

## USING TECHNOLOGY FOR E&P SUCCESS—THE PRACTICES OF LEADER COMPANIES IN WESTERN CANADA SEDIMENTARY BASIN, E&P STRATEGIES, AND POTENTIAL APPLICATIONS TO OTHER BASINS

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The western Canadian E&P industry has evolved considerably since the oil price shock of 1986 and the gas price shock of 1990-1992. Early adjustments focused on reducing G&A and are mainly complete. The second phase, beginning in the early 1990s, has an operating emphasis. The primary goal is to meet owners' expectations, whether those owners are public (stock market) or private (parent company).

In evaluating how the industry is doing and how we measure success, Ziff Energy has examined, among other things, one of the major critical E&P success factors (CSF)—technology utilization. This analysis compares the performances of the "leaders" in broadly defined exploration and production strategies in the western Canada sedimentary basin (WCSB). By our definition, the leaders are those companies that [a] more than replace reserves produced in their chosen strategies, and [b] have a cost of finding and development that is less than the value of the product (that is, are adding value). Parallels to various U.S. basins are evident.

While all leader companies recognize effective use of technology as a CSF in achieving low finding and development costs and high reserves and production replacement rates, not all strategies require the same technology applications and not all companies within a strategy approach exploration and production in the same fashion. What technologies help create a real competitive advantage in various oil and gas strategies? Through data questionnaires and personal interviews with executives, we identify technology utilization practices in the various strategy areas and correlate them with finding and development cost and reserve replacement benchmarking performance by both the leaders and losers.

Four significant themes emerge from the leaders. First, the leaders use only appropriate technologies and know when not to use those that cost too much. Second, they employ off-the-shelf technologies, rather than develop new ones themselves. Third, they provide effective dissemination of technology throughout their organizations. Finally, and most importantly, the success-

ful companies expect the technologies to help staff do the basics well, but also demand the use of considerable art and experience in the process.

The study identifies technologies that create a competitive advantage for the leaders in various WCSB E&P strategies. Our innovative graphical presentation clearly shows what the leaders do in each of the strategy areas, compared with the rest of the industry, and indicates the technologies that help create their success. WCSB results are relevant to E&P strategies in a wide variety of other basins and form an integral part of Ziff Energy's upcoming series of finding and development cost performance analysis of U.S. regions.

### Biographical Sketch

**George Eynon** is Vice President, Corporate Consulting at Ziff Energy Group. He is responsible for the firm's ongoing Corporate Benchmarking multi-client studies and for the development of the Corporate Custom Consulting practice, in strategic and operational areas of exploration and production in the oil and gas industry. Over the previous four years he consulted widely to national oil companies and to Canadian and U.S. oil and gas companies.

Mr. Eynon has 25 years of technical, management, and senior executive experience in the Canadian, U.S., and international oil and gas industry with

a wide range of companies. These include integrated multi-nationals (Amoco, Suncor), large independents (Superior, Bow Valley), junior (Paramount) and start-up (SMI). He has held positions in exploration, planning & economics, strategic planning, operations and executive management. He has also worked with several industry, professional and service organizations. He is a Past President of the CSPG, and the current chairman of APEGGA's Practice Review Board. For AAPG he has been General Chairman of the Calgary annual meeting in 1992 and served several terms in the House of Delegates.

He has a B.Sc. from the University of London, an M.Sc. from McMaster University, in Hamilton, Ontario, and is a graduate of the Sloan School of Management at MIT. He has written and presented numerous papers, articles, short courses, and talks on a wide variety of geotechnical, business, and management aspects of the oil and gas industry. ■

*Note: The reservation code for this meeting is 5-0-6.*