

Mature Field Management

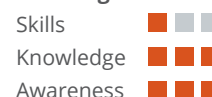
Designed for:

The course is designed for petroleum engineers, geoscientists, facilities engineers, commercial staff and other disciplines who expect to play a part in evaluating, screening and maturing oil and gas field development opportunities. The course is most effective when delivered to a mixed discipline group.

Duration (days)



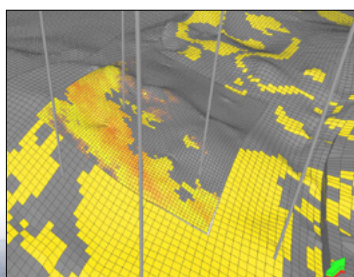
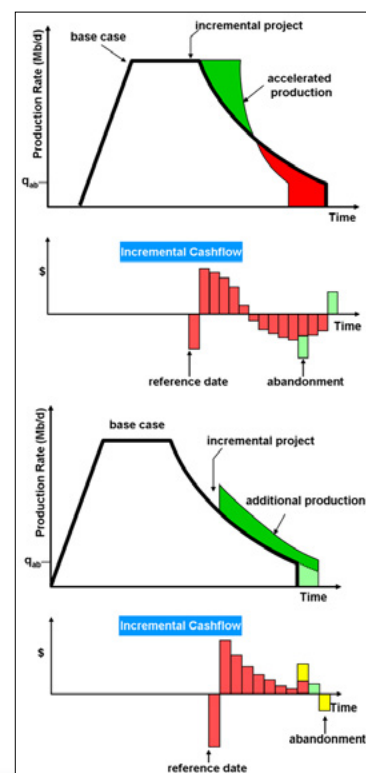
Learning Level:



The course is designed to give participants an appreciation of the evaluation and planning activities associated mature oil and gas field management.

Mature fields differ from green field developments in that major infrastructure is in place, static reservoir data has accumulated from development drilling and a growing volume of production and processing performance data has become available. Decisions therefore relate to incremental projects, which may be small in scope and are often economically marginal. A firm understanding of the technical fundamentals associated with reservoir, wells and surface facilities is therefore required to make quality decisions in this environment, supported by realistic uncertainty ranges, and consistent application of incremental project economics and risk analysis. Various strategies may be considered to manage the mature asset, from harvest to divest, and the selected incremental activities should support a clear chosen strategy.

This course takes groups through these issues, fills any knowledge gaps in the essential technical fundamentals required for mature field development planning in support of a chosen strategy. Course content follows a red-thread TRACS case study, based on real field data, and if requested, the client's specific field data can be adopted to create an asset focused event.



Early Development
E&P Overview
Reservoir
Wells

Business & Risk
Open Air
Coaching
Master Class



Mature Field Management continued

Course Content:

Contrasting approaches to green and brown field development

Overview of strategic options for mature field management

Evaluation methods

- Workflows, overview of tools

Field activity to date

- review of reservoir, wells and facilities performance
- forecasting the no further activity production profile

Managing the base production profile

Locating the remaining oil (LTRO) in the reservoir

- surveillance mapping
- reservoir modelling (analytical, numerical)

Improving reservoir recovery

- infill drilling, management of sweep efficiency
- enhanced oil recovery (EOR)

Improving well performance

- well interventions, recompletions and workovers

Identifying options to improve surface facilities performance

- debottlenecking
- flow assurance

Feeding the hopper with incremental project opportunities

Dealing with uncertainty and risk

- cost, resource and market uncertainty
- human bias in uncertainty estimation
- applying risk management tools

Economic evaluation of the incremental activity opportunities

Building production skins on to the base production profile

Making asset management decisions to support the strategy

Course Duration:

3-5 days in classroom or split into half-day sessions for virtual instructor-led training (VILT)

Courses available from this series:

E&P Overview

Introduction to Exploration and Production

E&P for Technical Support Staff

Development and Production for Commercial Staff

Prospect and Development Engineering (offshore and land versions)

Integrated Field Development Planning

Mature Field Management

The Energy Transition – Key Components

Introduction to

Hydrocarbon Exploration & Appraisal

Play Fairway Analysis

Course Tutors



Mark Bentley PhD

Main Series tutoring: Reservoir, E&P Overview, Open Air and Master Class

Industry experience: over 30 years, geoscience

Career background: Shell, AGR and TRACS

Personal: Author 'Reservoir Model Design', SPE and EAGE distinguished lecturer, AGR (Training Director), TRACS Training Director, Associate Professor Heriot-Watt University



Jerry Hadwin MSc, MEng

Main Series tutoring: Reservoir, Early Development, Open Air

Industry experience: over 35 years, reservoir engineering

Career background: Shell, TRACS, RPS Group and AGR

Personal: Coauthor "Adventure Trekking in Oman"