

Training - Underbalanced and Managed Pressure Drilling: Applications, Design and Operations



UBD-EN-P



Face-to-face only



5 days

This course provides a comprehensive and practical knowledge of non-conventional techniques used in advanced drilling and completion processes to enhance drilling performance and oil recovery

Level

Skilled

Public

Drilling and mud engineers, superintendents and supervisors, and all professionals involved in well planning and operation

Objectives

Attendees will be able to implement the following skills:

- Deal with issues of narrow pore/fracture pressure gradient windows, lost circulation, abnormal pressures, kick/loss situations
- Drill wells in depleted reservoirs
- Acquire basic concepts of managed and underbalanced pressure drilling
- Review various managed pressure drilling methods and equipment
- Identify typical situations calling for managed pressure drilling and assess potential benefit

Pedagogical & technical resources

Several case studies and examples are discussed

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

BASIC PRINCIPLES OF MANAGED PRESSURE DRILLING

6 hours

History, objectives and definitions.

Occurrence and implications of narrow pore and fracture pressures windows on well design and well control.

Dynamic factors affecting bottom hole pressure.

Mathematics and examples.

MUD CAP DRILLING

3 hours

History of mud cap drilling.

Pressurized and floating mud cap.

Mud cap operation.

MANAGED PRESSURE DRILLING EQUIPMENT

3 hours

Rotating control devices.

Chokes.

Drill pipe non return valves and downhole annular valves.

ECD reduction tools.

Coriolis flowmeter, friction pump.

MANAGED PRESSURE DRILLING USING PRESSURE AS PRIMARY CONTROL

6 hours

Introduction, open and closed back pressure systems.

Automated back pressure system technology.

Continuous circulating system technology.

MANAGED PRESSURE DRILLING USING FLOW AS PRIMARY CONTROL

6 hours

Process description.

Equipment and technology.

Applications.

UNDERBALANCED DRILLING

3 hours

Underbalanced drilling objectives and applications.

Underbalanced drilling equipment and operations.

CONCLUSION

3 hours

Advantages of managed and underbalanced drilling.

Potential and limitations.

Typical applications.

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