RE1 SPECIAL CORE ANALYSIS FOR ENGINEERS AND GEOLOGISTS *(Theory & Application)*

PETRO-TEC **IN-HOUSE**

COURSE / WORKSHOP OVERVIEW

This course/workshop covers both the theoretical basis as well as the practical aspects of rock properties. It is designed to show the experimental process, and review the utilisation of rock properties in field evaluation. It focuses on the link between reliable and representative laboratory data and effective reservoir appraisal and development. It addresses practical issues faced by engineers and geologists during the interpretation and application of Special Core Analysis (SCAL) data.

The course format will be taught lectures, discussions, and work exercises.

Tie-up sessions will be inserted in the lecture programme to elaborate on SCAL application in reservoir Simulation. Examples from experience will be used to show the importance of ***TEAM WORK*** in integrating the SCAL data for reservoir description.

WHO SHOULD ATTEND

This course/workshop is designed for both reservoir engineers, geologists, and petrophysicists who are involved in the acquisition and application of SCAL data for reservoir evaluation and simulation. It should also be beneficial for core analysts who would like to know more about the reservoir applications of laboratory data.

TABLE OF CONTENTS

- Stress effects
- Capillary pressure and connate water saturation
- Leverett J-function
- Wettability and saturation hysteresis
- Relative permeability
- Electrical properties
- Residual Oil Saturation

4. Data Validation and Utilisation

- Validation of SCAL data.
- Core/Log integration
- Comparison of core KH versus well test KH
- Overview of single-phase up-scaling
- Relative permeability from laboratory to field

5. Using SCAL in Res. Engineering.

- Review & QC of SCAL reports.
- Initial Water Saturation.
- Grouping and Correlation of Capillary Pressure Data.
- Water-oil relative permeability.
- Gas-Oil Relative Permeability.
- Reservoir Characterisation.
- Residual Oil Saturation

6. Relative Permeability from Laboratory to field

7. Core Analysis for Res. Engineering: Questionaire and Answers

THE LECTURER
ONE OF PETRO-TEC CONSULTANTS