

RM1 PRACTICAL RESERVOIR MANAGEMENT AND PRODUCTION MONITORING

(A Senior Management Perspective)

PETRO-TEC

IN-HOUSE

COURSE OVERVIEW

This course has been designed to assist managers to comprehend modern day reservoir concepts and processes and to apply these to achieve their company's goals. It endeavors to show innovative ways to maximise hydrocarbon recovery from fields, optimise production rates, and maximise cash flow, starting with the exploration phase, leading through field development and depletion and ending in eventual abandonment.

The course will consist of lectures, discussions, and workshop activities. The participants are encouraged to bring-up and discuss their own management issues. The workshop will explore practical solution to a number of selected issues.

WHO SHOULD ATTEND

Senior Oil Industry Managers, Team Leaders, and Asset managers.

COURSE CONTENT

Reservoir Management Introduction:

- Prospect Analysis
- Appraisal and Development Stages
- Abandonment

Trends In the World Oil Industry:

- Synergistic Teams
- Asset Management Teamwork: A Business Management Approach

Long and Short Term Objectives.

GeoScience in Reservoir Description Introduction:

- Development Geology and Geophysics
- Geological Environment of Sedimentary Rocks
- Carbonate Depositional System
- Stratigraphic Correlation

Seismic Applications for Field Delineation and Monitoring:

- Role of Seismic in Reservoir Management
- 2-D, 3-D and 4-D Seismic
- Seismic Stratigraphy and Log-Defined Sequences
- Seismic Applications For Field Delineation
- Examples of 3-D Seismic Applications

Well Types and Objectives.

Well Planning - General Planning Considerations.

Reservoir Characterisation and data integration.

Petrophysics and Well Logging.

Well Performance and Artificial Lift.

Hydrocarbon Fluid Types.

Recovery Factors and Reserves.

Classification of Reserves.

Recovery Techniques.

Scoping Studies.

Screening.

**Reservoir Model to Simulation Model
Introduction:**

- Overview of the Steps Involved in a Reservoir Study
- Overview of the Historical Developments in Reservoir Characterization
- Synergistic Approach
- Reservoir Description – Reservoir Model Generation
- Assembling a Data Base For a Simulation Model

Well Design and Completion.

**Initial Production Rate, Well Spacing
and Production Forecasting.**

- Production Strategy
- Forecasting, Surface Installations, Cost Estimation, Final Choice

Conceptual Development Plan.

**Reservoir Life Cycle and Risk
Analysis.**

**Joint Venture: Unitization and
redetermination.**

Abandonment.

An Offshore Case Study.

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