

# OFFSHORE WELL ABANDONMENT TRAINING

Plug, Abandonment and Decommissioning

3 Days Kuala Lumpur

THE TRAINING
WAS VERY
MUCH TO OUR
EXPECTATIONS

MAERSK DRILLING, COPENHAGEN

## **Program Overview**

As the number of ageing fields in Malaysia increases, the plugging and abandonment (P&A) of wells become a critical activity that carries major liability to operators and regulators. Experience in other parts of the world indicates that wells can make up over 50% of the overall field decommissioning costs. The need for competent technical staff trained in planning, managing and executing P&A has never been higher especially as well abandonment activities are at its early stage in Malaysia with operators having minimal experience.

This in-depth training course will cover the complete topic of well decommissioning, including P&A methodologies, industry guidelines and regulations, and current best practices. Attendees will learn the basic principles of well P&A to effectively manage the risks and uncertainties associated with well decommissioning whilst also developing good planning practices and effective cost control.

This course is brought to you by Pace Up Training Academy and Well Experts Services (WES) in collaboration with Well Decom Ltd., a trusted advisor on decommissioning and P&A in the UK with over 10 years' experience in well decommissioning and related training.

## Who Should Attend?

- ▶ Well P&A Engineers
- ▶ Drilling Engineers
- ► Asset Owners and Regulators
- Superintendents
- ▶ Wellsite Supervisors
- ▶ Petroleum Engineers
- ► Completions Engineers
- ► Engineering Managers
- ► Environmental Managers
- ► Government Regulators

# **Key Benefits**

- ► Highly interactive learning approach
- ► A clear understanding of the P&A issues and challenges
- ▶ All delegates will receive comprehensive course documentation for use during and after the course
- ► Hands-on case studies and insights from the trainer's extensive experience
- Open discussion to further engage and share best practices
- A certificate will be issued by the trainer

# Course Methodology

- ▶ Interactive lectures
- ▶ Group Dynamics
- ▶ Workshop style
- ▶ Case studies
- ▶ Q&A

# Learning Objectives

#### Participants will:

- ▶ Become familiar with industry guidelines and the regulation of well decommissioning activities.
- ▶ Develop a practical appreciation of P&A objectives, operational phases and well status classifications.
- ► Consider a wide range of well structures (casing and completions) and the equipment required to access the well and execute P&A operations.
- ► Solve common P&A challenges through an understanding of the P&A process for a range of well types.
- Review P&A design and cost estimation processes including the identification, characterisation and management of risk.
- ▶ Discuss project optimization and current trends in 'best practice' to improve the efficiency of P&A projects.



# **COURSE OUTLINE**





## DAY 1

## BASIC UNDERSTANDING OF WELL PLUGGING & ABANDONMENT (P&A)

- ▶ Introductions and Course Administration
- ▶ Background and historical Context to P&A
- ▶ Introduction to P&A Challenges
  - Drivers and challenges
  - Services and technologies
  - Activity levels and Industry wide costs
- ▶ Well Integrity
  - Barrier Policy and verification
  - Completion types
  - Well barrier elements
- ▶ Primary Cementing
  - Criteria for successful cementing
  - Cement evaluation
- ▶ New Techniques and Technologies
  - Technique versus technology
  - Current areas of research
  - New technology risk versus reward

#### DAY 2

#### PLANNING FOR WELL DECOMMISSIONING

- ▶ Preparation for Well Decommissioning
  - Timing and lead times
  - Well files and data issues
  - · Scenario planning
- ▶ Cement and Casing Evaluation Techniques:
  - Calliper, temperature, tracer, noise and production logging
  - Cement Bond / Variable Density Log (CBL/VDL)
  - Ultra-Sonic Imager Tool (USIT)
  - Isolation Scanner Tool (IST)
- ▶ Remedial Cementing and Specialty Cements
  - Cement circulating and squeezing
  - Speciality cements and alternatives



# **COURSE OUTLINE**





#### LONG-TERM WELL INTEGRITY

- ▶ Well abandonment Overview
  - Objectives
  - Minimum technical requirements
- ▶ Well-Abandonment Regulations, Guidelines and Standards
  - Government Regulation
  - Industry Guidelines
  - Company Standards
- ► Gas Migration and Leakage
  - Cement performance
  - Long term integrity issues
  - Leak detection and remediation

## DAY<sub>3</sub>

#### **TOOLS AND TECHNIQUES**

- ► Common abandonment methods
  - Perforating
  - Casing Cutters—Explosive, Chemical and Mechanical
  - Fishing Tools and Fishing Operations
  - · Section Milling and under-reaming
- ▶ Well Types and approaches
  - Well status and data management
  - Platform wells
  - Subsea wells
  - Risk management

#### **BEST PRACTICES**

- ▶ Lessons Learned from North Sea
  - Early decommissioning experience
  - Developing practices
- ► Review of Best Practices
  - Facilitated Group Discussion on Best Practice in well decommissioning
- ► Current trends in Well-Abandonment Legislation, Regulations and Guidelines
  - Insights into Regulator thinking and drivers
  - · Corporate policies and standards
- ▶ Best Practices: Group P&A Exercise



## YOUR EXPERT TRAINER







#### STEVE JEWELL

Steve Jewell is currently Managing Director of Well Decom Ltd, a UK based decommissioning advisory and training consultancy.

Steve's expertise is in all aspects of Well Construction (drilling, completions, workovers and abandonment) and Subsurface (geoscience, reservoir engineering, production engineering). He has spent over 10 years working on various decommissioning projects across the world focusing on the largest single element of cost: the plugging and abandonment of wells. This experience has covered actual field decommissioning projects, P&A planning, new technology, decommissioning deferment justifications, mature field asset trading and training for both engineers and non-technical staff.

Over the last 3 years Steve has developed and delivered two distinct well decommissioning courses which have been provided in the UK and Danish sectors of the North Sea for a variety of field operators, service companies and governmental organisations.

Steve is a UK Chartered Engineer (CEng) and a Fellow of the Institute of Materials, Mining and Minerals (FIMMM). He is also registered as a European Engineer (Eurlng) and is a member of both the Institute of Directors (MIoD) and the international Society of Petroleum Engineers.

#### **COMMENT AND REVIEW**

"Course was excellent and delivered at a good pace. Steve was engaging and able to answer all questions posed by our team."

Scottish Enterprise, Aberdeen

"'An engaging presenter, plenty of opportunities for questions and discussions. I feel much more informed on well decommissioning."

Scottish Enterprise, Aberdeen

"Highly knowledgeable instructors and interesting discussions. Engaging presentations."

CNR International, Aberdeen

"The Seminar was very much to our expectations and I have only had positive feedback from the participants."

Maersk Drilling, Copenhagen

