The Bulletin
Houston Geological Society

Volume 46, Number 10 June 2004

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about the cover: *Photos submitted by Linda Sternbach*

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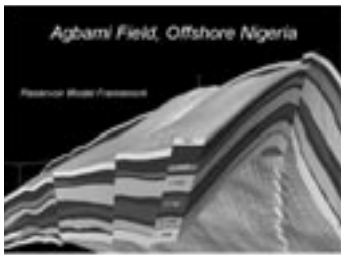

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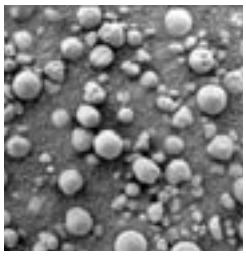

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President's Letter

by Craig M. Dingler

2003, 2004, Wish There Was More!

I was talking to former HGS President Mac McKinney about a year ago, and he said that he really enjoyed being president of the HGS, and that they had to drag him out of office kicking and screaming (figuratively, of course!). I remember laughing because the job seemed so daunting, but now I have to say that I know exactly how he felt. This has been a lot of fun, and I cannot believe that my year is up already!

In this, our 80th year of being, I can say the Houston Geological Society is strong and successful. This is as it has been for years. We have focused this year on public outreach and professional growth, and met those goals I set at the beginning of the year. The successful tone was set last summer with Technofest, the joint HGS/PESGB Africa symposium, and a growing APPEX. The fall saw successful outreach projects with Earth Science Week, the Conference for the Advancement of Science Teaching (CAST), construction of an educational panel display for petroleum and exploration, and support of the student sessions at the GCAGS annual convention. The very successful second dry hole symposium, "Disappointing Seismic Anomalies," is a model for other societies and, perhaps, national conventions. Add to that 8 general dinner and luncheon meetings, 10 international explorationists dinner meetings, 7 North American explorationists dinner meetings, 5 environmental & engineering geologists dinner meetings, and 5 meetings for the new NorthSiders group, and you have a very busy year, indeed. This month we still have Guest Night at the Houston Museum of Natural Science. And, of course, a discussion of the year's highlights would not be complete without recognizing the new and improved Web pages and the tremendous amount of work Bill Osten, Dave Crane, and the rest of the Web committee have done and continue to do!

The leadership of the HGS has the primary duty of facilitating the work done by the committees and the incredible group of volunteers that give so much to the Society, the profession, and the community.

Perhaps my biggest surprise as president is that the leadership of the organization has the primary duty of facilitating the work done by the committees and the incredible group of volunteers that give so much to the Society, the profession and the community. The HGS is driven from the bottom up, and very little comes from the top down. It seems to work damn well that way!

I have to say that I was blessed with an excellent Executive Board this year. Kevin McVey quickly and enthusiastically adjusted to his role as Secretary and has been a steadying influence at board meetings. Directors Mike Barnes and Janet Coombs are full of energy and enthusiasm, and like human tornadoes, they get everyone caught up in their ideas and activities. Treasurer Parrish Erwin has successfully met innumerable challenges with budgeting, finance and investing, and with new credit-card payments. Paul Babcock lined up an excellent schedule of geology talks for the general dinner and luncheon meetings. Treasurer-elect Chuck Sharpe was always there to take your money at the check-in table. Diane Yeager has continued the trend of producing a better *Bulletin* year after year, a truly amazing feat for a voluntary editorial staff. Art Berman has been perhaps the most involved Editor-elect we have ever had, and I can only eagerly anticipate receiving my *Bulletin* in September. He is going to do a fantastic job. Director Andrea Reynolds brings youthful zeal to her role, but also an unusually deep level of thoughtfulness and intelligence. Director Marsha Bourque inspires us to strive to do our best, and she brings a sense of stylishness and sophistication to all her endeavors.

Starting July 1, the HGS will be in the capable hands of Steve Levine, as he becomes our 80th president (If you're doing the math, our first president, John Suman, served two terms). Steve's calm, cool, collected and contemplative demeanor will keep him in good stead with you as a busy year unfolds. Steve will be joined by new members of the Executive Board: David G. Rensink, President-elect;

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Kara Bennett, Vice-president; Victor A. Schmidt, Secretary; Ken Nemeth, Treasurer-elect; Jim Granath, Editor-elect; and Directors William R. Dupré and Elizabeth A. Fisher. (A special thanks for reporting the election results as quickly as possible to the members who served on the ballot committee again this year: Bill Kimmey, Mike Brennan, Dean Grafton, Chuck Andrews, Matt Daura and Don Scherer, chairman.)

I would also like to thank the hundreds of members who have helped me through the years and made working for the HGS a pleasant, deeply rewarding experience. Thanks, also, to the many others who have spoken to me at meetings, e-mailed, called and faxed ideas, questions and concerns on the governance of your Society. Your attention and input is appreciated. I hope that I have fully addressed your points and that the HGS runs a little bit smoother or has changed in the minor ways needed to keep up with the times.

As you can see from the HGS awardees listed in this month's *Bulletin*, past presidents do not just disappear after their term. I won't either! Look for me heading up the nominations committee next year (you might be getting a call!) and staying active "behind the scenes" after that. Farewell, until we meet again! ■

Editor's Letter

by Diane Yeager,
editor@hgs.org

Engage Yourself in the *Bulletin*

I have truly enjoyed my tenure as editor of the *Bulletin*. I have had the opportunity to work with many fantastic people in our Society and I encourage everyone to engage themselves in the *Bulletin*. The *Bulletin* has taken many turns over the past few years—notably last year under Steve Levine's editorship we had the addition of the "People Profile." This is a fantastic column that helps the Society get to know some pretty amazing people. This year we added "Webnotes" and "Members on the Move," both of which are maintained by Art Berman who is next year's editor. We also had some "Roadside Geology" added to the *Bulletin* and we continue to encourage the membership to submit photographs of geologic features to the editor to publish. The "Roadside Geology" in the May *Bulletin* was taken with a camera phone and e-mailed, demonstrating that getting your photographs to the *Bulletin* can be relatively simple. So stay engaged and be a part of your *Bulletin*.

It is exciting to see our membership engaged in the *Bulletin*. I have received a few letters and comments, most of which were published. In this issue we have two letters to the editor for which we created a page specifically for letters to the editor. A letter from Robert Bertagne (page 11) supports the position of Jeff Lund's commentary in last month's *Bulletin*. Robert sent to the HGS office a copy of the commentary and circled the box asking that members start a forum on the HGS Website. With this said, the Website has metamorphosed into a great tool for the Society, and Dave Crane has worked countless hours to get it into shape. We now have the technology to interface the *Bulletin* with the Website and are reaching out to more members. Formulating discussions on-line for some of the more controversial issues expressed in the *Bulletin* is a great way for members to interact and share opinions.

Robert sent to the HGS office a copy of the commentary and circled the box asking that members start a forum on the HGS Website. With this said, the Website has metamorphosed into a great tool for the Society, and Dave Crane has worked countless hours to get it into shape. We now have the technology to interface the Bulletin *with the Website and are reaching out to more members.*

Some of the more rewarding aspects of being the *Bulletin* editor were obtaining the articles and pictures from CAST and the Science Fair. Bill Nye the Science Guy at the Houston Museum of Natural Science was a wonderful treat and Janet Combes and Inda Immaga provided the *Bulletin* a great write up, one part of which came from a 12-year-old girl. This young lady was presented with a copy of the *Bulletin* for her birthday and she was ecstatic. What a spectacular accomplishment for her and I was proud that the HGS *Bulletin* was a part of this.

The 2003–2004 *Bulletin* covers have been supported by members responding to the call for photographic art in the 3rd Annual Photographic Art Contest. Four members submitted and each of the four was featured on a cover. If future editors call for a photographic art contest, do not hesitate to submit your graphic art or photograph. The winner, presented in April, obtained his photograph in New Mexico using a disposable camera!

George Chandlee has submitted several book reviews for the *Bulletin*. It was George who came forward and volunteered to submit the reviews for publication. What a great idea and what an even greater contribution to the Society to share his book reviews. The moral of the story here is to not be reluctant to submit a request to your editor. The book reviews were excellent, and Art is hoping that George continues to submit his reviews. If you have something you would like to see published and you would like to lead the effort, don't be shy—write the editor and discuss your idea.

Thanks to everyone for making my tenure as editor rewarding and fun. Make sure you keep sending your letters, ideas and articles to the editor. **A very special *thank you* to Elsa Kapatan-White for dedicaton to the *Bulletin*.**

Letters to the Editor

Thank You for the HGS Outstanding Student Award

As one of this year's recipients of the HGS Outstanding Student Award, I would like to take this opportunity to thank you and let you know how much awards such as these mean to the students that receive them. I have been fortunate during my seven years of graduate study to have received more than my share of recognition and have known many other students who have earned similar honors. I have realized from these experiences that the awarding peoples and organizations don't always see the great effect that their generous contributions have on students. Those of you who have pursued graduate degrees know how lonely many research environments can become and how valuable a little recognition can be to a student. I have personally known several struggling students who after receiving an unexpected award or honor were inspired to overcome their obstacles and continue along their path in the pursuit of science. Each time that I have personally received an award, I have found renewed energy for my studies. After receiving your award last night, I feel energized once again. Thank you for your valuable and significant contribution to the next generation of earth scientists and thank you for your generous award.

Kevin Davis
Rice University

Response to the May Commentary

Rusk, Bertagne & Assoicates and Marex, Inc. were co-exhibitors at the recent London APPEX. We talked with the AAPG organizers who explained to us, in great detail, their 2 year effort at getting the meeting together and at getting a cost-effective opportunity for everybody, including for "little guys like us." The meeting was focused on areas of interest to us and, as a result, we made numerous contacts for our sales as well as firming up deals for Marex.

We also made valuable contacts with other exhibitors for some of our ongoing projects which would not have materialized as rapidly if we had gone through regular business channels.

Although we have the highest of respect for NAPE (that we visit regulary), we could not have obtained the kind of exposure and results that we had in London. So we strongly agree with Jeff's remarks and approach, and wholeheartedly give our support and thanks to APPEX.

Robert Bertagne

Have some information related to this topic you would like to share? Have a different point of view? Why not start a Forum Topic on the HGS Website? Go to http://www.hgs.org and follow the links!

Thursday, June 17, 2004

Petroleum Club • 800 Bell (downtown)
Social 11:30 a.m., Lunch 11:30 a.m.

Cost: $30 Pre-registered (see deadline below) members, affiliate, and guests; $33 Non-members and walk-ups.

Make your reservations by telephone, fax, or e-mail to
Mrs. B. K. Starbuck-Buongiorno
Telephone: (713)651-1639, Fax: (713)951-9659, e-mail: bkspee@aol.com

SIPES
Luncheon Meeting

by ***Ronald L. Moore***
Ronald L. Moore, P.C.

Where's the P in LLC?

Many forms of business entity have been developed by the Texas legislature and other state legislatures: corporations (C Corporations and S Corporations), limited liability companies, limited partnerships and limited liability partnerships.

Why is That?

To protect the owners from various forms of liability.

What does the following disclaimer in the 1982 Operating Agreement mean:
"The liability of the parties shall be several, not joint or collective. Each party shall be responsible only for its obligations, and shall be liable only for its proportionate share of the costs of developing and operating the Contract Area. Accordingly, the liens granted among the parties in Article VII.B. are given to secure only the debts of each severally. It is not the intention of the parties to create, nor shall this agreement be construed as creating, a mining or other partnership or association, or to render the parties liable as partners."

Even Chapter 56 of the Texas Property Code, the oil and gas lien act which protects vendors in oil and gas operations lets you off the hook if you are a non-operating working interest owner fully paid up on your joint interest billings.

Even Chapter 56 of the Texas Property Code, the oil and gas lien act which protects vendors in oil and gas operations lets you off the hook if you are a non-operating working interest owner fully paid up on your joint interest billings. Even if you owe on your joint interest billing's, the only risk is a lien against your interest, not personal liability.

But What If You Are a Partner?

The default form of business for two or more persons (including business entities) in Texas is *general partnership*.

Section 2.02(a) of the Texas Revised Partnership Act provides:
"[A]n association of two or more persons to carry on a business for profit as owners creates a partnership, whether the persons intend to create a partnership and whether the association is called a "partnership," "joint venture," or other name"; unless (i) it is an entity validly created under state law, or (ii) for some reason, such as minority or insanity, the persons do not have the capacity to form the partnership.

In Section 2.03, one of the Factors Indicating Creation of a Partnership is:
"(2) expression of an intent to be partners in the business"

What are the implications of general partnership?

1. Partners are liable jointly and severally for all debts and obligations of the partnership. 6132b-3.04
2. The partnership (and, therefore, the other partners) can be liable for the wrongful acts of a partner. 6132b-3.03
3. Each partner is the agent of the partnership for the purpose of the partnership, and unless the other person knows of the lack of capacity, can bind the partnership and partners to agreements with, and obligations to, the other person. 6132b-3.02
4. A partner may be able to dispose of partnership assets without the consent or knowledge of the other partners. 6132b-3.02

It is true that "a representation or other conduct indicating that a person is a partner with another person, if that is not the case, does not of itself create a partnership." Art 6132b-3.06 However, do you really want to have to prove in a lawsuit that there is no partnership? When things start to go sideways, aggrieved parties look for defendants. You don't have to lose the lawsuit to be a big loser in the fight.

SIPES
One Day Seminar
New Reserves from Mature Trends in the Onshore Gulf Coast
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Examples of fairly common situations:

- There is a blowout, fatal accident on the rig, environmental contamination or other calamity.
- The operator does not pay the vendors.
- One of the participants unwisely overstates what he transfers to a purchaser of his interest.
- One of the other participants declares bankruptcy after a series of business reverses.

Everyone is mad and the aggrieved parties are looking wildly for ways to be made whole. You and your

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fellow working interest owners keep calling each other "Partners." You spent a lot of money setting up your LLC, but just like the term "Partner." Were you lying when you talked about "Partners" and called your et al's "Partners" and introduced them as such? If you look like a duck, walk like a duck, and quack like a duck, the jury may very well decide you are a duck. Referring to et al's as "Partners," and not clearly and consistently and publicly maintaining your status as anything other than a partner, allows a Plaintiff to claim you are a partner, with the resultant:

- Joint liability for the full amount of debts and obligations of the "partnership."
- Able to be bound by the agreement of another "partner" to any obligation, even without notice.

Loose Lips Sink Ships.

There is no P (for Partnership) in LLC, or Inc. Limited partners and partners in registered limited liability partnerships do not have to worry about this problem, but many of you may not belong to those protected groups. ■

Bibliographical Sketch

Ronald L. Moore is President of Ronald L. Moore, P.C., a professional corporation.

Legal: Admitted to bar: State Bar of Texas in 1974; Louisiana State Bar in 1976; also admitted to practice before U. S. District Court for the Southern District of Texas, and the U. S. District Court for the Western District of Louisiana. Board Certified in Oil, Gas and Mineral Law by the Texas Board of Legal Specialization (among first group of attorneys so certified in 1986). Education: National Merit Scholar at The University of Texas, BA with Honors (1971), JD (1974). Organizations: State Bar of Texas, Louisiana State Bar, Houston Bar Association, Oil, Gas & Mineral Law Section of the Houston Bar Association (Chair for 1999-2000, various other offices 1994-1999 and 2000-2001), HAPL, PLANO. Personal: Born Houston, Texas, October 29, 1946; married to Kathleen C. Moore. Practice: Oil and gas law since 1974: review and preparation of documents for exploration and production of oil and gas prospects, and for purchase and sale of oil and gas properties; examination of title and preparation of title opinions; representation of parties in business disputes; frequent lecturer to industry audiences on oil and gas law and practicalities for the small operator, investor, and consultant.

Monday, June 21, 2004

Westchase Hilton • 9999 Westheimer
Social 5:30 p.m., Dinner 6:30 p.m.

Cost: $25 Preregistered members; $30 Nonmembers & Walk-ups

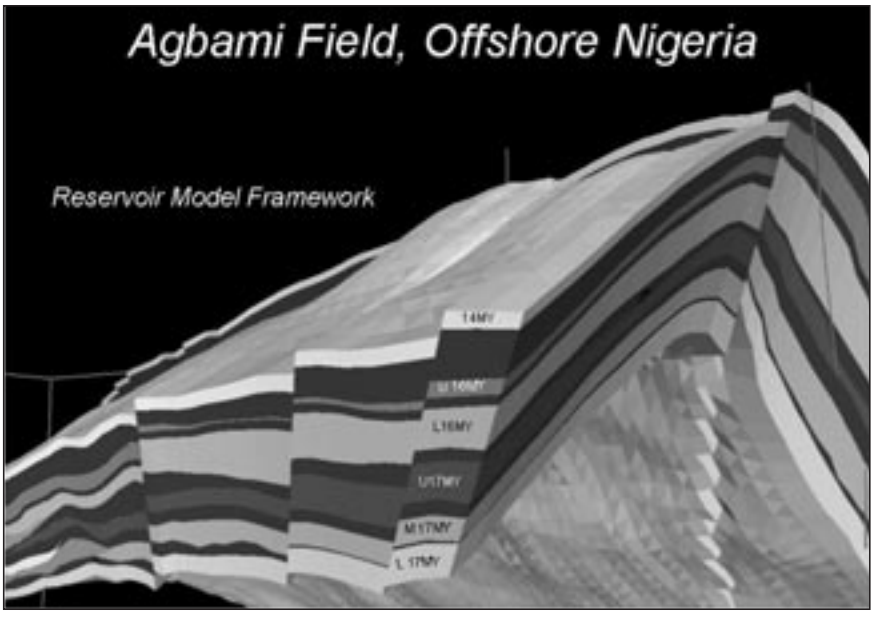
Make your reservations now on-line through the HGS website at www.hgs.org, or by calling 713-463-9476, or by e-mail to Joan@hgs.org (include your name, e-mail address, meeting you are attending, phone number and membership ID#).

International Explorationists Dinner Meeting

by ***David Grimes*** *(speaker),*
Elliott Ginger, *and* ***John Spokes***
ChevronTexaco Overseas Petroleum

Agbami Field, Nigeria—Addressing Challenges and Uncertainty

Agbami Field was discovered in late 1998, approximately 105 km offshore Nigeria in the Gulf of Guinea. The field is located in Blocks OPL216 and 217 in approximately 1500 meters of water. The structure is a northwest to southeast trending detachment fold anticline covering an area of 180 km2 at spill point. The discovery well, the Agbami No. 1, was drilled by Star Deep, a wholly owned subsidiary of Texaco, Inc. acting as technical advisor to FAMFA, an indigenous Nigerian oil company. Star Deep brought Petrobras in as a partner and followed the discovery with three appraisal wells and one sidetrack in Block OPL216, plus Statoil drilled the Ekoli 1 well into the same structure in adjacent Block OPL217. In late 2003 and early 2004, drilling resumed with ChevronTexaco, also through Star Deep, adding the first 2 wells from the development plan. After a short drilling pause to acquire seismic data, these wells will be followed by further development drilling later in 2004. All wells to date have penetrated oil bearing sands. The field is a world class development opportunity with significant resources.



The pay intervals at Agbami field consist of two principal zones. The primary reservoirs are in the 17 million year old (MY) sands and contain about 80% of the reserves. These objectives include slope channel, slope fan, and basin floor fan facies that offer both stacked and isolated reservoir objectives. Secondary reservoirs are present in the 13MY/14MY/16MY sands. These shallower productive zones are comprised of channel and levee-overbank facies.

Seismic Data Issues

The seismic reflections from the shallower, secondary reservoirs occur above the water bottom multiple and are of relatively good quality. Amplitude extractions of both near and far angle data match predicted AVA models. We can interpret stratigraphic and fluid changes from the seismic data at this level.

However, the seismic data from the deeper, main pay intervals in the 17MY interval suffer from several data limitations. Principal among these is significant multiple energy contamination. Multiple generating surfaces exist not only at the water bottom, but also at other shallow horizons below mudline. The energy from these multiples occurs at the same time as the main pay interval primary reflections over much of the field, seriously degrading the data, especially in the pre-stack domain. Earlier processing of the data during the exploration and appraisal phases of the field, while attenuating the multiples, did not adequately resolve the problem. Consequently, extracted amplitudes from the 3D seismic data did not follow expected Class II AVA behavior. Recent reprocessing efforts by ChevronTexaco using a Gaussian beam

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method for attenuation of the multiples have given encouraging results that should allow better characterization of the reservoirs from seismic in future reservoir models.

Additionally, wavelet estimations from the seismic data indicate that the frequency content is relatively low, limiting the ability of the seismic to resolve pay sands. Multi-sand intervals tend to image as low frequency, high amplitude far-angle reflectors with typically two or three sands imaged by one peak-trough-peak seismic event.The minimum sand thickness detectable at the main pay intervals in these data is about 30 meters.

Also, reflectors from the inboard limb of the fold at the northwest end of the structure have diminished stacked amplitude responses and in general, the inboard limb is less well imaged than the outboard limb. Shallow toe thrusts north of the field appear to be masking far offset traces that would normally contribute to the expected high amplitude far angle reflections of oil-bearing sands. To record higher angle traces in this area, and hence better map the sand distribution, we are proposing to re-acquire data parallel to this thrust front.

Reservoir Modeling

With the limited frequency content of the seismic data, stratigraphic information from seismic was restricted to the identification of thick, sandstone-prone fairways that were mapped throughout the field area as architectural elements in the reservoir model. Tying to the low frequency inversion data placed the seismic tops and bases of these architectural elements in the shales above and below the corresponding sandstone unit in the well logs. This architectural element interpretation forms the basis for well-to-well correlation, field volumetrics and reservoir modeling.

A *channelized sheet* system was selected as the most likely depositional model for the 17MY reservoir based on the available seismic and well data. To fully capture the potential range of depositional systems and associated in-place volumes and connectivities caused by variable net-to-gross and reservoir architecture, four end-member models were also created: *isolated channel, isolated sheet, amalgamated channel* and *amalgamated sheet.*

The resulting earth models (three hundred in all) were statically and dynamically ranked using streamline flow simulation to select low-, mid-, and high-case earth models for use within Experimental Design (ED) to supply probabilistic production forecasts. In addition to a range of earth models, a range of other geologic and petrophysical parameters were supplied for use in ED, including permeability, permeability contrast, number of faults and fault seal/transmissibility.

The limited number of wells and low resolution seismic data result in considerable uncertainty with respect to many elements of the geological model. To fully understand the range and impact of these uncertainties, probabilistic volumetric analyses were completed using Crystal Ball. The P_5-P_{50}-P_{95} in-place probabilistic volumes were used as a benchmark to verify that the range of in-place hydrocarbons in the earth models was reasonable.

This workflow provided a methodology for testing the Agbami field development plan against a wide range of key uncertainties. Key challenges faced by the project team included:

- Building a robust range of earth models with low resolution seismic and limited well data.
- Finding suitable geologic analogs, including data on input parameters such as object geometries.
- Gaining consensus and buy-in with respect to input parameters and methodologies from a large subsurface team, peers and partners.
- Building the framework, both structurally (i.e., properly modeling a thrust fault in close proximity to the wells) and stratigraphically (i.e., architectural elements that laterally pinch-out).
- Model resolution (vertical and aerial) vs. model size.

Simulation and Results

Field data, laboratory data and analog data were incorporated into a range of reservoir simulation models. The field data included appraisal well logs, cores, 3D seismic, fluid samples, pressure data and drill stem tests.

Experimental Design was used throughout the evaluation to obtain the maximum information with the minimum computational effort. The results from this process facilitated the identification of the key uncertainties and provided direct input into economic models for decision analysis. During each phase of the process key parameters of uncertainty were identified and ranked in terms of project impact. Field development options were evaluated in distinct phases over the full range of uncertainty.

In Phase Two of the evaluation, the pressure maintenance schemes were selected. Crestal gas re-injection with peripheral water injection was chosen for the 17MY reservoir. Crestal gas re-injection only was selected for the 14MY and 16MY reservoirs. These approaches to pressure maintenance deliver an effective full-life gas disposition strategy for the Agbami Field. The facility capacity requirements were also selected during this phase.

In Phase 3 of the evaluation the well count parameter was investigated and the optimum number of 38 wells was selected. Production profiles were generated and presented in terms of P_{10}, P_{50}, and P_{90}. ■ **International Explorationists** continued on page 23

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Biographical Sketches

David Grimes began his career with Texaco in Houston in 1978 and joined ChevronTexaco in 2001 through its merger with Chevron. He is currently assigned as a geophysicist on the Agbami Development Subsurface Team, a part of ChevronTexaco Overseas Petroleum Company's Nigeria/Mid-Africa Strategic Business Unit. In addition to this current development assignment, he has worked international exploration projects in Nigeria and Angola and domestic exploration projects in the Rocky Mountains and West Texas. He began his career in seismic data processing and analysis and worked on projects from around the world. He served on Texaco's Exploration Risk Committee in the year prior to the merger with Chevron. David has a BS degree in mathematics and physics from Stephen F. Austin State University and is currently a member of the SEG. His e-mail is grimesdl@chevrontexaco.com.

Elliott Ginger has worked for ChevronTexaco (via Getty Oil Company and Texaco) since 1981. He is currently the Reservoir Characterization Team Leader for the Agbami Development Subsurface Team. Previous assignments have included 16 years as a reservoir geologist at Getty and Texaco's Exploration and Production Research Center working on reservoir characterization/earth modeling projects on fields in the Middle East, Australia, Guatemala, China, Gulf of Mexico, Alaska, California, West Texas, New Mexico and Alabama. He also spent 1.5 years in Perth, Australia, as a secondee on behalf of Texaco to West Australia Petroleum Pty. Ltd. as a member of the Drilled Resources Team for the Greater Gorgon gas fields, Northwest Shelf, Australia. Elliott has a BS degree in geology from Ohio University and is a member of AAPG.

John Spokes began his career with Texaco in New Orleans in 1981 and joined ChevronTexaco in 2001 through the merger with Chevron. He is currently the Reservoir Engineering Team Leader for the Agbami Development Subsurface Team, a part of ChevronTexaco's Overseas Petroleum Company's Nigeria/Mid-Africa Strategic Business Unit. Previous experience includes 13 years as a reservoir engineer on asset teams working on offshore shelf projects in the Gulf of Mexico. He has worked exclusively on deepwater project teams since 1994. His primary expertise is in the area of reservoir simulation studies in support of appraisal and sanction decisions for major deepwater projects, including Petronius. John has a MS degree in petroleum engineering from Louisiana State University and is a Registered PE in the State of Louisiana. He is also a member of SPE.

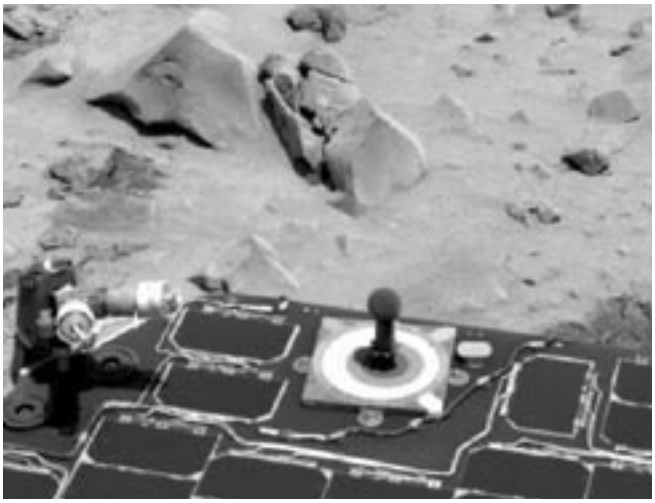
GUEST NIGHT 2004: MISSION RESULTS FROM THE SPIRIT AND OPPORTUNITY MARS ROVERS, FEATURING DR. GORDON MCKAY, NASA JOHNSON SPACE CENTER

*by **Linda Sternbach,** HGS Guest Night chairman*

This year's HGS Guest Night, Saturday June 19, will be located at the Houston Museum of Natural Science, starting at 6:30 pm and continuing until 10 pm. Dr. Gordon McKay of NASA will give a talk entitled "Results from Spirit and Opportunity: Twin Rover Geologists on Mars" in the IMAX theater at about 8 pm. The night's activities will include a buffet dinner catered by Goode Company Barbeque, a real Mars meteorite on display, a free planetarium show and group access to the HMNS science exhibits. Sign up on the HGS Website using a credit card or use the full-page ad in this issue to send a check to the HGS office by June 11. The event can only hold 400 people due to seating in the IMAX theater.

NASA has had incredible success since January 2004 with landing and maneuvering the two Mars rovers Spirit and Opportunity over vastly different areas of Mars. The NASA Johnson Space Center, ARES program (Astromaterial Research and Exploration Science- web page: http://ares.jsc.nasa.gov) is actively involved in analyzing the photos and readings from the Mars missions. Dr. Gordon McKay is manager of the Astromaterials Research Office, part of the Space and Life Sciences Directorate at the Johnson Space Center, Houston. McKay received BA and MA degrees from Rice University. His office involves a group of 14 PhD geologists, physicists and chemists. Their primary job is to improve our understanding of the origin, history and current state of our solar system through study of materials from space.

Opportunity Rover in Meridani Planum: Wide field shot of the El Capitan outcrop in Bonneville crater

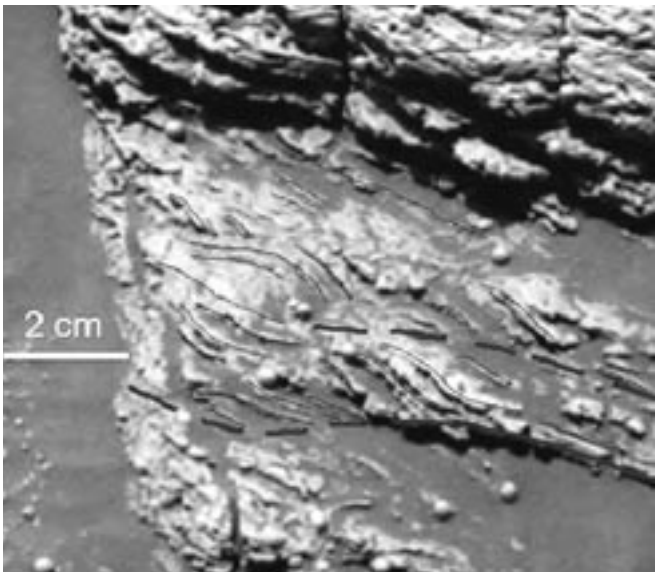


Spirit Rover in Gusev Crater: Part of the rover is visible with the stick-like "gnomon" which is used as Martian sundial, and to calibrate color in photos.

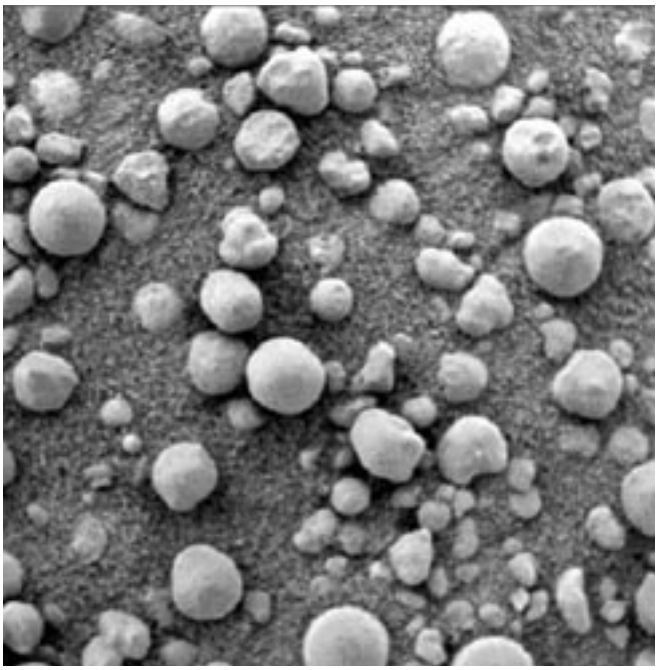
Two members of McKay's staff, Doug Ming and Dick Morris, have been onsite in California since January, at the Jet Propulsion Laboratory (JPL), making sense of the data from the rovers. They are on a team of about 30 scientists who evaluate and interpret data coming back from the rovers. Dick Morris is also the Payload Downlink lead for the Moessbauer and Pancam instruments. He is responsible for validating science data returned from the rovers and for initial science product generation and preliminary interpretation for the science team. Ming has served throughout the mission as the lead for either the Geochemistry and Mineralogy or the Soil and Rock Physical Properties Science Team Groups. He is responsible for defining the science that will be conducted during the sol (Martian day) for these science disciplines and then translating these science goals into specific observations and activities that the rovers will be commanded to perform. Dr. McKay will be presenting results from his team's work on the Mars Rover missions. **Guest Night 2004** *continued on page 27*

Guest Night 2004 continued from page 25

HGS members will also want to attend Guest Night on June 19 for the "opportunity" to take a look at a Martian rock sample collected by NASA scientists, not on Mars, but from a meteor impact in Antarctica. A large sample of a Mars meteorite is going to be transported from NASA facilities in Johnson Space Center to the Houston Museum of Natural Science. The Mars meteorite exhibit will be narrated by Dr. Carlton (Carl) Allen, Astromaterials Curator for the NASA Johnson Space Center. HGS visitors will be able ask questions to a knowledgeable expert. His Johnson Space Center group is responsible for the curation and distribution of NASA's extraterrestrial samples including the Apollo Moon rocks, Antarctic meteorites and cosmic dust. During the next decade NASA will attempt to return samples of rock and soil from Mars. The JSC Astromaterials Acquisition and Curation Team is actively participating in these missions and has built an Advanced Curation Laboratory in which to design and test equipment and procedures to handle these new samples returned from space.



Opportunity Rover in Meridani Planum: Crossbedding in the ancient Martian rocks—does it indicate flowing water?



Close up rock view of round mineral formations thought to be concretions formed in wet Martian sediments.

WHY MARS EXPLORATION IS EXCITING TO EARTH GEOLOGISTS

Here are some reasons why earth geoscientists will want to sign up for Guest Night and experience the Mars-themed events on Saturday June 19, at the Houston Museum of Natural Science.

1. Appreciating the Mars Rover Technical Achievement

The petroleum industry does some amazing feats including drilling and developing deepwater reservoirs around the world, but, by any comparison, the NASA Mars mission is impressive. The scientists guided a launch payload into deep space to hit a target within miles of prediction, and then remotely unpacked two rovers, instructing them via radio to leave their landing sites and roll across the alien landscape performing scientific readings. Most impressive is that, while they practiced the mission on Earth in simulation, the Mars mission was successful because of the Mars scientists' ability to predict the landing site conditions of Mars based on recent space photographs. In this way, the Mars rover missions are like some of the most audacious, but successful, wildcat wells drilled by geoscientists in the frontier areas of the world.

2. Seeing Landscapes No One Has Ever Seen Before

When the Mars rovers landed, millions of people, including a large portion of the geoscience community, bonded via the internet and TV media with the Mars scientists who saw the photos of the rover sites on Mars for the first time on January 3 and January 20, 2004. Their astonishment and early speculation at the Mars landscape was shared by thousands of earth scientists. There was a time in January, when the Mars data was so new, that everybody could be an expert on what it meant, based on what they know about Earth geology. One of the advantages of the long time intervals between space missions to the moon (the last sample was collected 30 years ago in 1972) and to Mars (the last landing was in 1997) is that there was plenty of time to come up with explanations that seem to fit all the facts. New data from the rovers is arriving, and every piece of scientific data leads to questions that will take years to explain. From this January forward, every old textbook that mentions conditions and minerals on Mars is now obsolete.

Guest Night 2004 continued on page 29

Guest Night 2004 continued from page 27

3. The Mars Landscapes Look Familiar

One of the main reasons earth scientists are excited about continuing research on Mars, is that the landscapes look very much like those on Earth. Photos from the first lander (Spirit) at Gusev crater showed a landscape full of sharp rocks on a flat plain. Many people remarked on the similarity of the Martian landscape to the deserts of Texas, New Mexico and Arizona. The rock outcrop Opportunity Rover photographed in the Martian Bonneville crater looks similar to the formations of the Texas Guadalupe Mountains. Discovery of familiar features in Martian rocks, like cross-bedding and mineral concretions, makes the planet Mars seem like a close kin to Earth.

Spirit Rover in Gusev Crater, a landscape of weathered rocks and sand dune formations.

4. Investigating Desolate Places and the Harsh Martian Environment

Geologists are intrigued by landscapes that are extremely desolate; landscapes where the physical processes could kill every living thing. The adventure of survival is certainly stirred by the prospect of sending humans to Mars, where the air is a deadly combination of gases and the surface temperature is extremely cold.

5. Kinship of Space Scientists and Earth Geologists

The reason we relate to geologists working on space projects is that, as scientists, we went to school together. When NASA and their academic affiliate geologists trained for the Mars rover mission, they took field trips to the Texas/New Mexico border to see the Guadalupe mountains, just like thousands of petroleum geologists have done to better understand subsurface earth geology. Mars rock features on the 2004 rover missions (particularly at the Opportunity landing site) have been named after the well known West Texas field trip localities El Capitan and Brushy Canyon.

Conclusion:

Guest Night will be fantastic this year! The program on the Mars rovers and Mars geology will be a memorable event and a chance to learn about new geological discoveries on the Red Planet. Don't forget to sign up on the HGS Website (credit card) or mail in the signup sheet with a check to the HGS office by June 11. If you have questions, please contact Guest Night chairman Linda Sternbach at sternbk@pdq.net. ■

Artist's rendering of future human sample collection on Mars from the NASA website http://www.nasa.gov

2003–2004 Houston Geological Society Awards

2003–2004 Gerald A. Cooley Award

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

Gerald A. Cooley Award

Jeffery W. Lund

Several years ago the Houston Geological Society created an award in honor of Gerald A. Cooley, a man who dedicated many years of his life serving the needs of the HGS. This award is the highest honor the Society bestows upon a member, and represents outstanding service to the Society, above and beyond normal voluntary performance. It is not given generously or often.

This year a dear friend of mine has been chosen to be the recipient of this award and I couldn't agree more! I cannot think of a person who more embodies the spirit of Jerry Cooley, or is more dedicated and deserving, than Jeffrey W. Lund.

Jeff Lund became a member of the Houston Geological Society in 1972, 32 years ago. Since then his involvement in the HGS, Gulf Coast Association of Geological Societies (GCAGS) and American Association of Petroleum Geologists (AAPG) has been extraordinary and voluminous. He served the Houston Geological Society as an Executive Committeeman from 1992 to 1994, as Vice-President and Technical Program Chair in 1994–95, as President-Elect in 1996–97 and President in 1997–98. He has been there when the HGS celebrated 75 years as a Society, helped hire a new office manager, and moved the office to new space. Jeff has been honored with an HGS Speakers Award (1979), as well as the HGS Distinguished Service Award (1998–99) and Honorary Life Membership (2002) and he still continues to serve the HGS, both directly and indirectly, as Chairman of the Ad-hoc Global Climate Change Committee (HGS) and as a representative for Houston on the AAPG Advisory Council.

Jeff's voluntary service to his profession goes well beyond the Houston Geological Society. He won the "Best Speakers Award" for a co-authored paper at the 1978 GCAGS convention. He served as President of the GCAGS in 1999–2000, during which the HGS was host society to one of the most successful conventions the GCAGS has ever had. It was also the year the GCAGS celebrated its 50th Anniversary! And what an anniversary celebration it was!

AAPG has also been the beneficiary of Jeff's talents and enthusiasm. Starting with many terms as a delegate to the House of Delegates in 1988, Jeff was elected Foreman of the Houston delegation in 1992–93. Since then he was appointed General Chairman of the 2002 AAPG Convention in Houston. This convention had the highest attendance of an AAPG convention since 1981, and has been considered one of the most profitable conventions for the AAPG (and HGS!). Jeff continues working for the AAPG as Chairman of the Advisory Committee of APPEX, Houston representative on the Advisory Council, and Chairman of the Committee on Conventions. These are only a few of the high-profile positions of voluntary work for AAPG; there are many "behind-the-scenes" working positions in which Jeff is actively involved!

Jeff is truly a "multi-tasking" wizard. I personally don't see how he could accomplish all of these tasks while juggling a very successful career and family life!

Jeff began his life-long career as a professional geologist after graduating from Case Western **Jeffery Lund** *continued on page 56*

2003–2004 Honorary Life Membership

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

Honorary Life Membership Award

Richard "Dick" Bishop

Richard S. Bishop continues to serve the HGS as a committee officer, adding to his extraordinary list of HGS volunteer duties over a span of 28 years. His commitment to the geological sciences extends to the national level, where he has engaged in numerous key positions, including AAPG president during 1998–1999. The Houston Geological Society is proud to bestow the Honorary Life Membership award to Dr. Bishop for his outstanding level of dedication.

A native of Cassopolis, Michigan, Bishop obtained a BS in geology from Texas Christian University in 1967 and an MA in geology from the University of Missouri in 1969. He received a PhD in geology from Stanford University in 1977. Perhaps it was a forbearer of greater things to come when he received the Gayle Scott Outstanding Undergraduate award at TCU in 1967.

He began his geology career in 1969 for Unocal in New Orleans as an offshore development geologist for the Gulf of Mexico's Ship Shoal 253, and as an exploration geologist on several discoveries in West Cameron, South Addition.

In 1975, Bishop started his 29-year career with Exxon, joining Exxon Production Research Co. as a research geoscientist and instructor. Here, he developed new methods of source mapping and geochemical material balance methods for prospect evaluation. He also taught a variety of topics, including maturation, fault leakage, assessment and salt tectonics. In 1981 he moved to the Exxon USA-East Texas Exploration Division, exploring tight gas sands, as a project leader for the Texas state waters group, and serving in exploration planning. He migrated into the interpreter role for the Exxon USA-Central Production Division in 1984 as a district geologist, and as exploration geologist for Exxon USA's Offshore/Alaska Division in 1986.

In 1987 he began doing regional assessments and interpretations of the Middle East, North Africa, South Africa and West Africa for Exxon International. That assignment evolved into one of global perspective and since then he has focused on exploring for new potential by developing methods to compare global exploration opportunities at scales from basins to plays to ventures. He retired from ExxonMobil in 2004.

Bishop, an AAPG member since 1967, was President of AAPG in 1998–1999. He also served as Secretary of AAPG in 1991–1993. He received AAPG's Distinguished Service award in 1994, and the AAPG Certificates of Merit in 1988 and 1991. He was the Sproule Award winner for best technical publication by a person under 35 in 1980. He also has been a member and chairman of the AAPG Education Committee (1982–86) and a member of the 21st Century Committee (1989–91). In 1988, he was general chairman of the AAPG annual convention in Houston.

He was the founding chairman of AAPG's Standing Technical Program Committee; was a member of the International Liaison Committee; and was a co-organizer of the 1997 AAPG Hedberg Research Conference, "Oil and Gas Exploration and Production in Fold and Thrust Belts," held in Veracruz, Mexico. He was a co-organizer of the 1995 Hedberg Conference, "Risk Reduction in International Ventures." He is currently helping to organize another Hedberg Conference, "Understanding, Exploring For and Developing Tight Gas Sands."

Bishop has been an active member of the Houston Geological Society, serving as editor of the HGS *Bulletin* in 1981–83 and as president in 1989–90. He received the HGS Distinguished Service Award in 1990. He is currently treasurer of the Warren L. and Florence W. Calvert Memorial Scholarship Fund. He has served on the HGS Advisory and **Richard Bishop** *continued on page 56*

2003–2004 Honorary Life Membership

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

Honorary Life Membership Award

Claudia Ludwig

Claudia Ludwig has been a member of the Houston Geological Society since 1974. During her 30 years of membership she has donated her time and energy to many committees. From 1977 to 1980, Claudia served on the Field Trip Committee, and was Chairman of the Advertising Committee from 1981 to 1984. In 1980, she performed a vital service that was not attached to a committee, that of supporting the ticket desk at all regular HGS meetings. Over time she developed a very efficient system, training other volunteers, treasurers and HGS staff in the role. In 1992, the HGS Executive Board created the Reservations Committee for this duty. In the '90s she was a member of the Computer Applications Committee.

Claudia has been an HGS representative to the Engineering Science and Technology Council of Houston (ECH) since 1981, acting as ECH Treasurer in 1990–91 and ECH President from 2000 to 2001. The past President of ECH becomes President of the Science and Engineering Fair of Houston (SEFH) for the following year, which role Claudia ably performed in 2002. With the untimely death of the ECH 2003 President Claudia served again as SEFH President in 2004. Currently, she is outgoing ECH Vice President and will return as the HGS's senior counselor to ECH, likely serving on an advisory committee. She conceived and co-authored the proposal for the ECH "Houston in the 21st Century" Seminar Series.

Other professional organizations have benefited from Claudia Ludwig's generous spirit and considerable talents. An AAPG member since 1974, she served on the Public Relations Committee for the 1979 AAPG Convention, as Co-Chairman of the Registration Committee for GCAGS in 1982 and as a member of several Registration Committees for the AAPG and GCAGS conventions in Houston. She has been a member of Marine Technology Society since 1968 and served as the MTS Houston Section Chairman in 1986. Since 1976 she has volunteered her time on one or more Offshore Technology Conference committees, chairing the OTC Proceedings Distribution Committee for three years and serving on the Registration and Arrangement Committees numerous times. Claudia has represented AAPG on the OTC/AAPG Program Subcommittee since 1991. As Chairman of that subcommittee, she served on the OTC Program Committee in 1994–97. She has been appointed Chairman of the 2004 OTC Arrangements Committee. She is also a member of the Society of Mining, Metallurgy, and Exploration.

Claudia graduated from Lamar University in 1966 with a BS in geology and continued her education at Texas A&M University at College Station where she received an MS in geological oceanography in 1971. She is on the Lamar Geology Department Alumnae Advisory Committee. She began her career while in graduate school, working as a research scientist. She has worked in Houston throughout her career, first as a Staff Geologist for Michigan Wisconsin Pipeline Company (1974–77), then as Exploration Geologist with Worldwide Energy Corporation (1977–1980) and with Phillips Petroleum Company (1980–82). Since 1982, she has worked as an independent geologist generating prospects and has worked on contract to geoscientists and engineers. She is currently also involved in environmental geological consulting.

Claudia relaxes with diverse hobbies, which she often combines to stunning effect. A SCUBA enthusiast since her university days and an underwater photographer, she has assembled numerous presentations on underwater marine life, which she has taken to middle and high schools and community audiences. A member of the Houston Underwater Club, she was recognized as Diver of the Year in 1989 and 2000 **Claudia Ludwig** *continued on page 56*

2003–2004 Distinguished Service Awards

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

Distinguished Service

Larry Bartell

Larry Bartell has a long history of distinguished service with the Houston Geological Society. On the Executive Board he was Treasurer in 1989–90, Executive Committeeman (now called Director) 1994–96, and Secretary in 1996–97. In between, from 1990–91, he served on the HGS Constitution and By-laws Revision Ad-hoc Committee. Larry received the HGS President's Award in 1996.

He has taken skills gained from those positions, and applied them with the Gulf Coast Association of Geological Societies (GCAGS). There he has served as Treasurer (1991), worked on the Convention Committee under Chairman Dan Smith (1991–94), and now chairs the Publicity Committee (2003–present). In 2000, he was the General Chairman for the very successful 50th Annual Convention of the GCAGS, which was held in Houston with the theme "Remember the Past, Visualize the Future."

Larry is a member of AAPG and has served in the House of Delegates. He is also a member of Society of Independent Professional Earth Scientists (SIPES).

Larry was born in Oklahoma City on November 10, 1956. After attending Texas Tech University, he transferred to the University of Oklahoma and received his BS degree in geology in 1983. Since then he has been working in family businesses, starting with Hemingway Bartell and Associates (1983), then Bartell Exploration (1983–2002), and Legends Exploration (2002–present).

Larry is well known for his drive, leadership, creativity and unique sense of humor. He has contributed to the HGS in such a manner as to be inspirational to the whole society. His accomplishments have earned him the Distinguished Service Award, and his spirit, energy and personality make it a pleasure for the HGS Executive Board to present him this award. ■

2003–2004 Distinguished Service Awards

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

Distinguished Service

Al Danforth

Al Danforth has been selected to receive the Distinguished Service Award from the HGS. Al's academic background includes a BS degree in geology from Edinboro St. University and an MS degree in geology from the University of Miami. Al has been a consultant since 1999 after a 27-year international (Africa specialization) career with Texaco.

Al has played a prominent role in the International Committee for the HGS. Initially what began with his technical presentation on West Africa became a two-year role as a successful technical program director for that committee. Al is now completing his second year as Chairperson of the International Committee. This committee is extremely organized with a high level of delegation that produces excellent technical monthly meetings.

The HGS International Committee hosted in September 2003 the extremely successful Annual HGS—PESGB International Symposium "Africa: New Plays—New Perspectives." This event began last year in Great Britain and is envisioned to alternate between Houston and England. The symposium is a full 2-day program of oral presentations, poster sessions, meals and receptions. The event hoped to draw 250 attendees but actually accommodated 400 and ensured the ongoing need for this symposium. With his able committee, the HGS has demonstrated its ability to host large symposiums of international proportions.

Al Danforth has accomplished much and in recognition of this service, the HGS is pleased to recognize him with the Distinguished Service Award. ■

2003–2004 Distinguished Service Awards

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

Distinguished Service

Richard Howe

Richard Howe is an inspirational and dedicated member of the leadership of the HGS. He holds a BS degree in geology from Lamar University in Texas and has completed extensive graduate work at Texas A&M University in College Station, Texas. Richard is one of those individuals that motivate people to be involved in the political process that will effect their professions and careers. Richard has actively participated in efforts to promote the Texas Professional Geoscientist licensing both prior to the passing of Senate Bill 405 and after the bill's passing. Richard made a visit to the Texas Board of Professional Geoscientists this past March.

Richard's out-of-the-box thinking has helped create and formulate committees and activities in the HGS. Richard attends the Engineering and Environmental Dinner Meetings and has been instrumental in the conception, creation and evolution of this committee to where it is today as an HGS Group. Richard was one of the individuals that helped formulate this committee. Aside from the Engineering and Environmental Group Richard has been an active member of the Field Trip Committee since 1987, and he helped develop the informal field trip concepts.

He is currently the President–Elect for the Engineering Science and Technology Council of Houston and will be the Council's President next year. Richard is on the selection committee for the Houston Museum of Natural Science Summer Intern program and has contributed countless hours to the Science and Engineering Fair of Houston.

For his exemplary service, community service and innovative ideas, the HGS is proud to honor Richard Howe with a Distinguished Service Award. ■

2003–2004 Distinguished Service Awards

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

Distinguished Service

Inda Immega

Inda Immega's tireless work for the HGS has allowed the members to reap many benefits over the years. Inda likes to work in partnership with others and rarely takes credit for contribution. We feel that she deserves individual recognition.

Inda Immega has a history of distinguished service to HGS and AAPG. In 1994 she was a principle member of the Computer Applications Committee and the following year she participated in the creation of the HGS Website. She continues to be available to assist the web team. She has played a concurrent role on a national level, serving on the AAPG Computer Applications and Internet Committees. Other AAPG activities include the Youth Education Activities Committee, and AAPG House of Delegates. She participated in the AAPG Teachers' Day Programs during the 1995 and 2002 AAPG Annual Conventions in Houston.

Along with Janet Combes and Alison Henning, Inda is a co-founder of HGS' Earth Science Week program. Early field trips to Galveston and Whiskey Bridge near College Station attracted scores of children and their parents, as well as college students and K-12 teachers. Volunteers were stationed along the exposures to assist with the large numbers of neophyte participants, so that individuals and small groups could be accommodated. The trips took on the aspect of a museum tour, rather than a "follow the leader" style. Inda will be turning over the chairmanship of this most popular of HGS outreach programs to Elizabeth Fisher this year, but will certainly continue to support it in concert with her full-time volunteer work at the Houston Museum of Natural Science. As Chairman of the HGS Museum Committee, Inda organizes and trains volunteer geology docents and coordinates geologically themed activities. Six months prior to the installation of new exhibits she researches and plans the training for docents. She develops many childrens' activities for the non-permanent exhibits, managing to include some aspect of Earth science in everything she does. Her favorite area is the Cullen Hall of Gems and Minerals, where she works behind the scenes with HMNS Curator Joel Bartsch. Along with her husband, paleontologist Neil Immega, Inda designs and conducts field trips for the museum. Recent efforts include dinosaur trips to Wyoming and Montana, trips for teachers to the Lubbock, Texas area to research Late Triassic fossils, and fine-tuning the Whiskey Bridge trip for Earth Science Week. HGS Day at the museum has been re-named "Family Energy Festival" and includes all parts of the museum.

Inda Immega grew up in central Texas, the oldest of 10 children. Her introduction to geology came from her grandmother who lived near a ditch filled with rocks, petrified wood and Eocene fossils. During her junior year in high school she participated in a National Science Foundation summer program in geology at Texas A&M. Influenced by a chemistry teacher at her high school, she applied for and won a scholarship to A&M. Living off-campus in an all-female apartment house, Inda was the only woman in the undergraduate geoscience program. She was supported by Dr. Fred Smith, the NSF Summer Science Program director and a professor at A&M, who felt it was important that both women and men have the opportunity to pursue the science of geology. And she was greatly inspired by the fact that there was a female graduate student in A&M's School of Oceanography working on her MS degree—Claudia Ludwig, who is this year's recipient of the HGS Honorary Life Member Award. Inda later earned her PhD in mineralogy and petrology from Indiana University, and worked for Shell Oil until her retirement in 1998.

In recognition to her dedication to the Society, willingness to share her considerable talent and enthusiasm for the science of geology, we present Inda Immega the HGS Distiguished Service Award. ■

President's Awards *continued on page 50*

The Energy Cycle — The 2004 MS 150

Article and Photos by Andrea Reynolds

photo by A.E. Berman

The Shell Cycling Team raised over $70,000 for The 2004 MS 150.

In the early morning darkness Saturday, April 17 Houston was already awake and poised for a great event. That day marked the beginning of a 2-day bicycling odyssey that would see over 11,000 cyclists journey through small Texas towns between Houston and the state capitol. In addition this year's BP MS150 charity bike ride marked the 20th anniversary of the tour's humble beginnings back in 1984. The National Multiple Sclerosis Society (NMSS) is a fantastic charity to support especially as the disease can strike anyone at any time. Cyclists have been raising money in Houston for 20 years to support research to find a cure. One hundred MS150s are held around the country each year but the Houston to Austin ride is the one that has consistently brought in the largest field of participants as well as the largest sums of money and travels the furthest distance (180 miles!).

Why should this cycling event interest HGS members?
Many corporate teams are formed to ride together in the MS150, including many from the petroleum and environmental industries. When you're riding in the masses you can't help but notice the brightly colored jersey of each cyclist. Some have corporate logos, others have a more poignant message regarding multiple sclerosis and some teams are even named for someone with MS.

As a member of the petroleum industry I was amazed at the number of teams with which I could identify. In fact the National MS Society reports there were 202 organized teams in 2003 and 62 of them were energy-related whether upstream, downstream, engineering or chemicals. Additionally, of the $7.2 million raised during last year's ride, over $2.5 million came from the pledges and donations made to those 62 teams. If you then throw in sponsorship donations, the energy industry raised nearly half of the $7.2 million for the NMSS!

Some companies have large teams such as BP (title sponsor of the event), Shell, ExxonMobil, Anadarko, ChevronTexaco and ConocoPhillips. There are **The Energy Cycle** *continued on page 47*




















The Energy Cycle *continued on page 49*

The Energy Cycle continued from page 47

smaller companies too like Newfield Exploration and Duke Energy. And more are joining each year, like Apache riding as a team for the first time in 2004.

Don't forget the service companies! Schlumberger, BakerHughes, Transocean, Fugro, Paradigm Geophysical—the list goes on! It is truly amazing to see the support that this charity ride gets from our industry.

So You May Wonder "What Exactly Is a 180-Mile Bike Ride Like?"

Training begins months before the mid-April ride. Organized rides help cyclists get fit for the long journey in the saddle. All of the training and dedication pays off as cyclists begin their quest at 7 am from either Tully Stadium in the Memorial area of West Houston or Rhodes Stadium in Katy.

The ride is incredible. There are so many colorful jerseys to take your attention from the arduous 100-miles of Day 1 and the hillier portions of the ride in "The Park" (Buescher State Park) on Day 2. The stream of jerseys continues along the route through Katy, Burleigh, Bellville, Fayetteville and finally into La Grange where a virtual city pops up to accommodate the riders over-night. Massages are given, showers are taken in mobile shower trucks and dinner is eaten. At night live music, cold beer and fireworks make a lively evening. Most lights are out by 9 or 10 pm because wake-up starts early—4:30 or 5:00 am with a pancake breakfast!

The ride on Day 2 begins at first daylight at 7 am and the riders are off again. The rolling hills are exciting and top speeds may break 40 mph! The park is beautiful and very green with lush foliage framing the riders as they pedal slowly up the hills and careen down the slopes. The finish this year was phenomenal—ending at the Capitol as the original MS150 tours did.

Take a look around your office and congratulate those whose hard work and dedication paid off in this year's MS150. The 2004 ride is estimated to raise over $8 million dollars for the NMSS! We should all take a moment to salute our industry which gives back to the community in such a large way and say thank you to all those cyclists who represent us all out there on the road. ■

2003–2004 President's Awards

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

President's Award

Robert Hubbell

Bob Hubbell has been a venerable member of the Houston Geological Society and we honor him with the President's Award for his years of service to the Society and the community, and his long-term voluntary work with the Engineering, Science, and Technology Council of Houston (ECH).

Bob has been the seminal force in the ECH the last decade. The Council is an umbrella organization, uniting engineering, science and technical societies in the Houston area and working to advance common goals. The council has provided a continuing forum for dialogue and communication among various disciplines and professionals for over 50 years. The Council compliments the roles of its constituent societies by emphasizing areas of common interest and providing and communicating opportunities for service and professional development. Bob Hubbell served as the UH Cullen College of Engineering Dean's representative on the Engineering, Science and Technology Council of Houston for 10 years, becoming Director and serving as President (2001–2002). We must say that he kept the interests of the HGS close to heart.

The Council is an annual sponsor of the Science & Engineering Fair of Houston, a major public outreach effort and currently one of the largest fairs in the

Robert Hubbell *continued on page 59*

President's Award

Glenn Lowenstein

Glenn has demonstrated strong leadership skills as Chairman of the Houston Geological Society's Environmental and Engineering Geologists (E&EG) Group for the past six years. Without Glenn's care, guidance and perseverance the E&EG committee may have faded away.

Glenn was frequently the one-man team organizer, selecting smaller venues at various local restaurants to hold dinner meetings, scheduling speakers and carting AV equipment. By revising the committee into a group structure with the help of other members, the E&EG Group has firmly established itself as one of the mainstays of the HGS technical offerings. Glenn has led the E&EG Group's efforts to see passage of the Texas Professional Geoscientists Practice Act and has maintained the group's vigilance in seeing that the law that established geology as a profession has not been diluted.

Glenn has also organized volunteers and activities for the HGS booth at annual Earth Day festivities, a significant public outreach project that has been successful in helping to educate the public on geology and the environment. For his long-term and dedicated service, we are pleased to present Glenn with the President's Award. ■

President's Award

Evelyn Medvin

Evelyn is a constant contributor to the HGS especially with the Continuing Education Committee. Her energy, organizational skills and creativity have been behind many successful seminars and workshops.

Last fall Evelyn co-chaired the successful Dry Hole Seminar #2. Through her association with Core Laboratories, where she is a vice-president, she continues to arrange classroom facility space for HGS use. The May 2004 Core Analysis Workshop was held at the Core Lab facility and was taught by Core Lab staff.

During the last year Evelyn contributed to the success of numerous Continuing Education Committee seminars, such as Risk Assessment for Development Applications and The New E&P Workforce, by performing duties ranging from registration to logistics. Previous to 2003 Evelyn volunteered in many ways resulting in well-organized seminars such as Investigation into Seismic Inversion for the Geologist, Sizing up International Ventures, and the Dry Hole Seminar #1. Evelyn also co-chaired the Geopressure Workshop.

During the AAPG 2000 Annual Convention hosted by HGS, Evelyn chaired the International Pavilion and has stayed on as Sponsorship Chairperson through 2004. ■

2003–2004 President's Awards

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

President's Award

Rosemary Mullin

Rosemary Mullin will receive a 2004 Houston Geological Society's President's Award in recognition of her long-term efforts on the Emerging Technology Committee and her enthusiastic support of the group's annual Summer TechnoFest. Rosemary has served as Emerging Technology Committee Treasurer since the second TechnoFest in 1998; the eighth TechnoFest is fast approaching.

Her professional expertise in planning, organization, problem-solving and presentations has contributed to this popular annual event where both vendors and attendees see the latest technology and research while snacking and networking. The summer venue allows a chance to catch up on the latest trends in a relaxed setting. Rosemary is an important part of the committee that attracts vendors, handles vendor and participant registrations and manages the hotel logistics; as treasurer Rosemary keeps the accounts straight.

"Rosemary is a charter member of the Emerging Technologies committee, present at the founding of TechnoFest, a staunch HGS volunteer, usually to be found in the front row of every talk, taking notes and asking insightful questions," said Charles Sternbach, former HGS President.

Rosemary attended the University of Michigan where she received a BS in mathematics and an MS in geology. She is currently senior geoscientist at GX Technology working on depth imaging and seismic processing projects and putting her interest in cutting-edge technology to good use. Prior to this she was a geological-geophysical consultant with N. S. Neidell and Associates. Rosemary started her career with at Shell and spent 18 years in Houston and New Orleans working on projects ranging from international and domestic exploration to source rock analysis.

Rosemary is an active member of American Association Petroleum Geologists, Society of **Rosemary Mullin** *continued on page 59*

President's Award

Carl Norman

Carl E. Norman has been selected to receive the President's Award for his many years of volunteerism and leadership for the HGS.

Through the urging of Mr. Warren Calvert, Carl became secretary of the HGS Warren L. and Florence W. Calvert Scholarship Fund in 1974. He served in that position until his appointment as chairman of the Calvert Scholarship Fund board in 2001 and continues to serve in that position. This represents an amazing 30 years of continued dedicated service to this important HGS committee! This fund has awarded $182,300 in scholarships to 47 graduate students from 15 universities.

Carl holds a BS in geology from the University of Minnesota, and an MS and PhD in geology from Ohio State University. Carl served 4 years in the Air Force working as an aircraft and engine mechanic, enlisting shortly after the outbreak of the Korean War in 1950. After completion of his Masters degree in 1959, Carter Oil (soon after Humble Oil and Refining) employed him. Carl returned to pursue his PhD in the early 1960s.

Following the completion of his PhD in 1967, he accepted a permanent faculty position as a professor of geology at the University of Houston. He remained at the university for 33 years until his retirement in June 2000. Carl was an instructor for the university summer field camp for 12 years. He taught physical geology to over 6500 students during his career. He was honored with the Outstanding Educator Award by the GCAGS in 1992.

Carl 's has guided numerous HGS field trips and is sought to instruct because of his extensive knowledge of active faults in the Gulf Coast region. His 30 years of commitment to the Warren L. and Florence W. Calvert Scholarship Fund, along with numerous hours of additional service to the HGS, deem Carl E. Norman an honored recipient of the President's Award. ■

2003–2004 ☆ Rising Star Awards

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

Rising Star

Valdis Budrevics

Valdis Budrevics will receive a Rising Star Award for his leadership role as Chairman of the HGS Public Relations committee. Valdis recruited HGS members from different areas of work experience and personal background to define a role and work plan for the Public Relations Committee. He has displayed leadership and initiative in forming and leading this committee. The Public Relations Committee has developed a dynamic network of information and communication among the diverse groups in the HGS to help ensure strong public awareness of the HGS's community activities.

Valdis received an MS in geology from the University of Manitoba and completed The Management Program at Rice University. He is currently President of Peritus Associates, Inc. and manages multi-disciplinary, international projects in the petroleum industry. He previously spent 25 years as a geologist and manager at Amoco.

Valdis is an active member of the AAPG and an Alternate to the AAPG House of Delegates and a member of the Canadian Society of Petroleum Geologists and the Society for Sedimentary Geology. ■

Rising Star

Jennifer Burton

Jennifer Burton receives the Rising Star Award this year for her continued dedication to Earth Science Week, which occurs each October at the Houston Museum of Natural Science. Jen deserves this accolade for her active part on the Earth Science Week committee for over 3 years. She has co-chaired the committee, participated in the field trips to Whiskey Bridge and downtown building stones, made the ESW banners, and has been instrumental in getting funding for this past year's event—fully covering all activities and events. In addition to her ESW effort, Jen was also part of the team that created the Energy Cycle posters, which have been a hit with teachers and students alike. It is a fantastic reference for schools and has been so well-received that is has now been posted on the new HGS Website for all to access and download.

Jen received a BS in geology from the University of Memphis in 1993 and an MS focusing on sedimentary petrology from the University of North Carolina at Chapel Hill in 1996. She began working at Anadarko seven years ago, and has professional experience in the West Texas Permian Basin, East Texas Bossier trend, and more recently Alaska. She enjoys field work, and spent four seasons conducting field-based exploration studies in the

Jennifer Burton *continued on page 59*

Rising Star

Sherrie Cronin

Sherrie Cronin, current and first Chair of the HGS NorthSiders Committee, will receive a June 2004 Rising Star award for her outstanding efforts in starting up this new committee and leading it to a successful first year. Six meetings were held between September 2003 and May 2004, at three different locations in two different venues—lunch and dinner. Her enthusiasm and positive attitude led the committee through first-time efforts to select dates, rent rooms, get speakers, handle publicity, conduct preference surveys, coordinate with the board, figure out the money part and compose a mission statement.

Sherrie is a native of Kansas and received her education at Northwestern University and Colorado School of Mines. After a brief stint as a technical writer, she settled on a career in geophysics. She began in Tenneco's Lafayette Louisiana office, where she quickly mastered the art of eating crawfish and attending lease sale parties. She is most proud of having worked Tenneco's first large-scale offshore 2D seismic project on a workstation. She started her volunteer efforts there as bulletin editor for SWLGS, the local geophysical society.

Sherrie Cronin *continued on page 59*

2003–2004 ☆ Rising Star Awards

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

Rising Star

Elizabeth Fisher

Elizabeth Fisher will receive the Rising Star Award in June 2004 for her enthusiastic efforts as General Chair of the Earth Science Week committee. Earth Science Week is the HGS's premier outreach event—encompassing a student contest, Family Energy Festival at the Museum of Natural Science, and several field trips. This year, Elizabeth increased the funding level for ESW through solicitation of corporate grants. She has contributed her organizational skills as well as active participation in the multiple activities of ESW. She has stated that outreach and community education are some of her main interests as a society member, and her dedication to these have earned her the HGS Rising Star.

Elizabeth received a BS in physics from California Polytechnic State University at San Luis Obispo and a PhD in geoscience from UT Dallas. She is currently a senior project geoscientist at Fugro-Jason, following six years at Amoco as a geophysicist. Prior to her PhD studies, she also worked for SEPCO as a geophysicist and at Dresser Atlas as a junior field engineer.

Elizabeth is also an active member of the Society of Exploration Geophysicists, Association for Women Geoscientists, and Houston Gem and Mineral Society.

Elizabeth Fisher *continued on page 59*

Rising Star

Jim Grubb

Jim Grubb has been awarded the Rising Star Award in recognition for his work on the ad hoc "labor pool" Committee.

This new committee is charged with providing temporary help on an as needed basis to other committees when logistics require extra hands during their annual or special events. The committee also provides volunteers to groups other than the HGS such as: the recent science teachers convention in Houston, the annual APPEX prospect exhibition and the AAPG Winter Education Conference as examples. The core group of 54 persons is an experienced workforce from which specific skills and talents are available. In most cases some compensation is offered to the individual i.e. a ticket to the event and/or a donation to HGS. Jim can be reached at jamesmgrubb@yahoo.com. ■

Rising Star

Natalie Uschner

Natalie Uschner receives the Rising Star Award this year for her dynamic role as the chairperson of the NeoGeos. Natalie stepped into this position in 2003 and has really invigorated the members by holding exciting events for the young professional group, including a recent joint social with SPE Emerging Leaders and workshops and short courses such as April's Resume Writing Workshop and January's tour of the Baker facility to look at downhole tools. She has had an active part in keeping the group true to its roots, and for infusing the group with her enthusiasm and charisma, and planning so many varied and interesting opportunities.

Natalie received her Bachelor's degree in geology from the College of William and Mary in 1998, and is currently working on her MS degree in geology-paleontology from Indiana University. She began working at Schlumberger in 2001 as a geoscientist in the Information Solutions group, where she provides support for many applications including CPS3, Framework 3D, Geology Office, and PetroViewPlus, to name a few. She is also a trainer of Geoframe client courses. Natalie also serves as the secretary for the WISE group (Women in Schlumberger Everywhere), and has been an active member of the HGS and NeoGeos since 2001. ■

2003–2004 HGS/Houston Geological Auxiliary Distinguished Service Award

HGA Distinguised Service Award

Myrtis Trowbridge

The 2003-2004 HGS/HGA Distinguished Service Award is presented to Myrtis Trowbridge.

Myrtis was born in Thibodaux, Louisiana. She graduated from Soule Business College in New Orleans. While working for Stanoline Oil Co. she met Gene. They were married and were blessed with six children who are now scattered from Alaska, Virginia and Louisiana to Texas. Gene and Myrtis are now grandparents to 19 grandchildren. In 1955 the family moved to Houston but Myrtis was so busy with little ones that it was somewhere around 1965 before she had time to join and start active participation in the Houston Geological Auxiliary.

Over the intervening years Myrtis has fulfilled many roles with HGA including that of President for the 1989–1990 year. She has always been very willing to help for all these years, no matter what was asked of her, and we are privileged to count her among our members. Congratuations and thank you Myrtis. You have certainly earned this award. ■

HGS Welcomes New Members

Effective May 2004

ACTIVE MEMBERS
John Beuhler
Blake Blackwelder
Barrett Bole
Douglas Combs
Mel Croft
James Elliott
Clifford Foss
Ronald Grubbs
John Hidore
Jon Hufnagel
Nazmul Husain
Martin Jackson
Walter Knowles
John Kucewicz, Jr
Julie Kupecz
Lee Lindman
Alexander MacKeon
Kevin McMichael
Charlton Miller
Michael Mitchell
Mary Helen Niemann
Jillian Nimblett
Douglas Parker
Kari Parson
Branch Russell
Bruce Scofield
Bret Siepman
David Smith
David Spain
Gordon Start
James Stolle
Kristen Stone
Gerard Valenti
Laura Williams
Matt Williams
Elton Wolter
Paula Wood

ASSOCIATE MEMBERS
Kevin Gravett
M. McCoy
David Meyers
Pamela Parks
Sam Reeves
Arville Slaughter

Welcome New Members

2003–2004 Corporate Star Awards

The Houston Geological Society honors companies that make special contributions of their staff or financial resources to help the Society.

Corporate Star Award

Conoco-Phillips

With pride and gratitude, we present ConocoPhillips the Corporate Star Award for its continued support of undergraduate and graduate geoscience students. This year ConocoPhillips has underwritten the cost of student attendance at regular HGS monthly meetings.

This generous grant provides students an excellent introduction to our profession and makes available to them the considerable technical and professional network of geoscientists. We thank ConocoPhillips for enabling us to offer this important outreach to the academic community. ■

Corporate Star Award

Kerr McGee

Kerr McGee Oil and Gas Corporation has been recognized as a Corporate Star Award recipient for 2003–2004 by the Houston Geological Society Executive Board for outstanding support for the programs and members of the HGS. In particular the HGS recognizes the generous and unrestricted educational grant given to the Society. Additionally the Board acknowledges Kerr McGee's long-standing support for their employees' involvement and leadership in the Houston Geological Society. ■

Corporate Star Award

Noble Energy

The Corporate Star Award is presented this year to Noble Energy Inc. for its strong commitment to the highly attended "Disappointing Seismic Anomalies Seminar." Noble Energy provided executive, technical, administrative and financial support for this event, which required 10 months of advance preparation. Thank you, Noble Energy, for your support and employee volunteers. ■

HGS *Bulletin* on CD-ROM

HGS and AAPG/Datapages are converting the entire HGS *Bulletin* archive into digital formats for rapid document retrieval, document searching, and convenient storage of issues. In order to preserve the historic nature of this important collection, all pages (including committee minutes, advertisements, etc.) are being preserved in a single CD-ROM set.

To help raise the money necessary for this digital conversion a special money-saving Prepublication Sale will be offered in June to members of Houston Geological Society.

Watch your mailbox for this special mailing. Orders and reservations will be taken during June and July.

Help us preserve this scientific asset with your advance purchase, and save money in the process!

Prepub Sale Coming in June!

HGS Awards continued from page 31

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Jeff Lund — *Gerald A. Cooley Award*

Reserve University in Cleveland Ohio in 1969. While working at Amoco Production Company and Clark Oil Producing Company, he managed to find the time to continue his education by getting a Masters of Science in Geophysics from the University of Houston in 1973. It was during his tenure with Clark that Jeff again accepted the challenge of furthering career and profession by receiving an MBA in Finance from the University of Houston (1978).

Thus set, Jeff continued an uncanny path toward success by working for Southland Royalty Company/Meridian Oil (now Burlington Resources) rising to the title of Regional Exploration Manager of the Southern Region. In 1991 he became Vice President and Regional Manager for Ashland Exploration (now Blazer Energy). When Ashland decided to exit the exploration arena, Jeff became the Vice President, Portfolio Management for Kerr-McGee. Jeff has recently retired from Kerr-McGee in Aberdeen Scotland, where he was Vice President, Strategic Planning for the North Sea, one of Kerr-McGee's core areas and profit centers.

Jeff has either authored or presented over eight papers since 1978, and his thoughts are in print in the following literature: Transactions of the Gulf Coast Association of Geological Societies, Volume XXVII (1978I, Oil and Gas Investor, Volume 4, No. 6 (1985), AAPG Transactions (2001 and 2002), and the Schlumberger Oilfield Review Magazine (2000–2001). He has been an invited speaker all over the world, including the Conference on Portfolio Management in London, 2001; The Marrakech International Oil & Gas Conference, Morocco 2002, and the Offshore Europe Conference in Aberdeen, Scotland in 2003.

All of this incredible work, education and volunteer history aside; Jeff is a dedicated husband and father. Marti has been the recipient of Jeff's love and affection since they met in college. In fact, she helped support his educational endeavors after they married while she was an operating-room nurse. Their daughter, Brianna, graduated from Boston College a couple of years ago, and is successfully employed.

Jeff is the ultimate mentor, exhibiting patience, perspective, experience and a great sense of humor. He was the best at keeping "rowdy" HGS Board meetings under control and out on time. I have been privileged to work with him on the HGS Board, GCAGS Board and the 2002 AAPG Convention. He is stalwart under fire and is an expert at organization and delegation. If it weren't for those skills, it could easily be said that the HGS would not be in the fine financial condition it is in from the rewards of hosting successful conventions.

It is with great pleasure and honor that I was asked to be a citationist for Jeff Lund as he is the recipient of this highest award the Houston Geological Society grants. His efforts, both in time and money, for the good of this Society have spanned over 30 years, and I have the feeling he is not done yet! ■

—Deborah Sacrey

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Richard Bishop — *Honorary Life Membership Award*

Nomination committees. A noteworthy accomplishment is that he has twice persuaded the GCAGS to offer a 1:1 matching for scholarship donations. When completed, the effort will have brought about $300,000 into the several scholarship foundations within GCAGS.

Other professional affiliations include the Geological Society of America (Fellow since 1979); the Society of Exploration Geophysicists, the Geophysical Society of Houston; and AIME/SPE.

Perhaps his legacy of accomplishments has been the result of self-motivation with much encouragement from his wife Edythe, herself a high school math teacher, but Richard Bishop's passion for the geosciences is unmatched…and we HGS members are the better for it. ■

—Steve Levine

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Claudia Ludwig — *Honorary Life Membership Award*

(a service-related award). She raises orchids in her greenhouse, and is a member and past Director of the Houston Orchid Society. As a member of HAL-PC, she is a SIG Leader and a member of the Special Event Team as well as helping in several other SIGs. She was named HAL-PC Volunteer of the Month in September 2003. As an avid swimmer, she compiled more than 50 miles in 2002, and passed the 50-mile mark in 2003 during a 4-mile swim on her birthday in August.

Claudia Ludwig's long record of service to the profession has been previously recognized by the Houston Geological Society. In 1994 she received the HGS Distinguished Service Award, and in 1989, the HGS President's Award. When asked what receiving the HGS 2003–2004 Honorary Life Member Award meant to her, Claudia Ludwig simply replied, "Overwhelming. This usually goes to someone who goes the 'officer route.' I have simply served". In the opinion of her peers and supporters, there is no one more deserving of admiration and recognition for outstanding service than Claudia Ludwig. ■

—Marsha Bourque

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HGS Awards continued from page 45

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Robert Hubbell — *President's Award*

United States. Bob Hubbell served as president of the Science-Engineering Fair in 2003. The fair offers junior high and high school students a creative opportunity to supplement their classroom endeavors in math, science and engineering. Thousands of students compete for hundreds of awards in a myriad of classes. Council constituent societies, such as the HGS, are called upon to establish award programs, provide judges, and assist with the conduct of the fair. It has grown to become the most respected fair in the nation with numerous Houston students going on to receive state, national and international honors. The HGS offers awards in the three levels of competition, and offers two winners in the senior division summer internships at the Houston Museum of Natural Science.

Bob's wife, Lydia, has been active in the Houston Geological Auxiliary (HGA). They have been married 50 years.

His long career in the oil and gas industry included field and staff positions with Conoco, Trunkline Gas Company, and twenty years in independent consulting. Bob recently retired from the University of Houston where he has been a Lecturer in Petroleum Engineering since 1975. ■

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Rosemary Mullin — *President's Award*

Independent Professional Earth Scientists, Geophysical Society of Houston, Society for Economic Paleontologists and Mineralogists, Gulf Coast Society of SEPM and the Houston Chief Geologists Association. She is a Certified Professional Geologist, State of Texas. Rosemary has presented papers and poster sessions at numerous professional meetings both domestic and international and she has published several papers and abstracts. ■

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Jennifer Burton — *Rising Star Award*

Brooks Range foothills. Her current role with Anadarko is as a Development Supervisor for the Wyoming Enhanced Oil Recovery team. She has been a member of HGS since 1996.

Thank you for your service the HGS and for putting your energy into all you do. ■

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Sherrie Cronin — *Rising Star Award*

She has continued to work in the oil industry in a variety of assignments including managing UPR's Exploration Services department and serving as Geoscience Manager for UPR's very active Austin Chalk Business Unit. She had the incredible timing to serve as UPR's chief geophysicist during both the tornado and merger with Anadarko. Of all her various assignments, none has been as multifaceted as her current role as geoscience training and skills database guru for Anadarko's chiefs. Sherrie's favorite thing about her current assignment is that it has given her reason to get to know most of Anadarko's technical staff and much about the projects on which they work. The position has also enabled her to hold the company record for most e-mails sent in a single 24-hour period.

Sherrie has delegated the NorthSiders Chair position to a two Co-Chairs for next year and will begin a stint as Co-Chair of the Academic Liaison committee: qualifications for this position include three children well into their teen years and a high-school-math-teacher husband. ■

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Elizabeth Fisher — *Rising Star Award*

She was President of the HGMS in 2000 and has served on committees for the AWG, HGMS, and Geophysical Society of Houston. She is registered with the Texas Board of Professional Geoscientists. Elizabeth received the 2002 Tanya Atwater Encourage Award from the AWG and was a 1996 Women of Excellence Honoree of the Federation of Houston Professional Women. ■

Don't forget to

update your information

on the HGS Website

and tell us

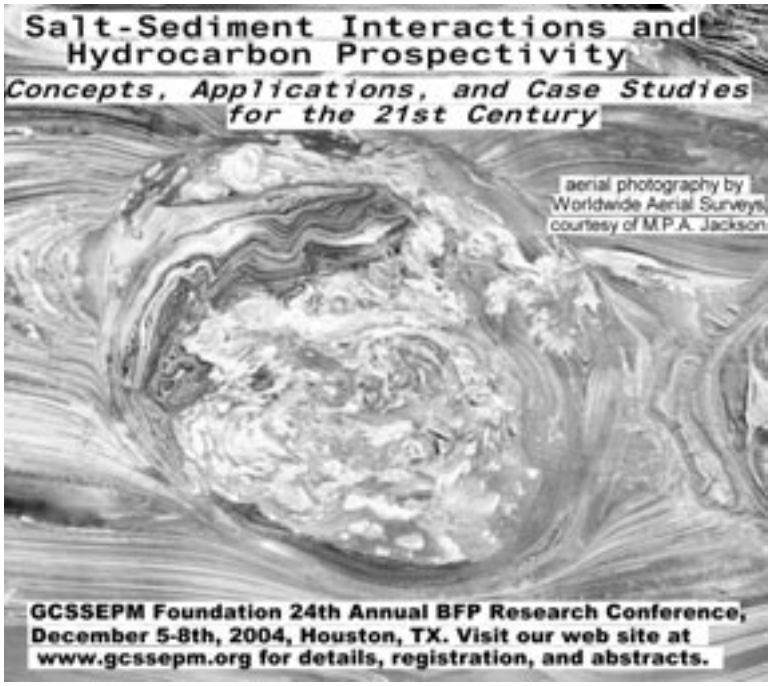
what's new with you in

"Members on the Move"

24th Annual GCSSEPM (Gulf Coast Section of the SEPM) Foundation Bob F. Perkins Research Conference

Since its inception in 1953, the GCSSEPM has fostered the science of stratigraphy in a number of ways: (1) through co-sponsoring the annual convention and it's published *Transactions* with GCAGS; (2) in sponsoring field trips; (3) by publishing field guides and special research reports; and (4) in producing the annual GCSSEPM Research Conferences and conference proceedings volumes. Regarding the latter, two significant events in the history of the Section occurred during 1980-1981: the initiation of the annual research conferences and the establishment of the GCSSEPM Foundation.

The GCSSEPM Foundation was established in 1981 as a trust for sponsorship of research and research-related activities, including research grants, seminars, conferences, symposia, publications and programs of continuing education in stratigraphy and the related sciences of paleontology and sedimentary petrology. The First Annual Research Conference was held December 1980 in Houston, Texas. This first effort was fully subscribed with over 300 registrants. Since then, 23 additional conferences have convened carrying forward the initial success and building a heritage of excellence. For 2004, our conference topic will be Salt-Sediment Interactions and Hydrocarbon Prospectivity: Concepts, Applications, and Case Studies for the 21st Century. The conference will be held at the Houston Marriott Westchase (formerly Adams Mark Hotel) December 5–8, 2004.



Salt bodies are often associated with hydrocarbon deposits, which may ultimately result in profits. This simple observation made early in the history of oil and gas exploration has led to an ongoing focus on understanding the interrelationship between salt, sediment, and hydrocarbons. In the late 1980s, the paradigm of "rooted" salt representing economic basement began to change. During the 1990s, enthusiasm spawned by subsalt and world-class salt-related discoveries in the Gulf of Mexico fostered a surge in exploration in salt basins throughout the world. The GCSSEPM recognized the complexity of salt tectonics and evolving concepts associated with the role of salt in petroleum systems at research conferences in 1989 and 1995. Our concepts and models of salt, sediment, and hydrocarbons continue to evolve. Therefore, we believe it is time to reassess the state of our knowledge with the 24th Annual GCSSEPM Foundation Bob F. Perkins Research Conference. There appears to be so much interest in the subject that for the first time in conference history, we are oversubscribed by authors desiring to present papers.

This conference represents an international event as authors are from Australia, Brazil, France, Great Britain, Norway, Poland, Scotland and the United States. Papers will be presented in the following areas: New techniques in modeling; salt body delineation; diapirs and diapirism; extension and inversion; the role of salt in regional and basin-scale tectonics; salt in contractional settings (fold belts); salt in the Gulf of Mexico—general; salt-sediment interaction; salt and hydrocarbons and shale tectonics. The conference CD will be a valuable reference containing manuscripts from each author, including those providing only poster sessions.

We have been publishing our proceedings in CD format since 1999. Since then, three of our CD's have won awards from the Society of Technical Communication (Houston Chapter) Technical Art, Publications and Online Communications Competitions. All of our papers are refereed, and we are proud not only of our technical content but also our manner of presentation.

A preliminary list of abstracts of the papers to be presented is now available on our Website (www.gcssepm.org) as well as on-line registration. Our website also lists all of our publications and has information about our other activities (such as the Ed Picou Graduate Fellowship Program). ■

Remembrance

Since the last report from the Remembrances Committee (March 2004), our geological community has lost the following members:

Glen Morris Coffey died April 7, 2004, at the age of 52. Mr. Coffey's formal education included course-work at the University of Texas, the University of Houston, and Houston Community College. He was employed by Sanchez Oil and Gas Corp. as a Senior Geotech. Mr. Coffey was an Active Member of the HGS. A donation will be made to the HGS Undergraduate Scholarship Fund.

Wade William Turnbull, Sr. died April 23, 2004, at the age of 88. Wade graduated from the University of Nebraska in 1939 with a BS in geology. He retired from Exxon USA in 1976 as Manager of Exploration, completing a 37-year career. Wade was an Emeritus Member of the HGS and a distinguished volunteer to the AAPG. A donation will be made to the Alzheimer's Association.

Phillip Hayes Allen died April 28, 2004, at the age of 63. Phillip graduated from Hardin Simmons University in 1963 with a BS in geology. During his successful career he worked for Coastal States, Texas Gas Exploration, CSX, Tenneco Gas Ventures, Trans World Exploration, and as a consulting geologist. Phillip was an Active Member of the HGS. A donation will be made to the HGS Undergraduate Scholarship Fund.

Robert Bruce Truman II died April 28, 2004, at the age of 60. Bob attended St. Edwards University in Austin for two years before finishing his BS in mechanical engineering from Cal State – Long Beach in 1966. Bob had served as Director of Industry Affairs at Baker Atlas since 1998, and was President of Z & S, Inc from 1992-1998. He was Founder & President of ResTech Houston from 1982–1991. Before that he was with Schlumberger Well Services serving as Marketing Director Offshore in New Orleans. Bob was an active member of the HGS as well as SPWLA, AAPG, and SPE. A donation will be made to the St. Anthony of Padua Catholic Church Education Fund.

Garry Davis Jones died May 6, 2004, at the age of 51. Garry earned a BA in geology from Catawba College in 1974, an MS from Western Washington State College in 1977 and a PhD in geology from the University of Delaware in 1981. He spent his career as a biostratigrapher for Unocal in Brea, California; Lafayette, Louisiana; and Sugar Land, Texas. He was an adjunct professor in the Earth Science Department of Rice University for the past three years. Garry was an Active Member of the HGS, SEPM, and AAPG. A donation will be made to the Garry Jones Children's Educational Fund, P.O. Box 17985, Sugar Land, TX 77496.

Embrace the Future—Celebrate the Past: The 2004 AAPG Annual Convention

Article and Photos by A. E. Berman

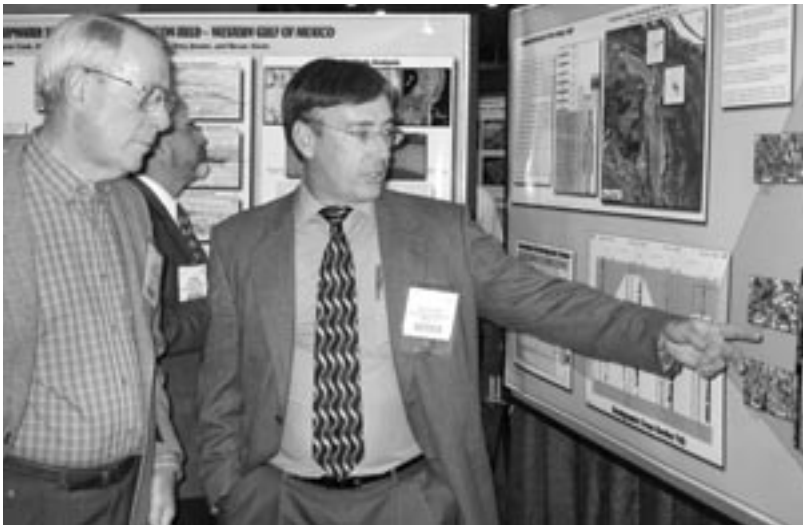
The 89th AAPG Annual Meeting was held in Dallas, Texas April 18–21 at the Dallas Convention Center. "Embrace the Future—Celebrate the Past" was the meeting theme and members of the hosting Dallas Geological Society planned the meeting's technical program with a focus on the environment of change in our industry that has become apparently a permanent part of our professional landscape.

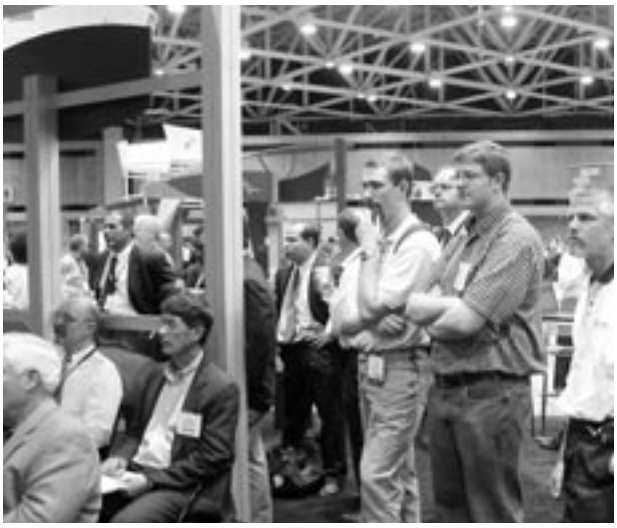
"The (meeting's) well-balanced technical program and the diversity of topical content will enable participants to examine subjects unfamiliar to them," said meeting general chair Terence G. O'Hare.

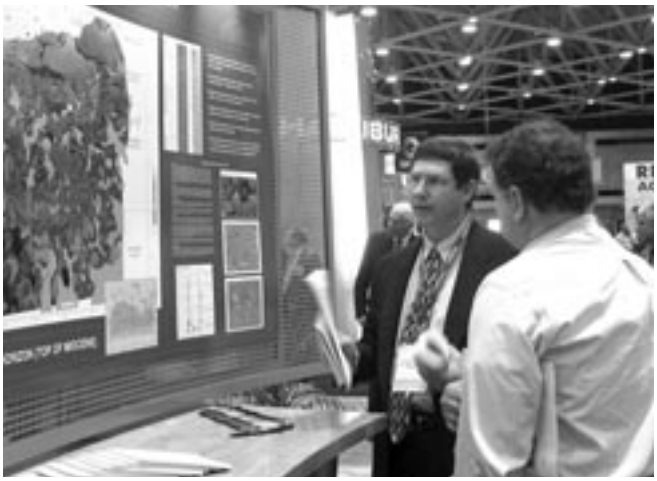
"The program is extremely comprehensive," he added, "providing something of interest for numerous geologic specializations."

The meeting's themes included many familiar session topics including risk and strategy, advances in technology and revitalizing reservoirs among others but there was a heightened emphasis this year on education. The issue and the problem, of course, is the general lack of interest in petroleum industry careers among recent generations of university students. This is a topic of regular discussion at HGS Board meetings and I was glad to see it strongly addressed at the Dallas meeting.

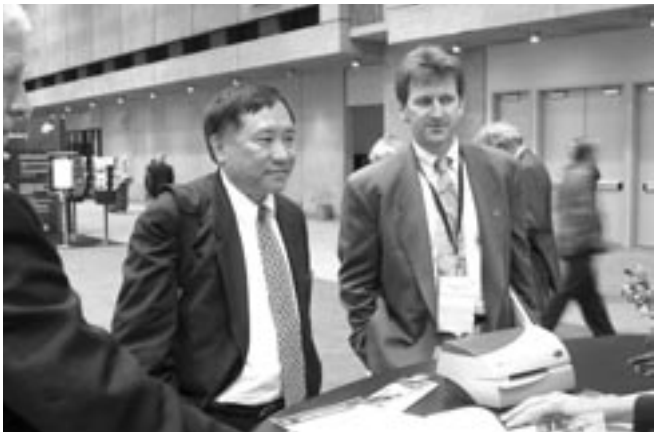
The atmosphere at the Dallas Convention Center was energetic and upbeat. Attendance of about 5000 participants was up from a year ago in Salt Lake City though many commented that this was still far from the record numbers in past years. The technical presentations I heard were well-attended and had good question-and-answer sessions. The talk around the booths and posters was lively and engaged. Next year's meeting will be in Calgary and HGS members at the Dallas Convention were already discussing ways to make the 2006 Annual Meeting in Houston the best ever! ■








Tempest



Dr. Scott W. Tinker, Director

Bureau of Economic Geology
The University of Texas at Austin
John A. and Katherine G Jackson School of Geosciences

Requests the pleasure of your company at the grand opening of the

Houston Research Center

Friday, June 4, 2004

11611 West Little York Road, Houston, Texas

9:00 – 9:30 a.m., Welcome and Introduction
9:30 – 10:30 a.m., Guest Speakers
10:30 –11:30 a.m., Building Tour
11:30 – 1:00 p.m., Lunch

Proven Reserve Reductions: a Geologist's Perspective Is Certification Necessary?

by Arthur E. Berman

The debate about reserve reductions has shifted to the need for certification of the technical staff that evaluates reserves. The case for certification is without substance based on the Shell/El Paso announcements that have brought the issue into the news. There is no evidence that the much-publicized reductions by Shell or El Paso resulted from failure by staff-level technical people to understand or apply SEC regulations. The sad fact is that we may now be better off proposing a certification process from within the industry rather than wait for one to be imposed by government bureaucrats.

We are in this situation because of a leadership failure by our national and international societies: the AAPG and SPE among others. The Shell reserve reductions and its implications for the way geoscience and engineering technical staff do their jobs is perhaps the most serious development in a long time at least from the standpoint of public perception. The absence of comment and opinion, much less counterpoint, on this crucial topic by the leadership of the professional organizations that speak for us amounts to tacit admission of less than satisfactory professional performance; leadership's willingness to participate in discussions on certification amounts to an admission of guilt. Unless we speak up it is practically assured that AAPG and SPE are already taking us down the slippery slope to reserve analyst certification.

Scientists and company management: get out your check books and plan time into your work schedules for reserve practices certification.

In last month's May HGS *Bulletin* I described the proven reserve reduction controversy ignited by the Royal Dutch/Shell Group's announcement of a 3.9 billion barrel downward adjustment in the company's world-wide proven reserve estimates earlier this year. I offered my opinion as a geologist that these and other shocking revelations need to be viewed from a perspective and in a context that distinguishes legitimate and predictable technical adjustments from non-technical, corporate-level adjustments and manipulations.

Update on the Shell and El Paso Reserve Reductions

Since I wrote *Proven Reserve Reductions: a Geologist's Perspective* (Houston Geological Society *Bulletin*, May 2004) new facts have come to light about Shell and El Paso's announced reductions. Somehow the discussion in the petroleum industry has shifted to the need for reserve analyst certification. Following is a summary of the information available since my writing of the May article:

1. Shell CEO Phillip Watts and Vice-Chairman Walter van der Vijver have resigned; Shell CFO Judith Boynton has stepped down from her position but will remain a Shell employee.
2. 2.3 billion BOE (barrels of oil equivalent: 5,658.53 cubic feet of gas=1 BOE) of Shell's proven reserve reduction came from existing producing areas, mainly Nigeria and Oman. These reserves were moved from proven to contingent reserves based on concerns for "project maturity" (Figure 1). Of this amount 0.1 billion BOE were developed reserves and 2.2 billion BOE were undeveloped (Demirmen, 2004, this and subsequent points 3-7).
3. 1.2 billion BOE of Shell's reserve reduction came from emerging or frontier areas, mainly Western Australia and Kazakhstan. These amounts were moved from proved to contingent reserves (undeveloped) due to uncertainty with new developments.
4. An additional 250 MMBOE reduction came from proved, undeveloped reserves in non-producing fields Gorgon (Australia, Figure 2) and Ormen Lange (Norway, Figure 3).
5. 0.4 Billion BOE of Shell's proven reserves were moved to probable reserves due to changes in lowest known hydrocarbon occurrence (free water level). Of this amount 0.1 billion BOE

Proven Reserve Reductions *continued on page 68*

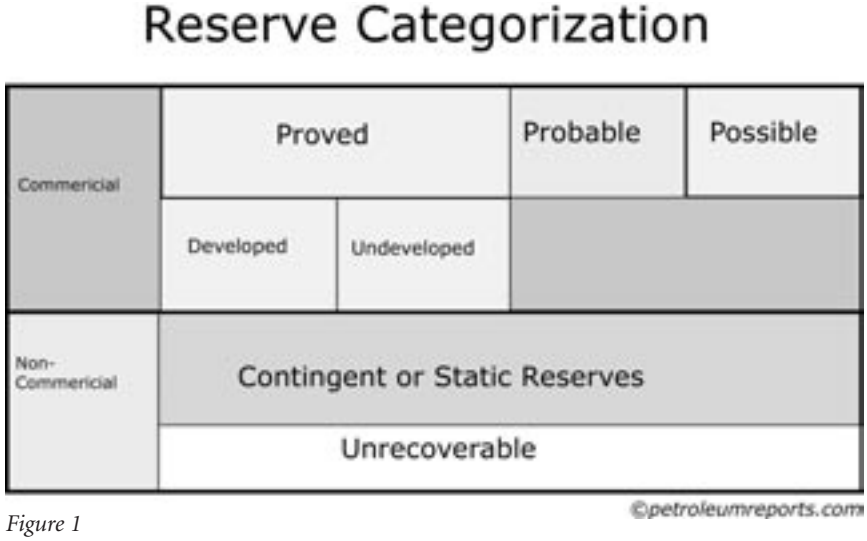


Figure 1

Proven Reserve Reductions continued from page 67

were developed reserves and 0.3 billion BOE were undeveloped.

6. Approximately 1.3-1.5 billion BOE of Shell's over-stated, proven reserves were from Nigeria. Shell was reluctant to lower its estimates previously due to concern about its relationship with the Nigerian government and jeopardizing bonus payments received as incentive for adding new reserves.
7. Overstatement of Shell reserves may have been related to executive compensation.
8. An independent review by Haynes and Boone concluded that El Paso employees used "aggressive and at times unsupportable methods" to book proven reserves and senior management was, apparently, guiltless (Goldberg, 2004). Much of this problem resulted from intentional over-statements by Sonat and Coastal who were acquired by El Paso; neither of the former chiefs of these companies were available for comment.

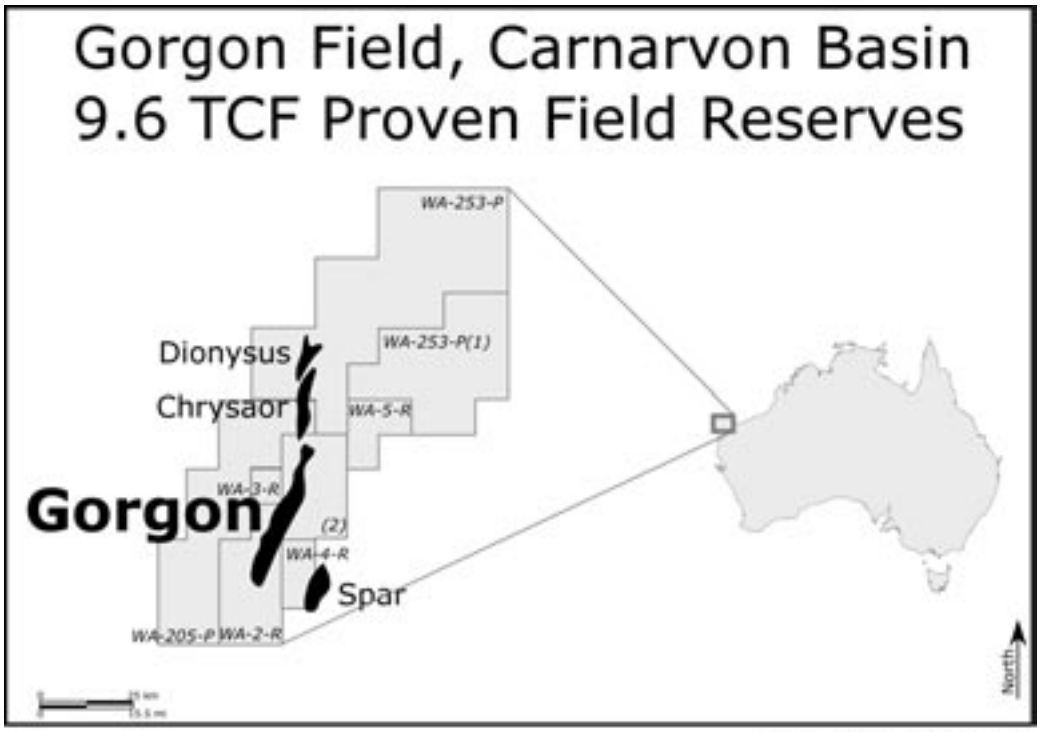


Figure 2

What Can Be Deduced From Recent Revelations?

It is clear that most proven reserve reductions at both Shell and El Paso had nothing to do with how technical staff estimated reserves. In fact only about 10% of the Shell reductions could have had anything to do with technical evaluation much less appropriate application of SEC standards to this methodology; the point of my May article was to demonstrate that technical revisions on the order of 20% are normal in undeveloped fields as new information is available.

Most Shell revisions were based on executive decisions in areas like Nigeria and Oman that had little or nothing to do with how reserves were estimated.

The El Paso story is, on face value, more to the point of certification if the Haynes and Boone report can be believed; no evidence or substantiation was presented publicly only the conclusion. The implication is that employees—I assume this means supervisors, managers and executives as well as staff-level people—incorrectly applied SEC guidelines resulting in over-statement of proven reserves. The report goes on to say that many, if not most, of these over-statements were inherited by El Paso when it acquired Sonat and Coastal.

I interviewed former Sonat and Coastal employees who unanimously decried pressure on staff technical people from first-line supervisors and managers to maximize reserve estimates by applying SEC guidelines literally and liberallly. I will relate a specific example cited for Sonat's approach to estimating onshore Louisiana, Cretaceous pinnacle reef reserves. According to my source staff was told by supervisors to increase gross rock volumes from their best technical assessment to the maximum allowed by SEC definitions projecting the areal extent of the reef downward from its maximum at the top of the reservoir (Figure 4).

A Call from Ronald Harrell, CEO of Ryder Scott Company

I received a call from Ronald Harrell, CEO of Ryder Scott Company, whom I mentioned in my May article. I thank Mr. Harrell for calling to express his disagreement with my characterization of his motives in calling for analyst certification. I also thank him for the gracious manner in which he expressed his views. I apologize for my heavy-handed interpretation of his article that I cited from the Oil and Gas Journal. I offered to publish his position on certification and this is presented in un-edited form elsewhere in this article.

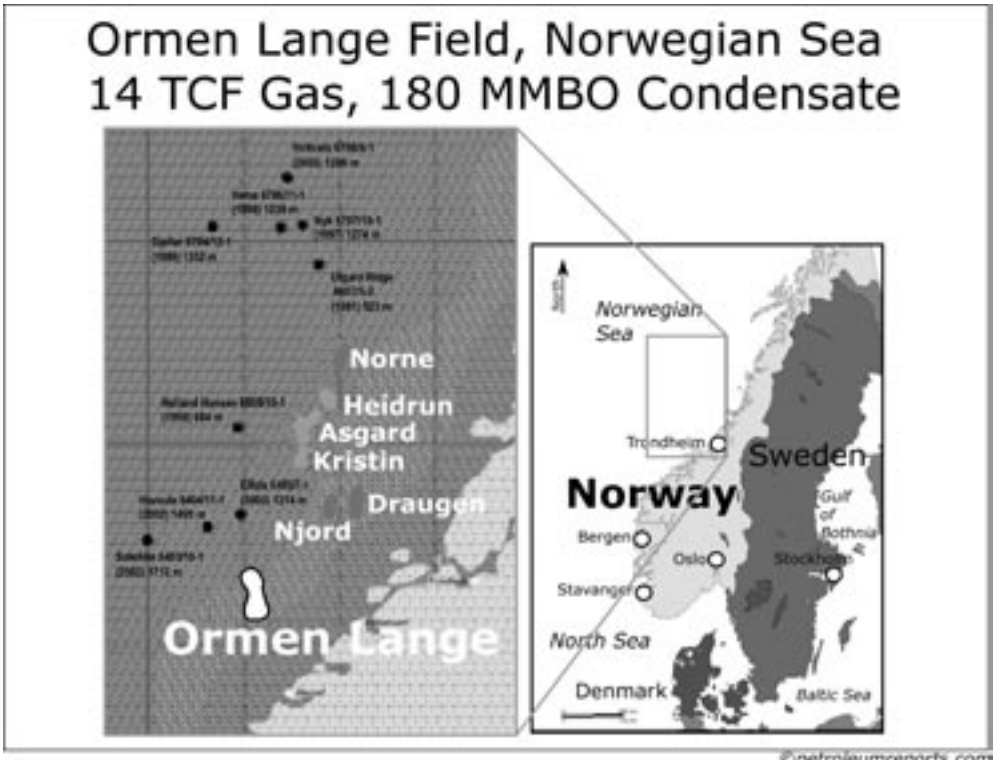


Figure 3

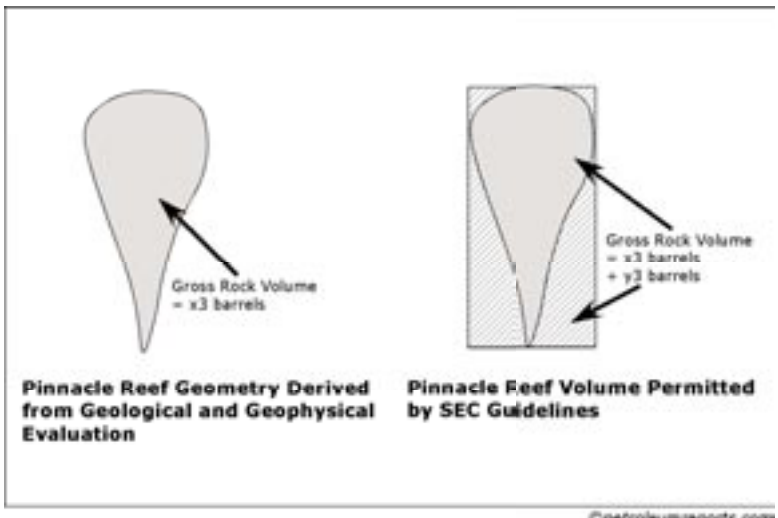


Figure 4

Harrell explained that his crusade to impose certification standards on the geoscientists and engineers in the petroleum industry was born out of years of observation of shortcomings in understanding by companies who are clients of Ryder Scott. He described this effort as personally driven more than as an initiative of his company and I accept that his statement is sincere and true. He further said that, if anything, certification would decrease his company's business once potential clients had their staffs certified. He went on to describe recent discussions he has had with leaders of the AAPG and SPE and their apparent support for his drive for certification [this is supported in the May issue of AAPG Explorer, Brown (2004)].

During our conversation I asked him to give me a specific example of how training in SEC standards would change the application of proven reserves on a technical level. I referred him to the cross-section (Figure 5) that I presented in my May article and asked him how SEC guidelines would dictate determination of free water level in that case. He said SEC would put the contact at the base of the sand. I pointed out that the discussion in my article had to do with how high above the base of the tested interval (and base of sand) to put the contact. In other words the SEC guidelines would result in the most optimistic interpretation possible and would over-state reserves. He concurred that, in this particular case, this was true but that this was only one example.

Other Considerations and the Case for Certification

While part of Shell's reserves revision can be attributed to the subjectivity of reserves booking and may involve aspects of the technical evaluation most (at least 90% by my calculation) of the reductions were for reasons unrelated to the technical estimations themselves. Far less is known at present about the El Paso revisions but it appears that perhaps an equally small percentage of these are related to the technical assessment and application of SEC standards at least by the technical staff.

What is the case for certification? It seems that if such a case can be made it should be applied to the supervisory and executive employees of Shell and El Paso, not the rank-and-file scientists.

Let's be fair: the geoscience and engineering staff that has survived the staff cuts and mergers of the past 20 years are highly competent. All have considerable experience (the average age of geoscientist in the petroleum sector is 48 according to AAPG!) and many have **Proven Reserve Reductions** *continued on page 71*

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Ronald Harrell's Response to the HGS Bulletin's May article on reserve reductions

What is the real reason for recommending that petroleum reserves evaluators become certified?

Ron Harrell, Chairman & CEO Ryder Scott Company, L.P.

In asking whether the oil and gas industry should establish a certification program for petroleum reserves evaluators, one must look at the enormous value that they appraise. Their valuations, both internal and external, are the basis for investment decisions involving billions of dollars every year. For those reservoir engineers and geologists at E&P companies whose task is to prepare reserves reports in compliance with rules of the U.S. Securities and Exchange Commission (SEC) and with other regulatory authorities, their responsibilities have never been greater or more daunting than they are today.

The Sept. 15, 2003 issue of The Oil & Gas Journal (OGJ) reported that the 154 publicly owned U.S. oil and gas producers who filed 10-K reports at year-end 2002 reported 37 billion barrels of oil and 187 trillion cubic feet of natural gas. At $35/bbl and $5/mcf, for example, those reserves represent a total value of more than $2 trillion. The OGJ reserves quantities for year-end 2003 may be even greater because of higher commodity prices, so the $2 trillion figure for total value would seem conservative. In addition, that figure is understated because it does not include non-U.S. companies reporting to the SEC and companies reporting in other countries. Even so, $2 trillion is not a trifling amount, comparable to the gross national product of Germany, the fifth largest domestic economy in the world.

It is probably fair to state that most of this value has been estimated by competent, well-trained professionals. In my opinion, it is also fair to say that many other individuals charged with estimating reserves are not well trained in some of the fundamentals necessary to issue reliable estimates that conform to relevant definitions. This second category of companies and estimators would be the real beneficiaries of a proposed certification program—an interdisciplinary program for both geologists and petroleum engineers.

Certification alone will not necessarily change human behavior, including unethical conduct, but the additional training required for a candidate to pass a meaningful examination will, at least, expose such individuals to a code of ethics as well as to accepted techniques and evaluation practices.

The four facets proposed as the foundation for certification are
(1) Recommended practices in reserves estimation
(2) Basic ethics training
(3) Relevant reserves definitions
(4) Continuing education

Candidates for certification would need to (a) provide evidence of their educational and professional qualifications (b) recommendations of respected peers (c) successfully complete an open-book examination of recommended practices in reserves estimation, ethics and selected reserves definitions, and (d) consent to maintaining a satisfactory level of competency by annual recertification through continuing education. All of the above could be made available to anyone at a nominal cost through the Internet. No one would be "grandfathered" into the program.

The sponsoring organizations could include AAPG, SPE and SPEE and all of these professional associations that are currently giving serious consideration to the certification proposal. A meeting of representatives of all three organizations is expected to occur in June with an initial purpose of forming an exploratory committee to further research the idea and to subsequently report back to their respective sponsors with initial recommendations.

Is this simply a plan to mandate a requirement that all reserves reports be prepared by certified evaluators or to increase business for engineering and geological consultants? NO! Indeed, it is anticipated that many E&P companies, both large and small, will be anxious to obtain certification for certain key individuals within their companies to reassure investors that their reserves have been properly prepared and reported by internal personnel who have met international standards for reserves reporting. An ensuing boost in investor confidence may, in fact, discourage or silence current calls that third-party reserves audits be required.

In response to a question about the need for such certification, the SEC has indicated that they take no position on this particular matter but welcome any efforts that will improve reserves reporting compliance.

Comments, positive or negative, as well as further questions will be welcomed by the author.

Respectfully Submitted,
Ron Harrell, Chairman & CEO
Ryder Scott Company, L.P.
ron_harrell@ryderscott.com
May 5, 2004

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Proven Reserve Reductions continued from page 71

advanced degrees in their specialty and/or post-graduate recognition for completion of accredited, degree-equivalent training. The assertion that these people need special training and certification for reserve estimation seems absurd; the guidelines are not that complicated or lengthy. I see notices posted in every U.S. company reminding employees about equal employment opportunity laws, minimum wage requirements and company policy with no initiative to certify employees in these important areas. Why assume that SEC regulations should be treated differently?

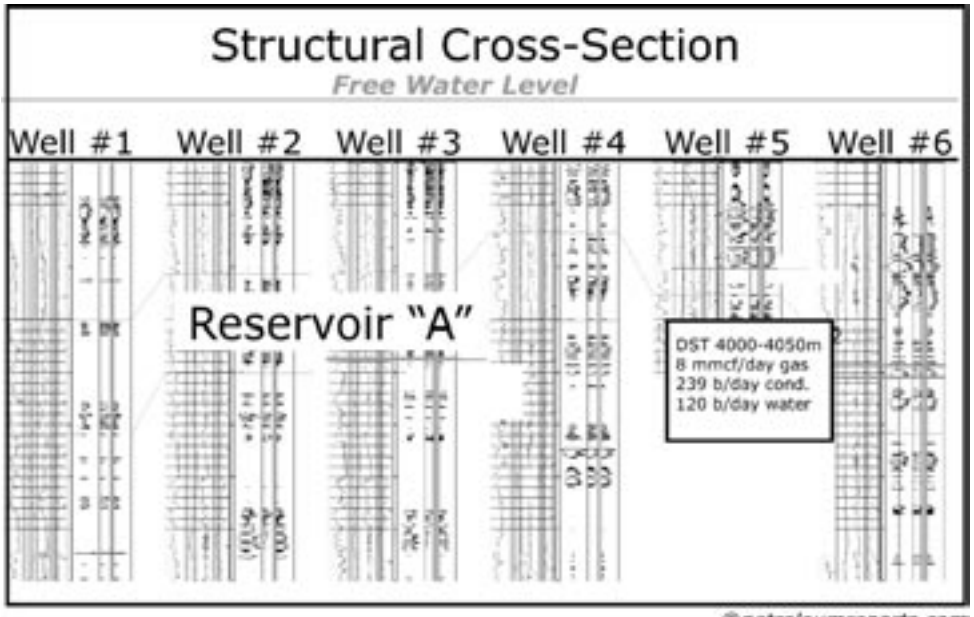


Figure 5

Let me be fair: there are areas of reserve evaluation that are new and may require some training. Unconventional resources such as coal-bed methane, tight gas sands and methane hydrates are among those that come to mind. The application of seismic attributes and direct hydrocarbon indicators are also areas that may require special attention for reserve determination. The AAPG Committee on Resource Evaluation is evaluating these special areas as are equivalent groups in SPE and SEG. Perhaps certification in these areas makes sense but I, for one, will wait for the findings of the groups investigating these topics before proposing certification.

Red Herring

The case for reserve certification is a "red herring." The Shell and El Paso announcements are important and the petroleum industry needs to address and deal with them. There is simply no credible indication that these extreme revisions had anything to do with the way technical staff did reserve estimations. Ron Harrell and, perhaps others, are entitled to promote certification. I have no doubt after speaking with him that Harrell is sincere in pursuing certification and that his considerable experience in the reserves area tells him there is justification. There is just no basis to use the recent Shell and El Paso controversy to justify the need for certification. If anything these revelations should be added to the long list of executive integrity issues and questions raised by the Enron debacle.

What would certification mean to geoscientists and engineers and the companies who employ them? Lots of expense and lots of time. I can envision annual fees for individual certification (Texas professional geoscience license costs $200 initially and $175 per year thereafter, as an example), the need for governmental agencies to oversee and administer certification and a new market for companies and institutions that develop training programs in reserve methods.

It may already be too late to stop or even slow the momentum toward certification now that the leaders of AAPG and SPE have indicated they will consider moving in that direction. Many of you are familiar with the anecdote used in many leadership training courses about the "Trip to Abilene." In this well-known story a Texas Panhandle family decides to take a trip to Abilene largely because they are bored and hot at home on the farm. After an unpleasant and non-productive excursion everyone starts to blame each other for proposing the trip in the first place. It turns out that the suggestion was casual and that everyone agreed to go out of boredom and momentum. The lesson of story is that groups often make decisions for no particularly good reason and then everyone is sorry they did not object. I think we are about to begin a trip to Abilene with reserve certification and I, for one, am saying that I don't want to go. ■

References

Brown, David, Reserve estimates under scrutiny: certification a solution?; in AAPG Explorer, May 2004.

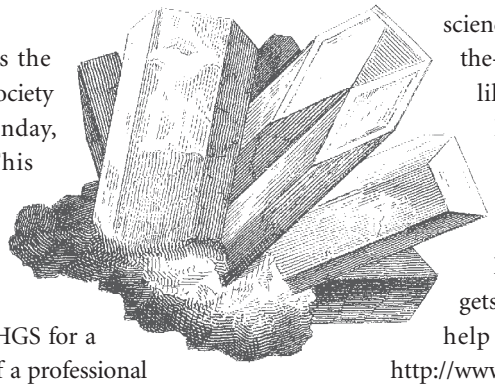
Demirmen, Ferruh, Shell's reserves revision: a critical look; in Oil and Gas Journal, April 5, 2004.

Goldberg, Laura, 2004, Review faults El Paso employees: "unsupportable" methods used to book reserves, Houston Chronicle May 4 2004 Business Section.

Looking Ahead
Outreach Events for Fall 2004

By Janet Combes

The fall of 2004 has special events scheduled for September, October, and November that should be of interest to geologists and their friends and families.



The first outreach activity is the Houston Gem and Mineral Society (HGMS) Show, Friday – Sunday, September 24–26, 2004. This year will be the first year that the HGS will have a booth at this large annual event (about 6000 visitors last year). The HGMS asked the HGS for a booth explaining the career of a professional geologist. There is a strong educational component to the HGMS Show: last year about 2400 students attended the show on Friday as part of school field trips and over 500 Scouts earned Geology badges. In addition to the vendor booths through which so many of us love to browse, there are many displays and specific earth science learning opportunities. The HGS will set up its new "Energy Cycle" exhibit, prepared last year for a debut at the Science Teachers Association of Texas convention. Plans include displaying some interesting core and possibly a coring drill bit. Any ideas for displays or "freebies" and/or any loans of material are very welcome. Volunteers are needed to help staff the booth for the three days of the show; if you plan on attending the show, even if you can only spare an hour, please sign up. Contact Jennifer Burton at jennifer_burton@anadarko.com. The CVGs, our Museum volunteers, will also be working as "explainers" at the HMNS booth—if you would like to help with hands-on activities there, please contact the Museum Committee, Immega@swbell.net .

October 10-16, 2004, Earth Science Week (ESW), has the theme "Living on a Restless Earth". This will be the 7th year that the HGS has joined the international celebration and recognition of Earth Science Week. Houston is recognized for the quality and quantity of its ESW events. The HGS kicks off ESW with a Family Energy Festival at the Houston Museum of Natural Science (HMNS) on Saturday, October 9, 2004. Special activities as part of a passport contest will be set up in the Cullen Gem and Mineral Hall, the Paleo Hall, and the Weiss Energy Hall. Children of all ages participate—looking through microscopes, examining maps, identifying fossils and minerals—to win a prize. An opening ceremony is typically held in the Pendulum Hall on Saturday also and at that time winners of K-12 Earth Science essay and art contests are given their awards. Throughout the week HGS members are encouraged to give talks to local schools about an earth science topic. The final weekend of ESW has two free-to-the-public field trips; the Saturday trip has been to places like Galveston Island, High Island, and the Whiskey Bridge fossil outcrop. The Sunday trip heads toward an indoor site such as Spindletop Museum, the Ocean Star Drilling Museum, or the Bureau of Economic Geology's Houston Core Warehouse. Watch the Bulletin and the website for more details as October gets closer. You will also be able to order an ESW kit to help with classroom presentations from AGI: http://www.earthsciweek.org/materials/index.html . If you have a suggestion for an activity or field trip, if you want to get a class to participate in the art and essay contests, if you have any questions, and/or if you want to volunteer for any or all of the events, please contact Elizabeth Fisher at eafisher@jasongeo.com

The third event next fall is Dino Days, November 4–5, at the Houston Museum of Natural Science. There will be a family festival with contests and craft tables and give-aways on Saturday. The HGS Certified Volunteer Geologists will be out in force for this day. This year, children will also be able to register for special ticketed classes and activities. The BIG news is that plans are under way for the Museum and the HGS to co-sponsor a major dinosaur author to come to give several talks and workshops. Please watch the HMNS Website (www.hmns.org) and newsletter, as well as the HGS *Bulletin* and Website (www.hgs.org), for more information on this exciting event. The last time the museum had a similar activity was seven years ago, and it sold out. Contact: Janet Combes jmcombes@msn.com. ■

HGS Event Registration Brochure is Available

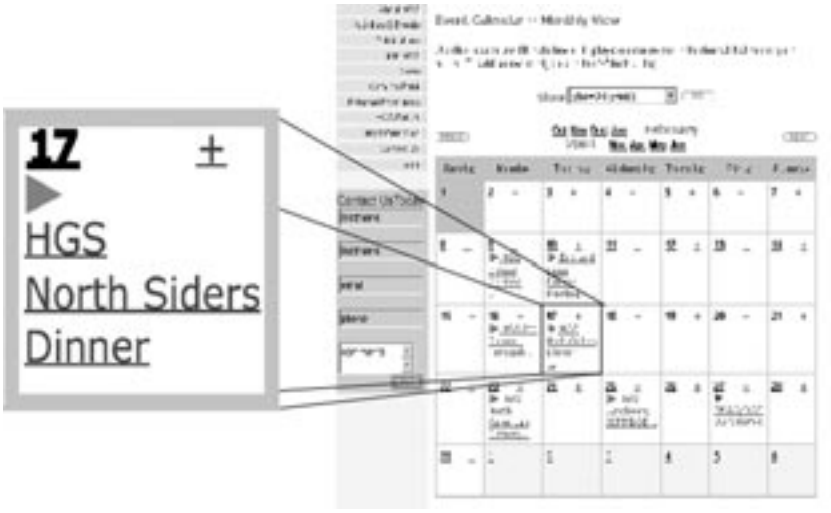
I know I've been hitting the on-line registration pretty hard lately but I mentioned in a previous Webnotes that an HGS Event Registration Brochure was coming and, as of the beginning of March, it has been distributed at all HGS events. As promised I now present the back side of that brochure or the HGS version of "On-line Event Registration for Dummies."

1. Log on to he HGS Website using your Pre-registered member ID to ensure you get the *Member Price*.

http://www.hgs.org

2. Click "Activities and Events"

3. Choose an event from the calendar and click it.



Webnotes *continued on page 63*

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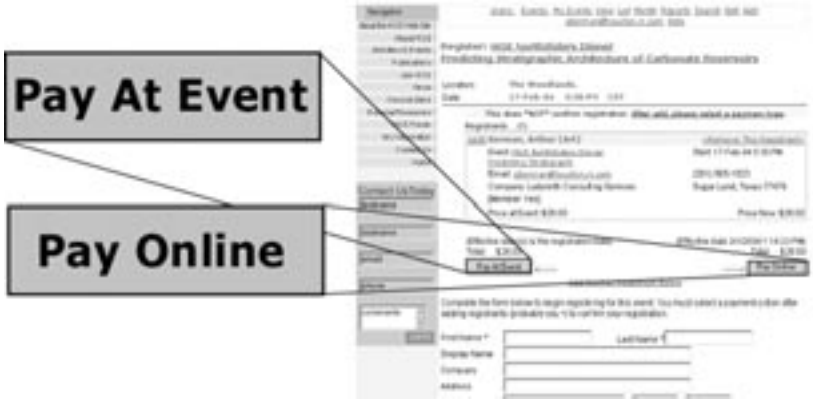
4. Click “Add Registrant.”

5. If there is a charge for the event, choose either “Pay Online” or “Pay at Event”



6. “Pay Online” takes you to a secure site where you can enter your credit card information (an e-mail will be sent almost immediately to confirm your payment).

HGA *and* GeoWives **News**

HGA

It is indeed an honor to be selected by you to be your President for the coming year. It will be a pleasure to serve this group which I have admired and loved since I joined, immediately after Bill was relocated from Tyler to Houston in 1965. I was not as active as I would have liked, due to pre-school children and later my job with HISD. All those busy years, I looked forward to the day when I would be retired and able to enjoy this group to the fullest. Since my retirement in 1996, I have really enjoyed all that HGA and GeoWives have had to offer.

Your new officers, directors and committee chairmen are all top notch and hard at work to get the new year off to a good start. I am sure that you will be pleased with the programs that have been planned for you, but, at this time, the details are too incomplete to report. You will be advised as soon as possible.

Meantime, have a great summer and keep notes of all your interesting adventures so that you can include them in our *Eclectic Log.*

Please utilize forms for HGA and GeoWives to renew your membership and mail them according to the instructions listed.

Looking forward to seeing all of you in the Fall.

Sincerely,
Margaret Eisenhardt Jones
2004-2005 HGA President

GeoWives

Debra Munsell is our new President for the 2004-2005 year. Janet Godfrey will be contacting members as before with details of each month's events.

Your new Board wishes you all a very enjoyable summer.

GeoWives *applications on page 78*

Enjoy your summer!

You are invited to become a member of
Houston Geological Auxiliary

2003–2004 dues are $20.00
make check payable to *Houston Geological Auxiliary* and mail to:
Audrey Tomkins • 3007 Stalley • Houston, Texas 77092

HGA YEARBOOK INFORMATION

Last Name	First Name	Name Tag

Spouse Name	Name Tag	HGS Members Company

Home Phone	Business Phone	Business Fax
( )	( )	( )

Street Address	City	Zip

Birthday, Month, Day ONLY	Email Address	Home Fax
		( )