

ON IN- HOUSE BASIS Fees: Lump-Sum Fees to be agreed.

COURSE OVERVIEW

This course is intended to acquaint and guide the participants through recommended steps for selection of field development strategies, and preparation of field development plans (FDP). It shows the benefit of systematic addressing of the different steps in optimising the staff efficiency and project control. The different units of the FDP are reviewed to appreciate the amount of work to be done in each phase of the study. An economic discussion and cost estimate is included at the end to give an idea about the budgets committed to typical FDP's.

WHO SHOULD ATTEND

Management Staff, Petroleum Engineers, Reservoir simulation engineers, Geophysicists, development geologists, Petrophysicists, and Technical staff involved in Field Development Studies.

COURSE CONTENT

Introduction:

- Purpose of the FDP.
- Main items of the FDP.
- Management & control of the FDP

Reservoir features affecting the Development Strategy selection:

- Thickness of the Oil Column.
- Presence of an Initial Gas Cap.
- The Aquifer Strength.
- Rate sensitivity.
- The Geological Features:
 - Sandstone Reservoirs.
 - Carbonate Reservoirs.
 - Compartmentalisation.

Development Concept Selection:

- Naturally Fractured reservoirs.
- Undersaturated Oil Reservoirs.
 - Water Drive.
 - Gas Injection.
 - Miscible gas Injection

- Oil Rims.
- Use of Horizontal wells.
- Enhanced Oil Recovery (EOR):
 - Screening for EOR.
 - Data Gathering.
 - Pilot Studies.

Content of the FDP:

- **Summary:**
 - Study objectives.
 - Basic data, Available equipment and facilities.
 - Hydrocarbon Transportation system.
 - Engineering design and operation philosophy.
 - Manpower requirements.
 - Unitisation, Economics & Risk.
- **Petroleum Engineering:**
 - Geology and Geophysics.
 - PVT analysis.
 - Historical Production data

- Petrophysical Interpretation.
- Reserve Estimates.
- Development strategies and Performance Prediction (Res. Simulation Studies).
- Development Drilling Plan.
- Secondary Recovery, EOR.
- Predicted Production/Injection Profiles.
- Reservoir Management Policy.

- **Development Operation:**

- Production Operations.
- Drilling Operations.
- Work-over & Maintenance.
- Supply & Logistics.

- **Engineering:**

- Surface Prod. Systems.
- Civil Engineering and Facilities.
- Drilling Facilities.
- Pipelines and Terminals.
- Project Execution Plan: (bar charts, contracting, and procurement).

- **Manpower.**

- **Cost Estimates.**

Management & control of the FDP.

THE LECTURERS



Dr. O. B. Abu-elbasha



Dr. H.M. Uba

C.V. in Page 25

BRIEF RESUME OF DR. ABU-ELBASHAR

Dr. Omar Badawi Abu-elbasha has 34 years of Petroleum Industry experience, and is the Managing Director of PETRO-TEC. He is specialist in Compositional and Black-oil reservoir simulation; field development planning, and Reservoir Management.

He obtained his Ph.D. in Res. Eng. from the Petroleum Eng. Dept. Of the Imperial College, London University, in 1990, and conducted a post-doctoral research in reservoir modelling in 1991.

As a Free-lance Consultant he is now working in **Res. Management of Burgan field, Kuwait**. Prior to KOC he worked in Res. Management of **Fahood field Shell/PDO Oman**, Team leader of Simulation Studies in PETRO-ENERGY (CNPC), **President of PetroSA Local co. In Sudan** (Salima Oil), Consultant reservoir simulation Eng, GNPOC, 2004-2007, Simulation Consultant PDO Oman 2001-2003, Simulation **Consultant Soekor of South Africa**.

In 1996-1998 he joined **Shell Nigeria** as a reservoir simulation consultant working on water injection and gas injection studies. He also worked on PVT modelling, Quality Control of Simulation Input data, and trained the staff in guided FDP's.

He authored many papers in Reservoir Simulation, Modelling, & quantification of the effect of different heterogeneities on hydrocarbon recovery.