



Regional Update

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Challenges substantial to supply oil and gas for world and nation

by Charles J. Mankin

Oklahoma's petroleum industry is recovering slowly from a near disastrous collapse in crude oil prices. Public complaints over so-called high gasoline prices and shortages of fuel oil in the northeastern part of the U.S. now seem to be dominating the news. What is not being discussed is the significant decline in U.S. production of crude oil and a corresponding decline in natural gas. How much of that is a permanent decline remains to be seen, but it is clear that many marginal wells have been lost in the past 18 months.

As might be expected, little public concern is being expressed over this situation. The general view is that there is plenty of oil in the world, and increasing imports are not a problem. Obviously, this short-sighted view is fraught with numerous problems. For a nation that has 5 percent of the world's population and uses 25 percent of the world's oil supply, such a view is foolhardy at best. The Far East, with about 40 percent of the world's population, consumes less than one barrel of oil per person per year; the per capita consumption in the U.S. is about 26 barrels per year. With the growing economy of the Far East, we will be in serious competition for world crude oil within this decade.

While crude oil will become a major problem for the U.S. in the future, natural gas will present an even more daunting challenge. Crude oil can be moved in the world market at reasonable prices. A barrel of crude oil can be produced in the Middle East and shipped to the U.S. cheaper than it can be produced in this country. However, natural gas is a North American commodity. It can be shipped into the U.S. only as liquefied natural gas. The price for such gas in a fully amortized operation is in excess of \$5.00 per mcf (thousand cubic feet) at present conditions. Thus, the natural gas that we will use must be the gas that can be produced in the U.S. and that which can be imported from Canada. Mexico is now a net importer of natural gas from the U.S., and that situation is not likely to change.

All forecasts for natural-gas demand indicate an increase of as much as 15 tcf (trillion cubic feet) per year over the next 10 to 20 years. However, at present, we are not replacing the natural gas that we are consuming. To achieve such levels of production we will have to duplicate the exploration conditions that existed in the late 1970s and early 1980s, namely having several thousand rigs running. That will be possible only with a fundamental

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Petroleum industry trade fair brings exhibitors to Tulsa

The Marginal Wells Commission's annual spring trade fair will be Friday, May 12, at the Exchange Building on the Tulsa County Fairgrounds. More than 90 exhibitors will be on hand to demonstrate their brand of expertise for what is expected to be the largest trade fair yet! The trade fair will open at 10:00 a.m. and run until 3:00 p.m.

"We are hoping to have a thousand people attend the show in Tulsa," said Rick Chapman, MWC executive director. "We were close to that number in 1997, the last time we were in Tulsa. The staff at the Tulsa fairgrounds does such a great job and there is so much free parking."

The MWC has a partnership with the PTTC, and their efforts have helped small producers get access to technology that perhaps would be too expensive for their company. Dr. Charles Mankin, director of the Oklahoma Geological Survey and the regional PTTC program manager, will be on hand to update operators on the programs developed by the respective organizations.

Sunoco, Inc. will sponsor lunch. OG&E Electric Services will be the reception sponsor; PSO and Automated Energy, Inc. are fair sponsors. These companies have

committed to the trade show to continue providing an event that is fun, informative, and brings many segments of the industry together. If your company would like to join the sponsor group, call 1-800/390-0460.

"The buy, sell or trade board will be set up in the MWC booth as usual. We have had people buying and selling properties at every trade show since this idea was put into place," Chapman said.

"The industry is slowly recovering from the disastrous price collapse over the last couple of years, and improved prices have put a strain on producers trying to find field services. The trade fair has put people in the industry under the same roof for several years now, and this year's demonstrations, dialog, and the good ol' two-way-street of experience will be welcomed by the industry."

The fair is open to the public, and will include a sponsored lunch that is free. MWC will put together a hand-out that gives the booth number, a 50-word description of the services provided by the vendor, and a floor lay-out for the convenience of all of the attendees. To be a vendor, call the MWC staff at 800/390-0460.

New information added to May 17 seismic workshop

New material and a new speaker will be added to the next presentation of the workshop 2D-3D Seismic: Effective Application Can Improve Your Bottom Line, which will be presented again in Norman on May 17, by the OGS, Oklahoma City Geological Society, and PTTC. Deborah Sacrey, of Auburn Energy in Houston and main presenter of the workshop, says new information about seismic stratigraphy and the pitfalls of 3D seismic will be included.

Evelyn Medvin will present "Extracting Stratigraphic Information from Seismic Data," while Sacrey will add "Pitfalls of 3D Seismic."

This added material will make the meeting beneficial both as a review and an update for those interested in seismic work.

When presented last year, the program was popular for its non-mathematical approach to the acquisition, processing, and interpretation of seismic data. The workshop discusses advances in software and hardware used in seismic exploration, and access to data for the small companies and independents.

The primary goal of the workshop is to provide operators and other explorationists with a better understanding of when to use seismic methods, and which methods to use. For more information, contact the OGS at 405/325-3031 or 800/330-3996.

Upcoming Events

April

- 4/10 Electricity Efficiency and Deregulation, Shawnee, *MWC, PTTC
- 4/12 GIS Day at the Capitol; Oklahoma City
- 4/24 Electricity Efficiency and Deregulation, Enid, *MWC, PTTC

May

- 5/12 Marginal Wells Commission Trade Fair, Tulsa, *MWC
- 5/17 2D-3D Seismic: Effective Application Can Improve Your Bottom Line Workshop, Norman, *OCGS, OGS, PTTC
- 5/24 Coalbed Methane Workshop, Tulsa, *TGS, OGS, PTTC

June

- 6/13 Electricity Efficiency and Deregulation, Pawhuska, *MWC, PTTC
- 6/15 Electricity Efficiency and Deregulation, Ardmore, *MWC, PTTC

September

- 9/20 Hartshorne Play Workshop, *OCGS, OGS, PTTC
- Hunton Play Workshop, Norman, *OGS, PTTC, date not yet set

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

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

*GIS=Geo Information Systems, 405/325-3131; 405/579-5985

*OCGS=Oklahoma City Geological Society, 405/236-8086

*TGS=Tulsa Geological Society, 918/748-5407

Coalbed-methane workshop set for Tulsa on May 24

The Oklahoma Geological Survey, Tulsa Geological Society, and the PTTC will co-sponsor a half-day workshop on coalbed methane (CBM) in Tulsa on May 24. The workshop reviews and supplements the popular one-day CBM workshop held in Norman on December 1, 1999, which received high marks from those attending the meeting.

Brian Cardott, OGS coal geologist, has organized this meeting and will present part of the program. Highlights include an introduction to coal as a gas source rock and reservoir, and an overview of the Oklahoma coalfield with an emphasis on the northeast Oklahoma shelf. The

workshop will present summaries of CBM completions in Oklahoma, and of CBM reservoir engineering. More specific information will be presented through an assessment of the Hartshorne CBM play.

Information on Oklahoma coalbed methane completions and Oklahoma coal production is available on the Internet at:

http://www.odl.state.ok.us/ogs/cb_pro.asp

For more information on the meeting, contact Tom Heinecke at 918/748-5407.

Workshops on accessing oil and gas data on the Internet planned for PTTC by Geo Information Systems

Geo Information Systems, an applied research unit within OU's Sarkeys Energy Center, is currently producing a series of daylong workshops designed to show industry professionals how easy it is to access and map Oklahoma oil and gas data on the Internet. During the last twelve months, these workshops were held at computer labs in the Tulsa area. So far, there have been nine workshops and more than 100 total attendees. Some of the workshops are introductory in nature, while others cover more advanced topics like mapping aerial photographs and USGS quads. Due to some generous arrangements at the Tulsa facilities, the recent workshops have been presented at no cost to the attendees. Instructional materials are always handed out and class sizes are usually limited in an attempt to allow each attendee the use of his or her own computer. In addition to accessing Internet data, attendees are introduced to the basic functions of Environmental Systems Research Institute's (ESRI) ArcView mapping software, and the free mapping program ArcExplorer. Each of the workshops provides hands-on training in the areas of Internet use and computer mapping technique.

For more information on the workshops or Internet site, contact David Brown by phone at 405/325-3131 ext. 224, or by email at dpbrown@ou.edu.

One topic covered at these workshops is Geo Information Systems' new web site, located at:

<http://www.geo.ou.edu>.

This site contains a new easy-to-use application that gives users the ability to search, view, and/or print petroleum data for any location in Oklahoma. The new Internet-based system lets users create online maps, and presents the option of downloading digital copies of any data selected. The use of the system is subscription based, but the fees are reasonably low.

A key component of this online system is the Natural Resources Information System (NRIS) database. It is a collection of digital data based on publicly

available oil and gas information for the State of Oklahoma. NRIS includes data for Oklahoma wells (Oklahoma Corporation Commission completion report 1002-A), leases (Oklahoma Tax Commission reported gross production), and fields (production and location).

Geo Information Systems will present more of these workshops in the future and hopes to bring some of them to the Oklahoma City area.

David P. Brown

CHALLENGES—continued

change in the economics of the industry. A significant flow of capitol will be needed to have any chance of meeting those projected demands. At present, that capitol is flowing into the high-tech industries. While some decline in that industry is underway, the lower profit margins for commodities make it difficult to attract capitol.

While the challenges are substantial and the conditions less than favorable, great opportunities can come from such situations. Space and time do not permit a more complete analysis together with suggested solutions. However, an article is being prepared for publication in the Survey's Oklahoma Geology Notes that will provide a more detailed analysis and some ideas about how we can meet the projected demand for natural gas and increase our production of crude oil.

Stay tuned.