

Vertical Lift Performance = VLP

Lift Curves (LC) = Tubing Performance Relation (TPR) = Vertical Lift Performance (VLP) = Vertical Flow Performance (VFP)

Represents the relation between the bottom-hole pressure p_{wf} and surface flow rate q during the stabilised wellbore flow under a constant Tubing Head Pressure (THP) p_s :

(1) $p_{wf} = p_{wf}(q)$

which also depends on GOR and Y_w .

The example of Lift Curves (LC) for single-phase fluid flow is shown on Fig. 1.1 (low-compressible) and Fig. 1.2 (high compressible).

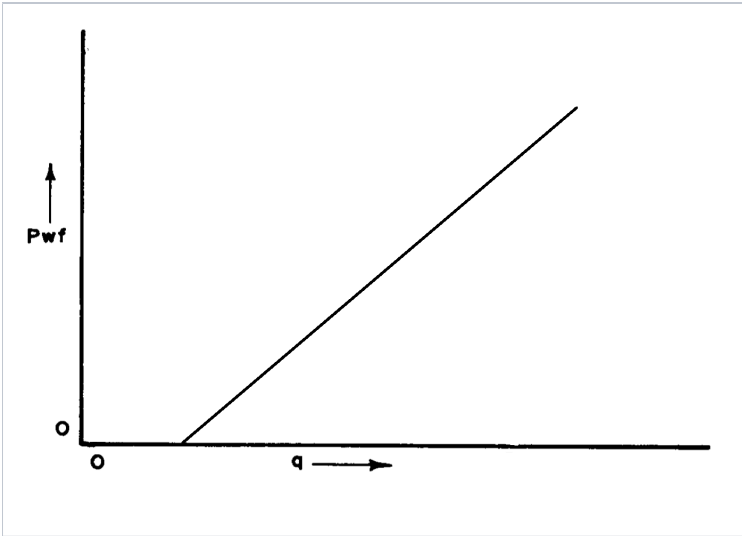


Fig 1.1. Lift Curves for low-compressible fluid (for example, water)

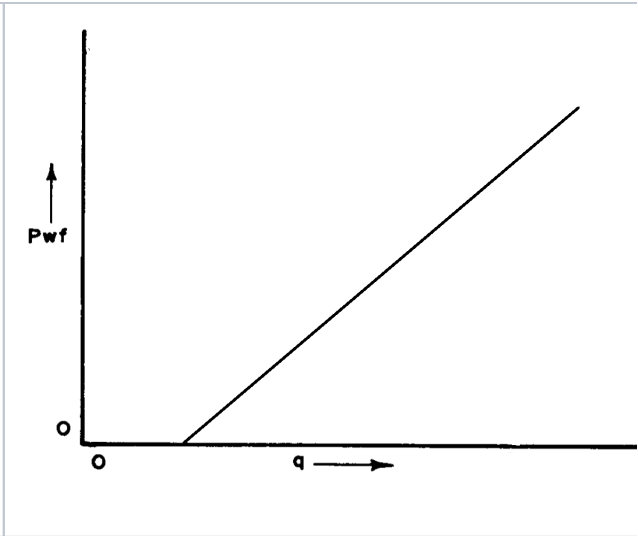


Fig 1.2. Lift Curves for high-compressible fluid (for example, gas)

The example of Lift Curves (LC) for dual-phase fluid flow shown on Fig. 2.

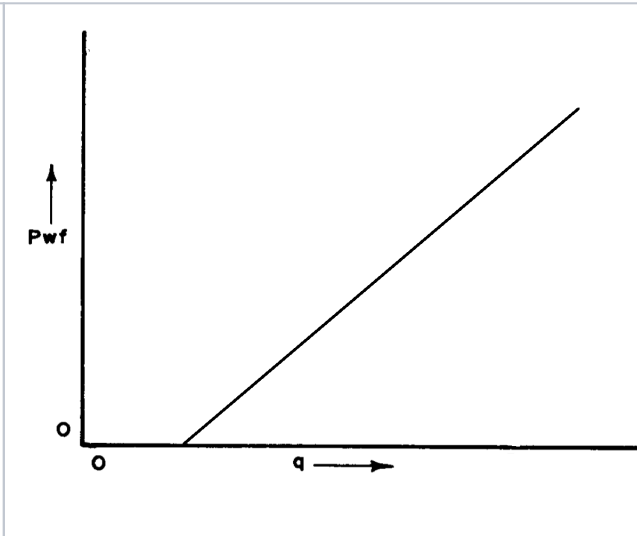
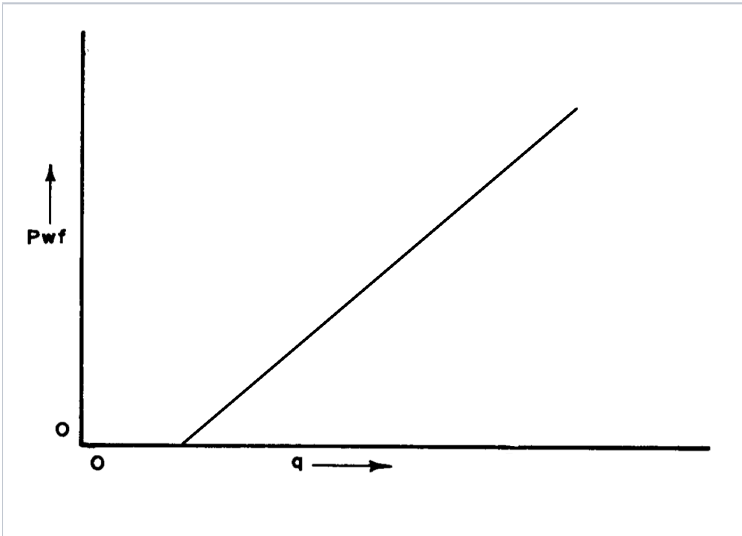


Fig 2.2. Lift Curves for 2-phase Oil + Gas flow

Fig 2.2. Lift Curves for 2-phase Oil + Water flow

The examples of [Lift Curves \(LC\)](#) for 3-phase Oil + Gas + Water flow at various [watercuts](#) ($Y_w = \{20\%, 50\%, 80\%\}$) are shown on **Fig. 3.**

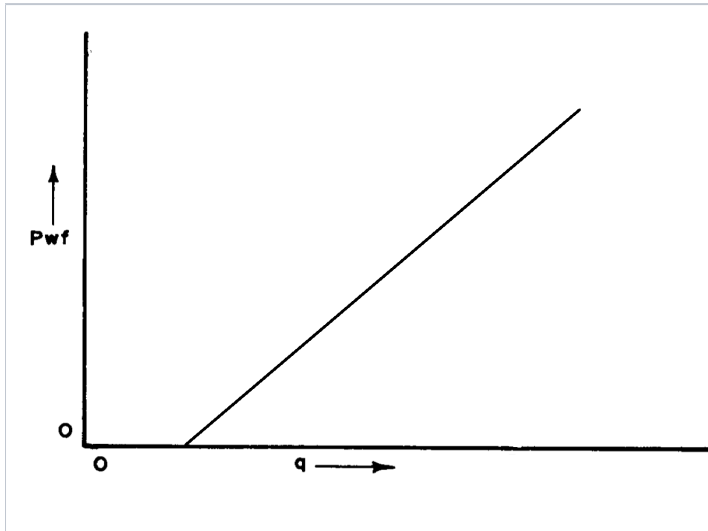


Fig 3.1. Lift Curves for 3-phase Oil + Gas + Water flow at $Y_w = 20\%$

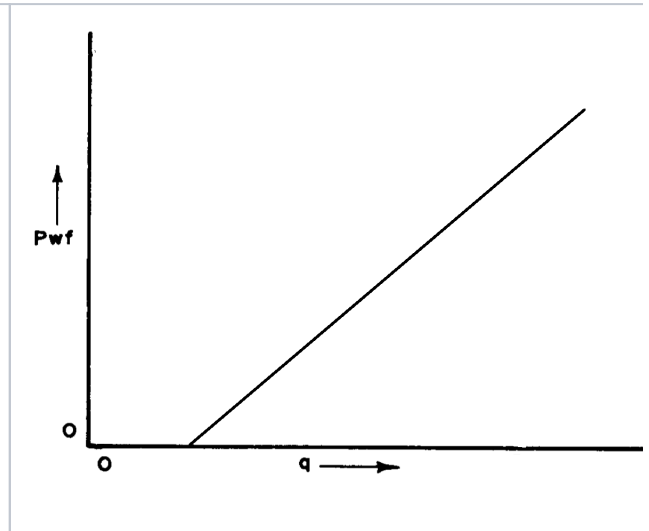


Fig 3.2. Lift Curves for 3-phase Oil + Gas + Water flow at $Y_w = 50\%$

Mathematical Model

[Lift Curves @model](#)

See Also

[Petroleum Industry](#) / [Upstream](#) / [Subsurface E&P Disciplines](#) / [Production Technology](#) / [Well Flow Performance](#)

[[Lift Curves @model](#)]

[[Water Injection Wellbore Profile @model](#)]

[[Inflow Performance Relation \(IPR\)](#)]