

Well Integrity and Well Integrity Management

This course covers the essentials of well integrity and well integrity management throughout the life of the well, from design to abandonment

This intensive five-day course is designed to provide participants with a thorough knowledge of well integrity, well-integrity management and risk assessment in producing assets.

Those attending the course will:

- Have an improved understanding of well integrity management principles and risk management processes.
- Appreciate the importance of good well design and annulus construction – and understand the well as a pressure vessel
- Gain knowledge & understanding of international standards and recommended practices used to ensure well integrity
- Establish an increased awareness of well integrity issues and how they are controlled / managed
- Gain knowledge of how to maintain well integrity equipment for safe and effective operation

COURSE CONTENT

This course is structured around the widely used International Standards Organisation (ISO) standard 16530-Part 1. This document relates to Well Integrity and Well Integrity Management for the petroleum and natural gas industries. It is in widespread use across all the major operating companies and many local and national regulatory bodies.

Day 1

- Defining well integrity
- A brief history of well integrity management
- Why well integrity matters (*Macondo case study*)
- Well integrity statistics and barrier failure examples.
- International Standards (for well integrity).
- Outline of the six well integrity life cycle phases (as defined in ISO 16530-1.)
- Overview of 'common elements to all life cycle phases' as defined in ISO 16530-1.

Day 2

- Class exercise. Identification of barrier elements and primary and secondary barrier envelope.
- Continuation of overview of 'common elements to all phases' as defined in ISO 16530-1.

Day 3

- Flow assurance – the potential impact of scale, wax, hydrates and asphaltenes on well integrity.
- Sand production and sand mitigation.
- Completion equipment.
- Well integrity considerations during the well construction phase.
- Well integrity considerations during the operational phase.

Duration

Full Days 5 Days

Learning Level

Skills ○○○
Knowledge ●●●
Awareness ●●●

Designed for:

The course is aimed at Completion and drilling engineers. Well site supervisors (drilling, completion and interventions).



Course Tutors



Howard Crumpton
40+ years – interventions and completions
Howard mainly tutors courses the Wells series. He has a career background at Otis, Camco, Thistle Well Services, Wellserv, BP, TRACS and AGR. Howard is the author of 'Well Control for Completions and Interventions'.

Day 4

- Well integrity considerations during the operational phase

Day 5

- Well integrity considerations during the operational phase
- Well Integrity During the Abandonment Phase

