Approximately 19.4 billion barrels of oil and 119 trillion cubic feet of nonassociated gas have been discovered in the Mid-Continent as of January 1, 1978. Although these volumes of hydrocarbons were trapped in thousands of fields throughout the Mid-Continent, the bulk of these resources was emplaced in a relatively few fields: about 14.2 billion barrels of oil have been found in 111 significant and giant oil fields, and 103 trillion cubic feet of nonassociated gas has been discovered in 57 significant and giant gas fields. Permo-Carboniferous reservoirs are important in 101 of the large oil fields and 55 of the large gas fields; these fields contained 9.5 billion barrels of oil and 99 trillion cubic feet of gas, respectively. Our calculations of the total oil and gas accumulations in Permo-Carboniferous reservoirs are extrapolated from these data.

About 2.1 billion barrels of oil and 5.1 trillion cubic feet of nonassociated gas accumulated in lower Carboniferous (Mississippian) reservoirs. Most of this oil and gas was stratigraphically trapped in Upper Mississippian sandstones and carbonates which are truncated at the pre-Pennsylvanian unconformity surface.

Approximately 8.8 billion barrels of oil and about 31.9 trillion cubic feet of nonassociated gas have been found in upper Carboniferous (Pennsylvanian) reservoirs in the Mid-Continent. Most of these oil and gas accumulations were stratigraphically trapped in lenticular sandstone bodies; the environments in which the majority of these sandstones was deposited range from fluvial-deltaic to shallow marine.

About two billion barrels of oil and 77.7 trillion cubic feet of nonassociated gas accumulated in Permian reservoirs. Most of these hydrocarbons accumulated in rocks of Lower Permian age in the Hugoton-Panhandle-Panoma fields. The oil and gas in these fields were trapped by regional...