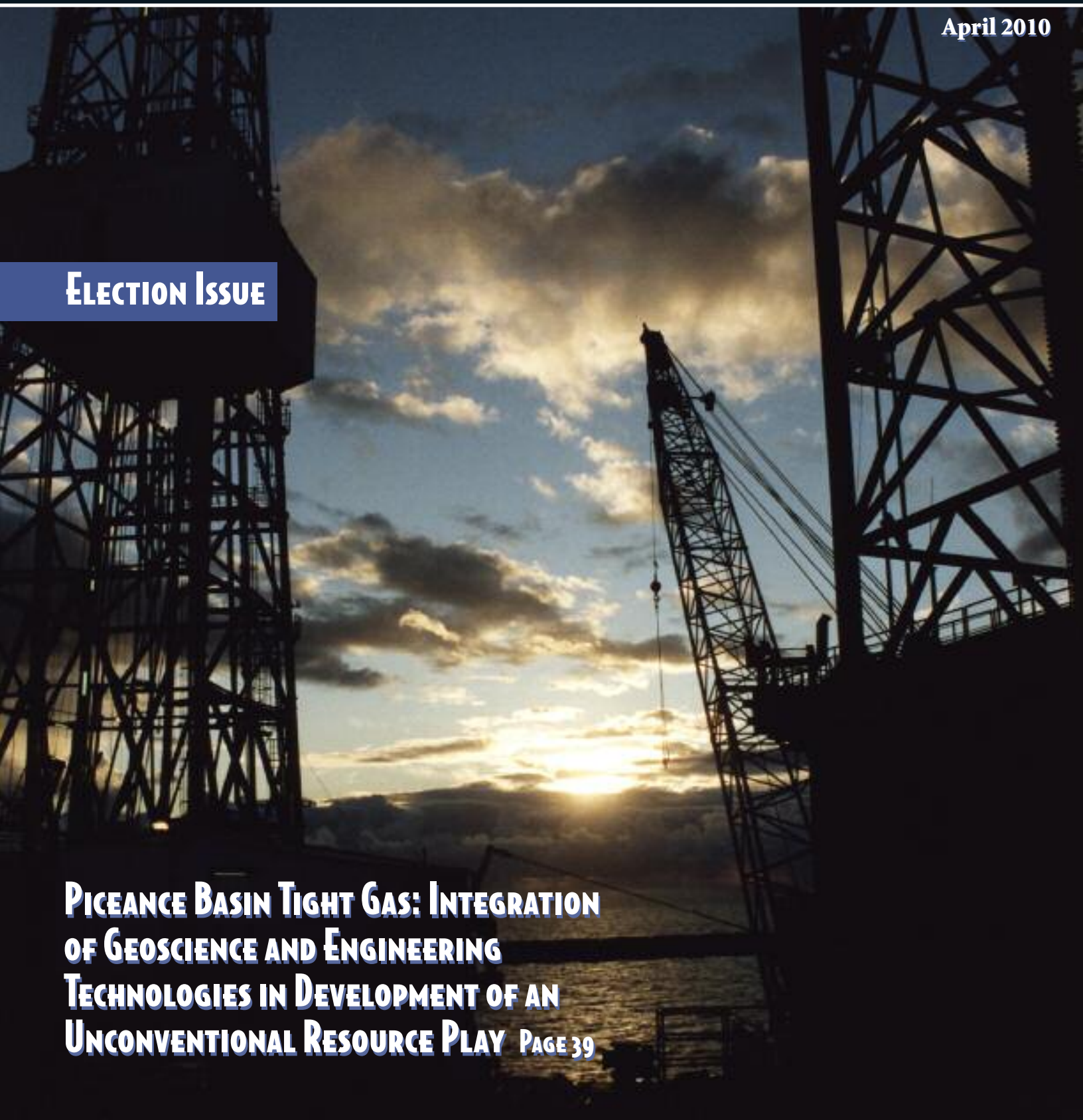
HGS Bulletin
Houston Geological Society
Volume 52 Number 8
April 2010



Election Issue

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The Bulletin
Houston Geological Society

Volume 52, Number 8 April 2010

In Every Issue

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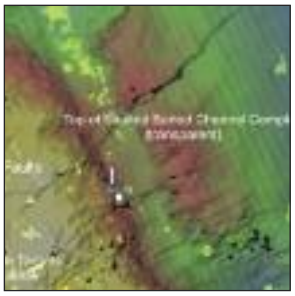

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About the Cover: Sunrise from a jack-up rig drilling in the North Sea. *Photo by C. E. Revilla.*

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HGS Guest Night – Saturday, May 22, 2010

Houston Museum of Natural Science 6:30 p.m.–10:00 p.m.

Big Bend: Where the Rockies Meet the Appalachians Discoveries and Enigmas

Speaker:

Dr. Patricia Wood Dickerson

The Geological Institute and Visiting Research Fellow, Jackson School of Geosciences, University of Texas at Austin

The Guest Night program includes a social hour, buffet dinner and featured speaker presentation
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Gary Coburn
garycoburn.hgs@gmail.com

Innovate and Create But Do Your Homework

Laissez Les Bon Temps Roulez!! Yes, it's AAPG Convention time in New Orleans! What a year New Orleans is having! First they won the Super Bowl and now they are hosting the AAPG Convention! It just doesn't get any better than that! The convention promises to be a good one with some innovative talks.

Innovation is one of the hallmarks of our industry. Finding oil is always a good thing (unless of course, it is under your car when you walk out of the office in the afternoon). Finding oil in a place or formation where "everyone" knows it doesn't exist is fantastic! Usually such a find starts with a wild idea some geologist, who obviously didn't pay attention in college or he would know better, puts forth to explain something that he/she can't explain otherwise. The geologist is usually soundly chastised for proposing such heresy and sent back to his office to think about the error of his ways. The trouble is that the idea can't be put back in his head and as an idea will do, it sticks with most who have heard it. Somewhere in the back of their minds the other geologists have another thing to be looking for and a few may even start finding it. This makes them start pondering the "wild" idea more seriously. After a time the idea has become less wild and more in the category of 'possible'. Eventually some geologist manages to convince management to risk the wild idea by drilling a well. This usually happens because management is desperate to find a place for the rig they have under contract or they are tired of hearing the geologist go on about the prospect year after year, or some combination of the two. The prospect gets permitted which is of course of public record. At this point something interesting starts to happen. Like a group of penguins on the edge of the ice cliff all the other oil companies start crowding around. Like the first penguin going into the sea, the first company starts to drill the well. The other penguins watch. Will the first penguin get eaten by the ever-present sharks? The well is successful and just like the penguins all the companies start jumping into play. Managements of other companies are now busy trying to explain why their company didn't see such an obvious play! Never mind that their own geologists had seen it and been unsuccessful in convincing management to go forward. The race is on.

companies that did the best were those who committed time and resources into understanding the play prior to jumping

Leasing becomes a frenzy with speculators getting into the fray. This scenario has repeated itself many times. I remember at the dawn of my career, back when 2½ D seismic was cutting edge and everything was done on paper sections, the Tuscaloosa was the ultimate play. Farmers were becoming millionaires over night just from the leasing bonus. Many companies did very well early on, but eventually companies had pushed it further just to get leases, and like sharks sweeping through the penguins the dry holes started taking their toll. The companies that did the best were those who committed time and resources into understanding the play prior to jumping into it. The Tuscaloosa plays of yesterday are the shale plays of today. The frenzied activities of the shale plays is breath-taking to watch. The investment advisors and investment magazine editors have extolled the virtues of having "dry hole" proof plays that stretch for miles on end. Their theme song, "One simply has to drill a hole, put a pipe in the ground, a valve on top and voilá instant money!" Not only that, but the reserves can produce at a steady rate for 20 years! This allows the bankers to plug in numbers and make projections that they and their investors can count on. That's the plan at any rate.

Geologists, of course, know better. Shales are incredibly complex. The geologic variability is immense and requires dedicated geoscientists to understand them and where to optimally buy leases and drill wells. In addition, the shales come with their own set of problems, such as fracking, low producing rates which require large numbers of wells (all of which will require remedial work and plugging at some point) and they are manpower intensive.

From the President *continued on page 9*

HGS Shrimp Peel

Saturday, May 15, 2010
5pm - 10pm
Sam Houston Race Park
7275 N. Sam Houston Pkwy. West
281.807.8700

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* Purchase tickets online at hgs.org
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* Purchase tickets by May 7 - No Refunds
* Blue October to perform on Bud Light stage after last race (separate ticket required)

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Barry Katz
BJKatz.HGS@gmail.com

A Look Through Someone Else's Glasses

Over the past few months I have been reading a number of books on the value of diversity. Not the visual diversity that is often discussed by corporate and political leaders but the diversity of thought. Thought diversity provides for more effective leadership as well as increased innovation. It allows us to look outside of our own limits and provides us with a much broader perspective providing the benefits gained from the knowledge and experiences of others. The problems that we are asked to solve today often require the bridging between disciplines and thought diversity provides us with the potential exposure to those alternative solutions that our own tunneled vision would not permit us to see.

Thought diversity provides for more effective leadership as well as increased innovation

So why bring this topic up for discussion now? Just this past week, I attended a conference and there were a few papers that I listened to dealing with petrophysics and geophysics. Not what I consider my areas of expertise but they were part of the program. Each of these papers had a long list of co-authors. To the best of my knowledge all of the co-authors had similar technical backgrounds. The papers were technically solid and offered some incremental advancement in exploration and production workflows. During the presentations I found myself jotting down some notes. There is nothing unusual in my note taking except that these notes were not directly capturing the thoughts of the presenters but rather how I might intertwine their work with mine. When the speakers' presentations were done I shared some of these ideas and how I felt we could jointly benefit by collaboration. An e-mail and a hallway discussion have since followed. I am not yet clear how far this new collaboration might go or whether a step change in our understanding or workflow process will occur but it is an opportunity. Both sides were open to the idea that we could benefit from the knowledge and experiences of the other and aware of the potential that the whole may be greater than the sum of its parts.

This month many of us will be attending the American Association of Petroleum Geologists Annual Convention in New Orleans. This will be a great opportunity for learning, the capturing of diversity of thought among those active in our industry and science, as well as for networking. In the past I have found myself sitting through sessions and listening to papers in areas technically similar to those that I work in. Clearly, there are benefits to this type of activity. It keeps me current in my field and provides an opportunity for me to maintain my established network.

I must admit that very often I am disappointed because what has been presented provides for only incremental advancement in my understanding in my area of expertise. This year I am going to try something different and hope that I will add significantly to my knowledge base. I am going to sit through a few sessions outside of my area of expertise and seek out a few presenters to discuss their work and its implications. I would like to challenge each of you to do the same. Attend at least one complete session outside of your technical specialty or geographic area of responsibility and after the session ends find at least one of the speakers and discuss his or her work. This should provide some diversity of thought as to how you examine your own work problems and should also broaden your professional network. You might find an unexpected technology link or a better analogue. I know that I am hoping to do so. This broadening should also help us to continue to prepare for the continuing changes in our industry by allowing us to broaden our potential opportunities. How many among us, ten years ago, would have thought that shales and mudstones would be considered a reservoir of ever growing importance?

As important as the information conveyed in the oral and poster presentations is, the expansion of the professional network may be even more important. Even with all of the social networking sites that exist, I am surprised at how narrowly focused all of our networks tend to be. We all tend to build networks, independent of their size, of people similar to ourselves, sharing common

From the Editor *continued on page 9*

From the President continued from page 5

The shale wells, due to their typically low production rates are even more susceptible to gas price fluxuation than those producing from conventional reservoirs.

Don't get me wrong. I am not dogging the Shale Plays. They can be a viable part of a company's portfolio, if the company can look past the hype and invest in real geologic analysis by geoscientists who have actually worked these types of plays. Unfortunately I fear many companies are not doing the geologic work that would be required in any conventional play, because their management has the "sure thing" mentality about the shales. The shales are not sure things, as any geologist who has worked them will tell you. The companies that put honest geologists in the forefront of any play decision or acquisition are the ones that will succeed. As in any other play, there will be winners and losers. The big winners will be the companies that did their homework, listened to their geoscientists, took educated risks, and got into the play before the feeding frenzy began. The losers will be those who simply followed the crowd.

In the meantime we geologists are busy thinking up wild ideas. Somewhere, someone is trying desperately to convince their management of a wild idea that will eventually turn into the next Tuscaloosa, deep gas, sub-salt, or even shale play!

Happy Hunting!

From the Editor continued from page 7

beliefs and similar skills. Although these networks are valuable they do not necessarily provide for the diversity of thought that allows for the innovation through the merging of different technologies. Remember that many of the greatest innovations have resulted from the touch points where independent technologies were brought together. Just consider developments in such fields as basin modeling, seismic data acquisition and processing, and well logging all of which are technologies that cross boundaries.

Before I close, I must note that two of our members Fred Walsh and Bill Bishop contacted me about a spelling error on the cover of our February *Bulletin*. There were several other minor errors present in that issue. (No need to contact me about them. Some of these errors are obvious and some not so. There are no prizes.) Although not an excuse, the February issue is prepared on a very short schedule between the Thanksgiving and Christmas holidays, as Editor I take full responsibility and will do my best in the remaining 12 issues under my tenure to prevent such errors from reoccurring. I will also put in-place a plan to handle those rushed months where there is limited time to prepare and review the draft *Bulletin* before it goes to the printer. For those concerned we have corrected the cover, table of contents, and article in the *Bulletin* posted on the HGS website.

Until next time…

Mark Your Calendars!
HGS Guest Night Saturday, May 22, 2010

Guest Night returns to the HMNS for another memorable event —

Big Bend: Where the Rockies Meet the Appalachians — Discoveries and Enigmas
Guest Speaker: Dr. Patricia Wood Dickerson, The Geological Institute and Visiting Research Fellow, Jackson School of Geosciences, University of Texas at Austin

plus an enjoyable happy hour in the exhibits area, delicious buffet dinner, door prizes, and a 3D IMAX movie.

HGS/PESGB
9th International Conference on African E&P
Africa: A Multi-faceted Promise
Houston 2010
September 8-9

Marriott Houston Westchase Hotel • 2900 Briarpark Drive, Houston, Texas

FINAL CALL FOR PAPERS

Plan to attend this event during the week <u>before</u> the AAPG Int'l Convention in Calgary.

This annual conference has become established as the primary technical E & P conference on Africa. Scheduled for 8-9 September 2010 in Houston, a two-day program of talks is planned along with technical posters and exhibits from sponsoring companies. Opening reception will be Tuesday evening September 7th.

The conference series, organized by members of the International Group of Houston Geological Society (HGS) and Petroleum Exploration Society of Great Britain (PESGB) covers all aspects of African E&P, with particular emphasis on new ideas for plays and prospects, the geology of the continent and its conjugate margins, and application of emerging technologies.

Technical Contributions and Sponsorships are welcomed now

There is still space for a few good talks. Email Abstracts (~200 words) to Africa2010@att.net or Africa2010@HGS.org . The program will be finalized by end April.

Special thanks to the many exhibitors and sponsors:
CGG, ChemoStrat, Core Lab, dGB Earth Sciences, Fugro - G&M S- Robertson - NPA, GeoInternational, GETECH, GX Technology, LYNX, OHM, Seabird, TGS and Weinman Geoscience

For sponsorship opportunities or exhibit space, please contact David Schwartz DSchwartz@fugro.com or Sandra@HGS.org .

Pre-registration is available on-line at www.HGS.org . Further details will appear in the HGS *Bulletin*, PESGB newsletter and websites.

Conference Committee for 2010 includes Al Danforth, Ian Poyntz, Martin Cassidy, Dave Schwartz, Justin Vanden Brink, Tarek Ghazi and Claudia Lopez (Houston), Ray Bate and Duncan Macgregor (London).

Remembrances

Matthew Will Daura

Matthew Will Daura, past-President of the Houston Geological Society, passed away Friday, January 22. Matt was previously Secretary of the HGS and then served as President in 1983-84. During his presidency, the Undergraduate Scholarship Fund was established, based on a proposal by Don Scherer, with the long-term objective of funding at least one junior/senior level scholarship per year at six local universities. The organizers of the fund anticipated the award amount to be $1,000.00 per academic year, with $500.00 distributed per semester. The Society made the first two scholarship awards in December 1984, and the tradition continues today. Also during his tenure as HGS President, the Computer Applications Committee was formed; this eventually resulted in the development of the HGS Web site.

Matt was born on April 12, 1925 in Houston, Texas, son of Mary Will and Matthew Daura. He graduated from Stephen F. Austin High School in 1942. After high school, Matt worked as an intern for the Houston Oil Company before enlisting in the Navy in 1943. During World War II, he served on the U.S.S. Saratoga from December 1943 to April 1946 in the Pacific and Indian Oceans. He was aboard the Saratoga when planes from that vessel carried out the first U.S. forces to bombing of Tokyo. Planes from the Saratoga also took part in the invasion of Iwo Jima. On February 21, 1945 the Saratoga was hit by Japanese kamikazes and forced to return to the U.S. for repairs. Matt was discharged from the Navy in April.

After the war, Matt went to Louisiana State University, where he received a B.S. degree in geology in 1950. He then went to work for the Houston Oil Company in Shreveport, Louisiana, and later in Lafayette and Houston. At Houston Oil he met his longtime friend Sabin Marshall, who remembers him as a strong Gulf Coast geologist who regularly attended HGS lunch and dinner meetings and was known by his friends as "Buddy" Daura.

The Houston Oil Company was bought by Atlantic Refining Company, and Matt worked for Commonwealth Oil Company and Jupiter Corporation before joining Transcontinental Gas Pipeline Company (Transco) in 1962. At Transco, Matt met his other great friend Jeffery Morris, who was his supervisor. Jeff remembers Matt as a dedicated production geologist whose responsibilities included mapping and evaluation of all producing horizons in fields associated with Transco's gas purchase contracts. Matt was a dedicated scientist who was admired by his fellow employees and highly regarded by the company. He became a manager before retiring in 1986.

Matt was a member of the Houston Geological Society, the American Association of Petroleum Geologists, and the American Institute of Professional Geologists. He was awarded the coveted HGS Honorary Lifetime Membership. After his retirement, Matt dedicated himself to his other great love after geology—photography. He was a member of the Houston Camera Club, and served as president for six terms and later received an Honorary Life Membership.

Matt never married. He is survived by numerous cousins, including Michael Brouse and wife Lesley of Houston, Texas; Richard Palmo and wife Melvena of Santa Fe, Texas; Elizabeth Will of Edenton, North Carolina; Jack Keim and wife Mary Anne of Sedona, Arizona; and Alen Keim and wife Gail of New Hope, Pennsylvania. ■

Candidates for the 2010–2011 Executive Board

HGS Election Voting Instructions

The Houston Geological Society officer election voting period opens in April 2010 and continues to May 10, 2010. HGS members can vote online for the following candidates: President-Elect, Vice-President, Secretary, Treasurer-Elect, Editor-Elect and two HGS Directors.

An email will be sent to active HGS members that will contain the ballot web link. The highlighted link will take you to a secure webpage. Follow the easy instructions and review the candidates. Vote for HGS candidates of your choice using a personal Voting ID number.

1. Go to the HGS Website at **www.hgs.org**
2. Logon to the HGS Website with your member user name and password (If you don't remember your user name and password contact the HGS Webmaster)
3. Click the link on the e-mail and you will be taken to the voting page
4. On the voting page, input the unique voting ID number located on the email. Each member has a unique voting ID number. Please do not share your number with anyone. You will be taken to the candidate list page.
5. Cast your votes by clicking on the boxes next to the candidate names. You will also see the candidate bio's that you can read to help you decide on the candidate you want to vote for.
6. When you are done selecting candidates, click the "submit vote" button at the bottom of the page. ■

President-Elect (two candidates)

Steven A. Earle

Education:
BS Geoscience, University of Arizona, 1974
MBA, Houston Baptist University, 1988

Experience:

2006–Present	Carrizo Oil and Gas, Senior Explorationist
2003–2006	Sabco Oil and Gas, Geophysicist
2002–2003	BP America, Principal Geophysicist
1994–2001	Vastar Oil and Gas, Principal Geophysicist
1980–1994	ARCO Oil and Gas, Area Geophysicist
1974–1980	Amoco Production Company, Geophysicist

Professional Affiliations:

HGS	GSH
AAPG	SEG

Professional Activities:
Chairman, HGS Constitution & Bylaws Committee, 2008-2009
HGS Editor, 2007-2008
HGS Editor-elect, 2006-2007
Chairman, North American Explorationists, 2002-2006
AAPG House of Delegates, 2003-present

Statement:
It is a great honor to be asked to run for President-elect of such

Steven A. Earle *continued on page 19*

Martin M. Cassidy

Education:
Ph.D. Geology 2005 University of Houston.
M.S. Geology 1964 University of Oklahoma.
B.A. Geology cum Laude 1955 Harvard University.

Experience:

Dec. 2005–Present	Research Scientist, Dept. of Geology, University of Houston study of CO_2 and Consultant Petroleum Geologist.
June 1994–2005	Graduate student U. of H. and Consultant Petroleum Geologist.
1991–1994	Amoco International New Ventures regional assessment.
1988–1991	Amoco International New Ventures Indonesia.
1986–1988	Amoco Production Technical Advisor New Orleans.
1984–1986	Amoco (U.K.) Exploration Company Exploration Manager, London, England.
1982–1984	Amoco (U.K.) Exploration Company Division Operations Supervisor
1973–1982	Amoco International Exploration Company Various assignments including New Ventures in Middle East, Far East Exploration operations Manager.
1969–1973	Pan American Libya oil Company Chief Geologist, Tripoli, Libya.

Martin M. Cassidy *continued on page 19*

Candidates for the 2010–2011 Executive Board *(continued)*

Vice-President (two candidates)

Steve L. Getz

Education:
BS Geology, University of British Columbia, 1994
Diploma Communications/ Public Relations, B.C.I.T, 1998

Experience:

2001–Present	RPS Energy, Geological Operations Manager
1998–2001	Broadcasting/PR
1995–1996	Inmet Mining – Exploration Geologist
1994–1995	Rennaissance Energy – Exploration Geologist

Professional Affiliations:
HGS, AAPG, CSPG, SEPM
APEGGA – Professional Geologist

Professional Awards:
2009 HGS Rising Star Award

Professional Activities:

2010	HGS Africa 2010 Committee
2009	HGS Career Day Speaker
2008–Present	HGS International Exploratonists Chairman
2008–2009	HGS Holiday Party Organiser
2006–2008	APEGGA – MC for Graduates Workshop & Ring Ceremony

Statement:
I ask for your vote to be elected to the office of the HGS Vice President because I think that my forty-one years of oil and gas exploration experience in the domestic (USA) and international areas of the petroleum industry dovetails very well with my multi-year stint as talk and seminar organizer for the North American Interest Group to give me a unique viewpoint as to what Houston Geological Society geoscientists expect and desire from the HGS regarding the choice and preparation of upcoming industry talks and seminars. My consecutive positions as HGS North American Interests Group treasurer and then chairman has enabled others to see that I am a responsible, results-oriented person who can deal with both HGS speakers and HGS support personnel in getting the jobs required of me done on a timely and economical basis. Moreover, my consecutive terms as delegate and alternate delegate for the AAPG Gulf Coast

Steve L. Getz *continued on page 20*

Amy E. Sullivan

Education:
University of Iowa, BS Geology (1983) and MS Geology (1986), BA Archeology and Anthropology (1978)
University of California at Bakersfield, Total Quality Management (1994-1995)

Experience:

2001–Present	Shell International E&P, Brazil and Egypt deep-water appraisal and development, Senior Staff Geologist and Team Lead
1999–2001	ExxonMobil Production Company, Venezuela Orinoco Heavy Oil Belt – Senior Staff Geologist
1997–1999	Mobil New Exploration Ventures, Peru Camisea appraisal – Staff Geologist
1990–1997	Mobil – San Joaquin heavy oil fields (Midway Sunset, Belridge) – Staff Geologist
1986–1990	Mobil – Kansas Hugoton Field – Production Geologist

Professional Affiliations:
AAPG, HGS, GSA, SEG, SEPM

Professional Awards:

1985	American Association of Stratigraphic Palynologists, L.R. Wilson Best Student Paper

Professional Activities:

2009–2010	Houston Geological Society Secretary
2008–2010	AAPG Energy Minerals Division (EMD) Secretary
2008–2010	GCSSEPM Corporate Representative
2008	AAPG Annual Convention – EMD Short Course and Field Trip Chair
2006	AAPG Annual Convention - EMD Short Course and Field Trip Co-Chairperson
2003 & 2004	HGS Earth Science Week Volunteer
2001	Joined HGS!
1995–1996	SPWLA Publicity Officer for San Joaquin Well Logging Society
1994	Mobil, Bakersfield CA, United Way Chairperson

Statement:
As promised, it has been an interesting and rewarding year as the

Amy E. Sullivan *continued on page 20*

Candidates for the 2010–2011 Executive Board *(continued)*

Secretary (two candidates)

Cecelia Baum

Education:
BS Geology, Columbia University

Experience:
2007–Present Geologist, Mærsk Oil America
2007 Geologist, Fugro Multi Client Services

Professional Affiliations:
HGS, AAPG, GSH, SEG

Professional Awards:
2009 HGS Rising Star Award

Professional Activities:
2008-Present Chairman NeoGeos
2008-2010 GSH-HGS Geoscience Day Committee

Statement:
I am honored and excited to accept the invitation to run for Secretary of the Houston Geological Society. As a young geoscientist, the HGS was and is instrumental in the development of my career.

As the chairman of the NeoGeos, I have learned how the HGS works and have observed the essential role of efficient and varied communication in the society. Communication is vital to the continued success of the HGS but it is also a continual challenge. As Secretary, I will work diligently to meet this challenge and provide open lines of communication for the betterment of current and future HGS members and the society as a whole. I look forward to bringing innovation, enthusiasm, and the perspective of a young geoscientist to the HGS board as Secretary. ■

George Devries Klein

Education:
MS Geology, University of Kansas
PhD Geology, Yale University

Experience:
1996–Present SED-STRAT Geoscience Consultants, Inc – President & Chief Geologist
1993–1996 NJMSC – Executive Director & NJ State Sea Grant Director
1970–1993 Univ. of Illinois @ UC – Professor
1963–1970 Univ. of Pennsylvania – Ass't/ Assoc. Prof
1961–1963 Univ. of Pittsburgh – Ass't Professor
1960–1961 Sinclair Research Inc – Research Geologist

Professional Affiliations:
HGS, AAPG, SIPES, SEPM, GSA

Professional Activities:
2003–2004 HGS - AAPG Houston Delegate Foreman
2001–2007 HGS AAPG House of Delegates from HGS
2003–2005 HGS Continuing Education Committee
2002–2003 Co-Chair, Technical Program, International Explorationists.
AAPG Member, Committee on Marine Geology (1971-75)
AAPG Continuing Education Lecturer (1974-79).
AAPG Member, Publications Committee (1976-79).
AAPG Member, Eastern Section, Membership Committee (1997-98)
AAPG Member, Gulf Coast Section, Membership Committee (1998 - 2001)
AAPG Member, Publications Pipeline Committee. (2001 – 2007)
AAPG Chairman, Matson Award Committee, Annual Meeting (2006)
SEG Continuing Education Lecturer (1979-82; 1985 - 1994).
SEG Member, Research Committee (1981-82).
SEPM Member, Committee to select Outstanding Convention Paper, annual meeting (1962).
SEPM Secretary, Eastern Section (1966-68).
SEPM Member, Research Committee (1973-78); Vice-Chairman (1977).

George Devries Klein *continued on page 20*

Candidates for the 2010–2011 Executive Board *(continued)*

Treasurer-Elect (Two candidates)

Christina M. Higginbotham

Education
B.S. Engineering Geology, Texas A&M University, 2001

Experience:

2003–Present	Brown and Caldwell – Principal Geologist (Licensed Texas Professional Geoscientist #10527)
2001–2003	TRC Solutions – Staff Geologist
1999–2001	Texas A&M University – Electron Microprobe Lab Technician

Professional Affiliations:
Houston Geological Society (HGS)
Texas Association of Environmental Professionals (TAEP)

Professional Activities

2004–Present	HGS Environmental & Engineering Group Committee Speaker Coordinator

Statement:
I am excited to accept the invitation to run for Treasurer-elect of the HGS. My involvement as speaker coordinator for the Environmental and Engineering group has been vastly rewarding for my professional development, and promoting the geosciences through this organization has become a passion. Through accurate budgetary tracking and communication of financials, I hope to contribute to the overall efficiency of the HGS as well as its continued growth and success. ■

A second candidate for Treasuer-Elect had not be named by presstime. Please check the HGS website.

Candidates for the 2010–2011 Executive Board *(continued)*

Director – Two-year term (five candidates) *Vote for two candidates*

John A. Adamick

Education:
Harvard University – Executive MBA
Stephen F. Austin State University – Master of Science Degree, Geology
Texas A&M University – Bachelor of Science Degree, Geology

Experience:

2008–2010	Senior VP Geologic Products, TGS
2000–2008	VP Business Development, TGS-NOPEC Geophysical Company
1995–2000	President, Offshore Division, TGS-Calibre Geophysical Company
1994–1995	VP Marketing, Offshore Division, TGS-Calibre Geophysical Company
1993	Geologist, Onshore and Offshore Gulf of Mexico, Calibre
1989–1993	Marketing Manager, TGS-Calibre Geophysical Company
1986–1988	Geologist, Offshore Gulf of Mexico, TGS Geophysical Company

Professional Affiliations:
American Association of Petroleum Geologists
Society of Exploration Geophysicists
Society of Petroleum Engineers
Houston Geological Society
Geophysical Society of Houston
Houston Producers Forum

Professional Awards and Activities:
Houston Geological Society

2005–2006	Honorary Life Membership Award
1999–2000	Distinguished Service Award
1999–2003	Mentor Program Chairman
1998–1999	President's Award
1997–1998	Technical Symposium Chairman for 75th Anniversary Conference
1993–1994	Graduate Scholarship Committee member
1992–1993	Candidate for HGS Secretary
1991–1992	President's Award
1988–2010	Undergraduate Scholarship Foundation member, Chairman since 2003

John A. Adamick *continued on page 21*

Jennifer L. Burton

Education
MS Geology ('96), University of North Carolina at Chapel Hill
BS Geological Sciences ('93), University of Memphis

Experience:

2008–Present	Senior Geologist, Legado Resources
2007–2008	Vice President-Geoscience, Griffis & Associates
1996–2007	Project Geologist, Anadarko Petroleum Corporationr

Notables:
AAPG Certified Petroleum Geologist # 5985
2003-2004 HGS Rising Star Award

Professional Activities:

2002–Present	HGS Earth Science Week Committee Co-chair
2006–2007	HGS Secretary
2006	AAPG EMD Short Course Co-chair for AAPG Annual Meeting
2004	HGS Ad-Hoc Committee for K-12 Educational Outreach

Statement:
I am honored to be nominated to serve once again on the HGS Board. Having served as past Secretary and as co-chair of the Earth Science Week Committee, I have been very fortunate to contribute to the many great projects and continuing education programs that our society provides for our members and the community. I am passionate about the role our society plays in being an educational resource for the public and in promoting greater awareness of our profession. Having been a volunteer in the society for 8 years, I am also keenly aware of our need to get more members involved in contributing ideas for our greater success. As a Director, I will work collaboratively with the Board and the membership to solicit fresh ideas and ensure that our society is providing quality projects and programs in the coming year. ■

Candidates for the 2010–2011 Executive Board *(continued)*

Director – Two-year term (five candidates) *Vote for two candidates*

Matthew R. Cowan

Education
B.S. Geology, Texas A&I University, 1993
M.S. Geology, Texas A&M University – Kingsville 2000

Experience:

2006–Present	Lone Star Environmental, Chief Geologist
2004–2006	TRC Environmental, Staff Geologist
1997–2004	Lone Star Environmental, Chief Geologist
1996–1997	LSI – Staff Geologist
1995–1997	Texas A&M University – Kingsville, Geology Lab Instructor

Professional Affiliations:
Houston Geological Society (HGS)
Texas Association of Professional Geoscientists (TAPG)

Professional Activities:
Licensed Professional Teacher – State of Texas – Secondary Earth Science
Texas Professional Geoscientists License 1263

2006- Present	Texas Association of Professional Geoscientists, President
2006–2007	HGS Environmental & Engineering Group, Treasurer
2007-Present	HGS Environmental & Engineering Group Chairman

Professional Awards:

2007	HGS Rising Star Award
2009	HGS Presidents Award

Statement:
I am honored to be nominated for the position of Director of the Houston Geological Society (HGS). I have been involved with the HGS Environmental and Engineering Group since 2002 and as an officer since 2006. I have been active on issues regard professional licensure since 2003 and I have worked with the Texas Association of Professional Geoscientist (TAPG) since 2004. In 2009 I had the honor of representing both TAPG and HGS testifying before the Texas Legislature on matters related to professional geoscientists. As a professional I believe I have an obligation to aide in the growth of our profession as a whole through professional societies. It would be an honor to serve in a capacity where I can serve my fellow geologists in guiding the HGS, encouraging its technical programs to meet the needs of the members and providing an avenue of professional development for those who are new to the profession as well as to those who are seasoned veterans. ■

Dianna Phu

Education:
BS Geology, Geophysics, University of Houston, 2000

Experience:

1999–Present	Senior Geologist/Project Manager, Geoscience Earth & Marine Services, Inc.
1997–1999	Thermochronology Lab Assistant, University of Houston

Professional Affiliations:
Texas Professional Geoscientist #4237
HGS, GSH, AAPG, SEG, SEPM, GCAGS, GSA

Awards:

2007	HGS Rising Star
1999	HGS Undergraduate Scholarship

Professional Activities:

2007–Present	HGS Arrangements Committee
2007–Present	HGS/GSH Geoscience Day Planning Committee
2006–Present	Offshore Technology Conference, The Next Wave Planning Committee
2006–Present	Administrator, HGS/NeoGeos Message Board
2006–Present	HGS Website Committee
2006–Present	HGS Continuing Education Committee
2005–2007	NeoGeos Chairperson

Statement:
Every year the HGS continues to prove itself as a dynamic organization with its versatile membership base that spans generations, industries and specialties. There is no doubt that membership in the HGS is one of the most valuable assets to any earth science-related career. Even more important than membership, however, is participation. There are no words that can explain the rewards gained through active participation on committees and involvement through the many volunteer opportunities offered by the HGS. I strongly believe that proactive communication is the key to effective leadership. It would be an honor to serve the HGS as liaison between the membership and committees to the Board through the role of Director. ■

Candidates for the 2010–2011 Executive Board *(continued)*

Director – Two-year term (five candidates) *Vote for two candidates*

Justin Vandenbrink

Education:
BS Geology, University of British Columbia, 1994
Diploma Communications/ Public Relations, B.C.I.T, 1998

Experience:

2001–Present	RPS Energy, Geological Operations Manager
1998–2001	Broadcasting/PR
1995–1996	Inmet Mining – Exploration Geologist
1994–1995	Rennaissance Energy – Exploration Geologist

Professional Affiliations:
HGS, AAPG, CSPG, SEPM
APEGGA – Professional Geologist

Professional Awards:
2009 HGS Rising Star Award

Professional Activities:

2010	HGS Africa 2010 Committee
2009	HGS Career Day Speaker
2008–Present	HGS International Exploratonists Chairman
2008–2009	HGS Holiday Party Organiser
2006–2008	APEGGA – MC for Graduates Workshop & Ring Ceremony

Statement:
I am honored to be nominated for the position of Director of the Houston Geological Society. Going through the process of becoming a professional Geologist made me realize the obligation I have to maintain and support future growth of Geoscience professions in North America. Volunteering with the HGS has allowed me the opportunity to meet so many great students and industry professionals in Houston. I am thankful for the camaraderie and want to give back by welcoming in the next generation and making the HGS even stronger. ■

Editor-elect (one candidate)

Ron F. Waszczak

Education:
MS, Geology, 1978, Bowling Green State University, Bowling Green, Ohio
BS, Geology, 1975, Marietta College, Marietta, Ohio

Experience

1995–Present	ConocoPhillips: Houston, Texas. Principal Biostratigrapher; Geological Advisor
1981–1994	ARCO Oil & Gas: Houston and Plano, Texas; Lafayette, Louisiana. Manager Biostratigraphy; Coordinator Operations Stratigraphy; Supervisor Stratigraphic Analysis; Paleontologist and Sedimentologist
1978–1981	Texaco: Bellaire, Texas: Prospecting Geologist; Paleontologist

Professional Affiliations
American Association of Petroleum Geologists; Houston Geological Society; SEPM (Society of Sedimentary Geology) and the Gulf Coast and North American Sections; Paleontological Society; Geological Society of America; American Geophysical Union; Sigma-Xi, the Scientific Research Institute; Texas Professional Geologist no. 3430

Professional Activities:

2009	Vice-Chair, SEPM Research Conference "Geologic Problem Solving with Microfossils II"
2007	SEPM Nominating Committeeman
2006–2008	President, North American Micropaleontology Section SEPM
2006	Nominated, Candidate for SEPM Councilor for Paleontology
2006	SEPM Short Course and Field Trip Chair, 2006 AAPG / SEPM Annual Meeting
2005	Technical Program Chair and Editor of Abstracts Volume, SEPM Research Conference "Geologic Problem Solving with Microfossils"
2004–2008	Chair of Advisory Board and Industry Advisor to CHRONOS, an NSF-sponsored interactive

Ron F. Waszczak *continued on page 21*

Candidates for the 2010–2011 Executive Board *(continued)*

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Steven A. Earle—*Candidate for President-Elect*

an outstanding organization. The Houston Geological Society offers a rich menu of technical talks, conferences and short courses providing both educational and networking opportunities. The *Bulletin* is certainly one of the finest journals of any local society. There are numerous social events from Guest Night to the Shrimp Peel. And I've just scratched the surface of the many activities. This is a Society that runs on the efforts of its many volunteers. Having served on the Board for two years, I believe the role of leadership is to empower our primary asset, the active members, you.

I have served the Society in a variety of roles: I organized technical talks for four years as Chairman of the North American Explorationists group; before that I was the group's treasurer; I was Editor of the *Bulletin*; I chaired an ad hoc committee which reviewed our Constitution and Bylaws, producing the most recent amendments; I have worked with the Community Outreach Committee on several activities; and in June, I will lead the HGS field trip to the Grand Canyon. In addition, I have worked with other volunteer groups in various leadership roles. These experiences have all been very rewarding personally.

Professionally I like to bring a broad range of tools to help answer fundamental questions of geology. Information from outcrops, cores, well logs, seismic, engineering and a variety of other data all help us put the geological picture together. My most satisfying projects have been those that allow me to integrate data from diverse sources and then test them with the drill bit, but I have a special fondness for those times spend in the field looking at the rocks. It is that joy in getting back to first principles and in understanding the science which has sustained me through several business cycles. Through it all, the HGS that has always been there for us, which is one reason why I am happy to give back to our Society in whatever way I best do so. It would be my great privilege to serve as your President if you should honor me with your vote. ■

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Martin M. Cassidy — *Candidate for President-Elect*

1962–1969	Pan American Petroleum Company, Geologist, South Texas oil and gas and High Island sulfur exploration and development.
1960–1962	Harvard University Teaching Fellow.
1958–1960	M.S. University of Oklahoma.
1956–1958	U.S. Air Force Ammunition Supply Officer, Korea. Denver.
1955–1956	Standard of Texas, Geologist.

Professional Affiliations:
AAPG, Certified Petroleum Geologist
Sigma XI
The Geological Society, Fellow
AIPG, Certified Professional Geologist.
Texas Board of Professional Geoscientists License #3042

Professional Activities:

2004-2010	AAPG, delegate
1995-2010	AAPG Publication Pipeline committee, Chairman and various positions, now Vice Chairman.
2008	HGS AAPG Delegate Foreman
2007–2010	HGS International Group Treasurer.
1998–1999	HGS International Group Chairman.
1999	Presidents award.
1968–1969	HGS Vice President
1967–1968	HGS Treasurer

Statement:
I am honored to be asked to stand for president of the HGS that is one of the premier local geological societies of the world. With our many committees and eager volunteers the HGS is providing interesting and educational programs at reasonable prices, and services to both our mature members and the successful new entrees to the oil and gas business.

As the industry evolves, continuing education for members of the HGS is particularly valuable to help us to learn the skills needed to take advantage of new opportunities. Joint meetings with other societies helps broaden our scope of knowledge

The opportunity to network among our fellow geoscientists is also important and we should make efforts to continue our successful programs to attract large attendance at our various noon and evening meetings. We need to not only to make special efforts to bring in our young new members but also to increase our membership among experienced geologists. We should be inviting in geologists who have never joined, including those recently retired persons, or those temporarily out of work. There is great satisfaction in working together to achieve common goals. There are many opportunities within the HGS, especially as we prepare to host the AAPG convention.

If elected I look forward to working with the other new officers, the directors, committee chairmen, and members to continue our successes of the HGS with prudent attention to the budget and emphasis on volunteers. ■

Candidates for the 2010–2011 Executive Board *(continued)*

continued from page 13

Steve L. Getz—*Candidate for Vice-President*

Houston section has enabled me to better understand the working of the AAPG and how membership in that organization benefits both Houston geologists and geophysicists.

I am looking forward to a term as HGS Vice President because I believe that it will allow me to interface with many different industry geologists and geophysicists, as well as university professors and service company personnel who work in, and for, the many facets of geoscience in Houston. I also think, and hope, that I can truly make a difference in the Houston Geological Society. I ask for your vote so that I can help serve the Houston Geological Society as Vice President in the upcoming year. I can, and will, get the job done effectively should you choose to elect me to that position. ■

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Amy E. Sullivan — *Candidate for Vice-President*

HGS Secretary. This is because our society is very involved in our nation's petroleum activities ranging from our technical program to engagement with AAPG by participating in educational outreach and through keeping an eye on industry-government relationships. Industry dynamics and networking will continue to drive success in 2010-2011. HGS sets the technical benchmark for geological societies in the U.S. I want to continue this outstanding accomplishment by working throughout our society to deliver the HGS technical program. The 2009-2010 HGS Board is an inclusive and thoughtful executive committee. I would like my experience and perspective from this year's Board to be a bridge into next year by accepting the nomination for Vice President. ■

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George Devries Klein — *Candidate for Secretary*

SEPM	Member, Ad Hoc Committee on Professional Relations (1977-81)
SEPM	Chairman, Ad Hoc Committee on Committees (1978-80).
SEPM	Member, Nominating Committee (1980)
GSA	Program Chairman, Northeastern Section Meeting (1966).
GSA	Member, Committee on Research Grants (1973-76). Committee Chairman (1975) and Conferee (1976)
GSA	Member, Committee on Committees (1973).
GSA	Editorial Advisor, GEOLOGY (1973-74; 1989-91)
GSA	Associate Editor, *BULLETIN OF THE GEOLOGICAL SOCIETY OF AMERICA* (1975-81).
GSA	Chairman, Division on Sedimentary Geology (1985-86), Past-Chairman (1986-87)
GSA	Member, Committee on Short Courses (1987-89).
GSA	Member, Laurence L. Sloss Award Committee, Division on Sedimentary Geology (2001- 2003)

COUNCIL OF SEA GRANT DIRECTORS: - Member, Executive Committee (1994-1995)
COUNCIL OF SEA GRANT DIRECTORS: - Council Liaison to Marine Advisory Services Assembly (1994-1996).
NATIONAL SEA GRANT COLLEGE PROGRAM (NSGCP): - Member, Task Force to Revise and Develop Strategic Plan for NSGCP (1994 - 95)
SEA GRANT ASSOCIATION - Member, Executive Committee (1993-1995)
SEA GRANT ASSOCIATION - Chair, Task Force on Fee Structure (1994 - 1995)
SEA GRANT ASSOCIATION - Liaison to Subcommittee on Fisheries and Marine Resources, US. House of Representatives. (1995-1996)

SIPES	Chairman, ad hoc Mentoring Committee, Houston Chapter, (2003)

Statement:
When invited to candidate for HGS secretary, my reaction was "why not!" It's a task job I can do. The duties include recording monthly board meetings and providing guidance and oversight to the membership committee. I served on AAPG membership committees and as an AAPG House of Delegates member where membership evaluation was a key duty. Thus, I bring a broad range of experience to membership issues. Having once served as a secretary for a homeowner's association out-of-state, I'm ready to do an even better job for HGS.

Since my arrival in Houston 12 years ago, HGS has become a key part of my life as a geological consultant. HGS's many short courses and technical programs are outstanding and all are vital to my ability to stay current in geology. Through HGS, I've met many outstanding people who contributed much to my work and became my friends. All helped me grow professionally and personally. Therefore, it's time to give back to HGS through service as its secretary. ■

Candidates for the 2010–2011 Executive Board *(continued)*

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John A. Adamick—*Candidate for Director*

1989–1992	Awards Committee member, Chairman
1989–1990	Arrangements Chairman
1989–1990	HGS liaison to Texas A&M University
1986–1987	Received Graduate Scholarship from HGS
1985–1986	Received HGS Outstanding Student Award from HGS

Gulf Coast Association of Geological Societies

2001	Awarded 2nd place GCAGS/GCSSEPM Best Published Paper Award
2000	Session Chairman (Eastern Gulf of Mexico) for 2000 Convention in Houston
1991	Housing Chairman for 1991 Convention in Houston
1986	Awarded 2nd place GCAGS Best Poster Award

Society of Exploration Geophysicists

1994	Awarded top twenty-five status for oral presentation entitled "AVO as an exploration tool" presented at 1994 SEG convention.

American Association of Petroleum Geologists

2004–2006	Chairman of Executive Business Session, "Energizing the World in the 21st Century", AAPG Convention 2006
2000–2002	Convention Technical Program Chairman – AAPG Convention 2002
1999–2002	AAPG Mentor Program Committee member
1993–1995	AAPG Technical Program Chairman – AAPG Convention 1995

International Association of Geophysical Contractors

2001–2010	Member of Americas Data Licensing Committee, chairman since 2007
2004–2007	Chairman of MMS Sub-committee
2001–2003	Member of Master License Agreement Re-write Sub-committee

Statement

I have always been grateful of the recognition and financial assistance that the HGS provided me when I was a student at university. The Society also provided me with a ready means to get to know other geologists in the community when I first moved to Houston. Ever since then, I have been trying to give a little back in the form of my personal time each year to try and help the Society be the best that it can be. An organization like HGS cannot excel unless members are willing to really volunteer their time and efforts. ■

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Ron F. Waszczak—*Candidate for Editor-elect*

	network for data and tools for Earth systems history
2004–2006	SEPM Awards Committeeman, Moore and Twenhofel Medals
2001	Technical Program Chair, 2001 GCAGS / GCSSEPM Annual Convention
2000–2002	President, Gulf Coast Section SEPM
1998–2002	Gulf Coast Section SEPM, Annual Research Conference Organizing Committeeman
1998–2000	Secretary, Gulf Coast Section SEPM
1992–2003	Co-founder, Industrial Biostratigraphy Coordinators Group – an organization that seeks to develop strategies and resources to champion Paleontology worldwide by maintaining focus on the value added by best use of The Science by the oil and gas industry.

Statement:

I am honored to be invited to serve the membership of the Houston Geological Society in the capacity of Editor-Elect. The HGS *Bulletin*, the front piece of our organization, has been consistently and beautifully produced! The *Bulletin* remains our primary means of timely information distribution and communication across a large and diverse community of industry geoscientists and university faculty and students. I welcome the opportunity to be responsible to maintain the excellent quality of this publication in the years forward. ■

VOTE

Be sure to cast your vote in the HGS election by May 10

10th ANNUAL GSH/HGS SALTWATER FISHING TOURNAMENT

Saturday, June 19, 2010

The FISH SPOT Marina • 4009 20th Street North • Texas City, Texas

Galveston Bay Complex and Offshore

This year's Saltwater Fishing Tournament will include an Offshore Division to be held on Saturday, June 19 at the Fish Spot Marina, Texas City, Texas. We are looking forward to a big event this summer 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. Trophies will also be awarded for the heaviest individual Stringer-1 Redfish, 3 Speckled Trout, and 1 Flounder.

Galveston Offshore Division

Trophies will be awarded for the heaviest individual Red Snapper, King Mackerel, and Mahi-mahi.

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

For more information, please contact:

Bobby Perez (HGS & GSH) • 281-240-1234 ext. 219 Office • 281-240-4997 Fax • 281-787-2106 Cell • 281-495-8695 Home
E-mail addresses: rdphtx@aol.com or r_perez@seismicventures.com

The Geophysical Society of Houston and the Houston Geological Society are non-profit organizations serving the Geosciences Community. Corporate and individual contributions are appreciated and will be acknowledged on several sponsor boards and banners at the Weigh-In Station and Marina. All contributors will be recognized in the GSH newsletter and HGS *Bulletin* following the tournament. This is a great way to entertain friends, family, business associates, and clients. So spread the word!

GSH/HGS SALTWATER TOURNAMENT

NAME: _____ COMPANY: _____

ADDRESS: _____

PHONES: (H) _____ (B) _____ (C) _____

E-MAIL ADDRESS: _____

Upon receipt of the registration form, each participant will be provided with a copy of the specific tournament itinerary and rules sheet by e-mail. Please register **EARLY.**

Please return this form with your check for $60.00 per contestant payable to:
GSH SALTWATER TOURNAMENT and Mail to:
Geophysical Society of Houston, 14811 Saint Mary's Lane, Suite 250 • Houston, Texas 77079

Registration Fee: $ _____ + Sponsor Contribution: $ _____ = TOTAL $ _____

DISCLAIMER:
I acknowledge that the Geophysical Society of Houston / Houston Geological Society will not be held responsible for injury or accidents during this event. PRACTICE SAFETY!!!!!

Signature: _____ Date _____

Monday, April 5, 2010

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

Cost: $28 Preregistered members; $35 non-members & walk-ups

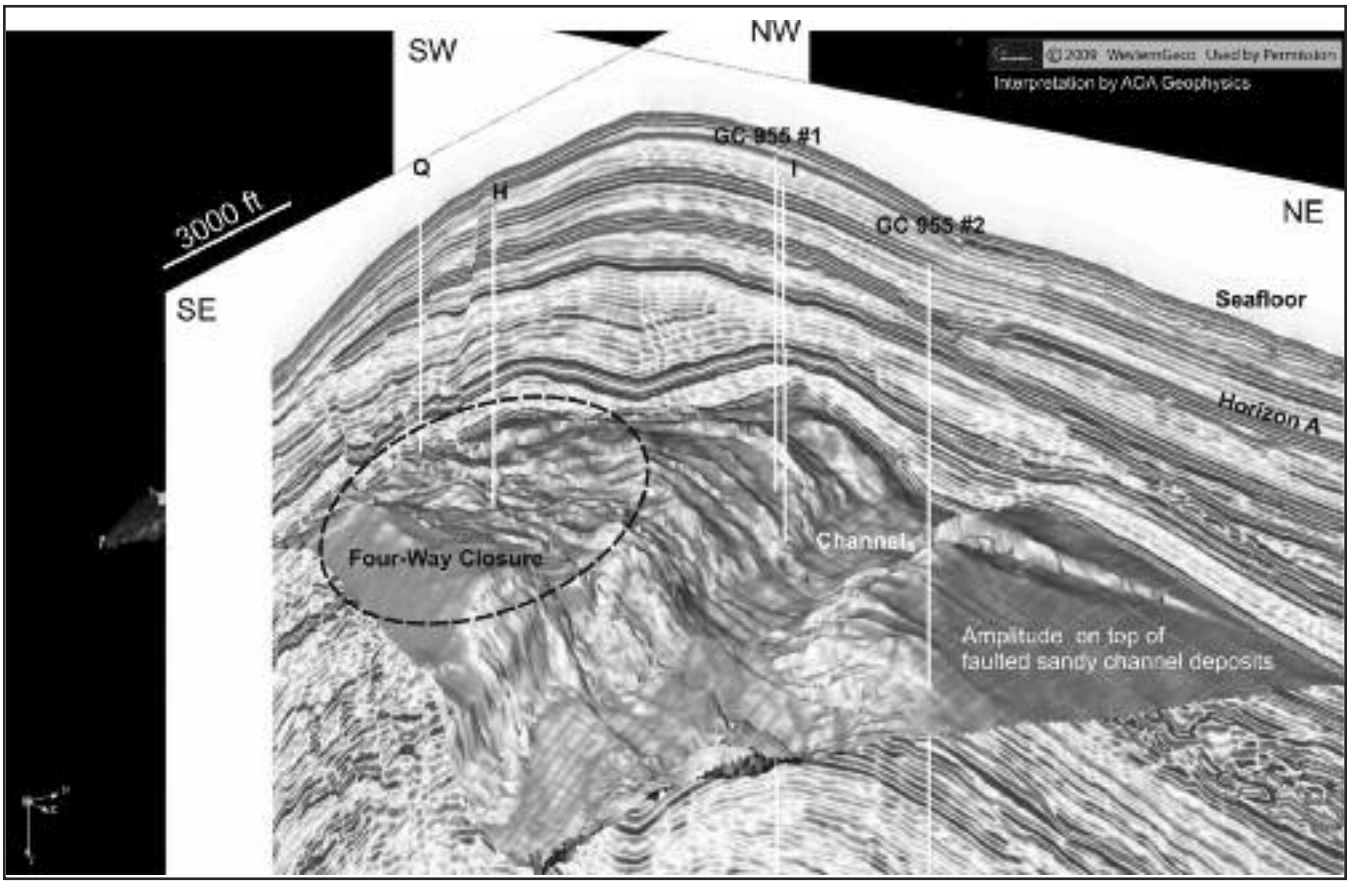
To guarantee a seat, you must pre-register on the HGS website and pre-pay with a credit card.
Pre-registration without payment will not be accepted.
You may still walk up and pay at the door, if extra seats are available.

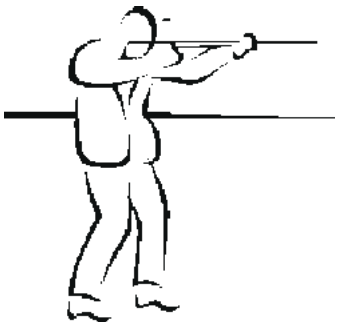
Dan McConnell, *AOA Geophysics;* ***Ray Boswell,*** *U.S. Department of Energy;* ***Timothy S. Collett,*** *U.S. Geological Survey;* ***Matthew Frye and William Shedd,*** *Minerals Management Service;* ***Stefan Mrozewski, Gilles Guerin, and Ann Cook,*** *Columbia University;* ***Dianna Shelander and Jianchun Dai,*** *Schlumberger;* ***Paul Godfriaux and Rebecca Dufrene,*** *Minerals Management Service;* ***Emrys Jones and Rana Roy,*** *Chevron*

The Discovery of Rich Gas Hydrate Accumulations in Sand Reservoirs in the Gulf of Mexico – Results from DOE-Chevron Joint Industry Project Drilling

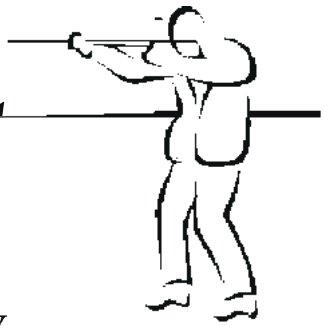
In April and May of 2009 the Gulf of Mexico Gas Hydrate Joint Industry Project realized its second field program (Leg II) with the semi-submersible Helix Q4000 drillship. The three-week, $11.5MM expedition drilled seven logging-while-drilling (LWD) holes at three sites to test a variety of geologic/geophysical models for the occurrence of gas hydrate in sand reservoirs in the deep-water Gulf of Mexico. Over 17,000 ft of sedimentary section were logged using a state-of-the-art bottom-hole assembly. The three sites drilled were Walker Ridge (WR) Block 313, Green Canyon (GC) Block 955, and Alaminos Canyon (AC) Block 21. The program was completed on-time and under budget. The locations for JIP Leg II drilling were the result of an integrated geological and geophysical prospecting approach that considered direct geophysical evidence for gas hydrate-bearing strata in the context of evaluation of indicators for gas sourcing, gas migration pathways to the shallow section, and occurrence of sand reservoirs within the gas hydrate stability zone. High saturation gas hydrate

HGS General Dinner *continued on page 25*





27th Annual HGS SKEET SHOOT



Saturday, June 19, 2010

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. 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 a.m. until 1:30 p.m.
Refreshments will be available throughout the day.

IMPORTANT!!

WE ARE LIMITED TO 160 SHOOTERS IN FOUR ROTATIONS. ENTRY FEE IS $65 PER SHOOTER FOR REGISTRATIONS RECEIVED BY FRIDAY, JUNE 11. AFTER THAT, REGISTRATION WILL BE STRICTLY ON A "SPACE AVAILABLE" BASIS AND THE ENTRY FEE WILL BE $80 PER SHOOTER. REGISTER EARLY!!

For more information, contact: Tom McCarroll at (713)419.9414 or tom_mccarroll@yahoo.com.

****

HGS SKEET SHOOT REGISTRATION FORM

Name: _____ Company:_____

Email: _____ Phone:_____

Preferred shooting time: (circle one) 9:00 10:00 11:00 12:00

Indicate ammunition required: (circle one) 12 gauge 20 gauge

Please return form(s) with check for $65.00 per shooter, payable to: ***Houston Geological Society***

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

Mail to: ***Tom McCarroll • 2668 Hwy. 365 #329 • Brenham, TX 77833***

Registration Fee: $_____ + Sponsor contribution: $_____ = Total: $_____

If you wish to shoot with a specific squad (5 shooters max.), please submit all forms together.

****

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

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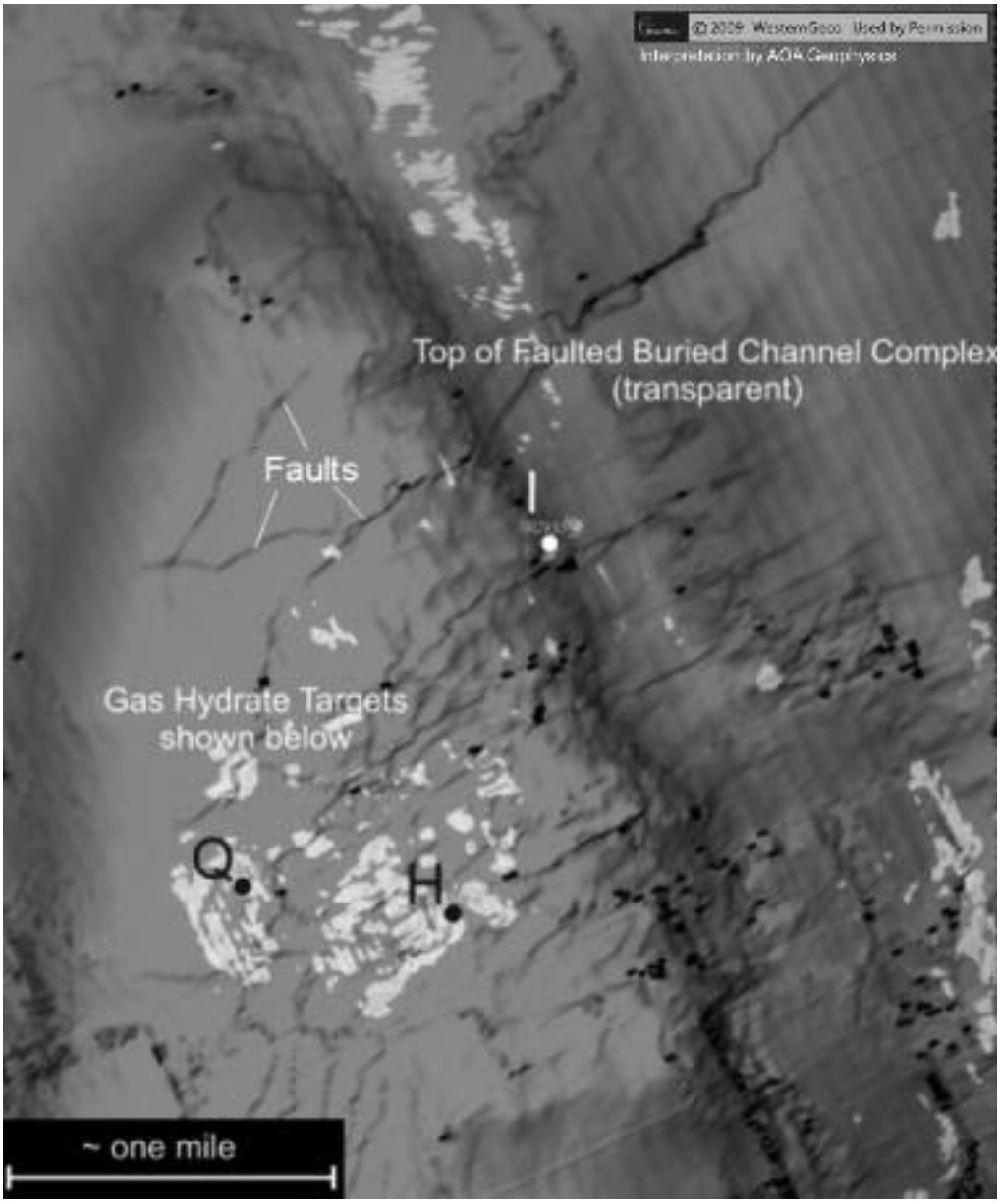


deposits in sands were found, where predicted, in four of five holes at two sites, WR 313 and GC 955. The third site, AC 21, indicated low to moderate gas hydrate saturation in extensive shallow sands. The full research-level LWD assembly deployed for Leg II collected gamma-ray, neutron and density porosity, neutron spectroscopy data, as well as full azimuthal resistivity and acoustic velocity, including both compressional and shear-wave measurements.

Leg II was clearly a high-risk proposition, despite the drilling of a large number of industry wells in the deepwater Gulf of Mexico, there had been only one prior instance (at Alaminos Canyon Block 818) in which gas hydrate had been reported to occur in sand. Nonetheless, the potential for gas hydrate at high saturation in sands was large; an assessment conducted under the leadership of the Minerals Management Service produced a mean estimate of 6,700 tcf gas-in-place in gas hydrate-bearing sands in the deepwater Gulf of Mexico. Perhaps the primary scientific objective of the Leg II program was to provide ground truth data to test the soundness of the prospecting techniques developed with the JIPs site selection team. One part of this approach was pre-drill inversions of seismic data to estimate areal variations in gas hydrate saturation.

The two wells in WR 313, in the Terrebonne Basin, confirmed the pre-drill models. The main gas hydrate targets were approximately 2,700 ft below the seafloor. The first well, WR 313 G, had a predrill prediction of 57% gas hydrate in the target sand. LWD indicated a net of ~30 ft of sand containing gas hydrate with a saturation of 70% at the target horizon. The second well approximately 0.6 miles east and updip, WR 313 H, tested a similar but stratigraphically deeper target. The pre-drill saturation was 53% at the primary target. Results show two lobes of very clean sand with over 90% gas hydrate saturation in the upper lobe. Saturations in the lower lobe ranged from 50% to 60%. In addition, both holes revealed a shallow unit with 350-500 ft of grain-displacing fracture filling gas hydrate in clays beginning approximately 600 ft below the sea floor.

Three holes were drilled in GC Block 955 just outboard of the Sigsbee Escarpment, where a wide and thick late Pleistocene channel complex has been fractured and uplifted by a shallow salt stock. A highly faulted four-way closure with numerous amplitude anomalies at the base of gas hydrate stability is near to but west of the channel axis. The first well GC 955 I was closest to an industry well that penetrated thick sands. As expected, the "I" well encountered a thick sand section but the

HGS General Dinner *continued on page 27*

Gulf Coast Association of Geological Societies and the Gulf Coast Section of SEPM

Forming and Filling the Gulf of Mexico Basin– A Symposium

During the 60th Annual Convention

October 10-12, 2010

San Antonio, Texas

Hosted by the South Texas Geological Society

Welcome back to San Antonio! Our theme this year is "**Weathering the Cycles**" — a challenge that resource geologists have faced and overcome in the past. How do we weather the economic cycles? We...

- ✓ Network with our community
- ✓ Experience the latest technology in the technical exhibition
- ✓ Take a course or a trip and grow new and diverse skills
- ✓ Listen to special presentations on strategies to endure and prosper during an economic downtime and prepare for the inevitable rebound.

By celebrating our successes, facing our challenges, and learning from the research results of our peers, we are paid back many fold by sharing ideas and experiences among our professional community. So come and share your experiences!

PROPOSED SYMPOSIUM TALKS INCLUDE...

Rifting and Opening of the GOM Basin

Models for Gulf of Mexico Basin Opening and Sedimentation

Petroleum systems of the GOM Basin

Jurassic Depositional Systems, Facies and Reservoirs of the Northern Gulf of Mexico

Cretaceous Stratigraphy and Plays

Salt Tectonics and Petroleum Systems

The Opening of the GOM-Source Rocks and Petroleum Plays

Jurassic and Cretaceous in south Texas: Rifting and Foredeeps

Mesozoic Basins in Eastern Mexico

Mesozoic Source Rocks and Petroleum Systems, Offshore GOM Basin

Mesozoic Source Rocks and Petroleum Systems, Onshore GOM Basin

Future Potential of the GOM Basin Mesozoic.

HGS General Dinner continued from page 25

sands contained primarily water with only a few feet of potential gas hydrate.

The next two wells, GC 955 H and GC 955 Q, targeted the sand at the four-way closure approximately 0.7 miles proximal to the youngest well-preserved channel axis in the depositional sequence. The LWD data obtained at this location indicate over 100 ft of gas-hydrate-bearing zones within a single sand-rich unit with saturations estimated to be over 70%. This accumulation is overlain and underlain by, and most surprisingly, interbedded with gas-hydrate-free, water-bearing sands. In addition to the gas hydrate in the target sand, fracture fill gas hydrate was detected in the clay-prone section above the target. GC 955 Q is believed to have encountered at least 50 ft of highly saturated gas hydrate sand at the target, but drilling was aborted because of a potential gas hydrate dissociation event and subsequent gas flow. The LWD data, however, show complex acoustic responses and are still being analyzed before a confident interpretation of the pore fill in the drilled interval can be offered. However, it appears that gas hydrate occurrence, at the GC 955 site is highly complex, both in the sands and in the overlying clays, and is potentially complicated by fault-controlled compartmentalization and related lateral variations in gas delivery, thermal gradients, pore-water salinities, and other phenomena.

the primary scientific objective of the Leg II program was to provide ground truth data to test the soundness of the prospecting techniques

The two wells drilled in Alaminos Canyon Block 21 (AC21), in the vicinity of the Diana Field development, confirmed the pre-drill prediction of potential extensive occurrence of gas hydrates in shallow sand reservoirs at relatively low (<40%) saturations. However, further sample collection and analyses at AC-21 are needed to confirm the existence and quantity of gas hydrate.

The expedition demonstrated the ability to reasonably predict gas hydrate occurrence through seismic data in the absence of pre-drill well data. At WR313, the model linking aligned phase reversals at multiple levels with gas-hydrate bearing sands at the base of gas hydrate stability (BGHS) was confirmed. Furthermore, initial results suggest that gas hydrate has the potential to fully saturate reservoirs well above the BGHS, with the primary control being occurrence of reservoir quality facies. In addition, unexpected findings, such as the complex nature of the gas hydrate occurrence at GC Block 955 and the discovery of the extensive, strata-bound shallow hydrate occurrence at WR Block 313, raise exciting new questions.

The DOE and the JIP are committed to making these data publically available as soon as possible to support a wide range of scientific studies. The initial reports will be published shortly at http://www.netl.doe.gov/MethaneHydrates/JIPLegII-IR/ ■

Biographical Sketch

Dan McConnell began his geoscience career with Scott-Pickford, a British geoscience consulting group. He began to focus on marine geology and geophysics when he joined Fugro-McClelland Marine Geosciences in Houston. There, he interpreted offshore high-resolution surveys and geochemical and geotechnical data in support of offshore engineering and drilling operations. In 2003, Mr. McConnell joined AOA Geophysics to start a Houston-based geohazard consulting group which would augment AOA's seafloor mapping and frontier prospectivity survey business. He is Vice President of AOA Geophysics and manages operations for offshore data acquisition, interpretation, and reporting. Dan holds two degrees, in history and geology, from the University of Texas.

2010 Shlemon Specialty Conference
Modern Subsidence, Sea-Level Rise, and the Future of the Gulf Coast

Sponsored by the Association of Environmental & Engineering Geologists and AEG Foundation
May 13 – 15, 2010 ~ The San Luis Resort ~ Galveston Island, Texas

Modern Subsidence, Sea-Level Rise, and the Future of the Gulf Coast

Shlemon Specialty Conferences provide an intensive 3-day forum of technical discussions among researchers and practitioners, with focus on topics beneficial to society and directly related to application of the engineering and environmental geosciences. The conferences are intended to disseminate practice and research results, and to foster improvement and understanding of applied geology.

The sixth Shlemon Specialty Conference, ***Modern Subsidence, Sea-Level Rise, and the Future of the Gulf Coast***, will include keynote presentations by invited experts, a field excursion, poster sessions, and ample time for informal interaction.

The **Subsidence Field Trip** held in conjunction with the conference on the second day will include various stops around Galveston and the Bay Area to observe evidence of damage to structures from faulting. Field trip leaders are Dr. Carl Norman and Richard Howe. Attendees will be transported to the field trip stops by rented bus.

The technical focus of the conference concerns:

- Subsidence measurements
- Processes causing subsidence
- Quaternary geology of the Gulf Coast
- Coastal flooding, and protection
- Space-based geodesy of New Orleans
- Subsidence of New Orleans
- Northern hemisphere glaciations and crustal physics, subsidence modeling
- In-SAR and oil field subsidence
- Groundwater-induced subsidence of the Gulf Coast

Abstracts for poster sessions are invited and will be organized on various topics. Posters will be on display throughout the entire conference with time set aside each day for review and discussion.

Abstracts for poster sessions should be no more than 350 words and include the title of the abstract, author(s) full name, affiliation, affiliation address, and email address and sent to Julie Keaton, Conference Director (aegjuliek@aol.com). Abstracts may be selected for oral presentation.

If you have any questions, please contact either Cynthia Palomares, General Chair (cpalomar@tceq.state.tx.us) or Roy Dokka, Technical Program Chair (dokka1@lsu.edu).

Conference Keynote Speaker

Dr. Roy K. Dokka, Executive Director of the Center for GeoInformatics, Director of the Louisiana Spatial Reference Center, and Fuchan Endowed Professor of Engineering, Louisiana State University, will speak on *The Nature of Modern Subsidence: The basics: Definition, Measurement, and Natural and Anthropogenic Processes* and will provide a case history: Late 20th Century Subsidence of New Orleans and its Causes Revealed". (Dr. Dokka is a structural geologist and geodesist).

Conference Speakers

Dr. John Anderson, Rice University: *Late Quaternary Global Seal-Level Rise and Its Impact on the Northern Coast of the Gulf of Mexico – Past, Present and Future*

Dr. Erik Ivins, California Institute of Technology/Jet Propulsion Laboratory: *Subsidence and the Physics of Later Quaternary Sediment and Water Loading of the Lithosphere in the Mississippi River Delta Region*

Dr. Tom Holzer, USGS: *The Importance of Faulting and Groundwater Offtake in the Subsidence History of the Houston Area*

Dr. Sean Buckley, University of Texas: *Use of Radars for Subsidence Studies*

Dr. Ronald Blom, California Institute of Technology/Jet Propulsion Laboratory: *Advanced Radar Systems for Coastal Subsidence Monitoring in the Future*

The San Luis Resort Spa & Conference Center

Location:
5222 Seawall Blvd.,
Galveston, TX 77551
Phone: 800-392-5937

Discover unparalleled luxury at The San Luis Resort, Spa & Conference Center, a 30-acre year-round beachfront hotel and resort property on beautiful Galveston Island, Texas. Recipient of the AAA Four Diamond Award® since 2000, The San Luis Resort features lavish accommodations, breathtaking Gulf views and personalized service. (www.sanluisresort.com)

Dinner after Field Trip

At the conclusion of the field trip, dinner will be provided at the Gaido's Famous Seafood Restaurant.

A tradition of excellence for over 92 years, Gaido's Famous Seafood Restaurant first opened in 1911 when S.J. Gaido, opened his restaurant. The Gaido family commitment was to make the trip to Galveston Island worthwhile with the best in service and the finest in seafood.

Dr. George Davis will be the dinner's Keynote Speaker. Dr. Davis is a Regents Professor in the Department of Geosciences at the University of Arizona. His primary scientific interest has been field-oriented structural geology, with applications in regional tectonics and active tectonics. His current research is in Greece, where he is a team leader on the Mt. Lykaion (Zeus) Sanctuary and Excavation Site in the Peloponnesus. His role is to interpret the geologic history of the site, including active tectonics, in specific relationship to the archaeology of Lykaion.

20 Professional Development Hours
(PDH's earned upon attendance. No partial credit given – must attend the entire conference to earn the 20 PDH's.)

Tuesday, April 20 2010

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

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 (include your name, e-mail address, meeting you are attending, phone number and membership ID#).

Thomas Lee McGehee, PhD, RPG
Professor of Geology at TAMU-Kingsville

Development of Methodologies for the Characterization of Fluvial Aquifers

Software tools for groundwater modeling, such as HORIZONS in GMS, have provided modelers new tools for characterizing subsurface heterogeneity. While this approach has provided acceptable results for simple models, it falls short in the development of stacked aquifer sequences. Recently, groundwater modelers have been tasked to simulate the fate and transport of contaminants in complex fluvial systems. Scenarios such as these require a more detailed subsurface geometry than previous models. The primary research focus is to develop a set of procedures that compensate for the inherent weakness of the characterization process. Idealized fluvial landforms were used in the creation of these newly developed procedures to create a baseline against which further work can be calibrated and tested. The results of this phase of research include not only a more accurate representation of a fluvial aquifer but also produced a set of tools and guidelines that can be adapted for future hydrogeologic modeling. ■

groundwater modeling… have provided modelers new tools for characterizing subsurface heterogeneity

Biographical Sketch

Thomas Lee McGehee, PhD, RPG 2314, is a Professor of Geology at TAMU-Kingsville with 22 years of educational service in the South Texas region. He is an expert groundwater scientist with specializations in low-temperature geochemistry and numerical modeling. He has worked for 14 years (1996–present) as a groundwater research scientist for the Army Corps of Engineers at their Engineering Research and Development Center, Waterways Experiment Station, Vicksburg Mississippi. He has held senior-scientist appointments with the Hazardous Waste Research and Development Program, Department of Energy, at Oak Ridge, Tennessee, and the Army Environmental Policy Institute and the Department of Defense in Atlanta, Georgia. Ten students completed their Master of Science research through his research and contract funding. Mr. McGehee won the Olan Kruse Science Faculty Award in 2004 for these research efforts. He integrated GPS/GIS data collection and documentation into the field techniques course and all field trips sponsored by the department. He developed and organized the "Junior Rockhound Program" the "TRAINS (Teachers in Rural Areas INterested in Science) Program" and teacher- and learner-centered outreach programs for South Texas funded by the South Texas community. He organized and presented workshops for teachers through the Texas Collaborative for Excellence in Teacher Preparation (TxCETP) program. He developed classes in mineralogy and physical geology with funding from TxCETP.

REGISTRATION FORM

2010 Shlemon Specialty Conference

Modern Subsidence, Sea-Level Rise, and the Future of the Gulf Coast

Sponsored by the Association of Environmental & Engineering Geologists and The AEG Foundation

May 13 – 15, 2010 ~ The San Luis Resort ~ Galveston Island, Texas

NAME (LAST) (FIRST) (MI)	NAME FOR BADGE
COMPANY NAME	
ADDRESS	
CITY/STATE/ZIP	COUNTRY
WORK PHONE NUMBER:	
E-MAIL:	

Send Registration Form to:
AEG
P.O. Box 460518
Denver, CO 80246
Fax: 303-757-2969

OR
Register online at
www.aegweb.org

Questions:
Contact Julie Keaton
951-780-5717
aegjulick@aol.com

REGISTRATION

Registration includes:
Day 1 – May 13: All-day technical session, continental breakfast, lunch, breaks, and Ice Breaker.
Day 2 – May 14: Technical session (8am-9am) with a continental breakfast; field trip (9am-5:30pm) with lunch and field trip guidebook; and dinner at Gaido's Restaurant.
Day 3 – May 15: Half-day technical session (8am-12pm), continental breakfast and morning break.

Registration for AEG Members	$ 295.00	
Registration for Non-Members	$ 370.00	
Student Registration	$ 195.00	
Late Registration after April 22, 2010 – add an additional $50.00	$ 50.00	
FISHING TOURNAMENT – Wednesday, May 12, 2010, 6 am to 12 noon		
Salt-Water Fishing Tournament on Galveston Island	$ 175.00	
SPONSORSHIP FOR SHLEMON SPECIALTY CONFERENCE		
Platinum (comp tabletop display, listing in Meeting Program and Field Trip Guidebook)	$ 1,000.00	
Gold (comp tabletop display, listing in Meeting Program and Field Trip Guidebook)	$ 500.00	
Silver (listed in the Meeting Program)	$ 250.00	
Bronze (listed in the Meeting Program)	$ 150.00	
SPONSORSHIP FOR FISHING TOURNAMENT		
Captain's Sponsor (tournament sponsor)	$ 750.00	
First Mate Sponsor (lunch sponsor)	$ 500.00	
S.S. Minnow Sponsor (boat sponsor)	$ 250.00	

CANCELLATION POLICY

- For Participants who cancel, all requests for refunds must be made in writing or by email. Refunds will be issued 4-6 weeks after the close of the conference.
- A $45 cancellation fee will be charged against any refund. No refunds will be given for any cancellations after May 1, 2010.
- If the conference cancels the event, a full refund for the event will be given.

SPECIAL NEEDS:			TOTAL AMOUNT:
	PREFER VEGETARIAN MEALS: ☐	**MAKE CHECK PAYABLE TO "AEG"**	
	DIABETIC: ☐		
	KOSHER: ☐		
	OTHER: ☐		$

Be sure to make hotel reservations: The San Luis Resort ~ 1-800-392-5937 (Rate is $109.00 per night)
Identify yourself as an attendee of the *Shlemon Specialty Conference*
Deadline for hotel conference rates – April 28, 2010 !! (After this date, rooms will be released back to the hotel.)

Please indicate method of payment (check one):

_____ check Total Amount: $_____

_____ MasterCard _____ Discover _____ VISA _____ American Express

Account Number for charge card (include all digits):

_____

Expiration Date: _____

Signature: _____

Name on Card (PLEASE PRINT):

Monday, April 26, 2010

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

Cost: $28 Preregistered members; $35 non-members & walk-ups

To guarantee a seat, you must pre-register on the HGS website and pre-pay with a credit card.
Pre-registration without payment will not be accepted.
You may still walk up and pay at the door, if extra seats are available.

HGS North American Dinner Meeting

Walter Moody
Hess Corporation, Houston

Reservoir Characterization of the Smackover Formation in Little Cedar Creek Field, Alabama

In 1994, Hunt Oil Company opened up the Little Cedar Creek Field with the completion of the Cedar Creek Land and Timber Company #30-1. The well came on at 108 BOPD and 49 MCFD, producing from the Upper Jurassic Smackover Formation.

Studies of cores from the Little Cedar Creek Field have identified seven different facies within the Smackover Formation. The descriptions from top to base are as follows:

At the top, Facies 1, wackestone, shale, siltstone; Facies 2, peloid-ooid grainstone; Facies 3, bioturbated peloidal packstone; Facies 4, laminated peloidal wackestone-packstone; Facies 5, microbial boundstone; Facies 6, bioturbated peloidal packstone; and at the base, Facies 7, laminated peloidal wackestone.

Of these, facies 2 and 5 contain the best reservoirs. They are separated by non-permeable, non-porous rock. The two producing facies have average porosities ranging from 10% to 25% and are very permeable. Porosity is vuggy, intergranular, moldic, and intercrystalline. Although dolomites are the predominant reservoirs of Smackover fields in southwestern Alabama, the reservoirs at The Little Cedar Creek Field are composed mostly of limestone.

It has been determined that the microbial mats in regional fields were developed on paleohighs, but those in the Little Cedar Creek Field were deposited in shallow marine to subtidal environments within five miles of the paleoshoreline. These conditions created stratigraphic rather than structural traps.

microbial mats...in Little Cedar Creek Field were deposited in shallow marine to subtidal environments

In the past five years, Little Cedar Creek Field has become the number one producing field in Alabama. Cumulative production is in excess of 8 million barrels of oil. Not bad for a stratigraphic play. ■

Biographical Sketch

Walter Moody is currently working as a Data Analyst for Hess Corporation in Houston. He has a Master's degree in Earth, Environmental, and Physical Sciences and a Bachelor's degree in Geology, both from Wichita State University in Wichita, KS. Mr. Moody began his career in the oil and gas industry at the Kansas Corporation Commission as an intern in the Geological library. Upon completion of his Bachelor's degree, he stayed with the Commission as a State Geologist. While working on his Master's degree, Walter worked as an exploration geologist for Mull Drilling Company in Wichita. In the Spring of 2009, he began working as a consulting geologist for clients located in the Denver area. This role included work in log analysis, prospect evaluation, and subsurface map creation and interpretation.

If you are interested in presenting at one of the upcoming HGS meetings or have a suggestion for a meeting topic please contact Art Donovan (Vice President) at donovan@bp.com.

Monday, April 19, 2010

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

Cost: $28 Preregistered members; $35 non-members & walk-ups

To guarantee a seat, you must pre-register on the HGS website and pre-pay with a credit card.
Pre-registration without payment will not be accepted.
You may still walk up and pay at the door, if extra seats are available.

Ian Hutchinson, *RPS Energy,*
Steve Lawrence, *Darnoc Ltd and*
Alastair Beach, *Independent Consultant*

Interfering Cretaceous and Tertiary Rift Systems of the Turkana Depression (Sudan-Ethiopia-Kenya).

The Turkana Depression has for some time been the subject of speculation regarding the geometric relationship of an obvious Miocene rift system crossing between Kenya and Ethiopia and an older sequence of rifts – oblique to the East African Rift System (EARS) – that is evident in the Mesozoic Anza Graben of Kenya and the Muglad and Melut systems of southern Sudan. Up to five phases of rifting potentially affected the area. The Early Cretaceous to Paleogene systems of the Anza, Muglad and Melut basins, (ca. 120 Ma, 70 Ma and 40 Ma) have been overprinted by the Miocene East African Rift system (ca. 20 Ma and 10 Ma). Crucially a lack of geological or geophysical data has hampered an understanding of this critical area of interfering rift systems.

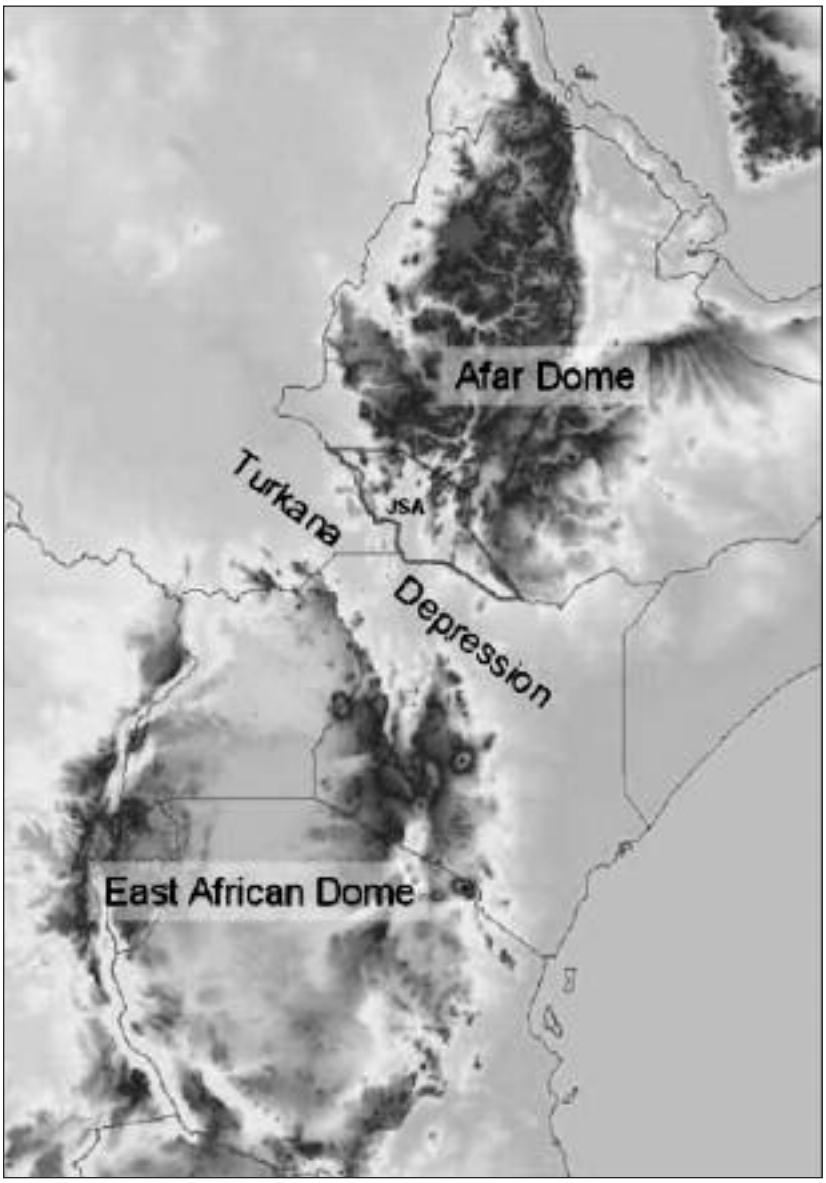


Figure 1: East African topography showing the Afar and East African Domes separatd by the Turkana Depression

The East African Rift System of Tertiary age is predominantly located in zones of Precambrian orogenic belts, avoiding stable Archaean cratonic areas. The geometry of the rift system is largely controlled by the Precambrian mobile belt architecture; however, later extensional events of Permo-Triassic (Karoo), Jurassic, Cretaceous, and Palaeogene ages have also affected the location and orientation of the Tertiary rift systems to a greater or lesser degree. A major challenge in the area is that outcrops comprise either volcanic rocks or metamorphic basements with few sedimentary sequences that might give indications of East African or earlier rift systems.

Seismic control was restricted to mid-1980's vintage data shot over the Lotikipi and Gatome basins of northwest Kenya by Amoco, plus ship-borne Project PROBE data acquired over the Lake Turkana rift. There was also sparse gravity data over a large part of the depression, outside of Kenya.

A pioneering, tri-nation airborne gravity and magnetic survey that was flown offered a new insight into the complex rift geometry of the

HGS International Dinner *continued on page 35*

HGS International Dinner continued from page 32

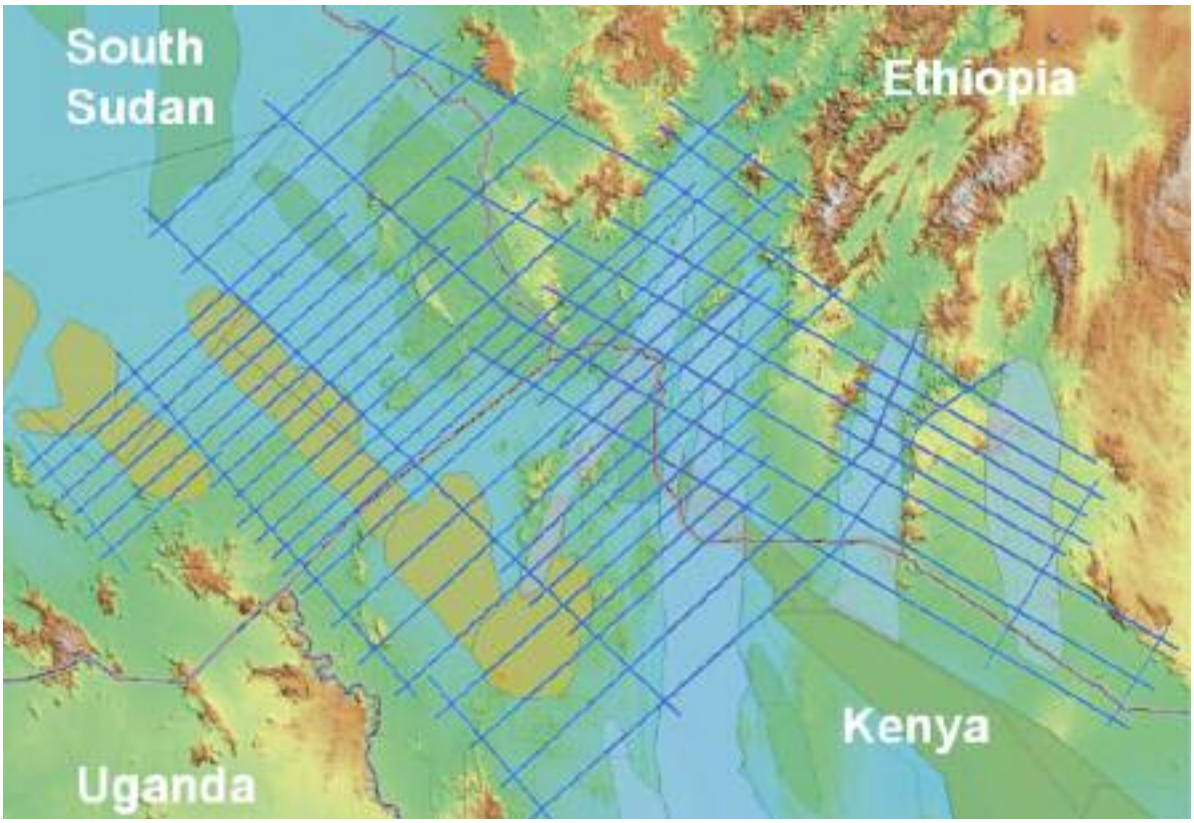


Figure 2: Airborne survey flight lines over pre-survey outlines of potentail rifts

HGS International Dinner *continued on page 37*

HGS International Dinner continued from page 33

Turkana Depression. The survey revealed an interfering older rift system running from the Anza into the Muglad-Melut systems. Cretaceous rifting extends from the Anza Graben through the Turkana region and links with the Sudanese rifting of the Muglad and Melut basins. Maastrichtian rifting appears to extend northwestwards from the Anza Graben, and may be present within basins of SW Ethiopia and northern Kenya. Similar rifting occurred in the Eocene, and Oligocene-Miocene rifting is evident in the wester Turkana basins. Middle to Late Miocene East African rifting cross-cuts all of these earlier rift geometries.

The interfering rifts of the Turkana Depression provide several new exciting exploration plays

Source rocks are known in the Miocene of Ethiopia and Kenya and in the Oligocene (?Eocene) of the Loperot-1 well, and they are predicted to occur in the earlier rift phases. In southwest Ethiopia, north of the Turkana Depression, Middle Miocene oil-shales and coals have been shown to have excellent source rock properties, and equivalents may be preserved within the EARS. The presence of marine Cretaceous sequences is supportive evidence of earlier source rocks. Suitable reservoirs are developed in all tectono-stratigraphic phases of rifting. The interfering rifts of the Turkana Depression provide several new exciting exploration plays and the probability of numerous trapping scenarios. Undoubted challenges are presented by the complex thermal history and the presence of volcanics and volcanic activity. ■

Biographical Sketch

Ian Hutchison is a geologist with over 25 years experience in Africa, Australia, and North America. He started out his career in the hard-rock side of the industry – firstly mining and subsequently exploring for various sediment-hosted gold systems starting with the famous Witwatersrand deposits. The strong hydrocarbon affiliation and genetic connection between oil and gold mineralization led Ian gradually into the oil patch where he brings his field exploration skills – including the use of potential field data to the fore. Ian has subsequently worked on oil and gas field projects in East Africa, Mali and Mozambique. Corresponding author: hutchinsoni@rpsgroup.com. RPS Energy, 309 Reading Road, Henley-on-Thames, RG9 1EL, UK

Wednesday, April 28, 2010

Petroleum Club • 800 Bell (downtown)
Social 11:15 AM, Luncheon 11:30 AM

Cost: $30 pre-registered members; $35 for non-members & walk-ups; Emeritus/Life/Honorary: $15; Students: FREE

To guarantee a seat, you must pre-register on the HGS website (www.hgs.org) and pre-pay with a credit card.
Pre-registration without payment will not be accepted.
You may still walk up and pay at the door, if extra seats are available.

Penny E. Patterson
ExxonMobil
Production Company

Piceance Basin Tight Gas: Integration of Geoscience and Engineering Technologies in Development of an Unconventional Resource Play

The Piceance basin, located along the northwestern slope of Colorado, contains trillions of cubic feet of natural gas trapped within more than 4000 feet of complexly interbedded sandstone and mudstone strata. The Piceance Basin resource play is a showcase of ExxonMobil's mission statement of "Taking on the world's toughest energy challenges" through the integration of geoscience and engineering technologies that enable improved production and recovery rates of natural gas from deeply buried, tight sand reservoirs at lower production costs.

The primary reservoir interval in Piceance basin is the Upper Cretaceous Williams Fork Formation of the Mesaverde Group that consists of a thick succession of alluvial strata composed of fluvial sandstones, floodplain mudstones and coals. Sequence stratigraphic concepts, first developed by ExxonMobil geoscientists, were largely based on shallow-marine depositional systems. An early phase in the understanding of Piceance Basin tight gas reservoirs was the refinement of sequence stratigraphic concepts to include alluvial depositional systems. In addition, a hierarchical approach for characterization of these strata was developed to provide a systematic method for the description of alluvial strata. This approach facilitated the spatial and temporal comparison of alluvial systems and enabled delineation of the intrinsic and extrinsic controls on alluvial deposition.

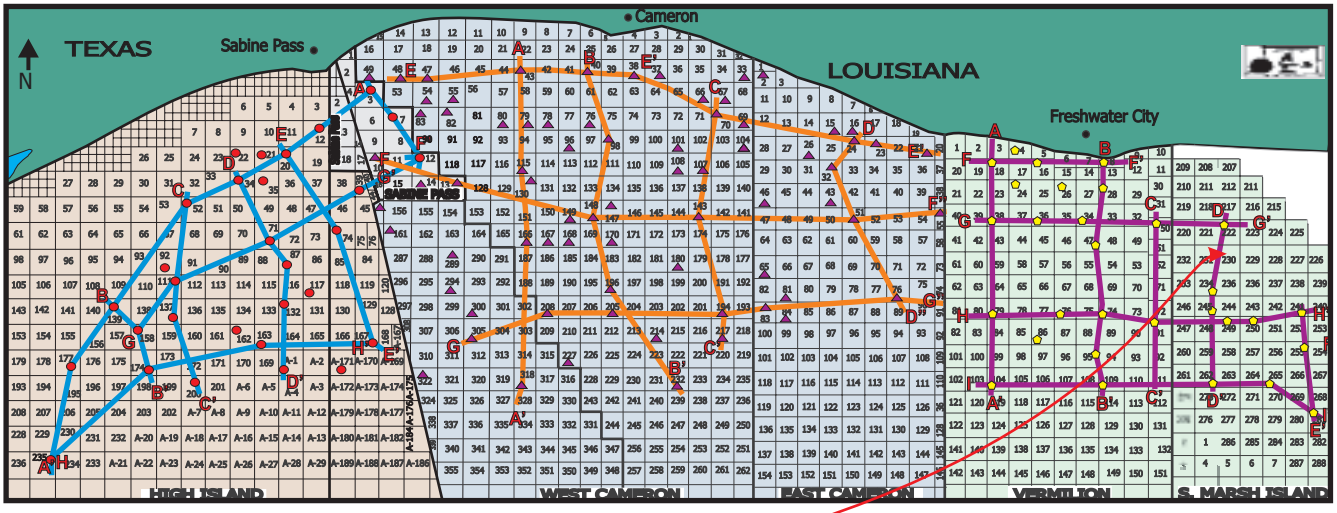
…integrated subsurface and outcrop study of the Williams Fork Formation…defines a sequence stratigraphic framework, which…influences the presence and distribution of hydrocarbons

An integrated subsurface and outcrop study of the Williams Fork Formation reveals a hierarchical arrangement of these alluvial strata that defines a sequence stratigraphic framework, which, in part, influences the presence and distribution of hydrocarbons throughout the basin. The sequence stratigraphic architecture is expressed in these non-marine successions by variations in stratal stacking patterns that are characterized by differences in net to gross sand/shale ratios and reflect relative changes in rates of accommodation and sedimentation.

In the Williams Fork Formation, four composite sequences are interpreted that define the basin-scale alluvial architecture of the Upper Cretaceous strata in Piceance. Composite sequences are

HGS General Luncheon *continued on page 41*

"DAVY JONES" CITED AS VERY LARGE GULF SHELF DISCOVERY



Project Cost:
$8,900 High Island-Sabine Pass (30 wells)
$14,900 West-East Cameron (74 wells)
$8,900 Vermilion-S. Marsh Island (30 wells)
$8,900 Eugene Island (30 wells)
$8,900 Ship Shoal (30 wells)
$8,900 S.Timbalier-South Pelto (35 wells)

DAVY JONES
200? FT NET PAY
WILCOX
2 - 6 Tcf?

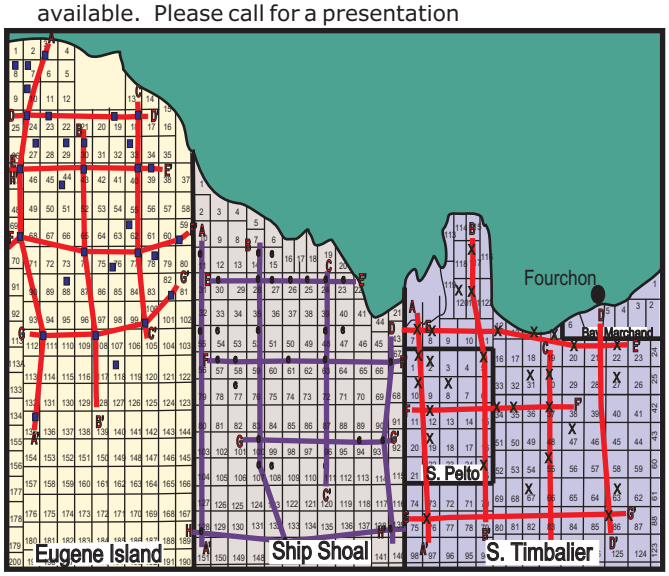
Digital well-logs:
$900 High Island-Sabine Pass (30 logs)
$1,800 West-East Cameron (74 logs)
$900 Vermilion-S. Marsh Island (30 logs)
$900 Eugene Island (30 logs)
$900 Ship Shoal (30 wells)
$900 S. Timbalier - S. Pelto (30 wells)

PROJECT DELIVERABLES

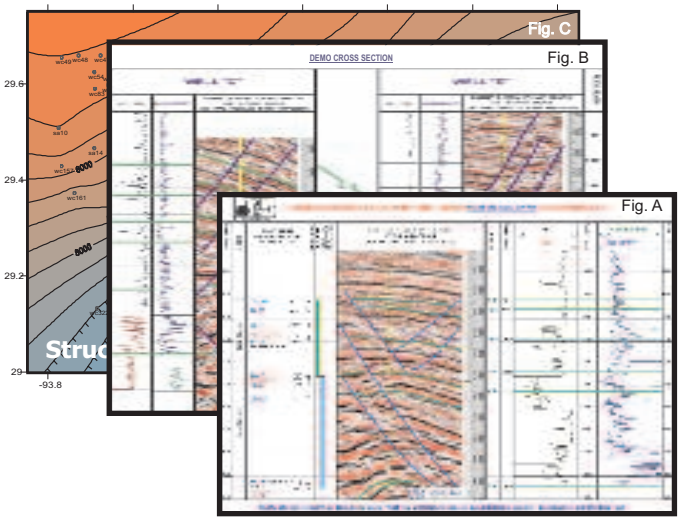
1. 229 single well plots. Most wells 15000' with mapable Genetic Sequences correlated with marker species, paleowater depth, well log and FAIRFIELD INDUSTRIES INC., Extracted 3-D PSTM seismic panels (one mile in length) (Fig. A).
2. Biostratigraphic and Sequence Stratigraphic tables, with marker species, paleowater depth, age dated MFS (Seals).
3. Cross Sections (Dip & Strike) 7-9 per project with age dated MFS and well logs (Fig.B)
4. Deliverables in two types of formats:
   a. Hard copy binder (11"x 17") printed on premium paper and includes written report, single plots, etc.
   b. Report and raw data is delivered in digital format.
5. Individual projects have been completed and are now available. Please call for a presentation

PROJECT BENEFITS

- Identify and correlate MFS with continuous reflectors on seismic panels with regional FAIRFIELD INDUSTRIES INC. dataset.
- Identify MFS (seals) on well-logs and 3-D seismic to provide local and regional timelines.
- Identify optimum producing and potential deep gas targets in 12 Genetic Sequences.
- Use MFS to construct isopach, sand %, structural and biofacies maps (Fig. C)
- Assist in identifying reservoir-type sands, play concepts and facies on seismic within each Sequence in an 360 degree arc from each of these project wells.
- Reduce your company's risk in prospecting, reservoir and exploration evaluation.



Integrating Biostratigraphy, Well-Logs, Seismic Profiles and Sequence Stratigraphy



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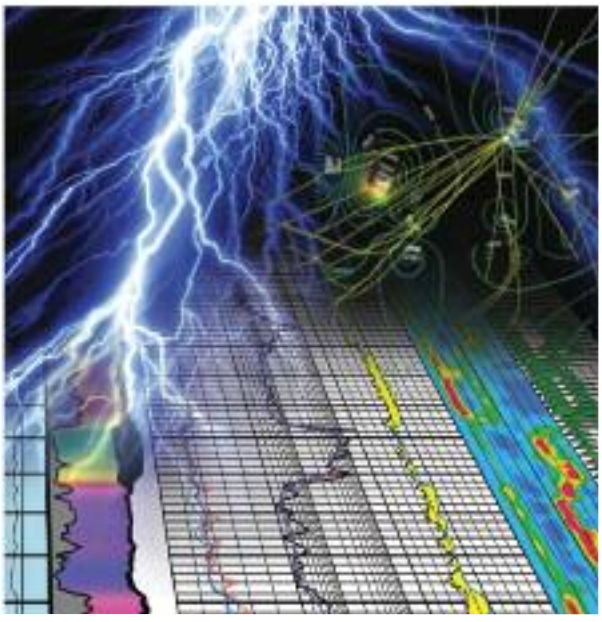
HGS General Luncheon continued from page 39

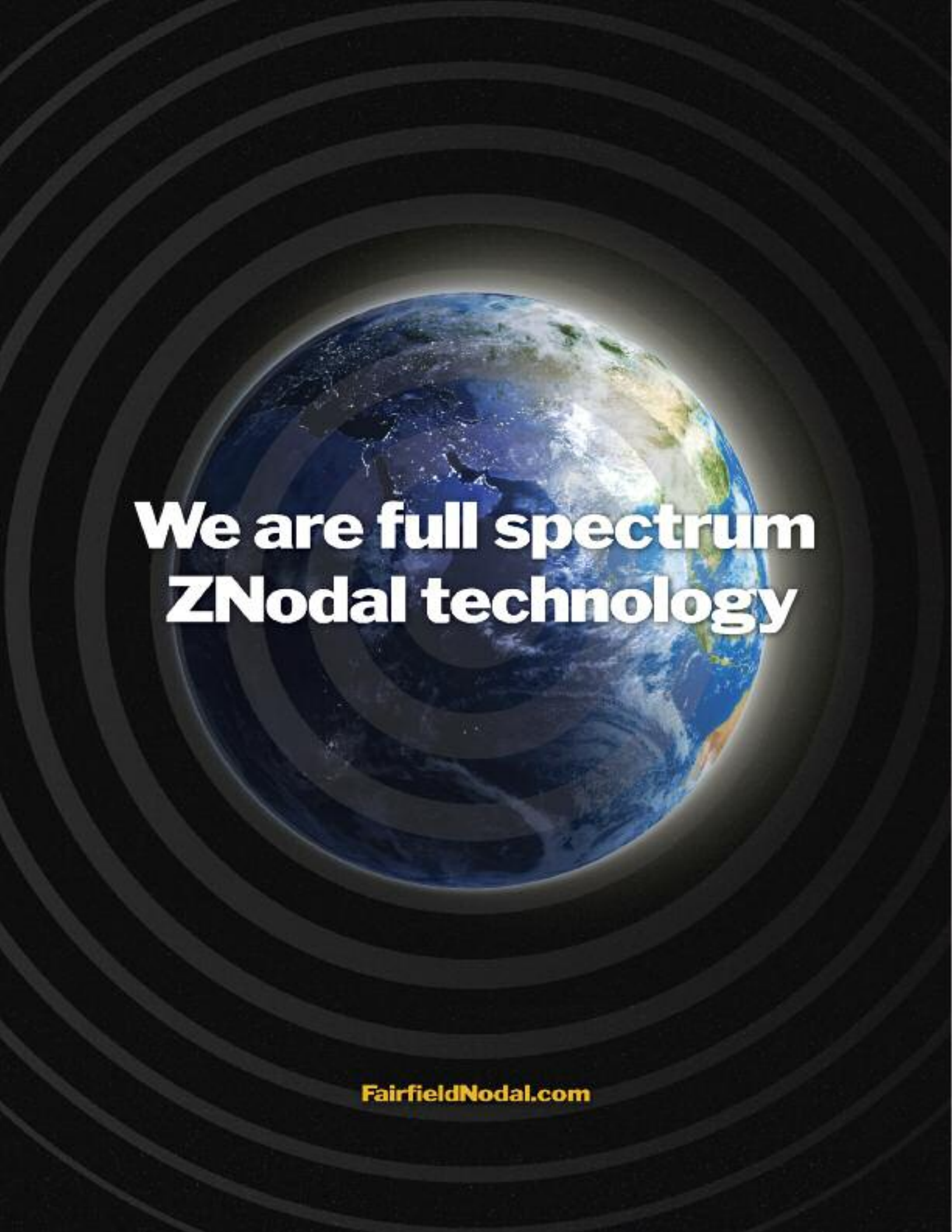
composed of a basal sandstone-prone amalgamated or semi-amalgamated sequence set element comprised principally of fluvial sandstones stratigraphically overlain by a mudstone-prone non-amalgamated sequence set composed largely of floodplain deposits. The stratigraphic architecture of the composite sequences is one of the primary controls on hydrocarbon distribution within the basin. Amalgamated and semi-amalgamated sequence sets exhibit moderate net-to-gross sand/shale ratios and typically possess significant fractures that result in higher flow rates that have an increased risk of water production. Conversely, non-amalgamated sequence-set elements display lower net-to-gross sand/shale ratios and generally possess numerous natural fractures that more commonly contain gas-bearing zones with low water production.

At the basin-fill scale, the basal sequence-set elements of the four composite sequences display a progressive increase, stratigraphically upward, in the extent of vertical and lateral amalgamation and a concomitant increase in net to gross. This variation in stratal stacking pattern is inferred to reflect decreasing rates of accommodation relative to sedimentation during deposition attributed to onset of the Laramide Uplift.

Engineering technologies that have been developed in the Piceance basin include Multi-Zone Stimulation Technology (MZST) and the Just-In-Time Perforation (JITP) system. These two technologies work in conjunction during the well-bore stimulation process and enable completion of up to 50 gas-bearing intervals in one well. Well-bore stimulation technology begins at the base of a well and moves upward, sequentially fracturing and stimulating up to 10 zones identified by the geoscience and

HGS General Luncheon *continued on page 47*

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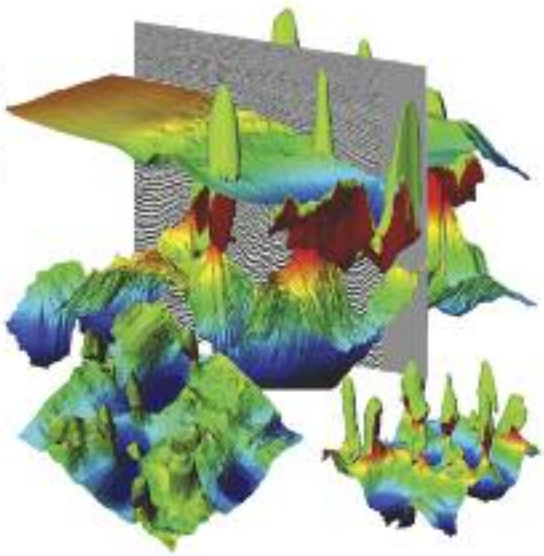
And we are good at it. We've been at this seismic data collection business for over 30 years. In fact, much of our spec data has been shot with cableless nodal systems that we developed right here at FairfieldNodal.



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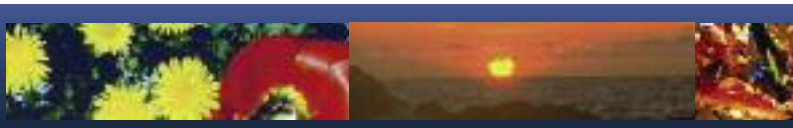
SYSTEMS ACQUISITION LICENSING PROCESSING IMAGING

April 2010



Sunday	Monday	Tuesday	Wednesday
		Reservations: 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.**		
4	5 **HGS General Dinner Meeting** *"The Discovery of Rich Gas Hydrate Accumulations in Sand Reservoirs in the Gulf of Mexico- Results from DOE-Chevron Joint Industry Project Drilling" Dan McConnell, Westchase Hilton* Page 23	6 **HGS Board Meeting** *6 p.m. HGS Office*	7
11 **AAPG Annual Meeting** *New Orleans*	12	13	14
18	19 **HGS International Dinner Meeting** *"Interfering Cretaceous and Tertiary Rift Systems of the Turkana Depression (Sudan-Ethiopia-Kenya).", Ian Hutchinson, Westchase Hilton* Page 32	20 **HGS Environmental & Engineering Dinner Meeting** *"Development of Methodologies for the Characterization of Fluvial Aquifers" Thomas Lee McGehee, Black Lab Pub* Page 29	21
25	26 **HGS North American Dinner Meeting** *"Reservoir Characterization of the Smackover Formation in Little Cedar Creek Field, Alabama", Walter Moody, Westchase Hilton* Page 31	27	28 **HGS General Luncheon Meeting** *"Piceance Basin Tight Gas: Integration of Geoscience and Engineering Technologies in Development of an Unconventional Resource Play", Penny E. Patterson Petroleum Club* Page 39

GeoEvents

Thursday	Friday	Saturday
1	2	3
8	9	10
15 **SIPES Luncheon Meeting** *"Hedging for Small Independents: A Quantified Approach", Wayne Penello, Petroleum Club* Page 55 **Deadline for Submission to the June *Bulletin***	16	17
22	23	24
29	30 **NOW you can make your reservations on-line 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

Upcoming GeoEvents

April 11-14, 2010
AAPG Annual Convention & Exhibition *New Orleans, Louisiana*

April 22-23, 2010
Modeling Sedimentary Basins and Their Petroleum Systems *Geological Society, London, England*

May 3-6, 2010
Offshore Technology Conference *Houston, TX*

May 16-18, 2010
AAPG Southwestern Section Meeting *Dallas, TX*

May 15, 2010
HGS Shrimp Peel *Houston, TX*

May 22, 2010
HGS Guest Night – Houston Science Museum *Houston, TX*

June 8-10, 2010
Applications of Reservoir Fluid Geochemistry – AAPG Hedberg Research Conference *Vail, CO*

June 13-16, 2010
AAPG Rocky Mountain Section Meeting *Durango, CO*

July 4-8, 2010
Australian Earth Sciences Convention *Canberra, Australia*

September 8-9, 2010
9th African Conference – Africa: A Multi-faceted Promise *Houston, TX*

September 12-15, 2010
AAPG International Conference & Exhibition *Calgary, Canada*

October 4-7, 2010
Geology of Unconventional Gas Plays *Geological Society, London*

October 31 – November, 2010
Geological Society of America Annual Meeting *Denver, CO*

November 4-5, 2010
Advances in Carbonate Exploration and Reservoir Analysis *Geological Society London, England*

April 10-13, 2011
AAPG Annual Convention & Exhibition *Houston, Texas*

HOUSTON
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APRIL 30TH - MAY 2ND, 2010

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Lehigh Minerals

DEALERS

Laurent Thomas – Polychrom Minerals
Crystal Springs Mining Company
Horst Burkard Minerals Fossils
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Photo: Joe Budd

HGS General Luncheon continued from page 41

engineering team. The use of MZST and JITP technologies in Piceance basin tight-gas reservoirs has provided maximized well-bore stimulation efficiency, increased recovery rates, and lower stimulation costs. In addition, drilling efficiency in the Piceance basin is facilitated by drilling up to nine wells from a single surface location. ■

Biographical Sketch

Penny Patterson is a Geological Advisor at ExxonMobil U.S. Production in Houston, Texas. She received her B.A. and M. S. degrees in geology at the University of Colorado in 1976 and 1981, respectively. Penny worked for the Research Planning Institute in Boulder, Colorado from 1981 to 1986, specializing in near-shore marine, fluvial, and aeolian strata. In 1990, she earned her Ph.D. in fluvial sedimentology and stratigraphy, sandstone diagenesis, and geophysics at the University of Colorado. Penny then joined Exxon Production Research Company in Houston, where her research focused on development of next-generation concepts of sequence stratigraphy and process sedimentology and their application to alluvial and shallow-marine depositional systems based on integration of outcrop field studies, subsurface reservoir investigations, and experimental stratigraphic studies conducted at the University of Minnesota.

Penny works closely with ExxonMobil's exploration, development, and production affiliates in resource assessment and capture of conventional and unconventional plays. She has written over 60 scientific publications on sequence stratigraphy, experimental stratigraphy, sedimentology, and computer modeling of alluvial and shallow-marine depositional systems. In 2006, Penny received the RMAG best speaker award for her work on Piceance basin tight gas reservoirs. She is a member of AAPG, SEPM, and HGS.

2010 HGS Annual Guest Night
Saturday, May 22, 2010
Big Bend: Where the Rockies Meet the Appalachians Discoveries and Enigmas

Article by ***Bonnie Milne-Andrews,*** *HGS Guest Night Committee*

Guest Speaker: Dr. Patricia Wood Dickerson, The Geological Institute and Visiting Research Fellow, Jackson School of Geosciences, University of Texas at Austin

The 2010 Houston Geological Society Guest Night program will be held on Saturday, May 22 at 6:30 p.m. at the Houston Museum of Natural Science. HGS members and their guests will have access to the first and second floors of the museum for a fun and informative evening. Upon arrival and check-in, HGS members and guests will have about an hour and a half to enjoy the museum's spectacular collection of fossils, minerals, and oil and gas exhibits. Attendees will enjoy a delicious Texas-sized buffet dinner, beverages, and dessert inside the museum's main hall. Following the social hour and dinner, guests will retreat to the IMAX Theater for a presentation by Dr. Patricia Wood Dickerson of the Jackson School of Geoscience at the University of Texas. Dr. Dickerson will present an intriguing geological analysis of the stunning and mystical Texas treasure … The Big Bend!

2010 HGS Annual Guest Night *continued on page 51*

2010 HGS Annual Guest Night continued from page 49

Dr. Pat Dickerson was born (at a very early age) in Waukegan, Illinois. She has worked as a geologist, editor, photographer, writer, dance instructor, and apricot cutter for a California fruit-packing firm (not in that order).

Her research in rifts and mountain chains of the world, including doctoral studies (University of Texas-Austin) in the Big Bend of west Texas, has provided opportunities for wide-ranging explorations: the Rocky Mountains, Rio Grande Rift, Iceland, Norway, the Cordillera of western North America, Mexico, Belize, Argentine Precordillera, Appalachian chain from the Canadian Maritimes through west Texas, and the Southern Alps of New Zealand. She has also drawn from investigations in petroleum, gold, and water-resource assessments, and now applies those passions in astronaut crew training, in academic teaching, and in leading natural history field seminars for students, professional scientists, and nonscientists. For her efforts in astronaut training in field geophysics and geology, she was

2010 HGS Annual Guest Night *continued on page 53*

2010 HGS Annual Guest Night continued from page 51

recently awarded the NASA Exceptional Public Service Medal.

Always a sell-out, the 2010 HGS Guest Night program will be limited to 400 people due to seating capacity limitations of the IMAX Theatre. Prepayment is required, and tickets will NOT be available for walk-ins. Register early and pay online using the HGS Website under the Calendar of Events. ■

SIPES Luncheon Meeting
Hedging for Small Independents: A Quantified Approach.

Wayne Penello, *Risked Revenue Energy Associates (R^2)*

The petroleum exploration and production business can be likened to the toughest manufacturing businesses: not only do producers not know how much they will produce; they also don't know what price they will get for the production.

Hedging offers producers the tools to manage the price received for their production. There is a seemingly endless list of products and vendors that offer the promise to lock in a specific price, or at least a guaranteed minimum price or floor. The most popular financial structures used when hedging are often referred to as "costless" transactions because the producer has no upfront, out-of-pocket expense. There are costs to hedging, but they are imbedded in the **SIPES Luncheon Meeting** *continued on page 57*

SIPES Luncheon Meeting continued from page 55

transaction by providing the hedge at an off-market price. These transaction costs are composed of slippage, a fee for credit and profit margin. Typically, hedging costs range from 0.5% to 2% of the notional value of the transaction

Once hedges are in place, they are like a knife that cuts both ways. Should prices move lower, the monthly payout received from hedges will help to stabilize the producer's cash flow. But when prices move higher, hedges can drain cash reserves and hamstring operations.

hedges…are like a knife that cuts both ways

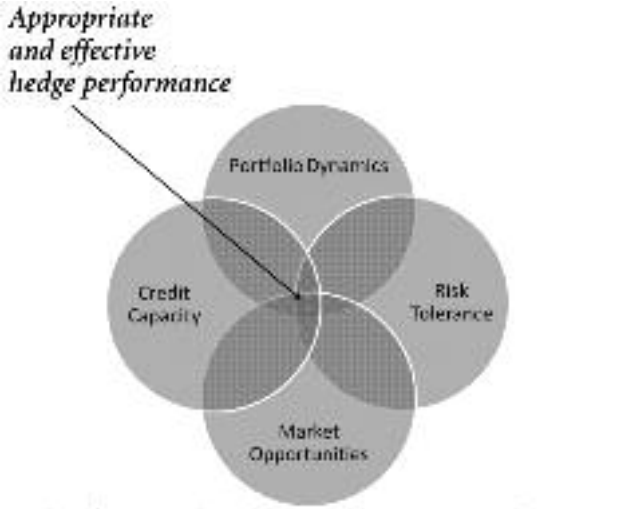
Why? The higher than expected revenue from production can be expected to more than offset the hedge payments that come due as hedges settle,. The problem is that the open hedges must be collateralized. When prices are high, hedges become a liability. The extent of this liability is measured by mark-to-market of the remaining or open hedges. As prices move higher, the hedger can expect to get a "margin call" from his counterparty. Banks require increasing amounts of collateral as prices move higher to maintain the hedges. Cash and letters of credit are the collateral preferred by banks. Producers that don't plan for these calls may find themselves in a difficult spot, having to put up collateral they had other plans for or liquidating the hedges at a loss.

The choice of hedge instruments then has a direct impact on the cost/benefit of a hedge strategy. To illustrate this point requires a short review of the random walk assumption. Most will agree that market pricing is random, but few recognize that price distributions are log-normal. Rather than looking like a normal distribution which has a symmetrical bell-shaped curve, log-normal distributions have the high priced tail of the bell elongated. Since market prices can't go to zero, this adjustment allows for the expectation that when it comes to prices, high is higher than low is lower. For producers that hedge, the implication is that on average a hedge is likely to cost them more than it will payout.

When producers hedge by selling swaps, they have maximized three aspects of hedging:

- Price risk reduction
- Potential margin calls
- Negative expected value of the hedge

Most producers want the first, are aware of the second, but are completely blind-sided by the third point. Its importance lies in the fact that, over and above the transaction cost, hedging with strategies that have a negative expected value will eventually add significant opportunity cost to the hedge program and erode its usefulness. It is no surprise that most companies have found that their hedge programs are cost centers, when if designed and maintained properly they should be cost neutral.



Hedge objectives should optimize enterprise performance

Alternative structures like producer collars can be useful in reducing or eliminating these imbedded costs, but they require the use of option models driven by pricing and volatility assumptions that change constantly. In short, asking your hedging counterparty for an options quote without a good estimate of its value is akin to handing a used car salesman your check book when buying a car.

Faced with these challenges, should producers hedge? The answer is yes, if you want of leverage your asset holdings to increase their returns. The questions that should be asked prior to hedging are:

- How much risk do I have?
- How much risk can I tolerate?
- How large a hedge position do I have the credit capacity to support?
- Are the hedging opportunities sufficiently attractive?

Answers to these questions will provide meaningful insight into the appropriateness and likely effectiveness of hedging. ■

SIPES Luncheon Meeting *continued on page 59*

SIPES Luncheon Meeting continued from page 57

Biographical Sketch

Wayne Penello is Founder of Risked Revenue Energy Associates (R^2), an industry leading provider of risk management expertise and accounting support to businesses that hedge commodity price risk. R^2 actively supports the management of assets valued at more than $15 billion. Its clients range from upstream production companies to mid-stream processors down through to consumers and private equity companies

Wayne has 25 years of market-making, option trading and asset management experience in the energy industry. He began his career on the New York Mercantile Exchange (NYMEX), where he was a market maker and served as Ring Chairman of options trading. Later, he accepted a position with Vitol S.A., in Geneva, Switzerland, managing a portfolio of globally distributed energy assets. Returning to the U.S., he managed the trading and marketing desks for Tenneco Gas Marketing and Torch Energy. He resigned from Torch Energy in 2001 to develop his own consulting business which has retainer clients using R^2 proprietary analytics as a decision tool supporting their hedge programs. Wayne was formerly a research scientist and holds a Masters degree in Marine Sciences from Stony Brook University and an undergraduate degree in Marine Biology from Southampton College.

Thursday, April 15, 2010

Houston Petroleum Club in the Discovery Room, 800 Bell St. (downtown Houston). Social 11:15 AM, Luncheon 11:45 AM

Reservations Required: *Make reservations by telephone (713-651-1639), fax (713-951-9659), website (www.sipes-houston.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.*

Beware the Downside of *Free* Map Data

*By **Robert White,** WhiteStar Corp.*

Maps and charts are the lifeblood of the oil and gas industry, and most petroleum executives crave the ability to visualize exploration maps in a dashboard format. The advent of free applications such as Google Earth has made complex imagery available to everyone, and while this online tool has raised awareness of the "power of the image," it has also created problems. For example, one cannot judge the precision, vintage, spatial accuracy or resolution of a given image merely by inspection. "Where is that well we drilled last year?" you might reasonably ask. Having the answer to critical questions is essential before putting a map into the wild, lest you run the risk of losing a deal because of lack of due diligence. For the casual user of Google Earth, these are not concerns and therefore not talked about much. As professionals, though, we must ask these questions.

A picture is worth a thousand words

Virtually any source map can be scanned and tied to geographic coordinates to form an imagery data source. For imagery data to be useful in a Geographic Information System, however, it must be tied to coordinates and overlaid with other data such as oil well or pipeline locations. Exploration geologists commonly use imagery in the form of an air photo, topographic map, or satellite image to add a sense of "ground truth" to their maps. Points, lines, and polygons in isolation simply do not convey the same sense of truth, even though they may be precisely placed. A picture is worth a thousand words. Given an air photo, an oil company executive can instantly see the location of wells and other infrastructure. The euphoria this creates is undeniable, but sometimes misplaced unless one has confidence in the underlying process that was used to acquire and process the data.

The potentially high cost of "free"

There are several "gotchas" associated with imagery and many points along the way where errors can be introduced. Sources of free data do not provide sufficient information about an image, such as its production date and quality. If you zoom out in Google Earth, for example, you can see many strips of data of varying quality, color schemes, and vintage. Where does the recent imagery start and old imagery stop? Such information is critical for exploration companies. In addition, free map services tend to have updated data primarily in urban areas because that's what most casual map users care about. Not so in the oil and gas industry where our infrastructure tends to be located in rural locations, which often have the least up-to-date map data on the free sites.

Data overload

Imagery data can quickly fill up local storage space, even on very large computers. As data resolution increases (and engineers always want the highest resolution data available), imagery fills up disk space exponentially faster. A consequence is that 30-centimeter resolution data require nine times more storage space than the standard one-meter resolution data of just a few years ago. This trend is unlikely to change.

Because different client applications require data in different formats, on today's servers you'll find multiple versions of the same data in different formats just burning up disk space. Imagery management quickly becomes a mess when dealing in terabytes, and IT staff spend more and more time documenting inventory, allocating server space, and updating ever larger databases when they could be focusing on revenue enhancing activities.

Third party services have evolved to address these problems, taking on the tasks of maintaining the expanding imagery database so that it can be streamed directly to oil and gas applications. For now, this involves loading the various imagery datasets and establishing web services that client applications can consume. Clients can offload internal proprietary imagery to a third party vendor and have that data streamed back into the company. This web service reduces the burden on corporate IT, saving time and money.

The future of imagery

In the future, organizations will likely take advantage of evolving technologies such as Cloud Computing with its nearly infinite computing and storage capabilities. Challenges will include uploading and downloading vast amounts of data, including rapidly changing proprietary data sets. However, the computational power of the 'Cloud' environment will offer many benefits including speed of access and the ability to use extract, transform, and load technologies to reformat data "on the fly."

Free maps have popularized geospatial imagery, but they simply don't offer the quality, robustness, or versatility needed for modern scientific exploration. The vision of the future is to store and maintain dynamic, up-to-date, multi-terabyte imagery databases on the Cloud and speedily stream those data back into the enterprise for near real time analysis and decision making. The good news is that this future isn't all that far away. Already, Web Mapping Service (WMS) technology makes it possible to maintain enormous volumes of image data on remote servers and stream them directly into WMS-enabled mapping software such as Petra, GeoGraphix, and ArcMap. ■

About the Author *Robert White is president and CEO of WhiteStar Corp., a supplier of cartographic products and services to the oil and gas industry. WhiteStar is based in Lakewood, Colorado. www.whitestar.com.*

Meeting Review

McMoRan Chairman Moffett Draws Big Crowd for Deep Shelf Exploration Presentation

Linda Sternbach

McMoRan Exploration Co. Co-chairman James R. Moffett captured the attention of one of the Houston SIPES chapter's largest lunch-time gatherings ever on Thursday, February 18, 2010 at the Petroleum Club. Over 350 people heard him recount the story of McMoRan's deep exploratory drilling on the Louisiana shelf in South Marsh Island Block 230 where they have discovered gas-bearing Wilcox sands at 28,000 ft.

Mr. Moffett presented basin-wide cross-sections and depositional Miocene and Eocene sand fairway maps for the Gulf of Mexico (GOM), which showed the regional setting of McMoRan's discovery at the Davy Jones Prospect in SMI 230 in 100 feet of water. He told the audience that "A true wildcatter can turn failure into success. I never met a good wildcatter who was a quitter." He described how lightly drilled the GOM shelf is in terms of ultra-deep tests. Only seven wells on the shelf have drilled below 25,000 ft. The SIPES presentation slideshow is available online at both the McMoRan and SIPES websites (www.mcmoran.com/ and www.sipeshouston.org/presentations.htm).

Mr. Moffett credited the ultra-deep well drilled at the Blackbeard Prospect in South Timbalier Block 168 was the key to the Davy Jones discovery, and credited the partner Newfield team with the geological insight that explained how the shelf geology connected to the deepwater geology. He called the regional salt weld that separates formations above salt from subsalt, the "Dancing Dragon." His illustrations showed how McMoRan's Flatrock Field, a producing Lower Miocene discovery with estimated reserves of 258 BCFGE, is above the salt weld, whereas their Davy Jones Wilcox discovery is below the weld.

Moffett told the audience that he thinks the depositional environment of the ultradeep Wilcox in the Gulf of Mexico was in relatively shallow water, having been deposited, in ecozones 3-4 (outer shelf to upper slope). Moffett said the "Wilcox has twice as much footprint as the Miocene" in terms of regional extent.

He revealed some interesting details about the Davy Jones well. The Wilcox sands have 13-22% porosity, based on logs, there is 200 feet net pay in six zones, and the pay is below 27,300 ft. The mapped anticlinal structure covers more than four OCS offshore blocks or 37,300 acres. The bottom hole well temperature was 440°F. and the mud weight at TD was 18.6 lbs per gallon. There was no sour gas in the formation. The next challenge is to see the recovery, flow and lateral extent of the Wilcox sands.

James R. Moffett, co-chairman of McMoRan

Mr. Moffett ended the presentation by reminding those in attendance that the offshore shelf Louisiana area near Davy Jones and other subsalt prospects has been very productive over time. The area has giant gas and oil fields above salt, many of which are rollover anticlines, including Tiger Shoal field and Mound Point field found in the 1950s-1970s.

Thanks to the SIPES Houston organization for making this presentation possible, especially their technical chairman Scott Daniels, President Steven Hartzell, and SIPES Board member Paul Babcock. ■

If you are interested in presenting at one of the upcoming HGS meetings or have a suggestion for a meeting topic please contact Art Donovan (Vice President) at donovan@bp.com.

AAPG House of Delegates Candidates

We are providing a brief informational summary of the candidates for the HGS delegation to the AAPG House of Delegates. A formal ballot will be sent to those eligible to vote by AAPG. Each voting member will be asked to vote for 30 individuals.

The House of Delegates of the AAPG is made up of delegates from affiliated societies and international regions throughout the world. They are selected by popular vote from within their respective areas and serve a three year term.

Duties of the delegates include:

- Being familiar with AAPG's Constitution and Bylaws;
- Being acquainted with AAPG's current policies and programs;
- Informing the leaders of their society or region regarding AAPG's program of activities, especially as it relates to cooperative participation and service;
- Processing requests from the AAPG Executive Committee for information regarding eligibility of applicants for membership in the Association;
- Serving as local Certification committeemen by processing requests from the Board of Certification for information regarding applicants for Certification by AAPG;
- Actively soliciting applications from eligible geologists for membership in AAPG.

ROBERT ARCHER

Robert Archer, the Executive Vice President of Knowledge Reservoir, is primarily responsible for the oversight of the North American business development. Robert has a 25 year career focused on managing the technical challenges of subsurface geological and engineering evaluation in the oil and gas industry. He has focused for the last 10 years on the analysis of complex deepwater reservoirs. He has held previous positions at BP, Schlumberger Geoquest, Intera Information Technologies, and Western Geophysical. Mr. Archer holds a Master of Science in Petroleum Engineering from University of Houston and a Bachelor of Science in Geological Geophysics from University of Reading.

BOB ARDELL

Bob Ardell is currently a petroleum consultant to Kossak Oil and Gas L.P. Bob has worked in the industry for over 40 years after graduating from Monmouth College with his bachelors and masters from Kansas State University. His service to the profession began in New Orleans where he served as the editor of the *NOGS Log* and has continued at all levels of the profession. He has been a long-term member of the House of Delegates and also served on numerous support committees both regionally and nationally. He is a past chairman of the AAPG Foundation Associates and presently serves on the AAPG Foundation Corporation and on the audit committee of the Foundation.

PAUL BABCOCK

Paul Babcock joined NFR Energy LLC in 2008 as Vice President-Geosciences. Prior to his post with NFR, he has held other executive and senior technical positions with Peoples Energy Production LLC, Burlington Resources/Meridian Oil and Mobil Oil/Superior Oil. Babcock received his Bachelor of Science in Geology from the State University of New York and completed graduate Geoscience and Engineering courses at the University of Houston. He is a Texas Licensed Professional Geoscientist. Paul Babcock has been an AAPG member for over 30 years, a delegate in his 12th year and was a GCAGS-section representative to the Advisory Council for 2 years. He has also been active in SIPES and the HGS organizations.

KARA C. BENNETT

Kara C. Bennett has been an independent consulting geoscientist and prospect generator since 1994. Previously Kara worked at Gulf, Mobil, Amoco and more recently she was Chief Geoscientist at Rocksource Energy. She earned her B.S. in Geology from Florida Atlantic University and M.S. in Geology from the U. Florida in 1978. She has been very active in the HGS, as committee chair (ConEd), Editor, Vice President, President-elect and 2008-09 HGS President. She currently chairs the HGS Advisory and Nominations Committees. She also originated and maintained the online HGS Jobs Hotline for the first 4 years. A member of AAPG and SIPES, she has chaired Continuing Education for the AAPG 2006 Annual Convention and served one term as an HOD delegate.

S. KUMAR BHATTACHARJEE

S. Kumar Bhattacharjee, CPG, has 43 years in the E & P business involving 54 countries, with exposure in all major petroleum basins of the world. He has worked for super-independents, majors, small to mid-size independents, USAID & World Bank funded projects, USDOE, and large NOCs etc. He has degrees in geology, geophysics and training in management. Currently, he manages SITA OIL EXPL HOUSE, INC., a private E & P company in Houston, as President with domestic and foreign upstream assets. Kumar has been active in professional organizations for many years, including HGS (NAE & Intl Groups), GSH, AAPG (Alt. Delegate), and some foreign societies.

PAUL WILLIAM BRITT

Paul William Britt is an independent geologist, consutlant and President of Texplore since 1992. Paul has previously worked for Elf Aquitaine, Union Texas Petroleum, Michigan Wisconsin Pipline and Exlog. He graduated from Eastern Michigan University with a B.S. in Geology in 1978. He has served on the HGS Board as Vice President, *Bulletin* Editor, Director and Treasurer as well as having chaired several committees. He is currently President of the AAPG Division of Professional Affairs, and has been active in SIPES, having held several national and local positions. He has served as a Delegate in the House for five terms since 1992 and has chaired several HOD committees.

VALDIS BUDREVICS

Valdis Budrevics pursued a 36 year petroleum industry career global exploring for Amoco, Shell, Panther Bayou Energy and Peritus Associates. Valdis joined Amoco in 1974 as an exploration geologist in Canada and worked positions of increasing responsibility in Africa, China, Europe, GOM and the Middle East, rising to president and country manager of Amoco Latvia Petroleum Company. Since 1999, he has served as president of Peritus Associates and VP of Exploration for Panther Bayou Energy exploring the Gulf Coast. Valdis is a member of the AAPG and HGS. He holds a B.S. in geology from the University of Toronto, a M.S. in geology from the University of Manitoba.

MARTIN M. CASSIDY

Martin M. Cassidy with Harvard BA geology, and newly married, moved to Corpus Christi in 1955 to work with Standard of Texas. We liked Texas and petroleum geology. After military duty, a M.S. degree from the Univ. Okla., two years of Ph.D. study at Harvard (ABD), with 3 children, returned to Texas in 1962 joining Amoco. Martin retired in 1994, and then earned a Ph.D. at the U. of H. He joined AAPG in 1963 being active in membership, the publication pipeline committee, and as an AAPG delegate for the last six years. With both domestic and international experience Martin believes that he can well represent the Houston geoscience community.

CHUCK CAUGHEY

Chuck Caughey joined HGS in 1981. He has enjoyed finding and developing oil and gas fields in the US and abroad and now works the Middle East for ConocoPhillips in Houston. Chuck actively participates in HGS and AAPG programs, currently discussing geoscience careers with university students and school children in all grade levels. He also assists with HGS "Project Respect" and Guest Night, works with the AAPG Publications Pipeline collecting and sending geoscience publications to needy students abroad, and manages the 7 AAPG Outreach Committees. Chuck has convened professional conferences, led field trips, authored numerous geoscience papers, and edited technical books.

RICKY D. CHERRINGTON

Ricky D. Cherrington is a consulting geologist with 35 years of experience in exploration and development in the Gulf Coast area and Gulf of Mexico. He began his career with Cities Service Company in 1975 after receiving his B.S. degree from the University of Houston. He is currently consulting for Atinum E&P and has worked for small independents, Devon Energy, and most recently, INEXS. Mr. Cherrington has served as an alternate delegate and member of the Academic Liaison committee. He is a DPA Certified Petroleum Geologist # 3122, Texas Professional Geoscientist # 4314, and SIPES # 3191.

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MARILYN TAGGI CISAR

Marilyn Taggi Cisar has represented the Houston area as a member of the AAPG House of Delegates since 1992. She is a recipient of the AAPG House of Delegates Long Service Award. Marilyn has a B.S. in Earth and Planetary Science from MIT and a M.S. from Iowa State University. She has been a production geologist for Shell in Houston since 1978. She considers serving in the House of Delegates a small but important way to give back to the society that serves us.

GARY P. CITRON

Gary P. Citron after a twenty year career at Amoco joined Pete Rose's consulting firm in February 1999, which focuses on risk analysis. Gary became Pete's first Partner in Rose & Associates, LLP in 2001 and is now the Managing Partner. In 1999 he served in AAPG's Visiting Geologist Program. In 2001, he received the best paper award from the AAPG's DPA, and in 2007 he was honored for delivering a 'Top Ten Oral Presentation' at the AAPG Long Beach convention. Gary currently serves on the AAPG Education committee and as an Associate Editor for the SPE. He is a Texas State certified and licensed Geologist who has authored more than a dozen publications.

JERRY H. CLARK

Jerry H. Clark is currently a semi-retired exploration and production consultant focusing on the Texas and Louisiana Gulf Coast. Speciaties include seismic interpretation, present worth property evaluation and risk analysis. Formerly associated with Cenergy, Peltex, C & F Petroleum, Dorchester Exploration, Signal Oil & Gas and Chevron. HGS representative to the DPA, 1981-1983, CPG # 2286, member HGS since 1970, member AAPG since 1970. B.S. Geological engineering, 1954, U. of Kansas. M.S. Geology, 1960, U. of Colorado.

BEVERLY DEJARNETT

Beverly Dejarnett has specialized in applied clastic sedimentology and sequence stratigraphy for the past 24 years. In 1986 she joined Union Pacific Resources (now Anadarko) and worked in their Denver and Fort Worth offices. Beverly formed BBD Consulting in 1992, providing both regional and field-scale sedimentological analyses of clastic systems for clients throughout the U. S. In addition to consulting, DeJarnett now also works at The University of Texas BEG as a research geologist in their Houston Research Center (HRC). Beverly has a B.S. from the University of Wyoming, a M.S. from Penn State, and is working on her Ph.D. at the University of Alberta.

CHERYL DESFORGES

Cheryl Desforges has been privileged to have been allowed to practice geology in the petroleum industry since 1975. Her career path at various times has involved being an independent consultant, and working for a number of up-stream oil and technical service companies, including Atlantic-Richfield Company (ARCO), Sonat Exploration, Diamond Shamrock, J. M. Huber, Randall & Dewey, Ryder Scott, and Sabco Oil and Gas Corporation, my current position. Her career has offered her opportunities to develop skills in many facets of geologic evaluation spanning rank wildcat and regional trend exploration to field exploitation, as well as SEC reserve audit preparations, acquisition screening and divestment marketing. Her education includes a B.S. degree in Geology from Texas Christian University and a M.S. degree in Physical Science/Geology and a Master of Business Administration from the University of Houston. She is a licensed Professional Geoscientist in the State of Texas and an active member in a number of professional organizations, including AAPG, HGS, SEPM, GSA and SEG. She has held various volunteer and elected positions including HGS Treasurer-Elect/Treasurer 2005-2007; Committee Chairman: Finance 2004-2005; Continuing Education 2004-2005; Publication Sales 1985-1989; Conference Co-Chairman 2005 "Coastal Subsidence, Sea Level and the Future of the Gulf Coast"; Regional Science Fair Awards/Interns Selection Committee 2004-2009, GCAGS Houston 2008 Treasurer, AAPG HOD 2007-2010. She would be pleased if HGS elects me to another AAPG HOD term.

CRAIG DINGLER

Craig Dingler is a hydrogeologist for Clean Harbors Environmental Services, with previous experience in the petroleum industry and academia. He is a past-President of the HGS and also served as Treasurer, *Bulletin* Editor, and chairman of the environmental and engineering geologists group. In AAPG, he has served the DEG as VP and member of the advisory board. He was DEG technical chairman for the Houston 2006 AAPG convention, and is DEG vice chairman for the Houston 2011 meeting. He has B.S. and M.S. degrees in geology from SUNY-Oneonta and the Univ. of Idaho, respectively.

JOHN DOMBROWSKI

John Dombrowski is a petroleum geologist with over 30 year's experience. Domestic assignments with Texaco included exploration of onshore and offshore basins of the Pacific coast and Alaska as well as offshore Gulf of Mexico. As an international consultant he has been involved in projects in Africa and Central America. Currently, he is a partner in the Peace River Group generating exploration opportunities. He is an active member of several industry and professional organizations. While an HGS member he has been on the organizing committee for the semi-annual African Conference and served two terms in the House of Delegates.

STEVEN ANDREW EARLE

Steven Andrew Earle is currently a senior explorationist at Carrizo Oil & Gas. Steve previously worked at Amoco, ARCO, Vastar, BP and Sabco. He graduated from the University of Arizona with a B.S. in Geophysics in 1974. He is active in the HGS, having served several years as chairman for the North American Explorationists group and as Editor of the HGS *Bulletin*. A member of both SEG and AAPG, he is a member of the Geophysical Integration Committee for AAPG and has served as a Delegate in the House for six years.

BRUCE A. FALKENSTEIN

Bruce A. Falkenstein is currently consulting. Bruce was VP Exploration & Geology at Transmeridian Exploration for 10 years and worked 20 years for Amoco and BPAmoco. He graduated from the University of Calgary with a B.S. with Honors in chemical physics in 1980. He is active in the HGS, having served as chairman of the Membership and Advertising Committees, and is a HGS Presidents Award recipient. He is active in the AAPG, 17 years both as membership chairman for the Houston area and HOD delegate, and served on the TacOps III and Membership Enhancement Development Committees. He is Texas licensed in both geology and geophysics, a licensed physicist, and an AAPG certified geophysicist. He is Director on the board of University of Calgary's US charitable corporation and Trustee Associate of the AAPG Foundation.

CARL FIDUK

Carl Fiduk graduated with a B.S. (1979) and an M.S. (1982) in Geology, both from the University of Florida. He later received his M.B.A. (1985) degree from the University of Texas of the Permian Basin and his Ph.D. in Geology from the University of Texas in Austin (1994). He has worked for the USGS, Gulf Oil, Discovery Logging, the Texas Bureau of Economic Geology, British Petroleum, the University of Colorado, and as a private consultant. His research interests cover sedimentology, salt structural deformation and evolution, basin analysis, deep marine depositional processes, petroleum systems analysis, and the use of three-dimensional time and depth data in petroleum exploration. Carl is presently Chief Geologist for CGGVeritas in Houston.

STEVEN L. GETZ

Steven L. Getz obtained his B.S. degree in geology from the University of New Mexico in 1969 He then went on to work for Cities Service Oil Company for ten years as a staff and region geophysicist in their Permian Basin and international offices. Steve then spent twenty-six years doing prospect generation as a geological and geophysical consultant. Since 2003, he spent one year as a senior geophysical advisor for Santos USA and then worked five years as Chief Geologist of Allen Hoffman Exploration Company. Steve served one term as an AAPG Delegate and two subsequent terms as an alternate Delegate in

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the AAPG from 2002-2010. He has also served as HGS North American Group treasurer and chairman for the past five years, and he is currently a member of the AAPG, SEG, SIPES, AIPN, KGS, and SPE. Steve is registered as an AAPG Certified Geologist (DPA # 4747) and as a Texas Professional Geoscientist # 6848 (Geology).

TAREK Y. GHAZI

Tarek Y. Ghazi graduated from Stanford University with a B.S. and M.S. in geology, after which he enjoyed a long and diverse career with Conoco, including stints in uranium exploration and production, oil and gas exploration research and global new ventures in Casper, San Antonio, Ponca City, Dubai and Houston. Tarek left Conoco to join Landmark Graphics, after which he launched his own consultancy. Tarek is currently employed by Aramco Services Co. in Houston in their Upstream Research Group, and serves on the Houston Geological Society Board and as their website manager.

GRETCHEN GILLIS

Gretchen Gillis is the 2007-2010 Elected Editor of AAPG and member of several AAPG standing committees, and served as an HGS alternate delegate to the HOD in 2009. She earned a bachelor's degree in geology from Bryn Mawr College in Pennsylvania and a master's degree in geological sciences from The University of Texas at Austin. Gretchen worked as geologist for Maxus Exploration Company and Oryx Energy Company in Dallas, where she served as Secretary of the Dallas Geological Society, before joining Schlumberger in 1997, where she is now Editorial Advisor.

KAREN SULLIVAN GLASER

Karen Sullivan Glaser is currently principal geologist, Shale Gas Solutions at Schlumberger. Karen previously worked at Exxon Production Research and Amoco. Karen has a B.A. from Colgate University (1980), a M.S. from the University of Oklahoma (1983), and a Ph.D. from Rice University (1992), all in Geology. She is active in AAPG, currently serving as Committee Manager for the Sections and Geosciences committees. A member of HGS, SEG, and AAPG, she has been involved in a number of AAPG committees in the previous five years (Imperial Barrel Award, Technical Advisory, and Public Outreach.

GARY S. GRINSFELDER

Gary S. Grinsfelder is currently consulting for various companies. Mr. Grinsfelder was named TXCO's President in June 2008, responsible for land, exploration, legal and investor relations and corporate communications functions. Earlier, he was Vice President of Exploration following TXCO's acquisition of Output Exploration LLC in April 2007. He was Executive Vice President of Exploration and Business Development with Output. Mr. Grinsfelder was Vice President of Exploration for Triad Energy and before that worked as a geologist for Spartan Petroleum Corp. He began his oil and gas career with Union Oil Co. of California. He holds a bachelor's degree in geology from Southern Methodist University and conducted graduate-level studies at the University of Puerto Rico and the University of Houston.

STEPHEN HERMESTON

Stephen Hermeston has over 28 years of E&P experience in a broad range of technical, staff and management roles. He has led successful new ventures project teams responsible for international onshore and offshore discoveries leading to commercial operations and has experience in North and South America, Africa, Asia, Middle East, and the North Sea. He currently works for Remora International, a private equity company founded in 2007, which conducts exploration and productions operations in the Llanos Basin in Colombia. Prior to Remora he has worked for Tenneco, Conoco, Chieftain International, Kerr McGee, Repsol and Occidental Petroleum. He has been an alternate delegate for the last 7 years and holds a B.A. Geology degree from the University of South Florida.

PAUL HOFFMAN

Paul Hoffman received a Bachelor of Science degree with Special Honors in geological science from the University of Texas at Austin in 1975. He began his professional career with Cities Service, and joined the Gulf Coast Region of Ladd Petroleum in 1981, where worked throughout the 1980's, ultimately attaining the position of Vice President - Exploration & Production. In 1991, he established Gulf Coast Region office for Duncan Energy, where he was eventually appointed Executive Vice President and Chief Operating Officer of Duncan Oil. In 2003, he joined Cox & Perkins Exploration, becoming Chief Operating Officer, and in

2008, he accepted the position of President of the Allen-Hoffman Exploration Company in 2008, where he directs exploration activities in the Gulf Coast and beyond. He is a Certified Petroleum Geologist and a Licensed Professional Geologist in the State of Texas. He is currently serving his sixth term in the House of Delegates of the American Association of Petroleum Geologists (AAPG), where he was elected Foreman of the Houston delegation for 2005 – 2006. He served as Vice Chairman of the AAPG Prospect and Property Expo (APPEX) in 2001 and 2002, and as General Co-Chair of APPEX 2003. He is serving his fourth year on the AAPG Constitution and Bylaws Committee, which he chaired in 2007-2008. He has served on the Houston Geological Society Executive Board as Secretary (1989-90), as Director (1996-98), as Vice President (1999-2000), as President-Elect (2000-01), and as President (2001-02). He currently chairs the HGS Ballot Committee and serves on the Board of the Houston Geology Society Foundation.

WILLIAM (BILL) EDWARD HOTTMAN

William (Bill) Edward Hottman is currently Vice President of Business Development at Fugro Seismic Imaging. Bill previously worked at 4th Wave Imaging, Halliburton, and Shell. He graduated from the Cal State University at Fullerton with a B.A. in Earth Science in 1972. He received M.S. and Ph.D. degrees from TAMU in 1975 and 1978, respectively. He is a member of AAPG, HGS, SPE and SEG. He has been actively involved in the AAPG Student Chapters Committee for over 25 years.

WILLIAM F. HOWELL

William F. Howell is an explorer for Gulf of Mexico prospects for Paragon Petroleum Inc. Bill co-founded Basin Exploration Inc., and founded Roberts Oil and Gas and Paragon Petroleum. He was employed by Continental Oil Co. for fifteen years. He graduated from the University of Oklahoma with a B.S. in Geology in 1954. He joined the AAPG in 1961 and served on various committees for AAPG conventions and for the HGS. A member of both SEG and AAPG, he is a member of the Geophysical Integration Committee for AAPG. Mr. Howell has served as a delegate and vice chairman of the Houston House of Delegates.

JOHN E. JORDAN, JR.

John E. Jordan, Jr., has voted at almost every House of Delegates meeting since elected to the House 15 years ago and served as a past Foreman. His duties included vetting new AAPG members and certifying DPA applicants. His goal is to maintain and uphold the values of that attracted him to AAPG: ethical business practices and high professional standards. He have been an Active AAPG member since 1984 and a Certified DPA member. As an exploration geophysicist for nearly 30 years, he understands the issues of the working geoscientist and would be pleased to represent you in the Houston House of Delegates.

GEORGE DEVRIES KLEIN

George Devries Klein is a Houston-area-based geological consultant and president of SED-STRAT Geoscience Consultants, Inc, specializing in play concepts, sequence and seismic stratigraphy, clastic reservoirs and regional basin studies. He earned a M.A. from the University of Kansas and a Ph.D. from Yale, in geology. He is a member of AAPG (former foreman and head of Houston AAPG HOD), SIPES, SEPM, HGS, and GSA, and is also a Texas licensed geologist.

NINA C. LIAN

Nina C. Lian has been a geoscience consultant since 1997 and started Decipher Geoscience in 2001. She has consulted for a variety of companies: ExxonMobil, Pemex through the Scotia Group, Total, Burlington Resources, ConocoPhillips and most recently with Shell. Nina started in geoscience while working at USGS in Woods Hole, MA and then with the Woods Hole Oceanographic Institute. She graduated from Cornell University with a M.S. in Geology. Nina's career in the petroleum industry began with Exxon Production Research Co for 11 years and then with Exxon Exploration Co for 3 years before leaving Exxon to start consulting. Nina is a member of AAPG, SEG, GSH, HGS, and SIPES. She holds a Texas Professional Geologist license and is a Certified Petroleum Geophysicist through AAPG/DPA and a Certified Petroleum Geoscientist through SIPES.

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WALTER S. LIGHT, JR.

Walter S. Light, Jr., an independent geologist, works through his company, Thunder Exploration, Inc., pursuing both domestic and international projects. Employment History: JWR Exploration, Inc (1979 -1981), Sohio Petroleum (1977 - 1979). 1977 graduate, B.S. in Geology, University of Texas Austin. He has been a member of both the AAPG and the Houston Geological Society since 1977 and currently serves as one of the HGS Directors. He previously served as a contributing member of the HGS *Bulletin* Committee, and Co-Chairman of the Community Outreach Committee. Walter was seated as an Alternate Delegate during the 2009 AAPG Convention.

CLAUDIA LUDWIG

Claudia Ludwig earned her B.S. in Geology from Lamar University and M.S. in Geological Oceanography from Texas A&M University. She is a Licensed Professional Geologist in the State of Texas (P. G. # 1971). She has experience as an exploration geologist in industry and as an independent and has consulted in both industry and environmental geology. She is a member of AAPG, MTS, SME and HGS and has served as an officer or committee chairman for AAPG, MTS, and HGS. She is HGS's Senior Councilor to ECH in which she has served as President. She has served as President of Science and Engineering Fair of Houston and is serving on the Advisory Board for the Earth and Space Science Department at Lamar University. HGS has awarded her with the Gerald Cooley Award, Honorary Life Member, Distinguished Service Award, and President's Award, and has named one of HGS's Houston Museum of Natural Science Summer Internships for her.

JEFFREY W. LUND

Jeffrey W. Lund is a geologist with a B.S. in Geology, an M.S. in Geophysics and an M.B.A. He has worked his entire 30+ year career as a geologist, exploration manager or exploration VP for a wide range of companies. His major corporate positions were as Vice President of Worldwide Exploration for Kerr-McGee Oil and Gas and Ashland Exploration and as Regional Exploration Manager for Burlington Resources. He was explored and developed oil and gas in most US onshore basins, the Gulf of Mexico, the North Sea, China, West Africa and South America and has been deeply involved with strategic planning, decision processes and portfolio management. He has served an ex-patriot assignment in the United Kingdom. He is currently Executive Vice President of Corridor & Associates, a consultancy which identifies, evaluates and captures oil and gas investments for exclusive clients. Corridor invests alongside its clients. Jeff is a past President of the Houston Geological Society, past President of the Gulf Coast Section of AAPG (American Association of Petroleum Geologists) and was General Chair of the 2002 AAPG Annual Meeting. He is a board member of Society of Independent Professional Earth Scientists in Houston and a past board member of AAPG's Division of Professional Affairs. He is a Certified Petroleum Geologist and is a Licensed Professional Geoscientist in the State of Texas. He has received numerous awards and honors.

PATRICK JUSTIN MCCARTHY

Patrick Justin McCarthy is currently manager and petroleum geologist of Spero Oil and Gas, LLC. Patrick previously worked with Cavalla Energy Exploration and Texas Independent Exploration. He graduated from the University of Texas with a B.S. in Geology in 1986. He is a member of both HGS and AAPG.

EVELYN MEDVIN

Evelyn Medvin has over 29 years of experience as a geoscientist in the domestic and international oil and gas industry working for oil and service companies. She has been an AAPG member since the 1st student chapters and has worked on several convention committees and HGS committees. She currently serves on the AAPG Professional Women in Earth Sciences Committee and will co-chair the sponsorship committee for the 2011 convention hosted by HGS.

RON MEERS

Ron Meers states that the AAPG and HGS provide valuable contributions to our profession and serving as a delegate is a great way to give back to both organizations and help support the membership. I have enjoyed being an AAPG Delegate for the past 3 years and would like to continue my service with

the group. On the personal and professional side, I'm a native Texan (born in Pampa), a graduate of Texas Tech University (M.S. Geology) and currently a Section Leader working SE Asia exploration from Houston for BHP Billiton Petroleum, with this year marking my 25th anniversary with the company.

BONNIE MILNE-ANDREWS

Bonnie Milne-Andrews holds a Master of Science degree in Geology from the University of Iowa, is a Texas Certified Petroleum Geologist and has over 30 years of experience in exploration projects and international New Ventures. Bonnie has worked projects in N. America, Middle East, W. Africa, S. America, Russia, Kazakhstan, New Zealand and Australia. She is currently manager of Geoscience Consultancies and Integration and E&D lead for Swift Energy Company's South Texas Asset Development Team. Before joining Swift Energy in 2004, Bonnie held various positions including 21 years at Amoco and work with Schlumberger. Bonnie is a member of the Houston Geological Society, having served as Director in 2005-2007 and has served several times as a member of the Houston House of Delegates.

KENNETH W. MOHN

Kenneth W. Mohn is Exploration Vice President, Fugro Multi Client Services, Inc. Kenneth is currently developing new multi-client seismic surveys and interpretation projects in active exploration regions of the Americas. As an active member of the AAPG I am interested in serving on the House of Delegates as a voice for the Houston AAPG members. Kenneth has both an M.S. and B.S. degree in geology from Stephen F. Austin State University.

CLINT MOORE

Clint Moore has been an elected delegate since 1989, and written many bylaw amendments for the HOD, which have advanced fairness through reform of our governing documents during his tenure. He received the HOD's "Distinguished Member of the House" Award in 2001, and has served on the Constitution & Bylaws Committee many times (past Chairman), as well as on many other HOD committees. He is past Treasurer of AAPG (2004-06), past President of HGS (1994-95), and elected to the AAPG Advisory Council (1999-2002). He's been awarded four AAPG Certificates of Merit for his service on AAPG committees, the DPA Distinguished Service Award ('01) for his leadership as Governmental Affairs Committee Chairman ('95-'00), and will be awarded the AAPG Distinguished Service Award this April at the AAPG 2010 Convention. He would be honored to continue to serve his fellow members in this important role.

RICK NAGY

Rick Nagy is an exploration geologist currently employed by Devon Energy. He received a B.S. in Geology from San Diego State University and has 30 years of experience since starting his career with Phillips Petroleum in 1980. He has been a member of the Houston Geological Society since 1980 and an active AAPG member since 1978. He became a member of the Division of Professional Affairs in 1996 (Certified Petroleum Geologist #5364). He is a past Treasurer of HGS and is also currently a member of the DPA Council representing the Gulf Coast Section.

WM. DON NEVILLE

Wm. Don Neville is president and major shareholder in Ginger Oil Co (GOIL-Sweden) and is located in The Woodlands, TX. He has been a working geologist in the industry for 50 years. He holds an M.S. from the University of Wisconsin and initially worked for Chevron in Wyoming, Louisiana, and Indonesia. Mr. Neville and his company are currently developing and drilling prospects in Texas, Arkansas, and Louisiana.

CHARLES R. "CHUCK" NOLL JR.

Charles R. "Chuck" Noll Jr. is a native of Pittsburgh, Penn. Noll received a B.S. in geology from Dartmouth College and M.S. from the University of Oklahoma. He began his career in 1955 in Oklahoma City with Stanolind (Amoco) as senior staff geologist. In 1971, Noll was the division manager for Davis Oil Company office and Frio Exploration. He served as CEO of New Bremen Corp., Live Oak Reserves, Inc., and Copano Field Services. He served as president of the HGS in 1986-87 and was co-chairman of the 1991 GCAGS meeting. Joining AAPG in 1955, Noll has

AAPG House of Delegates Candidates *continued on pagee 72*

AAPG House of Delegates Candidates continued from page 71

been a member of the AAPG House of Delegates in 1973-75, 1981-84 and 1986 to present. He received both the AAPG Distinguished Service Award and Certificate of Merit in 1995. Noll has also served as DPA President in 1992-93.

DAVID PUSTKA

David Pustka is an oil and gas geologist, specializing in exploration and production activities in the Gulf of Mexico. After his graduation from The University of Texas at Austin with honors in 1976, David began successfully building independent petroleum companies, both public and private, through the drill bit. Throughout his career, David has served as an officer and director for several energy companies; including Walter Oil & Gas, British-Borneo Exploration, Basin Exploration, and Mariner Energy. Currently, David's consulting group provides exclusive prospect generation in the Gulf of Mexico for LLOG Exploration. David is a member of AAPG, HGS, IPAA, the Chancellor's Council of The University of Texas System, the Hill Society of the Jackson School of Geosciences at The University of Texas at Austin, the Asante Society of the Houston Zoo, and the President's Circle of the Houston Museum of Natural Science.

JAMES V. RICHARDS

James V. Richards is a consulting geologist for Pengo Petroleum, Weeks Exploration, and Genesis Petroleum. He has been a self-employed consulting geologist since 1971. Previously he was a staff geologist and manager for Coastal States, and an off-shore manager for King Resources. Jim has served on the HGS board and was a SIPES treasurer. He has also served as a delegate for the AAPG HOD.

W.C. RUSTY RIESE

W.C. Rusty Riese is a geoscience advisor with BP Alternative Energy and is based in its Houston office. He is widely experienced having worked in both minerals and petroleum as a geologist, geochemist, and manager during more than 39 years in industry. He recently stepped down as Chairman of the AAPG Committee on Resource Evaluations, is a current member of the House of Delegates and the Audit Committee, and will soon complete his term as AAPG's Sections Vice President. Rusty has more than thirty years of teaching experience including twenty five years at Rice University where he developed the curricula in petroleum geology and industry risk and economic evaluation. He is a fellow and member of several professional and scientific organizations. He earned his Ph.D. from the University of New Mexico, his M.S. in geology from the same university, and his B.S. in geology from the New Mexico Institute of Mining and Technology. He is a Certified Professional Geologist, Certified Petroleum Geologist, and is a Registered Geologist in the states of Texas and South Carolina.

PATRICIA SANTOGROSSI

Patricia Santogrossi has over 30 years in the oil business. She is a project manager with Statoil USA E & P working in the Gulf of Mexico on business development, corporate integration projects, and prospect maturation. Previously she worked with domestic and international Shell, Marathon, and Vastar Resources in research, exploration, leasehold and field appraisal. Patricia was chief geologist for Chroma Energy and for Knowledge Reservoir, a reservoir characterization and simulation firm specializing in deepwater project evaluations. Patricia was born, raised and educated in Illinois, receiving a B.S. and M.S. in Geology from the University of Illinois, Champaign-Urbana. She has been a member of SEPM for 35 years, of AAPG for over 25 years, and is currently a Trustee for GCSSEPM.

SHARIE SARTAIN

Sharie Sartain has 28 years of industry experience. She has been an AAPG Delegate to the House of Delegates since 1996, and served as the foreman for the Houston delegation during 2008-2009. In addition, she has served on the HGS Executive Board as a Director and as Secretary, and is currently the Membership Chair for HGS. She holds a B.S. and M.S. in Geology and was employed by Phillips Petroleum from 1981-2002. She has worked as a consultant for Knowledge Reservoir on domestic and international E&P projects since 2002. Sharie values the time she has spent volunteering for the HGS and AAPG, and appreciates the opportunity to continue this service through the House of Delegates.

MARTIN L. SHIELDS

Martin L. Shields is a Founder/Director of Branta LLC, and Associate of Fusion Petroleum Technologies with thirty years of professional experience in the upstream oil and gas industry. Assignments included fifteen years initially with Exxon Corporation followed by Santa Fe Energy Indonesia. Before co-founding Branta in 2005 he served as Vice President for Fusion Petroleum Technologies. He holds B.S. and M.S. degrees from Baylor University and completed his doctorate at the University of Wisconsin, Madison. He is an active member of the AAPG, SEG, SEPM, GSA, RMAG, GSH, and HGS, and a Licensed Geophysicist (#4424) in Texas.

CHARLES SIEBELS

Charles Siebels is a staff geologist at BHP Billiton in Houston, Texas. He is currently working regional studies in the Gulf of Mexico. Prior to joining BHPB in 2000, Chuck was with Amoco Production Company (1981-1999) in Houston and Union Carbide Corporation (1977-1979) in Casper, Wyoming working uranium exploration. He left Union Carbide to enroll at the University of Iowa, where he graduated with a M.Sc. in Geology. Chuck is a member of the Houston Geological Society and the AAPG, currently participating in the AAPG Publications Committee.

CARL STEFFENSEN

Carl Steffensen received a B.S. in geology from the Univ. Illinois and a M.S. in geology from Texas A&M. He has 28 years of experience in the industry, beginning in 1982 with ARCO; he joined Vastar Resources in 1994 and has been with BP America since 2000. The first 22 years of his career were focused on domestic exploration and production efforts in the Gulf of Mexico shelf and deepwater, onshore Gulf Coast, PreCambrian of the Midcontinent, and the southeastern US. He subsequently worked three years as a petroleum systems analyst in the deepwater Gulf of Mexico, and since 2004 has been focused on frontier exploration efforts in Latin America. A long-time volunteer in local and national societies, Carl is completing his first term in the House of Delegates, is an Associate Editor for the AAPG Bulletin and a member of the AAPG Distinguished Lecturer Committee, and also served as the HGS North American Exploration Committee chair (2000-2002).

CHARLES A. STERNBACH

Charles A. Sternbach is a Ph.D. geologist, former staff geologist at Shell, currently president Star Creek Energy Company, Inc. Member of AAPG for 30 years, chair or leadership role on 10 AAPG or HGS committees, past President and Honorary Member HGS. Charles' AAPG activities include current chair of AAPG 100th Anniversary Committee, served 2 terms HOD. General Chairman for 2006 Annual Convention, Houston, co-General Vice Chairman for 2002 Annual Convention, Houston. He is currently an officer candidate for AAPG VP Sections.

KENNETH E. WILLIAMS

Kenneth E. Williams joined the AAPG in the third quarter of the last century (1973), and last was an elected delegate to the Houston HOD in 2001-3. He has been an alternate for the 6 years since then. I have attended every AAPG convention during this time and have actually been a designated representative from the Houston delegation at most of the out-of-town HOD meetings where we've not sent a full delegation. I spent 28 years with Texaco at a number of locations around the US, and the last 8 years with Knowledge Systems and its successor by purchase, Halliburton. I have extensive experience in geopressure analysis, petroleum systems modeling, and frontier exploration (with successes in the GoM Shelf, Permian Basin, Bolivia and Venezuela). I have published 14 papers, have given 24 presentations, and have 2 US patents (and 1 pending).

YANQING YU

Yanqing Yu is currently a Sr. Exploration Geologist at Shell Exploration & Production Company (US). Yanqing previously worked at Shell China Exploration & Production Company and Bureau of Geophysical Prospecting of CNPC. He graduated from China University of Geosciences with a B.S. in geology in 1995 and a Ph.D. in cartography and geographic information engineering a decade later. Yanqing is currently affiliated with AAPG, HGS and SPE and have served SPE North China International Section during 2004~2005 as elected board member. ■

HGS Welcomes New Members

Effective February 2010

ACTIVE MEMBERS

Nicola Adams

David Ball

Debleena Banerji

Arthur Browning

Frank Buker

Tom Bulling

Paul Cunningham

Timothy Demko

Paula DeOliveira

Mirela Dumitrescu

Rose Feinstein

Jason Flaum

Jared Hamilton

Gerhard (Gary) Hill

Cody Holbrook

Stephanie Ingle

James Keay

Raja Khan

Bob Lyons

Kristine Maas

Steven Macallelo

Calum Macaulay

Joe Martin

Laura Mauro

Daniel Minisini

Lucio Munoz

Adrian Neal

Lauren Peschier

Falene Petrick

Bob Petty

Arcangelo Sena

Frank Sheppard

Mitchell Srack

Jeffrey Tannner

Steven Tennant

Iulia Tomescu

Matthew Ward

Shalina Warrior

Houston Welch

Michael Zebrowski

ASSOCIATE

Charles Hanslip

Mark Nardo

STUDENTS

Sumiyyah Ahmed

Joseph Sitch

Welcome New Members

Government Update

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

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

AGI Government Affairs Monthly Review (January 2010)

President's Nuclear Waste Task Force Announced

On January 29, 2010, the Department of Energy announced the 15-member blue ribbon commission that will provide advice and recommendations on nuclear storage, processing, and disposal. The commission will be led by Lee Hamilton, a former Member of Congress and chairman of the 9-11 Commission, and Brent Scowcroft, a former Air Force general and presidential advisor. Below is a list of the other members including one member of the geoscience community, Allison McFarlane.

- Mark Ayers, President, Building and Construction Trades Department, AFL-CIO
- Vicky Bailey, former Commissioner, Federal Energy Regulatory Commission; former IN PUC Commissioner; former Department of Energy Assistant Secretary for Policy and International Affairs
- Albert Carnesale, Chancellor Emeritus and Professor, UCLA
- Pete V. Domenici, Senior Fellow, Bipartisan Policy Center; former U.S. Senator (R-NM)
- Susan Eisenhower, President, Eisenhower Group
- Chuck Hagel, Former U.S. Senator (R-NE)
- Jonathan Lash, President, World Resources Institute
- Allison Macfarlane, Associate Professor of Environmental Science and Policy, George Mason University
- Dick Meserve, former Chairman, Nuclear Regulatory Commission
- Ernie Moniz, Professor of Physics and Cecil & Ida Green Distinguished Professor, Massachusetts Institute of Technology
- Per Peterson, Professor and Chair, Department of Nuclear Engineering, University of California – Berkeley
- John Rowe, Chairman and Chief Executive Officer, Exelon Corporation
- Phil Sharp, President, Resources for the Future

NEHRP Re-Authorization Update

The Energy and Mineral Resources Subcommittee of the House Natural Resources Committee held a hearing on the re-authorization of the National Earthquake Hazards Reduction Program (NEHRP). A focus of the hearing was the lower authorization levels recommended for the U.S. Geological Survey (USGS) in the Natural Hazards Risk Reduction Act of 2009 (H.R. 3820). Chairman Jim Costa (D-CA), Ranking Member Doug Lamborn (R-CO), Congressman Rush Holt (D-NJ) and Congresswoman Cynthia Lummis (R-WY) expressed support for the program and concern about the reduction in authorization levels. Two witnesses, David Applegate, Senior Advisor for Earthquakes and Geologic Hazards, USGS and Stuart Nishenko, Chair, Government Relations Committee, Seismological Society of America, presented testimony explaining the importance and value of NEHRP.

Letters of support from the American Geological Institute, the Seismological Society of America, the Association of Environmental and Engineering Geologists, the Association of American State Geologists, the Oregon State Geological Survey and others were acknowledged and included as part of the official record.

A complete hearing summary is available from AGI:
http://www.agiweb.org/gap/legis111/nathazard_hearings.html#jan20

The full text of H.R. 3820 is available from Thomas:
http://thomas.loc.gov/cgi-bin/bdquery/z?d111:h.r.03820:

Murkowski Formalizes Disapproval of EPA Ruling

On January 21, 2010 Senator Lisa Murkowski (R-AK) introduced a disapproval resolution to block the Environmental Protection Agency (EPA) from being able to regulate greenhouse gas (GHG) emissions. The EPA independently ruled last December that GHGs are a danger to human health and therefore EPA could regulate them under the Clean Air Act. Murkowski and many others feel the EPA is wrong in circumventing Congress to make this decision, and that the Clean Air Act is ill suited to properly handle a regulation of this kind. Murkowski hoped for a vote on her resolution in February, but a March vote is more likely given scheduling difficulties.

The resolution has 36 Republican co-sponsors and endorsement from 3 Democrats. An additional two Democrats—Senators Byron Dorgan (ND) and Jim Webb (VA)—and two Republicans—Maine Senators Olympia Snowe and Susan Collins—are considering co-sponsorship.

Once a disapproval resolution is placed on the Senate calendar, it is then subject to expedited consideration on the Senate floor, and not subject to filibuster. It only takes 51 votes to pass a

Government Update *continued on page 76*

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disapproval resolution as opposed to the 60 needed in Murkowski's original plan of introducing an amendment.

Read the full press release from Murkowski here: http://energy.senate.gov/public/index.cfm?FuseAction=PressReleases.Detail&PressRelease_id=1aae649c-1682-4aab-b5fc-9421f8a7c625&Month=1&Year=2010

CIA Will Share Satellite Data With Select Scientists

An old environmental surveillance program has been reopened for the benefit of science. The Measurements of Earth Data for Environmental Analysis (Medea) program at the Central Intelligence Agency (CIA) has been reopened after unexpectedly being shut down by President George W. Bush in 2001 after nine years of operation. Medea gives 60 of the nation's top scientists access to classified reconnaissance satellite data and other spy sensors. The scientists, mainly from academia with a few representatives from industry and federal agencies, conduct scientific research under the guidance of the National Academy of Sciences.

CIA Director Leon Paneta strongly supports the program, believing the national security implications of desertification, sea level rise, and population shifts justify this collaboration. However the program has come under scrutiny in Congress, particularly by Senator John Barrasso (R-WY) who thinks the CIA should spend more time fighting terrorists, "not spying on sea lions."

The Medea program has little to no impact on regular intelligence gathering and is more or less free. What it does is release information already collected or utilizes already deployed sensors to gather environmental data while passing over wilderness areas. The images that have been declassified are released at a lower resolution to mask the true abilities of CIA satellites. So far the data scientists have received has allowed them to analyze Arctic sea ice to help with summer melt records. In addition to sea ice data, scientists hope to gather information on clouds, glaciers, deserts, and tropical forests.

Chu Defends IPCC Findings And Blue Ribbon Task Force

At a Senate Energy and Natural Resources Committee hearing on the research and development priorities to meet the challenges associated with climate change, Energy Secretary Steven Chu defended the U.N. Intergovernmental Panel on Climate Change (IPCC). In response to accusations of fraud and unreliability of climate change evidence brought about by the "Climategate" emails that erupted last year after a U.K. Climatic Research Center was hacked into, Chu indicated that the Department of Energy (DOE) would continue to rely on IPCC findings.

The hearing also focused on nuclear energy development at DOE. Republican senators expressed impatience with Chu's focus on "exotic technologies" instead of spending money on proven technologies like nuclear. In particular, senators questioned why Chu was taking so much time to appoint people to his blue-ribbon commission tasked with tackling the nuclear waste issue. Chu assured the committee that he was working hard on the commission and that the Obama Administration was dedicated to expanding nuclear energy. Within a week of the hearing, Chu announced the task force members (see above).

Interior Launches Oil and Gas Leasing Sales Reforms

The Bureau of Land Management (BLM) announced reforms to oil and gas leasing sales on public lands. Key changes include interdisciplinary reviews that consider site-specific concerns, greater public involvement in the Master Leasing and Development plans, and that BLM will take a lead role in determining areas where leasing can occur.

The full press release is available from DOI: http://www.doi.gov/news/doinews/BLM_energy_reform.cfm

Geologists In Africa as Part of AAAS On-Call Scientists

Geologists have volunteered to investigate possible human rights abuses in Africa through the AAAS "On-Call" Scientists initiative. Since its launch in October 2008, "On-call" Scientists has been pairing up scientists and engineers interested in volunteering their skills with human rights organizations in need of their scientific expertise. The initiative has 350 scientists and engineers enrolled to offer their services on a pro bono basis.

Kathleen Nicoll, a professor of geology and geography at the University of Utah, has been working with Global Rights group from Washington, DC to document how oil extraction in the Congo has decreased access to food and water. Nicoll's research shows that villagers now have to travel over one kilometer to reach a water source, many of which are polluted, due to oil extraction nearby.

Mark Logsdon, a geologist at Geochimica Inc. in California, is also working for Global Rights. He will be lending his expertise to observe a gold mining project in Guinea once it is safe to travel to the country. Logsdon will be looking at the management of the cyanide used to extract gold from low-grade ore. The Global Rights group lauded the help from scientists, explaining that industry experts are in a position to conduct tests, to ask pointed questions, to review scientific data and to help the human rights groups assess situations that require scientific or technical knowledge that human rights defenders often do not have.

AAAS encourages scientists and engineers from all disciplines to consider volunteering. They want a diverse group to enroll to meet the wide variety of possible scientific applications to human rights, including helping organizations integrate the scientific method into their data-collection and analysis to strengthen their results.

Learn more about the On-Call Scientists initiative from AAAS: http://oncallscientists.aaas.org/default.aspx

IPCC Regrets Himalayan Glacier Error

The Intergovernmental Panel on Climate Change (IPCC) released a statement (PDF copy) expressing their regret for an error in their Fourth Assessment released in 2007. The report erroneously stated that the Himalayan glaciers were likely to melt by 2035. The IPCC chairs and co-chairs regret the misrepresentation and explained that the conclusion was based on "poorly substantiated estimates of rate of recession and date for the disappearance of Himalayan glaciers. In drafting the paragraph in question, the clear and well-established standards of evidence, required by the IPCC procedures, were not applied properly." However, the IPCC maintains that the overall conclusion that glaciers will melt at an accelerating rate through the 21st century, reducing seasonal freshwater availability from glacial melt, is still valid and substantiated by robust science.

The press release from IPCC is available as a PDF: http://www.ipcc.ch/pdf/presentations/himalaya-statement-20january2010.pdf
The Fourth Assessment is available from the IPCC: http://www.ipcc.ch/publications_and_data/publications_and_data_reports.htm

Key Reports And Publications

Defending Planet Earth: Near-Earth Object Surveys and Hazard Mitigation Strategies: Final Report
http://www.nap.edu/catalog.php?record_id=12842
Prepublication released January 26, 2010. In 2005, Congress called for NASA to detect 90 percent of Near Earth Objects (NEOs) greater than 140 meters in diameter by 2020. This report says this needs to broaden to 30 to 50 meter NEOs. The book explores four main types of mitigation including civil defense, "slow push" or "pull" methods, kinetic impactors and nuclear explosions. It also asserts that effective response requires international cooperation. ■

June 2010 Grand Canyon Geology Field Trip

Experience the majestic beauty of the Grand Canyon as we raft the mighty Colorado River and examine some of the finest classical geology exposures in the world. Reservations are now being taken for the 2010 Grand Canyon Geology Field Trip through the HGS website. Trip runs June 13-21, beginning and ending in Las Vegas, with eight nights on the river. Cost is $3000 and reservations are due by May 15. Please contact Steve Earle at 713-328-1069 with any questions, or email him at steve.hgseditor@gmail.com

Countdown to AAPG

The technical program committee, along with representatives of the EMD, SEPM, DEG, and DPA, has developed eleven themes for the 2011 AAPG Annual Convention. These themes listed below are the foundation for the organization of 42+ sessions that will comprise hundreds of oral talks and posters.

- Molecules to Marketplace: The Business of Energy
- Global Deepwater: Giant Leaps in E&P
- Worldwide E&P: Opportunities in the New Decade
- Challenged Resource Frontiers
- Mudstones: Unlocking the Promise
- Siliciclastics: Advancing Research to Resource
- Insight into Carbonates and Evaporites
- Breakthroughs: Tectonics, Salt, and Basin Analysis
- Integrating New Technology, Geophysics and Subsurface Data
- Energy and Environmental Horizons: Creating Growth
- The Next Geo-Generation: Who, What and Where

The hard work of the many volunteers involved in the development of the themes is most appreciated!

News from the Texas Board of Professional Geoscientists

Charles Knobloch

There have been a number of happenings worthy of mention concerning the Texas Board of Professional Geoscientists. I would like to introduce you to my personal comments on some of these happenings.

Advisory Opinion availability. Effective September 1st, 2009 you may now request Advisory Opinions from the Board. To do this go to: http://www.tbpg.state.tx.us/Advisory-Opinions.html

Texas Register. There have been a number of matters that have been recently issued for public comment. Such notices are posted in the *Texas Register* and the general public is given typically thirty days to submit comments. The last set of notices was posted on December 25th. Because the comment period is relatively short it is worthwhile to act quickly if you learn about any notice of interest. You may find these postings at http://www.sos.state.tx.us/texreg/sos/index.html.

Board meetings and agendas are also publically posted. Some organizations such as HGS have discussed sending newsletter messages to their members of newly posted notices. I'm also happy to send notices to anyone interested; just send me your email information and I'll subscribe you to any notices sent from my office.

Geoscientist-in-Training. One of the notices is a proposed new rule to allow for Geoscientist-in-Training (GIT) certification. It appears that this proposal will be discussed by the Board for adoption at its next meeting, which is contemplated to occur in late March.

Oil & Gas Workgroup. In November 2009, an Oil & Gas Workgroup was formed to listen to issues from representatives of the oil and gas community. The purpose is to provide a forum for open discussion and interaction among leading oil and gas representatives in the profession. Already some very interesting topics have been raised. One is the issue of license reciprocity with other states. Another is a request is to allow licensees to post professional information along with their registration listing on the Board website. The requestor proposed that such postings could include information on the subject matter expertise and/or geographic expertise they wish to claim. Several other matters and goals for the workgroup are currently underway; please contact me for further details regarding the workgroup mission.

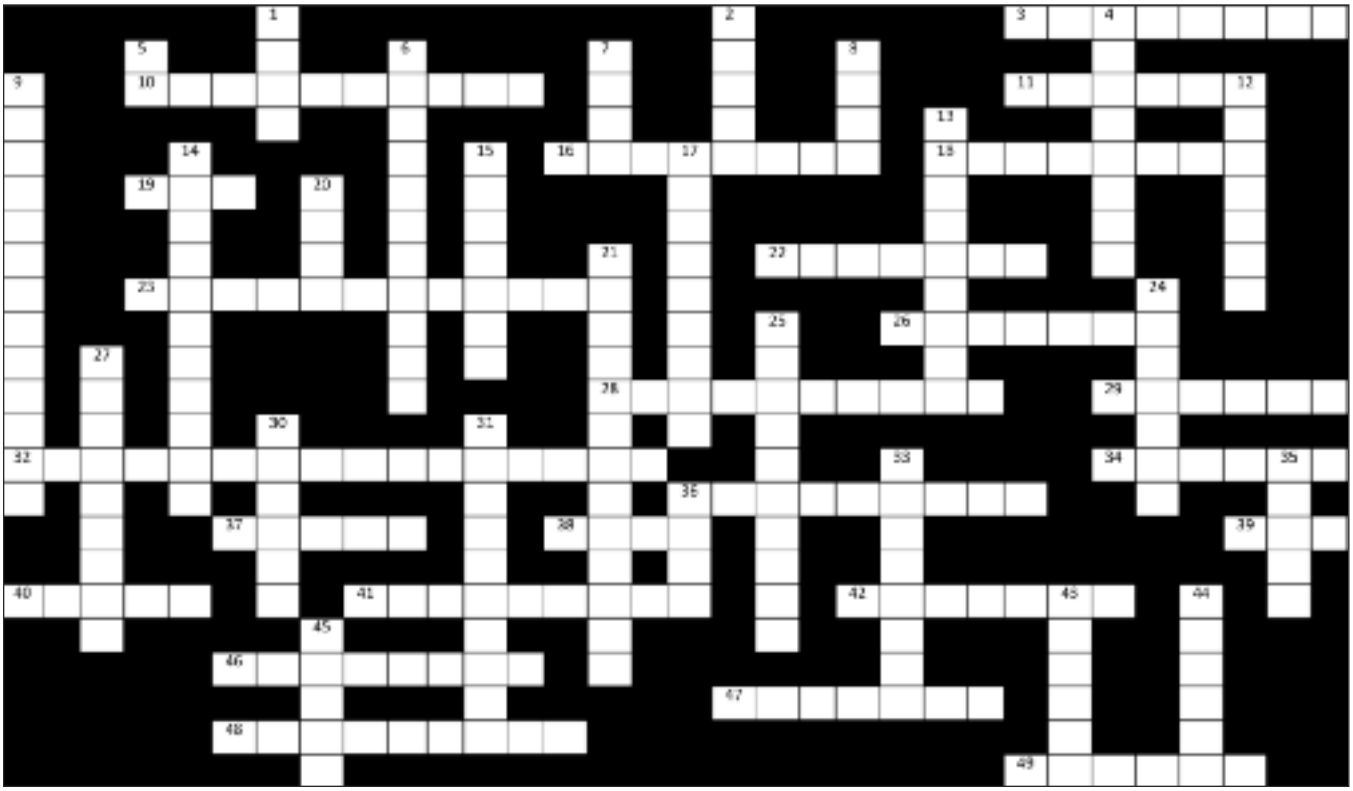
2010 OTC-SEG "Creating Value Through Geoscience". On a personal note, I will be co-chairing the "Creating Value Through Geoscience" session at the 2010 OTC. We have a great line-up of speakers for this session, looking at the big picture of putting geosciences in commercial and economic development perspective. Contact me if you want to be put on a reminder list so I can send you an email or postcard about the session as the date for the OTC approaches.

These are just a few of the recent developments of interest. To access the minutes of the Board and/or Board Committees, go to http://www.tbpg.state.tx.us/meetings.html.

Also, feel free to contact me with your question or comment. Any formal questions or comments regarding the Board should be directed to the Board at (512) 936-4400. ■

Mr. Knobloch is a geophysicist and attorney, with nearly thirty years experience in the oil industry. He is partner at the technology development law firm of Arnold & Knobloch, LLP. He currently sits on the Texas Board of Professional Geoscientists and is the Chair of the Oil & Gas Workgroup.
CKnobloch@arnold-iplaw.com

April Crossword of Geologic Terms



ACROSS

3 Downcutting of a stream as a result of rejuvenation

10 Commonest mineral of amphibole group

11 Native salt

16 A fold in which the core contains younger rock

18 Carbonate mineral

19 Smallest lithostratigraphic unit

22 Pertaining to water depths greater than 500 fathoms

23 Polished and striated surface resulting from slippage

26 Larger than a cobble

28 Entirely enclosed by land

29 Strongly foliated crystalline rock

32 Organism that obtains nourishment through inorganic chemical reactions

34 Remote from reference point

36 Stony meteorite

37 Lithostratigraphic unit above formation

38 Small secluded wooded valley

39 Unit of acceleration

40 Synonym for chert

41 Study of inland waters

42 Below Norian

46 Deposited by stream or running water

47 Simplest aromatic hydrocarbon

48 Isolated residual knob or hill

49 Mineral material precipitated in pore spaces

DOWN

1 Mound or ridge of wind-blown material

2 Coral reef with roughly circular plan view

4 Calcareous duricrust

5 Hydrogen-ion activity

6 Pertaining to or containing iron

7 A variety of corundum

8 Central zone of Earth's interior

9 Ability to change color in reflected polarized light

12 Green form of beryl

13 Carbonate rock whose granular material is self supported

14 Between epilimnion and hypolimnion

15 Mass flow dominated by fine-grained earth material

17 Boundary between land and water

20 Sloping margin of a stream

21 Metal-bearing

24 Clastic rock composed of angular rock fragments

25 Study of pollen and spores

27 Volume of rock that contains a hydrocarbon accumulation

30 Mineral with hardness of 7 on Mohs scale

31 High API gravity liquid

33 Nearly vertical fissure or crack

35 Cryptocrystalline form of quartz

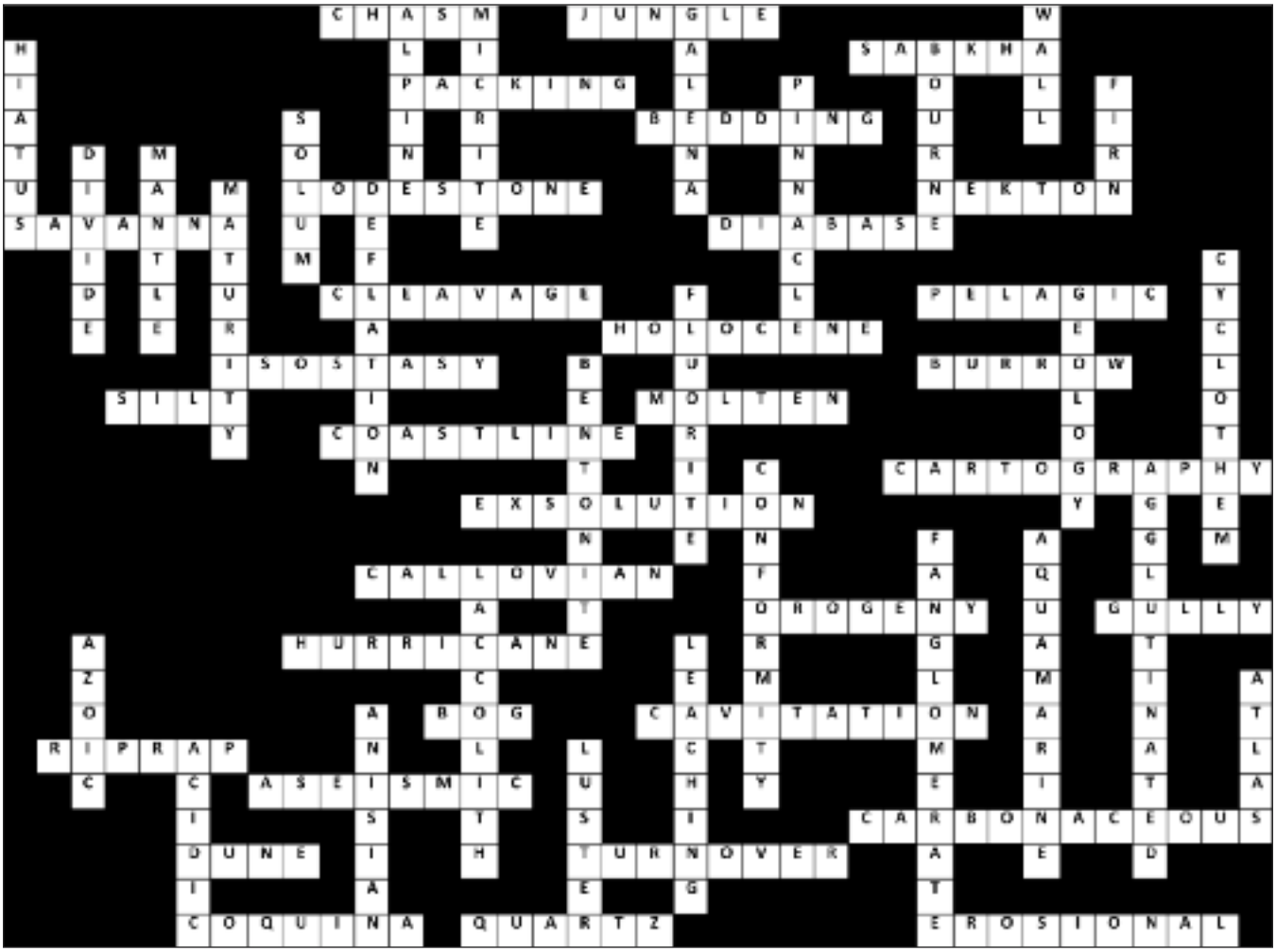
36 Plastic material with grain size less than 0.074mm

43 Feldspar mineral

44 Above Maestrichtian

45 Amorphous product of rapid cooling

March Crossword Puzzle Answers



Full Color Ads Now Available!

HGS *Bulletin* Instructions to Authors

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

Text should be submitted by email as an attached text or Word file or on a clearly labeled diskette 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 .eps (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.

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

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rev.08/11/2008

Houston Petroleum Auxiliary Council News

Winona LaBrant Smith, HGS Liaison

Exciting times lie ahead for Houston area geologists and spouses with the upcoming HGS Shrimp Peel on May 15th and HPAC'S final event of the year at the Courtyard at St. James on Thursday, May 20, 2010.

HPAC will complete an incredible calendar of events with a Luncheon/ Style Show by Coldwater Creek at the Courtyard of St. James, 1885 Saint James Place, on May 20th from 10:30 a.m. to 1:30 p.m. Our new officers for 2010-2011 will be installed at this meeting. Hostesses are Mickey Murrell and Wanda Shaw with Margery Ambrose, Phyllis Carter, Emilie Fulton, Shirley Gordon, Sara Nan Grubb, Katherine McKinney, Sheri McQuinn, Barbara Peck, Vicki Pickering, Nan Pye, and Beverly Smolenski assisting. Please mark your calendars you don't want to miss this exciting function.

Remember that HPAC has several interest groups: Bridge (contacts: Audrey Thompkins, 713-686-0005 or Daisy Wood, 713-977-7319) and/or Book Club (contacts: Martha Lou Broussard, 713-665-4428 or Phyllis Carter, 281-397-9888), where you can get involved with other members of like interests and have an opportunity to become acquainted with many members of HPAC.

HPAC is continuing to introduce you to our virtual garden of exciting ladies who are involved in every aspect of our society, making HPAC a stimulating and diversified organization. Our featured member this month is Jean Carey Richardson. She was born in Cisco, Texas, and graduated from The University of Texas, Austin. While in college she met and married Frank M. Richardson, both a geologist and geophysicist. Jean gave up teaching full time to stay at home with their three children.

She found an outlet for her creativity by writing children's books. She has won many writing awards and has seven children's books currently in publication. All of her books are used in schools and are part of the Accelerated Reading Program for Public Schools out of Chicago.

One of her books, *The Courage Seed*, was used by Harcourt Brace with their 4th grade social studies textbook. Before Frank's death, Jean was speaking at about 100 schools a year with frequent appearances on radio and TV, as well as teaching beginning teachers at four Texas Universities. After his death, she decided to move to Alaska to help her elderly mother, Mary Carey, who had homesteaded and started a lodge in what is now Denali State Park. The story of Mary's struggle to homestead a hundred miles from the nearest road and open up the wilderness is told in her 17 books, the most famous of which is, *Alaska, Not for a Woman*, which has been sold for a movie, the PBS and History Channel special, *The Building of Alaska*.

Over the years Jean held many offices in both the Houston Geological Auxiliary and the Geophysical Auxiliary of Houston, including President of the GAH. She is still writing books and writes for newspapers in Alaska. Jean spends her summers managing Mary's McKinley View Lodge in Alaska and her winters in Texas visiting with family and friends. She feels she has the best of both worlds. What a contribution she has made to HPAC.

Geologists, please encourage your spouses to join HPAC, where they will have the opportunity to meet other wives whose husbands are geologists, geophysicists, engineers, and landmen. They will participate in stimulating programs, delicious lunches, and friendly fellowship.

For your convenience, an HPAC membership form is included below. If you have any questions, please contact Winona LaBrant Smith at 713-952-2007.

News from Geo-Wives

By Lois Matuszak, Geo-Wives President

The last meeting of the year will take place Wednesday, April 14th at Vargo's at 11:30 a.m. The address is 2401 Fondren Road in Houston. This is our annual business meeting and installation of officers. As our officers have not been chosen and elected as of the writing of this article, they will be announced in the May Bulletin. The cost is $20.00 for soup or salad and entree. Wine and dessert are extra. Your may pay for them there.

Send your reservation check for $20.00 to Ruth Harrison, 338 Vanderpool, Houston, Texas 77024.

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HPAC

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