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

Charles Stabell[1] (1) GeoKnowledge AS, Oslo, Norway

Requisite Modeling for Prospect Risk and Prospectivity Assessment? Not too Simple and not too Complex

There is a growing controversy in corporate management of exploration ventures over to what extent assessment of prospect risk and resources should rely on a single, common assessment model or that assessment should be problem related, where the models used are adjusted to reflect the complexity of the decision situation. The advantages of the simple common model approach are well known: It increases the likelihood that all explorationists can and will do a systematic quantitative assessment of risks and resources; it assures that modeling does not become an end in itself, but rather a means to guide decisions; and it makes assessments relatively transparent in management reviews. The disadvantages are less well documented. This paper reviews a set of realistic and frequently encountered situations that involve multiple compartment/zone prospects with communication between compartments, correlated reservoir propertie,s and shared risks. The examples illustrate the potential biases and errors that might occur with too simple models. We conclude that modeling should aim for the requisite complexity. Effective and quality assured application suggests that there is need for improved stochastic model representation and results presentation.