Well Intervention & Pressure Control - Level 2
IWCF Certification: “Well Intervention & Pressure Control” - Certified IWCF training center

**Overview**

**LEVEL**
Knowledge

**PURPOSE**
This course aims to raise the awareness of the negative impact and effect of a well control incident. To provide the required comprehensive knowledge and skills to carry out well intervention operations.

**LEARNING OBJECTIVES**
Upon completion of the course, participants will be able to:
- understand the impact and consequences of a blowout,
- know the safety barrier principles,
- understand the behavior of a producing well,
- learn the various tools used during well interventions and workovers,
- be aware of the methods used to control well pressure,
- learn procedures and equipment used in wireline, coiled tubing, snubbing, workover,
- obtain the level 2 IWCF certification on “Well Intervention”.

**WAYS AND MEANS**
PPT presentation.
Course material (PPT, PDF).
Exercise book.
Certified IWCF instructor.

**LEARNING ASSESSMENT**
Paper assessments.

**PREREQUISITES**
Basic technical knowledge of the petroleum industry.

**MORE INFO**
The certification Level 2 is mandatory for the first IWCF certification. A period of 10 days minimum is prescribed by IWCF before any registration. Validity of Level 2 certificate is 5 years.

**Agenda**

**BASIC PRINCIPLES & WELL FUNDAMENTALS**
Type of well effluents (heavy oil, oil, gas).
Hydrostatic and hydrodynamic pressures.
Specific gravities, densities, pressure gradient.
Over-balance/under-balance.
Pore pressure, frac. pressure.

PRESSURE CONTROL APPLIED TO COMPLETION & WELL INTERVENTION
Safety barriers, pressure tests.
Well calculation (pressure, volume, kill fluid, pumping time, balancing the pressure at the depth of the circulating device…).
Shut in procedures.
Kill methods (direct or reverse circulation, bull heading, lubricate and bleed…).
Specific problems linked to producing wells (losses, plugging, migration, hydrates, H₂S and CO₂ …).

COMPLETION EQUIPMENT
Different types of completion.
Downhole equipment (packers, safety valves), nipples, side pocket mandrels, tubing (sizes, grades and connections), Xmas tree…

DIFFERENT TYPES OF INTERVENTION WITH THEIR RESPECTIVE EQUIPMENT
Wire line intervention (optional)
Safety barriers and specific equipment.
Rigging up and pressure tests surface pressure control equipment.
Slick line: specific equipment (BOP, lubricator, stuffing box, cable cutter valve…).
Braided line, e-line: specific equipment (twin BOP, grease injection system, pack-off system, tool-trap, tool-catcher…).
Coiled tubing (optional)
Barriers and specific equipment (strippers, BOP…).
Rigging up and pressure tests surface pressure control equipment.
Snubbing (optional)
Barriers and specific equipment (strippers, annular BOP, stripping rams, safety rams…).
Rigging up and pressure tests surface pressure control equipment.

IWCF CERTIFICATION
Written test on Completion Equipment (compulsory).
Written test on Completion Operations (compulsory).
Written test on Wire Line operations (optional).
Written test on Coiled Tubing operations (optional).
Written test on Snubbing operations (optional).
Note: 1, 2 or 3 options has to be selected in addition to the compulsory tests.