

**COURSE OVERVIEW DE0869**  
**Cased and Open Hole Logging**

**Course Title**

Cased and Open Hole Logging

**Course Date/Venue**

August 10-14, 2026/Al Dhafra Meeting Room, Royal Rose Abu Dhabi, a Curio Collection by Hilton Affiliated Hotel, Abu Dhabi, UAE

**Course Reference**

DE0869

**Course Duration/Credits**

Five days/2.75 CEUs/27.5 PDHs



**Course Description**



***This practical and highly-interactive course includes various practical sessions and exercises. Theory learnt will be applied using our state-of-the-art simulators.***



This comprehensive course provides participants with a detailed understanding of open-hole and cased-hole logging technologies used throughout the well lifecycle. The course covers logging principles, tool physics, data acquisition, interpretation techniques, formation evaluation, production monitoring, well integrity assessment and advanced applications. Participants will gain practical knowledge of selecting appropriate logging tools, interpreting log responses, and integrating logging data for operational decision-making in drilling, completion, production and reservoir management.



Further, the course will also discuss the well logging, logging operations and data acquisition, the open-hole logging fundamentals, gamma ray logging, spontaneous potential and caliper logs; the logging program design, resistivity logging and porosity logging tools; the lithology determination, formation fluid evaluation, advanced open-hole logging technologies and reservoir characterization; the cased-hole logging, cement evaluation logging, ultrasonic cement evaluation, casing inspection and corrosion monitoring; and the well integrity diagnostics, pulsed neutron logging fundamentals and production logging fundamentals.

During this interactive course, participants will learn the low profiling and fluid identification, temperature and noise logging and reservoir monitoring using cased-hole logs; the production optimization applications, injection well logging, logging while drilling (LWD) and measurement while drilling (MWD); and the integrated open-hole and cased-hole interpretation, digital logging technologies, logging program planning and operational excellence as well as troubleshooting logging operations.

### **Course Objectives/Outcomes & Benefits for the Participants**

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

- Apply and gain a comprehensive knowledge on cased and open hole logging
- Carryout well logging, logging operations and data acquisition
- Discuss open-hole logging fundamentals, gamma ray logging, spontaneous potential and caliper logs
- Identify logging program design, resistivity logging and porosity logging tools
- Apply lithology determination, formation fluid evaluation, advanced open-hole logging technologies and reservoir characterization
- Carryout cased-hole logging, cement evaluation logging, ultrasonic cement evaluation, casing inspection and corrosion monitoring
- Recognize well integrity diagnostics, pulsed neutron logging fundamentals and production logging fundamentals
- Apply low profiling and fluid identification, temperature and noise logging and reservoir monitoring using cased-hole logs
- Employ production optimization applications, injection well logging, logging while drilling (LWD) and measurement while drilling (MWD)
- Carryout integrated open-hole and cased-hole interpretation, digital logging technologies, logging program planning and operational excellence as well as troubleshooting logging operations

### **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 consideration of open and cased hole logging for drilling and well operations, reservoir engineers, field engineers, petroleum engineers, EDD senior supervisors and all other company staff interested in this kind of operation.

### 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

Haward's certificates are accredited by the following international accreditation organizations: -

- 
British Accreditation Council (BAC)

Haward Technology is accredited by the **British Accreditation Council** for **Independent Further and Higher Education** as an **International Centre**. Haward's certificates are internationally recognized and accredited by the British Accreditation Council (BAC). 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 center, Haward Technology meets all of the international higher education criteria and standards set by BAC.

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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 **2.75 CEUs** (Continuing Education Units) or **27.5 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.

### 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:



**Mr. Stan Constantino, MSc, BSc, is a Senior Petroleum & Reservoir Engineer with over 30 years of Offshore & Onshore extensive experience within the Oil, Gas & Petroleum industries. His area of expertise include Reserves & Resources, Reserves Estimation & Uncertainty, Reservoir Characterization, Unconventional Resource & Reserves Evaluation, Oil & Gas Reserves Estimation, Methods for Aggregation of Reserves & Resources, Fractured Reservoir Classification & Evaluation, Sequence Stratigraphy, Petrophysics & Rock Properties, Seismic Technology, Geological Modelling, Water Saturation, Crude Oil & Natural Gas Demand, Exploration Agreements & Financial Modelling, Seismic Survey Evaluation, Exploration Well Identification, Field Production Operation,**

**Field Development Evaluation, Crude Oil Marketing, Core & Log Data Integration, Core Logging, Advanced Core & Log Integration, Well Logs & Core Analysis, Advanced Petrophysics/Interpretation of Cased Hole Logs, Cased Hole Formation Evaluation, Cased Hole Formation Evaluation, Cased Hole Evaluation, Cased-Hole Logging, Applied Production Logging & Cased Hole & Production Log Evaluation, Cased Hole Logging & Formation Evaluation, Open & Cased Hole Logging, Screening of Oil Reservoirs for Enhanced Oil Recovery, Enhanced Oil Recovery, Enhanced Oil Recovery Techniques, Petroleum Economic Analysis, Oil Industry Orientation, Oil Production & Refining, Crude Oil Market, Global Oil Supply & Demand, Global Oil Reserves, Crude Oil Types & Specifications, Oil Processing, Oil Transportation-Methods, Oil & Gas Exploration and Methods, Oil & Gas Extraction, Technology Usage in Industrial Security; Upstream, Midstream & Downstream Operations; Oil Reservoir Evaluation & Estimation, Oil Supply & Demand, Oil Contracts, Government Legislation & Oil Contractual Agreements, Oil Projects & Their Feasibility (revenue and profitability), Water Flooding, Reservoir Souring & Water Breakthrough, Reservoir Performance Using Classical Methods, Fractured Reservoir Evaluation & Management, Reservoir Surveillance & Management, Reservoir Engineering & Simulation, Reservoir Monitoring, Pressure Transient Testing & Reservoir Performance Evaluation, Reservoir Characterization, Reservoir Engineering Applications with ESP and Heavy Oil, Reservoir Volumetrics, Water Drive Reservoir, Reserve Evaluation, Rock & Fluid Properties, Fluid Flow Mechanics, PVT Analysis, Material Balance, Darcy's Law & Applications, Radial Flow, Gas Well Testing, Natural Water Influx, EOR Methods, Directional Drilling, Drilling Production & Operations, Field Development & Production of Oil & Gas, Wireline Logging, Mud Logging, Cased Hole Logging, Production Logging, Slick Line, Coil Tubing, Exploration Wells Evaluation, Horizontal Wells, Well Surveillance, Well Testing, Design & Analysis, Well Testing & Oil Well Performance, Well Log Interpretation (WLI), Formation Evaluation, Well Workover Supervision, Pressure Transient Analysis and Petrophysical Log Analysis.** Currently, he is the **CEO & Managing Director of Geo Resources Technology** wherein he is responsible in managing the services and providing technical supports to underground energy related projects concerning **field development, production, drilling, reservoir engineering and simulation.**

Throughout his long career life, Mr. Stan has worked for many international companies such as the **Kavala Oil, North Aegean Petroleum Company and Texaco Inc., as the Managing Director, Operations Manager, Technical Trainer, Training Consultant, Petroleum Engineering & Exploration Department Head, Assistant Chief Petroleum Engineer, Reservoir Engineer, Resident Petroleum Engineer, Senior Petroleum Engineer and Petroleum Engineer** wherein he has been managing the evaluation of exploration wells, reservoir simulation, development training, production monitoring, wireline logging and well testing including selection and field application of well completion methods.

Mr. Stan has a **Master's degree in Petroleum Engineering** and a **Bachelor's degree in Geology** from the **New Mexico Institute of Mining & Technology (USA)** and from the **Aristotelian University (Greece)** respectively. Further, he is a **Certified Instructor/Trainer, a Certified Internal Verifier/Assessor/Trainer** by the **Institute of Leadership of Management (ILM)** and a member of the **Society of Petroleum Engineers, USA (SPE), Society of Well Log Professional Analysts, USA (SPWLA)** and **European Association of Petroleum Geoscientists & Engineers (EAGE)**. Moreover, Mr. Stan published numerous scientific and technical papers and delivered various trainings, courses and workshops worldwide.

### 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.

### Learning Design & Customization

This course can be customized to the exact requirements of clients. Haward Technology is so proud of our huge capabilities in tailoring our courses to the training needs of our valued clients.

### Course Fee

**US\$ 8,000** per Delegate + **VAT**. 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 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, 10<sup>th</sup> of August 2026**

|             |                                                                                                                                                                                                                       |
|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 0800 – 0830 | Registration & Coffee                                                                                                                                                                                                 |
| 0830 – 0845 | Welcome & Introduction                                                                                                                                                                                                |
| 0845 – 0900 | <b>PRE-TEST</b>                                                                                                                                                                                                       |
| 0900 – 0930 | <b>Introduction to Well Logging</b><br>History & Evolution of Well Logging • Objectives of Open-Hole & Cased-Hole Logging • Role of Logging in Well Operations • Overview of Logging Service Providers & Technologies |
| 0930 – 0945 | Break                                                                                                                                                                                                                 |
| 0945 – 1030 | <b>Logging Operations &amp; Data Acquisition</b><br>Wireline Logging Equipment & Surface Systems • Logging Unit Components & Functions • Logging Operational Procedures • Data Quality Control & Assurance            |
| 1030 – 1100 | <b>Open-Hole Logging Fundamentals</b><br>Principles of Formation Evaluation • Measurement Physics & Tool Responses • Borehole Environmental Effects • Log Presentation & Scaling Standards                            |



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|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1100 – 1200 | <b>Gamma Ray Logging</b><br><i>Natural Radioactivity Principles • Shale Volume Determination • Spectral Gamma Ray Interpretation • Applications in Lithology Identification</i>                   |
| 1200 – 1215 | Break                                                                                                                                                                                             |
| 1215 – 1300 | <b>Spontaneous Potential &amp; Caliper Logs</b><br><i>SP Log Theory &amp; Applications • Formation Water Salinity Estimation • Borehole Diameter Measurements • Borehole Condition Assessment</i> |
| 1300 – 1350 | <b>Logging Program Design</b><br><i>Logging Objectives Identification • Tool Selection Criteria • Logging Sequence Planning • Operational Risk Management</i>                                     |
| 1350 – 1400 | <b>Recap</b><br><i>Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today and Advise Them of the Topics to be Discussed Tomorrow</i>    |
| 1400        | Lunch & End of Day One                                                                                                                                                                            |

**Day 2: Tuesday, 11<sup>th</sup> of August 2026**

|             |                                                                                                                                                                                                |
|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 0800 – 0930 | <b>Resistivity Logging</b><br><i>Electrical Properties of Formations • Induction Logging Principles • Laterolog Measurement Techniques • Formation Water Saturation Determination</i>          |
| 0930 – 0945 | Break                                                                                                                                                                                          |
| 0945 – 1030 | <b>Porosity Logging Tools</b><br><i>Density Logging Principles • Neutron Logging Applications • Sonic Porosity Measurements • Porosity Cross-Plot Techniques</i>                               |
| 1030 – 1100 | <b>Lithology Determination</b><br><i>Multi-Mineral Analysis Methods • Density-Neutron Interpretation • Sonic-Density Cross-Plots • Matrix Identification Techniques</i>                        |
| 1100 – 1200 | <b>Formation Fluid Evaluation</b><br><i>Hydrocarbon Identification Methods • Fluid Contact Determination • Moveable Hydrocarbon Indicators • Fluid Typing Techniques</i>                       |
| 1200 – 1215 | Break                                                                                                                                                                                          |
| 1215 – 1300 | <b>Advanced Open-Hole Logging Technologies</b><br><i>Nuclear Magnetic Resonance (NMR) Logging • Formation MicroImager (FMI) Logs • Dipole Sonic Measurements • Spectroscopy Logging Tools</i>  |
| 1300 – 1350 | <b>Reservoir Characterization</b><br><i>Net Pay Determination • Reservoir Quality Assessment • Petrophysical Parameter Calculation • Integrated Formation Evaluation</i>                       |
| 1350 – 1400 | <b>Recap</b><br><i>Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today and Advise Them of the Topics to be Discussed Tomorrow</i> |
| 1400        | Lunch & End of Day Two                                                                                                                                                                         |

**Day 3: Wednesday, 12<sup>th</sup> of August 2026**

|             |                                                                                                                                                                                                 |
|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 0800 – 0930 | <b>Basics of Cased-Hole Logging</b><br><i>Objectives of Cased-Hole Logging • Differences between Open-Hole &amp; Cased-Hole Logs • Casing Effects on Measurements • Tool Deployment Methods</i> |
| 0930 – 0945 | Break                                                                                                                                                                                           |





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|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 0945 – 1030 | <b>Cement Evaluation Logging</b><br>Cementing Fundamentals • Cement Bond Log (CBL) Interpretation • Variable Density Log (VDL) Analysis • Cement Quality Assessment                     |
| 1030 – 1100 | <b>Ultrasonic Cement Evaluation</b><br>Ultrasonic Measurement Principles • Cement Imaging Technologies • Channel Detection Methods • Advanced Cement Evaluation Interpretation          |
| 1100 – 1200 | <b>Casing Inspection &amp; Corrosion Monitoring</b><br>Electromagnetic Inspection Tools • Metal Loss Evaluation • Corrosion Detection Techniques • Casing Integrity Assessment          |
| 1200 – 1215 | Break                                                                                                                                                                                   |
| 1215 – 1300 | <b>Well Integrity Diagnostics</b><br>Leak Detection Methods • Tubing & Casing Leak Evaluation • Annular Pressure Diagnostics • Barrier Verification Techniques                          |
| 1300 – 1350 | <b>Pulsed Neutron Logging Fundamentals</b><br>Neutron Physics Principles • Sigma Measurements • Carbon/Oxygen Logging Basics • Reservoir Monitoring Applications                        |
| 1350 – 1400 | <b>Recap</b><br>Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today and Advise Them of the Topics to be Discussed Tomorrow |
| 1400        | Lunch & End of Day Three                                                                                                                                                                |

**Day 4: Thursday, 13<sup>th</sup> of August 2026**

|             |                                                                                                                                                                                         |
|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 0800 – 0930 | <b>Production Logging Fundamentals</b><br>Production Logging Objectives • Production Logging Tool Strings • Flow Measurement Principles • Data Acquisition Procedures                   |
| 0930 – 0945 | Break                                                                                                                                                                                   |
| 0945 – 1030 | <b>Flow Profiling &amp; Fluid Identification</b><br>Spinner Flowmeter Interpretation • Fluid Holdup Measurements • Water Entry Detection • Gas Breakthrough Identification              |
| 1030 – 1100 | <b>Temperature &amp; Noise Logging</b><br>Temperature Survey Applications • Noise Logging Principles • Leak Detection Techniques • Injection Profile Analysis                           |
| 1100 – 1200 | <b>Reservoir Monitoring Using Cased-Hole Logs</b><br>Time-Lapse Logging Concepts • Saturation Monitoring Techniques • Water Flood Surveillance • Reservoir Depletion Assessment         |
| 1200 – 1215 | Break                                                                                                                                                                                   |
| 1215 – 1300 | <b>Production Optimization Applications</b><br>Well Performance Evaluation • Identification of Production Problems • Artificial Lift Diagnostics • Workover Candidate Selection         |
| 1300 – 1350 | <b>Injection Well Logging</b><br>Injection Profile Surveys • Water Injection Monitoring • Gas Injection Diagnostics • Enhanced Oil Recovery Applications                                |
| 1350 – 1400 | <b>Recap</b><br>Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today and Advise Them of the Topics to be Discussed Tomorrow |
| 1400        | Lunch & End of Day Four                                                                                                                                                                 |

**Day 5: Friday, 14<sup>th</sup> of August 2026**

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|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 0730 – 0830 | <b>Logging While Drilling (LWD) &amp; Measurement While Drilling (MWD)</b><br><i>LWD Technology Overview • MWD Data Acquisition • Real-Time Formation Evaluation • Geosteering Applications</i>                               |
| 0830 – 0930 | <b>Integrated Open-Hole &amp; Cased-Hole Interpretation</b><br><i>Data Integration Workflows • Cross-Validation Techniques • Reservoir Model Updating • Multi-Disciplinary Interpretation</i>                                 |
| 0930 – 0945 | Break                                                                                                                                                                                                                         |
| 0945 – 1030 | <b>Digital Logging Technologies</b><br><i>Digital Data Acquisition Systems • Automated Log Interpretation • Machine Learning Applications • Cloud-Based Logging Platforms</i>                                                 |
| 1030 – 1100 | <b>Logging Program Planning &amp; Operational Excellence</b><br><i>Pre-Job Planning Procedures • Operational Safety Requirements • Quality Assurance Programs • Cost Optimization Strategies</i>                              |
| 1100 – 1200 | <b>Troubleshooting Logging Operations</b><br><i>Common Operational Challenges • Tool Failure Diagnostics • Borehole Condition Impacts • Data Recovery Techniques</i>                                                          |
| 1200 – 1215 | Break                                                                                                                                                                                                                         |
| 1215 – 1315 | <b>Industry Case Studies &amp; Best Practices</b><br><i>Open-Hole Formation Evaluation Case Studies • Cement Evaluation Case Studies • Production Logging Applications • Lessons Learned &amp; Operational Best Practices</i> |
| 1315 – 1330 | <b>Course Conclusion</b><br><i>Using this Course Overview, the Instructor(s) will Brief Participants about the Course Topics that were Covered During the Course</i>                                                          |
| 1330 – 1345 | <b>POST-TEST</b>                                                                                                                                                                                                              |
| 1345 – 1400 | <i>Presentation of Course Certificates</i>                                                                                                                                                                                    |
| 1400        | <i>Lunch &amp; End of Course</i>                                                                                                                                                                                              |

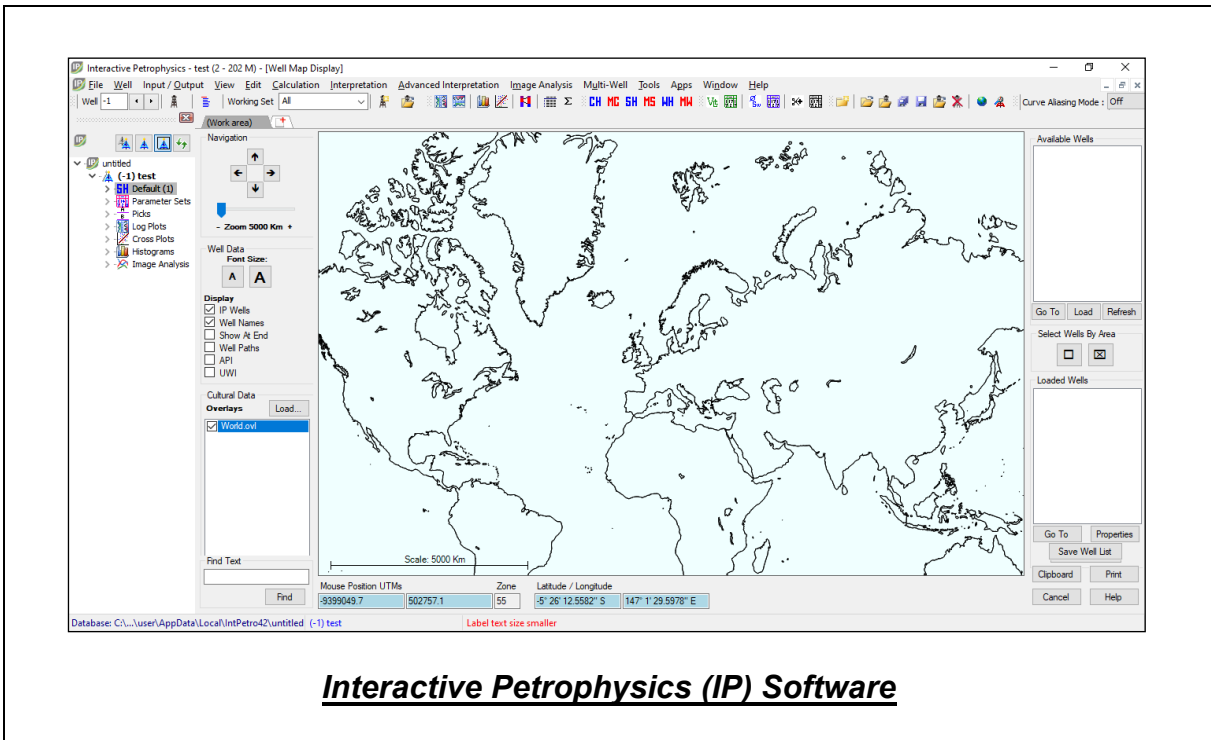
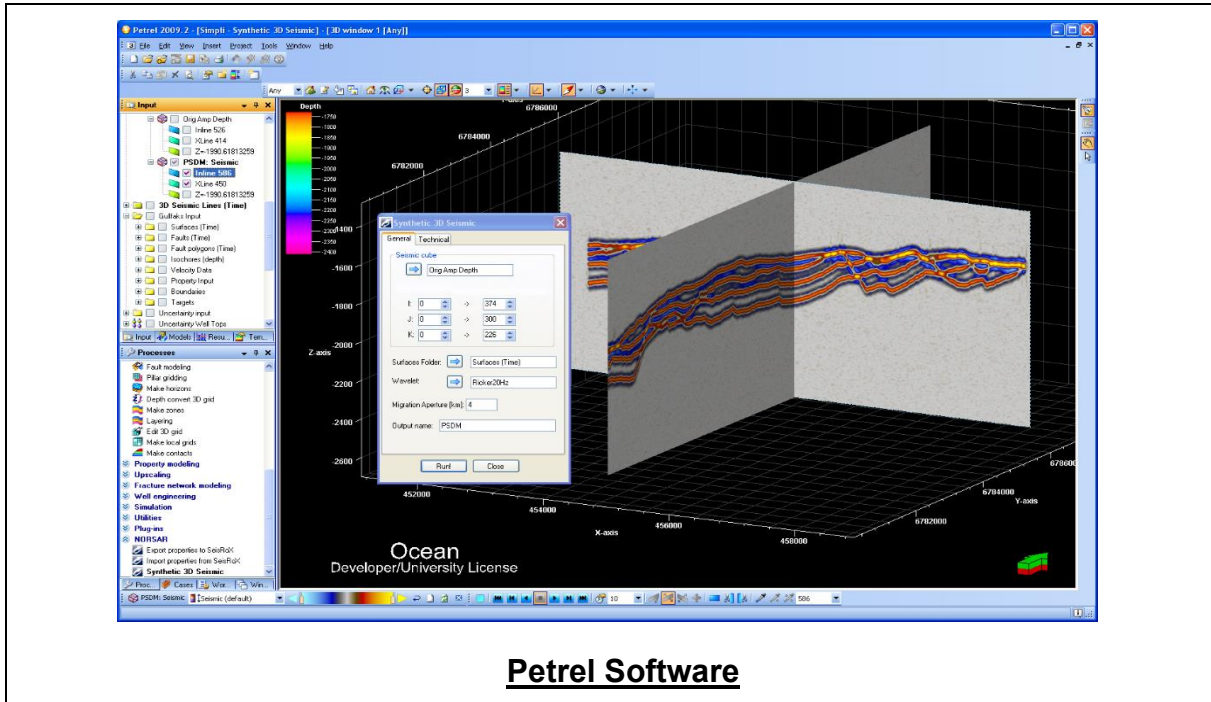
**Course Learning Outcomes**

Upon completion of this course, participants will be able to:

- Understand the principles and applications of open-hole and cased-hole logging
- Design and execute effective logging programs for various well conditions
- Interpret gamma ray, resistivity, porosity, sonic, NMR and imaging logs
- Evaluate cement quality, casing integrity and well barriers
- Perform production logging analysis and reservoir surveillance
- Diagnose well integrity and production performance issues
- Integrate logging data with reservoir and production information
- Apply advanced logging technologies to improve operational and reservoir management decisions
- Optimize well performance through effective logging interpretation and monitoring
- Utilize industry best practices for safe and efficient logging operations

**Simulator (Hands-on Practical Sessions)**

Practical sessions will be organized during the course for delegates to practice the theory learnt. Delegates will be provided with an opportunity to carryout various exercises using the “Petrel Software” & “Interactive Petrophysics (IP)”.



**Course Coordinator**

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