





Course: Drilling Fluids & Cementing

Code	City	hotel	Start	End	price	Hours
757	Toronto (Canada)	Hotel Meeting Room	2024-05-20	2024-05-24	6450 €	25

Course Objectives

- Be aware with the whole drilling operations briefly, well profiles & all used related services used in the well.
- Be aware with the drilling fluids & cementing programs based on the available well drilling programs details.
- Be aware with the design, preparing, testing & treating the DRLG Fluids while drilling the whole well sections specially the pay zone to prevent the complications due to pay zone damage, skin factor, hole cleaning
- Be aware with the mud properties & testing procedures @ rig site.
- Evaluate the mud problems while drilling the whole well specifically the pay zone section & how the skin factor can be controlled while drilling.
- Be aware with all differences, advantages, disadvantages & handling issues for both OBM & WBM different mud systems.
- Be aware with the design, preparing, testing & performing the cementing jobs for the whole well sections specially the pay zone to prevent the complications due to pay zone damage, skin factor, liner problems
- Evaluate the cement behind casing quality specially in the pay zone & the needed remedial actions in any failure's cases.
- Know a detailed idea about the completion fluid properties, problems, types, filtration, treatment ways
- Be aware with all cementing calculations.
- Be aware with all cementing chemicals, equipment & accessories.
- Be aware with all cementing lab test & all cement job types.
- Be aware with the cement evaluation jobs (CBL-VDL-USIT).

Who Should Attend?

This course is intended for drilling engineers, senior drilling engineers, operations engineers, well testing engineers & operators, senior operations engineers, completion engineers, reservoir engineers, production engineers, day well site supervisors, night well site supervisors, contractors' stuff & all supporting staff needing to gain an understanding of the principles and practices relevant to the drilling fluids & cementing activities.

Training Methodology

- This interactive online training course includes the following training methodologies as a percentage of the total tuition hours
- 25% Lectures
- 30% Workshops & Work Presentations
- 20% Case Studies & Practical Exercises



• 25% Videos, Animation & General Discussions

Course Program

Day 1

• Drilling Well Services (Brief)

- Drilling & WO Rigs.
- Drilling Bits.
- BHA & Down Hole Tools.
- Drilling Fluids (OBM & WBM) in more details than others.
- Casing & Cementing in more details than others.
- Well Head Services.
- Surveys & Logging (Open Hole & Cased Hole).
- Cold Cutter & Hot Welding.

• Safety Alerts

• Cont. Drilling Well Services (Brief)

- $\circ\,$ Fishing Tools & Operations.
- Directions Drilling.
- Cut Core (Convectional & Oriented).
- Clean Out Scraper Runs & Completion Fluid Displacement.
- $\circ\,$ Liner & Production CSG.
- Well Testing.
- Well Completions.

Day 2

• Drilling Fluids "MUD"

- \circ Introduction
- Drilling Fluids Functions
- $\circ~$ Main Differences between OBM & WBM.
- OBM Treatment.
- Different Mud Systems.
- Mud Chemicals.

• Cont. Drilling Fluids "Mud"

- Mud Properties.
- Drilling Fluids Program Preparations.
- Mud Measurements & All Related Devices.
- $\circ\,$ General Drilling Problems in relation with the mud.
- Mud Losses & Fluid Invasion.
- LCM's & Cement Plugs Losses Treatment.



Day 3

• Cont. Drilling Fluids "Mud"

- $\circ\,$ Kicks & Well Control Issues.
- $\circ\,$ Kill Sheet Calculations.
- $\circ~$ Stuck Pipe & Long OH Exposure Time Effect.
- Hole Cleaning & Mud Contaminations.

• DRLG Fluids & Skin Factor Relationship while drilling operations

• Cementing

- \circ Introduction
- Casing Design Brief ((Sizes, Hole Sections, Properties, Setting Depths, Accessories, Running procedures, CSG Problems).)
- Cementing Functions.

Day 4

• Cont. Cementing

- Dry Cement Classes.
- $\circ\,$ Cementing Chemicals & Functions.
- Cementing Equipment, Tools, Accessories, Specifications, Setup, Rigging Up Procedures, related problems ...).
- HSE Alerts

• Cont. Cementing

- Cement Unit Components.
- $\circ~$ Cementing Program & Lab Test Preparations.
- Cementing Jobs Types (On Fly & Batch Mixed).
- $\circ~$ Liner Cement Job Procedures & All Related Problems with solutions.

Day 5

• Cementing Quality Evaluation & its importance while the well life.

- $\circ\,$ CBL.
- VDL.
- USIT
- $\circ\,$ CSG Punch & CMT Squeeze Jobs.
- $\circ~$ ST CMT Plugs (OH & CH).
- $\circ~$ Whip Stock Techniques.
- Different real CH logs & problems evaluation



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:
 - $\circ\,$ 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:
 - $\circ\,$ We provide practical cases that align with the scientific content and the participants specific needs.
- Examinations:
 - $\circ\,$ Tests are conducted at the end of the program to assess knowledge retention.
- Educational Materials:
 - $\circ\,$ We provide both printed and digital scientific and practical materials to participants.
- Attendance and Final Result Reports:
 - $\circ\,$ We prepare detailed attendance reports for participants and offer a comprehensive program evaluation.
- Professionals and Experts:
 - $\circ\,$ The programs scientific content is prepared by the best professors and trainers in various fields.
- Professional Completion Certificate:
 - $\circ\,$ 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.