

Plugging and Abandonment of Oil & Gas Wells

INTRODUCTION

- Well Abandonment is commonly the largest area of expenditure in decommissioning oil and gas production assets and is often the area of largest cost overruns. Abandonment at end of well life provides some unique challenges to the engineer, company finances, and the regulator due to the multiple objectives of minimizing both risk to the environment and overall expenditure.
- The strategic nature of decommissioning, and particularly abandonment, has only recently been recognized, with the growing impact on Company balance sheets, personnel competency requirements, regulation and legislation now in the spotlight in many organisations. Lessons can be learnt from recent industry experience to ensure organisations are ready to manage their responsibilities and obligations effectively and to improve the industry's performance in the future.
- This training course on Plugging and Abandonment of Oil and Gas Wells has been designed by world class subject matter expert targeting Oil and Gas Operators key management, Project personnel (asset management, operations, subsea, commercial), Lead and project engineers (marine, structural, HSE, environment, structural, subsea, maintenance), Well engineers, Supply chain management personnel, Key Regulatory personnel and watchdogs, government entities, world agencies, insurance companies, and environmental and conservational groups.

This training course will highlight:

- The impact and constraints posed by legislation and regulation
- Current Good Industry Practice and how this relates to common regulatory approaches
- The importance of a structured, multi-disciplinary approach to ensure optimal cost control
- The key elements of the abandonment design process
- Typical Risks and how to manage them
- Common flaws in abandonment cost estimation and how to avoid them
- Common operational methods and new and novel technologies
- Project Management fundamentals applied to abandonment work scopes
- Opportunities for cost minimization

OBJECTIVES

- The primary objectives of this Plugging and Abandonment of Oil & Gas Wells training course are to familiarise delegates with the key challenges posed during planning and executing well abandonment and to provide sufficient knowledge to allow these to be identified and managed.

By the end of this training course, participants will learn to:

- Apply the key element of the abandonment design process
- Understand recent developments in Good Practice and regulation
- Manage the risks involved in planning abandonment
- Avoid the common pitfalls in abandonment cost estimation
- Understand the range of common abandonment methods and when they can be considered
- Identify opportunities for cost minimization

TRAINING METHODOLOGY

- This Plugging and Abandonment of Oil & Gas Wells training Course will be taught using short introductory lectures followed by classroom discussion and debate to draw out key learning points and ensure the application of fundamentals is well understood. The tutor will use a number of real and imaginary examples to illustrate the key points and the potential impact of both good and poor management. Coverage of each area will include a tutorial exercise which may be undertaken individually or in small groups. The answers and conclusions drawn will be discussed and compared to illustrate the impact of varying approaches.

ORGANISATIONAL IMPACT

- The strategic importance for oil and gas asset operators of managing future decommissioning and well abandonment liabilities is often overlooked. In addition, appropriate management of future environmental risks is growing in importance. Participants will be able to knowledgeably contribute to delivering effective financial, technical and environmental management of abandonment obligations to the benefit of their organization, whether it be Regulator, Operator, Supplier, or Stakeholder.
- Contribute to the Strategic planning of Well abandonment including the Operator – Regulator interface
- Contribute to the timely and effective identification and estimation of future financial liabilities associated with well abandonment
- Lead the development and implementation of good engineering and project management practices within the organization
- Maximise the opportunities for cost reduction on forthcoming projects

PERSONAL IMPACT

- Carry out their roles in the abandonment sector more effectively
- Demonstrate technical and project execution competency
- Position themselves for participation and increased responsibility in a growing sector
- Lead the development and implementation of Good Practices within their organisation

WHO SHOULD ATTEND?

- All individuals involved in abandonment planning, cost provisioning or execution management who wish to improve or optimize their contribution to the well abandonment process will benefit from this course.

This training course is suitable to a wide range of professionals but will greatly benefit:

- Well Engineers
- Team Leaders and Managers responsible for abandonment design
- Project Execution Engineers
- Team Leaders and Managers responsible for delivering well abandonment work scopes
- Regulator and Government Agency Personnel responsible for policy and implementation
- Finance and Technical Cost Estimators responsible for identifying and managing future decommissioning liabilities
- Public Stakeholder Representatives wishing to understand the challenges of well abandonment and the options available to manage them

Course Outline

Introduction and Current Industry Practices

- The Objectives of Well Abandonment
- The Impact of Prescriptive and Goal-Oriented Regulation
- Current Good Practice and Internationally adopted Guidelines
- Industry Performance to Date
- Public Perception and Reputation Management
- Common Abandonment Methods

Abandonment Design Process and Management of Risk

- The Importance of Geological Assessment
- The Impact of Well Architecture and Current Condition
- The Ideal Data Set
- Typical Abandonment Risks
- Risk Management and the Importance of Known Unknowns

Equipment and Services

- Rig and Services Requirements
- Barrier Material Options
- Rigless Alternatives
- Novel Methods
- New and Novel Technologies

Well Abandonment Cost Estimation Good Practices

- Types of Estimate and their Limitations
- Classes of Estimate and their Application
- Basis of Estimate
- Causes of cost Overrun
- Deterministic vs. Probabilistic Estimates
- Financial Provision options and their Implications

Execution Good Practices and Cost Reduction Opportunities

- Good Practices in Project Planning
- Operations Management
- Campaigning
- Scheduling and simultaneous Operations
- Options for Contracting Strategy