TG13

Formation Damage in Tight Gas Reservoirs – Prevention, Control and Remediation

A. Khlaifat* (Weatherford) & H. Qutob (Weatherford)

SUMMARY

Tight gas reservoirs have many unique challenges associated with the drilling, completion practices required to obtain economic production rates. Formation damage is an undesirable operational and economic dilemma that may occur during any phase of gas recovery from tight gas reservoirs. Prevention, control and remediation of formation damage are among the most important issues to be resolved for efficient exploitation of tight gas reservoirs. Designing certain chemicals and/or treatment procedures for damage control and remediation is not an easy scientific and engineering task. Recipes that work for certain cases may not necessarily work for others. Formation damage mechanisms affecting tight gas reservoirs, e.g. relative permeability and capillary pressure effects, will be discussed in this paper. A review of commonly practiced methods and tools available for prevention, control and remediation of formation damage will be presented.