

Water breakthrough monitoring

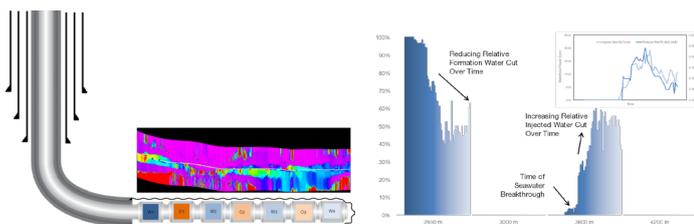
Insights that optimise oil production

A Tracer Production Log™ monitors water production, so your oil production can be optimised.

In any field development, it is important to continuously monitor fluid production to manage and optimise oil production. Solid smart tracers integrated into a lower completion, used alongside liquid waterflood tracers, provides advantages over traditional oil and gas inflow measurement technologies, at a fraction of the cost.

Application

Tracerco installed 49 unique oil and water smart tracers in 7 subsea production wells, along with 4 unique waterflood tracers in 4 injectors. The oil tracers' primary role was to verify clean-out and quantify oil flow from each of the wells. The water tracers were used to detect the position of water breakthrough, and confirm whether the source was from injected seawater, the formation, or both.



Following the onset of water breakthrough, regular samples were taken and analysed for the presence of tracers. Detection and knowledge of their position in each of the production wells allowed an assessment of where the water was originating, and whether it was injected seawater or formation water. Results from one well are shown in the graph. In parallel with detection of a waterflood tracer, an inflow smart tracer located at 3800 meters MD had simultaneously appeared. This data provided information on both the seawater source, and where in the well it had originated, allowing rebalancing of field waterflooding strategy.

Benefits

- Determines well connectivity and sweep efficiency.
- Establishes water influx position into producer wells.
- Establishes clean-out and quantifies oil inflow profiles along each producing well, without intervention.
- Provides improved identification and extent of high permeability channels between wells.

Contact

To learn more about how a Tracer Production Log™ (TPL), coupled with a Tracerco™ interwell study, can optimise production and save you money, contact:

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