RESERVOIR ENGINEERING APPRAISAL AND DEVELOPMENT RSE003

COURSE DESCRIPTION

This is an in-depth course that is designed to provide the participants with a solid understanding of reservoir engineering and associated modern theories in order to manage and maximize hydrocarbon recovery. Hands-on examples and exercises are used throughout the course to help participants with understanding key performance concepts. Participants are encouraged to bring their own laptop computer to class.

This course will focus on practical reservoir engineering concepts, such as evaluation of reservoir behavior, analyzing fluids in place, and recovery optimization based on analysis of well performance. Material balance methods, pressure transient testing, and forecasting well and reservoir production using decline curves will be covered as well.

COURSE OBJECTIVES

By the end of this training course, participants will have:

- Deep comprehension knowledge of the application of Reservoir Engineering
- A good overview of field performance optimization and how to maximize and manage hydrocarbon recoveries.
- Learn associated modern theories which are balanced with practical things.
- Understand how to apply immediately latest techniques of Reservoir Engineering.

WHO SHOULD ATTEND

- Petroleum Engineers.
- Drilling Engineers.
- Production Engineers.
- Reservoir Engineers.
- And other disciplines engineers who desire to obtain a comprehensive knowledge of the application of reservoir engineering to optimize field performance and maximizing hydrocarbon recoveries.

COURSE DURATION

5 Working Days

COURSE OUTLINES

Day One

- Pre - exercise
- Reservoir Introduction
- Reservoir Types, Fluids and Phase Envelope
- Reservoir Rock Properties
- Darcy's Law
- Reservoir Fluid Properties

Day Two

- Sampling
- PVT
- Rock / Fluid Properties
- SCAL
- Relative permeability curves concept
- Normalization and De-normalization
- Reservoir Driving Mechanisms
- Data Collection for Reservoir Description
- Drilling Factors Affecting Reservoir

Day Three

- Reserves Estimation and R.F
- Water Influx
- A Brief Look on DCA for Reserve Estimation
- Volumetric Examples with Digitizer
- MBAL Examples
- DCA Examples with OFM / Excel
- A Brief Look on EOR

Day Four

- Fluid Flow Type, Geometry, Regime and Equation
- Oil Well Testing and Type Curve Match
- Inflow Performance - Oil Wells
- Inflow Performance - Gas Wells
- Gas Well Test
- Saphir Examples

Day Five

- Well and Field's Monitoring and Management / Development Plan