

Monday, June 9, 2014

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

Cost: \$30 Preregistered members; \$35 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 International Dinner Meeting

Robert Erlich (speaker)

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Francis Innis

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Exploration for Cretaceous Deep-water Reservoirs in the Circum-Caribbean Region: Historical Review and Expectations for the Future

Historical exploration efforts within the Circum-Caribbean region typically have not targeted Cretaceous reservoirs for a variety of technical and commercial reasons. The principal exceptions to this have been exploration efforts along the north coast of Cuba during the 1950s (sporadic since then), some wells on- and offshore Honduras and Nicaragua during the 1930s to 1970s (three recent wells in the 2000s), and five wells in the Bahamas during the same time period. Renewed interest in Cretaceous reservoirs began in earnest during the mid-late 1980s, mainly as a byproduct of successful exploration in Eastern Venezuela's Furril Trend, though these discoveries are concentrated principally within Neogene-Paleogene strata.

Exploration for Cretaceous targets has focused almost exclusively on Trinidad since that time, and results have not been overwhelmingly positive; regardless of whether the objectives were located onshore or offshore. Further interest in the Cretaceous has been generated recently by the discovery of commercial accumulations in slope and basin floor fan/channel complexes, most commonly found along the Equatorial Atlantic margins of West Africa and South America (the "Transform Margin Play"). Despite these recent successes, Cretaceous reservoirs and traps continue to yield unpredictable drilling results, especially along the margins of northern South America.

Significant technical risks include reservoir presence and deliverability, hydrocarbon charge access, and trap/seal integrity. Commercial challenges include hydrocarbon type (gas vs. oil), volumes required for commercial development, development costs (hub and spoke versus stand-alone accumulations; number of development wells and FPSOs needed), and decreasing contractor take. A quick review shows that nearly all successful (?) wells in the trend have been drilled from 5 to 40 kilometers down depositional dip from the Cretaceous paleo-shelf margin; although the technical factors mentioned above do not guarantee this "sweet spot" will hold up over the long term. While new discoveries in deep-water Cretaceous reservoirs are possible within the Caribbean-northern South America region, significant technical and commercial risks

will continue to impact new exploration drilling. ■

Biographical Sketch

BOB ERLICH began his career with Amoco in New Orleans in 1980, working on domestic and Latin American projects as a junior geologist. He moved to Amoco's Houston International office in 1987 as a senior geologist and progressed through positions as a senior field geologist, technical team leader, and as Regional Geologist for northern Latin America and the Caribbean. He joined Burlington Resources in 1999 and was named General Manager for Peru, where he led technical and operational programs that resulted in the discovery of several major oil and gas fields.



He returned to BP in 2006 to head their New Ventures exploration efforts in Latin America and the Caribbean and in 2008, was named Corporate Vice President of Exploration for Petrolifera Petroleum Limited, a Canadian independent with operations in Peru, Colombia, and Argentina. In 2011, he moved to Hess Corporation as a senior advisor to the Senior Vice President of Exploration, and in 2012 he accepted the role of Vice President of Exploration and New Ventures with Pan Atlantic Exploration. During his career, Dr. Erlich has worked assignments in a number of countries, including Trinidad, Peru, Colombia, Venezuela, Argentina, Suriname, Brazil, Costa Rica, Panama, Guatemala, Equatorial Guinea, the United Kingdom, and the People's Republic of China.

Dr. Erlich received his B.S. degree in geology from the University of Miami, his M.S. degree in sedimentology from the University of North Carolina at Chapel Hill, and his PhD in paleoceanography from Vrije Universiteit in Amsterdam, The Netherlands. He has published extensively on the geology of northern Latin America with an emphasis on Cretaceous petroleum systems and is currently focused on the exploration of Cretaceous depositional systems along the Equatorial Atlantic margins.