



Petroleum, Oil & Gas



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Course: Oil and Gas Laboratory Operations Management MBA

Code	City	hotel	Start	End	price	Hours
109	Brussels (Belgium)	Hotel Meeting Room	2024-04-08	2024-04-12	5450 €	25

INTRODUCTION

An Oil and Gas production laboratory is a vital component in maintaining control of field operations. It is important that managers; technicians; chemists and others have a good understanding of the abilities and limitations of a field laboratory so that they can better use the laboratory and its staff to control and optimise the oilfield process.

A production laboratory contributes to the operation in the following ways:

- Measurement and reporting of vital data
- Compliance with legislative criteria
- Provides early warning of potential plant problems
- Control and optimisation of the injection of oilfield chemicals
- First line analysis and identification of unknown substances / deposits
- Determination of product quality and fiscal measurements

This programme will explain to delegates:

- What happens within an oil and gas field laboratory and why this is important to a successful oilfield operation
- How to efficiently run such a laboratory
- How to produce accurate and reliable results
- How the laboratory contributes to the safe and efficient operation of plant and equipment
- How to calculate chemical injection rates
- Fiscal responsibilities during custody transfer
- Laboratory Quality Management
- How to use the laboratory for problem solving

PROGRAMME OBJECTIVES

- To better understand the function, importance and operation of oil and gas laboratories
- To understand how to optimise the day to day operation of the oil and gas laboratory
- To gain an insight into how Quality Management is important within and Oil and Gas Laboratory
- To understand how the results obtained from the laboratory can enhance the operation of the process system and contribute to the integrity of plant and equipment



- To understand how process chemicals function and how to utilise them effectively
- To understand how metering systems operate and how laboratory data contributes to accurate metering and tanker loading (custody transfer).

TRAINING METHODOLOGY

This is carried out by a series of lectures supported by comprehensive notes; delegates are encouraged to ask questions and participate in the sessions leading to an informal learning environment

PROGRAMME SUMMARY

This programme covers the essential aspects of the day-to-day operation of oil and gas laboratories, how the laboratory is used as a tool to facilitate optimisation of the process plant, control of environmental emissions, plant and equipment integrity and for product quality control.

PROGRAMME OUTLINE

DAY 1 - Role of the Laboratory Chemist in Oil and Gas Laboratories

- Quality Assurance and Control
- Control of Chemicals
- Health, Safety and Environmental Considerations
- Adherence to Legislation

Laboratory Management

- Laboratory Quality Management
- Equipment Maintenance
- Housekeeping
- Calibrations
- Stock Management
- Reporting
- Chemical Segregation and Storage

DAY 2 - Sampling of Process Fluids

- The importance of representative sampling
- Health and Safety considerations
- Pressurised Sampling (oil and gas)
- Atmospheric Sampling
- Water Sampling



Laboratory Analysis

- Base Sediment & Water
- Water in Oil by Karl Fischer
- Oil in Water Testing
- Density Measurement
- Determination of Reid Vapour pressure
- General Produced Water Testing
- Potable Water Testing
- Utilities Analysis
- Microbiological Analysis

DAY 3 - Plant and Equipment

- Separation Systems
- Oilfield Chemicals

DAY 4 - Plant and Equipment

- Enhanced Oil Recovery
- Metering

DAY 5 - Plant and Equipment

- Summary
- Programme Evaluation Session



The Scandinavian Academy employs modern methods in training and skills development, enhancing the efficiency of human resource development. We follow these practices:

- **Theoretical Lectures:**
 - We deliver knowledge through advanced presentations such as PowerPoint and visual materials, including videos and short films.
- **Scientific Assessment:**
 - We evaluate trainees skills before and after the course to ensure their progress.
- **Brainstorming and Interaction:**
 - We encourage active participation through brainstorming sessions and applying concepts through role play.
- **Practical Cases:**
 - We provide practical cases that align with the scientific content and the participants specific needs.
- **Examinations:**
 - Tests are conducted at the end of the program to assess knowledge retention.
- **Educational Materials:**
 - We provide both printed and digital scientific and practical materials to participants.
- **Attendance and Final Result Reports:**
 - We prepare detailed attendance reports for participants and offer a comprehensive program evaluation.
- **Professionals and Experts:**
 - The programs scientific content is prepared by the best professors and trainers in various fields.
- **Professional Completion Certificate:**
 - Participants receive a professional completion certificate issued by the Scandinavian Academy for Training and Development in the Kingdom of Sweden, with the option for international authentication.
- **Program Timings:**
 - Training programs are held from 10:00 AM to 2:00 PM and include buffet sessions for light meals during lectures.