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Seismic Workshop Set for Spring!

Next spring, the OGS will launch a new workshop to examine the world of seismic exploration. This PTTC one-day workshop is designed for the nontechnical operator, as well as those with a good geological background but not a vast amount of geophysical experience.

The morning session will cover the basics of reflection seismic information, addressing both 2-D and 3-D seismic methods. A brief history of the evolution of seismic exploration technology and its impact on the State of Oklahoma will be included. The program will present a non-mathematical approach to acquisition, processing, and interpretation of seismic data.

The afternoon session will include case histories in the Mid-Continent, West Texas, and Gulf Coast regimes. These case histories will be examples of how seismic data were used for field extensions, new field discoveries, and condemnation of areas when the geological information was sparse or inconclusive.

Lastly, the workshop will discuss advances in software and hardware used in seismic exploration, and access to seismic data for the small company and independent operator.

The primary goal of the workshop is to provide operators and other explorationists with a better understanding of when to use seismic methods, and, in that context, which methods to use.

Silurian, Devonian, Mississippian Workshop Meets March 23-24, in Norman

The twelfth annual Southern Midcontinent Workshop will meet on March 23-24, at the Postal Training Center in Norman. This popular workshop, which is expected to draw a crowd of between 200-300 participants, will be filled with papers and poster sessions on Silurian, Devonian, and Mississippian rocks that are popular targets in the exploration for and production of oil and gas. The workshop is presented by the Oklahoma Geological Survey, the National Petroleum Technology Center of the U.S. Department of Energy, and the PTTC.

The discussions will center around sandstones, limestones, and dolomites that are major petroleum reservoirs in this region. These rocks
(See *WORKSHOP*—page 2)

Friday Sessions Showcase Computer Lab

Geo Information Systems, of the Sarkeys Energy Center at the University of Oklahoma, is presenting a program designed to get users familiar with the services and technology available at the OGS Computer User Lab in Norman. Geo Information Systems is a part member of the South Midcontinent Region PTTC along with the Oklahoma Geological Survey and the Oklahoma Marginal Wells Commission. The "Friday-Free-for-All" opens the lab to the public, giving users a chance to personally operate equipment and software available at the lab without charge. Users also have the opportunity to interact with the staff and each other to exchange ideas and ask questions. The settings are informal and normally are scheduled for the first Friday afternoon of each month from 1:30 to 4:30. The staff commonly presents computer demonstrations during the sessions to highlight basic capabilities of different programs. To date, there have been three Friday-Free-for-Alls, and all have been successful. The average attendance for the Friday sessions has been around 25 visitors, with many of these using the lab for the first time.

Each of the initial Friday-Free-for-Alls have had computer demonstrations. Two of these have presented computer-mapping programs, whereas another showed how to retrieve oil and gas data from the Natural Resources Information System (NRIS) via the Internet (www.geo.ou.edu). All of the demonstrations allowed volunteers to follow along on available workstations, while others watched as the sessions were projected.

All computer workstations are available between

demonstrations, and attendees are encouraged to "play" with any of the programs that the lab has. Most of the programs are donations and include software for mapping, engineering, and seismic analysis.

Geo Information Systems is committed to technology transfer and plans to continue the Friday-Free-for-Alls as long as there is an interest from users.

David P. Brown, GIS

WORKSHOP—continued from page 1

already have produced large volumes of oil and gas, and have great potential for yielding additional hydrocarbons by the use of improved exploration and development techniques. Rock units of particular interest are the Hunton, Bois D'Arc, Woodford, Stanley, Goddard, and Springer, but others also will be examined.

About 20 papers presented orally and 15 informal poster sessions are expected for the meeting, and the proceedings will be published by the OGS about one year later.

For more information, contact Kenneth S. Johnson, OGS associate director and general chair of the meeting. Phone him at 405/325-3031; 800/330-3996; or e-mail him at ksjohnson@ou.edu. Additional facts and registration also are available on the OGS web site at:

<http://www.ou.edu/special/ogs-pttc>.

MWC Announces Tech Transfer Coordinator

The Commission on Marginally Producing Oil and Gas Wells has named Elizabeth A. Fajen as the new Technology Transfer Coordinator. The Commission has several outreach programs designed to take technical, mechanical, and administrative information to the producers of Oklahoma's more than 70,000 low-volume oil and gas wells.

"Liz will be in charge of the MWC's workshops, regional trade fairs, and operator's roundtables that allow marginal operators access to valuable updates on techniques that sustain small production," said Richard Chapman, commission executive director.

Fajen brings 17 years of experience in the oil and gas industry working for Oklahoma independent oil companies like Samson Resources, Anson Companies, and Crawley Petroleum. Ms. Fajen is a graduate of the University of Oklahoma and a native of Guymon.



Elizabeth A. Fajen

SPOTLIGHT ON: Exploration and Production Software Sampler

Thinking about investing in some software to help characterize cross sections, produce decline curves, make contour maps, maximize pumping units, interpret seismic data, determine reservoir properties, analyze electric logs, design fracture treatment, display well data, evaluate economics or risk or volumetrics. . . ?

Well, have we got a deal for you! The national office of PTTC recently released a CD-ROM entitled *PTTC's Petroleum E&P Software Sampler v1.0*, a tool designed to assist you – the producer – in finding the right software to fit *your* needs and *your* budget.

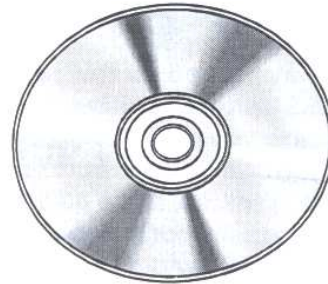
Developed for geologists, geophysicists, and engineers, the sampler CD is an easy-to-use overview of more than 50 petroleum exploration and production (E&P) programs. Many of the programs reviewed are available for demonstration or testing at the South Midcontinent's Resource Center.

Minimum system requirements to view the CD are a computer with Windows 95, Windows 98, Windows NT or higher; CD-ROM drive; web browser; and mouse. The CD works best when viewed in Netscape 4.0 or Internet Explorer 4.0 or higher. The cost of the CD is \$10 plus shipping.

For further information or to place an order, contact Jane Weber at the Oklahoma Geological Survey.

Phone: 405/325-3031, 405/360-2886, or 800/330-3996. Fax: 405/325-7069. Email: jlweber@ou.edu.

Jane L. Weber, OGS



Included on the CD are:

- A description of each program's key features, applications, capabilities and price range—all in searchable format.
- System requirements for each program.
- Software provider information.
- Sample screens or mini demos in some cases.
- Trial versions of programs and geological utilities from RockWare Incorporated. These are actual programs to load and use on your computer, but they have built-in restrictions on the length of time or number of uses allowed.

Upcoming Events

January

- 1/27 *Sequence Stratigraphy and 3-D Seismic Interpretation Techniques in the Development of Mid-Continent Sandstone Reservoirs, Tulsa, OGS, *OIPA/GRI*
- 1/28 *Sequence Stratigraphy and 3-D Seismic Interpretation Techniques in the Development of Mid-Continent Sandstone Reservoirs, Oklahoma City, OGS, *OIPA/GRI*

February

- 2/5 *Booch Play Workshop, Home Builders Association Building, Oklahoma City, OCGS (405/235-3648, ext. 11) and OGS*

March

- 3/23–24 *Silurian, Devonian, and Mississippian Geology and Petroleum in the Southern Midcontinent Workshop, Norman, *OGS, PTTC*
- 3/31–4/1 *Hartshorne Field Trip, McAlester, *OGS, PTTC*

May

- 5/13 *Petroleum Industry Trade Fair, Ponca City, *MWC*

*OGS=Oklahoma Geological Survey, 405/325-3031 or 800/330-3996

*MWC=Marginal Wells Commission, 405/366-8688; 800/390-0460

*OIPA=Oklahoma Independent Petroleum Association 405/942-2334 or 800/838-6472

Popular Hartshorne Field Trip to be Repeated in March! *Book and Guidebook Now Available at OGS*

The recent Hartshorne Workshops and related field trips proved to be some of the most successful and popular ever offered by the OGS and PTTC. But, if you didn't get to attend, the publications resulting from these sessions are now available for purchase, and the field trip will be repeated March 31 and April 1. **Many people have asked for this second chance, so call the OGS early to register!**

The registration cost again will be \$75, and will cover lunch both days, field-trip transportation, morning and afternoon snacks, and a guidebook. Participants will be responsible for their own motel reservations and for breakfast and dinner. For more information, contact the OGS at the addresses and phone numbers listed on the front page of this newsletter.

Special Publication 98-7, *The Hartshorne Play in Southeastern Oklahoma: Regional and Detailed Sandstone Reservoir Analysis and Coalbed-Methane Resources*, contains a regional geological overview of the formation and detailed field studies, while a companion guidebook to the field trips gives specific information about the geology, reservoir and rock facies, measured sections, and outcrop locations.

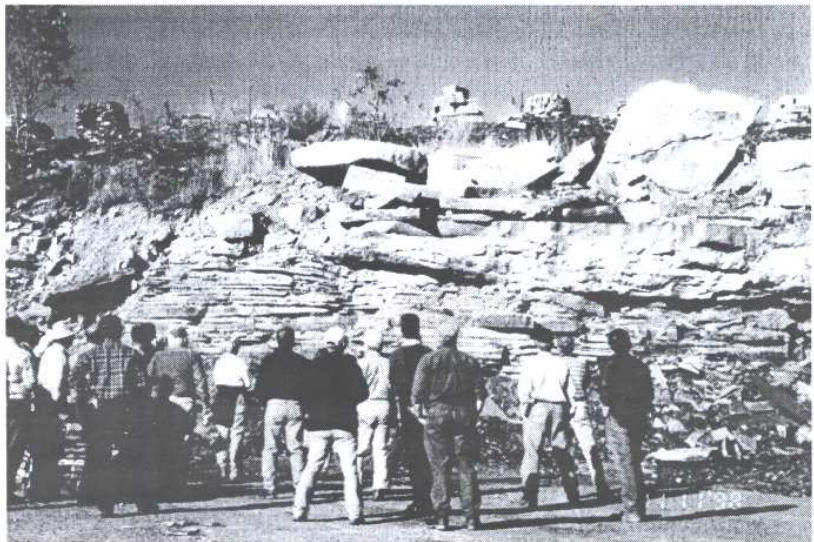
The prominence of the Hartshorne play has been due to the relatively large gas reserves and shallow depth that make production more economical. Most Hartshorne gas fields have producing intervals considerably shallower than 3,500 ft., and many are less than 2,000 ft. deep. Since 1979, Hartshorne production shows a relatively stable rate of about 2–3 BCFG per year.

Special Publication 98-7 is a 90-page, softbound book accompanied by 6 plates, most in color, in a separate envelope. Part one consists of an overview of the Hartshorne Play and field studies, while part two looks at coal as a source rock and reservoir. The third part examines the Hartshorne in Arkansas. The overview covers stratigraphy, regional cross sections, structure, depositional models, and regional mapping. The section on coal contains both general information and a detailed literature review on Oklahoma coalbed methane. The appendixes contain grade scales, core descriptions, well logs, and other material.

The book has 53 figures, 14 tables, and 6 plates that include: a lower Hartshorne play map; Upper Hartshorne play map; map showing gas and oil production and field names; stratigraphic cross sections; regional structure showing principal faults and folds; and an index to selected references.

The companion publication is a 73-page guidebook, *Geology of the Hartshorne Formation, Arkoma Basin, Oklahoma*. Part one of this book contains a general geological description of the formation, history of the nomenclature, information about petrology and coal chemistry, a look at depositional environment and provenance, and brief overviews of the coal, coalbed methane, and natural gas resources. The book has 19 stop descriptions and measured sections, 2 appendixes, 70 figures, and 4 tables, and comes with an oversized color foldout showing a distributary channel in the Hartshorne in the Green Country Stone Quarry near Rock Island in far eastern Oklahoma.

Both books are available by mail from the Survey from the address on the front page, or over the counter from the sales office at 1218-B West Rock Creek Road in Norman. SP 98-7 is \$10, plus \$2 postage, and Guidebook 31 is \$6, plus \$1.20 postage.



Field-trip participants look at the Hartshorne Formation where a distributary channel cuts into the underlying distributary-mouth bar (delta front). The photograph was taken at the Green Country Stone Quarry near Rock Island in far eastern Oklahoma, on the south side of State Highway 120. This location is Stop 17 of the field trip.