

COURSE OVERVIEW

This course is intended to equip participants with the necessary skills for interpretation and integration of lithostratigraphic, biostratigraphic and sequence stratigraphic data to build geological models and deduce a stratigraphic scheme. It shows the time-stratigraphic control on hydrocarbon generation/migration. It deepens the understanding of geometry and distributions of oil and gas reservoirs in space and time. Other techniques such as graphic correlation, establishment of biozonation and development of composite ranges and a chronological scale will briefly be discussed and illustrated. The fundamental stratigraphic categories will be reviewed. The relationship between these categories will be explained using actual examples.

WHO SHOULD ATTEND

Exploration and development geologists and geophysicists, geoscientists.

COURSE CONTENTS

Introduction

- Purpose of stratigraphic study
- Stratigraphy in Hydrocarbon Exploration

Part 1: Lithostratigraphy

- Definition
- Nature of lithostratigraphic Units
- Type Section & Locality
- Rank of lithostratigraphic Units
- Proximal distal facies relationship in marine & non-marine setting
- Prediction of reservoir quality trends

Part 2: Biostratigraphy

- Definition
- Nature of Biostratigraphic Units
- Kind of Biostratigraphic Units
- Biostratigraphy while drilling
- High resolution palynological analysis techniques
- Graphic correlation techniques
- Multi-well biostratigraphic correlation.

Part 3: Chronostratigraphy

- Nature and Boundaries

- Ranking
- Chronostratigraphic Nomenclature
- Develop a local chronologic scale

Part 4: Sequence stratigraphy

- Definition
- Transgressions and regressions
- Causes of Cyclicity (Tectonics, Eustatic, Autocyclic)
- Lateral accretion
- Parasequences
- Seismic patterns & sequence boundaries
- System tracts
- Sequence stratigraphic procedure
- Prediction of source, reservoir & seal

Part 5: Integrated approach

- Relationship of geologic time-unit to rock-unit
- Stratigraphic Schemes.
- Application in HC Exploration

**THE LECTURER
ONE OF PETRO-TEC CONSULTANTS**