

Water Influx Constant = B

Elastic capacity of **aquifer** to expand into **oil reservoir** or **gas reservoir** due to **reservoir pressure depletion**:

$$(1) \quad B = \frac{\theta}{\pi} \cdot A_e \cdot h \cdot \phi \cdot c_t$$

where

θ	central angle of net pay area aquifer contact
$A_e = \pi r_e^2$	net pay area
h	aquifer effective thickness
ϕ	aquifer porosity
$c_t = c_r + c_w$	aquifer total compressibility
c_r	aquifer pore compressibility
c_w	aquifer water compressibility

See Also

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