Monday, October 13, 2003

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

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

Make your reservations now by calling 713-463-9476 or by e-mail to Joan@hgs.org (include your name, meeting you are attending, phone number and membership ID#).

Two topics will be presented at the October General Dinner Meeting:

Success Using Seismic Attributes and Horizontal Drilling to Delineate a Diagenetic Trap, Monterey Shale, San Joaquin Valley, California

Two short, complementary talks as follows:

The North Shafter and Rose Oil Fields: A Seismically Defined, Diagenetic, Stratigraphic Trap in the Miocene McLure Shale, San Joaquin Basin, CA

by ***Robert Sterling, Anne Grau, Robert Kidney, Barbara Ganong,*** *and* ***Paul Pendleton*** *EOG Resources Inc., Denver CO*
Lawrence Drennen, Angela Bosse *ChevronTexaco Inc., Bakersfield, CA*

The North Shafter and Rose oil fields, located in the eastern San Joaquin basin, California, are the most recent discoveries in the Miocene McLure Shale of the Monterey Formation. Discovered in 1983, the field was recognized as a potential oil producer but was not economic at the time. In 1995, several attempts at vertical wells proved successful enough to warrant horizontal drilling. Horizontal drilling along with strategic wellbore orientation and with new completion and stimulation techniques have made the program viable.

The McLure Shale is an excellent source rock and has been a prolific reservoir rock in the fractured reservoirs on the west side of the San Joaquin basin. The North Shafter and Rose oil fields are located on the east side of the basin within a very subtle diagenetic trap. The reservoir and trap are the results of silica diagenesis that alter the diatomaceous shales from a non-reservoir opal CT phase to a quartz-phase reservoir rock.

Reservoir characterization has been performed by a number of methods including extensive core, petrophysical and engineering analysis. Understanding the rock properties has led to successful a seismic model that has been used to delineate the extent of the reservoir using p-wave and converted wave 2-D seismic data.

The North Shafter and Rose oil fields combine factors that allow diagenesis to occur at the same temperature as hydrocarbon generation. Utilizing seismic data and horizontal drilling technology have been key in the exploitation of this subtle but prolific, unconventional play. ■

Biographical Sketch

Robert Sterling has been since 1995 and is currently an Exploration Geologist for EOG Resources in Denver. Prior to that he was Vice President and Chief Operating Officer for Nahama & Weagant Energy Company, Bakersfield, California and an exploration geologist for ARGO Petroleum, Los Angeles, California.

Robert is a California and Utah Registered Geologist. He has been Pacific Area Chairman for the Potential Gas Committee since 1998 and a past Board member of the California Independent Producers Association. Robert holds a BS in Geology form California Polytechnic University, Pomona, California.

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