

Training Title

HYDRAULIC WORKOVER EQUIPMENT AND OPERATION

Training Duration

5 days

Training Venue and Dates

REF	<u>HYDRAULIC WORKOVER</u>	5	16-20 October 2023	\$6,250	Amsterdam,
DE011	<u>EQUIPMENT AND OPERATION</u>				Netherlands

In any of the 5 star hotel. The exact venue will be informed later.

Training Fees

- 6,250US\$ per participant for Public Training includes Materials/Handouts, tea/coffee breaks, refreshments & Buffet Lunch

Training Certificate

Define Management Consultancy & Training Certificate of course completion will be issued to all attendees.

COURSE DESCRIPTION

The course is designed to provide comprehensive information's to all aspects of the well completion equipment, design and work-over operations and learn how to deal with harsh environments using different completion systems. The course will be conducted as lecturers and attendees will be actively encouraged to participate. The course content will be fully illustrated with actual data of design and troubleshooting to aid understanding and help to overcome any difficult problems. Comprehensive course notes will be provided, which will form a valuable source of reference afterwards.

COURSE OBJECTIVE

After completing this course the participants will have:

- Fully understanding of all completion component
- Fully understanding of completion string design
- The ability to design and supervise most work over and completion operations
- The ability to take the necessary corrective action to deal with harsh environments
- The experience regrding new completion system including sand control and intelligent completions
- The experience to handle all expected intervention operations during work over
- Ensuring the well integrity and avoiding all risks
- The experience to reduce the cost of the well completion
- The ability to extend the well life and control it, achieve the optimum production

WHO SHOULD ATTEND

DMCT/OL/9/18(Rev3Dt:23/9/18)

This course is designed for work over, completion, drilling engineers, production technologists, well surveillance teams and well intervention teams.

COURSE OUTLINE

Day 1

Well Completion Equipment, Design, Practices and Strategies

- Construction of a well from casings to well head
- Completion equipment and strategies
- Well placement and completion selection (vertical, horizontal, open hole and etc.)
- Selective well completion
- Subsurface safety valve
- Completion packers
- Landing nipples and flow control devices
- Tubing size selection
- Expansion joints and thermal effect calculations
- Basic components of a well head
- Flanges and Xmass tree
- Tubing hanger and BPV
- How to improve your completion design
- Inflow/outflow performance relationship
- Tubing Selection and completion equipment
- Why we need lifting?
- Artificial lift types and their effect on well completion(gas lift and pumping systems)

Day 2

Workover and Completion Operations

- Barrier principles and barrier envelope
- Well killing calculations and operations
- Different well completion cases
- Well control during work over operations
- Killing fluids and formation damage mitigation
- Operational challenges
- Pressure and volumes calculations
- Perforation operations
- Under and overbalance perforation

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- Cases of workover operations (cased hole gravel packing, ESP completion, gas lift completion and gas well completion installation)

Day 3

Workover, Completion and Well Integrity Operations

- Tubing stress calculations
- Well Integrity Management System
- Several stresses and MAASP calculations
- Sustained annulus pressure
- Horizontal wells
- Cased hole logging
- Cement evaluation logs
- Corrosion logs
- Fishing operations
- Cement squeeze and cement plugs

Day 4

Well Intervention Operations (Wireline / Coiled Tubing / Snubbing Operations)

- Wire line
- Slick line tool string
- Pressure control equipment with WL operations
- Stuffing box/grease injection head
- Blind and dual BOP
- Equipment selection
- Equipment pressure testing
- Nipples and plugs types
- Fishing operations
- Coiled tubing
- Down hole equipment
- Coiled tubing BOP
- Stripper
- Injector head
- Check valves
- Equipment pressure testing
- Emergency of Coiled Tubing (Pin hole in CT surface or downhole, CT stuck, CT crack and etc.)
- Snubbing operations/ Pressure control equipment

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- Slip operating sequence (light pipe running-in)
- Annular BOP
- Stripping BOP sequence when Running-in

Day 5

Intelligent Completions, Sand Control and Completions Cases

- Sand control systems (rig and rig less operations)
- Cased hole gravel packing completion
- ICV and ICD
- Intelligent completions application
- Tubing leaks and straddle systems
- Gas and water shut off
- Lifting and clean out operation
- Well stimulation overview (Acid and hydraulic fracture)
- Surface testing equipment overview
- Water loading problem mitigation (velocity string applications and completion)
- Case History
- Table discussion for completion problems' solving

TRAINING METHODOLOGY FOR CLASSROOM TRAINING

A highly interactive combination of lectures and discussion sessions will be managed to maximize the amount and quality of information and knowledge transfer. The sessions will start by raising the most relevant questions, and motivate everybody find the right answers. You will also be encouraged to raise your own questions and to share in the development of the right answers using your own analysis and experiences. Tests of multiple-choice type will be made available on daily basis to examine the effectiveness of delivering the course. All presentations are made in excellent colourful power point. Very useful Course Materials will be given.

- 30% Lectures www.definettraining.com
- 30% Workshops and work presentation
- 20% Group Work & Practical Exercises
- 20% Videos & General Discussions

NOTE:

Pre & Post Tests will be conducted

Case Studies, Group Exercises, Group Discussions, Last Day Review & Assessments will be carried out.

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