Geological and Engineering Evaluation of Prospects and Play Types

Duration: 5 days

Course Fees: $4800 per participant
10% off for 2 participants
15% off for 3 participants
20% off for 4 participants
25% off for 5 participants

For special corporate prices please contact us on hala@resmodtec.com.

Date: October 21 - 25, 2024

Location: Rome, Italy

Candidates:

Exploration team members and leaders including geologists, geophysicists, geochemists, petroleum engineers, reservoir engineers, economists, planners and managers who make business decisions based upon exploration data.

Summary:

Assessment of plays and prospects is an important tool in managing financial and human resources. This course apply the integration of using geological, geophysical and engineering data approach to defining prospect and play volumetrics, uncertainties in defining these volumes and the risk that the accumulation exists.

It offers the industry quantitative, probabilistic play and prospect assessment procedures that are consistent. The concepts and techniques learned in the course are applied to real industry examples in exercises. Geological, petrophysical and engineering tools include comprehensive assessment forms for prospects and plays, and graphs, data tables, and guidelines for making all assessment decisions. These tools help participants estimate risks and success ratios, field-size distributions, field and prospect densities, trap geometry corrections, multiple reservoir factors, porosities, permeabilities, saturations, formation volume factors, gas/oil ratios, formation temperatures, oil and gas recovery efficiencies, API gravities, gas gravities, NGL ratios, and oil and gas yields from source rocks.

Course Objectives:

Upon completion of the course, participants will be:

- Be able to integrate all available engineering and geological data to get better evaluation of prospects and play types.
- based on past exploration outcomes and deterministic perspective of the G & G data to come up with the right YTF.
- Specialized knowledge of the distribution of effective reservoir and hence delineate and risk its contribution to the extent of the play fairway.
- Understands 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.
- Knows about quantitative prospect analysis.
- Good knowledge of how to set drilling success ratios, assessment of prospect 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.
- Estimate reserves and calculate associate risk.

Course Contents:

- Basic Definitions

- Exploration Life cycle

- Play Types/Leads and Prospects

- Calculate geological risk and uncertainty in exploration prospects

- Determine prospect resource volume estimates

- Assess resource distribution in a play

- Understand the differences between stochastic and probabilistic estimates and have the knowledge to know when to apply one or the other

- Predict the number and size distribution of potential future fields in a play

- Describe and calibrate risks associated with discovering a successful play

- Reserve Calculation and associated risk Analysis

- Delineation Concepts and techniques