

## MANAGING HIGH PERMEABILITY WATER DRIVE GAS RESERVOIRS TO MAXIMIZE VALUE

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Water drive gas reservoirs are frequently produced at maximum withdrawal rates for the purpose of “out running the aquifer” so that ultimate recovery may be maximized. However, the decision to produce a water drive gas reservoir at high production rates needs an understanding of the effect of production rates on the ultimate gas recovery.

This paper discusses good gas reservoir management techniques in general and illustrates that in some cases there may not be significant loss in recovery in shutting in a strong water drive gas well. This paper also discusses the effects of deviating from the “out running the aquifer” policy. In one of the Badin fields in Pakistan, a good gas producing strong water drive sand was shut-in to be produced later from another well, while the well bore was used effectively to produce gas from a separate interval. This reservoir management led to increased gas deliverability and also higher net present value to the asset.