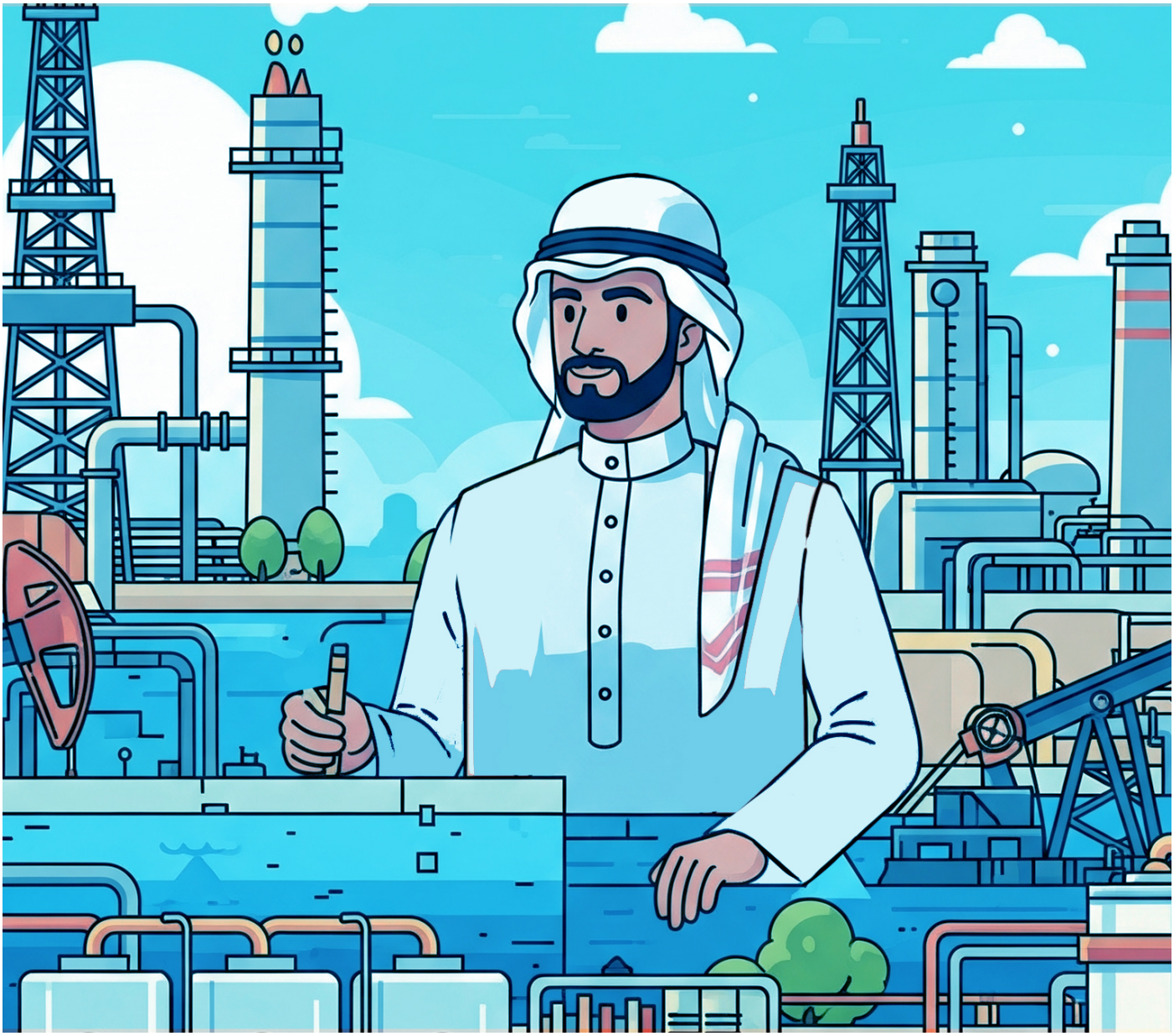
BOOST
THE LEADING TRAINING PROVIDER



Oil, Gas and Chemical

Well Integrity Management System Throughout the Well Life Cycle

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

- Process design
- Unit Operator
- Environmental
- Process safety engineer
- Gasoline blender engineer
- Lab supervisor
- Supply chain engineer
- Distillates analyst
- Models engineer
- Chemical Operator
- Chemical Plant Operator
- Chemical Process Technician
- Control Room Supervisor
- Gas Plant Process Operator
- Gas Production Operator
- Gas Terminal Operations and Storage

- Gathering Pipeline engineer
- Oil Terminal / Storage engineer
- Pipeline Maintenance / Equipment / Compliance / Repair
- Pipeline Testing / Technician / Supervisor / Safety
- Plant Equipment Operator
- Plant Operations Technician
- Plant Shutdown
- Plant Supervisor
- Power Distribution
- Power Plant Manager
- Process Supervisor
- Refinery Operations Technician / Manager
- Terminal Operator / Manager
- Utilities Operator

Learning Objectives

- 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).

Recovery, Suspension or Abandonment

- Methods
- Contingencies

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

- **05 Day Five**

Will take all that we have discussed in the first four days and provide you with an overview on

how to take the understanding of Well Integrity Management to the next level.

“Making Wells Safer”

- People
- Equipment
- Standards
- “Company Wide Implementation”
- How to establish a well integrity management system.
- WIMS Work Flow in Egypt
- Problem Solving Lab.

Confirmed Sessions

FROM	TO	DURATION	FEES	LOCATION
May 4, 2025	May 8, 2025	5 days	4250.00 $	KSA - Al Khobar
Aug. 4, 2025	Aug. 8, 2025	5 days	4950.00 $	Malaysia - kuala lumpur
Nov. 23, 2025	Nov. 27, 2025	5 days	4250.00 $	Bahrain - Manama
Jan. 27, 2025	Jan. 31, 2025	5 days	4250.00 $	UAE - Dubai