

How Laboratory Geomechanics Testing Adds Value to Exploration and Production

Starting from prevention of well blowout to designing effective hydraulic fracturing schemes to produce from ultralow permeability reservoir, principles of geomechanics have been used frequently in the past few decades. For geoscientists or reservoir engineers, typical practice involves extracting critical information from sonic logs and/or seismic data to construct pore pressure prediction model or detailed 3D earth models. However, the log measurements need to be validated against laboratory measured values to increase confidence in modeling exercise.

This workshop aims at familiarizing the audience with various laboratory testing techniques, how to design a laboratory test program, to develop an understanding of good vs. bad data, and how to use the data subsequently. An example will be presented to illustrate the value of laboratory testing to solve a geomechanics problem. This workshop is hosted by MetaRock Laboratories.

The workshop outline would be following:

1. Introduction
2. Geomechanics Data Source
3. Introduction to Laboratory Geomechanics
4. Specialized Geomechanics Test
5. Data Auditing
6. Challenge-based Test Program Design
7. Laboratory Data driven Geomechanics Solution – An Example