

Prospect Generation, Assessment and Risking (G026)



Tutor(s)

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Overview

This hands-on course enables attendees to enhance their mapping skills and their critical evaluation of prospects. This course demonstrates how to use play fairway mapping and petroleum system analyses to identify plays and prospects with high potential, even in areas with limited data. Once participants identify prospects, the course outlines how to derive geologically map based, objective inputs for prospect assessment and risking. This stepwise approach creates well-documented results that are used to confidently rank opportunities and make smart business decisions.

Duration and Logistics

Classroom version: 5 days; a mix of classroom lectures and discussion and exercises. The manual will be provided in digital format and participants will be required to bring a laptop or tablet computer to follow the lectures.

Level and Audience

Fundamental. This course is intended for early career geoscientists, reservoir engineers and petrophysicists.

Objectives

You will learn to:

1. Recall play element definitions and hone mapping skills.
2. Understand tectonic phases and play types with respect to the history of basin evolution.
3. Interpret and integrate well and seismic data.
4. Undertake subsurface mapping of prospects and maturation to drillable status.
5. Risk and rank prospects.
6. Identify and assess risks and uncertainties related to geological factors (source, reservoir, seal, trap and preservation).
7. Evaluate prospect success.

Course Content

Course Details

Upon completion of the course, participants will be able to comprehend prospect definitions and workflows, estimate original hydrocarbons in place, delineate risk and uncertainty related to original hydrocarbon in place, reduce risk impacts, and understand fundamental concepts regarding portfolio and resource management. The course will include the following:

- Exploration methods and strategies
- Evaluation of petroleum assessment potential in basins
- Key workflow stages in exploration
- Subsurface mapping techniques for well and seismic datasets
- Principles of stratigraphic and structural mapping
- Generation, contouring and quality control of geologic maps
- Hands-on exercises on prospect generation and maturation
- Prospect risking strategies
- Hands-on exercises and case studies of exploration