



Oil, Gas and Chemical

Well Integrity Managementt

Course Introduction

Well Integrity management is looked at in three distinct stages. The first stage is during the well design which includes material selection, engineering design and cement design. The second stage is monitoring the well during the life of the well locating possible leaks and/or loss of metal. The last stage is to manage and control any well integrity issues using specialized products, services and techniques. This course will use case studies and projects throughout the week, along with a final presentation by small groups where participants will demonstrate the integrity concepts, methods, importance, and problems topics that were covered during the course.

Target Audience

- Well Integrity, Drilling, and Production Engineers
- Field Operators & Technicians
- HSE and Compliance Officers
- Asset Integrity Managers
- Maintenance & Inspection Teams
- Oil & Gas Consultants

Learning Objectives

- To enable participants to understand the well integrity management principles and risk management processes that have to be applied for assurance of well integrity within a hydrocarbon production environment.

- Define the building blocks of a successful well integrity management program, annulus pressure management, the equipment items, their performance standards, field data collection requirements, and methodology for data analysis
- Demonstrate the benefits of risk analysis and share methods applied across the industry • Understand the W.I Standards
- How do we “Make Wells Safer
- Learn about emerging technologies for well integrity problem diagnosis and new techniques tried for well repair
- Define the basic elements of well integrity management training for field operators
- Focus on well design elements that enhance or hinder well integrity status definition during the operating phase of the well life-cycle
- Illustrate the demonstrable benefits of well integrity management from field experience

Course Outline

- **01 Day One**

Well Integrity Management Fundamentals

- ✓ Introduction and Definitions
- ✓ Examples of Well Integrity Failures and their Consequences
- ✓ Well Integrity Management System Overview
- ✓ Management and Continual Improvement
- ✓ Regulations, Policies and Standards
- ✓ Safety Critical Elements, Barriers and Performance Standards
- ✓ Roles and Responsibilities
- ✓ Measurement, Review and Improvement

- **02 Day Two**

Risk Assessment and Control

- ✓ Quantitative and Qualitative Risk Assessment
- ✓ Frequency and Consequence Assessment
- ✓ Risk Matrix
- ✓ Failure Mode Effect and Criticality Analysis
- ✓ Fault Tree Analysis and Leak Path Diagrams
- ✓ Exercises Based on Actual Cases

Well Integrity and Production Risk Management

- ✓ Maintenance and Inspection
- ✓ Valve Standards, testing and leak rate determination
- ✓ Maintenance and Inspection
- ✓ Annulus Pressure Management
- ✓ Understanding MAASP
- ✓ MAASP Calculation
- ✓ Monitoring and Testing
- ✓ Well Operating Envelope
- ✓ Operating Procedure and Monitoring

• 03 Day Three

Well Integrity and Flow Assurance Risks

- ✓ Cement Integrity Evaluation.
- ✓ Case Histories.
- ✓ Cement Quality Assurance Enhancement.
- ✓ Remedial Actions.
- ✓ Scale and Hydrate Management Overview
- ✓ Corrosion Management Overview

- ✓ Sand and Erosion Management Overview
- ✓ Overview of Standards for Well Integrity
- ✓ Real life examples are used to illustrate the subjects.

• **04 Day Four**

Operational Well Integrity Issues & Risks

- ✓ Interventions and Workovers
- ✓ Maintaining Well Functionality
- ✓ Restoring Well Functionality
- ✓ Legislation, Roles & Responsibilities
- ✓ Well Integrity policy from different companies (Shell, Exxon Mobile, • BP...etc).
- ✓ Well Integrity forms spreadsheets (actual case & How to create).

• **05 Day Five**

Recovery, Suspension or Abandonment

- ✓ Methods
- ✓ Contingencies
- ✓ Criteria
- ✓ The importance of the Management of Information
- ✓ Competency of Well Integrity Professionals
- ✓ Exercises/Discussions on actual cases

Confirmed Sessions

FROM	TO	DURATION	FEES	LOCATION
May 19, 2025	May 23, 2025	5 days	4250.00 \$	UAE - Dubai
Sept. 8, 2025	Sept. 12, 2025	5 days	4950.00 \$	Singapore - Singapore
Dec. 15, 2025	Dec. 19, 2025	5 days	4250.00 \$	UAE - Dubai
Feb. 2, 2025	Feb. 6, 2025	5 days	4250.00 \$	Bahrain - Manama