

E-411

▲ **Who should attend?**

Engineers and technicians from operating or service companies not directly involved in day-to-day well completion or servicing but concerned with it (geologists, geophysicists, reservoir engineers, drillers, production and process personnel, platform designer, economists, etc.)

▲ **Duration**

5 days

▲ **Dates & Location**

February 16-20, 2009
Rueil-Malmaison (Paris)

French session: F-411

▲ **Registration**

Fees: € 1,950

Contact:
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▲ **Course Coordinator**

Denis PERRIN

Ref. **PRO / INPFE**

WELL COMPLETION AND SERVICING

OBJECTIVES

To provide a technical overview of well completion, artificial lift and well intervention.

On completion of the course, the participants:

- have a synthetic view of the different techniques,
- know what happens in the reservoir and the well,
- understand the well completion design.

COURSE CONTENT

INTRODUCTION TO WELL COMPLETION & NECESSARY FUNDAMENTALS OF RESERVOIR ENGINEERING FOR COMPLETION 0.75 day

Completion: operations involved, main phases
Geological trap, fluid and rock properties
Reservoir characterization, well testing
Fluid behavior and recovery mechanisms

NECESSARY FUNDAMENTALS OF DRILLING FOR COMPLETION 0.25 day

Drilling and casing program, casing cementing
Wellhead and safety equipment (BOP)

WELL PRODUCTIVITY & RESERVOIR - WELLBORE INTERFACE (Part 1) 1.25 days

Main factor influencing completion design
Overall approach of the well flow capacity: inflow and outflow performance
Basic RWI configurations (open hole, cased hole)
Drilling (and casing) of the pay zone: specific aspects
Problems linked to restoring the cement job
Perforating: principle, main methods

EQUIPMENT OF NATURALLY FLOWING WELLS 1 day

Functions to be carried out and corresponding pieces of equipment, main configurations of production string(s)
Technology and handling of main pieces of equipment: production well head, tubing, packer, downhole devices, subsurface safety valve
Running in hole procedure
Present trends

RESERVOIR - WELLBORE INTERFACE (Part 2) 0.75 day

Stimulation: acidizing, hydraulic fracturing
Sand control
Horizontal well specificity

ARTIFICIAL LIFT 0.50 day

Sucker rod pumping and electrical submersible pumping: principle, main components, factor to consider for design, operating problems
Continuous gas lift: principle, factor to consider for design, unloading, operating problems
Field of application

WELL SERVICING AND WORKOVER 0.50 day

Main jobs: measurement, maintenance, workover
Operations on live wells: wireline, coiled tubing, snubbing
Operations on killed wells