Well Intervention & Pressure Control - Level 3 or 4
IWCF Certification: “Well Intervention & Pressure Control” - Certified IWCF training center

Overview

LEVEL
Skilled

PURPOSE
This course aims to raise the awareness of the negative impact and effect of a well control incident. To provide an understanding of well intervention and pressure control techniques with the necessary skills to plan, supervise and carry out well intervention operations.

LEARNING OBJECTIVES
Upon completion of the course, participants will be able to:
- comply with the well integrity requirements,
- know the safety barrier principles,
- understand the behavior of a producing well,
- learn the equipment of a completion,
- apply the methods used to control well pressure,
- learn procedures and equipment used in wireline, coiled tubing, snubbing, work-over,
- obtain the level 3 or 4 IWCF certification on “Well Intervention”.

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

LEARNING ASSESSMENT
Paper assessments.

PREREQUISITES
The Certification Level 2 is recommended for a first IWCF Certification.
A period of minimum 10 days is prescribed by IWCF before any registration.

MORE INFO
Course duration can be expanded to 2 weeks for a tailor-made program. Validity of level 3 or level 4 certificate is 2 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**

1.5 d

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...).
Responsibilities, decision making.

**COMPLETION EQUIPMENT**

0.5 d

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

**DIFFERENT TYPES OF INTERVENTION WITH THEIR RESPECTIVE EQUIPMENT**

2 d

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...).
Problems during the interventions, interpretation and decision (shut in).
Coiled tubing (optional)
Barriers and specific equipment (strippers, BOP...).
Rigging up and pressure tests surface pressure control equipment.
Problems during the interventions, interpretation and decision (shut in).
Snubbing (optional)
Barriers and specific equipment (strippers, BOP, stripping rams, safety rams...).
Rigging up and pressure tests surface pressure control equipment.
Problems during the interventions, interpretation and decision (shut in).

**IWCF CERTIFICATION**

0.5 d

Written test on Completion Operations (compulsory).
Written test on Completion Equipment (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 have to be selected in addition to the compulsory tests.