Course Description:
The course is held at the Schlumberger European Learning Centre in Melun, France and consists of practical and information sessions split between the classroom, Mudlogging unit, geological lab and workshops. The courses are run by experienced Mudlogging professional providing an in-depth look at what Mudlogging services involve.

During the practical sessions, participants will interact with the Mudlogging unit, sensors, sample analysis equipment and well as rig based activities.

The course proves a clear understanding of the how Mudlogging services acquire, capture and process surface measurements, including drilling parameters, gas data, geological information and how this data is used on the rig.

The objective of the 5 day course is to build an understanding of how Mudlogging systems help monitor and interact with drilling operations, to understand the principle of gas measurements and to have a first understanding of how geological data is captured and processed in building the lithostratigraphic column.

By the end of the course participants will have a better understanding of the added value Mudlogging skills, data and personnel bring to the drilling process, to understand all elements in relation to data quality control and to have the skills needed to challenge data quality.

Throughout the class safety is a primary focus and participants are shown QHSE best practices that are implemented during each phase of the Mudlogging operations.

Topics Covered:
- Drilling Process
- Drilling Monitoring
- Type of Gas
- Degassing Process and Degassing Analysis
- Geological Sample Preparation and Description

Audience:
Reservoir Engineers, Production Engineers, Petroleum Engineers, Production Supervisors as well as others needing a practical understanding of Well Testing Operations.

Prerequisites:
Geoscientists, engineers and whoever needs an understanding of Mudlogging.

Cost: EURO 4,950
DAY 1

Mud Logging Introduction and Geology
- Safety Briefing and Welcome
- Mud Logging Definition
- Introduction to Geology and Sedimentology
  - Main rock types
  - Geological structures
  - Geological ages
  - Hydrocarbons generation and migration
  - Geological phenomena and drilling problems: some examples

DAY 2

Practical Session and Acquisition Chain
- Practical Session: Recognize these Rocks!
  - Geological laboratory based practical covering the use of microscopes, sample preparation, analysis and descriptions
- The Acquisition Chain
  - Sensors, signal and systems
  - Workshop practical to see what the sensors looks like and fit into the acquisition chain
  - Monitoring drilling operations
  - Drilling aids: MSE, Vibrations, Pick up - Slack off
  - Reporting - mud Log, daily reports
  - Case Studies
- Classroom based case studies to demonstrate the use of the data collected at the rig site and how this data is reported and logged
### DAY 3

**Acquisition Chain and Gas Detection**
- End of Acquisition Chain
- Understanding of Gas Detection
  - Origin of the gas in mud
  - Degassing process
  - Degassing technologies
  - Types of gas analysis
- Practical workshop to see what the degassing and analyzer equipment is comprised of and how it works

### DAY 4

**Acquisition Chain and Gas Detection (continued)**
- Interpretation Generalities
- Gas in and Gas out
- Case Studies
- Classroom based case studies to demonstrate the use gas data collected at the rig site and how this data is reported and logged

### DAY 5

**Gas Detection and Close Out**
- Understanding of Gas Detection
- Mud Logging Added Value and the Top End Services
- Closing
About NExT

NExT, a Schlumberger company, has more than 14 years of experience providing training, competency, and professional development services for the E&P industry. With a portfolio of more than 420 courses covering technical, practical, and software skills, NExT develops the petrotechnical expertise necessary to meet today’s increasingly complex industry challenges.

For a comprehensive portfolio of courses covering a broad spectrum of disciplines, visit

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