

COURSE OVERVIEW DE0382
Cased Hole Logging & Formation Evaluation

Course Title

Cased Hole Logging & Formation Evaluation

Course Reference

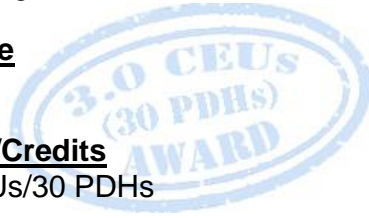
DE0382

Course Duration/Credits

Five days/3.0 CEUs/30 PDHs

Course Date/Venue

Session(s)	Date	Venue
1	May 26-30, 2024	Oryx Meeting Room, DoubleTree By Hilton Doha-Al Sadd, Doha, Qatar
2	September 22-26, 2024	
3	November 10-14, 2024	



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.



This course is designed to provide participants with a detailed and up-to-date overview of Cased Hole Logging & Formation Evaluation. It covers the different tools used for cased hole logging; the basic concepts and applications in cased holes; the principles of gamma ray logging; the cased hole formation evaluation, data acquisition and quality control in cased hole logging; the safety aspects in cased hole operations, pulse neutron logging and carbon/oxygen logging for saturation monitoring; and the spectral gamma ray logging, cement bond logging (CBL) and evaluation as well as radial bond logging (RBL) techniques.



During this interactive course, participants will learn the production logging tools, temperature and pressure logging; the techniques for measuring and interpreting flow rate; the spinner flowmeter data in production logging; the different types of production fluids; the reservoir pressure monitoring, waterflood and EOR monitoring and pulse neutron capture analysis (PNCA); integrating cased hole data with openhole logs to enhance formation evaluation; the time-lapse logging for reservoir management; the latest development in cased hole logging tools; the quantitative interpretation of cased hole logs and addressing the challenges in high-angle and horizontal wells; and the unconventional reservoir evaluation and integrating cased hole data with geological and reservoir models.

Course Objectives

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

- Apply and gain an in-depth knowledge on cased hole logging and formation evaluation
- Discuss the importance and applications of cased hole logging including the different tools used for cased hole logging
- Recognize the basic concepts and applications in cased holes as well as the principles of gamma ray logging
- Carryout cased hole formation evaluation, data acquisition and quality control in cased hole logging
- Discuss the safety aspects in cased hole operations, pulse neutron logging and carbon/oxygen logging for saturation monitoring
- Illustrate spectral gamma ray logging, cement bond logging (CBL) and evaluation as well as radial bond logging (RBL) techniques
- Identify the production logging tools, temperature and pressure logging and the techniques for measuring and interpreting flow rates
- Explain the spinner flowmeter data in production logging and distinguish different types of production fluids
- Employ reservoir pressure monitoring, waterflood and EOR monitoring and pulse neutron capture analysis (PNCA)
- Integrate cased hole data with openhole logs to enhance formation evaluation
- Recognize time-lapse logging for reservoir management and the latest development in cased hole logging tools
- Carryout quantitative interpretation of cased hole logs and address the challenges in high-angle and horizontal wells
- Apply unconventional reservoir evaluation and integrate cased hole data with geological and reservoir models

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 conveniently saved in a **Tablet PC**.

Who Should Attend


This course provides an overview of all significant aspects and considerations of cased hole logging and formation evaluation for petroleum engineers, geoscientists, logging engineers, reservoir engineers, petrophysicists, drilling and completion engineers, field technicians, managers and decision-makers and other technical staff.

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 Fees

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 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. Hesham Abdou, PhD, MSc, BSc, is a **Senior Drilling & Petroleum Engineer** with over **35 years** of integrated industrial and academic experience as a **University Professor**. His specialization widely covers in the areas of **Drilling & Completion Technology, Directional Drilling, Horizontal & Sidetracking, Drilling Operation Management, Drilling & Production Equipment, ERD Drilling & Stuck Pipe Prevention, Natural & Artificial Flow Well Completion, Well Testing Procedures & Evaluation, Well Performance, Coiled Tubing Technology, Oil Recovery Methods Enhancement, Well Integrity Management, Well Casing & Cementing, Acid Gas Removal, Heavy Oil Production &**

Treatment Techniques, Crude Oil Testing & Water Analysis, Crude Oil & Water Sampling Procedures, Equipment Handling Procedures, Crude & Vacuum Process Technology, Gas Conditioning & Processing, Cooling Towers Operation & Troubleshooting, Sucker Rod Pumping, ESP & Gas Lift, PCP & Jet Pump, Pigging Operations, Electric Submersible Pumps (ESP), Progressive Cavity Pumps (PCP), Water Flooding, Water Lift Pumps Troubleshooting, Water System Design & Installation, Water Networks Design Procedures, Water Pumping Process, Pipelines, Pumps, Turbines, Heat Exchangers, Separators, Heaters, Compressors, Storage Tanks, Valves Selection, Compressors, Tank & Tank Farms Operations & Performance, Oil & Gas Transportation, Oil & Gas Production Strategies, Artificial Lift Methods, Piping & Pumping Operations, Oil & Water Source Wells Restoration, Pump Performance Monitoring, Rotor Bearing Modelling, Hydraulic Repairs & Cylinders, Root Cause Analysis, Vibration & Condition Monitoring, Piping Stress Analysis, Amine Gas Sweetening & Sulfur Recovery, Heat & Mass Transfer and Fluid Mechanics.

During his career life, Dr. Hesham held significant positions and dedication as the **General Manager, Petroleum Engineering Assistant General Manager, Workover Assistant General Manager, Workover Department Manager, Artificial Section Head, Oil & Gas Production Engineer** and **Senior Instructor/Lecturer** from various companies and universities such as the Cairo University, Helwan University, British University in Egypt, Banha University and Agiba Petroleum Company.

Dr. Hesham has a **PhD** and **Master** degree in **Mechanical Power Engineering** and a **Bachelor** degree in **Petroleum Engineering**. Further, he is a **Certified Instructor/Trainer** and a **Peer Reviewer**. Dr. Hesham is a member of Egyptian Engineering Syndicate and the Society of Petroleum Engineering. Moreover, he has published technical papers and journals and has delivered numerous trainings, workshops, courses, seminars and conferences internationally.

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 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

0730 – 0800	<i>Registration & Coffee</i>
0800 – 0815	<i>Welcome & Introduction</i>
0815 – 0830	PRE-TEST
0830 – 0930	<i>Introduction to Cased Hole Logging: Overview of its Importance & Applications</i>
0930 – 0945	<i>Break</i>
0945 – 1030	<i>Cased Hole Logging Tools & Technologies: Different Tools Used for Cased Hole Logging</i>
1030 – 1130	<i>Principles of Gamma Ray Logging: Basic Concepts & Applications in Cased Holes</i>
1130 – 1215	<i>Cased Hole Formation Evaluation: Techniques & Challenges in Evaluating Formations through Casing</i>
1215 – 1230	<i>Break</i>
1230 – 1330	<i>Data Acquisition & Quality Control in Cased Hole Logging: Ensuring Accurate & Reliable Data Collection</i>
1330 – 1420	<i>Safety Aspects in Cased Hole Operations: Key Safety Practices During Cased Hole Logging</i>
1420 – 1430	Recap
1430	<i>Lunch & End of Day One</i>

Day 2

0730 – 0830	<i>Pulse Neutron Logging: Principles & Applications in Reservoir Surveillance</i>
0830 – 0930	<i>Carbon/Oxygen Logging for Saturation Monitoring: Techniques for Monitoring Hydrocarbon Saturation</i>
0930 – 0945	<i>Break</i>
0945 – 1100	<i>Spectral Gamma Ray Logging: Advanced Applications & Interpretation</i>
1100 – 1215	<i>Cement Bond Logging (CBL) & Evaluation: Assessing Cement Integrity & Zonal Isolation</i>
1215 – 1230	<i>Break</i>
1230 – 1330	<i>Radial Bond Logging (RBL) Techniques: Further Insights into Cement Bond Evaluation</i>
1330 – 1420	<i>Case Studies: Analysis of Cased Hole Log Data from Various Wells</i>
1420 – 1430	Recap
1430	<i>Lunch & End of Day Two</i>

Day 3

0730 – 0830	<i>Overview of Production Logging Tools: Introduction to Tools Used in Production Logging</i>
0830 – 0930	<i>Temperature & Pressure Logging: Applications in Understanding Well Performance</i>
0930 – 0945	<i>Break</i>
0945 – 1100	<i>Flow Rate Measurement & Analysis: Techniques for Measuring & Interpreting Flow Rates.</i>
1100 – 1215	<i>Spinner Flowmeter Logging: Spinner Flowmeter Data in Production Logging</i>



1215 – 1230	Break
1230 – 1330	Fluid Identification & Analysis in Production Logs: Distinguishing Different Types of Production Fluids
1330 – 1420	Practical Exercise: Interpreting Production Logs from Cased Hole Wells
1420 – 1430	Recap
1430	Lunch & End of Day Three

Day 4

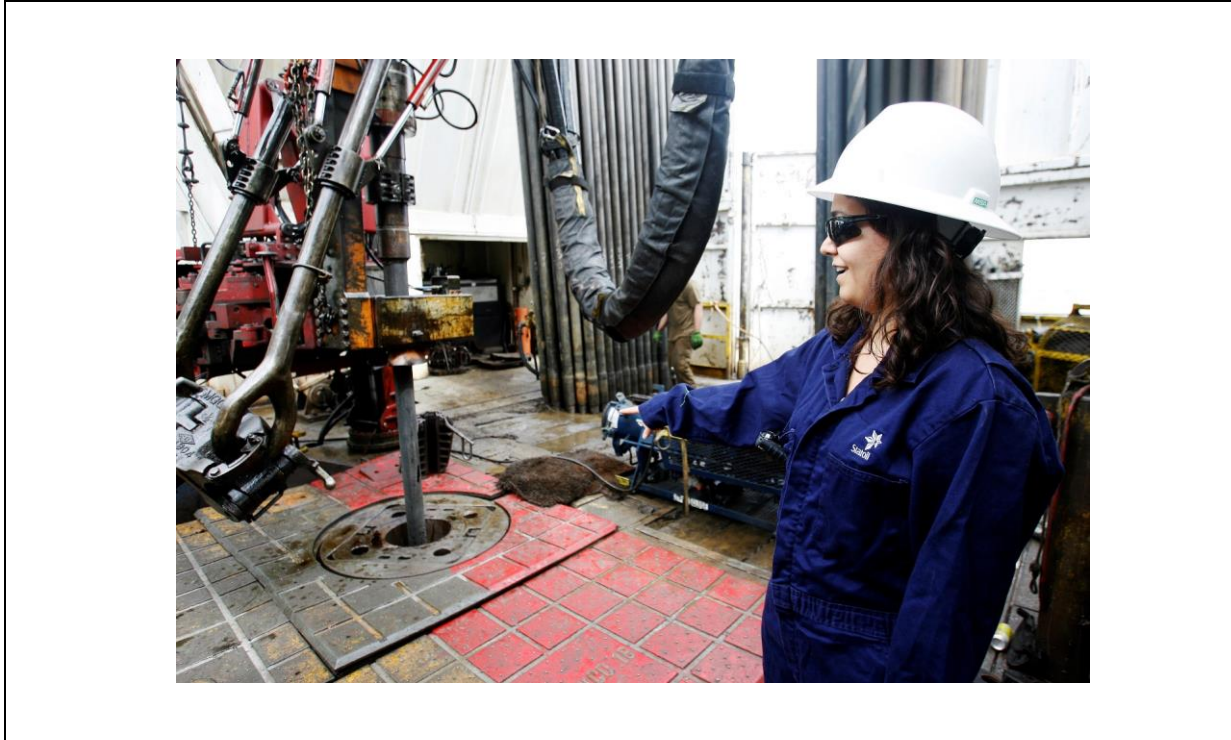
0730 – 0830	Reservoir Pressure Monitoring: Techniques for Pressure Measurement & Interpretation
0830 – 0930	Waterflood & EOR Monitoring: Using Cased Hole Logs for Enhanced Oil Recovery Projects
0930 – 0945	Break
0945 – 1100	Pulse Neutron Capture Analysis (PNCA): Advanced Applications in Reservoir Monitoring
1100 – 1215	Integrating Cased Hole Data with Openhole Logs: Enhancing Formation Evaluation
1215 – 1230	Break
1230 – 1330	Time-Lapse Logging for Reservoir Management: Changes in Reservoir Properties Over Time
1330 – 1420	Group Discussion: Challenges & Solutions in Cased Hole Reservoir Monitoring
1420 – 1430	Recap
1430	Lunch & End of Day Four

Day 5

0730 – 0830	Latest Developments in Cased Hole Logging Tools: Reviewing New & Emerging Technologies
0830 – 0930	Quantitative Interpretation of Cased Hole Logs: Advanced Techniques for Quantitative Analysis
0930 – 0945	Break
0945 – 1100	Challenges in High-Angle & Horizontal Wells: Addressing Unique Aspects of Non-Vertical Wells
1100 – 1230	Unconventional Reservoir Evaluation: Specific Considerations for Shale, Tight Gas & Other Plays
1230 – 1245	Break
1245 – 1345	Integrating Cased Hole Data with Geological & Reservoir Models: Building Comprehensive Subsurface Models
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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