

Monday, September 15, 2014

Westchase Hilton • 9999 Westheimer
Social Hour 5:30–6:30 p.m.
Dinner 6:30–7:30 p.m.

Cost: \$45 Preregistered members; \$50 non-members/walk-ups

To guarantee a seat, pre-register on the HGS website & pre-pay by credit card.

Pre-registration without payment will not be accepted.

Walk-ups may pay at the door if extra seats are available.

HGS General Dinner Meeting

Colin Stabler

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Mexico's Challenge to Explorationists

112 years after the first discovery, Mexico is a mature country for conventional hydrocarbons. Increased exploration drilling has only managed to stabilize the 30-year decline in reserves, and increased investment in the fields has only managed to flatten the 10-year decline in production. So now that Mexico is opening up to foreign oil companies, how can you as geologists and geophysicists hope to make a significant contribution to your companies' evaluation of the remaining conventional potential?

Well, you cannot expect to follow the US trends far across the Mexican border. Only the Perdido, Eagle Ford and Rio Grande Embayment plays extend into Mexico, and then only for about a hundred kilometers south. For one thing the Paleozoic basins are non-productive. For another, a vast area onshore and offshore in deep-water is devoid of salt in Mexico, with all the ramifications that implies. Finally the Tertiary clastic reservoirs are of significantly poorer quality than in the US Gulf of Mexico.

On the other hand, Mexico has plays that do not work in the US Gulf Coast. The very prolific thrust-faulted, thick Mesozoic carbonates that have been intensely fractured have few if any analogs elsewhere in the world. Other plays, such as pre-salt, sub-thrust, and Lower Jurassic have been discovered but have not yet turned out to be very prolific or economic.

Why these differences and changes? As you might expect, the root cause is plate tectonics. I will outline the Jurassic to Cenozoic plate tectonic history of Mexico with which to explain the different petroleum systems. I hope this will help prepare you for the challenge of exploring for new targets. ■



Map of Basins and Conventional Plays, Mexico

Biographical Sketch

COLIN STABLER is a consulting petroleum geologist retired from Shell in Mexico City. He has worked Mexican subsurface geology since 1966, first as part of a British consulting group and more recently as Shell's E&P representative. Presently he is involved in evaluating exploration opportunities in Mexico and is a member of HGS, AAPG and the Mexican Society of Petroleum Geologists.

