Horizontal wells are being used to develop the vast resources of these four leading unconventional plays, and this theme portion will discuss the technologies — especially those proprietary to and patented by Core Lab — that are making these successes possible.

A total of 35,676 wells were drilled in the U.S. in 2013, and the designs of approximately 24,000 of those wells included horizontal trajectories. More horizontal wells were drilled in the United States than in all the petroleum provinces in the rest of the world combined.

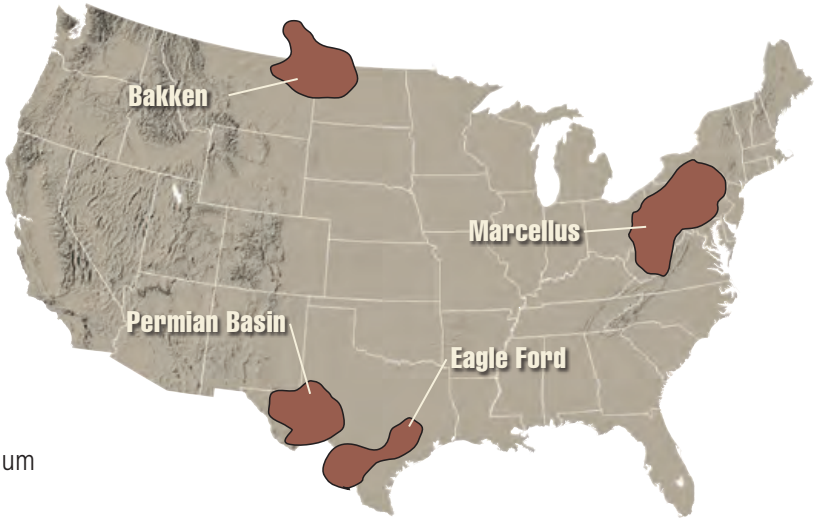

Figure 1. Locations of the largest unconventional tight-oil and wet-gas developments in the U.S.

Thousands more horizontal wells were drilled in Canada. Statoil is drilling horizontal wells offshore Brazil and is using horizontal well technology to develop heavy oil reserves in the North Sea Grane field.

Core believes that the number of horizontal wells will continue to increase worldwide. More horizontal wells will be used to develop unconventional reservoirs, and they will be used to develop conventional reservoirs, as Energy XXI is doing in the shallow waters of the Gulf of Mexico today. In a decade, Core projects horizontal wells will outnumber vertical wells worldwide.

Figure 1 shows the locations of the largest unconventional tight-oil and wet-gas developments in the U.S. The Bakken, Eagle Ford, Marcellus, and Permian Basin developments produce more than 3,000,000 barrels of oil and NGLs per day, almost 30% of the U.S. total. More than 100 petroleum companies are involved in these plays, ranging in size from Exxon-Mobil, Chevron, BP, Shell, and ConocoPhillips to the smallest independent operator. The level of interest has attracted billions of dollars of foreign oil company capital as well.

The difficulties in producing economical quantities of hydrocarbons from unconventional reservoirs are providing opportunities for Core Lab to develop innovative technologies that can be applied to maximizing initial and daily hydrocarbon production while maximizing the total Estimated Ultimate Recovery (EUR) rates from tight-oil reservoirs.