



OIL EXPLORATION, DRILLING, WELL COMPLETION & PRODUCTION

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TRAINING TITLE

OIL EXPLORATION, DRILLING, WELL COMPLETION & PRODUCTION

VENUE

Dubai, UAE

DURATION

5 Days

DATES

23-27 January 2022

PRICE

US\$4,000 per attendee including training material/handouts, morning/afternoon coffee breaks and Lunch buffet.

TRAINING 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 accessorize 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.

TRAINING OBJECTIVES

- Enhance the participant's knowledge skills to understand the well completion.

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- 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 equipment and accessories and select packers and packer settings
 - Operate the well head equipment 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

TRAINING AUDIENCE

This course is designed for Oil field Technologists, project managers, plant managers, plant supervisors, Production Supervisors, technical staff, Operators and Technicians and contractor personnel involved in the production of oil and natural gas. The greatest benefit arises from discussing the underlying principles of the various processes and the cause of the common operating problems. You will also be able to see which processes are available to you to de-bottleneck or modify existing processes. The practical techniques and examples provide useful insights that are valuable in daily operations. Participants are encouraged to introduce any operating problems they have encountered for group discussion.

TRAINING OUTLINE

Day 1

1) Exploration

a) Search for oil & gas

- Terms and nomenclature of geology used in oil industry

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- Petroleum: How it is formed and trapped, geology of the suitable rocks for favorable deposition of hydro-carbons

2) Introduction to Drilling Technology

b) Drilling methods

- Technical Definitions and
- practical Units
- Rotary Drilling practices
- Well Construction and Design of Casing String
- Drilling fluids
- Well control Equipment
- Fishing and fishing Tools
- Offshore drilling Practices
- Safety on the rig

Day 2

Well Completion and Testing

- Reservoir engineering aspects for well completion
- Phase behavior
- Performance Evaluation
- Production inflow performance
- Types of well completion: Corrosive high pressure completion: tubing less well completion: horizontal and multilayered completion, open hole completion, slotted liner completion, Special completion.
- Packer completion
- Perforation Techniques: over balanced and under balanced
- Well head equipments
- Down hole tools
- Classification of well production tests: transient pressure testing: well testing strategy: production testing tools: Drill stem Test: High pressure and high temperature testing: Testing of sour wells
- Well activation and flow measurements

Day 3

1) Artificial Lift

a) Artificial lift

- Need for artificial lift
- Various modes of lifts
- Selection criterion and design of suitable lift
- Trouble shooting
- Optimization

b) Reservoir pressure maintenance thro' water / gas injection

c) Reservoir pressure maintenance

- Need for reservoir health management
- Types of water injection methods, peripheral and spot injection
- Frontier areas of EOR
- Compatibility of injection fluids
- Monitoring

Day 4

Work-over operations and Well Stimulation, sand control

a) Work over rig components

- Introduction
- Rig components
- Draw works
- Hoisting System
- Rotary equipment
- Mud Pumps
- Prime over

b) Work over Jobs

- Major Repair Jobs
 - Casing Damage repair
 - Fishing
- c) Well Stimulation
- formation Damage
 - various stimulation techniques
 - gravel packing
 - activation

Day 5

1) Production, Storage, processing and Transportation

a) Production

- Design of GGS/GCS/ EPS
- Design of CTF
- Sour component handling
- Demulsification and desalting
- ETP- design
- Transportation

b) Introduction to Offshore Technology especially Deep water

c) Offshore Practices

- Introduction to offshore technology
- Deep water: frontier area of technology

TRAINING CERTIFICATE

MAESTRO CONSULTANTS Certificate of Completion for delegates who attend and complete the training course

METHODOLOGY

Our courses are highly interactive, typically taking a case study approach that we have found to be an effective method of fostering discussions and transferring knowledge.

Participants will learn by active participation during the program through the use of individual exercises, questionnaires, team exercises, training videos and discussions of “real life” issues in their organizations. The material has been designed to enable delegates to apply all of the material with immediate effect back in the workplace.

