

**AAPG Annual Meeting
March 10-13, 2002
Houston, Texas**

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Onshore US & Canada - Trying to Increase Oil & Gas Self-Sufficiency

The bulk of the remaining oil resources in North America are in frontier areas—Arctic and offshore basins, and Canada's oilsands and heavy oil deposits—while future natural gas supplies are both geographically widespread and increasingly further down the resource pyramid.

The US imports almost 60 percent of its crude oil needs (mostly from Saudi Arabia, Venezuela, Mexico and Canada) and over 15 percent of its natural gas requirements (mainly from Canada, but with a growing LNG component from overseas).

The number of wells drilled in the US and Canada rose dramatically after the 1998-1999 low oil price doldrums. In response to supply shortfalls and high commodity prices, the domestic E&P sector increased drilling activity across all the supply regions. The greatest activity increases have been in traditional supply regions such as the Mid-Continent, Permian Basin, Gulf Coast and Western Canada, although the Rockies, Appalachians, Michigan basin, California and Alaska have all increased, too.

Most of the increased drilling has been for development of proven reserves. The performance development wells (IPs, decline rates and reserves per well) has deteriorated over the past decade, creating a production replacement treadmill that requires greatly increased drilling activity, particularly for natural gas.

However, there are also significant increases in exploration both for new reserves in established areas and for more unconventional sources of hydrocarbons. Exploratory successes generally perform significantly better than development wells and could ease the pressure on the drilling sector as well as overall reliance on imports into North America.