

## **Training Title**

# WATER TREATMENT SPECIALIST: PLANT WATER TREATMENT & WELL OPERATIONS

## **Training Duration**

5 days

**Training Venue and Dates** 

	Water Treatment Specialist:				
Ref. No.	Plant Water Treatment & Well		27 Jul – 01 Aug		Dubai,
PE185	Operations	5	2025	\$5,500	UAE

In any of the 4 or 5-star hotels. The exact venue will be informed once finalized.

#### **Training Fees**

• 5,500 US\$ per participant for Public Training includes Materials/Handouts, tea/coffee breaks, refreshments & 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 informations to all aspects of the produced water handling, treatment and control, how to redue the amount of water produced and to reach an environmentally acceptable level that is mandatory before disposal.

Well performance analysis, production system component and all related well operations and plant seperation facilities.

Production enhancement techniques including wells monitoring and surface equipment for wellhead and flow line. 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 well 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 afterwards.

#### **COURSE OBJECTIVE**

After completing this course the participants will have:

- Fully understanding of the production system component
- Fully understanding of the produced fluids properties

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- Understand the importance of proper water treatment
- Appreciate the importance of reusing produced water
- Develop skills necessary to evaluate the technologies used in oil and water separation
- Well head, flow line and facility component
- Important parameters during wells shut in and flowing condition to improve well's performance and reduce water production

#### WHO SHOULD ATTEND

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

## TRAINING OUTCOME

The organization will gain, in sending their employees to attend this particular training course, the following:

- Well production enhancment
- Employees who understand the details of the chemistry of oil and gas separation operations
- Water reuse, also to meet the strict environmental discharge regulations.
- Extending the well life by improving the surface montoiring for wells' parameters
- Employees will have the ability to take the safe and optimum corrective actions
  with any arised problems within the production system items

## **METHODOLOGY**

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 motivating everybody to 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 the multiple-choice type will be made available on a daily basis to examine the effectiveness of delivering the course.

All presentations are made in excellent colorful power point. Very useful Course Materials will be given.

- 30% Lectures
- o 30% Workshops and work presentation
- o 20% Group Work& Practical Exercises
- o 20% Videos& General Discussions

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#### **COURSE OUTLINE**

# Day 1

# Well Production System and water Chemistry

- Production system overview
- Reservoir drive mechanisms
- Produced fluids properties
- Oil and gas wells' performance
- The nature, chemistry and composition of hydrocarbons
- Water chemistry fundamentals
- Environmental regulations and water specifications
- Environmental impacts caused by produced water
- Water sampling and analysis
- Well testing theory

# Day 2

# **Production Liquid Separation**

- Produced Water Generation
- Surface Facilities
- Production Transportation
- Controlling the process
- Separator design
- Water heater
- Crude oil treatment
- Storage tanks
- Waste water recycle / reuse
- Water scaling and corrosion control
- Emulsions / Stabilization, Destabilization
- Disposal wells

#### <u>Day 3</u>

## Crude Oil Desalter

- Principles of flotation
- De-salter operations
- Water injection treatment
- Gravity separation systems
- Skim tanks & piles
- API separators
- Plate coalescers
- Evaporative processes

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# Day 4

# **Well Operations**

- Artificial lifting systems
- Electrical submersible pump
- High water production reasons
- How to control water production
- Water shut off operations
- Oil wells performance
- Well testing
- Well head parameters

## Day 5

# Production and Flow Assurance problems' Solving

- Hydrates
- Organic and inorganic scales
- Emulsion
- Choke performance
- Critical and subcritical flow
- Water loading problem
- Sand control systems
- Pigging operations
- Case History

NOTE:		
Pre & Post Tests wil	be conducted	
Case Studies, Group	Exercises, Group Discussions, Last Day Review & Assessments	will
be carried out.	THE REPORT OF THE PARTY OF THE	
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