H&A
Professional Development Advisory, LLC
Where Academia and Industry Meet

Reservoir Characterization

COURSE DESCRIPTION

Reservoir characterization is the branch of petroleum engineering that focuses on populating reservoir rock and fluid properties to build the static reservoir model. Combining geological and statistical knowledge, parameters like porosity, permeability and formation top can be estimated in the reservoir regions where coring and/or logging data are not available. This course introduces the participants to the basic reservoir description techniques and their applications.

DISCIPLINE
Multidisciplinary

COURSE DURATION
5 Days

DELIVERY METHOD
In-house

COURSE CONTENTS

- Sources of reservoir data
- Graphical methods of reservoir data presentation
- Statistical measures of location, dispersion and shape
- Regression analysis
- Measures of reservoir heterogeneity
- Spatial correlations and variograms
- Continuity, zone of influence, anisotropy, and trends
- Variograms calculations
- Variogram models
- Estimation of petrophysical parameters
- Indicator kriging, CoKriging, and collocated CoKriging
- Conditional simulation of petrophysical variables
- Subsurface maps and cross-sections
- Hydrocarbon reserves estimation
- Field case studies of carbonate reservoirs