

**WELL INTERVENTION &
ARTIFICIAL LIFT
OPERATIONS**



**DRPT223
Drilling,
Reservoir &
Petroleum
Training**

COURSE TITLE

Well Intervention & Artificial Lift Operations

COURSE DATE/VENUE

19-23 Feb 24'

AMSTERDAM, NETHERLANDS

COURSE REFERENCE

DRPT223

COURSE DURATION

05 Days

DISCIPLINE

Drilling, Reservoir & Petroleum Training



COURSE INTRODUCTION

The course is designed to provide comprehensive information's to all aspects of the well flow, different well intervention operations and artificial lift systems design, surveillance and troubleshooting, maximize the oil production and learn how to deal with harsh environments using different artificial lifting 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

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

- The ability to design and supervise well intervention and coiled tubing programs and operations
- Fully understanding of the oil production system and multiphase flow
- Fully understanding of different artificial lift types and selection criteria

- The ability to design ESP and gas lift systems
- The ability to take the necessary corrective action to deal with harsh environments
- Fully understanding of the necessary troubleshooting and well intervention required for pumping and gas lifting systems
- The experience to deal with low flow and flow assurance problems using system analysis
- The experience to build a well models, nodal analysis, artificial lift design and troubleshooting

COURSE AUDIENCE

This course is designed for production technologists, artificial lift and well surveillance teams, well intervention teams, production engineers, reservoir and completion engineers, project managers, plant managers, plant supervisors, production supervisors, technical staff, operators, technicians and contractor personnel involved in the oil production

COURSE CONTENT

Day 1

Well Completion and Production System

- Completion equipment
- How to improve your completion design
- Barrier principles and barrier envelope
- Different well completion cases
- Well completion consideration for artificial lifted wells
- Perforation operations
- Under and overbalance perforation
- Production system overview
- Produced fluids properties
- Inflow performance relationship
- Vertical Lift Performance
- Multiphase flow and Multiphase flow correlations
- System nodal analysis
- Tubing Selection and completion equipment
- Why we need lifting?
- Tips regarding well modeling

Day 2

Well Intervention Operations

- Well control during normal operations
- Wire line
- Slick line tool string
- Pressure control equipment with WL operations
- Gas lift operations
- GLV change out
- Fishing operations
- Cased hole logging and production logging overview
- Coiled tubing
- Pressure control equipment with CT operations
- Down hole equipment
- Lifting and clean out operation
- Gas and water shut off
- Water loading problem mitigation

Day 3

Artificial Lifting Systems-Gas Lifting

- Selection of artificial lifting systems
- Gas lift technology and downhole equipment
- Gas lift design types and unloading
- Continuous/Intermittent gas flow
- Main considerations surrounding gas lift systems
- Optimum GLR and injection depth
- Advantages and disadvantages
- Troubleshooting real cases
- New technology in gas lifting systems
- Gas lift application in harsh environments
- Tips regarding gas lift design and troubleshooting with software's

Day 4

Artificial Lifting Systems-ESP

- ESP downhole equipment
- ESP surface equipment
- ESP installation
- ESP design
- Analysis of an ESP system using diagnostics
- Examples of ESP troubleshooting and failure analysis
- New ESP systems
- ESP application in harsh environments
- Tips regarding ESP design and troubleshooting with software's

Day 5

Pumping Systems & Well Production Enhancement

- ESP watcher and surveillance
- ESP parameters analysis to improve well production
- High GOR well production
- Production with solids and viscous oil
- Sucker rod Surface equipment
- Sucker rod downhole equipment
- Hydraulic pumping systems
- Pressure temperature survey analysis
- Chemical injection applications with artificial lifting systems
- Well intervention applications in artificial lifted wells
- Hydrates, scales, erosion, corrosion and bottleneck analysis and mitigation
- Troubleshooting real cases
- Case Studies, Discussions, Videos and Last Day review

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

