

Formation - Geological Modeling Workshop for Integrated Reservoir Studies



GEOMOD-EN-P



Présentiel



5 jours

This course provides a highly practical introduction to the reservoir characterization and modeling workflow, with a full week dedicated primarily to hands-on software discovery and guided exercises using a case study. The workshop emphasis learning by doing — applying key concepts directly in Petrel™ — to build a static geological model

Niveau

Découverte

Public

Geoscientists and reservoir engineers involved in multidisciplinary teams, willing to widen their knowledge in reservoir modeling

Objectifs

Attendees will be able to implement the following skills:

- Provide a clear understanding of techniques and challenges related to geological modeling.
- Build a reliable static model.
- Compute volumes and assess uncertainties.

Pédagogie & ressources techniques

The course focuses on practical, step by step work in Petrel™, where participants learn to build a 3D geological model through guided exercises on a case study.

Évaluation des acquis

- 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

Prérequis

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

Programme

INTRODUCTION AND SOFTWARE DISCOVERY

0.5 day

Principles of 3D modeling.
Working with scale.
Overview of the geomodeling workflow.
Introduction to the Petrel™ interface

STRUCTURAL MODELING

1 day

Structural modeling concepts and gridding techniques.

Building the fault network.

Defining the structural grid:

- Pillar gridding.
- Volume based modeling.

Modeling horizons.

PROPERTY MODELING: DATA PREPARATION AND ANALYSIS

0.5 day

Checking data distribution.

Blocking well data to the grid.

Creating VPCs and trend resources.

Building variogram models.

PROPERTY MODELING: DETERMINISTIC AND STOCHASTIC METHODS

1 day

Review of deterministic methods.

Comparing kriging options.

Removing sampling effects.

Simulation vs estimation.

PROPERTY MODELING: DISCRETE AND CONTINUOUS PROPERTY MODELING

1 day

Facies modeling.

Fault seal analysis.

Petrophysical property modeling.

VOLUMETRICS & UPSCALING

0.5 day

Volume calculation.

Upscaling to the reservoir simulation grid.

UNCERTAINTY ANALYSIS

0.5 day

Conducting uncertainty analysis.

IFP Training est référencé au DataDock. Rapprochez-vous de votre OPCO pour connaître les possibilités de financement de cette formation.
Pour vérifier l'accessibilité de cette formation à une personne en situation de handicap, contactez notre référent à l'adresse suivante :
referent.handicap@ifptraining.com