PetroSkills

Integration of Rocks, Log and Test Data - ILC

COURSE

About the Course

This course provides the background necessary to address the more complex reservoir evaluation and productivity challenges within exploration, field appraisal, and field development. The key fundamentals of rock properties, logging tools, and engineering data required to solve these problems are reviewed. The concepts are illustrated with a series of real world examples that become increasingly complex as knowledge is gained in the class. Emphasis is placed on solving problems in a workshop format.

"Everything was just the right amount of depth. NMR and Capillary Pressure was fantastic! Shaly sands data integration was fantastic too!" - Geologist, United States

"Right course at right time. Also I like the actual examples of seemingly misleading logs." - Reservoir Engineer, United States

Target Audience

Petrophysicists, petroleum reservoir engineers, geologists, and geophysicists who have a basic understanding of petrophysics, geology, and engineering and need a more advanced understanding of how to integrate the different data sets together to more completely understand reservoir performance. It is recommended that participants have a basic knowledge of logging fundamentals. The basics of logging will be reviewed in the class.

You Will Learn

Participants will learn how to:

- Identify clastic and carbonate rock types based on productivity differences
- Determine the key reservoir rock parameters needed for a more accurate reservoir evaluation
- Use cuttings, sidewall cores, and cores to determine reservoir parameters
- Design an integrated interpretation
- Calculate Vclay
- Calculate porosity using porosity logs in complex lithologies
- Determine what percentage of porosity contributes to production
- Calculate Sw using different methods

- Determine pay and pay classes
- Tie rock and well log information to production performance

Course Content

- Objectives of integration
- Key rock properties for formation evaluation
- Impact of depositional environment and rock properties
- Petrophysical rock type
- Texture, porosity, and permeability
- Clay impact
- Summary of basic logging tools
- Subsurface rock sampling
- Use of subsurface pressure data and evaluation
- Relative permeability
- Capillary pressure application to pay determination
- Basic methodology for an integrated interpretation
- Rock typing
- Catalog approach
- Clastic and carbonate rock types
- Important reservoir rock parameters
- Cementation and saturation components CEC fluid sensitivity
- Review of production profiles
- Overview of pressure transient analysis
- Calculation of Vclay/Vshale calibration of core and logs
- Calculation of porosity using porosity logs in complex lithologies
- What is effective porosity
- Calculation of SW using different methods
- Determining pay and pay classes

Product Details

Categories: Upstream

Disciplines: Petrophysics

Levels: Intermediate

Product Type: Course

Formats Available: In-Classroom

Instructors: PetroSkills Specialist John Sneider

In-Classroom Format

11 Nov '24 15 Nov '24 - | Course | In-Classroom (in Houston) $4,810.00
