Training - DeepWater Drilling and Completion

DWE-EN-P | Face-to-face only | 50 days

This course provides in-depth technical knowledge of deepwater drilling including the practical understanding of offshore drilling techniques, operations, equipment and well control procedures

IFP Training Certificate

Graduate Certificate

Level

Expert

Public

- Operator: drilling managers, engineers, supervisors
- Contractor: rig managers, tool pushers and drillers

Objectives

Attendees will be able to implement the following skills:

- Get all required theoretical and practical knowledge about deepwater drilling
- Know about equipment specific to offshore and deepwater drilling and completion operations
- Understand the process of a subsea development

Pedagogical & technical resources

- Highly interactive training with industry specialist lecturers
- Videos, animations and exercises
- Application to a real case (project) for the participants in the "Deepwater Drilling & Completion" IFP Training Certificate course
- Several simulation exercises using the drilling simulators
- Knowledge assessment on regular basis

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

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HSE & MAINTENANCE — 5 days

Bridging document and drilling contractor safety management system.
Rig P&ID's, hazardous area plans, station bills, fire/lifesaving plan, class/flag status reports...
Rig critical equipment that have an impact on the safety, rig operation and the environment.
Update of maintenance system history and stock level of critical spare parts.
Standards used in the drilling industry (e.g. API) and their implications for drilling equipment (i.e. annual 3rd party inspections and audits...).
Rig acceptance documentation and Well Control Equipment Certification (i.e. CoC's).

MARINE — 5 days

Deepwater Metocean environments.
Type of MODU's rigs (moored vs dynamically positioned rigs).
Nautical basics.
Navigation and station keeping.
Stability and ballast control.

DEEPWATER DRILLING — 15 days

Deepwater geology and geoscience.
Deepwater pressure management.
Key and essential differences of deepwater.
Deepwater well planning and design.
Operating: key aspects of deepwater planning and project implementation.
Technology application:

- Compensation and tension systems in deepwater.
- Drilling riser string, subsea bop stack, associated operating equipment and specific optional equipment (i.e. riser gas handler, bop pressure intensifiers).
- Subsea wellheads.
- Subsea cementing jobs.
- Hydrates.
- Managed Pressure Drilling (MPD) and Dual Gradient Drilling (DGD).
- HPHT.

Operating limitations including positioning alerts (i.e. green, green advisory, yellow and red), emergency disconnections, "wait on weather" situations and simultaneous operations (SIMOPS).

SUBSEA WELL CONTROL IN DEEPWATER ENVIRONMENT — 5 days

Pressure analysis and kick control.
Subsea well control.
Particular cases: incidents during circulation, shallow gas, volumetric method, maasp, deviated well, kick during running of casing or during cement jobs, unshearable periods.
Subsea well control equipment: diverter, riser string, LMRP & BOP stack, BOP HPU, MGS, choke manifold and associated lines.

DRILLING SIMULATOR EXERCISES — 5 days

Deepwater case.
Managed Pressure Drilling (MPD).

OFFSHORE WELL COMPLETION — 5 days

Functions to be carried out and corresponding equipment:

- Production string(s) configurations (conventional or tubing less, single or multi-zones).
- Subsea completion and workover risers.

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- Subsea BOP.
- Production wellhead: tubing head spool and Christmas tree (components, design).
- Subsea X-mass trees.
- Subsurface safety valve (subsurface controlled, surface controlled).
- Tubing and connections (main characteristics, criteria of choice).
- Packers and accessories (drillable or permanent, retrievable).
- Bottom-hole devices (landing nipples, circulating devices...).

Tubing string design (fundamentals of tubing movement and forces):

- Point to be verified.
- Packer permitting free motion (tubing movement, tension on the tubing hanger).
- Packer permitting no motion (packer to tubing force, tension on the tubing hanger).

Subsea completion present trends.

DEEPWATER PROJECT — 10 days

HSE and waste management.
Deepwater well architecture and its associated barriers related to geological hazards.
Well profile, anti-collision study and casing design.
Chronology of operations, BOP and well control procedures, drilling sequence review.
Fluids and cementing design.
Bit program, BHA strategy, surveying program and logging.
Drilling equipment specifications for deepwater vessel selection and “fitness for purpose”.
Well testing and completion.
Well intervention and stimulation.
Well suspension and abandonment.
Authorization For Expenditure (AFE) guidelines for time and budget estimations.
Presentation to a jury.

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

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