Peter R. Rose[1], Gary P. Citron[1], Mark A. McLane[1] (1) Rose and Associates, LLP, Austin, TX

The Link Between Chronic E&P Under-Performance and the "Prospector Myth"

Exploration departments of most companies habitually deliver only about half of the new reserves (EUR) they promise annually to stockholders. Consequently, the petroleum sector continues to under-perform other industries. There are many reasons for such under-performance, including 1) price limits imposed by world markets, 2) the shrinking world conventional resource base, 3) and counter-productive incentive systems. We believe, however, that chronic bias in estimating E&P project reserves, chance, costs, and profitability is the single most important cause of suboptimum performance. Such pervasive bias is primarily caused by the "Prospector Myth".

The Prospector Myth is Exploration's version of the Hero Journey: the courageous lone prospector overcomes Mother Nature, financial hardships, skeptical associates, and investor rejection to finally succeed through persistence, faith, and luck, thus achieving vindication, wealth, and fame. Though only very few in number, such people are greatly honored by our Industry, and their legends inspire our tenacity, imagination, courage -- and over-optimism.

Because Exploration is dominated by uncertainty and subjectivity, it invites the exercise of intuition. However, once we accept that Exploration is a "repeated-trials game", it properly invites the application of statistical theory, systematic and calibrated probabilistic estimation and valid project measurement. We do not need to rely on intuition. This in turn leads to predictability in E&P portfolio management - and finally to E&P accountability to stockholders. Accordingly, Exploration's ongoing challenge is to harness the inspirational energy of the Prospector Myth, without compromising the geotechnical integrity and business objectivity required for successful management of the E&P portfolio.