Keynote Paper 2

Geoscience technology trends and challenges

JOHN A. WILLOT

Exxon Production Research Co.
P.O. Box 2189
Houston, Texas 77001, U.S.A.

Uncertainty in future oil prices underscores the need to develop technology that will improve our ability to reduce technical uncertainty in our investment decisions, to profitably add reserves, to lower all costs and to create new opportunities. Exxon's view is that cost-effective new technology is not just important, but critical to future upstream success.

Geoscience technology is developing rapidly and is leading to improved understanding of fundamental geologic processes. Advances in computing technology enhance visualization and solutions to three dimensional problems. New tools now accurately combine vast volumes of information to improve our understanding of the subsurface. Exxon understands the importance of new technology to the upstream business and is committed to provide value-added research. Through implementation of focused business strategies, including development and application

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of technology, we have improved our upstream performance in exploration and development over the last ten years.

Since the current price environment provides little tolerance for mistakes, we need the best possible definition of the hydrocarbon resources before committing to exploration or development. Furthermore, we must do this at the lowest possible cost, and in a safe and environmentally acceptable way. New geoscience technology is improving the quality of seismic data and attribute analysis while reducing acquisition costs. Improved tools for reconstructing basin histories, predicting hydrocarbon generation, migration and trapping of oil and gas have improved wildcat success. New fundamental understanding of reservoir depositional environments, facies relationships and quality has had a significant impact on finding, developing and efficiently producing hydrocarbon resources around the world.

Keys to future success will include improved understanding of geologic processes at a fundamental level with high-resolution tools. Successful technology transfer often requires people movement between research and operating affiliates. New technology development must add near-term value and address specific needs of operating units. However, appropriate balance must be maintained between short and longer term breakthroughs. Geoscience technology is advancing very rapidly, but with customer-focused technology development, and close cooperation between research and operating affiliates, new technology can positively impact earnings and profits.