

Course Title: An Introduction to Coring and Core Analysis
Course Reference Code: RCA/UK/001
Course Duration: Duration 1 Day to 5 Days

A short introductory course in Coring, Core Analysis and Formation Evaluation. The course will focus on the need for quality coring procedures and analytical techniques to acquire good data for reservoir models. Examples will be given on how to design of a Core Analysis programme for a specific reservoir. There will be an introductory section on Special Core Analysis. A CD will be provided with course presentation material.

Course Content:

Why Core?

- Sedimentological Information
- Flow Capacity
- Storage Capacity
- Log Calibration
- Multi Phase Flow properties

Coring Conflicts

- Reservoir Evaluation
- Drilling
- Management
- Environmental

Reservoir Evaluation

Requirements

- Geologists
- Petrophysicists
- Reservoir Engineers
- Drilling Department

Coring Methods

- Conventional / Slim Hole / Sidewall
- Unconsolidated Coring Methods
- Rubber Sleeve / Fibre Glass / Sponge Coring / Pressure Coring

Drilling Muds and Core

- Water Base / Oil Base / Invert Oil
- Polymer Muds
- Mud Additives

Wellsite Core Handling

- Retrieval
- Layout and marking
- Preservation
- Unconsolidated Handling Techniques.
- Selection of Preserved Samples

Factors Affecting Analytical Procedures

- Heterogeneous Carbonates
- Unconsolidated Formations
- Clay Rich Formations
- Finely Laminated Formations
- Fractured Reservoirs
- Conglomeritic Reservoirs

Routine Core Analysis

- Spectral or Total Gamma
- Sample preparation
- Cutting / Cleaning / Drying
- Fluid Saturation Determination
- Permeability
 - Steady State
 - Unsteady State
 - Probe Permeability
- Porosity
 - Summation of Fluids
 - Saturation
 - Helium Gas Expansion
- Grain Density
- Core Slabbing
- Core Photography
- Core archiving

Special Core Analysis

- Electrical Properties
- Acoustic Properties
- Capillary Pressure
- Pore Volume Compressibility
- Wettability
- Relative Permeability

Who should attend:

- Geologists, Engineers, Drilling Personnel
- Other Personnel who are aware of core and coring procedures but unfamiliar with core analysis procedures, the benefits of core analysis and the use of core analysis data