

MONITOR WELL PRODUCTIVITY & FLOW LINE PRESSURE SAFETY VALVE

COURSE OUTLINE 2024

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TRAINING TITLE MONITOR WELL PRODUCTIVITY & FLOW LINE PRESSURE SAFETY VALVE

<u>VENUE</u> DUBAI, UAE

<u>DURATION</u> 5 Days

DATES 07-11 October 2024

PRICE

\$5,250 per attendee including training material/handouts, morning/afternoon coffee breaks, and Lunch.

TRAINING INTRODUCTION

The course is designed to provide comprehensive information on all aspects of the well performance analysis, production system component, artificial lifting systems, and production enhancement techniques including well monitoring and surface equipment for the wellhead and flow line. The course will be conducted by lecturers and attendees will be actively encouraged to participate. The course content will be fully illustrated with actual data of good completion and operations cases to aid understanding and help to overcome any difficult problems. Comprehensive course notes will be provided, which will form a valuable source of reference afterward.

TRAINING OBJECTIVES

This workshop to provide Operators and technicians with the basic theoretical and practical understanding of:

- Fully understanding of the production system component
- Fully understanding of the produced fluid's properties
- Basic understanding of artificial lifting equipment and theory
- Well-head and flow line construction and monitoring
- Subsurface and surface safety valves
- Important parameters during well shut-in and flowing conditions to improve the well's performance

TRAINING AUDIENCE

This course is designed for production technologists, production engineers, well intervention and completion engineers and supervisors, project managers, production supervisors, technical staff, operators, technicians, and contractor personnel involved in the production of oil and natural gas.

TRAINING OUTLINE

Day 1

Well Production System

- Production system overview
- Reservoir drive mechanisms
- Produced fluids properties
- Well completion design
- Oil and gas wells' performance
- System nodal analysis
- Tubing selection
- Well-testing theory

Day 2

Well Productivity and Wellhead parameters

- Gas well performance
- Oil well performance
- Choke performance
- Static flowing pressure temperature surveys' operation and analysis
- How to improve wells' performance
- Well testing
- WHP changes
- Well-head charts and monitoring systems

Day 3

Wellhead, Christmas Tree, and Safety Valves

• Wellhead main functions

- Well-head classifications
- API specification 6A
- Basic components of a well-head
- Well-head installation
- API flanges
- Tubing hanger and BPV
- Christmas tree types
- Christmas tree components
- Surface safety valves
- Production choke types
- Critical and subcritical flow
- Subsurface safety valves
- Function and integrity testing
- Barrier principles and barrier envelope
- Risk management
- Flow line protection (pressure)

Day 4

Artificial Lifting Systems

- Why do we need lifting?
- Selection of artificial lifting systems
- Gas lift technology
- Gas lift downhole equipment
- Gas lift wells' problems
- Electrical submersible pump
- ESP surface and downhole equipment
- ESP installation
- ESP lift watcher
- ESP troubleshooting
- Sucker rod systems
- Hydraulic pumping system

Day 5 Production and Flow Assurance problems' Solving

- Hydrates
- Organic and inorganic scales
- Emulsion
- Choke performance
- Critical and subcritical flow
- Downstream back pressure
- Sustained annulus pressure
- Critical and erosional velocity
- Water loading problem mitigation (velocity string applications)
- Sand control systems (rig and ringless operations)
- Lifting and cleaning out operation
- Case History
- Table discussion for production problems' solving

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.