

Pressure Control (Reservoir Flow Modelling)

Specification of [DFM](#) dynamic inputs and outputs at [well](#) level:

Dynamic Input	Dynamic Output
<ul style="list-style-type: none">• BHP	<ul style="list-style-type: none">• Liquid rate• Formation pressure• Water cut• GOR

The [pressure control](#) is a usual condition for [water injectors](#) and [gas injectors](#) and specified by the [THP](#) maintained by the ground booster pump.

In this case a reservoir takes as much fluid as it can depending on quality of [well-reservoir contact](#) and [reservoir capacity](#) and [reservoir transmissibility](#) around a given [injector](#).

Sometimes [producing wells](#) produce at nearly constant [bottomhole pressure](#), when it is being reduced by the downhole pump to its minimal value $p_{wf} = p_{wf,\min} = \text{const}$, specified by the pump location inside the [wellbore](#).

In this case the liquid rate is declining $q_L^\uparrow(t) < q_{LL}^\uparrow$

This does not actually qualifies this production as [Pressure Control](#) and the well is still under [Liquid Control](#) conditions and once [bottomhole pressure](#) raises above minimal the pump returns to producing the target liquid rate $q_L^\uparrow(t) = q_{LL}^\uparrow = \text{const}$.

See also

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