Operations Using Coiled Tubing

Technical, Design, and Implementation Difficulties

Introduction

The process of inserting a reel of continuous tubing into a well while it is still under pressure is known as coiled tubing. Equipment for coiled tubing is modular and portable, despite the fact that contemporary reels can support heavy loads and provide rapid setup times.

Rather than the TVD, the maximum working depth of coiled tubing is typically dictated by the quantity of tubing that can be spooled onto a reel. Since gravity is needed to keep the tubing travelling down the well-bore, highly deviated wells can lead to issues with coiled tubing, just like wireline. With the use of downhole "tractors," which remove the coiled tubing from the bottom, this can now be partially resolved. Numerous tasks, including nitrogen lifting wells, cleanup procedures, spotting acid at perforations, fishing activities, spotting cement, and PLT, can be accomplished with coiled tubing.

This training session on Course N Carry will emphasise:

- Equipment for coiled tubing
- Well control apparatus
- Use of coiled tubing
- Workplace layout
- Techniques for acidification and stimulation

Objectives

After completing this training programme, individuals will be able to:

- Oversee and carry out interventions using coiled tubing.
- Boost overall efficiency of operations while using coiled tubing interventions
- Choose the downhole tools that are most frequently used and describe their purpose.
- Utilise liquid nitrogen safely.

Training Methodology

Properly produced slides, together with some animation on pertinent subjects, will be used to provide this training course on wire line operations and practices. Each attendee

will receive an electronic form in PDF format or a printed handbook with all the slides. Pre- and post-assessment tests on relevant topics are also included in the teaching approaches.

Organizational impacts

The following will benefit the organisation (directly and indirectly):

- Workers with training exhibit higher levels of motivation and confidence.
- Lower production costs: Because skilled workers can produce superior results, there are no hazards.
- Decreased labour turnover can be attributed to a sense of security that is brought to the workplace.
- Employee participation in the transformation process is known as change management.

Personal Imapct

Employees will benefit from the following:

- Oversee and carry out interventions using coiled tubing.
- Boost overall efficiency of operations while using coiled tubing interventions
- Choose the downhole tools that are most frequently used and describe their purpose.
- Utilise liquid nitrogen safely.

Who should attend?

Those working in well intervention and production optimisation are the target audience for this training course:

- Technologists in production
- Engineers in production
- Engineers for operations
- Technicians in the field
- Engineers for reservoirs

Course Outline

Day 1

Equipment for Coiled Tubing

- Services for Coiled Tubing
- Equipment for Coiled Tubing
- Surface CT Technology

- Downhole Instrumentation

Day 2

Well Control Devices

- Theory of barriers
- Barriers that are primary, secondary, and tertiary
- BOP categories
- Strippers
- Flange and riser connectors

Day 3

Use of Coiled Tubing

- String and Pipe Management in CT
- Obtaining Data
- Depth Management
- CT Utilisation
- CT-Based Matrix Stimulation
- CT Recording
- Nitrogen

Day 4

Workplace Design

- Overview of Work Design
- Operational and Safety Standards
- Risk Analysis in Job Design
- Tools for Downhole Diving

Day 5

Methods of Stimulation and Acidization

- Mechanisms of damage
- The chemical composition of carbonate acidification
- Design of acid treatment for carbonate
- Choosing the right fluid to carbonate and acidize

- Acidizing sandstone chemistry
- Design of acid treatment for sandstone
- Choice of fluids for acidizing sandstone
- The purposes of the acidizing additives

Shams Business Center, Sharjah Media City Free Zone, Al Messaned, Sharjah, UAE PO Box: 49638 **Tel: +971 55 323 6764** **Fax: +971 55 323 6764** **E-Mail: subhashini@itrobes.com**