Training - Reserves Evaluation - Risks and Uncertainties

RISKUN-EN-P | Face-to-face only | 5 days

This course provides a comprehensive and practical understanding of methods of evaluation and classification of hydrocarbons resources and reserves (PRMS, SEC) and related issues, especially risks and uncertainties and how to assess/mitigate these risks and uncertainties

Level

Knowledge

Public

Geoscientists, reservoir engineers, asset managers, economists, government representatives interested or involved in resources and reserves estimation and reporting, as well as related risks & uncertainties assessment

Objectives

Attendees will be able to implement the following skills:

- Describe E&P field development projects workflow and related decision making process
- Define concepts of resources and reserves and describe the Petroleum Resources Management System (PRMS) and Securities and Exchange Commission (SEC) system
- Identify main sources of risks and uncertainties and discuss methods about integrating risks and uncertainties into resources and reserves evaluation: structural uncertainties, geological uncertainties, dynamic uncertainties, geostochastic modeling, etc

Pedagogical & technical resources

Interactive courses and exercises

Assessment of achievements

- Trainees are assessed throughout the training through practical application phases and interactions with the trainer
- A final on-the-spot evaluation may also be carried out at the end of the course and/or at the end of each module using tests designed to verify the learners' understanding and assimilation of the knowledge linked to the training objectives

Prerequisites

No prerequisites are necessary to follow this course

Responsable

IFP Training instructors, with expertise in the field and trained in modern teaching methods adapted to the specific needs of learners from the professional world

Program

INTRODUCTION TO FIELD DEVELOPMENT PROJECTS — 1 day

E&P field development projects workflow and decision making process.
Fundamentals of petroleum economics and economic criteria (NPV, IRR...).
Oil & Gas resources and reserves definitions and classification:

- SPE definitions and guidelines. Petroleum Resources Management System (PRMS).

- SEC definitions and guidelines.

RESERVOIR CHARACTERIZATION & ACCUMULATIONS EVALUATION — 1 day

Overview of rock and fluid properties.
Basics of reservoir characterization and geomodeling.
Evaluation of Oil & Gas accumulations.

RESERVES EVALUATION — 1 day

Review of Oil & Gas reservoirs production mechanisms and related expected recovery factors.
Review of methods for estimating recovery:

- Analogs.
- Material balance.
- Decline curves analysis.
- Dynamic reservoir simulation.

RISKS & UNCERTAINTIES — 2 days

Concepts of risks and uncertainties.
Notions of probability and probability distribution functions.
Decision trees.
Uncertainties:

- Statistical description of data and common statistical distributions.
- Monte-Carlo method.

Uncertainties within E&P development projects:

- Structural, geological and dynamic uncertainties.

Uncertainties assessment - Experimental design and response surface methodology.

To French entities : IFP Training is referenced to DataDock ; you may contact your OPCO about potential funding.
Please contact our disabled persons referent to check the accessibility of this training program : referent.handicap@ifptraining.com