Monday, September 8, 2014

Westin Memorial City • 945 Gessner Road • Houston, Texas 77024
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.

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Cretaceous Fan Plays of the African Transform Margin

The tectonic evolution of the West African transform margin has resulted in rapidly varying subsidence, thermal and basin fill histories for each sub-basin, causing considerable variations in how the hydrocarbon play elements stack. The discovery of the Jubilee Field in 2007 opened up the Late Cretaceous play and was followed by a large increase in exploration drilling activity throughout the margin. Since the Jubilee discovery, 39 exploration wells have been drilled along the margin resulting in 21 discoveries, but to date there is only one additional sanctioned development, which is also located in the Tano Basin. A significant number of these exploration wells have encountered live hydrocarbons, indicating the presence of an extensive working petroleum system throughout large parts of the transform margin; however limited commercial success to date beyond the Tano Basin appears to be associated with a combination of reservoir and trap/seal issues. The success of the play in the Tano Basin may be associated with its structural configuration which is strongly associated with a suite of NW-trending extensional faults connecting the St. Paul and Romanche FZ's and with NE-oriented transpressional highs associated with movement on the transforms. This structural fabric creates intra-slope highs and lows and may help reduce bypass of the reservoir systems to the ultimate basin floor, as appears to have happened in many of the other transform basins. Trapping of the sands further up systems tract has helped to juxtapose good reservoir fairways with the part of the basin most likely to yield combination and pinch-out traps. ■

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Biographical Sketch

As an exploration geophysicist **Tracey K. Henderson** has participated in exploration projects in a variety of basins around the world. She joined Kosmos in 2004 from Nexen Petroleum USA where she was responsible for evaluating exploration opportunities in the deep water Gulf of Mexico. Prior to joining Nexen, she served as project geophysicist in the exploration of Triton Energy's Blocks F and G in Equatorial Guinea that included the Ceiba, Okume and Oveng fields. Earlier with Triton she was involved in the evaluation of licenses in China, Greece, Italy, Madagascar and Oman.

She was a key member of the technical team that built the initial Kosmos portfolio which included licenses in Ghana, Benin, Cameroon, and Nigeria, and ultimately resulted in the Ghana Jubilee Field discovery. In her current role as VP Exploration, Geophysics, she is responsible for managing integrated functional technical teams for existing assets and new ventures.

Henderson holds a master's degree in geophysics and a bachelor of science degree in geology from the University of Texas at Dallas.