AAPG International Conference Barcelona, Spain September 21-24, 2003

Gene W. Sparkman¹ (1) Energy Research Clearing House, The Woodlands, TX

Maximizing Value Through Real-time Data Optimization - The "E-field"

The greatest value is generated from intelligent wells if the full spectrum of downhole data is fully utilized in real time. It is also important to obtain information on the reservoir away from the well bore to understand the fluid movement within the reservoir. This will allow the reservoir managers to make more intelligent decisions. These data can be obtained through a fully instrumented oil field, sometimes called the "e-field." However, there are significant challenges inherent in creating control systems to manage the performance of the asset in this way.

This presentation will discuss · The challenge of extracting value from continuous streams of such data, i.e. what data is important for reservoir management decisions. · Challenging the premises that companies have about the way they work - the different workflows required to manage asset control systems in real time · Integrating real-time down-hole and other subsurface data into workflow processes for better decision making and optimal reservoir management · How can you realize optimal value from reservoir analysis and modeling software? · What new technology is needed for the fully instrumented "e-field" including advanced fiber optics and other advanced data recording and transmission methods.