

# WELL INTEGRITY MANAGEMENT



#### COURSE OVERVIEW

Well Integrity Management is critical to the safe and efficient operation of oil and gas wells throughout their lifecycle—from drilling and completion to production and abandonment. This course provides an in-depth understanding of well integrity principles, standards (API, ISO), failure mechanisms, monitoring techniques, and risk-based decision-making. Participants will learn how to design, assess, and manage well barriers, conduct diagnostics, evaluate risk, and implement integrity programs that reduce operational hazards and improve asset reliability.

# **DATES, VENUES AND FEES**



12 - 16 October 2025 - Dubai

Fees

US\$ 5000

(5 Days)

**Note:** Fee is per participant + 5% VAT (if applicable).

Groups from the same company can enjoy a discounted price.

#### WHO SHOULD ATTEND?

This course is appropriate for a wide range of professionals but not limited to:

- Drilling, production, and completion engineers
- Well integrity and intervention engineers
- Asset integrity and HSE professionals
- Well operations and maintenance personnel
- Regulatory compliance officers
- Field supervisors and wellsite managers
- Anyone involved in well design, operation, or abandonment

## **CONTACT US NOW**

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#### **ACCREDITATION**



This training course is certified by CPD.

The CPD Certification Service is the leading independent CPD accreditation institution operating across industry sectors to complement the Continuing Professional Development policies of professional institutes and academic bodies. The CPD Certification Service provides support, advice, and recognised independent CPD accreditation compatible with global CPD principles. CPD is the term used to describe the learning activities professionals engage in to develop and enhance their abilities and keep skills and knowledge up to date. CPD Units are only awarded to programmes after each programme is scrutinised to ensure integrity and quality according to CPD standards and benchmarks.

#### **COURSE CERTIFICATE**

MSTC certificate will be issued to all attendees completing a minimum of 80% of the total tuition hours of the course.

**CPD** internationally recognized certificate will be issued for all participants who will meet the course requirements. CPD certificates will be issued within a month of the successful completion of the course.

#### TRAINING METHODOLOGY

- Expert-led sessions with dynamic visual aids
- Comprehensive course manual to support practical application and reinforcement
- Interactive discussions addressing participants' real-world projects and challenges
- Insightful case studies and proven best practices to enhance learning

#### LEARNING OBJECTIVES

By the end of this course, participants should be able to:

- Understand the fundamentals of well integrity and the importance of maintaining it throughout the well lifecycle
- Identify key components of well barrier elements and evaluate their effectiveness
- Apply international standards (ISO 16530-1, API RP 90) and best practices in well integrity management
- Detect, analyze, and mitigate common well integrity issues and failure mechanisms
- Implement risk-based inspection, maintenance, and monitoring programs
- Utilize tools and techniques for pressure testing, annulus monitoring, corrosion detection, and diagnostics
- Develop and manage a comprehensive Well Integrity Management System (WIMS)



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### **COURSE OUTLINE**

#### DAY 1

#### **Fundamentals of Well Integrity**

- Pre test
- Definition and scope of well integrity
- Importance of integrity through the well lifecycle
- Well construction basics: casing, tubing, cement, barriers
- Overview of standards and regulations (API RP 90, ISO 16530-1)
- Introduction to well barrier concept and documentation
- Group discussion

#### DAY 2

#### Well Barrier Elements and Design

- Primary and secondary well barrier components
- Casing and cementing for integrity assurance
- Wellhead and tree components—function and failure points
- Barrier envelope schematics and validation
- Design principles for integrity (including HPHT and sour wells)
- Workshop

#### DAY 3

#### **Integrity Monitoring and Diagnostics**

- Annulus pressure monitoring and analysis (SAP, B-annulus)
- Integrity testing: pressure tests, inflow, mechanical testing
- Corrosion and erosion monitoring techniques
- Leak detection and acoustic logging
- Use of SCADA and digital systems for real-time monitoring
- Case exercise

#### DAY 4

#### **Risk Assessment and Remediation**

- Risk-based approach to well integrity management
- Well integrity risk matrices and criticality rankings
- Common failure mechanisms (sustained casing pressure, corrosion, gas migration)
- Remedial actions: squeeze cementing, packers, casing patches, re-completions
- Intervention planning and risk mitigation techniques
- Group activity

#### DAY 5

# Integrity Management Systems and Regulatory Compliance

- Elements of a Well Integrity Management System (WIMS)
- Roles and responsibilities, policies, workflows, and reporting
- Recordkeeping, audits, and documentation requirements
- Emergency response and incident management
- Regulatory requirements and operator responsibilities
- Course wrap-up, review, and individual action plans
- Post test



Website: www.mstcme.com

