

Drilling Optimisation – Australia

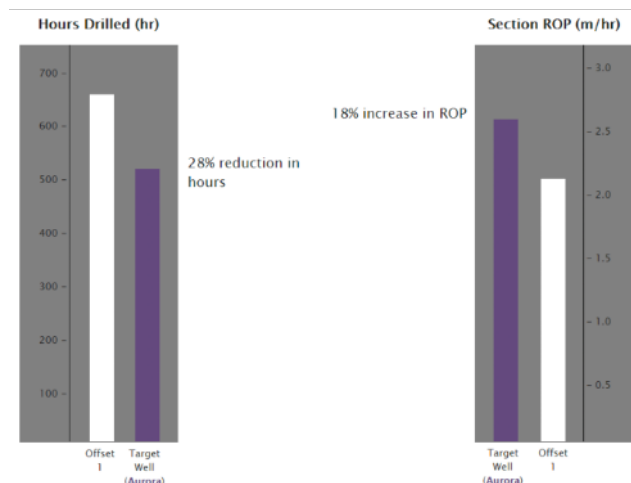
Hands on operation delivers performance improvements at the first attempt

An Australian ultra-high temperature geothermal operator contracted Aurora to undertake a pre-well optimisation analysis and deliver hands on operations support during the 12 1/4" hole section drilling operations. The objectives were set by the operator. These tasked Aurora with reducing the number of drilling systems when compared to the 2 x most recent offset wells without vibration causing catastrophic drill bit or BHA failures.

Drilling Plan:

The Aurora drilling optimisation plan was built around this and focused on the following:

- Stabilisation of the drilling systems modelled to resist lateral vibrations during this deep 12 1/4" hole section.
- Utilisation of new stabilisation technology to ensure this happened.
- Introduction of an un-tried drilling system for the later stages to increase ROP and drill bit life.



Improved Performance

The Aurora drilling optimisation plan delivered the following results on this hard rock ultra high temperature section for the Australian operator.

27% reduction in the number of drilling systems employed to complete the interval.

18% increase in overall ROP.

28% reduction in the number of drilling hours required to drill the 1400m interval.

The Aurora drilling optimisation plan delivered savings 6.0 rig days on this deep ultra-high temperature geothermal exploration well to the operator.