VolTerra

## Volumetrics and STOOIP within Petrel* high-resolution reservoir models

Estimation of Oil Initially In Place (OIIP) is one of the priority tasks defining the reserves. This plugin calculates the volumetric using high-resolution Petrel geological models.

The calculations are based on the equilibrium between gravity and capillary forces. It provides 3D saturation grids from 3D porosity distribution, capillary pressure curves, associated to each lithofacies and the thermodynamic data of oil and gas.
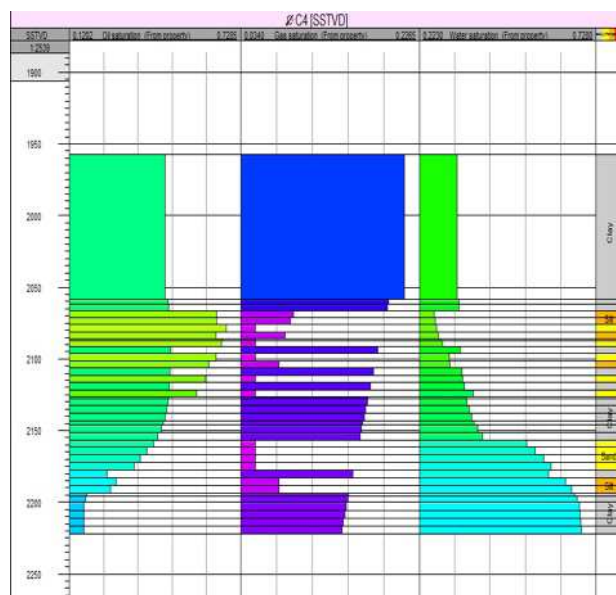
This method calculating oil in place in standard or reservoir conditions is the natural end point of any workflow devoted to the geological modeling of newly discovered or mature reservoirs, but particularly suited to highly heterogeneous reservoirs as for some carbonate reservoirs.

Being based on volumetric, it does not require dynamic data. Using the 3D saturation grids, well designs can be improved at the early stages of the field development.

These 3D volumes with saturations of each phase: oil, gas and water which can also be compared to log extracted values to cross check the geological modeling for newly discovered reservoirs or to evaluate contact changes for mature reservoirs.
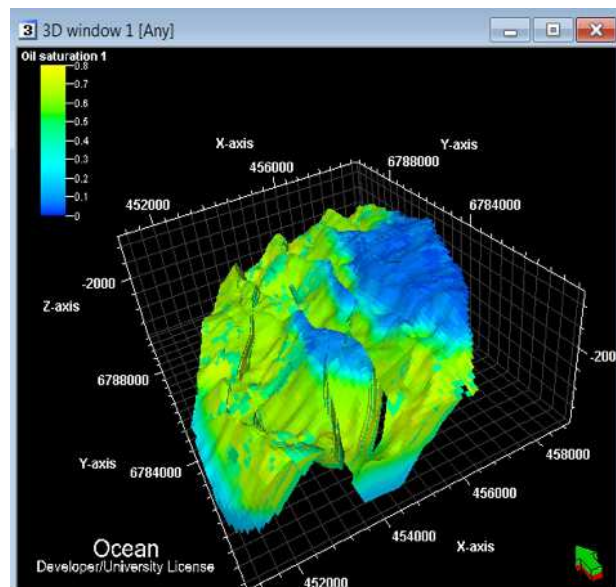
3D Saturations of Oil Initialy In Place

Saturations along Wells

*Mark of Schlumberger

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