanged for FY 2013 and 2014. Wyden and Murkowski are the chairman and ranking member, respectively, of the Senate Committee on Energy and Natural Resources.

House Democrats Introduce Oil and Natural Gas Export Bills

On March 14, 2013, Representative Ed Markey (D-MA) introduced three bills regarding export of oil and natural gas: the Keep America's Oil Here Act (H.R. 1190), Keep American Natural Gas Here Act (H.R. 1191), and American Natural Gas Security and Consumer Protection Act (H.R. 1189).

H.R. 1190 and H.R. 1191 would prohibit the export of oil and natural gas produced on federal lands. These bills would apply to new leases. H.R. 1189 alters the permitting process for export of liquefied natural gas (LNG) allowing permits when export is deemed in the "public interest."

Markey and Representative Rush Holt (D-NJ) cited, as the motivation behind these bills, concerns that increasing or allowing exports will result in higher oil and natural gas prices for Americans. With the United States producing oil and natural gas at record levels, the prospect of exporting increases. In evaluating trade partners for exports, the DOE would consider the impact on consumers, jobs, national security, and greenhouse gas emissions when determining "public interest." Currently, trade with free-trade partners is rapidly approved while non-free-trade partner applications face heavy scrutiny.

Legislation on Oil Royalties and Tax Deductions Introduced in Senate

On March 18, 2013, Senator Dianne Feinstein (D-CA) introduced the Deepwater Drilling Royalty Relief Prohibition Act (S. 598) ending royalty payment exemptions for new leases for offshore drilling in water over 400 meters deep. The same day, Senator Bill Nelson (D-FL) introduced the Oil Spill Tax Fairness Act (S. 599) to keep companies from claiming offshore oil spill clean-up and legal fees as tax deductions.

Both senators cited the 2010 BP Deepwater Horizon oil spill as the motivation for the development of these two bills. They argued that the federal government should not provide incentives such as royalty exemptions and tax deductions to encourage offshore drilling or reward companies paying to clean-up a spill. Nelson's bill exempted clean-up of disasters caused by nature or war. Feinstein claimed that, given the current budget deficit, the government needs to collect royalties.

Keystone XL Pipeline Draft Environmental Impact Statement Released

On March 1, 2013, the Department of State released the draft of the Supplemental Environmental Impact Statement (EIS) for the proposed Keystone XL pipeline that would connect Canada's oil sands to refineries on the Gulf Coast.

The report did not make a recommendation regarding approval or rejection of the pipeline application but concluded that Keystone XL will have little impact on the rate at or the extent to which Canada develops the oil sands. The EIS indicated that the pipeline poses no significant risk to nearby resources. The State Department is accepting public comments on the draft EIS to be submitted by April 22, 2013.

The 2013 EIS reviewed the 2012 proposal which takes into account concerns that contributed to the 2008 proposal's rejection. The 2012 proposal shortens the pipeline and follows a route that avoids environmentally sensitive areas in Nebraska.

Some consider the draft a sign that President Obama is leaning toward approving the pipeline; however, the Administration will not make a decision until later this summer. Environmentalists disagreed strongly with the draft findings and criticized the validity of the EIS based on the use of contractors linked with the oil industry.

Interior Reviews Shell's Arctic Drilling Practices

On March 14, 2013, Secretary of the Interior Ken Salazar announced the release of the Department of the Interior (DOI) review evaluating Shell's 2012 Arctic operations and providing recommendations for Shell's future drilling efforts.

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The review criticized Shell's lack of preparation, failure to finalize the containment system, and mismanagement of contractors. DOI recommended Shell submit a comprehensive, integrated, Arctic-specific plan outlining all stages of the operation as well as undergo a full management review by a third party. The review praised Shell for their level of communication with Alaskan native communities.

In 2012, Shell began their drilling program in the Beaufort and Chukchi Seas offshore Alaska. The company faced a number of problems including failing to obtain certification of its containment vessel *Arctic Challenger*, difficulty deploying *Arctic Challenger's* containment dome, and troubles transporting drilling rigs. Shell has suspended its 2013 offshore drilling plans due to damage sustained by one drill ship and the need for further preparation.

BLM Approves Utah Helium Project

The Bureau of Land Management (BLM) approved a project on March 25, 2013 to develop the Harley Dome helium resource in eastern Utah.

Flatirons Resources, LLC will drill a 1,100 foot exploratory well and, if production is proved to be technologically and economically viable, build a 1.4 mile pipeline to transport the gas to a plant that will extract and compress the gas for truck transport. BLM cited no significant impact from the project. Approval of the project comes as Congress seeks to address and avoid the approaching early closure of the Federal Helium Reserve set to occur in October.

EPA Creates Hydraulic Fracturing Advisory and Review Panel

On March 24, 2013, the Environmental Protection Agency's (EPA) Science Advisory Board announced the establishment of the Hydraulic Fracturing Research Advisory Panel. Composed of 31 experts, the panel will independently review EPA's draft report evaluating the effects of hydraulic fracturing on drinking water. EPA plans to release the draft report in late 2014.

The panel and the public will have an opportunity to comment on the study's progress report at a meeting on May 7 and 8, 2013. The report is the preliminary result of Congress's directive to EPA to investigate possible contamination of drinking water due to hydraulic fracturing and potential associated health issues. The panel has experts in "Petroleum/Natural Gas Engineering; Petroleum/Natural Gas Well Drilling; Hydrology/Hydrogeology; Geology/Geophysics; Groundwater Chemistry/Geochemistry; Toxicology/Biology; Statistics; Civil Engineering; and Waste Water and Drinking Water Treatment."

New Power Plant Carbon Dioxide Emissions Rule Likely Delayed by EPA

The Environmental Protection Agency (EPA) is scheduled to release its final rule limiting greenhouse gas (GHG) emissions from new or modified power plants on April 13, 2013 but most expect the agency to delay the rule once again. The agency has received over 2 million comments on the proposed rule.

EPA first proposed the New Source Performance Standard (NSPS) on April 13, 2012 which limited both coal-fired and natural gas-fired power plants to 1,000 pounds of carbon emission per megawatt-hour. The standard as it was proposed could only be achieved by natural gas-fired power plants and would require coal-fired power plants to implement carbon capture technology.

Critics of the proposed rule point out it would be an effective ban on coal-fired power plants since carbon capture and sequestration (CCS) technologies are not commercially viable.

On March 14, 2013, Senators Joe Manchin (D-WV), Joe Donnelly (D-IN), Heidi Heitkamp (D-ND), and Mary Landrieu (D-LA) wrote a letter to President Obama urging an alternative rule that would treat coal-fired and natural gas-fired power plants as separate categories. ■

Loyd Tuttle **Bob Liska** **Jim Thorpe**
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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. 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.

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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
FULL COLOR AD * add 30% to B&W charge for full (4) color ad						BUSINESS CARD \$160 per 10 Issues – Send two cards (\$30 for each additional name on same card)				

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Monthly	\$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 or email nina@hgs.org.



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Qualifications for Active Membership

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Professional Interest: _____

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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 _____

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- Editor – **Lynn Schoenberger** has returned to serve on the board and offered her finest abilities and skill with the computer as she prepared our two-page HPAC Newsletter, which is mailed out with each of our event invitations. These newsletters are an important aid to our members with information of upcoming events and happenings within our members' lives.
- Parliamentarian – **Kathi Hilterman** was our President last year and did a superb job in that position. This year Kathi is deservedly getting a much reduced list of duties. Kathi was a great help and support for me as 1st V.P. last year, and I am grateful to have had a chance to know her better.

Our Committees with Chairmen consist of the following:

- Yearbook – **Susan Graul**, did an excellent job compiling all the myriad bits of information that comprise knowledge necessary for our members to have on hand for reference throughout the year.
- Notification – **Linda Steen**, despite taking on the responsibilities this year of a job outside her home, has readily performed all her duties of mailing out invitations and newsletters on a timely schedule for all HPAC events with willingness and a real sense of commitment.
- Courtesy, – **Mary Harle** and **Nan Pye** have all the charm and talents necessary to greet members at a reception table at each HPAC event, to prepare and manage members' name tags, to make new members feel welcome with handwritten notes, and to contact any members necessary by note or card to acknowledge a significant event in their lives.
- Technical – **Wanda Shaw** and **Mickey Murrell** work on HPAC's web site (hpacauxiliary.com/) with the help of **Edie Bishop** to update and improve the site. The site is a work-in-progress and will become more informative and user-friendly as we develop better content, computer skills, and abilities. Wanda, our exceptional photographer for all events and activities HPAC, downloads her photos on the Snapfish web site for our entire membership to view at their leisure.
- Publicity – **Kaye Horn** willingly took on this new committee chair to prepare HPAC for any future need to contact the media about HPAC activities. Kaye graciously offered her lovely home, incidentally a Registered Texas Landmark, for HPAC'S September 2012 Coffee. She is a warm, always positive, and a joy to have on the board.

I must not forget our Liaisons and our Special Interest Groups' board members. The four Liaisons for this year were **Maxine Hillman**, who was succeeded by Phyllis Carter, for the Society of Petroleum Engineers (SPE), **Edie Bishop** for the Houston Geological Society (HGS), **Donna Parrish** for the Geophysical Society of Houston (GSH) and **Sheri McQuinn** for the Houston Association of Professional Landmen (HAPL). These four ladies have filled their roles fabulously as our HPAC representatives for their respective organizations. They have the Board's and my gratitude for their outstanding reports and information about our Auxiliary as well as photos of some of our events for the publications or newsletters for each of these groups.

HPAC's Special Interest Groups provide added pleasure and fun for our members who participate in them. There are three Bridge groups. The Cinco Mas Bridge Group, whose success is due to the group's contact who is **Audrey Tompkins**, a former President of the HGA; the Petroleum Club Bridge Group, whose contact is the amazing **Daisy Wood** aka HPAC Game Day's extraordinary party planner; and the Geophysical Bridge Group for which there is no contact at the present time. The Book Club has two contacts, the wonderful **Phyllis Carter**, the first HPAC President 2008-2009 and the amiable **Anita Weiner**, a top-notch golf enthusiast and player. The Book Club meets the first Monday in August, November, February, and May with a different member leading the group discussions for each book. The HPAC Explores Houston Group activities usually include three outings per year which are led most expertly by **Martha Lou Broussard** and **Linnie Edwards**. Edie has written in the *Bulletin* about the October, 2012 and January, 2013 outings the group took. Our final outing on April 11 was a spring bus trip to Columbus, Texas, where we viewed wildflowers in bloom along the way, learned about some Columbus-area Texas history, and also toured pre- and post-Civil War homes and the beautifully renovated Stafford 1886 Opera House.

I have participated in the Book Club meetings and discussions, as well as the HPAC Explores Houston Group outings and bus trips and can highly recommend that our members attend these groups' meetings and/or trips. I don't play bridge, but I always play Chicken Foot Dominoes at our Game Day luncheon each year and really love it! However, I understand that the Bridge Club groups all have a wonderful time and lunch at their get-togethers, so I also recommend those groups' gatherings for our members who play bridge.

Edie, I truly appreciate this chance to introduce to the HGS *Bulletin* readers the fine group of ladies who comprise the 2012-2013 HPAC Board and to express my thanks for you and the rest of this amazing board to serve with as President for this year's HPAC luncheon events and activities. ■

You are invited to become a member of

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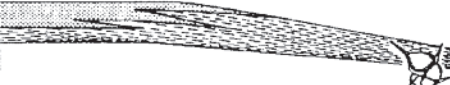

















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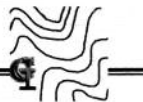
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| <input type="checkbox"/> Christmas Event | <input type="checkbox"/> Spring Event | <input type="checkbox"/> Notification | <input type="checkbox"/> Game Day |
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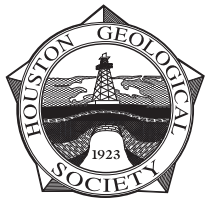
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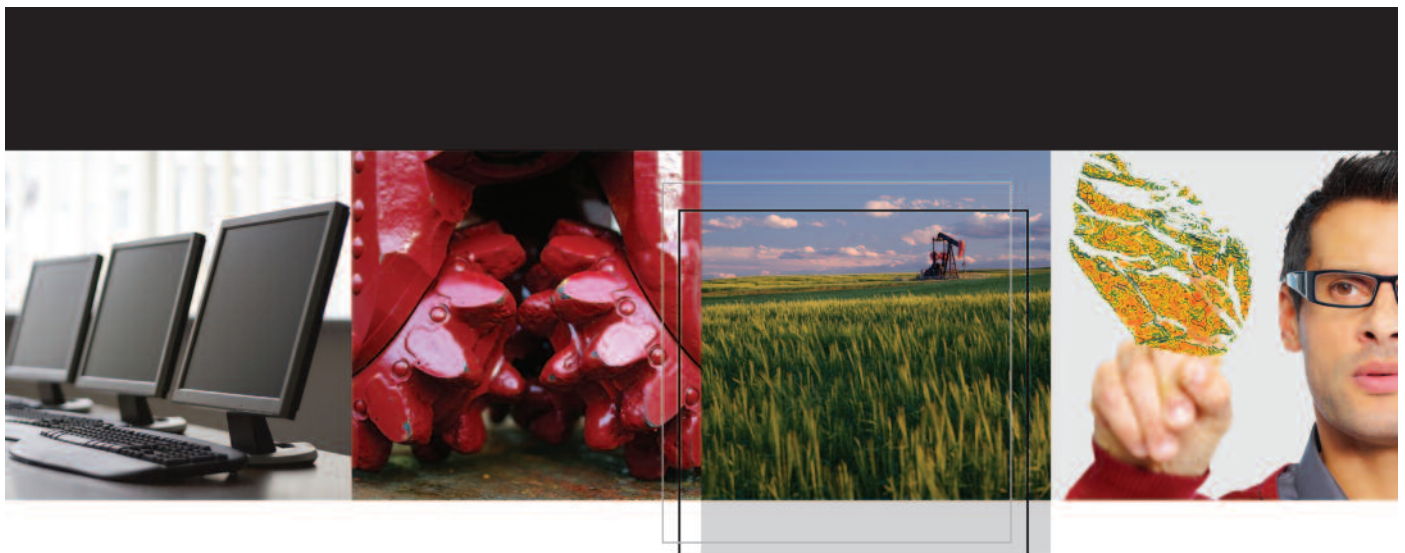
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