

Solution GOR = R_s

Synonym: Solution Gas Oil Ratio = Solution GOR = Gas Solubility = R_s

The quantitative measure of solution gas in live oil:

$$R_s = \frac{V_{Go}^*}{V_{Oo}^*} = \frac{m_{Go}}{m_{Oo}} \cdot \frac{\rho_O^*}{\rho_G^*}$$

where

$V_{Oo}^* = \frac{m_{Oo}}{\rho_O^*}$	STP volume of dead oil component of mass m _{Oo} and STP density ρ _O [*]
$V_{Go}^* = \frac{m_{Go}}{\rho_G^*}$	STP volume of natural gas component of mass m _{Go} and STP density ρ _G [*]

R_s(p, T) is a cross-phase exchange coefficient and a function of pressure and temperature

See Also

[Petroleum Industry / Upstream / Subsurface E&P Disciplines / Fluid \(PVT\) Analysis](#)

[[Cross-phase fluid exchange / Cross-phase exchange coefficient](#)]

[[Vaporized Oil Ratio \(R_v\)](#)]