

ECONOMIC EVALUATION OF PROSPECTS AND PRODUCING PROPERTIES

Instructor
John Schuyler

Who Should Attend

Geologists, engineers, geophysicists, managers, and persons new to analysis and evaluation responsibilities

You Will Learn

- ◆ Overview of geologic, geophysical, and engineering technology used in estimating the unrisks and risks volumes of recoverable hydrocarbons and in forecasting production.
- ◆ Various ways to deal with risk and uncertainty in the evaluation: (e.g., chance of hydrocarbons, recovery, production, prices). Probabilistic reserves and how uncertainties affect reserve classifications and aggregation.
- ◆ Economic evaluation concepts, and a process for appraising petroleum resources and reserves (income method emphasis); uses of reserve valuations.
- ◆ Tricks and traps in modeling property assets and transactions. Techniques of good evaluation practice.

About the Course

Property sales and acquisitions, lending, and joint ventures abound in the petroleum industry. The central information for decision making is the value of the subject asset. The evaluation model is the focal point for communicating among the project team members, managers, and partners.

Appraisal methods for upstream properties and related projects are discussed and experienced in this hands-on workshop. The learning objective is a process for delivering a credible and well-documented evaluation of reserves and economic worth. Participants to learn the tools and techniques of good evaluation practice. While not normally used in the course, personal computer spreadsheets and other software are discussed in detail. [Participants are welcome to bring a notebook computer to class. Those persons without computers are not impaired.]

Geologic and engineering information provide inputs to the production forecast model. Judgments about a variety of risks and uncertainties must be considered and incorporated into the analysis. Product pricing, various costs and taxes, inflation, and deal structure are added. The forecasting model translates the physical asset description into resource/reserves, production and cashflow forecasts and various decision criteria.

Course Content

- ◆ Physical Estimation: Overview of geologic, geophysical, and engineering technology used in estimating the volume of recoverable hydrocarbons and in forecasting production; drive mechanisms; estimation of hydrocarbons in place; decline models; waterflooding and enhanced recovery.

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- ◆ Risk Analysis: Using probabilities (e.g., chance of hydrocarbons, political scenarios) and probability distributions (e.g., recovery, production decline, prices); principles and application of decision trees and Monte Carlo simulation; probabilistic reserves, aggregation, and issues in reserve classifications; multiple pay zones; statistics of field data.
- ◆ Economic Evaluation Concepts: project and cashflow modeling; projecting recovery and production rates; popular decision criteria; taxes, inflation and financing; auditing evaluations; competitive bidding; optimizing decisions for project design and deal transaction structures; working with cross-discipline teams; presenting the analysis.

Schedule

5 Days

Because of confusion with other courses, this course is now offered only in-house to individual companies.

Examples

The instructor of this course is willing to accept examples from your company to analyze in class as one of the demonstration exercises. Please contact OGCI Training for a list of the information and support data required, as well as the necessary lead-time.

About the Instructor

JOHN SCHUYLER, CAM CCE CMA CMC CPIM PMP and PE, is a decision analyst and evaluation engineer. He founded his consulting practice, Decision Precision[®], in 1988. He has over 29 years of experience in analysis, consulting, and management, primarily in the energy industry. He has presented almost 220 courses in 28 countries since 1990. His focus has been in feasibility analysis, appraisals, corporate planning, and evaluation software development. He was vice president and petroleum engineer with Security Pacific National Bank, planning and evaluation analyst and (later) manager of business systems for Cities Service Co., and senior management consultant with a national accounting firm. John is a member in eight professional organizations and is a frequent author and speaker on modern analysis practices. He holds a BS and an MS in mineral-engineering physics from Colorado School of Mines and an MBA from the University of Colorado. John is the revision author of *Decision Analysis for Petroleum Exploration, 2nd ed.*, author of *Risk and Decision Analysis in Projects, 2nd ed.*, and has written over 40 articles and handbook chapters. His Web site is <http://www.maxvalue.com>.

In-House Presentations

All courses are available for in-house presentation to individual organizations. In-house courses may be structured the same as the public versions or tailored to meet your requirements. Special courses on virtually any petroleum-related subject can be arranged specifically for in-house presentation. For further information, contact our In-House Training Coordinator, Ms. Lovera Campbell, at one of the numbers listed below or send an e-mail message to lcampbell@ogci.com.

How to Contact OGCI Training

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