Drilling Fluids Technology

Course Price

£3050

Course Description

The course will present an overview of the application of oil well drilling and completions fluids and the circulation system. The course includes discussions of fluids technology and products, emphasizing the reasons for fluid selection and application.

Course Objectives

At the end of the course delegates will learn about the basic components of drilling fluids, the functions and properties of drilling fluids, the measurements of these properties and the making of the mud reports, explain the role of rheology and how viscosity can be engineered for the benefit of operations. The delegate will become familiar with mud testing equipment, will be able to prepare mud test reports and identify trends and become familiar with drilling fluid additives like clays, polymers, weight materials. Furthermore the delegate will learn how contaminants affect drilling fluids and how to take corrective action against contamination.

Who Should Attend

This is a 5-days training course, designed for drilling engineers and supervisors, toolpushers, geologists, laboratory fluid technologists, managers, and operations personnel

Course Content

- Introduction and Terminology
- Functions of a drilling fluid system
- Fluid Types and Applications
- API standards on Drilling Fluids Tests and Procedures
• Mud Weight and Pressure Control

• Viscosity and fluid loss measurements

• Additives, Clays and Polymers

• Water-Based Muds, Salt-Based Muds, Non-Aqueous Muds, Special Systems

• Components and functions of circulation system

• Basic pressure drop computations, static and dynamic pressures

• Introduction to kick occurrences, avoidance, importance of mud density

• Solids control and disposal

• Drilling problems and solutions related to drilling fluids (Hole cleaning, Stuck pipe, Lost Returns, Lubricity, pH & Alkalinity, Contamination etc.)

• Engineering calculations

• Health, Safety and the Environment

The course will cover theory, hands on exercises and application of case studies.

CPD Unit

Continuing Professional Development

35 HOURS CPD