

## Field Development Project

Scheme Selection - Design - Schedule - Project Profitability

15 days

FDEV-EN-P

### Overview

#### LEVEL

Knowledge

#### PURPOSE

This course provides the knowledge, methodology and tools to orchestrate work and integrate contributions of engineers from all disciplines working in a project team with the purpose of devising field development schemes.

#### LEARNING OBJECTIVES

Upon completion of the course, participants will be able to:

- consolidate the fundamentals to lead a field development study,
- acquire world class methodology in Oil & Gas field development,
- assess and assemble contributions of all technical disciplines involved in mapping out a field development scheme,
- outline the design of flow-lines, processing facilities and export facilities,
- make an efficient contribution to field development multidisciplinary project teams.

#### WAYS AND MEANS

Intensive 10-day work on a full field development project, with deliverables presented to a jury in a plenary session. Coaching throughout the training by industry experts for a highly interactive learning experience. Several teamwork sessions with practical exercises. Use of several professional software programs for designing facilities and sizing equipment.

#### LEARNING ASSESSMENT

Oral presentation in front of a jury at the end of the program.

#### PREREQUISITES

Engineer diploma or equivalent experience in the Oil & Gas industry.

### Agenda

FUNDAMENTALS OF RESERVOIR, DRILLING & COMPLETION	0.5 d
WELL EFFLUENTS BEHAVIOR - NEED FOR EFFLUENT FIELD PROCESSING	0.5 d
CRUDE OIL TREATMENT	0.5 d
PRODUCTION & INJECTION WATER TREATMENT	0.5 d
GAS PROCESSING & CONDITIONING	0.5 d
SIMULATION OF OIL & GAS FIELD TREATMENT	1 d

## CASE OF OFFSHORE DEVELOPMENTS - FLOW ASSURANCE

0.25 d

## SAFETY & ENVIRONMENT

0.25 d

## PROJECT MANAGEMENT

0.5 d

## PETROLEUM ECONOMICS

0.5 d

## FIELD DEVELOPMENT PROJECT (TEAMWORK PROJECT WITH EXPERIENCED COACH)

10 d

### Deliverables:

Data collection and analysis. Identification of the technically feasible scenarios. Selection of the optimum scenario.

Design of flow-lines and study of flow assurance issues.

Design of surface processing facilities: Process Flow Diagram (PFD), operating conditions, main control loops...

Design of export pipelines and estimation of floating storage capacities.

Estimation of power requirements and consequently the fuel gas balance.

Topside layout, minimizing hazards.

Tentative schedule for the project. Cost estimation and project profitability analysis.

Contracting policy. Local content policy.

Jury: presentation of the results and comments with members of the Jury.

## PEDAGOGICAL METHODOLOGY

Team work exercise, in order to promote an efficient collaborative work.

Continuous coaching by industry experts, for a highly interactive learning.

Use of several industrial-proven software for the design of the installations and the sizing of the equipment.