

COURSE OVERVIEW DE0477 Well Completion & Workover

Course Title

Well Completion & Workover

Course Date/Venue

September 30-October 04, 2024/TBA Meeting Room, The Hotel, Dubai, UAE

Course Reference

DE0477

Course Duration/Credits

Five days/3.0 CEUs/30 PDHs



Course Description



This practical and highly-interactive course includes real-life case studies and exercises where participants will be engaged in a series of interactive small groups and class workshops.



Learn the role of engineers and field operators in planning and executing workover operations. This course provides in-depth information on the impact of workovers and completion design in maximizing field production and increasing recoverable reserves. The course also emphasizes the importance of a team concept as a determining factor in operations success. Attendees will gain a greater understanding of how to apply advanced technologies to designing and executing workover jobs, and how to select the best operations method to perform the task in the safest, most efficient manner.



Further, the course will also discuss the analysis of equipment used in well completion and workover operations; the key components of a well, structure, components and functionality of both surface and subsea christmas trees; the safety standards and protocols and the impact of recent technological advancements on completion design and operation; the factors influencing the selection of completion methods and equipment; the completion fluids and techniques; and the artificial lift systems.

During this interactive course, participants will learn the perforation techniques and sand control solutions; the role of engineers and operators in workover operations; the reasons for conducting workovers including production enhancement and well integrity; the well intervention techniques and planning workover jobs; the modern tools and techniques in workovers; the well control fundamentals, pressure control equipment and stacks; the methods for well killing, handling well blowouts and high-pressure high-temperature (HPHT) wells; maximizing field production through effective workovers; integrating team efforts for operational success; the cost management in workovers; and the future trends in well completion and workover.

Course Objectives

Upon the successful completion of this course, each participant will be able to:-

- Apply and gain an in-depth knowledge on well completion and workover
- Identify surface and subsurface well equipment
- Identify and describe function and configuration of the key christmas tree and well completion components
- Carryout work-over and techniques and methods for well control and well killing with associated pressure control equipment and stacks
- Analyze the equipment used in well completion and workover operations
- Identify the components of a well and function of tubing, casing packers, and other downhole tools
- Discuss the structure, components and functionality of both surface and subsea christmas trees
- Apply essential safety measures and compliance in well operations
- Understand the impact of recent technological advancements on completion design and operation
- Recognize the factors influencing the selection of completion methods and equipment
- Identify the types of completion fluids used and their impact on well integrity and productivity
- Apply proper methods of artificial lift systems, perforation techniques and sand control solutions in well operations
- Recognize the role of engineers and operators in workover operations as well as the reasons for conducting workovers including production enhancement and well integrity
- Carryout well intervention techniques and the steps in planning workover jobs including risk assessment and mitigation strategies
- Use advanced tools and techniques for efficient and safe workovers
- Discuss the principles and practices for maintaining well control as well as identify pressure control equipment and stacks

- Carryout methods for well killing and techniques used to control and manage unexpected pressure surges
- Handle well blowouts and apply emergency response strategies and containment and special considerations and techniques on high-pressure high-temperature (HPHT) wells
- Maximize field production through effective workovers and integrate team efforts for operational success
- Balance cost management in workovers and discuss future trends in well completion and workover

Exclusive Smart Training Kit - H-STK®



Participants of this course will receive the exclusive “Haward Smart Training Kit” (H-STK®). The H-STK® consists of a comprehensive set of technical content which includes **electronic version** of the course materials, sample video clips of the instructor’s actual lectures & practical sessions during the course conveniently saved in a **Tablet PC**.

Who Should Attend

This course provides an overview of all significant aspects and considerations of well completion and workover for drilling, reservoir, well, production, completion and petroleum engineers, supervisors and geologists who need a practical understanding and appreciation of completion design will definitely benefit from this course.

Training Methodology

All our Courses are including **Hands-on Practical Sessions** using equipment, State-of-the-Art Simulators, Drawings, Case Studies, Videos and Exercises. The courses include the following training methodologies as a percentage of the total tuition hours:-

- 30% Lectures
- 20% Practical Workshops & Work Presentations
- 30% Hands-on Practical Exercises & Case Studies
- 20% Simulators (Hardware & Software) & Videos

In an unlikely event, the course instructor may modify the above training methodology before or during the course for technical reasons.

Course Fee

US\$ 8,500 per Delegate. This rate includes H-STK® (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

Accommodation

Accommodation is not included in the course fees. However, any accommodation required can be arranged at the time of booking.

Course Certificate(s)

Internationally recognized certificates will be issued to all participants of the course who completed a minimum of 80% of the total tuition hours.

Certificate Accreditations

Certificates are accredited by the following international accreditation organizations: -


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The International Accreditors for Continuing Education and Training (IACET - USA)

Haward Technology is an Authorized Training Provider by the International Accreditors for Continuing Education and Training (IACET), 2201 Cooperative Way, Suite 600, Herndon, VA 20171, USA. In obtaining this authority, Haward Technology has demonstrated that it complies with the **ANSI/IACET 2018-1 Standard** which is widely recognized as the standard of good practice internationally. As a result of our Authorized Provider membership status, Haward Technology is authorized to offer IACET CEUs for its programs that qualify under the **ANSI/IACET 2018-1 Standard**.

Haward Technology’s courses meet the professional certification and continuing education requirements for participants seeking **Continuing Education Units (CEUs)** in accordance with the rules & regulations of the International Accreditors for Continuing Education & Training (IACET). IACET is an international authority that evaluates programs according to strict, research-based criteria and guidelines. The CEU is an internationally accepted uniform unit of measurement in qualified courses of continuing education.

Haward Technology Middle East will award **3.0 CEUs** (Continuing Education Units) or **30 PDHs** (Professional Development Hours) for participants who completed the total tuition hours of this program. One CEU is equivalent to ten Professional Development Hours (PDHs) or ten contact hours of the participation in and completion of Haward Technology programs. A permanent record of a participant’s involvement and awarding of CEU will be maintained by Haward Technology. Haward Technology will provide a copy of the participant’s CEU and PDH Transcript of Records upon request.

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British Accreditation Council (BAC)

Haward Technology is accredited by the **British Accreditation Council** for **Independent Further and Higher Education** as an **International Centre**. BAC is the British accrediting body responsible for setting standards within independent further and higher education sector in the UK and overseas. As a BAC-accredited international centre, Haward Technology meets all of the international higher education criteria and standards set by BAC.

Course Instructor(s)

This course will be conducted by the following instructor(s). However, we have the right to change the course instructor(s) prior to the course date and inform participants accordingly:



Dr. John Petrus, PhD, MSc, BSc, is a **Senior Reservoir Engineer & Geologist** with over **30 years of onshore & offshore** experience within the **Oil & Gas, Refinery and Petroleum** industries. His wide experience covers in the areas of **Production Technology & Engineering, Well Completions, Well Logs, Well Stimulation & Production Logging, Well Completion Design & Operation, Well Surveillance, Well Testing, Well Stimulation & Control and Workover Planning, Completions & Workover, Hole Cleaning & Logging, Servicing and Work-Over Operations, Wellhead Operations, Maintenance & Testing, Petrophysics/Interpretation of Well Composite, Reservoir & Tubing Performance, Practical Reservoir Engineering, Clastic Exploration & Reservoir Sedimentology, Carbonate Reservoir Characterization & Modeling,**

Seismic Interpretation, Mapping & Reservoir Modelling, Reservoir Geology, Integrating Geoscience into Carbonate Reservoir Management, Faulted & Fractured Reservoirs, Fractured Hydrocarbon Reservoirs, Analyses, Characterisation & Modelling of Fractured Reservoirs & Prospects, Fracture Reservoir Modeling Using Petrel, Reservoir Engineering Applied Research, Artificial Lift, Artificial Lift System Selection & Design, Electrical Submersible Pumps (ESP), Enhance Oil Recovery (EOR), Hydraulic Fracturing, Sand Control Techniques, Perforating Methods & Design, Perforating Operations, Petroleum Exploration & Production, Hydrocarbon Exploration & Production, Exploration & Production, Play Assessment & Prospect Evaluation, Formation Evaluation, Petroleum Engineering Practices, Petroleum Hydrogeology & Hydrodynamics, Project Uncertainty, Decision Analysis & Risk Management, Decision Analysis & Uncertainty Management, Exploration & Development Geology, Sedimentology & Sequence Stratigraphy, Structural Interpretation in Exploration & Development, Petrel Geology, Geomodeling, Structural Geology, Applied Structural Geology in Hydrocarbon Exploration, Petrophysics, Geology of the Oil & Gas Field, Geophysics, Geothermal, Geochemical & Geo-Engineering and Drilling Applied Research, Field Geological Outcrop Mapping & Digital Cartography, Geological Modelling, Geoscience Management in E&P, Geoscience Modelling, Geological Mapping, Structural Geology-Tectonics, Structural Analysis, Tectonic Modelling and Numerical Simulation of Fractured Prospects & Reservoirs, Fracture Network Analysis & Modelling, Prospect Generation, Global Networking, Research and Technology Development Management for Fault & Fracture Analyses & Modelling, Fracture Modelling, Dynamic Modelling, Field Development Planning, Water Injection Planning, Stereophotogrammetry, Fault Mapping, GPS Survey, 2D & 3D Seismic Acquisition & Processing, 3D Seismic Surveys & Mapping, 3D GIS, GMAP, Sandbox Modelling, Sedimentological Logging, GR Logging, Surface & Subsurface 3D Modelling, Best Practices Management System (BPMS), Subsurface Work for Energy Projects, Digitalization Projects, Structural Model using Petrel, G&G Seismic & Well Data Modelling, GIS System Management, Database Management, Strategic Planning, Best Practices and Workflow, Quality Management, Project Management and Risk Assessment & Uncertainty Evaluation. Further, he is also well-versed in **seismic interpretation, mapping & reservoir modelling tools like **Petrel** software, **LandMark, Seisworks, Geoframe, Zmap** and has extensive knowledge in **MSDos, Unix, AutoCAD, MAP, Overlay, Quicksurf, 3DStudio, Esri ArcGIS, Visual Lisp, Fortran-77** and **Clipper**. Moreover, he is a world **expert in analysis and modelling of fractured prospects and reservoirs** and a **specialist and developer of fracture modelling software tools** such as **FPDM, FMX and DMX** Protocols.**

During his career life, Dr. Petrus held significant positions and dedication as the **Executive Director, Senior Geoscience Advisor, Exploration Manager, Project Manager, Manager, Chief Geologist, Chief of Exploration, Chief of Geoscience, Senior Geosciences Engineer, Senior Explorationist, Senior Geologist, Geologist, Senior Geoscientist, Geomodeller, Geoscientist, CPR Editor, Resources Auditor, Project Leader, Technical Leader, Team Leader, Scientific Researcher and Senior Instructor/Trainer** from various international companies and universities such as the **Dragon Oil Holding Plc., ENOC, MENA, ENI Group of Companies, Ocre Geoscience Services (OGS), Burren RPL, Ministry of Oil-Iraq, Eni Corporate University, Stanford University, European Universities, European Research Institutes, NorskHydro Oil Company, Oil E&P Companies**, just to name a few.

Dr. Petrus has a **PhD in Geology and Tectonophysics** and **Master's and Bachelor's degree in Earth Sciences** from the **Utrecht University, The Netherlands**. Further, he is a **Certified Instructor/Trainer, a Certified Trainer/Assessor/Internal Verifier** by the **Institute of Leadership & Management (ILM)**, a **Secretary and Treasurer** of Board of Directors of **Multicultural Centre, Association Steunfonds SSH/SSR** and **Founding Member** of **Sfera Association**. He has further published several scientific publications, journals, research papers and books and delivered numerous trainings, workshops, courses, seminars and conferences internationally.

Course Program

The following program is planned for this course. However, the course instructor(s) may modify this program before or during the workshop for technical reasons with no prior notice to participants. Nevertheless, the course objectives will always be met:

Day 1: Monday, 30th of September 2024

0730 – 0800	Registration & Coffee
0800 – 0815	Welcome & Introduction
0815 – 0830	PRE-TEST
0845 – 0915	Introduction to Well Completions & Workovers: Understanding the Course Scope, Objectives & Participant Roles
0930 – 0945	Break
0945 – 1030	Overview of Surface & Subsurface Well Equipment: Detailed Analysis of Equipment Used in Well Completion & Workover Operations
1030 – 1115	Key Components of a Well: Identification & Function of Tubing, Casing, Packers & other Downhole Tools
1115 – 1230	Introduction to the Christmas Tree: Structure, Components & Functionality of Both Surface & Subsea Christmas Trees
1230 – 1245	Break
1245 – 1330	Safety Standards & Protocols: Essential Safety Measures & Compliance in Well Operations
1330 – 1420	Technology in Well Completions: The Impact of Recent Technological Advancements on Completion Design & Operation
1420 – 1430	Recap
1430	Lunch & End of Day One

Day 2: Tuesday, 01st of October 2024

0730 – 0930	Designing Well Completions: Factors Influencing the Selection of Completion Methods & Equipment
0930 – 0945	Break
0945 – 1030	Completion Fluids & Techniques: Types of Fluids Used & their Impact on Well Integrity & Productivity
1030 – 1100	Artificial Lift Systems: Overview of Methods Like ESP (Electric Submersible Pumps) & Gas Lift
1100 – 1230	Perforation Techniques: Methods & Considerations for Effective Well Perforation
1230 – 1245	Break
1245 – 1330	Sand Control Solutions: Approaches to Prevent Sand Production in Well Operations
1330 – 1420	Interactive Case Study: Designing a Completion Operation: Applying Learned Concepts to a Hypothetical Scenario
1420 – 1430	Recap
1430	Lunch & End of Day Two

Day 3: Wednesday, 02nd of October 2024

0730 – 0930	Role of Engineers & Operators in Workover Operations: Exploring Team Dynamics & Responsibilities
0930 – 0945	Break
0945 – 1030	Objectives of Workovers: Reasons for Conducting Workovers, including Production Enhancement & Well Integrity
1030 – 1100	Well Intervention Techniques: Coil Tubing, Snubbing & Wireline Interventions
1100 – 1230	Planning Workover Jobs: Steps in Planning, including Risk Assessment & Mitigation Strategies
1230 – 1245	Break
1245 – 1330	Advanced Technologies in Workover: Modern Tools & Techniques for Efficient & Safe Workovers
1330 – 1420	Simulation Exercise: Workover Operation: Practical Simulation Involving Team Participants
1420 – 1430	Recap
1430	Lunch & End of Day Three

Day 4: Thursday, 03rd of October 2024

0730 – 0930	Well Control Fundamentals: Principles & Practices for Maintaining Control of the Well at all Times
0930 – 0945	Break
0945 – 1030	Pressure Control Equipment & Stacks: Detailed Overview of Blowout Preventers & other Critical Equipment
1030 – 1100	Methods for Well Killing: Techniques Used to Control & Manage Unexpected Pressure Surges
1100 – 1230	Handling Well Blowouts: Emergency Response Strategies & Containment
1230 – 1245	Break
1245 – 1330	High-Pressure High-Temperature (HPHT) Wells: Special Considerations & Techniques
1330 – 1420	Workshop: Mock Drill on Well Control: Practice in a Controlled Environment
1420 – 1430	Recap
1430	Lunch & End of Day Four

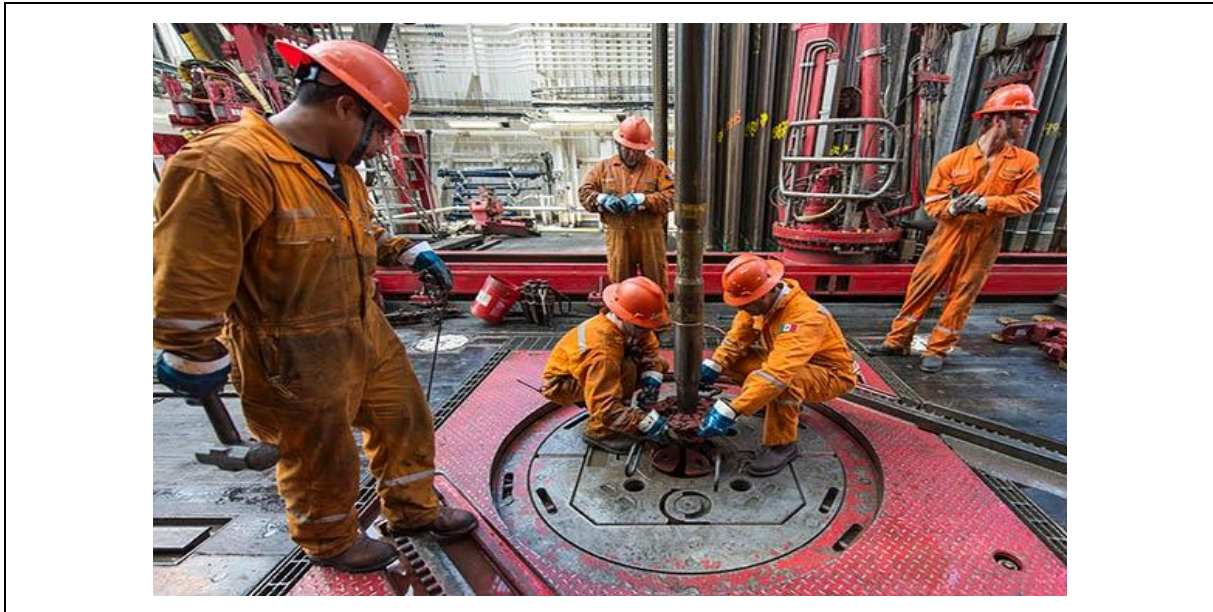
Day 5: Friday, 04th of October 2024

0730 – 0830	Maximizing Field Production through Effective Workovers: Strategies to Increase Recoverable Reserves
0830 – 0930	Case Studies: Successful Workover Operations: Review of Real-World Examples with Critical Analysis
0930 – 0945	Break
0945 – 1100	Integrating Team Efforts for Operational Success: Enhancing Collaboration among multidisciplinary Teams
1100 – 1230	Cost Management in Workovers: Balancing Operational Costs with Outcomes

1230 - 1245	Break
1245 - 1345	<i>Future Trends in Well Completion & Workover: Discussion on Emerging Technologies & Methodologies</i>
1345 - 1400	Course Conclusion
1400 - 1415	POST-TEST
1415 - 1430	Presentation of Course Certificates
1430	Lunch & End of Course

Practical Sessions

This practical and highly-interactive course includes real-life case studies and exercises:-



Course Coordinator

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