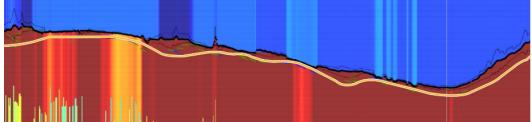
i-Trak services autonomously drill ~70% of an 8½-in reservoir with optimum placement and superior hole quality

CHALLENGES

- Place the well's 8½-in. section precisely within 3 m of reservoir roof.
- Deploy first-of-its-kind autonomous reservoir navigation technology to geosteer the section.
- Complete two production targets by successfully running the completion string.

SOLUTION

- i-Trak[™] automated reservoir navigation and i-Trak automated directional drilling service incorporating measurements and steering from the <u>AutoTrak[™] eXact</u> <u>RSS</u>, <u>LithoTrak[™] LWD</u>, <u>AziTrak[™] deep azimuthal resistivity</u>, and <u>VisiTrak[™] geospatial reservoir analysis</u>.
- A detailed execution plan for this first-ever application which included having the i-Trak service's automatic recommendations monitored and approved by experts in the Equinor Geo Operations Center and Baker Hughes RNS and directional drilling engineers.
- Approved steering commands were automatically transmitted to the BHA and implemented downhole.



Using deep-reading resistivity inversions, i-Trak automated reservoir navigation generated navigation proposals (green and blue lines) that were translated into steering commands and downlinked to i-Trak automated directional drilling. This precisely placed a high-quality wellbore an average of 1 meter from the reservoir roof with minimal dogleg severity (1.3°/30m avg.).









Johan Sverdrup license operator Equinor ASA and partners Petoro AS, Aker BP ASA, and TotalEnergies EP Norge AS.

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RESULTS

70%

of reservoir footage performed by automated directional drilling

1.05 m

median distance from roof on 1339 m lateral

17% under-budget

8% improvement

vs. "perfect completion" KPI

