ResModTec

Gulf Reservoir Modeling Technology

Formation Evaluation & Petrophysics Analysis

Duration: 5 days (September 8 -12, 2025)

Location: London, UK

Candidates:

Geoscientists, petrophysicists, reservoir engineers and petroleum engineers who are involved in exploration, field development and integrated reservoir studies and are using logs, cores and test data to be able to evaluate, characterize, model and manage their reservoirs.

Summary:

The course aims to explain the rules of Petrophysics in drilling both exploratory and development wells. It covers the concepts, application, and interpretation of all petrophysical tools including Mud data, Well Logs, Cores and Well-test.

The participants will learn how to do a quick look interpretation of Mud measurements, ditch cuttings, open-hole logs, measurements while drilling, logging while drilling and cores. The art of integrating all petrophysical data with other drilling data and how it plays a major role in evaluating and estimating technical risk when drilling reservoir section.

Course Objectives:

At the end of the course participants will learn:

- The concept of formation evaluation
- The different petrophysical tools; concept and application
- The physics, equipment, and operation of each tool
- Understand the open hole logging tools and its usages
- Get familiar with borehole seismic, image, and LWD/MWD
- Coring and Core analysis techniques
- Analyze and integrate log, core, geoscience, and engineering well data for better assess the drilling risks.
- Select petrophysical tool combinations for specific applications
- Assess the impact of petrophysical analyses on technical uncertainty estimates of reservoirs

Course Contents:

- Fundamental concepts of petrophysics
- Depositional systems and petrophysical rock parameters
- Nature of porosity and permeability
- Basic rock properties; theory and quick look techniques
- Mudlogging
- Core analysis, acquisition, interpretation, and quality checks
- Theory and basics of resistivity, radioactivity, acoustic tools
- LWD/MWD versus open hole logging
- Determination of rock types using core and logs
- Petrophysical impact on economic uncertainty
- Evolving petrophysical technologies

Training Methods

- PowerPoint Presentations
- Videos
- Individual & Group Exercise
- Flip chart and white board Writing
- Group Quizzes
- Case Studies/ Learning Review

Instructor: Dr Mohamed Salah Galal Abou Sayed

For more details, please contact:

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