

(6) Thermal Recovery

WHO SHOULD ATTEND

This course is intended for all engineers engaged in the oil industry, involved in Reservoir Engineering, especially those responsible for the exploitation of heavy oil or bitumen reservoirs.

COURSE OBJECTIVES

Train the participant in the various techniques of thermal recovery of heavy oil or bitumen, emphasizing in: Steam thermal properties, steam stimulation and steamflood.

CONTENT

Oil viscosity decrease with temperature. Correlations. Thermal Properties of Water: solid, liquid and gaseous. Enthalpy and Entropy. Steam quality measurements and calculation methods. Saturation Pressures and temperatures for saturated steam. Calculation of total energy injected into a well based on the history of injection. Thermal characteristics of reservoir rocks and their variations with density, temperature and fluid saturation. Effect of temperature on Relative Permeability. Steam stimulation. Steamflood. SAGD. Combustion in Situ.

INTENDED FOR

Reservoir Engineers, Simulation Engineers, Integrated Reservoir Studies, and Reservoir Managers of Heavy Oil or Bitumen Reservoirs, Geologists and Geophysicists.