



Prospect and Play Assessment - PPA

COURSE

About the Course

Assessment of plays and prospects is an important tool in managing financial and human resources. This fully revised and updated course is a fully modern approach to defining prospect and play volumetrics, uncertainties in defining these volumes and the risk that the accumulation exists.

This practical course is adaptable to any workplace. The course evaluates other published approaches and contrasts them with the recommended procedures allowing the participants to choose the very best approach to resource evaluation. This course offers the industry quantitative, probabilistic play and prospect assessment procedures that are consistent and repeatable allowing for direct comparisons play to play or prospect to prospect. In addition, the methods offer measures of the play prospectiveness based on the number and resource size distribution of potential future fields.

The course objectives are:

1. To provide knowledge and unique tools for practical, systematic, predrill assessment of potentially recoverable oil and gas
2. To use the best available methods - trap volumetrics and hydrocarbon charge for prospects, and potential numbers and sizes of prospects for plays
3. To quantify all geologic risks and uncertainties
4. To provide insights for managers and reviewers in evaluating assessments, avoiding pitfalls, high-grading exploration opportunities, and planning selectively for the future.

It focuses on the exploration concepts and models that are essential to effective assessments. The concepts and techniques learned in the course are applied to real industry examples in exercises and workshops. 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. The forms and procedures are easily adaptable for internal usage in any oil and gas organization. All factors can be handled in either metric or English units.

"Overall very good and useful course. Content and presentation of content were excellent." - Senior Geophysicist, Germany

The exercises were great, and examples were fantastic." - Geologist, United Arab Emirates

Target Audience

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

You Will Learn

Participants will learn how to:

- 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 use 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

Course Content

- Geological controls of oil and gas occurrence: their impact on exploration risk and success
- Review of common assessment methods: selection of the most practical approach
- Application of volumetric prospect assessments: techniques, comparative data, and graphs to estimate input factors, such as trap volume, porosity, net/gross saturation, hydrocarbon fill fraction, formation volume factors, and recovery efficiencies
- Probability methods: the expression of uncertainty for input factors and results including Monte Carlo techniques
- Risk analysis: Principles and practice
- Hydrocarbon charge assessment: procedures for estimating possible amounts of oil and gas generated, migrated, and trapped in prospects
- Prospect assessment workshop: projects supplied either by the instructor or by participants, worked by teams and reported to the entire group
- Play assessment techniques: estimating the possible numbers, sizes, and associated risks for potential fields, with useful data on field densities, field-size distributions, oil versus gas relationships, and dependent versus independent risks
- Play recognition and mapping: play classification and subdivision, and play maps that highlight the most favorable areas with minimal geologic risks
- Play assessment workshop: projects supplied either by the instructor or by participants, worked by teams and reported to the entire group
- Aggregation of assessment results: summing, derisking, and preparation for economic analysis
- Limitations, pitfalls, uses, and discovery concepts: the philosophy of judging and using assessment results and the importance of basic geologic concepts

Product Details

Categories: Upstream

Disciplines: Geology

Levels: Intermediate

Product Type: Course

Formats Available: In-Classroom

Instructors: Tom Temples Jeffrey (Jeff) Aldrich PetroSkills Specialist

In-Classroom Format

16 Sep '24 20 Sep '24 - | Course | In-Classroom (in Houston) \$4,810.00
