

# **DRILLING AND WELL COMPLETION TECHNOLOGY**



**DRPT213  
Drilling,  
Reservoir &  
Petroleum  
Training**

**COURSE TITLE****DRILLING AND WELL COMPLETION TECHNOLOGY****COURSE DATE/VENUE**

09<sup>th</sup> – 13<sup>th</sup> Sep 24'

London, UK

**COURSE REFERENCE**

DRPT213

**COURSE DURATION**

05 Days

**DISCIPLINE**

Drilling, Reservoir & Petroleum Training

**COURSE INTRODUCTION**

This course is primarily designed for drilling, production and completion engineers and supervisors needing a practical understanding and an appreciation of well completion design and operation, well stimulation and work over planning. It explains how completion configurations are varied to meet well objectives and to maximize well productivity. Design concepts and methods are presented together with downhole tools and their selection criteria.

Completion types and design for vertical, horizontal and multilateral wells, design and optimization of tubing based on tubing performance analysis (Inflow performance analysis, liquid and gas hold up during fluid flow and forces on tubing), downhole equipment, tubing accessories, wellhead equipment including completion. Also fluid flow through perforations and perforation techniques; communication tests; wireline operations; reservoir stimulation; and hydraulic fracture treatment design and optimization are extensively reviewed. Local case studies are also provided.

This course is talking in details about casing, tubing accessorise and completion types. Also completion equipment design, operations and well productivity. To enhance the

participants' knowledge, skills, and attitudes necessary to understand well completion technology.

## **COURSE OBJECTIVE**

**By the end of this course, participant will be able to:**

- ✓ Enhance the participant's knowledge skills to understand the well completion.
- ✓ Improve the awareness of types wells completions, operations and subsurface equipment
- ✓ Apply the latest techniques in well completion design and operation
- ✓ Optimize tubing dimensions for maximum production and estimate the pressure losses in tubing for different rock & fluid properties
- ✓ Use different subsurface completion equipments and accessories and select packers and packer settings
- ✓ Operate the well head equipments properly and calculate geometries and dimensions casing and tubing hangers
- ✓ Identify the different special consideration for horizontal and multilateral completions on wellbore, tubing and casing configuration
- ✓ Recognize the components of perforation of oil and gas wells such as completion fishing operations, well stimulation and fracturing, well testing, and well integrity
- ✓ Carryout the various procedures of communication tests
- ✓ Practice the process of wireline operations
- ✓ Discuss the elements of reservoir stimulation and increase the knowledge in understanding of stress and rock properties involved in the simulation techniques

## **COURSE AUDIENCE**

Petroleum engineers, Completion Engineers, drilling and senior drilling supervisors, reservoir and senior reservoir engineers, geologists, production and completion engineers and supervisors Foreman.

## **COURSE CONTENT**

- ✓ **Casing & tubing introduction**
  - Manner of manufacture.
  - Type of joints.
  - Length range.
  - Wall thickness.

✓ **Well completion type.**

- Open hole.
- Cased hole.
- Slotted liner.
- Single completion & double.

✓ **Completion equipment and design practices.**

- Well head &
- Safety valves.
- Slide side door and circulation device.
- Permanent and packer.

✓ **Completion operation.**

- Cementing primary and multistage.
- Remedial
- Cased hole log.
- Depth control.
- Cement bond evaluation.

✓ **Completion productivity.**

- Sizing the tubing & performance.
- Artificial lift requirement.
- Perforation and selection.
- Completion fluids.

**COURSE CERTIFICATE**

**TRAINIT ACADEMY** will award an internationally recognized certificate(s) for each delegate on completion of training.

**COURSE FEES**

£5,750 per Delegate. This rate includes participant's manual, Hand-Outs, buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

### **COURSE METHODOLOGY**

The training course will be highly participatory and the course leader will present, guide and facilitate learning, using a range of methods including formal presentation, discussions, sector-specific case studies and exercises. Above all, the course leader will make extensive use of real-life case examples in which he has been personally involved. 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.

- 30% Lectures
- 30% Workshops and work presentation
- 20% Case studies & Practical Exercises
- 10% Role Play
- 10% Videos, Software or Simulators (as applicable) & General Discussions