
**First results of Carson Basin 4-D petroleum
system modelling**

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Carson Basin is one of the lesser known basins on the eastern edge of the Grand Banks of Newfoundland. It was penetrated by four wells along its westernmost edge. The wells demonstrate that the basin contains a thick Cenozoic and Mesozoic sedimentary section. In most of the basin, a major unconformity, the Avalon Unconformity, separates Triassic to Aptian formations from overlying Cenomanian rocks. Reservoir rocks, sealing formations and likely source rocks are present both within the pre- and post-Avalon sediments. As the best way to synthesize all our new and already available information, we built a computer model of this basin, based on biostratigraphy, geophysical data, geology, and geochemistry. The program Petromod (IES, Germany) simulated with this model the history of the basin and its petroleum generation. We present a brief overview of the principles of basin modelling and how we reconstructed the basin, and show a four dimensional first look at the hydrocarbon potential of this basin.
