

Training - Introduction to petrophysics



PETROF-EN-P



Face-to-face only



5 days

This course provides an in-depth understanding of petrophysics, covering concepts as well as data measurements and analysis and insight into modeling

Level

Awareness

Public

- Newly hired and 2- to 3-year experienced reservoir engineers willing to deepen their knowledge in reservoir rock properties and petrophysics.
- Geoscientists, petroleum engineers and production engineers moving towards reservoir engineering

Objectives

Attendees will be able to implement the following skills:

- Discuss main concepts of petrophysics used in the description of reservoirs rock properties
- Describe and discuss the way the corresponding rock properties are accessed from cores
- Perform basic quick-look log interpretation and discuss the corresponding rock properties by respect to core analysis

Pedagogical & technical resources

Interactive lectures and hands-on 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

Responsible

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

RESERVOIR PROPERTIES FROM CORE ANALYSIS

2,5 jours

Introduction to coring.

Porosity; definitions and measurements (effective and total porosity).

Monophasic permeability:

- Darcy's law and definition of permeability.
- Measurement of monophasic permeability. Klinkenberg correction.

Capillary pressure:

- Definition and measurement.
- From lab to reservoir: capillary pressure and initial fluid saturations in the reservoir.

Wettability:

- Definition and measurement (Amott index, USBM index).
- Influence of wettability on capillary pressure.

Effective and relative permeability:

- Darcy's law for diphasic flows; definition of effective and relative permeability.
- Influence of wettability on the relative permeabilities.
- Special core analysis and relative permeability measurements.

RESERVOIR PROPERTIES FROM LOG EVALUATION - QUICK-LOOK INTERPRETATION

2,5 jours

Introduction to wireline logging operations and logs.

Open-hole log quick-look interpretation methodology.

Determination of reservoir properties from log interpretation (non-reservoir and reservoir zones, porosity, contacts, Archie's law and saturations).

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