

TRAINING TITLE

Advanced Casing & Cementing Operations

Training Duration

5 days

Training Venue and Dates

DE0028	Advanced Casing & Cementing Operations	5	12 - 16 August 2024	\$6,500	London, United Kingdom
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In any of the 5-star hotels. The exact venue will be informed later.

Training Fees

US\$6,500 per participant for Public Training includes Materials/Handouts, tea/coffee breaks, refreshments & Buffet Lunch

Training Certificate

Define Management Consultants Certificate of course completion will be issued to all attendees.

TRAINING WORKSHOP DESCRIPTION

Cementing is a fundamental element of effective well construction. By understanding cement chemistry, additive use, and lab procedures the participants will be able to build a solid foundation to design and execute cement jobs. Mud removal and centralization will be taught so that the participants can apply effective processes to ensure cement job success.

Special purpose cements will be discussed in a way to show when they should and should not be used, as well as how they can be used to solve challenges encountered in complex and extreme well environments. Foamed, engineered particle sized, flexible, and salt cements will also be covered in detail.

During this course, participants will practice cementing calculations, as well as job design exercises and cement evaluation methods using real-life examples. Liner cementing and stage cementing jobs will be developed in the classroom. Cement design software will also be demonstrated.

This course builds a firm foundation in the principles and practices of designing, planning and conducting successful casing and cement jobs. The course uses a process-based perspective that takes participants from initial casing depth and size selection, casing and liner design procedures, casing running practices, and planning and executing primary cementing through remedial cementing and plugging operations. In addition to the necessary technical information and

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procedures, the course is laced with considerable practical, experience-based content.

TRAINING OBJECTIVES:

Upon successful completion of this course, the delegates will be able to:

- Acquire Basic Knowledge on casing and cementing operations.
- Know the different applications of casing and cement in oil industry.
- Apply and get familiar with casing design and cement.
- Understand the different equipment using for casing operations and cementing operations.
- Cope with new technology and equipment used with cementing and casing
- Be aware of the precautionary check lists & procedures and quality control during design, execution & evaluation
- Selection of casing sizes and setting depths to achieve well objectives
- Determination of casing loads for design purposes
- To design casing properties to meet burst, collapse, and tensile strength requirements
- To conduct casing running operations safely and successfully
- Specification of cement slurry properties and volumes to meet well objectives
- Determination of best procedures for attaining successful primary cementing
- To conduct stage jobs, squeeze jobs, and set cement plugs
- Demonstrate Operational Knowledge and understanding on how to use cementing additives properly to improve and reduce job costs
- Demonstrate Operational Knowledge and understanding on how cements are classified.
- Demonstrate Operational Knowledge and understanding on how to Interpret laboratory test results
- Ability to perform primary cementing operations to include: casing cementing, liner cementing, multi-stage cementing
- Ability to conduct remedial squeeze jobs and selection of squeeze tools
- Ability to Perform remedial cementing plug operations to improve overall job success
- Ability to Perform the overall cementing operation i.e. perform primary and remedial cementing operations to include: casing cementing, liner cementing, multi-stage
- cementing, plug cementing, the use of cementing additives properly to improve and reduce job costs, interpret laboratory test results, Conduct squeeze
- jobs and selection of squeeze tools.
- Ability to Perform cement plug operations to improve overall job success and Interpret cement sheath evaluation logs, all under minimum supervision.

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- Demonstrate operational knowledge and understanding on how to calculate cement slurry volumes the following types of casing jobs Primary Casing, Intermediate Casing, Production casing and Liners know how to calculate differential pressure to bump the cement plug and to calculate displacement volumes.
- Demonstrate Operational Knowledge and understanding on how identify cementing float equipment.
- Selection of casing sizes and setting depths to achieve well objectives
- To conduct casing running operations safely and successfully
- Specification of cement slurry properties and volumes to meet well objectives
- Determination of best procedures for attaining successful primary cementing
- To conduct stage jobs, squeeze jobs, and set cement plugs, liner cementing and stage cementing jobs
- Acquire Basic Knowledge on cementing operations.
- Know the different applications of cement in oil industry
- Apply and get familiar with cementing design
- Understand the different equipment using for cementing operations.
- Get familiar with the remedial cementing technology
- Cope with new technology and equipment used with cementing and casing
- Be aware of the precautionary check lists & procedures and quality control during design, execution & evaluation.

WHO SHOULD ATTEND?

- Drilling Engineers
- Well Engineers
- Cementing Engineers
- Well Site Supervisors
- Operations Managers

TRAINING METHODOLOGY

This course combines sound engineering, operation and maintenance principles, applicable standards, and best industry practices for reliable and cost-effective process plant systems. Delegates will be encouraged to introduce problems of their own for discussion and analysis. Copies of all lecture materials, case studies, and workbooks will be provided. Group discussions will be carried out on problems faced. This training program is lecture-based and customized to the needs of the audience, providing a meaningful experience for personnel who work in petroleum plants. Daily sessions include formal presentations, prepared in PowerPoint, interspersed with directed discussions and case studies. In addition to formal lectures and discussions, the delegates will learn by active participation through the

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use of problem-solving exercises, group discussions, analysis of real-life case studies, etc. Many relevant videos will be shown during the training.

All attendees receive a course manual as a reference.

- 30% Lectures
- 30% Workshops and work presentation
- 20% Group Work& Practical Exercises
- 20% Videos& General Discussions

Course Program

Day-1

Pre-test

- Introduction to oil and gas industry
- Function of casing
- Casing types
- Casing design
- Casing running operations
- Running different size of casing

Day-2

- Casing evaluation after cement job
- Casing problems and remedial action
- Case studies and applications
- Work shop and practical exercise
- Introduction to cement technology
- Cement equipment
- Cement design

Day-3

- Cement operations for different casing size
- Cement evaluation
- CBL /GR/CCL LOG
- CET/GR/CCL LOG
- USIT/ GR LOG
- Type of cement technique

Day-4

- Two stage of cement operating
- HPHT Cement operations
- Cement chemical eddies
- Cement problems and remedial action
- Case studies and applications

Day-5

- Remedial squeeze cement job

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- Plug and appending
- Plug back cement
- Safety precaution HSEQ
- Exercise and workshop

Case studies and applications Exercise and workshops, assessments

NOTE:

Pre & Post Tests will be conducted.

Case Studies, Group Exercises, Group Discussions, Last Day Review, and assessments will be carried out.

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