Best Technology Solutions **BTS**

Integrated Reservoir Management Techniques

Training Program

Introduction:

This course covers the basic techniques used in modern reservoir management by asset management teams. Integrated management examples for new and mature fields and for a water flooding are discussed in a workshop environment. The fundamentals of integrated reservoir management involving objective setting, planning, implementing, monitoring, evaluating, and revising will be presented. The requirements for successful operation of a reservoir throughout its entire life cycle are emphasized through concepts such as integration - merging people, technology, tools and data, synergy - multidisciplinary professionals working as a well-coordinated team, and support - company culture and organization removing barriers and fostering teamwork and integration.

Who Should Attend?

Geologists, Petrophysicists, and engineers who are using core analysis in development geology or reservoir characterization, engineers, geoscientists, field operation staff, management personnel, and others involved in various aspects of petroleum reservoir management

Course Objectives:

By the end of this course delegates will be able to:

- Better manage their assets by using proven management processes and practices, and integrate the technologies, tools, data, and activities of their multidisciplinary professionals

Course Outline:

- Reservoir management concepts
- The reservoir management process
- Reservoir life cycle and definition of reservoir management
- An integrated, interdisciplinary team effort
- Scope and objective for integrated reservoir management
- Reservoir management concepts and processes
- Data acquisition, analysis and management
- Integrated geoscience and engineering reservoir models
- Management environment
- Integrated reservoir model
- Reservoir characterization
- Petrophysical analysis
- Depositional environments and systems
- Pore system model
- Statistical analysis of production and pressure data
- Static model
- Reservoir performance analysis
- The dynamic model
- Building the dynamic reservoir model
- Calibrating the dynamic model
- Predicting performance
- Economic evaluation model
- Investment decisions
- Project selection
- Applications
- Reservoir performance analysis techniques and reserves forecasts
- Reservoir management economics- maximizing economic recovery and minimizing capital investment, risk and operating expenses
- Timing of field implementation of reservoir management plan

- Water flood: reservoir engineering aspects, surveillance techniques
- EOR processes: thermal, chemical, miscible, screening criteria and pilot study
- Reservoir management plans
- Reservoir management case studies including new fields, mature fields, waterfloods, and EOR projects