



/ Expro Excellence PowerChokes®

UBD solutions that save time and money



Objectives/background

- To provide an under-balanced drilling (UBD) solution to control bottomhole pressure and minimise reservoir problems

Expro Excellence

- Expro's Automatic Back Pressure (ABP) system maintains an accurate setpoint pressure more accurately and with much less deviation than alternative solutions offered by other service providers
- ABP system capable of maintaining a single or multiple setpoint pressure during connections to maintain bottomhole pressure (see figure 1)
- While drilling, the rig encountered significant gas influxes and kicks in the lateral section – initially the system was used to simulate mud weight rather than increasing the mud weight further

- During kicks (see figure 2) the choke opens, relieving pressure on the well and allowing the rig to continue drilling. The operator could then adjust the setpoint pressure in order to maintain the bottomhole pressure and fracture pressure window – saving valuable time and money
- Fast and user-friendly in comparison to alternative providers

Value to client

- Allows a lighter mud weight to be used as a result of maintaining control of the bottomhole pressure, therefore reducing drilling fluid costs
- By maintaining BHP during gas influxes the client was able to drill ahead reducing non-productive time (NPT)
- Rig was able to continue drilling, rather than closing in the well, which saved the operator time and money

Cost saving



Expro's client was having reservoir problems when entering a critical formation, causing lost circulation issues. Furthermore, since the pore pressure and fracture pressure gradient window is very narrow, it is imperative to have close control of bottomhole pressure. This formation can produce violent nuisance gas kicks and influxes that have to be managed quickly and effectively to prevent well control issues.

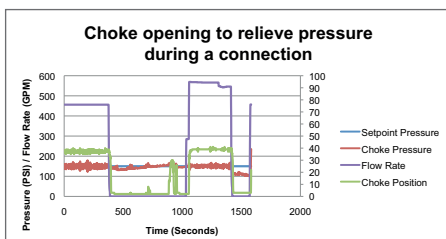


Figure 1

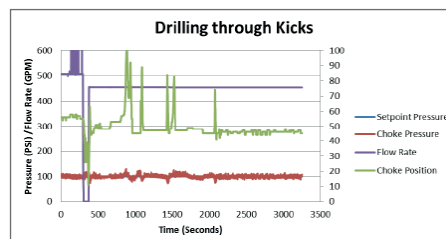


Figure 2

Contact

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