Advantages & Disadvantages of each of the Three Common HC Trap Components and Their Influence on Exploration.
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The three most common trap types (Structural, Stratigraphic & Diagenetic) can be envisioned as end-members of a three-component phase system. In realit

Although a number of HC Trap classification systems exist in the geologic literature, most of those systems don't usually address the relative advantages and disadvantages of each end-member component. The purpose of this talk is to try to identify some of their unique attributes and their effects on exploration programs. Structural traps are usually found during the early exploration phase as these traps are detectable by a variety of methods. Structural traps commonly have Length/Width ratios (L/W) of 1:1 (Domes) to about 10:1 (Elongate Anticlines). Stratigraphic traps are often discovered by accident or during a later phase of exploration. These traps can have L/W of ~3:1 to 100+:1. In the Mid-Continent, common trap types include Strand-line sands, Incised Channels, Fringing Reefs, and Oolitic Shoals. Diagenetic traps are more nebulous in their development and recognition and are usually found (or recognized) very late in the exploration sequence. True end-members are difficult to document, but many "Combination Traps" contain a significant diagenetic component. Length/Width ratios are difficult to determine, but may range from 1:1 to 100+: 1. Diagenetic traps are often associated with subtle disconformities, dissolution, recrystallization, karstification, and secondary dolomitization. Traps that contain a major Diagenetic component often have discontinuous porosity and permeability with the reservoir consisting of an

to document a discovery.