TECHNICAL
EDUCATION
ACADEMY

School of Engineering

COURSE PROGRAMME

000114

WELL004 - Drilling Fluids Technology

Drilling fluid is vital to the entire rotary drilling process.



Learn from the Best in the Business!

Course overview

Foundation level

Why take this course

Drilling fluid is vital to the entire rotary drilling process. Indeed, without a circulating drilling fluid, nobody could successfully drill most wells with the rotary method. What's more, the success or failure of the mud programme can largely determine whether the drilling contractor can drill the well to the operator's specifications in a safe and economical way.

Although a specially trained mud engineer often bears the responsibility of keeping the right fluid, properly treated to obtain maximum results, in the hole always, all rig personnel should have a basic understanding of what goes into a mud programme.

Who it is for and how it helps

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

What you will learn

- Appreciate 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
- Explain the purpose and functions of mud testing equipment
- Prepare mud test reports and identify trends
- Appreciate the drilling fluid additives like clays, polymers, weight materials
- Explain how contaminants affect drilling fluids and how to take corrective action against contamination

Curriculum

Modules 01–06

01 Functions of Drilling Fluids

- Functions of Drilling Fluids

02 Physical & Chemical Characteristics

- Specific gravity.
- Rheology
- Filtration
- Alkalinity
- Chloride
- Hardness

03 Types of Fluids

- Water base mud.
- Oil base mud.

04 Shale Inhibition

- Types of shale.
- Chemical and physical inhibition.

05 Mechanical & Waste Treatment

- Function
- Selection of equipment and layout.
- Separation ranges.
- Overall efficiency.
- Waste treatment: Solidification; Reinjection; Desorption.

06 Troubleshooting

- Losses: Detection, Analysis and decision chart, Treatment.
- Hole cleaning: Vertical well, Deviated and horizontal wells.

Participation and contacts

Joining the programme

Contact the Academy and quote course code 000114 to confirm dates, delivery format, prices and enrolment terms.

Training for your team

Tell us your business goals, the roles and number of participants, and your preferred dates and location. This will help us discuss the right training option.

Preparing for the programme

The published programme does not specify any prerequisites. Contact us before enrolling to confirm how to prepare.

Discuss your training needs

mail@tecedu.org
www.tecedu.academy

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