

Review of Nova Scotia's Deepwater Drilling and Its Effect on the CNSOPB's 2002 Resource Assessment

Brenton Smith

Canada Nova Scotia Offshore Petroleum Board, (CNSOPB), Halifax, Nova Scotia, Canada

The deep water Scotian Slope is 850km long and covers 80,000km², but only ten wells targeted deep water sediments. In contrast, the shallow water shelf area of the Scotian Basin contains over 200 wells with past production from the Cohasset-Panuke oil fields, ongoing gas production from the Sable Project, and the Deep Panuke gas field beginning the development approval process.

Exploration focus shifted to the deepwater Scotian Slope because of the impressive hydrocarbon discoveries and high success rates in deepwater of other circum-Atlantic basins such as the Gulf of Mexico, offshore Brazil and West Africa, and recently Northwest Africa (Mauritania).

In 2002 the Canada Nova Scotia Offshore Petroleum Board (CNSOPB) published Hydrocarbon Potential of the Deep-Water Scotian Slope. The assessment consisted of 12 geostatistical computation runs to capture the diversity of play areas and play types. Potential gas was estimated at 15 - 41 tcf with potential oil at 1.7 - 4.7 BB. At the time of this report, only four deep water wells existed.

Between 2002 and 2004 industry drilled six additional deepwater wells on the Scotian Slope. The results were one gas discovery (Annapolis), one gas show (Newburn) and four dry wells (Balvenie, Crimson, Weymouth and Torbrook). The first well proved that an active petroleum system existed in the deep water area but subsequent drilling illustrated the difficulty involved in locating thick, reservoir quality sands.

In 2006, the CNSOPB completed a post-drill analysis of all ten deepwater wells and updated the 2002 deep water resource assessment numbers. The recent drilling results affected 3 of the original 12 geostatistical computations, predominantly pertaining to the presence and quality of reservoir. The impact of the deepwater well results on the undiscovered gas and oil potential is minimal.

This presentation will summarize the 10 deepwater well results and explain the updated assessment results. The report which that this presentation is based on will be made public early in 2007.