

# <u>COURSE OVERVIEW DE0294</u> <u>Conventional and Unconventional, Play Types-Influence of</u> <u>Physiographic</u>

# Course Title

Conventional and Unconventional, Play Types-Influence of Physiographic

## Course Date/Venue

Session 1: January 05-09, 2025/Boardroom 1, Elite Byblos Hotel Al Barsha, Sheikh Zayed Road, Dubai, UAE Session 2: July 07-11, 2025/Fujairah Meeting Room, Grand Millennium Al Wahda Hotel, Abu Dhabi, UAE

> (30 PDHs) AWARD

Course Reference

DE0294

## **Course Duration/Credits**

Five days/3.0 CEUs/30 PDHs

# **Course Description**









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This course is designed to provide participants with a detailed and up-to-date overview of Play Assessment & Prospect Evaluation. It covers the significance and importance of play assessment and prospect evaluation in the subsurface industry; the exploration outcomes, geological and geophysical (G & G) data and how to utilize G & G data for accurate Yet-To-Find (YTF) predictions; the geology and geophysics that dictate the formation and distribution of oil and gas plays; the proper methods and tools to map and evaluate the extent of reservoir distribution; and the systematic techniques to evaluate and risk reservoir contribution to the play fairway.

Further, the course will also discuss the charge systems in exploration including the likelihood, magnitude and distribution of effective charge systems; the caprock and seal and methods to delineate and risk caprock distribution; the trap and seal classifications including the charge volume and timing; the analysis of routes taken by hydrocarbons to reach the traps; setting drilling success ratios by applying the methods to estimate the probability of drilling success; and evaluating risks related to trapping geometry, trap development age, effective charge and more.



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During this interactive course, participants will learn to classify well including its differences among wildcat, delineation, appraisal, development, stratigraphic and others; the techniques to estimate the potential volume of hydrocarbons in a prospect; assessing the reliability and accuracy of volume estimates; the advanced tools and techniques and software used in play assessment and prospect evaluation; integrating empirical and deterministic perspectives; and developing a step-by-step guide to evaluate a prospect from start to finish.

## Course Objectives

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

- Apply and gain an in-depth knowledge on play assessment and prospect evaluation
- Use specialized knowledge in play technical foundation, empirical perspective based on past exploration outcomes and deterministic perspective of the G & G data to come up with the right YTF predictions
- Apply specialized knowledge of the distribution of effective reservoir and hence delineate and risk its contribution to the extent of the play fairway
- Understand the risk of distribution of effective charge system to an order of magnitude, mass and hence the volume of petroleum charge to the play fairway through time, risk distribution of effective regional caprock
- Use specialized knowledge about trap and seal classifications
- Apply good knowledge of how to set drilling success ratios, assessment of prospects specific risks (trapping geometry, age of trap development, effective charge, charge volume and timing, migration pathways, effective reservoir, and seal, prospect volume predictions and uncertainty
- Understand well classification "wildcat, delineation, appraisal, development, stratigraphic, etc."
- Identify the significance and importance of play assessment and prospect evaluation in the subsurface industry
- Discuss exploration outcomes, geological and geophysical (G & G) data and how to utilize G & G data for accurate Yet-To-Find (YTF) predictions
- Explain geology and geophysics that dictate the formation and distribution of oil and gas plays
- Carryout proper methods and tools to map and evaluate the extent of reservoir distribution
- Apply systematic techniques to evaluate and risk reservoir contribution to the play fairway
- Recognize the charge systems in exploration including the likelihood, magnitude and distribution of effective charge systems
- Discuss caprock and seal and apply methods to delineate and risk caprock distribution



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- Classify trap and seal, charge volume and timing and analysis of routes taken by hydrocarbons to reach the traps
- Set drilling success ratios by applying the methods to estimate the probability of drilling success
- Evaluate risks related to trapping geometry, trap development age, effective charge and more
- Classify well including its differences among wildcat, delineation, appraisal, development, stratigraphic and others
- Apply proper techniques to estimate the potential volume of hydrocarbons in a prospect
- Assess the reliability and accuracy of volume estimates and apply advanced tools, techniques and software used in play assessment and prospect evaluation
- Integrate empirical and deterministic perspectives and develop a step-by-step guide to evaluate a prospect from start to finish

## **Exclusive Smart Training Kit - H-STK®**



Participants of this course will receive the exclusive "Haward Smart Training Kit" (H-STK<sup>®</sup>). The H-STK<sup>®</sup> 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 play assessment and prospect evaluation for all exploration team members and leaders including geologists, geophysicist, geochemists, analysts, reservoir engineers, economists, planners and managers who make business decisions based upon exploration data.

#### Training Methodology

All our Courses are including Hands-on Practical Sessions using equipment, Stateof-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.



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# 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: -



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.

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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#### Course Instructor

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 35 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.



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#### Course Fee

**US\$ 8,000** per Delegate + **VAT**. This rate includes H-STK<sup>®</sup> (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 course for technical reasons with no prior notice to participants. Nevertheless, the course objectives will always be met:

Day 1	
0730 – 0800	Registration & Coffee
0800 - 0815	Welcome & Introduction
0815 - 0830	PRE-TEST
0830 - 0900	<i>Introduction to Play Assessment &amp; Prospect Evaluation</i> : Definition, Significance & Its Importance in the Subsurface Industry
0900 - 0915	Break
0915 – 0945	<i>Exploration Outcomes – Historical Overview</i> : Drawing Empirical <i>Perspectives from Past Exploration Data</i>
0945 – 1115	<b>Understanding the Geological &amp; Geophysical (G &amp; G) Data:</b> Introduction to Methods of Acquiring & Interpreting G & G Data
1115 – 1215	<b>Deterministic Perspectives:</b> How to Utilize G & G Data for Accurate Yet-To- Find (YTF) Predictions
1215 – 1230	Break
1230 – 1330	<b>Play Technical Foundations:</b> Understanding the Underlying Geology & Geophysics that Dictate the Formation & Distribution of Oil & Gas Plays
1330 – 1420	<b>Discussion Session:</b> Review of Real-World Case Studies Showcasing the Importance of the Technical Foundation
1420 - 1430	Recap
1430	Lunch & End of Day One

#### Day 2

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0730 - 0830	<i>Reservoir Basics: Definition, Types &amp; Significance</i>
0830 - 0930	<b>Distribution of Effective Reservoir:</b> Methods & Tools to Map & Evaluate the
	Extent of Reservoir Distribution
0930 - 0945	Break
0945 - 1100	<b>Risking Reservoir Contribution:</b> Techniques to Evaluate & Risk Reservoir
	Contribution to the Play Fairway
1100 – 1215	<i>Charge Systems in Exploration: Basics &amp; Importance in Prospect Evaluation</i>
1215 – 1230	Break
1220 1220	<i>Effective Charge System Distribution: Evaluating the Likelihood, Magnitude</i>
1230 - 1330	& Distribution of Effective Charge Systems
1330 - 1420	Case Study Discussion: Real-world Examples of Plays Where Effective
	Reservoir Distribution was Crucial for Success
1420 - 1430	Recap
1430	Lunch & End of Day Two



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#### Day 3

0730 – 0830	Introduction to Caprock & Seal: Definitions, Types & Significance in
	Trapping Hydrocarbons
0830 - 0930	<b>Risk Distribution of Effective Regional Caprock:</b> Methods to Delineate &
	Risk Caprock Distribution
0930 - 0945	Break
0945 – 1100	<b>Trap &amp; Seal Classifications:</b> Detailed Insight into Different Types of Traps &
	Seals, their Formation & Significance
1100 – 1215	Charge Volume & Timing: Understanding How Much & When Hydrocarbons
	Were Charged into the Traps
1215 – 1230	Break
1230 – 1330	Migration Pathways: Analysis of Routes Taken by Hydrocarbons to Reach the
	Traps
1330 – 1420	Interactive Session: Participants to Risk Evaluate a Given Play Based on
	Charge & Seal Information
1420 - 1430	Recap
1430	Lunch & End of Day Three

## Day 4

0730 - 0830	Setting Drilling Success Ratios: Methods to Estimate the Probability of
	Drilling Success
0830 - 0930	Prospect Specific Risks Assessment: Evaluating Risks Related to Trapping
	Geometry, Trap Development Age, Effective Charge & More
0930 - 0945	Break
0945 - 1100	Well Classification Overview: Definitions & Differences among Wildcat,
	Delineation, Appraisal, Development, Stratigraphic & Others
1100 – 1215	<b>Prospect Volume Predictions:</b> Techniques to Estimate the Potential Volume of
	Hydrocarbons in a Prospect
1215 – 1230	Break
1230 - 1330	Uncertainty in Volume Predictions: Assessing the Reliability & Accuracy of
	Volume Estimates
1330 – 1420	Group Activity: Simulated Drilling Decision-Making Based on Play
	Assessment Data
1420 – 1430	Recap
1430	Lunch & End of Day Four

#### Day 5

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0730 - 0830	Advanced Tools & Techniques: An Overview of Modern Tools & Software
	Used in Play Assessment & Prospect Evaluation
0830 - 0930	Integrating Empirical & Deterministic Perspectives: How to Combine
	Historical Data with Current G & G Data for Better Predictions
0930 - 0945	Break
0945 – 1030	Prospect Evaluation Workflow: A Step-by-step Guide to Evaluating a
	Prospect from Start to Finish
1030 - 1130	Challenges in Play Assessment: Real-world Challenges Faced by Geoscientists
	& Ways to Overcome Them
1130 - 1230	<i>Review &amp; Recap:</i> Summarizing the Key Topics Covered Throughout the Course



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1230 – 1245	Break
1245 - 1345	<b>Feedback &amp; Q&amp;A Session:</b> Addressing any Lingering Questions & Gathering
	Feedback for Future Courses
1345 – 1400	Course Conclusion
1400 – 1415	POST-TEST
1415 – 1430	Presentation of Course Certificates
1430	Lunch & End of Course

## 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 simulator "Monte Carlo".



# Course Coordinator

Mari Nakintu, Tel: +971 2 30 91 714, Email: mari1@haward.org



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