

AAPG AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS, AN INTERNATIONAL ORGANIZATION

EXPLORER

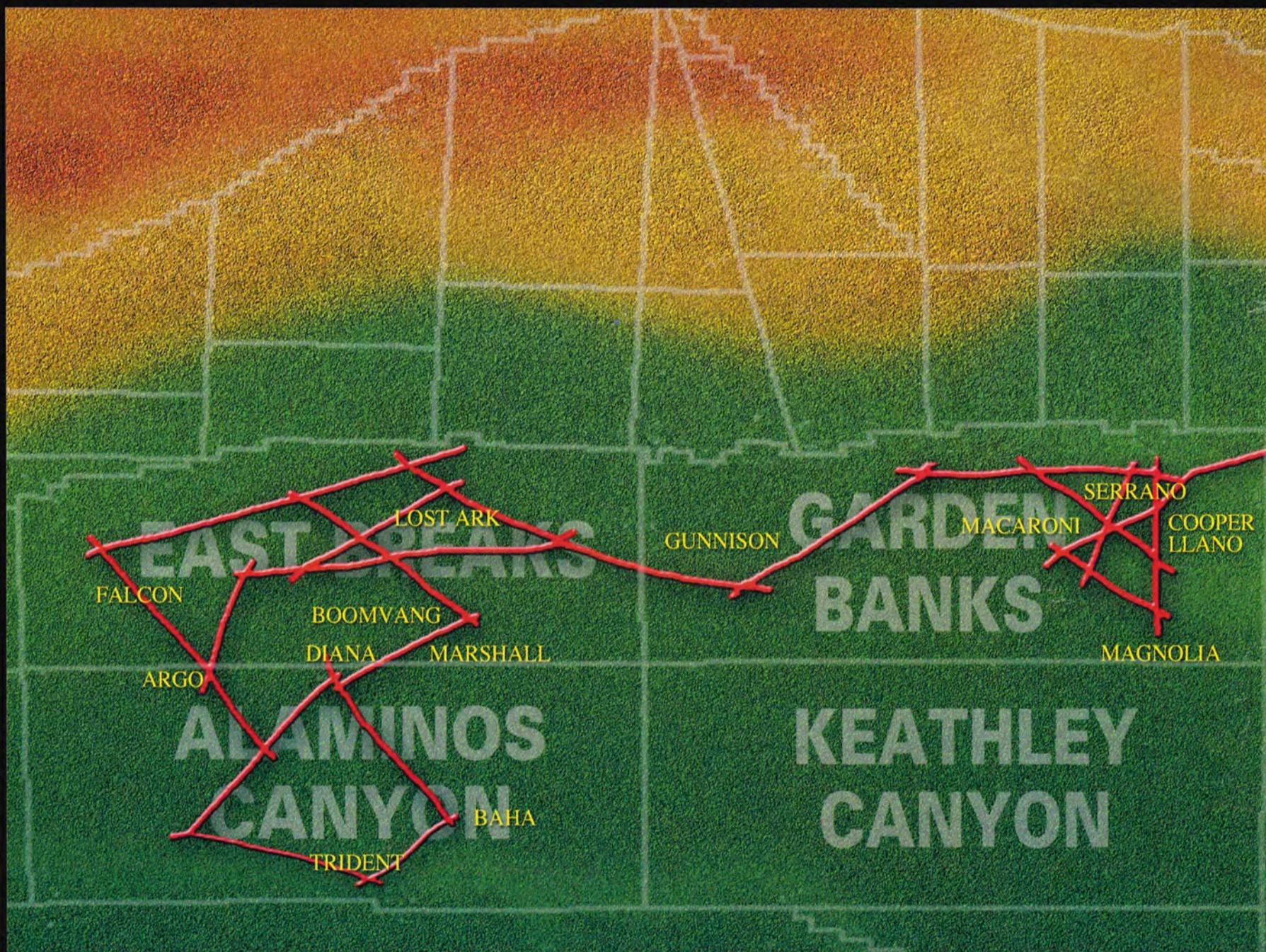
JULY 2002

*'The finest workers
in stone are ...
the gentle touches
of air and water.'*

Utah, Here We Come



VERITAS HAS THE

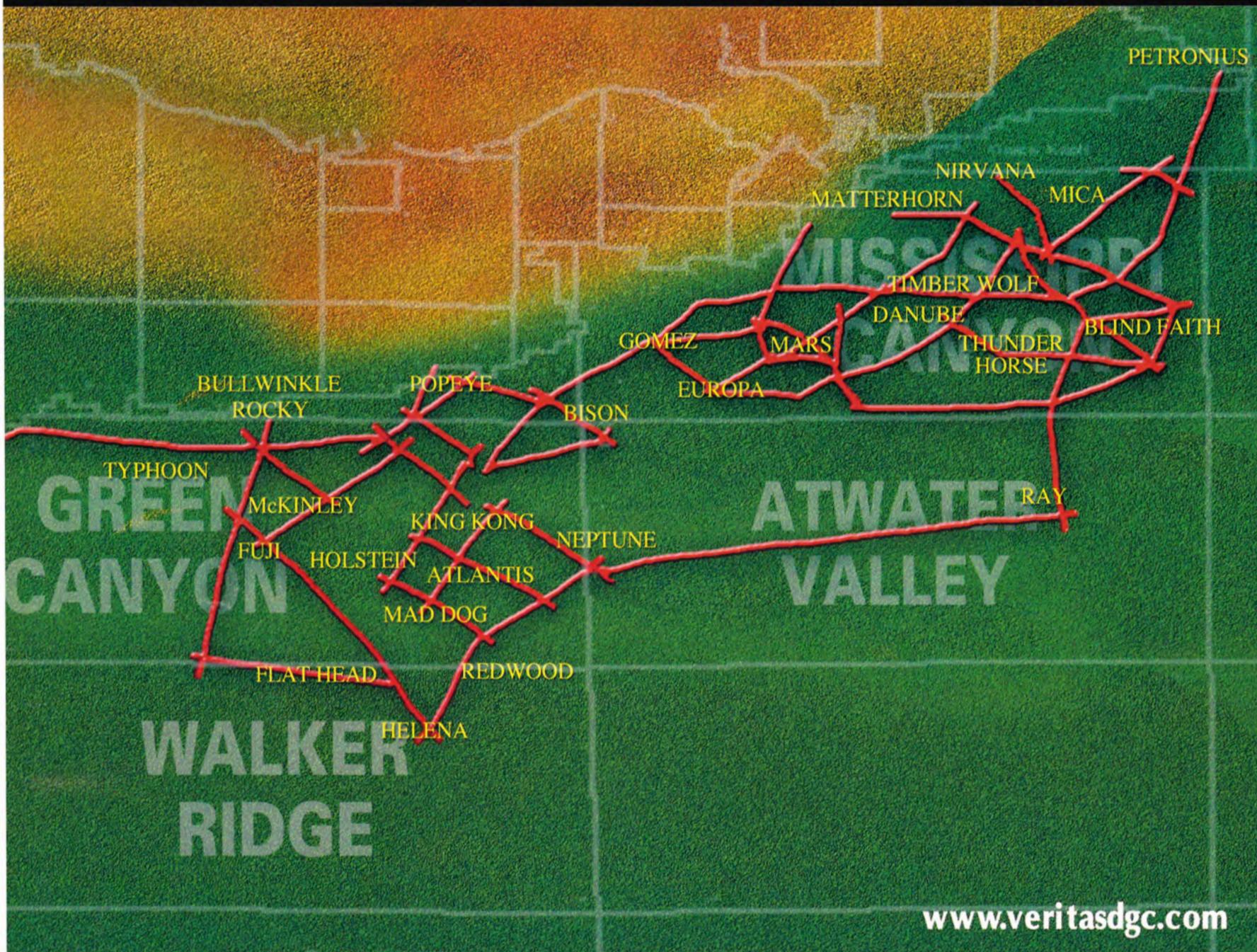


Long-Offset Deepwater Well Tie

Veritas Marine Surveys adds to its extensive deepwater Gulf of Mexico library with a long-offset 2D well-tie survey. This program will initially consist of over 5350 full-fold 2D kilometers in four distinct geographic areas. The Long-Offset Deepwater Well Tie program will deliver 10,000-meter offsets for the first time in the deepwater Gulf of Mexico. Lines will be extended 10 kilometers past the wells to provide full fold data a minimum of five kilometers on each side of the wells. Over 100 wells will be tied in this survey.

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On the cover: Geologists who attend an AAPG annual meeting in Utah can be treated to something more than the usual technical papers and convention-related activities. Utah provides a magnificent geologic setting that is beautiful, dramatic and educational. One of Utah's many geologic wonders graces this month's cover: A view of the Double Arches, found in Arches National Park in southeastern Utah. Quote by Henry David Thoreau, photo by AAPG member Peter Link. For more information on the meeting, see story below right.

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PRESIDENT'S COLUMN

Value Proposition An Attainable Goal

By DANIEL L. SMITH

WANTED: Highly skilled geoscientist with broad understanding of geology, geophysics, petrophysics and reservoir engineering. Experience in time-lapse and multi-component seismic, reservoir modeling and visualization, designer wells, high resolution seismic processing, rock analysis and geological modeling. Should be able to use all of the tools in the toolbox yet understand the underlying science and rationale behind their use.

Am I qualified for the above job? No way.

However, I did commit to my current job with AAPG, and my promise to carry out the theme of "Value, Value, Value." This involves undertaking a "Value Proposition for AAPG."

The stakeholders include all classes of members, companies, educational institutions, government bodies, regulatory agencies – and possibly others.

Clarifying and capturing the services and benefits desired by the stakeholders is what I call the "Value Proposition."

Wow! Is this possible? Absolutely.

I thought I was thoroughly familiar with AAPG governance, activities and services when I began this past year as president-elect. Not even close. Under Robbie Gries, the Executive Committee and the able leadership of Executive Director Rick Fritz, member services have increased greatly.

I promise to continue these initiatives – and add to the pile.

Over time, geoscientists will choose to be associated with AAPG in direct proportion to the benefits they feel that they derive from membership. Ease of access and quality of services and benefits are primary factors in this perception, and are controllable.

My challenge is to communicate to you what I believe to be a given – that it will be difficult for you to have a successful career in geology, or any of its subsets, without AAPG.

To borrow from another source, don't leave home without your membership card.

In future columns and everywhere I go, you will be hearing from me about



Smith

these services and benefits. You will be amazed by how much AAPG has to offer.

Very important item: We really pulled it off last year – APPEX that is – and this year's Prospect and Property Expo staged by AAPG, SIPES and the

Houston Geological Society should be twice bigger and better.

This event – a shining example of a valuable service provided by your Association – is set for Aug. 27-29 at the George R. Brown Convention Center in Houston.

This is a last minute reminder,

*It will be difficult
for you to have a
successful career in
geology without
AAPG.*

however, to register as a viewer or exhibitor. The deadline is August 2. Just being there for the networking and learning experience is valuable, even if you are not buying or selling.

See page 14 for more information.

Oh, yes!! Mortals need not apply to the position stated above, but should take advantage of AAPG membership, if you have not already done so.

A corollary: Some things seem impossible to accomplish, but a Value Proposition for AAPG is not one of them.

Daniel L. Smith

Planning Starts for SLC

The time is right to start thinking about AAPG's next annual meeting – a session that will be held in the heart of some of the country's most scenic and accessible geology.

"Energy – Our Monumental Task" is the theme for AAPG's 88th annual meeting, to be held May 11-14 in Salt Lake City, host of the recent Winter Olympic games.

Salt Lake City also is surrounded by classic geologic sites that serve as natural laboratories for both information seekers and fun seekers (see cover photo for an example).

The Salt Lake planning committee members are putting together a technical program that has "something for everyone." AAPG, its divisions and SEPM together are sponsoring 50 oral sessions and 50 poster sessions – a total of about 1,000 technical

presentations.

The call for abstracts was included in the May EXPLORER. Abstracts are due Sept. 18.

Nine technical themes are being offered:

- The Business Side of Petroleum.
- Global Energy Resources.
- Environmental Issues.
- Reservoirs.
- Structures and Tectonics.
- Technologies – New and Proven.
- Stratigraphy, Sedimentology and Paleontology.
- Petroleum Systems and Geochemistry.
- Student Presentations.

For more information contact the AAPG convention department, or visit the Web site at www.aapg.org. Abstracts can be submitted online at www.aapg.org/meetings/slc03/.

Explore Your Potential

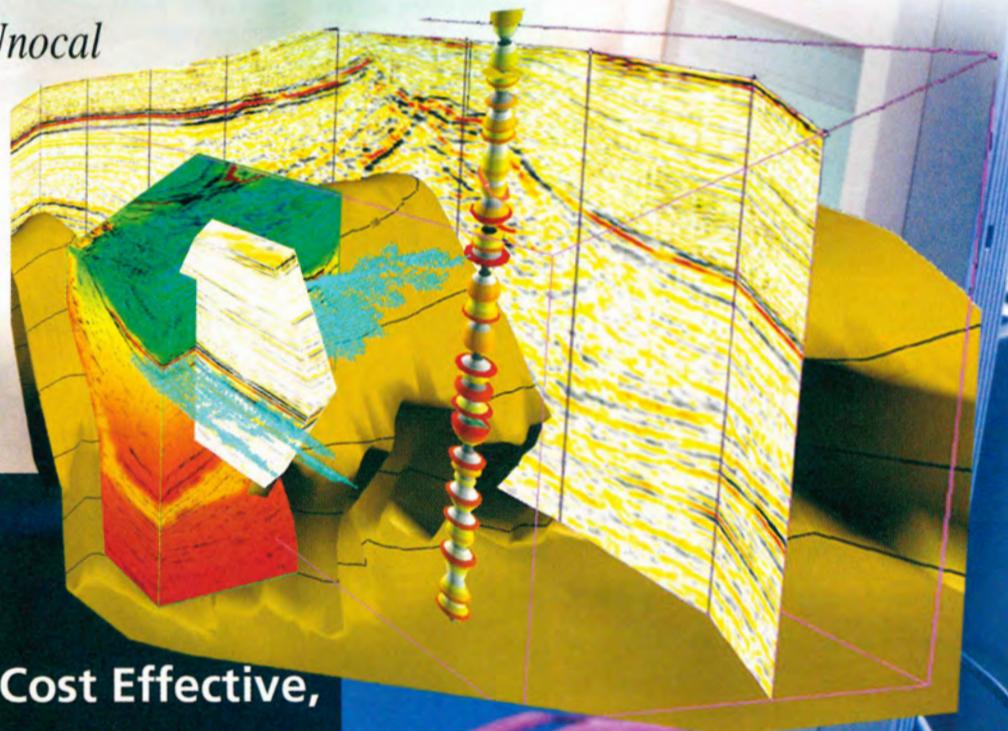
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'02-'03 Executive Committee Seated

Dan Smith Assumes AAPG Reins

Daniel L. Smith has assumed the leadership of the association's Executive Committee for 2002-2003.

Smith, executive vice president of exploration for Sandalwood Oil & Gas in Houston, served as AAPG president-elect for 2001-2002.

A native Houstonian, Smith received a bachelor's degree from the University of Texas at Austin. He began his professional career with Pan American Petroleum (now BP Amoco), and in 1967 joined Roberts and Whitson Petroleum as exploration manager.

Over the following years he worked for Texoil Co. as part owner, executive vice president and exploration manager. In 1992 he joined Texas Meridian Resources (now the Meridian Resource Corp.) as a consultant and later joined the company as vice president of exploration, retiring in 1999 as vice president-new ventures.

He joined Sandalwood in 2000.

Joining Smith on the Executive Committee are Stephen A. Sonnenberg, of EnCana Energy Resources in Denver, who recently was voted president-elect by the AAPG membership. Sonnenberg is manager of the DJ Sub-Business Unit for EnCana (formerly North American Resources). He holds bachelor's and master's degrees in geology from Texas A&M and a doctorate from Colorado School of Mines.

He will serve as AAPG president in 2003-04.

Also recently elected to the 2002-03

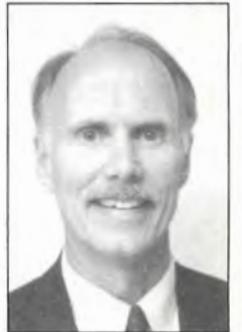


Smith

AAPG 2002-2003 Executive Committee



Lloyd



Sonnenberg



Weimer



Lorenz



Mankin



Hollrah

Executive Committee are:

□ Vice President – Peter M. Lloyd, business development director in Kuala Lumpur, Malaysia, for Schlumberger NexT (one-year term).

□ Treasurer – Paul Weimer, of the University of Colorado, Boulder, and a

consulting geologist (two-year term).

□ Chairman of the House of Delegates – Terry L. Hollrah, of Hollrah Exploration, Oklahoma City.

Remaining on the committee are:

□ Secretary Charles J. Mankin,

director of Sarkeys Center at the University of Oklahoma and director of the Oklahoma Geological Survey, Norman.

□ Elected editor John Lorenz, of Sandia Laboratories in Albuquerque, N.M. □

EXPLORATION SERVICES

RESERVOIR SERVICES

PRODUCTION

MULTI-CLIENT 3D DATA

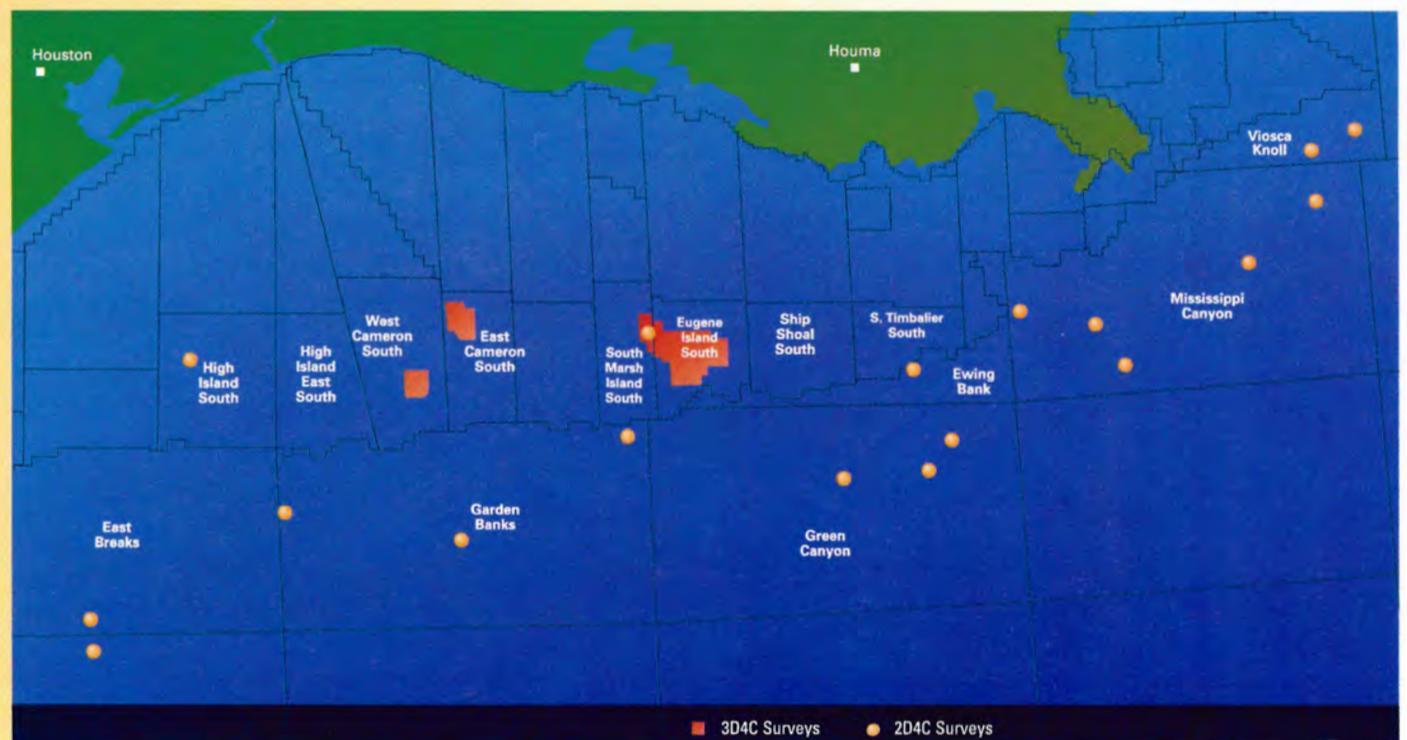
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Working with a team of recognized experts in Gulf of Mexico geology, we designed GulfSpan with one goal only: to produce superior prestack depth images for superior insight into the basin architecture and geologic evolution of the deep section of the northern Gulf of Mexico.

GulfSpan is the first regional seismic program in the Gulf of Mexico for which depth images are not after-thoughts or add-ons, but the primary deliverable. 3,700 miles of consistent, modern, optimally imaged seismic data traverse key geologic features and deep wells and provide new context for older seismic archives. Every aspect of the GulfSpan program – including survey planning, acquisition management and QC, pre-migration processing and the

latest in both wave equation and Kirchhoff prestack depth imaging – is guided by our Image-Driven workflow. We leave nothing to chance in our quest for the best subsurface images.

We believe that GulfSpan will become the framework of choice for a more thorough understanding of the geology of the deep Gulf of Mexico. To review the GulfSpan program map and the geologic thought behind each line location, please contact GX Technology.

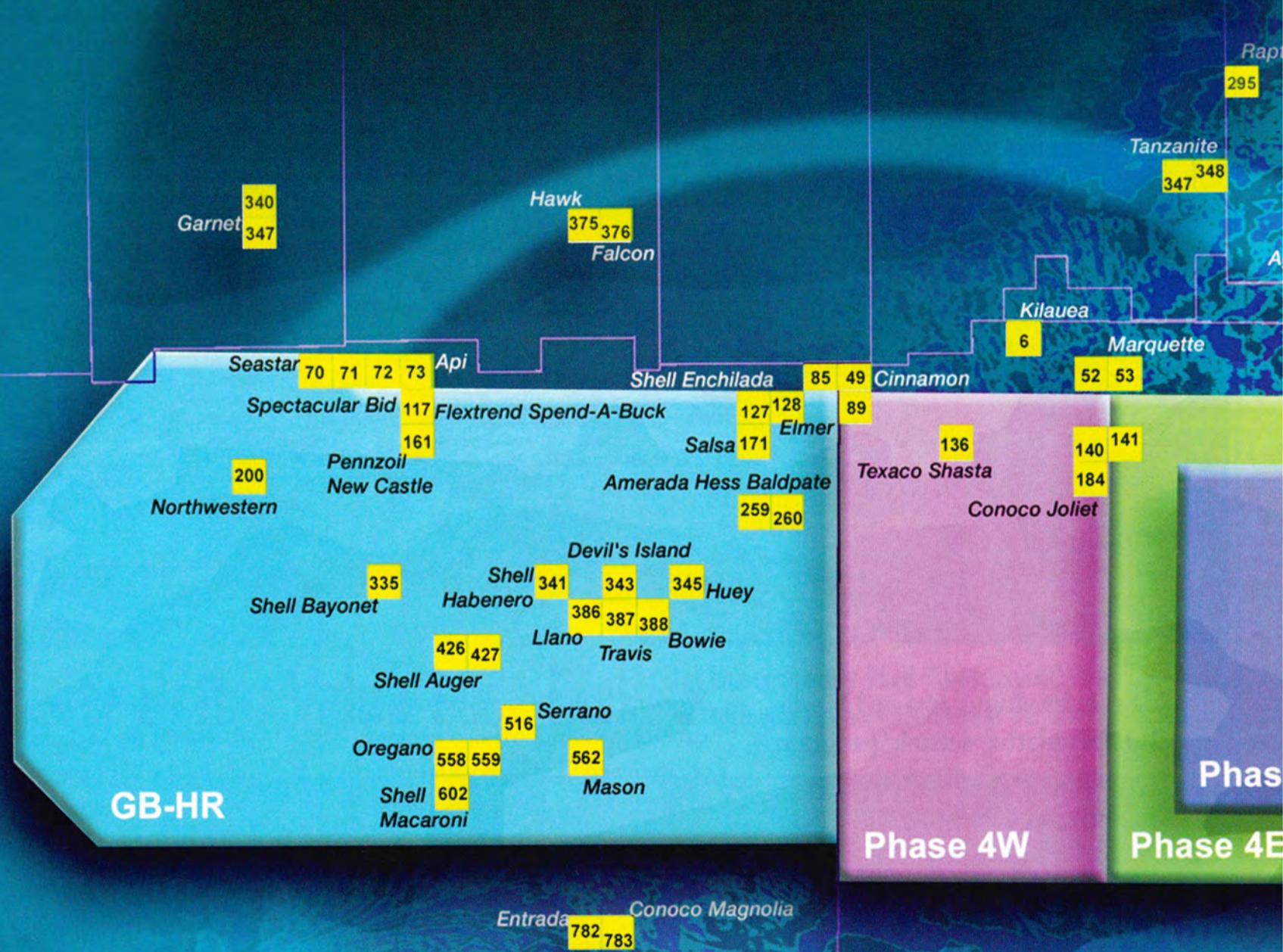


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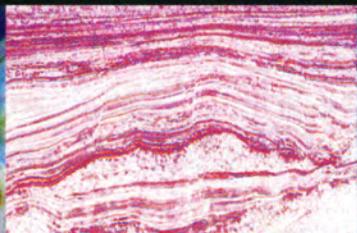
Garden Banks

Phase I	7,200m streamer PSTM	91 blocks
Phase II	7,200m streamer PSTM	78 blocks
Phase III	7,200m streamer PSTM	38 blocks
Phase GC-AV	7,200m streamer PSTM	73 blocks
Phase 4E	8,200m streamer Kirchhoff PSTM	161 blocks
Phase 4W	8,200m streamer Kirchhoff PSTM	112 blocks (Acquisition 80% complete)
Phase GB-HR	9,000m streamer PSTM 25m X-line!	317 blocks (In progress)
Phase MC-AT	8,000m streamer PSTM	171 blocks (In progress)
Northern GC Miocene Ext.	8,000m streamer PSTM	164 blocks (Proposed)
Phase A	3D PSDM 500m x 500m grid	75 blocks (In progress)
Phase B	3D PSDM 500m x 500m grid	109 blocks (Q1 2003)



For more information, please contact Charles Bowen at (1) 281 646 2559 or email cbowen@cgg.com or Bert Chenin at (1) 281 646 2560 or email bchenin@cgg.com

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Reef Play Puts Mature Area In New Light

Find Draws Illinois Basin Attention

By KATHY SHIRLEY
EXPLORER Correspondent

Just on the outskirts of Stephen A. Forbes State Park in Marion County, Illinois, a high-tech oil well nestled on secluded land owned by the First United Methodist Church of Kinmundy is making history.

The discovery well has tapped what appears to be the largest modern oil find in Illinois – and perhaps the largest per area discovery in the state's history.

And perhaps even more importantly, the discovery could touch off a new era of drilling in the mature Illinois Basin.

This new field is a Silurian pinnacle reef structure, and it's likely there are additional reefs hidden beneath the traditional shallow production throughout the basin, according to Charles W. Wickstrom, vice president of exploration for Tulsa-based Ceja Corp.

Ceja's exploration niche focuses on plays that require seismic, and the firm first went to Illinois in 1978 using deep-hole dynamite seismic acquisition techniques in its search for Silurian reefs, but the only bright spot in the effort was the discovery of the Miletus Field, a shallow Mississippian-age field that has produced for years and is currently on secondary recovery.

For the Silurian play, after 13 dry holes the company decided to move on.

Now, more than 20 years after Ceja first sought Silurian reefs in Illinois, the company has firmly established the impressive potential of these structures.

Wickstrom, who rejoined Ceja in 1995 after a nine-year hiatus, began reprocessing with new technologies and techniques all the firm's old seismic data.

"This reprocessing program imaged a deep structure under the Miletus Field that we had been unable to see before – with the new processing techniques the reef structure is very obvious," Wickstrom said. "In 1996 we deepened an existing well in the field to test the reef, and that well produced about 70 barrels of oil a day."

Following that well, Ceja acquired an eight-square-mile 3-D survey over the field and began developing the deeper structure.

Ceja has drilled 15 wells to that deeper reef in the Miletus Field, with development still under way. The firm is producing 2,000 barrels of oil a day from the 320-acre reef, and ultimate reserves will likely be five to six million barrels of oil.

Wickstrom said the new production was so economic that during the last 1990s price collapse the field was a financial savior.

"We are developing the field in a manner that will conserve as much reservoir energy as possible," he said, "depleting the reservoir from the bottom up to maximize ultimate recoveries."

First Steps

That deeper Miletus production is impressive, but perhaps the most important element of that venture is the experience and confidence it gave Ceja to renew its search for Silurian reefs.

"The Miletus Field is just north of the Stephen A. Forbes State Park, and we had always been interested in shooting seismic over the park but had been denied surface access," Wickstrom said.

But since the company's first efforts in the 1970s the state of Illinois consolidated its Department of Mines oil and gas division into the Department of Natural



Photo courtesy of Ceja

Ceja's discovery well, which could signal a new era of drilling for the Illinois Basin.

Resources (DNR), which provided a level of expertise about oil and gas operations with the DNR.

"Consequently, we were able to convince state officials to allow us to shoot seismic along an existing abandoned pipeline right-of-way through the park," Wickstrom added.

Ceja shot the 2-D seismic in October 2000 and the data imaged part of a deep

structure. While discovery of the structure was exciting, it was still under a state park where no oil and gas operations were allowed.

Ben Webster, president of project partner Deep Rock Energy, had a local attorney do a title and deed research in the area. He uncovered over 140 private mineral leases still held by individuals that the state failed to condemn when the park was established.

A joint venture between Deep Rock Energy as the operator and Ceja's managed partners was established and Ceja leased those mineral rights. The company then went to the DNR and requested that the state do a voluntary integration of the state's mineral interests with its private ownership with the stipulation that it would do no surface occupancy within the park.

"The DNR also



granted permission to shoot 3-D seismic in the park," Wickstrom said, "as long as we didn't cut down any trees larger than six inches in diameter."

A Team Approach

Ceja's own seismic crew shot 90 percent of the eight-mile 3-D seismic survey using hand carried cables and a single vibrator truck along the extensive horse trails and existing rights of ways in the park. The data successfully imaged the reef under the park and the 585-acre lake in the park.

"With that data in hand we had public hearings and presented our information to the state," Wickstrom said. "Officials agreed to form two special drilling units – one north of the park and one southwest of the park."

Of course, the stipulation to not drill on park land meant horizontal drilling technology was necessary. However, to obtain additional downhole information prior to attempting an expensive horizontal well the joint venture re-entered an old well 300 feet north of the park on acreage held by shallow production that was part of the original development of the Miletus Field.

"Based on the 3-D seismic data we knew we had a reef similar to the one just north in the Miletus Field," he said. "However, we didn't know whether we had porosity or oil."

"We could see that part of the reef extended just beyond the edge of the park boundary where we had an old shallow well," he said. "We re-entered that old well to get a true top on the structure and to get a good velocity to depth."

Ceja was able to core the zone to determine that we did indeed have reef rock and there was oil present.

"That well was completed producing 400 barrels a day for \$300,000," Wickstrom added, "and it gave us a lot of confidence prior to drilling a \$1.5 million horizontal well."

Deep Rock and Ceja assembled a team of experienced companies to work on the horizontal project:

- ✓ Les Wilson Drilling out of Indiana provided the iron.
- ✓ Oklahoma City-based Baker Hughes Inteq was contracted as the horizontal-drilling experts.
- ✓ Weatherford Controls brought a crew from Canada to aid in drilling the well under balanced.

The partners knew under balanced drilling was going to be important based on unsuccessful drilling by other companies. A horizontal well drilled into a reef under Carlisle Lake in Illinois on federal leases did not drill under balanced, and when the well drilled into the reef it was so porous it took all the mud, leaving no fluid in the hole.

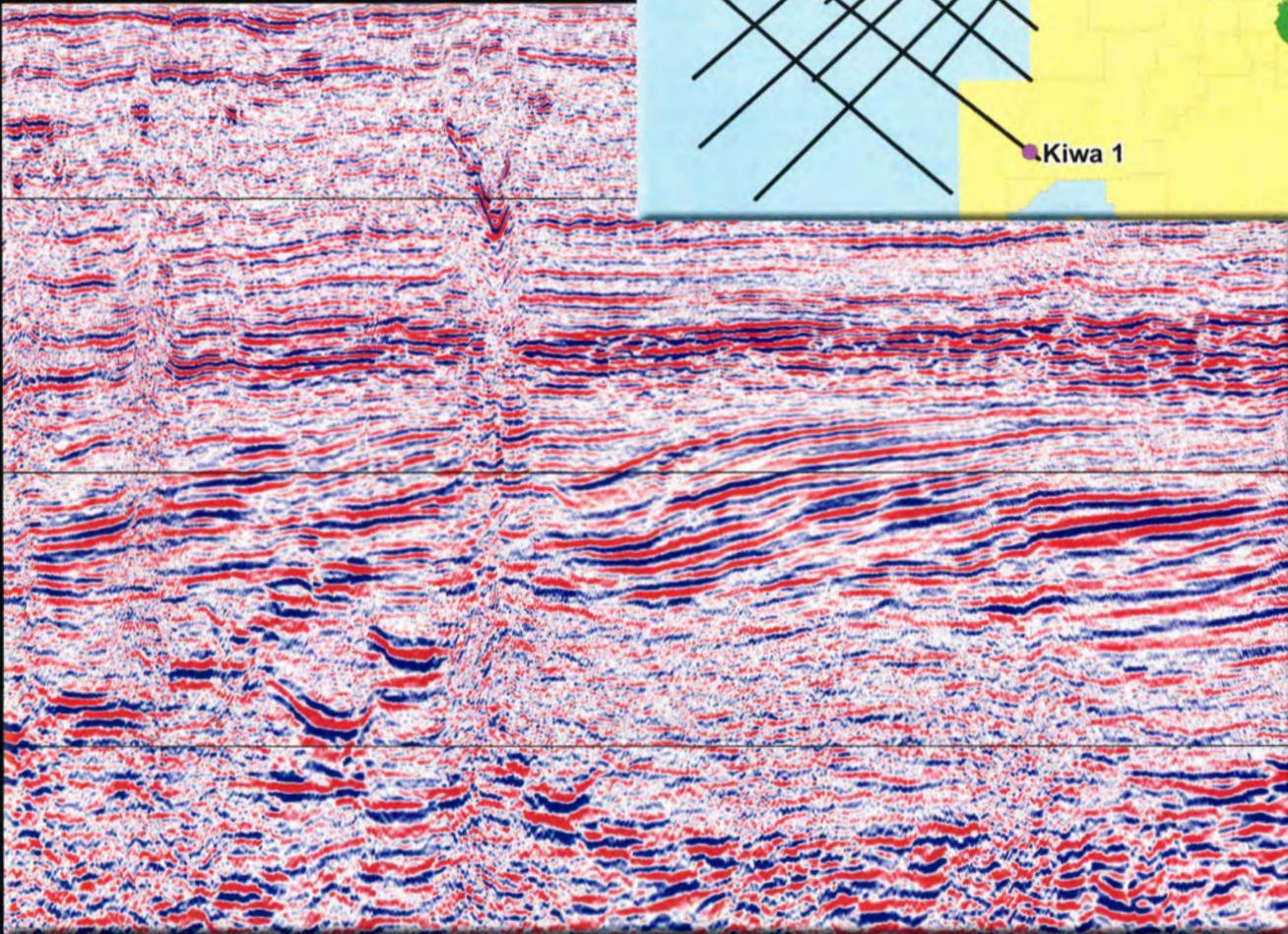
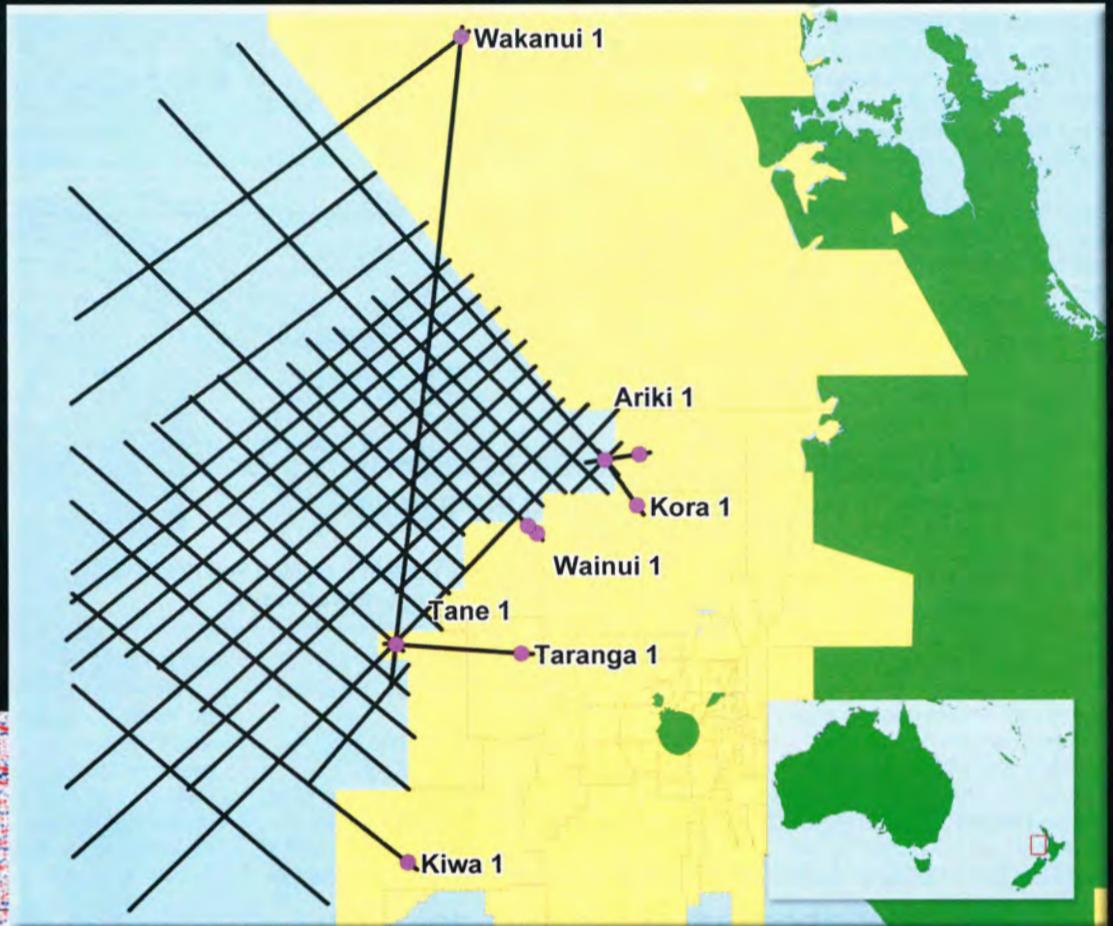
The operator wasn't ready for the oil that started flowing.

"We set our intermediate casing through the curve to within a foot of penetrating the reef using mud," Wickstrom said. "We then took the mud out of the hole and using diesel drilled out into the reservoir. That should have kept us at about 40 pounds under balanced, but cuttings kept the weight of the diesel over pressured, so we were able to drill only about 220 feet into the reef before we started getting a lot of cuttings built up in the hole."

The drillers attempted to reduce the

See **Illinois**, page 12

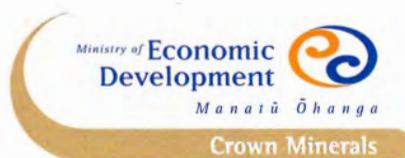
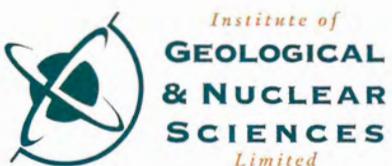
DEEPWATER TARANAKI BASIN 2D SEISMIC SURVEY



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Illinois

from page 10

weight by injecting nitrogen into the hole, but as soon as nitrogen came back to the surface the well started flowing gas and oil.

Deep Rock and Ceja decided to terminate the Warren No. 1 at that point since they were getting impressive oil flows from the Geneva B formation.

"We only drilled 220 feet into the reservoir, but we had such prolific production tests that we decided to stop," he said. "The well was completed in March for 2,000 barrels of oil a day flowing, but production is currently up to 3,000 barrels daily and it is choked down."

It was drilled from the northeast corner of the field with a total vertical depth of 3,850 feet and a measured depth of about 5,000 feet.

Going Out

Following the success of that well the companies moved to the southwest corner of the park and re-entered an old well. The Carter No. 1 achieved a 400-foot horizontal leg in the Geneva B pay zone and is currently awaiting construction of a tank battery.

"We drilled that well under balanced the whole way, so we were actually producing oil and gas on a controlled basis while we were drilling," Wickstrom said.

"We have run a production test and this will be another prolific well."

Illinois law limits drilling to one well per horizon on special drilling units, so these will be the only two wells to the Geneva B. The joint venture will now move to the field's northwest corner (Warren special

'No Doubt' More Will be Found

For years oil companies attempted to establish a trend for pinnacle reefs in the Illinois Basin, but it appears there is no trend – the reefs can pop up just about anywhere in the basin.

By 1976 approximately 26 reefs had been found in the basin, but then a 20-year drought ensued until Tulsa-based Ceja Energy uncovered the deeper structure at the Miletus Field.

"Three-D seismic technology will be critical to future exploration efforts, and very little of the Illinois Basin has been shot using 3-D," said Charles

Wickstrom, Ceja's vice president for exploration. "There's no doubt in my mind more of these reefs will be found."

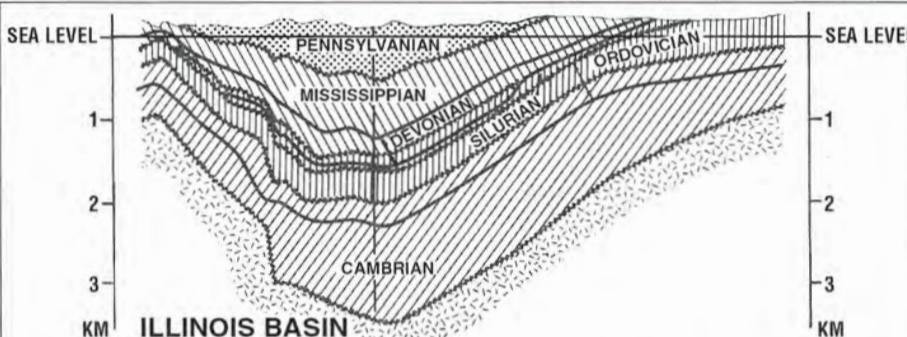
"If you consider the log-normal distribution of reefs, the 50 percent probability is that these reefs will average 280 acres in areal extent and contain 1.3 million (barrels) in reserves. Of course, the two we have found are much larger than that. The reefs will range in size from about one million to several million barrels of reserves. And, when the wells are flowing the economics are

stupendous," he said.

The biggest reef ever discovered in the Illinois Basin was found in 1943 based on coal highs. In those days coal companies did a lot of coring for coal seams and those coal maps would indicate deeper structures. The Marine reef has reserves of 14 million.

"These structures will vary from one- well fields all the way up to 14 million," Wickstrom said. "They are definitely worth looking for."

– KATHY SHIRLEY



An Illinois Basin cross section (Leighton and Kolata) near Ceja's well, taken from AAPG Memoir 51, Interior Cratonic Basins.

drilling unit) and the east side on the Carter special drilling unit and drill to the Geneva A.

Both wells will have half-mile long horizontal legs.

Currently Deep Rock Energy and Ceja are conducting reservoir and reserve analysis studies, so there is no published reserve figure for the reef – but Wickstrom

said this will be a multi-million barrel field.

Ultimate life of the field is expected to be five to 10 years. Rock Creek Energy and Ceja also are conducting shut-in pressure tests and draw down pressure tests on the two wells to determine the most efficient means of production to maximize ultimate recovery.

"We want to make sure we keep a low

pressure draw down across the wellbore so we're not over producing the reservoir," Wickstrom said. "We've seen in other areas of the basin where companies have tried to produce too fast, and it's been detrimental to the reservoir."

The two companies are getting more comfortable with the horizontal technology.

"Keeping the drilling fluid under balanced was the key to getting further out on the second well, and we have continued to move up the learning curve," he said.

In addition to traditional horizontal drilling tools such as measurement while drilling and geosteering, the seismic data has been critical in the drilling process.

"Landing the horizontal leg precisely within these relatively thin zones is vital," he said. "We loaded the 3-D seismic data on a laptop, and using seismic vision systems we can assess the location of the drillbit in relation to the structure maps."

"As you pick up new drill tops, you can

See **Discovery**, page 17

Midland Valley

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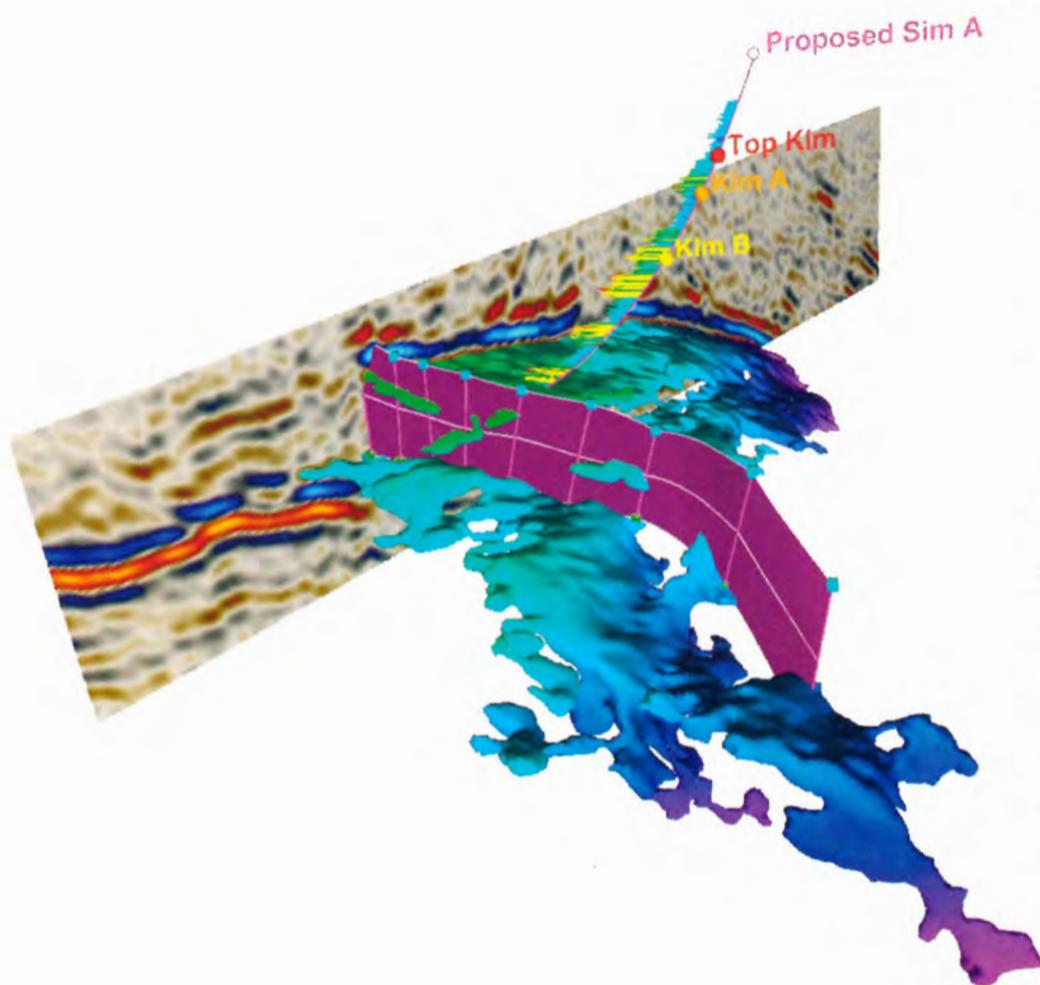
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*The Art of the Deal on Display***APPEX: The Place for Prospects**

By VERN STEFANIC
EXPLORER Managing Editor

It's a great place to make a deal – and it's a great place to learn how to make your deals better.

"It" is APPEX 2002, AAPG's second annual Prospect and Property Expo, which will be held Aug. 27-29 at the George R. Brown Convention Center in Houston.

The theme, according to organizers, says it all about the event's importance: "The Right Time, The Right Place, The Right People."

AAPG, SIPES and the Houston

Geological Society are the sponsors for an event designed to be both geoscientist and prospector friendly – a place to display ideas, plays and properties to a large crowd at the time of year when most buyers are developing their budgets for the coming season.

"One booth last year sold five prospects," said Chuck Noll, chairman of APPEX 2002. "Another showed his prospect to more than 35 interested viewers and commented that he should have brought an assistant."

That same participant "remarked that there would be no way that he would



have thought to access potential investors as far away as Denver or Pittsburgh for a Gulf Coast prospect," Noll added.

Noll is hoping to have 400 booths operating for APPEX this year – a size that would double last year's inaugural effort.

"It reminds me of my Amoco years, when we could walk around the 20-40 fellow geologists' offices and trade and discuss ideas," Noll said of the prospect and property concept and design.

"You can't afford not to attend and utilize a booth if you desire that 'maximum exposure' this year," he added.

And as was the case last year, APPEX will feature a "Dealmakers Conference," which will begin at 8:30 a.m. on Tuesday, Aug. 27, offering a variety of talks and sessions to help both independents and majors.

Some of the sessions already confirmed are:

- Sourcing Capital Sessions, featuring speakers from EnCap, Duke Capital, Deutsche Bank, Fleet Boston Financial and Frank Weisser of Weisser, Johnson & Co., speaking on "Private Financing in Turbulent Times."

- A special presentation by John Hogg, vice president for EnCana, who will offer an overview of the new "super independent" company's organization and its high risk deep water exploration portfolio, including its North Sea operations.

- An E&P session, with talks on:
 - ✓ "Maverick Misterios – A New Fascinating Discovery."
 - ✓ "Strategies for Successfully Managing an Independent E&P Company in a Volatile Commodity Price Environment and the Expansion into Deep Water Plays and Gas Plays Onshore."
 - ✓ "Building a Producer-Focused Midstream Competitor."

- Concurrent sessions on "Innovative Exploration" and "Support Systems for Exploration."

The Expo itself will kickoff after the Dealmakers Conference with the Tuesday night Icebreaker, with access to the APPEX booths at that time.

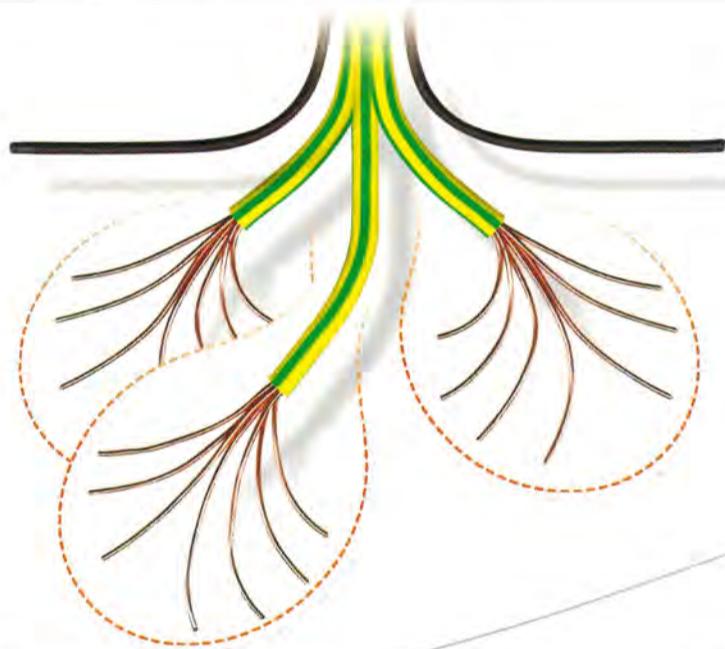
A mini-breaker within the expo hall also is planned after Wednesday's full day of prospecting, followed by "International Night," featuring talks on the redevelopment of several abandoned fields on the UK North Sea Shelf via horizontal drilling and modern 3-D and 4-D seismic definition.

Speakers will include Iain Murray, the British Consul in Houston, and Gene Van Dyke, Vanco Energy, who will recount Vanco's success as an independent in the North Sea and offshore West Africa.

APPEX continues on Thursday, Aug. 29.

More than 1,500 people participated in last year's inaugural APPEX, and Noll is hoping – and planning – for twice that number this year.

For more information, see the insert in the June EXPLORER; or go to the Web site at www.appg.org. □



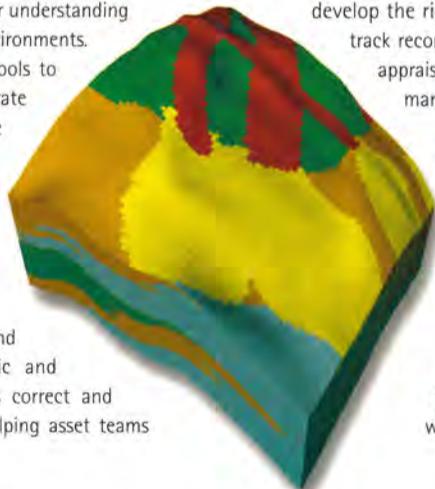
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*Congressional Fellow***Member Gets 'Inside View'**

Curtiss

By KEN MILAM
EXPLORER Correspondent

Geoscientists are trained to deal with uncertainties, to work through problems where even massive amounts of data still refuse to point to a simple solution.

For AAPG member David Curtiss, that ability to pull together vague concepts is proving valuable in a location away from the usual geology job sites – Capitol Hill in Washington, D.C.

Curtiss is the American Geological Institute's 2001-2002 Congressional Science Fellow, working in the office of Rep. J.C. Watts, R-Okla.

"My role is not to push an agenda, but

to be a scientist in the office," Curtiss said.

And while Watts hails from an energy state, he also holds the No. 4 Republican leadership position in the House, meaning Curtiss is often asked for input in areas varying from cyber security to Third World indebtedness to home community renewal.

"You need to be a generalist," Curtiss said. "The scientific approach to problems is valuable."

With a master's degree in earth resources management, Curtiss was interested in how science, business and politics intersect in decision making. He applied for and was accepted for the

fellowship, and interviewed for a spot in Watts' office.

For Watts, the "hook" was Curtiss' experience at the Energy and Geoscience Institute at the University of Utah, where a heavy emphasis is placed on applied research and international oil and gas issues.

"It's not an ivory tower," he said.

The experience on Capitol Hill has been eye-opening in many ways, and the political landscape has changed considerably since Curtiss' orientation, which coincided with the Sept. 11 terrorist attacks.

"Every issue now has a homeland security component," he said.

The House already had passed an energy bill when Curtiss arrived on Capitol Hill. But, he said, the measure should be moving to conferees to iron out differences between the House and Senate versions in the coming weeks.

The debate promises to be interesting, he said.

The question of opening Alaska's ANWR to drilling promises to remain contentious, he said.

Another critical issue is energy security – how to encourage diversification of the nation's oil supply, Curtiss said.

Arriving at a final version that is "workable and beneficial," he said, "... is

continued on next page

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Politics: It Takes Individuals

What can geologists do when their professional interests and politics intersect?

AGI Legislative Fellow David Curtiss has some tips from a Capitol Hill perspective.

Letter-writing can be helpful, but personal involvement can be even more effective.

"Get to know your representative and his local staff. Become a trusted resource. We (U.S. Rep. J.C. Watts' staff) often talk to people in our district – at the University of Oklahoma, for example" on technical issues.

"Let them know who you are."

Stay engaged.

The more you observe and learn about the political process, the more effective you can be at helping shape debates and outcomes.

Grassroots-level involvement is important.

Learn about local issues. Consider running for the local school board or other office. Scientific thinking and problem-solving can be valuable in tackling social as well as technical issues.

If you are interested in becoming involved full time, consider seeking a fellowship like the one held by Curtiss. Currently, six geoscientists are among some 39 science fellows on Capitol Hill, ranging in age from late 20s to 60s.

"Don't rely on the geoscience community to fight your fights," Curtiss said. "Each individual must make it happen."

– KEN MILAM

Discovery

from page 12

correct the seismic to the actual drilling depth, helping to hit a target that's only six feet wide."

The Beautiful Stacked Pays

Ceja will be acquiring a high-resolution 3-D seismic program later this year to better delineate the reef structure.

"During the initial 3-D survey we were constrained by the line spacing," Wickstrom explained. "We have developed a good working relationship with the park's management and this time plan to use closer lines, more channels and a bigger system so we can image the shallower horizons."

Each of these special drilling units may have six to eight different productive horizons.

"These stacked pays are the beauty of the Illinois Basin," he continued.

"They saved us years ago at the Melitus Field, where we drilled deep but found shallow pay that held all the acreage until we had the technology to image the deeper formations."

The two companies also are looking at various ways to capture the field's significant associated gas stream to fuel the micro-turbines that are being installed for energy needs at the wellsites. They're also working with the local utility on a deal that would provide electricity to the park.

"We can stack these micro-turbines side by side and generate 30 kilowatts per hour per each micro-turbine," Wickstrom said. "This way we can use this resource rather than flare the gas."

Ceja's success in the two deeper Silurian reefs could spur renewed interest in the hunt for deeper reefs throughout the Illinois Basin. □

continued from previous page

not going to be simple. 'Compromise' is not a dirty word."

Curtiss said he tries to make sure that science "is not used as a weapon" in different contexts.

"Good" science vs. "junk" science often depends on whose side you're on, he said.

"The objectivity that we as scientists proclaim really doesn't fit into the political calculations," he said.

Science is "rarely the primary determination," he said. Impact on constituents and a variety of other issues must be worked into decisions.

Watching from the outside, "Scientists have a hard time understanding how this (certain decisions) could happen," he said.

The cynical view of politics as "messy and mean-spirited" usually is not warranted, Curtiss said.

He said it is enlightening to watch House members "scrapping on one issue, and the next time you see them, they're collaborating."

Curtiss is one of six earth scientists on Capitol Hill, he said. Science fellowships in all total 39, he said.

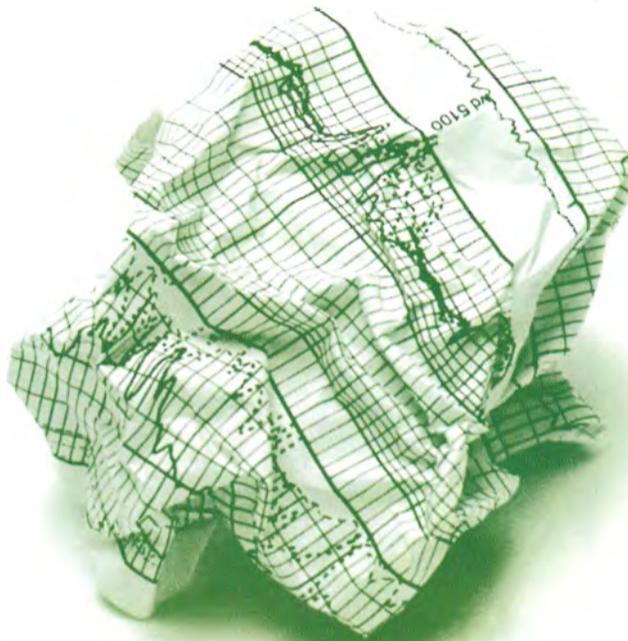
After completing his fellowship, the 31-year-old Curtiss said he hopes to pursue opportunities in the private sector.

"I see this as a broadening experience – learning how government operates," he said.

"I'm also helping support earth sciences."

The AGI fellowship ends in August, but Curtiss said he may apply for a four-month extension.

"One year on the Hill hardly seems enough." □



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Infrastructure Key to Gas Play

Barnett Shale Living Up to Potential

By KATHY SHIRLEY

EXPLORER Correspondent

There's a giant gas field currently being explored that has a trillion cubic feet of natural gas every seven square miles.

It's got to be in the Caspian Sea or the deepwater Gulf of Mexico, right?

In fact, just north of Fort Worth, Texas, not far from some of the oldest production in the oil patch.

Explorers missed this giant field for 100 years – and perhaps with good reason. This huge gas resource was hiding in the source rock for much of the shallower production in the Fort Worth Basin, and the Barnett Shale doesn't give up its secrets easily.

Just ask scientists with Mitchell Energy who worked for almost 20 years making the Barnett play an economic proposition.

But their work is paying off. Today the Barnett Shale is living up to its potential and opportunities to expand the play abound – a good development, because scores of government and industry studies indicate that unconventional natural gas resources are vital to United States' energy future.

In that light alone, enormous shale gas plays like the Barnett are an important step toward exploiting that resource.

Over 1,200 wells have been drilled in the Barnett and another 400 wells are being drilled or completed, awaiting permits or shut in waiting for pipeline connections, according to Larry



Photos courtesy of Devon Energy

Things are looking up in the Barnett Shale north of Fort Worth, Texas.

Brogdon, exploration manager for Four Sevens Oil Co.

"In January 2000 there were 566 completions in the Barnett, and since that time another 750 wells have been drilled," he said.

Currently there are 38 rigs running in the area.

"To say the play has exploded," he added, "would be a major understatement."

First Steps

This story of the Barnett Shale begins in 1981, when Mitchell Energy (acquired by Devon in 2001) drilled its first well to test the formation.

Mitchell had produced from shallower zones in the area, but that production was beginning to decline and the firm was looking for new reserves to feed its extensive infrastructure in the Fort Worth Basin.

"There were tremendous gas shows in a mud log of the Barnett," said Dan Steward, a consulting geologist with Republic Energy Inc., Dallas, the second most active company in the play, and former vice president of exploration with Mitchell Energy, "so we perforated the zone and did a small frac job. We got some gas and over time went back into the well with a larger frac and got a little more gas.

"The well wasn't economic," he said,

continued on next page

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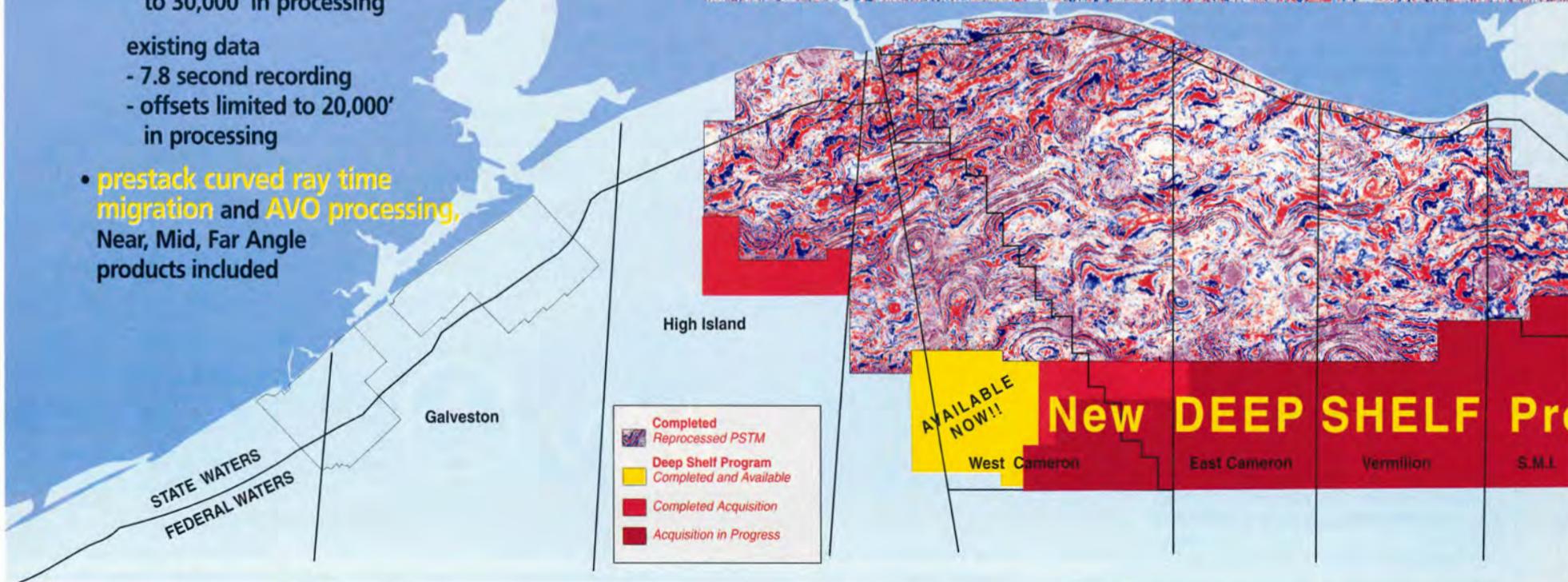
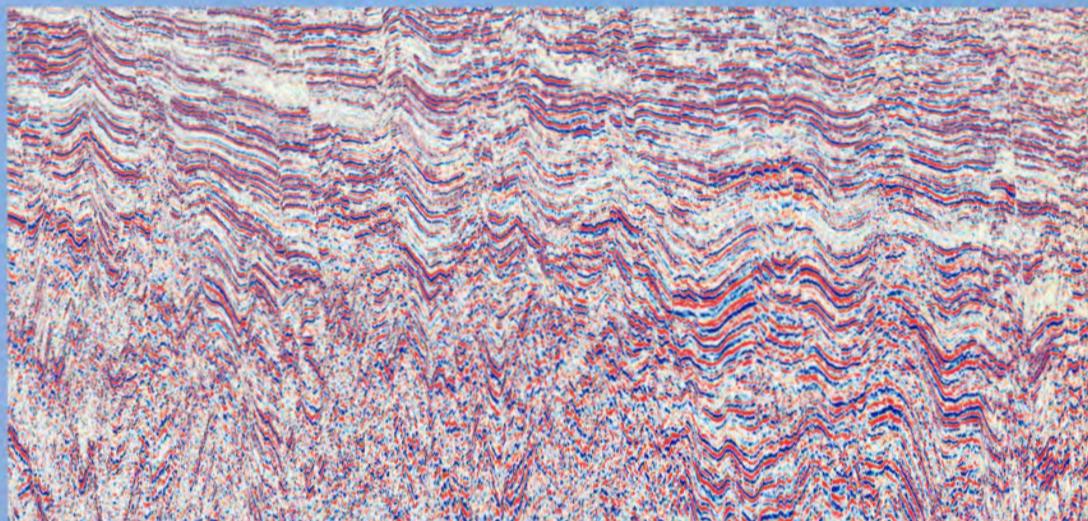
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"but it did focus attention on the Barnett."

Mitchell also was drilling development wells in the shallower Boonsville gas field in Wise, Jack and Parker counties, and decided to also deepen some of those wells to the Barnett. The incremental costs were not excessive and the program provided the opportunity to learn more about the geology and reservoir characteristics of the Barnett Shale, he said.

"We wanted to get a feel for stratigraphy, the maturity of the rock, the structural complexity – what made one Barnett well better than another," Steward said. "We didn't have a well that would be considered commercial from the Barnett until we had deepened about 40 wells."

The wells were deepened to an average of 7,500 feet to the Barnett. The older, shallower production was at 5,500 to 6,000 feet.

The company took core and ran mud logs on the zone to analyze the gas in place, and looked at the area's structural conditions to determine whether or not to drill for the Barnett around faults.

"Initially we felt it would be best to drill for this tight gas reservoir around faults," he said, "because at that time the Chalk plays in Texas were most productive around naturally faulted areas."

The Value Chain

In 1986 Mitchell cored the entire Lower Barnett section and did an extensive analysis to study the porosity, permeability, organic content and fracture orientation.

This study, along with results from a well drilled in a tectonic fault zone, proved natural fracturing was not a



Roughnecks conduct drilling operations on a natural gas well in the Barnett Shale.

benefit in the Barnett.

"Core showed that while there was extensive fracturing in the area, they were completely sealed by calcium carbonate," Steward said. "These faults were likely the main avenue for migration of Barnett gas into the overlying Atoka and Strawn sections, and water migrating with the gas caused cementation of the natural fractures."

After years of trial and error in the Barnett, Mitchell began employing large gel fracs on the wells.

"As we got the frac size up to a theoretical 1,500 feet in half-length we started making wells that came on at decent rates, dropped fairly rapidly and then stabilized," Steward said. "We were feeling better and better – we could expect on a routine basis about one billion cubic feet of gas from our core area."

While the wells were finally producing at substantial rates, the play was still economically shaky because the large gel fracs were extremely expensive.

In fact Mitchell was likely the only company that could have made the Barnett economic at that time because of its infrastructure in the area.

"Well costs were close to \$1 million," said Kent Bowker, exploration manager with Star of Texas Energy Services and a former geologist with Mitchell Energy. "This play definitely would not have been commercial without the value chain Mitchell had with its gas gathering lines and large gas processing plant in the basin."

Adding New Data

Mitchell continued tweaking the Barnett Shale play all through the 1990s

– and then in the late 1990s two things occurred that revolutionized the play, Bowker said.

Completion engineers at the firm took a chance and started experimenting with water fracs that proved successful.

At the same time Mitchell scientists, using techniques developed by the Gas Technology Institute, did a new core study with state-of-the-art technology that proved the gas in place figures were actually four times more than previously believed.

"For years we thought we were getting about 30 percent of the gas out, which is quite good from a tight shale," Bowker said, "but this new study proved we were actually only getting about 7 percent and that's terrible."

Steward explained that Mitchell in 1997 had begun studying the potential of slick water fracs for the Barnett.

"This technique could reduce stimulation costs by 70 percent," he said. "The slick water fracs were comparable in performance to the gel fracs – and over time, as we perfected the water fracs, stabilized gas flows generally met or exceeded the rates we achieved with gel fracs."

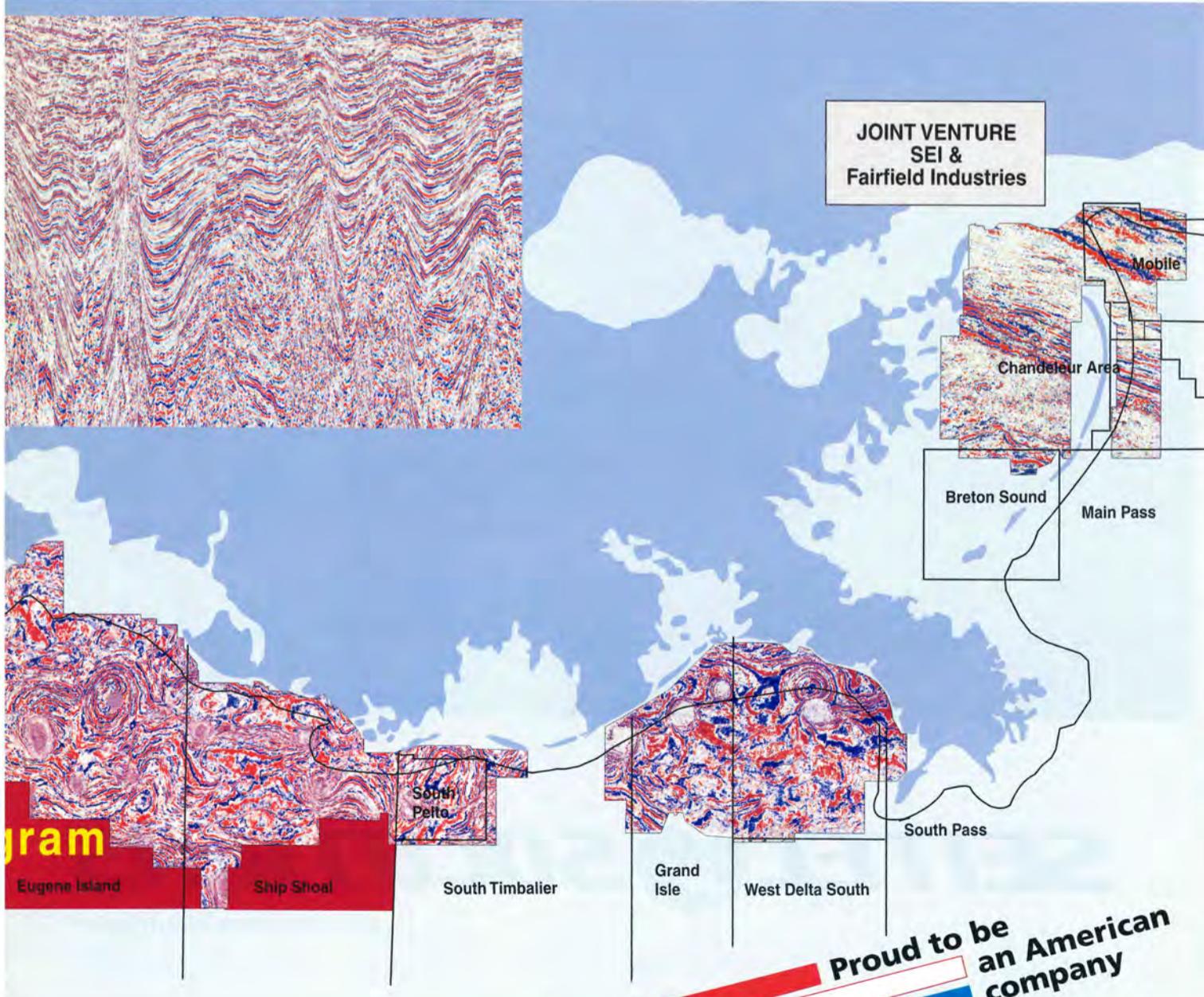
Another benefit of the new water frac program was the opportunity to target the Upper Barnett.

"We knew there was gas in the Upper Barnett, but due to the costs of the gel fracs we couldn't go after it," he added.

"With the slick water fracs we could exploit the Upper Barnett cost effectively."

"The Upper Barnett adds on average a quarter of a billion cubic feet of gas, which is clearly commercial for either a re-completion or as an added stage of completion in new wells."

See **Barnett Shale**, page 27



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Funds Sought to Save Data

Preservation Pitch Hits the Mark

By LARRY NATION

AAPG Communications Director

A heavyweight report calling for immediate action to preserve and make available U.S. geoscience collections and data to the public received a "positive reception," by the National Research Council Committee on Energy Resources.

The 218-page report, funded in part by AAPG and the AAPG Foundation, calls for \$130-\$180 million in funding to establish three centers – one each in the Gulf Coast, Rock Mountain and Pacific Coast regions – to immediately begin to capture and classify the fast-disappearing cores, cuttings, fossils, geophysical tapes, paper logs and rocks.

The report called the data "the foundation of basic and applied geoscience research and education."

Past Powers Medallist Robert M. Sneider led the AAPG delegation on the committee compiling the report. He said the Council indicated a "very positive response," as did members of the Senate Resources Committee staff.

Other AAPG members involved in compiling the report included:

- ✓ Past AAPG Editor Kevin Biddle, ExxonMobil, Irving, Texas.
- ✓ Donald D. Clarke, the City of Long Beach, Calif.
- ✓ John Steinmetz, of the Indiana Geological Survey, Bloomington, Ind.
- ✓ Sally Zinke, of Ultra Petroleum, Englewood, Colo.

AAPG members who reviewed the report included past AAPG president and Powers Medallist William L. Fisher, Stan Eschner, of Trio Petroleum, Scott Hector of Carneros Energy and Robert Laing, ChevronTexaco. Raymond Price, of Queen's University, Kingston, Canada, was chief reviewer.

While the collections' importance to the public was underscored by "real world" examples (see related story, page 21), the report also noted the serious losses of data and cores already lost due to a lack of cohesive preservation program.

Sneider said "the amount of material that is disappearing is shocking."

Examples included:

- A warehouse owner discarded samples from the world's deepest well – the 31,441-foot Rogers #1 in Washita County, Oklahoma.
- Despite efforts to save hundreds of thousands of feet of cores from 122 wells in California, they were dumped in the fill that became the Long Beach Harbor expansion.

Adding to the misfortune, the samples that were able to be saved (two shipping containers and selected core), were moved several times and in the process the jostling destroyed them.

Inaccessibility examples were also cited in the report. They included:

- The paleontological collection at U.S. Geological Survey's Denver Federal Center is probably the largest such collection in the United States – but there is no funding for curation and are commonly accessible only when the investigator is present.

□ When an independent acquired a major oil companies' interests in an oil field, the cores, which were stored outdoors for two years, are now on unorganized pallets in a warehouse with random equipment laid on top of them.

□ The DOE cores stored at Oak Ridge National Laboratory in Tennessee are stacked outside buildings in the

"The amount of material that is disappearing is shocking."

open and are overgrown with weeds.

In laying out a plan to preserve the data and collections, the report seeks to:

- ✓ Request funds from the U.S.

government.

✓ Set up a private foundation and obtain funds from industry, individuals and foundations – and obtain tax

incentives for the donations.

✓ Set up steering science-advisory committees to establish protocols to collect, process and provide access to data and collections.

The next step, according to Sneider, is to obtain the National Research Council's important blessing to approach the House and Senate Energy Resources committees for inclusion in the U.S. energy budget. Chris Maples,

continued on next page



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Cores Got to Root Of Kansas Problem



Photo courtesy of The Hutchinson News

(Editor's note: The following is an excerpt from the *Geoscience Data and Collections: Natural Resources in Peril* report, submitted to National Research Council's Committee on Earth Resources in early June.)

Everyone in downtown Hutchinson, a city of 40,000 in central Kansas, heard or felt the explosion Wednesday morning, Jan. 17, 2001. Natural gas burst from the ground under Woody's Appliance Store and the adjacent Décor Shop, blowing out windows in nearby buildings. Within

minutes, the two businesses were ablaze.

That evening, geyser-like fountains of natural gas and brine, some reaching heights of 30 feet, began bubbling up three miles east of the downtown fires. The next day, natural gas, migrating up a long-forgotten brine well, exploded under a mobile home and killed two people.

The city ordered hundreds of residents to evacuate homes and businesses, many of whom would not be able to return until the end of March.

The Kansas Geological Survey (KGS) stepped into a situation where demand for answers was great, but information was in short supply. Fortunately, the KGS had cores preserved in its repository from a project the Atomic Energy Commission had conducted in the 1960s to investigate the geology of localities being considered for nuclear storage.

Practically unused for more than 30 years, these cores contained information that could be obtained rapidly – and without the time or risk of drilling into another unknown gas pocket.

Geologists examined these and other cores and samples from wells drilled in the area to get a sense of the potential paths for gas flow through the rock.

Armed with this information, obtained using geoscience data and collections, the KGS gathered new seismic data around the city, from which two anomalous zones of potential high gas pressure were identified. The gas had migrated eight miles from a leaking salt cavern used as an underground natural gas storage facility. This gas was then safely vented.

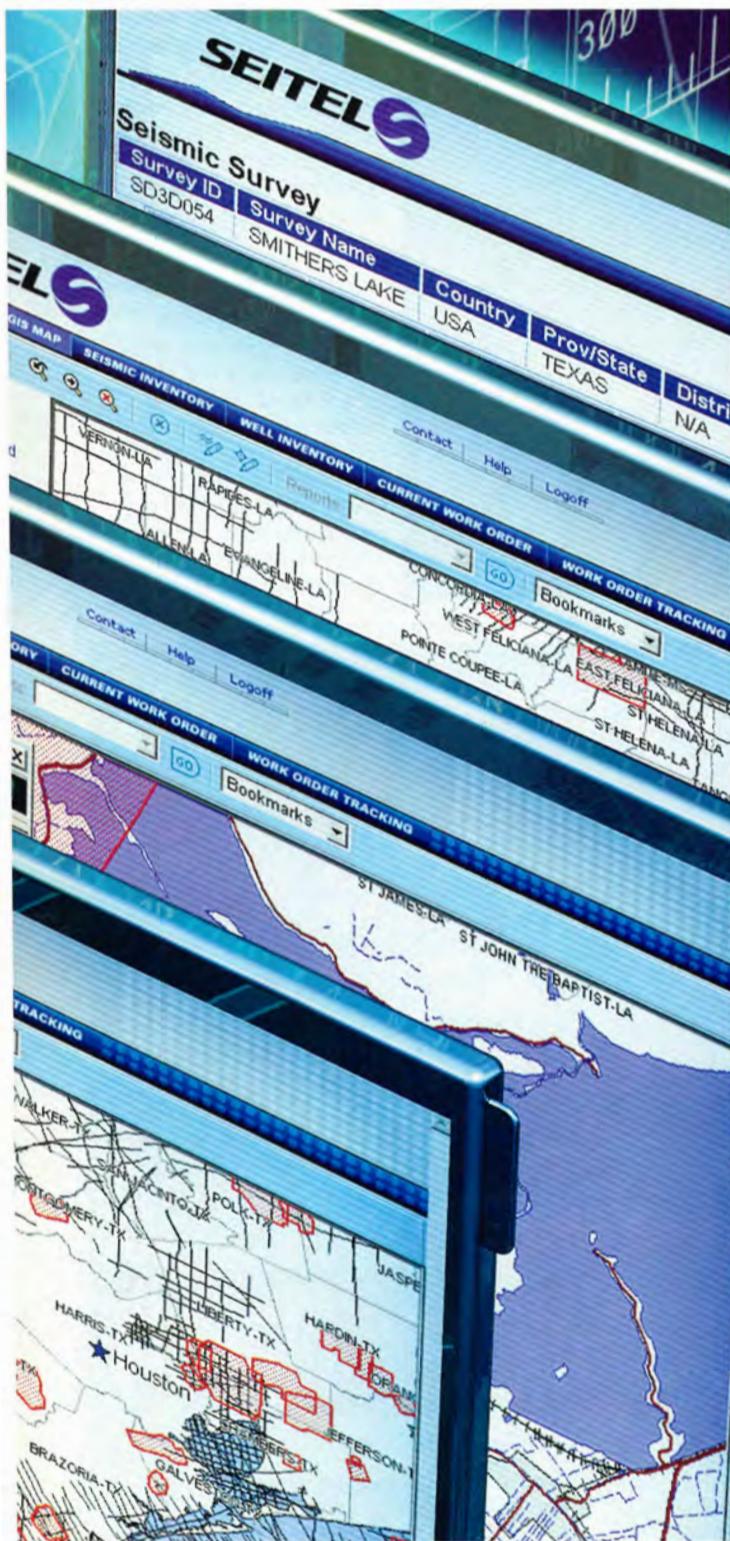
Over the next two months the Kansas Gas Service consulted with the KGS about possible vent-well locations and additional vent wells were drilled to release pressure. Hutchinson was safe from further gas geysers and gas explosions – and the displaced residents finally could return safely to their homes.

Understanding of the situation was initiated through the KGS' fast action – action that began with core that had been collected for another purpose many years earlier. Having immediate access to critical geoscience data and information played a crucial role in facilitating rapid response to a local crisis. □

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study chair, and Sneider already have made presentations to the Senate staffers.

Other joint sponsors involved in creating and presenting the report include the American Geological Institute, the DOE- Fossil Energy, DOE-Yucca Mountain, Geological Society of America, National Science Foundation, Paleontological Society, Petrotechnical Open Software Corp., Schlumberger, Smithsonian Institute and the USGS.

AGI initiated a major study of geoscience data preservation in 1994 with the support of the DOE. AAPG's Committee on the Preservation of Cores and Samples, headed by Edith Allison, has had a long-standing effort on preservation. □

GEOPHYSICALCORNER

Outcrop Scans Give New View

The Geophysical Corner is a regular column in the EXPLORER, edited by Denver consultant R. Randy Ray. This month's column is titled "Using 3-D Outcrop Laserscans for Fracture Analysis."

By STEVE AHLGREN and JIM HOLMLUND

Understanding natural fracture systems may be difficult using limited borehole, production or seismic data. When available, fracture data from analog outcrops provide additional insight necessary for effective exploration and production in fractured reservoirs.

Surficial fracture data are often collected using hands-on, time-tested techniques such as:

- ✓ Scanline analysis, which includes recording the attitude and location of each fracture intersecting a measuring tape at the base of an analog outcrop.

- ✓ Cell mapping, which is performed by spatially dividing the survey area into cells and measuring gross orientations of primary fracture sets within each cell.

Although widely utilized, these inherently two-dimensional techniques may be biased or provide an incomplete assessment of fracture systems – so we address these challenges by using a new fracture analysis methodology based on high-resolution laserscan technology.

This technology is successfully being used for a wide variety of technical and

mapping applications, and also has been successfully applied in the petroleum industry (see example of similar airborne technology in the February 2002 EXPLORER, pages 6-9), but on a much larger scale.

The fine-scale laser scanner is tripod mounted, laptop-controlled and reasonably portable (Figure 1). The system collects three-dimensional data by measuring the elapsed time between emitting and detecting laser pulses to determine the distance between the scanner and the scanned surface, much like radar or sonar.

The unit measures approximately 1,000 points per second, with maximum expected error of about five millimeters measured along the scanner axis.

A single collection of points produced by the scanner typically comprises 750,000 to 1.25 million points and is termed a point cloud. Each point is composed of a three-dimensional location and a measured intensity value, which is dependent on surface roughness, moisture, etc.

For large areas or regional analysis, multiple point clouds may be collected and merged into a single scene during post-processing.

Prior to utilizing the scan for geological

continued on next page



Figure 1 – The laser scanner is laptop-controlled and reasonably portable. Here, it is set up for mapping fractures inside the San Xavier Mine, south of Tucson, Ariz.

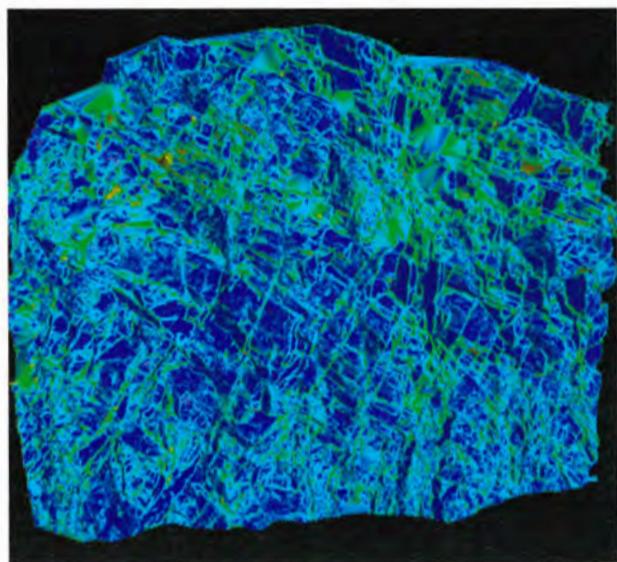
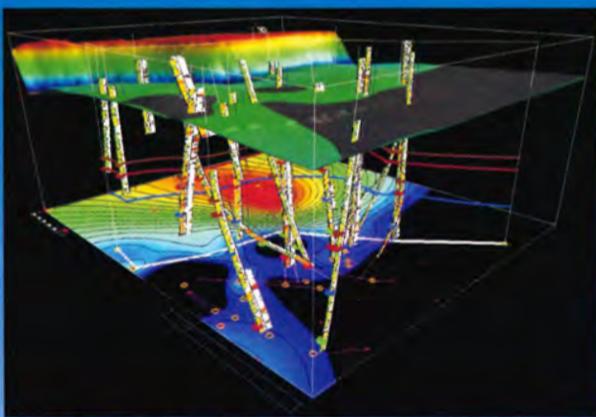
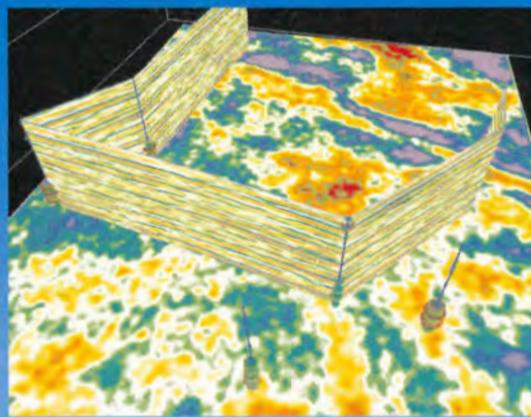


Figure 2 – After triangulating the point cloud, the laserscan data are most easily visualized as a three-dimensional mesh color-mapped by curvature to highlight fractures. This example is from a fractured road cut on Mt. Lemmon, Arizona, which measures approximately 28m x 18m.

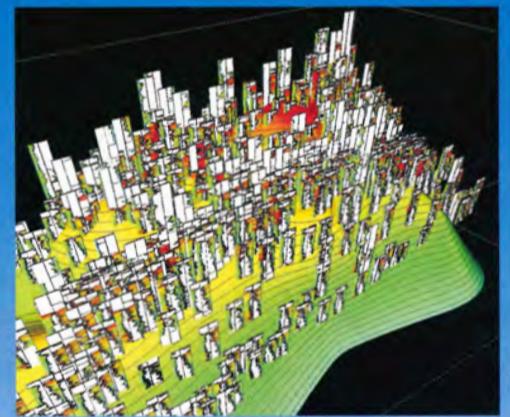
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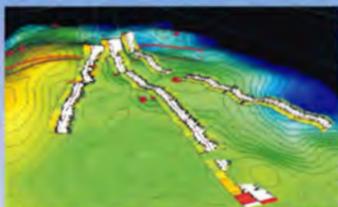
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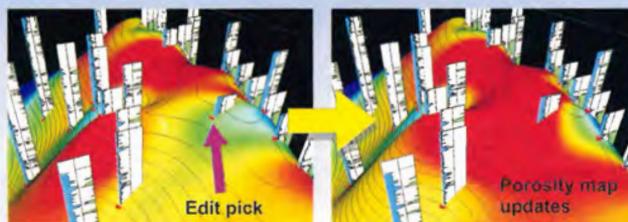


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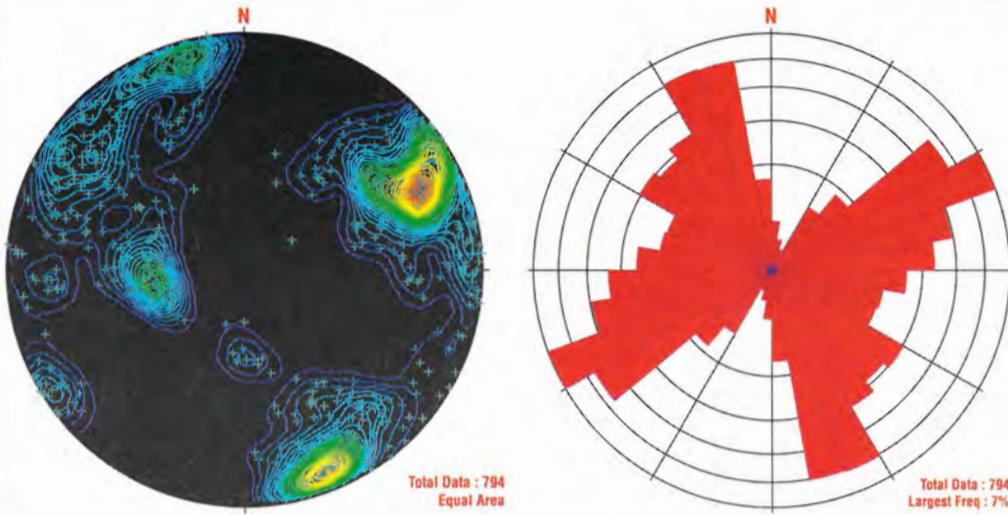
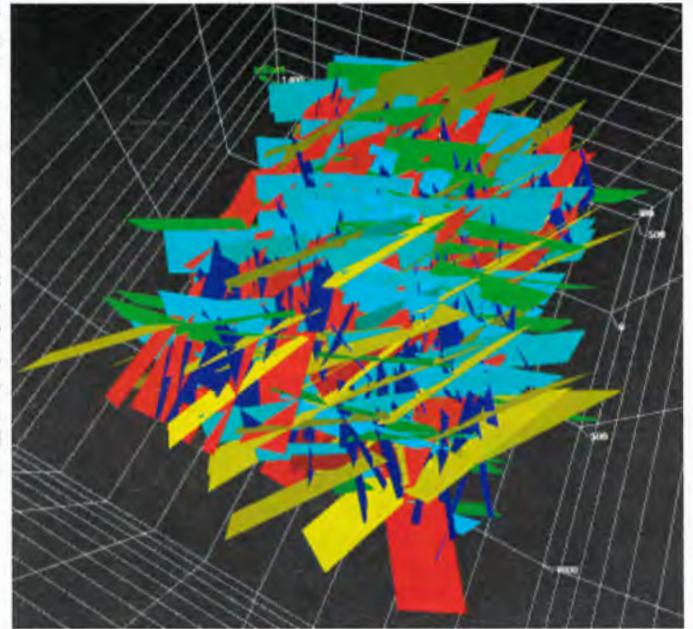


Figure 3 – Auto-detected fractures from the Mt. Lemmon dataset (n = 794) plotted as poles on a lower-hemisphere stereonet (left) and rose diagram (right). The results compare favorably with scanline data from the same outcrop. Note that only relatively large-area fractures are plotted here.

Figure 4 – Stochastic fracture model generated in 3DMove using data from the Mt. Lemmon example. The five fracture sets in the synthetic model are statistically similar to those detected in the fractured outcrop.



continued from previous page

analysis, the unconnected points must be triangulated to produce a three-dimensional convex hull, which is then visualized and analyzed as desired (figure 2). Processing also includes registering the data within a UTM coordinate system, smoothing to reduce noise and decimating to reduce point density.

Decimating is especially important when processing larger datasets, as it helps to reduce processing time.

Fracture detection is best performed on relatively high-quality laserscan data free from noise and obstructions such as rockfall, trees and shrubs. Fractures are extracted from the laserscan data using an automatic feature detection algorithm, which is controlled by user-supplied parameters such as minimum patch size and desired patch quality. After collection, patches are exported with orientation and location for analysis and visualization on stereonets, rose diagrams and within three-dimensional structural models (figure 3).

In addition to simple orientation and location information, the fracture data are also automatically divided into related populations, and descriptive statistics are collected for each of these populations. These data are then used to synthesize three-dimensional fracture models with the same statistical footprint as fractures measured in the field (figure 4).

The fracture models may be used in myriad ways, for example, populating a structural model of the fractured reservoir with a realistic, three-dimensional fracture network.

In conclusion, the laserscanning method is the first truly three-dimensional technique for collecting fracture information over broad outcrops. The method has numerous advantages over traditional methods including consistent measurement accuracy, processing speed and reduced sampling bias.

From a safety standpoint, the scanner also is favorable to other techniques because the operator can stand over 100 meters away from the scanned outcrop.

Models created with the laserscanner not only provide an important conceptual framework for the geoscientist or engineer working to understand a fracture reservoir, but also contribute to structural modeling, well planning and stress analysis.

Furthermore, the models may be used not only in petroleum geosciences, but also in mining exploration/production, geotechnical assessment and high-precision surveying/mapping.

(Editor's note: Steve Ahlgren is a geologist with Midland Valley Exploration in Glasgow, UK. Jim Holmlund is president of Geo-Map Inc., in Tucson, Ariz.)

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BUSINESS SIDE OF GEOLOGY

Hidden Hurdles Can Trip Prospects

By PETER R. ROSE

OK – as Prospector, you think you've finished your job:

After first identifying the anomaly and delineating its basic attributes, you've now completed the requisite geotechnical work refining that promising new prospect.

In concert with your engineering colleagues, you've developed responsible estimates for prospect reserves, chance of completion, initial production rates, per-well recoveries, production schedules and costs for drilling, completions, facilities and operations. You've gathered necessary

Hidden hurdles are insidious, because their existence is generally not apparent to prospect-generators.

data on contract terms and tax impacts.

Now it's time to integrate all this information (together with other assumptions and parameters) into a

cash-flow model for the success-case outcome of the venture. This will be a discounted cash flow (DCF) analysis expressing a responsible value for the project, as Net Present Value (NPV),

the fundamental economic measure.

The chance-weighted NPV and projected cash-flow profile will be compared against counterpart data from other projects, in choosing which projects (and in what share) will be drilled as part of the company's annual E&P portfolio.

But now's the time for you, the Prospector, to be on the lookout for "Hidden Hurdles."

* * *

"Hidden Hurdles" is a term I proposed about 15 years ago for arbitrary economic requirements that are inserted into the project evaluation process, ostensibly to help screen out less worthy projects.

"Hidden Hurdles" are:

- ✓ Commonly employed by well-meaning business people who see their task as guardians protecting the firm against irresponsible explorationists, even though they themselves are not actually accountable for exploration performance.
- ✓ Insidious, because their existence is generally not apparent to prospect-generators.
- ✓ Dangerous, because – ironically – they often have impacts on project evaluations that are different from what was intended. Usually, they select against growth projects – and successful exploration is mostly about creating growth.

Here are some examples of "Hidden Hurdles":

□ Arbitrarily elevated discount rates.

The discount rate selected for the project cash-flow model expresses the time-value of future production revenues and net cash flows. It is not a useful proxy for countering perceived risk. Excluding projects independently financed from foreign banking sources, the same discount rate should apply to all E&P projects in the corporate portfolio — after all, it's all the same money!

The discount rate should express the corporation's average weighted cost-of-capital, which is ordinarily about the same as prevailing corporate loan rates, or a little higher. Presently, that should be around 8 percent. Elevated discount rates preferentially penalize longer-term cash flows, so large-scale projects are undervalued relative to short-term projects.

□ Arbitrarily depressed oil-price forecasts.

For E&P projects whose production revenues don't begin until three-to-six years after project initiation, use the mean historical oil price corrected for inflation to production - onset year one, adjusted for regional market effects and inflated by a realistic inflation factor. Using much lower projected prices – as a putative "safety factor" – may allow you to sense how sensitive the project may be to sustained downward price shifts, but causes the DCF analysis to lose its value as an objective predictor of project profitability.

Never forget that crude oil behaves as an (imperfect) commodity, and has done so since 1985. Prices will

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fluctuate throughout field life, so the mean is the preferred predictive price.

❑ **Overly pessimistic drilling-cost estimates.**

The psychology of completing a drilling project under AFE cost is a lot more pleasant than an AFE over-run. Consequently, there is often a tendency for drilling costs to be overly pessimistic, resulting in much higher front end costs that hammer otherwise worthy projects.

Challenge your drilling experts – remember that Unocal's drillers made their exploration colleagues look very successful in the Gulf of Thailand!

❑ **Excessive minimum economic field-size requirements.**

In new play projects where several discoveries may reasonably be contemplated given venture success, don't insist on recovering all investments from just one big field. Instead, consider that two or three middle-sized discoveries may in fact be a more plausible outcome than one very large discovery. Let lognormality work for you!

❑ **Secret minimum prospect-reserves requirements.**

Although everyone accepts the need for corporate efficiency, the notion of a "headquarters prospect minimum" is often counterproductive, because:

- ✓ Such a "Hidden Hurdle" may be demoralizing to prospectors.
- ✓ It presupposes far more precision in estimating reserves than the facts show.
- ✓ It ignores what should be our primary goal: adding value, not just reserves.
- ✓ It prevents consideration of such ventures from the portfolio point of view.
- ✓ It disallows the efficient monetization of projects not selected for the portfolio, through farmout or sale.

So, as a conscientious professional prospector, watch out for those "Hidden Hurdles" – they can incorrectly trip-up your prospect!

* * *

This month's reading recommendation: "The Lexus and the Olive Tree: Understanding Globalization" by Thomas L. Friedman (2000 Anchor Books). An excellent world overview of the inherent conflict between the evolution of global business and the preservation of different cultures; superb insight on the Middle East.

Read it, you'll like it!

(Editor's note: Peter R. Rose is managing partner of Rose & Associates, LLP, Austin, Texas.)

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New Named Grants Started

The second AAPG Named Grant to be established by a society has been announced by the AAPG Foundation.

The SEAPEX Grant is the result of a \$20,000 contribution by the South East Asia Petroleum Exploration Society to the Foundation, and will provide a \$1,000 grant each year to a geoscience graduate student.

The SEAPEX Grant is available to students from Southeast Asia – Bangladesh, Brunei, Cambodia, China, Indonesia, Laos, Malaysia, Myanmar, Papua New Guinea, Philippines, Singapore, Thailand, Timor and Vietnam.

The first Named Grant established by a society was the Bernold M. "Bruno"

Hanson Memorial Environmental Grant, established last year by the Division of Environmental Geosciences.

The SEAPEX Grant joins the list of four other Named Grants that were established over the past several months for the Grants-in-Aid Program, all honoring members who died in 2001. They are:

❑ The Garth William Caylor Memorial Grant – former director of the Oil Capitol Corp.

❑ Merrill W. Haas Memorial Grant – former vice president of exploration for Humble Oil (Exxon), president of AAPG and chairman of the AAPG Foundation.

❑ James W. Milliken Memorial Grant – former vice president of exploration

for Pennzoil.

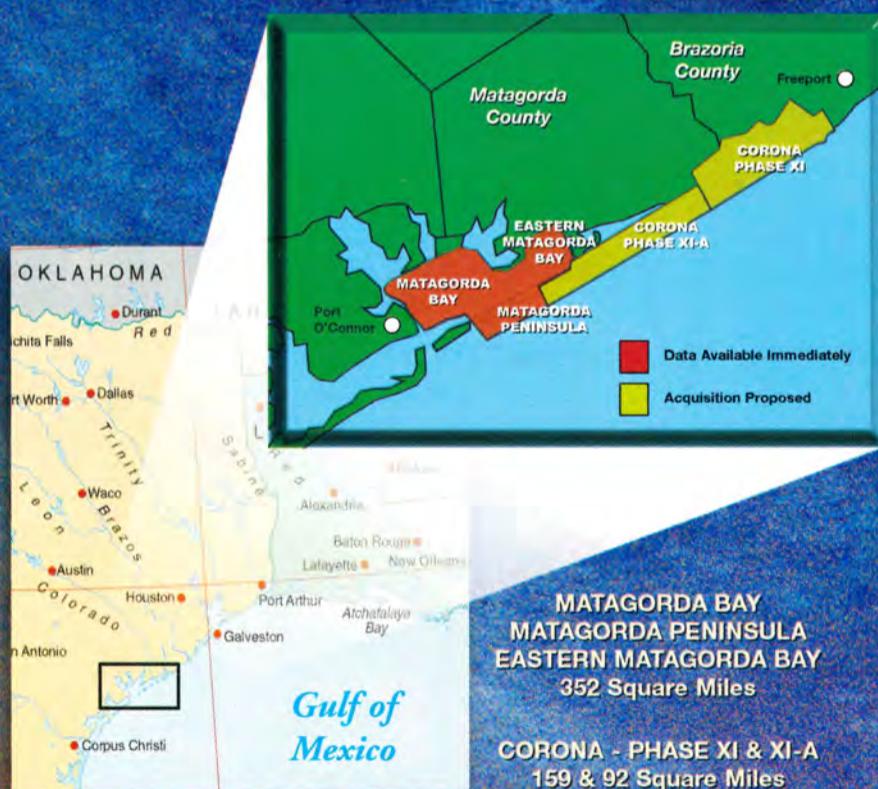
❑ Frank E. Kottowski Memorial Grant – former director of the New Mexico Bureau of Mines, and a founder and president of the Energy Minerals Division.

The Foundation's Grants-in-Aid program recently awarded \$168,600 to 96 geoscience graduate students, and the total number of Foundation Named Grants is now 45.

Named Grants can be established by individuals, corporations, societies or any other group.

For more information on the program, or to see a list of this year's GIA recipients, go the AAPG Web site at www.aapg.org.

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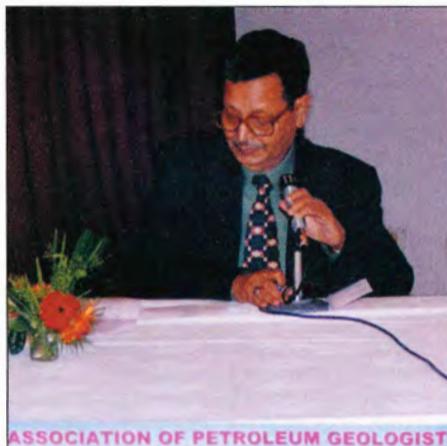
INTERNATIONAL BULLETIN BOARD

(Editor's note: This column is devoted to international items of note to the AAPG, including the activities of AAPG-related groups around the world.)

News items, press releases and other information should be submitted to the EXPLORER/International Bulletin Board, P.O. Box 979, Tulsa, Okla. 74101; telephone – 918-560-2616; fax – 918-560-2684; or e-mail – dfree@aapg.org.)

By JAMES PETERS
and NARENDER PENDKAR

An idea rooted in 1998 during an informal meeting with the vice chairman of the AAPG International Liaison Committee led to the creation of the Association of Petroleum Geologists (APG-India) in February 2000.



Sh.P.K. Chandra, at the APG inaugural ceremony.

APG was formally inaugurated last Oct. 25 by Subir Raha, chairman and managing director, ONGC, and S.N. Talukdar, doyen of Indian petroleum geology. Y.B. Sinha, ONGC director of exploration, presided over the function as an APG patron.

After formation of an ad-hoc body and registration of the association, an aggressive membership drive resulted in about 500 members from among various petroleum companies, academia and students.

APG's first governing body was unanimously elected on Jan. 5. It consists of:

- Patron – Y.B. Sinha.
- President – D. Ray.
- Vice President – N.K. Lal.

- Vice President – D.P. Sahasrabudhe.
- Secretary – James Peters.
- Jt Secretary – Ravi Misra.
- Treasurer – Surinder Uppal.

These elected officers are joined by five members to form the APG Executive Committee: SGK Mohan; Puneet Suri; Sushil Chandra; Manish Shukla; and Harshwardhan.

In addition, S.N. Swamy holds the position of APG Editor.

The APG was registered on May 19, and is affiliated to AAPG. The association will provide an opportunity for geologists to share their experiences, ideas and thoughts and create an environment that will benefit the oil industry especially in the field of exploration and production of hydrocarbons.

The organization's objectives are:

- Advancement of the science of geology especially as it relates to petroleum, natural gas, other subsurface fluids and mineral resources.
- Promotion of technology in exploration for finding and producing these materials in economically and environmentally sound manners.
- Fostering the spirits of scientific research through its members.

* * *

APG's first conference, "Strategic Challenges and Paradigm Shift in Hydrocarbon Exploration with Special Reference to Frontier Basins," will be held Sept. 27-29 at Mussoorie, a hill station in the Himalayan ranges.

Indian hydrocarbon exploration is being carried out in Cenozoic, Mesozoic, Gondwana, Paleozoic, Proterozoic and deepwater basins.

Speaking will be experts from industry and academia, and the theme will center on technologies and ideas pertaining to the disciplines of:

- Structure and tectonics.
- Sedimentation models.
- Basin analysis.
- Biostratigraphy.
- Energy resources (petroleum, CBM, gas hydrates and geothermal).

Two pre-conference short courses are being planned: "Sequence Stratigraphy," led by Bilal Haq, and "Evaluating Seals, Reservoirs and Hydrocarbon Pays," led by John Kaldi.

The extended abstract deadline for accepted papers is July 31.

Additional information is available by contacting apg_conference@rediffmail.com, or visiting the home page at <http://www.apgindia.org>.

(Editor's note: Peters and Pendkar are both members of APG India. Peters is the group's secretary.)

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Barnett Shale

from page 19

Fracture Focus

Mitchell, now armed with the successful water fracturing program and this new information, embarked on a drilling program that included downspacing, re-fracing old wells and testing the Upper Barnett. Steward said the re-fracs were extremely economic, often boosting production to its original levels and starting the decline curve all over again.

Based on Mitchell's studies within the play area, the average gas in place in the Barnett Shale is 160 billion cubic feet of gas per square mile. The Barnett is the largest producing gas field in Texas, according to Bowker, and the reservoir covers 15 counties in North Texas.

The commercially productive area covers 60 square miles in Wise, Denton and Tarrant counties, and Devon Energy and others are working to extend the play's limits.

According to Bowker, the Mississippian-age Barnett Shale is a black, organic rich siliceous zone that was deposited in the quiet waters of a back-arc basin just before the formation of the Ouachita Mountains. The Barnett hydrocarbon system is one of the 10 richest in the world, due to the massive organic matter deposited in this setting.

The main tectonic elements dictating the Barnett play are the Ouachita Mountains to the east, the Munster Arch to the northeast and the Bend Arch, which is an old structural high running north to south that defines the western margin of the Fort Worth Basin.

Barnett production is controlled by the formation's thickness, which ranges from 50 feet on the Bend Arch to close to 1,000 feet out in front of the Munster Arch in the basin's center. In the most productive areas the Lower Barnett is about 300 feet thick and the Upper Barnett is around 150 feet thick.

"Finding the optimum fracture techniques was critical to the Barnett play since average permeability is in the nano-darcies and porosity averages between 5 and 6 percent," Bowker said. "Matrix permeability is nil, but we hope for permeability along the fractures."

The typical fracture stimulation today consists of a million gallons of water and 50,000 pounds of sand to create a theoretical zone of fracturing that is about 1,500 feet long in both directions, for a total length of 3,000 feet.

Average cumulative production from the initial fracture stimulation is 1.25 billion cubic feet of gas per well. The wells initially produce for about one million cubic feet of gas per day but experience a 50 percent decline in the first year. Then the wells stabilize and produce for an average 20 years, with expected life in excess of 30 years.

Re-fracing a well after five years or so of production can add another three quarters of a billion cubic feet of gas to a well's overall production.

"The frac jobs run about \$100,000 to \$150,000 and the total average drilling and completion costs run \$600,000 to \$750,000," Bowker said. "With those kinds of costs and reserve figures Devon is pretty much printing money in the Fort Worth Basin."

In fact, the Barnett Shale was the key asset in the acquisition of Mitchell, according to Mark Whitley, production operations manager of the Fort Worth Basin for Devon Energy.

"Devon looked at Mitchell two years ago, and when they took another look last year and saw how dramatically

Barnett Shale production had increased – 55 percent on an annual basis – the company was extremely attractive. The Barnett Shale is a vehicle for growth even for a company the size of Devon."

Pushing the Boundaries

Devon, Republic and other operators are continuing to push the boundaries of the play. Devon and Republic are planning to drill 300 and 84, respectively, Barnett wells in the Newark East Field, the primary producing area, but the firms also has several additional programs designed to test potentially productive areas.

Four Sevens Oil Co. also has a stake in the Barnett and is testing its acreage in several locations.

"One of the crucial elements in this play is the barriers above and below the Barnett – the secret is to contain the

fracture stimulation within the Barnett," Brogdon said. "In the Newark East Field the Viola underlies the Barnett and acts as a barrier. However, as you go west the Viola pinches out and the Ellenburger underlies the Barnett, making it more difficult to contain the fractures in the shale."

Bowker said the problem in this area where the Ellenburger underlies the Barnett is that fractures can grow down into the Ellenburger, which is much more porous than the Viola and water bearing.

"All the fracture energy goes into the Ellenburger and you end up brining in the ocean," he said. "A technology-driven effort must be made to determine how to contain the frac within the Barnett."

Over the years Mitchell did test the Barnett past the Viola pinchout, but in almost every case produced water from the Ellenburger. Whitley said Devon will

kick off a program this year focusing on uncovering the optimum completion techniques for this area.

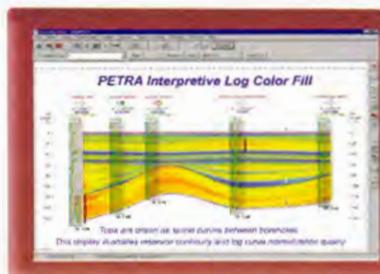
The firm has over 100,000 acres in the area.

"We will all be dead and folks will still be drilling Barnett wells," Brogdon said. "There are literally thousands of infill wells to be drilled in the core areas and operators will continue to push its limits. To me this is the perfect play. I've always dreamed of a play of moderate depth with no pressure problems, a high success ratio, simple operations and a location right out the back door."

Bowker said, "This 18- to 20-year overnight sensation is the kind of success story in the heart of the oil patch that makes you realize there are still tremendous opportunities for new reserves if you are willing to be persistent, push the scientific envelope and think outside the box." □

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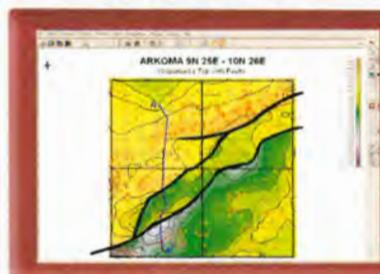
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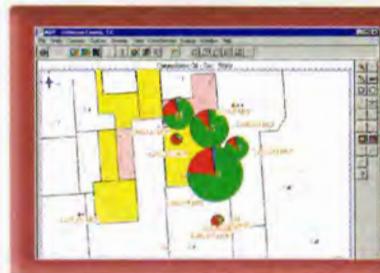
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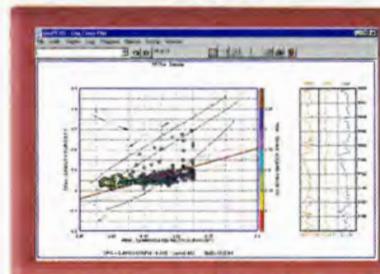
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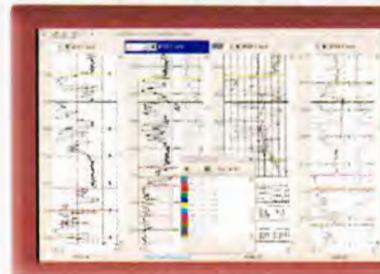
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Summertime – And Planning is Easy

By JANET BRISTER
Web Site Editor

Summer time, and the livin' is easy. Have you taken that vacation yet? Have you *planned* that vacation? What? You're staying at home! Oh, you forgot to plan so now the summer's past and you're sipping tea beside the wading pool trying to not wallow in self-pity because you forgot to set aside some vacation time.

Well, while you contemplate this unfortunate situation, consider this:

Autumn is fast approaching and if you don't plan now for the meetings, conferences or training you need, then soon it will be January and you'll be shoveling snow wishing you had planned that trip to Salt Lake City to present this terrific research you're so excited about!

So, get out of that lawn chair. Bring your tea and come to AAPG's Web site where several meetings are highlighted. Plan now for some professional time to attend these meetings by reviewing the meeting's abstracts, courses, field trips and events so you can gain the greatest benefit possible.

Current details in the meetings area include:

- ✓ Call for abstracts – Salt Lake City 2003 annual meeting.
- ✓ Details and registration information for APPEX, Cairo and Rocky Mountain Section.
- ✓ Exhibitors and sponsors can sign up for Cairo, APPEX and Rocky Mountain Section
- ✓ Several Hedberg Conferences have been announced through mid-2003.

This area of the site is constantly being updated and changed to reflect the most current information available, so check here often as you make your plans.

Many local societies affiliated with AAPG have developed Web sites to keep members abreast of their meetings, courses and other events in their area.

Beyond that you can find in-depth information about geology in their area. Some sites even have virtual tours you can take about locations of geologic interest.

One such site is the Dallas Geological Society: <http://www.dgs.org/>. Here you find the usual news for a local society as well as Texas and Dallas specific details primarily focused on nature. You can learn about the trees of Texas, the birds, its history and much, much more.

A few field trips also are detailed about the surrounding Dallas area. So if your summer vacation plans include a trip to the Dallas area, stop at this Web site before you hit the road.

To find a local society near you go through the contact link on the top left corner of AAPG's Web site. Better yet, use the short cut drop down menu and follow the link to either the AAPG Sections (these will be within the United States) or the AAPG Regions (all outside the United States).

Good browsing!

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PROFESSIONAL NEWS BRIEFS

Silverio "Sil" Bosch, to exploration geologist, Suemaur Exploration & Production, Corpus Christi, Texas. Previously exploration consultant, Esenjay Exploration, Corpus Christi.

Arlen Grove, to vice president-exploration, Prime Natural Resources, Houston. Previously senior staff geologist, Prime Natural Resources, Houston.

Roger Humphreville, to exploration director, Sidanco Oil, Moscow, Russia. Previously block 31 performance unit leader, BP Angola Business Unit, London, England.

John M. Hunt has been elected to the

Russian Academy of Natural Sciences as a foreign member. He also has received the Academy's Kapitza Medal of Honor for outstanding contributions to the field of geologic sciences, and its Gold Medal of Honor of Albert Einstein, the group's highest award. Hunt, a 50-year AAPG member, is a scientist emeritus at the Woods Hole Oceanographic Institution. He resides in Falmouth, Mass.

Bob LoPiccolo, to president, eSeis Inc., Houston. Previously vice president-corporate development, eSeis, Houston.

Reinhard J. Suchsland has formed Suchsland, Hoyt & Associates, Yorba Linda, Calif. Previously geological

manager, BreitBurn Energy, Los Angeles.

Sheree A. Thompson, to director, Wells Fargo Energy Advisors, Houston. Previously vice president, Waterous & Co., Houston.

Ronald L. Wallace, to vice president-operations, Sovereign Oil & Gas, Houston. Previously consultant, Houston.

James W. White, to exploration geologist, ExxonMobil Indonesia, Jakarta, Indonesia. Previously senior petroleum geologist, ExxonMobil Production, Houston.

(Editor's note: "Professional News Briefs" includes items about members' career moves and the honors they receive. To be included, please send information in the above format to Professional News Briefs, c/o AAPG EXPLORER, P.O. Box 979, Tulsa, Okla. 74101; or fax, 918-560-2636; or e-mail, smoore@aapg.org; or submit directly from the AAPG Web site, www.aapg.org/explorer/pnb_forms.html)

IN MEMORY

- Adams, Linn F., 78
Littleton, Colo., Jan. 22, 2002
- Baker, Ronald Isaac, 85
Newton Abbot, England,
March 22, 2002
- Barton, Robert Hellmuth, 70
Houston, April 28, 2002
- Geyer, Robert Lee, 87
Tulsa, April 11, 2002
- Graves, Glen Roger, 69
Caracas, Venezuela, December 2001
- Gronberg, Eric C., 59
Calgary, Canada, May 6, 2002
- Hester, Richard Lee (AC '50)
Cathedral City, Calif.
- Owen, Kenneth Dale, 98
New Harmony, Ind., April 28, 2002
- Porter, George Elliott, 78
Bakersfield, Calif., July 28, 2001
- Reynolds, Douglas Wade, 71
Owensboro, Ky., July 10, 2001
- Rogers, Darrell Dawson, 74
Katy, Texas, May 3, 2002
- Roper, Paul James, 62
Spring, Texas, April 26, 2002

(Editor's note: "In Memory" listings are based on information received from the AAPG membership department. Age at time of death, when known, is listed. When the member's date of death is unavailable, the person's membership classification and anniversary date are listed.)

An article in the June EXPLORER on log preservation (page 14) was incorrect when it said that an initiative seeks to "digitize" logs. The process scans data from original Mylar film.

Transition Zone & SHALLOW WATER



- U.S. (Gulf of Mexico)
- Canada
- Mexico
- Colombia
- Ecuador
- Peru
- Bolivia
- Trinidad
- Venezuela
- Brazil
- Nigeria
- Qatar
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AAPG Candidates' Campaign Policy

(Editor's note: The AAPG Executive Committee has adopted this Election Campaign Policy as a guideline for AAPG officer candidates.)

Preamble

The American Association of Petroleum Geologists is a respected scientific organization of professional geologists. The furtherance of the purposes of AAPG is best served by elections that are conducted in an honorable and dignified manner.

Pursuant to the authority granted by the provisions of Article III, Section 2 of the Bylaws of AAPG, the Executive Committee of AAPG adopts this Officer Election Campaign Policy to assure fair and complete debate by the candidates for AAPG offices.

Candidates for office in AAPG and the membership of AAPG shall support the principles of the policy by strict adherence to both the spirit and the letter of the policy.

A. Campaign Activities

1. General – Candidates may attend meetings that they routinely attended prior to becoming candidates, but no campaigning may take place at such meetings during the period of candidacy unless all candidates for the office are present and provided equal opportunity to be recognized and heard. In all communications with members, comments or responses may not be self-aggrandizing or derogatory to an opponent; a professional demeanor will be maintained at all times.

2. Annual and Sectional Meetings – Candidates are encouraged to attend the annual and sectional meetings of AAPG and be introduced, meet with the members, address gatherings at the request of the president of AAPG, and respond to questions from members.

3. Meetings of Affiliated Societies, Associated Societies and other organizations – Candidates may attend meetings not described in Sections A.1 or A.2 at which a significant number of AAPG members may be present, as long as all candidates for the same office have been invited. Candidates wishing

Candidate Slate Announced

AAPG officer candidates for the 2003-2004 term have been announced by the Executive Committee. The slate is:

President-Elect

- ☐ Patrick J.F. Gratton, independent, Dallas.
- ☐ Ronald A. Nelson, Broken N Consulting Inc., Simonton, Texas.

Vice President

- ☐ Douglas G. Patchen, West Virginia Geological Survey, Morgantown, W.Va.
- ☐ Erik P. Mason, Shell Oil Co., New Orleans.

Secretary

- ☐ Katharine Lee Avary, West Virginia Geological Survey, Morgantown, W.Va.
- ☐ Robert L. Countryman, Occidental of Elk Hills, Bakersfield, Calif.

Biographies of the candidates will appear in the future issues of the EXPLORER and BULLETIN, with candidate statements beginning in the September EXPLORER.

Ballots will be mailed in the spring, with ballots counted May 15, 2003.

to attend such meetings shall notify the executive director of AAPG not less than 14 days prior to the first day of the meeting. The executive director will determine if all candidates have been invited. A candidate may not attend any meeting in this category if all candidates for the same office have not been invited to attend.

4. Organizational Memberships – During the period of candidacy, candidates will not apply for membership in or join an organization that is directly or indirectly related to or associated with AAPG without the prior written approval of the president of AAPG. Upon an adequate written request by a candidate, approval may be granted when membership in an organization is demonstrably important to a candidate's ability to practice professionally.

5. Other Activities – Candidates for office in AAPG and members of AAPG are not permitted to participate in or arrange for, and shall discourage non-members of AAPG from participating in or arranging for:

- ☐ Mass mailings, letter writing campaigns or

telephone campaigns on behalf of a candidate.

- ☐ Receptions or cocktail parties for the purpose of promoting a candidate.

☐ Lecture engagements that could be construed as personal promotion by or for a candidate (commitments made prior to learning of candidacy may be honored).

- ☐ Interviews with the media with the intent to publicize or promote a candidate.

B. Notification and Acceptance

1. The chairman of the Nominating Committee, when contacting nominees to determine whether they will agree to stand for the office for which they are nominated, shall notify them of the pertinent provisions of this policy. The agreement of each nominee to abide by this policy shall be a condition of candidacy.

2. The president, upon notification by the chairman of the Nominating Committee that the slate of candidates has been filled, shall transmit to each

candidate two copies of this policy. Each candidate shall immediately sign and return to the executive director one copy indicating the candidate's acceptance of and agreement to comply with the terms of this policy.

3. This policy shall be published annually in the AAPG EXPLORER, in order that the membership of the Association be informed. The AAPG headquarters staff shall maintain scrutiny of its own operations to ensure compliance with the spirit and the letter of this policy.

C. Enforcement

1. Charges of violations of this policy must be filed in writing with the executive director by an Active AAPG member. The executive director shall report the charge to the Executive Committee. Upon a report to the Executive Committee of a charge of a violation of the policy, the following actions shall be taken:

☐ The Executive Committee will review the charge and if the Executive Committee determines that it is likely a violation has occurred, will send notice to the candidate charged, setting forth the charge and the time and place at which the candidate may personally appear before a representative appointed by the Executive Committee for a hearing on the charge. The candidate shall respond in writing within 10 days from the date the notice is sent.

☐ The Executive Committee shall, within 10 days after receipt of a timely written response, if any, from the candidate charged, or within 10 days after hearing, whichever is later, render its decision as to whether a violation of this policy was committed by the candidate. Failure to make such a decision and to immediately thereafter notify the candidate charged shall be considered a finding that a violation did not occur.

☐ Upon the finding of a first violation, the president shall immediately send a written admonition and warning to the candidate charged.

☐ On each subsequent finding of a violation, the Executive Committee shall impose a penalty upon the candidate ranging from reprimand to disqualification as a candidate in the current election. ☐

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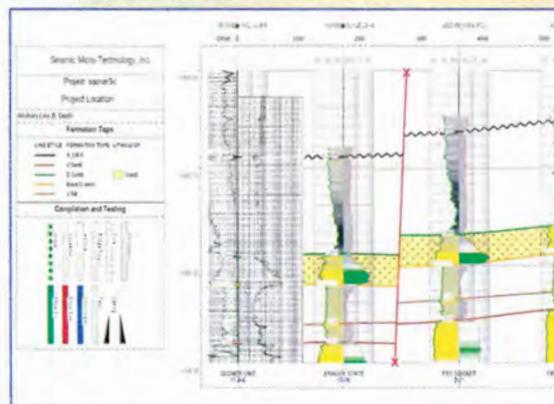
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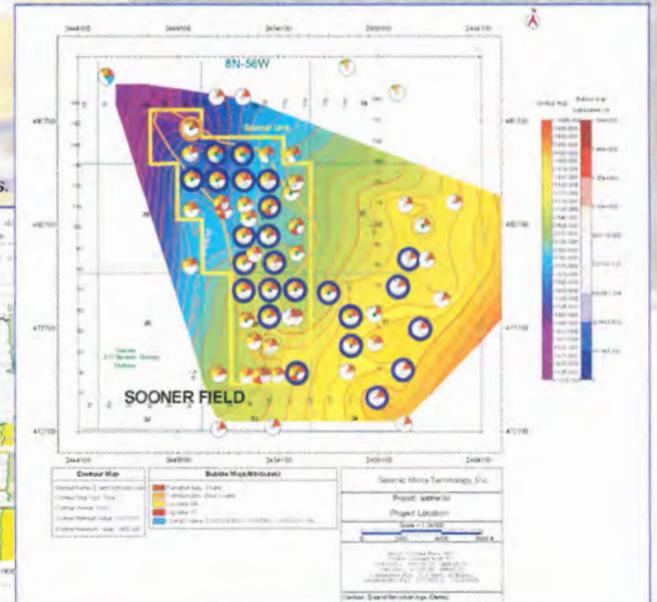
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EDUCATION CALENDAR

2002 SCHOOLS AND SHORT COURSES

Applied Subsurface Mapping
July 8-12, Dallas

An Overview of Exploration Play Analysis
July 22-24, Dallas

Well Log Analysis & Formation Evaluation
Aug. 6-9, Austin

Probability and Statistics for Exploration and Exploitation
Aug. 19-21, Dallas

Characterization of Compartmentalized Reservoirs
Sept. 23-27, Houston

Structural Styles and Traps
Oct. 5-6, Salt Lake City
(With the SEG annual meeting)

Begins in Baton Rouge, La.
Ends in New Orleans, La.

Tectonics and Sedimentation

E&P in Thrusted Terrains, Practical Applications of Structure and Stratigraphy in the Montana/Alberta Foothills
July 15-20
Begins, ends in Calgary, Canada

Submarine Fan and Canyon Reservoirs, California
Sept. 16-21
Begins, ends in Bakersfield, Calif.

** New AAPG course or field seminar.*
*** Revision of an AAPG course or field seminar.*

Terrigenous Clastic Depositional Systems and Sequences – Applications to Reservoir Prediction, Delineation and Characterization
Oct. 21-22, Dallas

Practical Salt Tectonics
Oct. 29-30, Austin, Texas
(with GCAGS Section meeting)

Advanced Risk Analysis for the Energy Industry
Nov. 4-5, Houston

Quantification of Risk
Nov. 11-14, Dallas

2002 FIELD SEMINARS

Carbonates

** Syntectonic Carbonate Sedimentation in Extensional Regimes: Seismic Profile Analyses and Outcrop Analogues from the Atlas Mountains
Sept. 22-28
Begins in Rabat
Ends in Fez, Morocco

Arid Coastline Depositional Environments
Nov. 3-9
Begins, ends in Abu Dhabi, U.A.E.

Clastics – Ancient

Wave-Dominated Shoreline Deposits, and Sea-Level Change, Book Cliffs, Utah: Depositional Models for Hydrocarbon Exploration
Aug. 19-27
Begins, ends in Moab, Utah

Clastics – Modern

Modern Clastic Depositional Environments
Sept. 3-9
Begins in Columbia, S.C.
Ends in Charleston, S.C.

Modern Deltas
Sept. 9-13

For education calendar details and registration visit the Web site: <http://www.aapg.org/education/index.shtml>

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Wednesday, August 28 • Social: 6:00 p.m. • Dinner: 7:00 p.m.
For tickets contact: HGS at 713-463-9476 or sign up on the APPEX registration on the AAPG Web site.

**2002 APPEX
DealMakers Conference
SPEAKERS**

August 27, 2002
(Tentative – check the AAPG Web site for updates)

Sourcing Capital Sessions
Private Financing in Turbulent Times
– Scott Johnson, Weisser, Johnson & Co
Brent Bechtol, EnCap
Chip Webster, Duke Capital
Greg Moroney, Deutsche Bank
Jim McBride, Fleet Boston Financial

Special Presentation
EnCana Corporation, a Super Independent: Overview of the Organization and their High Risk Deep Water Portfolio
– John Hogg, EnCana, Vice President-Atlantic, Canada, Offshore & New Ventures
Key Note Speakers Luncheon
Invited Speaker: Mr. Don Evans, Secretary of Commerce. Confirmed Speaker: Dan Smith, Executive Vice President, Exploration- Sandalwood Oil & Gas, Inc., AAPG President (2002-03), HGS Past President and former board member of SIPES

Exploration & Production
Maverick Misterios - A New Fascinating Discovery – Brian E. O'Brien, Saxet Energy
Strategies for Successfully Managing an Independent E&P Company in a Volatile Commodity Price Environment and the Expansion into Deep Water Plays and Gas Plays Onshore – Greg Armstrong, Chairman, Plains Resources-Hedging
Building a Producer Focused Midstream Competitor – John Eckel, President, Copano Energy

Innovative Exploration
Redeveloping Old Fields in the North Sea – Paul Buhlman, ATP
Shared Earth Modeling-An Integrated Approach to Success – Dan Tearpock, Subsurface Consultants
Recent Deep Drilling Onshore South Louisiana Discoveries- Key to the Future Exploration of the Gulf Coast – Frank W. Harrison, Jr., President, Optimistic Oil Co.

Support Systems for Exploration
The Critical Role of Information In the Changing Dynamics of Worldwide E&P – Pete Stark, IHS Energy
CO₂ Injection – Gareth Roberts, Denbury Resources
Application of New Seismic Technology – Jim White, WesternGECO

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MEMBERSHIP AND CERTIFICATION

The following candidates have submitted applications for membership in the Association and, below, certification by the Division of Professional Affairs. This does not constitute election, but places the names before the membership at large. Any information bearing on the qualifications of these candidates should be sent promptly to the Executive Committee, P.O. Box 979, Tulsa, Okla. 74101. (Names of sponsors are placed in parentheses. Reinstatements indicated do not require sponsors.)

For Active Membership**Arizona**

Thieme, Lisa D., Shell, Phoenix (S.M. Landon, M.W. Hitzman, R.M. Slatt)

Colorado

Smith, Sean Ryan, Kerr-McGee, Denver (D.R. Davis, B.E. O'Brien, J.H. Ladd)

Florida

Grasmueck, Mark P., University of Miami, Miami (G.P. Eberli, R.N. Ginsburg, D.F. McNeill)

Indiana

Conner, Garre Alan, Conner Geology & Engineering, Evansville (Reinstatement)

Texas

Albertson, Michael James, Kerr-McGee, Houston (J.B. Leedy, H.J. White, D.D. Miller); Brooner, Barry Alan, Brooner Exploration, San Antonio (Reinstatement); Duncan, Lynn E., consultant, Houston (C.R. Oliver, D.N. Valleau, D.K. Johnson); Grace, David Thomas, Henry Petroleum, Midland (D.L. Feavel, G.H. Olson, R.M. Grace); Hanna, Robert W., ExxonMobil Exploration, Houston (C.A. Dengo, M.E. Effler, W.M. Blount); Leander, Mark H., Unocal, Sugar Land (Reinstatement); Leslie, William W., Petrotel/Ramtech, Plano (S.P. Ross, S.M. Scott, R.K. Davies); Perfetta, Patrick J., Phillips Petroleum, Bellaire (S.D. McDonough, J.S. Enos, K.F. Bridges); Pignone, Thomas Joseph, Gaffney, Cline & Associates, Houston (W.A. Lau, J.R. Weston, R.E. Curtis); Redlin, Brian David, Geomap, Plano (R. Van Valin, J.K. Jordan, S. Darnell); Smith, Jeffrey A., independent, Midland (Reinstatement); Sullivan, Amy Elizabeth, Shell International E&P, Houston (D.T. Deininger, G.D. Carlson, T.L. Kirst); Williams, Robert Elbert Jr., William M. Cobb & Associates, Dallas (D.L. Bailey, E.G. Boutte, G.A. Jenner)

Virginia

Berquist, Carl Richard Jr., Virginia Division of Mineral Resources, Charlottesville (Reinstatement)

West Virginia

Bruner, Kathy Ruth, West Virginia University, Morgantown (Reinstatement)

Argentina

Gutierrez, Maria Alejandra, ODEA S.R.L., Buenos Aires (L. Legarreta, C.A. Gulisano, D. Dellape)

Australia

Tye, Stuart Clifford, Origin Energy, Brisbane

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continued from previous page

(D.C. Lowry, G.P. Pass, K. Suto)

Belarus

Kovkhuto, Andrei, Inst. Geol. Sci. of NASB, Minsk (A.M. Gumen, A.A. Kiitchka, W.P. Grun)

Bosnia & Herzegovina

Redzepovic, Rejhana, Tuzla University, Tuzla (W.P. Grun, H. Hrvatovic, T. Malvic)

Brazil

De Vries, Michael Brian, Enterprise Oil, Rio de Janeiro (M.R. Mello, A.H. Bouma, J.W. Higgins)

Canada

Elliott, Patrick George, EnCana Corp., Calgary (P.B. Myers, J.R. Hogg, W.B. Lathrop); Fockler, Meridee Jane, Calgary (Reinstate); Whiticar, Michael John, University of Victoria, Victoria, B.C. (Reinstate)

Egypt

Dahi, Mohamed Abdel Moneim, GUPCO, Cairo (A.B.H. Hassouba, A.Y.A. Omar, D.A. Pivnik); Ghoneim, Mohamed Abd El H., Gulf of Suez Petroleum, Cairo (Reinstate); Hashem, Mohamed Hesham A., GUPCO, Cairo (A.B.H. Hassouba, A.Y.A. Omar, D.A. Pivnik); Ibrahim, Ahmed Abd El-Shafy, GUPCO, Cairo (Reinstate); Mostafa, Alaa El Din R., Alexandria University, Alexandria (K.K. Bissada, H.M. Holail, A.N. Shahin); Refaie, Mahmoud Ahmed, GUPCO, Cairo (A.Y.A. Omar, A.B.H. Hassouba, David A. Pivnik)

Norway

Shahly, Mark G., BP, Stavanger (Reinstate)

Peru

Escobedo, Romulo, UNSAAC, Cusco (H.

Certification

The following are candidates for certification by the Division of Professional Affairs.

Petroleum Geologist

Louisiana

Ellison, Guy C., El Oil, Lafayette (Reinstate); Sharp, Robert Edward, McGoldrick Oil, Shreveport (D.A. Robinson, L.G. Frizzell, M.E. Dunham)

New Mexico

Corbett, John Charles, consultant, Farmington (E.W. Heath, J.R. Kerns, D.D. Clark)

Texas

Morton, Douglas Lee, consultant, Houston (R. Trejo, S.M. Wilmoth, L.L. Tade)

United Kingdom

Spain, David R., BP Exploration Operating Co., Middlesex (D.S. Muller, D.M. Stone, J.R. Lantz)

Valdivia-Ampuero, G. Davila Soriano, V. Lay)

Spain

Jurado Rodriguez, Maria J., Inst. Ciencias Tierra CSIC, Barcelona (M. Esteban, J.N. Comet, J.A. Varela Montes)

Switzerland

Gunzenhauser, Bernhard A., Proseis AG, Zurich (P. Lehner, M.F.S. Petch, J.A. Mulock Houser) □



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- Piceance Creek Basin
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Field Trips

- Transgressive-Regressive Cycles in the Almond through Fox Hills Succession
- Structure and Tectonics of the Rocky Mountain Foreland
- Ft. Union Fm. and Coal Resources of the Powder River Basin
- Coalbed Methane Resources of the San Juan Basin
- New Insights: Cretaceous of the Piceance Creek Basin
- Dinosaur Digs at Como Bluff (GEOTOUR)

Short Courses

- Desktop Applications for Geoscientists
- Low Permeability Gas Reservoirs
- Facies and Trace Fossils of the Mesaverde Group, WY

PLUS

- Natural Resource Development Forum: Conflict & Consensus
- Student Expo: A Rocky Mountain Rendezvous of Geoscience Students and Employers

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To these people, and to those who have generously made donations in the past, we sincerely thank you.

The AAPG Foundation will continue its stewardship for the betterment of the science and the profession of petroleum geology, thanks to you.

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READERS' FORUM

100 Percent Sponsorship?

There I was, flat on my back at 30,000 feet, complacently comfortable with my happy, conservative thinking, as a Republican with a "less government is better" attitude. Then, I became painfully aware of my stupidity by reading Scott Tinker's interview comments on the reality of our country's energy future (May EXPLORER).

Not to mind that he never even considered oil, and that coalbed methane, shale gas and tight gas discoveries are pretty much history, albeit those reserves were helped by "investment in research, mainly by the federal government, along with incentive to explore and produce." (I wonder what exactly those incentives were? Could they have been permits to explore?)

Interestingly, Tinker feels "enormous gas reserves remain undiscovered, but for a tremendous amount of research to understand how to characterize, quantify and safely drill..." This research, having been abdicated "by private research labs maintained by major oil companies," must consequently now be done by the federal government or not at all.

Tinker succinctly made a valid point that I had, up to now, chosen to ignore or minimize. That is, that any exploration concepts originated by major oil companies are naturally suspect by the American public as a whole as totally self-serving and are therefore automatically discounted out of hand politically. It seems that from here on, only research by federal entities will ever have any credibility with the American public.

I think I now see the light. Our future effective energy policy can only be done with 100 percent government sponsorship. Besides, why should Americans settle for

Editor's note: Letters to the editor should include your name and address and should be mailed to Readers' Forum, c/o AAPG EXPLORER, P.O. Box 979, Tulsa, Okla. 74101, or fax (918) 560-2636; or e-mail to forum@aapg.org. Letters may be edited or held due to space restrictions.

20 percent royalty on government lands when they can, with little risk (3-D seismic), have 100 percent of the profits?

David Callaway
Houston

EIA Confusion

There is much confusion ... as to what the term "reserves" means.

Culprits outside the industry who misuse the term can perhaps be forgiven. But when a highly respected and highly referenced government agency such as the Energy Information Administration (of DOE) contributes to confusion, a line has to be drawn.

Over the years, I have occasionally consulted the EIA Web site for the Caspian region, and to my astonishment have found that the agency makes no distinction between reserves estimates for discovered fields and volumetric estimates referring to undiscovered resources. These are all lumped under the term "estimated reserves."

For example, in a May 2001 review for Azerbaijan, proved reserves of 4.3 billion barrels for the Azeri-Chirag-Guneshli Field are called "estimated reserves," as are the pre-drill resource estimates for the

See **Forum**, next page

Student Research Grants in Mathematical Geology

The International Association for Mathematical Geology (IAMG) is pleased to announce the availability of the 2002 Student Grants program. The Student Grants Program supports graduate student research in broad areas of mathematical geology for the purposes of advancing the development and application of quantitative methods in the geosciences. Recipients of the awards, which typically amount to \$2,000 US, must be enrolled in a formal university program in which they are pursuing a graduate degree.

Project proposals and requests for support should include the applicant's name and contact information, as well as the following: school in which the applicant is enrolled, degree being pursued, and expected completion date of degree; transcripts of undergraduate and graduate course work; list of prior awards and honors; description of professional and work experience, as well as extra-curricular activities; title of the project proposal, an abstract of no more than 500 words, and the target completion date; an endorsement of the project signed by at least one faculty member from the academic department in which the applicant is enrolled; and a detailed project budget.

All proposals will be evaluated on the basis of the applicant's academic record, endorsement from the sponsoring university and faculty, relevance and feasibility of the project, and financial need. Additional guidelines concerning the competition can be found on the Internet at www.iamg.org.

Written proposals for 2002 funding should be sent to Donna Dennison, Student Grants Committee, IAMG Office, 4 Catarauqui St., Suite 310, Kingston, ON K7K 1Z7, Canada. Submission deadline is July 31, 2002.

AAPG Education Offerings

OCTOBER

Short Courses and Schools

Structural Styles and Hydrocarbon Traps in Compressive Basins

Instructor: Shankar Mitra
October 5-6, with SEG Annual Meeting
Salt Lake City, Utah

Terrigenous Clastic Depositional Systems and Sequences: Applications to Reservoir Prediction, Delineation, and Characterization

Instructor: William E. Galloway
October 21-22
Dallas, Texas

Practical Salt Tectonics

Instructor: Mark G. Rowan
October 29-30, with AAPG Gulf Coast Section Meeting
Austin, Texas

NOVEMBER

Field Seminar

Arid Coastline Depositional Environments

Field Seminar Leaders: Ross G. Peebles, Christopher Toland, Maurice Tucker
November 3-9
Abu Dhabi, U.A.E.



Short Courses and Schools

Advanced Risk Analysis for the Energy Industry "Beyond Lognormal"

Instructor: William Haskett
November 4-5
Houston, Texas

Quantification of Risk

Instructors: Pete Rose, Jim MacKay, Gary Citron
November 11-14
Dallas, TX

Arid environments of the Abu Dhabi coast. Photo by Ross Peebles

For complete details contact:

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DPA

from page 39

watch the approach and landing at the North Slope.

It was the thrill of a lifetime, yet another new friendship and an experience I will never forget. Who would have ever believed that the two of us would have met and become friends through "Java Jones" in Mt. Pleasant, Texas?

It has been a great year for DPA, and "things do happen for a reason."

I want to thank all of you who have worked so hard for DPA. You are the reason DPA is what it is today. Together we have accomplished a lot:



Royce Carr, center, gets a bird's eye view, thanks to serendipity.

- ✓ The Division is financially sound and membership is stable.
- ✓ All of our committees and boards continue to function efficiently.
- ✓ The online DPA directory is completed, up and running.
- ✓ Be sure to look at the "Correlator" next month. It is totally redesigned, and I am excited about the new look and approach Dave Abbott, our new editor, is taking.

In closing, the AAPG, though large, is truly a small fraternity, and I have enjoyed representing the division this year as your leader.

As I enter my last month as your president, I leave you with the statement I began with: "Thank you for providing me the opportunity to serve and to give back to a career that has been so rewarding to me."

It has been a worthwhile experience that I will never forget! □

Forum

from previous page

Absheron, Nakhichevan and Oguz prospects (13 billion, 750 million and 550 million barrels, respectively).

The last-named were in fact tested over the past year and all were found to be non-commercial.

Likewise, for Kazakhstan, the oil-in-place figure for the Kashagan Field (40 billion barrels) is called "estimated reserves." To top it off, it is added, as a matter of clarification, that 10 billion barrels are "recoverable!"

Never mind that reserves, by definition, are supposed to be recoverable volumes.

When it attempts to be more sophisticated and assign probabilities in

apparent conformity with the SPE/WPC/AAPG terminology, EIA also goofs. In a February 2002 review of the Caspian region reserves, "possible reserves" are defined as "50 percent probable," a gobbledeyook! Fortunately, proved reserves are defined almost correctly.

It is time for EIA to tighten up its reserves terminology. At the very least, it should refrain from using the term "reserves" for undiscovered resources. The SPE/WPC definitions adopted in 1987, and the wider SPE/WPC/AAPG definitions adopted in February 2000 are, in broad terms, simple enough to be conveyed to the general public – preferably by including the broad definitions in a glossary. Otherwise, the public and myriad legislative and government bodies, both domestic and foreign, that consult the EIA data base for

world resource estimates will continue to be misled.

It is no wonder that published reserves estimates for the Caspian region are in the ridiculously wide range of 8 to 233 billion barrels.

EIA should not contribute to such confusion.

Ferruh Demirmen
Houston

Borehole Images

Thank you for the concise and well-presented and excellent STAR images ("Geophysical Corner," April EXPLORER).

It is clear that the cross bedding, from at least three different bedsets, indicates a southerly direction of sediment transport at this location. And it might be true that this data represents an isolated channel system with a southerly trend.

However, I would like to provide a

cautionary note with regards to up-scaling this observation to an interpretation of a southward flowing channel system based on the information provided, which only covers a 10-foot interval in one well.

The imaged bedforms might also have been deposited within a sinuous channel system, or the stacked bedforms themselves might be laterally accreting. If so, the regional trend might be very different from the generally assumed southerly trend reported.

Furthermore, the deformed bedsets are not necessarily bank collapse; bedforms often de-water and deform during waning or pulsating flood events.

Only with larger image intervals, or with correlation to adjacent wells, can we confidently say something about channel belt or channel system orientations.

Adriaan Bal
Adelaide, Australia

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AAPG RESEARCH SYMPOSIUM
CALL FOR ABSTRACTS AND CONFERENCE ANNOUNCEMENT
Paleozoic and Triassic Petroleum Systems in North Africa
Algiers, Algeria — February 18-20, 2003

Conference Convenors
Dr. D. Tackherist – Sonatrach, Algiers, ALGERIA Mr. L. Montadert – BEICIP, Rueil Malmaison, France

Program Committee
Dr. D. Bekkouche (Vice Chair), Sonatrach Prof. D.G. Roberts (Tech. Program Chair), BP
Ms. F. Braik, Sonatrach F. Gauthier, Anadarko,
K. Kveton, Chevron-Texaco B. Fourcade, TOTAL FINA ELF
R. Eschard, IFP F. Quagliaroli, ENI/AGIP
E. Figari, REPSOL

Over forty years of exploration for oil and gas in North Africa have yielded prolific reserves in Paleozoic, and latterly, Triassic reservoirs. While exploration has demonstrated the diversity and complexity of both play types and petroleum systems, seismic imaging remains a key challenge in exploring several major plays. Analysis of the sequence stratigraphy of both the Paleozoic and Triassic is crucial to reservoir prediction at both basin and field scales. Fracturing is equally important in addressing development especially in Paleozoic plays as is an understanding of the case histories of established fields.

Key questions to be addressed during the conference include:

- * Source rocks and basin modeling
- * Plays and petroleum system of the Paleozoic and Triassic
- * Structural history of North Africa
- * Sequence stratigraphy of the Paleozoic and Triassic
- * Field case histories
- * Reservoir characterization including fracturation
- * Seismic challenges for Exploration & Production

The conference will be opened by a plenary session that will overview the Exploration History of the North African Saharan Platform. The timing of the proposed meeting is appropriate as exploration of Paleozoic systems continues to broaden across North Africa and into the Middle East. A more profound understanding of the key elements of the Paleozoic and Triassic petroleum systems will have wide application across the region and also in other formerly connected Paleozoic basins.

Field Trip
The Conference will be followed by a five day field trip (February 21-25) dedicated to the study of the Lower Paleozoic formations on the Tassili Outcrop (South East Algerian Sahara)
Leader: Rémi Eschard (IFP) contact Email <remi.eschard@ifp.fr>

Visas
Conference attendees will require an Algerian Visa. Visa applications **MUST** be accompanied by a letter of invitation from Sonatrach - contact D.Bekkouche <Djamel.Bekkouche@ep.sonatrach.dz>.

Abstract Submittal: Please send the Abstract Cover Sheet and a 1 to 4 page(s) abstract including optional figures (up to 2) to Debby Boonstra, AAPG Education Department, P.O. Box 979, Tulsa, OK 74101-0979, email: <debby@aapg.org> with a copy to Djamel Bekkouche at <Djamel.Bekkouche@ep.sonatrach.dz> and David G Roberts at <robertsdg@bp.com>. Please specify that your abstract is for **AAPG Algiers Research Conference**. Include **ALL** co-authors names (including contact information for the primary author).

DEADLINE FOR SUBMISSION OF ABSTRACTS: SEPTEMBER 25th, 2002

CLASSIFIED ADS

POSITION AVAILABLE

**Texas A&M University
Tenure Track Faculty Position
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The Department of Geology and Geophysics at Texas A&M University invites applications for a tenure-track position in petroleum geosciences at the Assistant Professor level. A Ph.D. is required by the time employment begins. We anticipate filling this position in Fall 2002 or Spring 2003.

The successful candidate is expected to teach at both graduate and undergraduate levels and to develop a forward-looking, externally funded research program in fundamental petroleum geosciences. Candidates with experience in solving subsurface problems by integrating geological, geophysical and petrophysical data are encouraged to apply. Previous experience with the petroleum industry is desirable but not a prerequisite.

The specific research field of the successful candidate is open, but we hope to find an individual who will complement existing departmental programs in reservoir characterization, basin studies, seismic interpretation, sequence stratigraphy, structure, tectonics, and sedimentary geochemistry. A promising research plan and evidence of publications are more important than the specific study focus. Expertise with the latest technologies for characterization, modeling, and visualization of reservoirs and regional petroleum systems is desirable. Many opportunities exist to participate in and build on collaborative programs with colleagues in Petroleum Engineering, Chemical Engineering, Oceanography, Ocean Drilling Program, and Geochemical and Environmental Research Group.

Submit a curriculum vita, recent reprints, a statement of research and teaching interests, and the names, postal and e-mail addresses, and fax numbers of three references to: Dr. Wayne M. Ahr, Chair, Petroleum Geoscientist Search Committee, Department of Geology & Geophysics, Texas A&M University, College Station, TX 77843-3115.

Texas A&M University, a land-, sea- and space-grant institution, is located in College Station, Texas, a dynamic community of 140,000 people. Texas A&M University is an affirmative action/equal opportunity employer committed to excellence through diversity and compliance with the Americans with Disabilities Act. Departmental facilities and programs can be reviewed at our web site (<http://geoweb.tamu.edu>).

STATE GEOLOGIST OF ALABAMA

The President of The University of Alabama, the appointing authority, invites nominations and applications for the position of State Geologist of Alabama. In addition to proven administrative ability, candidates should have an educational background in geology or closely related earth science disciplines and substantial experience in some phase of geology and petroleum exploration and/or production. Because the Geological Survey of Alabama has a significant research emphasis, preference will be given to candidates with a Ph.D. in geology or a closely related earth science discipline.

The State Geologist is Director of the Geological Survey and also serves as State Oil and Gas Supervisor and Secretary of the State Oil and Gas Board. The total current combined budget is approximately \$6 million with a staff of 86.

The salary is negotiable. Nominations and letters of application (including resumes) should be sent before August 1, 2002 to: Charles D. Haynes, Chairman, Search Committee for State Geologist, P. O. Box 870205, Tuscaloosa, AL 35487-0205 or email to: stategeologistsearch@gsa.state.al.us

Electronic correspondence is preferred but not required. For more details on this position, visit the web sites at <http://www.gsa.state.al.us> or <http://www.ogb.state.al.us>

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For further information or assistance, call Brenda Merideth at (918) 560-2647 or (800) 288-7636 (Canada and USA).

Job Opportunities

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C & C Reservoirs invites applications for the positions of Senior Research Geoscientist. Ideal candidates should have: 1) a PhD in geology, 2) at least 5 years experience in exploration and/or field development, 3) strong commitment to research excellence and 4) sound knowledge of a broad range of geological and reservoir-engineering principles and practices. Excellent written skills in English are essential. Applicants with an industrially oriented research experience in the field of stratigraphy, sedimentology and/or reservoir geology are especially welcome. The primary job scope is to conduct field studies and deliver the results in comprehensive reports. We offer a competitive compensation package to the successful candidates. If your qualification and experience meet our requirements and you are willing to take the challenge, please submit a letter of application and a detailed resume to info@ccreservoirs.com.

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For a detailed description of the above positions, please refer to our website www.jobsataramco.com. For consideration, please send a resume to **Aramco Services Company, reference code 06B-AAPG, in one of the following ways: E-mail: resumes@aramcoservices.com (please cut and paste rather than send an attachment); Fax: (713) 432-4600; Mail: P.O. Box 4530, Houston, TX 77210-4530.**

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MEETINGS OF NOTE

2002 U.S. Meetings

Aug. 27-29, APPEX (AAPG Prospect and Property Exposition), AAPG, Houston.

Sept. 8-11, Rocky Mountain Section, AAPG, annual Section meeting, Laramie, Wyo.

Sept. 29-Oct. 2, Society of Petroleum Engineers, annual meeting, San Antonio.

Oct. 2-4, Eastern Section, AAPG annual Section meeting, Champaign, Ill.

Oct. 6-11, Society of Exploration Geophysicists, annual meeting, Salt Lake City.

Oct. 16-20, AAPG Foundation Trustees Associates, annual meeting, Asheville, N.C.

Oct. 27-30, Geological Society of America, annual meeting, Denver.

Oct. 30-Nov. 1, Gulf Coast Section of Geological Societies, AAPG, annual Section meeting, Austin, Texas.

2002 International Meetings

Aug. 31-Sept. 4, Society for Organic Petrology/Canadian Society for Coal and Science and Organic Petrology, joint annual meeting, Banff, Canada.

Oct. 27-30, AAPG International Conference and Exhibition, Cairo, Egypt.

Nov. 19-22, Offshore Southeast Asia, annual meeting, Singapore.

2003 U.S. Meetings

(Annual meeting dates for the AAPG Pacific Section and Gulf Coast Association of Petroleum Geological Societies are yet to be announced.)

March 1-3, Southwest Section, AAPG annual Section meeting, Fort Worth.

May 5-8, Offshore Technology Conference, Houston.

May 11-14, AAPG annual meeting, Salt Lake City, Utah.

Sept. 9-11, APPEX (AAPG Prospect and Property Exposition), AAPG, Houston.

Sept. 10-13, AAPG Foundation Trustees Associates, annual meeting, Whistler, B.C., Canada.

Sept. 21-24, Eastern Section, AAPG, annual Section meeting, Pittsburgh.

Oct. 12-14, Mid-Continent Section, AAPG annual Section meeting, Tulsa.

2003 International Meetings

May 31-June 5, Canadian Society of Petroleum Geologists, annual meeting, Calgary, Canada.

June 2-6, European Association of Geoscientists and Engineers, annual meeting, Stavanger, Norway.

Sept. 21-24, AAPG International Conference and Exhibition, Barcelona, Spain.

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- Computer skills related to basin modeling software, seismic interpretation, and specialty programs for office productivity
- Petroleum industry experience
- The ability to work individually and collaboratively with technical and operations teams
- Strong presentation skills

ChevronTexaco offers a competitive salary and benefits package. To view a more detailed job description and to apply for this position log onto www.chevron.com, under shortcuts, click on career opportunities, then on U.S. jobs and search for job title Basin Modeler. Qualified candidates should submit their resume, publications, and three references by applying via ChevronTexaco's on-line application process.

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DIRECTOR'S CORNER

APPEX Gets Added Attractions

By RICK FRITZ

Last year I took the family on a short vacation during fall break to Branson, Mo., and one night for entertainment we went to see a group called the "Amazing Chinese Acrobats."

The show was crowded but as luck had it, we were able to sit one row back from the front on the left side. We picked these seats because the rest of the row was open. This gave me the option of making a quick exit with Zoe, my youngest, a precocious, blue-eyed, blond-haired two-year-old, in the likely event that she began to melt down.

As it turned out, our fears were unfounded. She was content to explore and play along the empty row while the rest of us watched the show, which, by the way, was amazing.

I have never seen better jugglers and acrobats. It seemed that they could balance anything!

Just before the grand finale, one of the best acrobats performed an act in which she stacked and balanced a number of small chairs vertically to about 25-30 feet high. At the end of the routine, they threw her a small vase and asked the audience for complete silence while she balanced upside down on her head ... on the vase ... at the top of this teetering column of chairs.

What an act!

We are about to enter into a balancing act of our own with APPEX 2002, scheduled in Houston on Aug. 27-29.

Success in any performance or project is shown in the end result.

After the success of APPEX 2001 we are making a major expansion in 2002. So instead of looking for chairs to balance, we are looking for new participants to build our program. In the inaugural APPEX 2001, we sold out at over 200 booths with a waiting list. Since we never want to turn customers away, we decided to move APPEX to the George R. Brown Convention Center so we could have more space.

Over 400 booths are available for APPEX 2002, and, although we already have a good start, we need your help in making our second year a success.

Last year we had many good comments from AAPG, Houston Geological Society and SIPES members who loved the first APPEX and appreciated having their own show. This is truly a members' expo, and we will continually customize APPEX to fit the needs of our respective members.

Once again we will have special areas set aside with maps and data on plays, statistics and geology/geophysics. Also, this year we have another great pre-expo conference with more room than last year (we sold out last year, so please register early).

New for APPEX 2002, we are adding pre- and post-meeting short courses:

✓ Pete Rose is going to teach a one day pre-expo course on "The Bridge Between Finding Oil and Making Money: An Overview of Exploration Risk Analysis for Senior Management."

✓ George Kronman will teach a one-half day post-expo course on "International E&P Ventures."

This year we will again emphasize properties as well as prospects.

The expo hall booth space is already starting to fill, so now is the time to sign up.

If you are interested in a booth or in attending the expo, please contact Michelle Mayfield-Gentzen at 888-945-2274, ext 618 – or you can log on to the AAPG Web site (www.aapg.org), click on the APPEX logo to find the appropriate forms.

Now for the rest of the story – as you remember, the acrobat was just about to balance upside down on a vase on the top of a column of chairs.

Indeed, she placed the vase on the

top chair, and once again they asked for complete silence, and, in addition, no flash photography, because this stunt "is extremely dangerous."

Just as she put her head on the vase and began to go up, I turned to see Zoe peeping over the top of the row of seats, staring intently at this amazing spectacle. I turned back to see the trick, when I heard a small, clear voice that echoed through the hushed hall saying: "Don't fa-h-a-a-III!"

Immediately the crowd gasped, looked my way, and then began to laugh. With my heart in my throat, I "shushed" Zoe, and wondered if there was any liability as Zoe's parent for falling acrobats.

The little acrobat wobbled and then froze. After the laughter died down, she calmly finished her feat. The crowd roared, and all were relieved.

Success in any performance or project is shown in the end result. This is an exciting time for AAPG, HGS and SIPES members as we build from the success of APPEX 2001 and develop our own custom prospect and property expo.

We invite all members to come, participate, network and explore the possibilities found in this unique venue.



You Are Why DPA Is What It Is

'Things Do Happen for a Reason'

By ROYCE P. CARR
DPA President

As I prepare to hand the leadership of the Division of Professional Affairs off to president-elect Tom Mairs I am happy to report much has been accomplished and great things lie ahead for the DPA.

All this started with an election. I ran against a man I knew only by name, but during my term I became acquainted with him personally. He is a gentleman, a scholar, a good golfer and a great geologist and teacher. Bob Lindblom, thank you for your support, your service to the division and the friendship we have enjoyed this year.

In September, just after our national tragedy, I prepared to board a plane in Dallas for the Eastern Section meeting in Kalamazoo, Mich. The man in front of me was an Arab. His name was Dr. M. Abdullah "something or another."

You cannot imagine what you think at a time like this. I knew I had to go to the meeting to represent the division, but was it really worth risking my life?

I boarded the plane and gulped when he sat down in the seat beside me. During what turned out to be a nice flight to Kalamazoo, I learned this man was the director of the food service for the United Nations. The moral of this story is things

I want to thank all of you who have worked so hard for DPA. You are the reason DPA is what it is today. Together we have accomplished a lot:

are not always the way you think they might be.

In Kalamazoo, there were approximately 150 in attendance at the meeting. I suspect 149 of them drove to Kalamazoo to attend the meeting due to our September 11 tragedy!

At the Shreveport meeting, I was afforded the opportunity to introduce the DPA luncheon speaker. The unique thing about that opportunity was the fact that I was introducing past AAPG president William L. Fisher, and he had taught me geology as a student at the University of Texas at Austin almost 30 years ago.

Bill's talk, as always, was excellent, and I was honored to introduce a man who had taught me so much.

In May, I attended the Pacific Section meeting in Anchorage, Alaska.

As I departed from Mt. Pleasant my wife, Deborah, and I stopped at "Java Jones," a small Texas town's answer to Starbucks. As our coffee was prepared we talked with Roger Jones, one of the "Java Jones" owners, and I told him we were headed to Anchorage for a professional meeting. He mentioned that his brother-in-law was in Anchorage.

When I told Roger that the next day I was headed to the North Slope to tour the oil fields, he told me his brother-in-law flew an airplane for Mobil. I did not remember Mobil being active in the North Slope and I never gave it another thought. We said goodbye and headed to Dallas to catch our flight to Anchorage. The next morning I woke up anxious

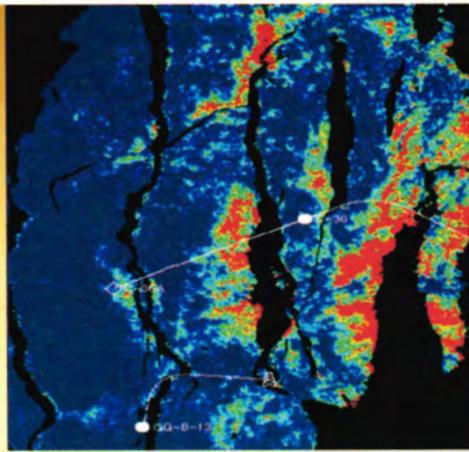
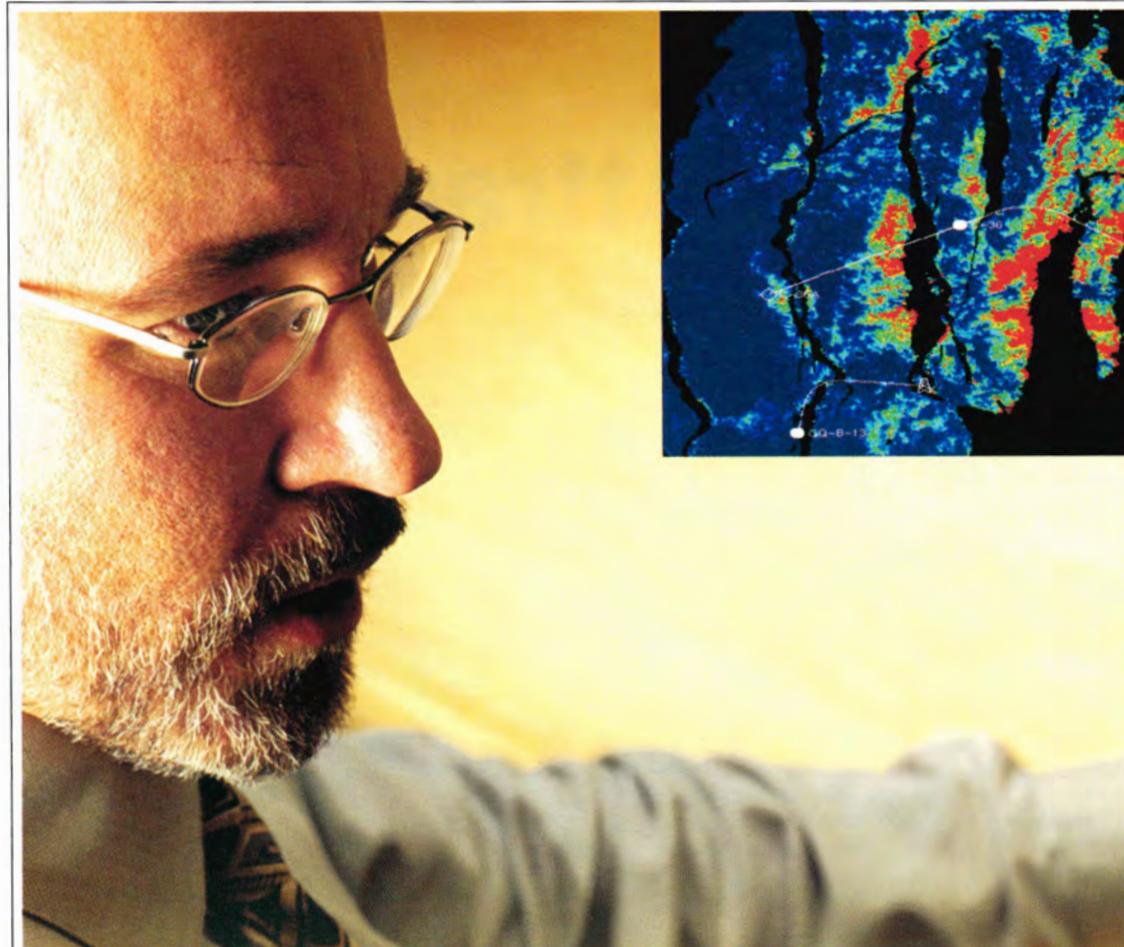


to see the North Slope. We arrived at the airport and after a thorough security check, I received my boarding pass on the BP-Phillips flight to Kuparuk.

After I was seated in the aircraft, the stewardess came to my seat and asked, "Are you Royce Carr? Captain Ron Kukis would like to speak with you."

Captain Kukis came to my seat, introduced himself and explained he was Roger Jones' brother-in-law. We talked a moment and he headed back to the cockpit. During the flight, the stewardess came back to my seat and said, "things happen for a reason." I replied, "I believe that also." She then told me that with the September 11 incident that security was tremendously increased, but Captain Kukis had asked me to come to the cockpit and sit in the navigator's seat to

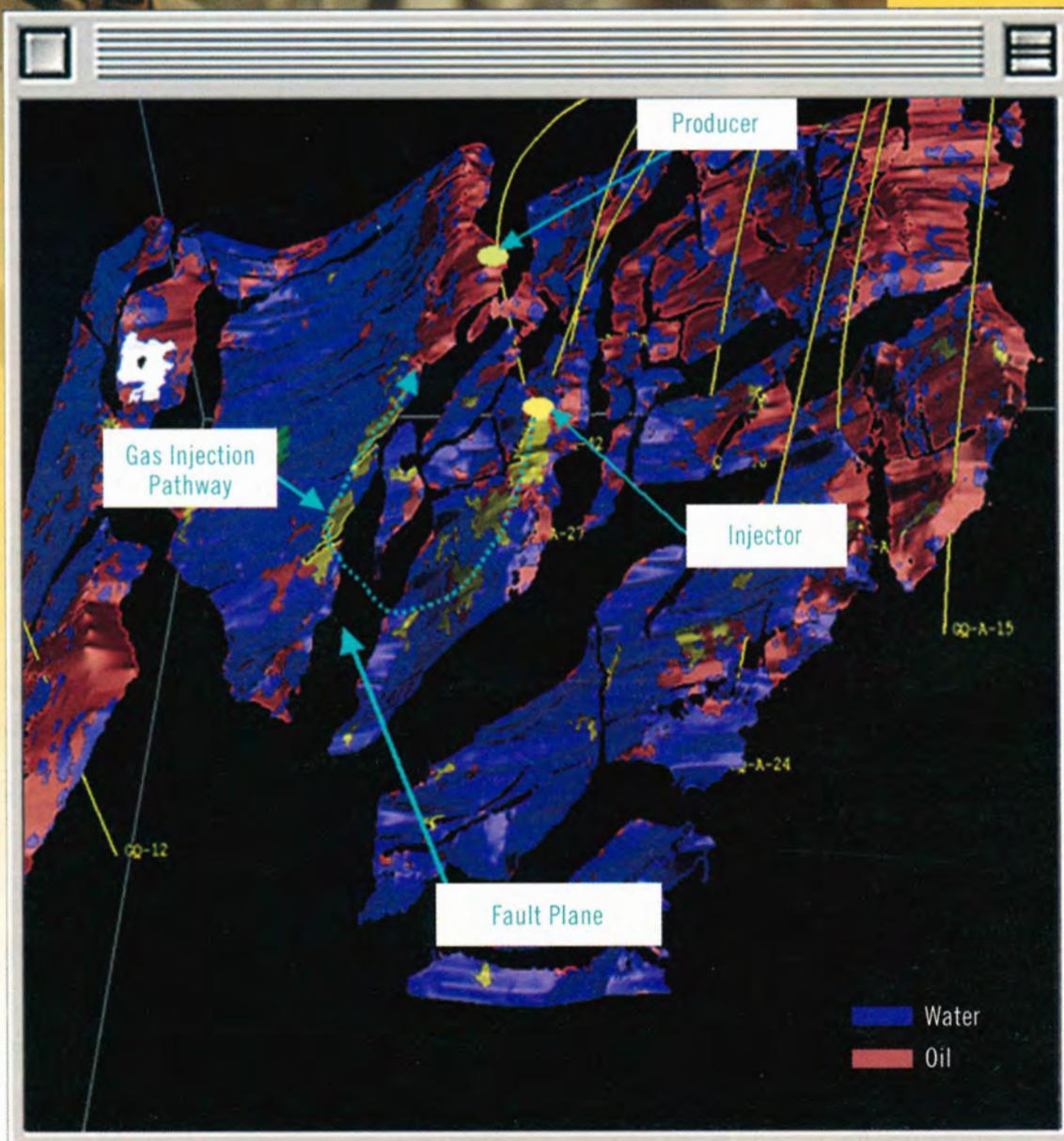
See DPA, page 36



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