Slightly Compressible Flow

Reservoir flow with constant total compressibility: $c_t(p) = c_t = \text{const}$

Not to be confused with Slightly Compressible Fluid since Reservoir flow depends both on Fluid Compressibility c_r and Pore Compressibility c_f :

(1) $$c_t = c_r + c_f$$

and thus can have non-zero compressibility even for incompressible fluids.

It is one of the popular concepts in Pressure Diffusion modelling.

See also

Physics / Fluid Dynamics / Percolation

[Slightly Compressible Fluid] [Pressure Diffusion @model]