



**NORTH
SIDE**

**SPINNERLESS
PRODUCTION PROFILING**

**HIGH RESOLUTION TEMPERATURE
RESERVOIR PERFORMANCE EVALUATION**

SPINNERLESS PRODUCTION PROFILING HIGH RESOLUTION TEMPERATURE TECHNOLOGY

High Resolution Temperature technology is based on High Accuracy Temperature Tool with resolution of exposed to the environment Temperature Probe of not less than 0.001 C and response time not less than 0.25 sec.

HRT tool is designed to acquire wellbore/reservoir temperature with high resolution and accuracy at different well conditions (static, flowing, transient captured in the certain sequence) with subsequent interpretation of recorded HRT curves to decode related to the reservoir and wellbore production / injection processes/profiles, channelling behind casing/liner/tubing, thief zone production and well integrity issues.

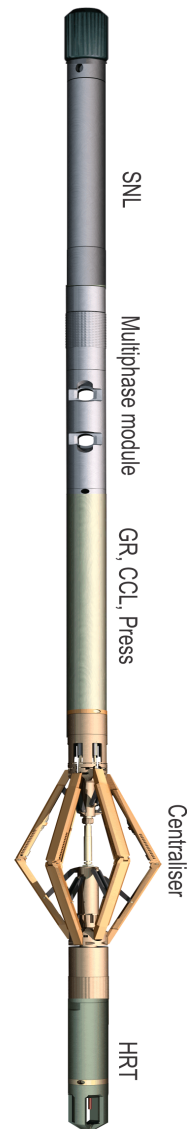
Technology application:

- Production/injection profiling based on HRT readings - **spinnerless** well-reservoir performance evaluation technology.
- Leaks, channelings, thief production/injection quantification behind tubing/casing.

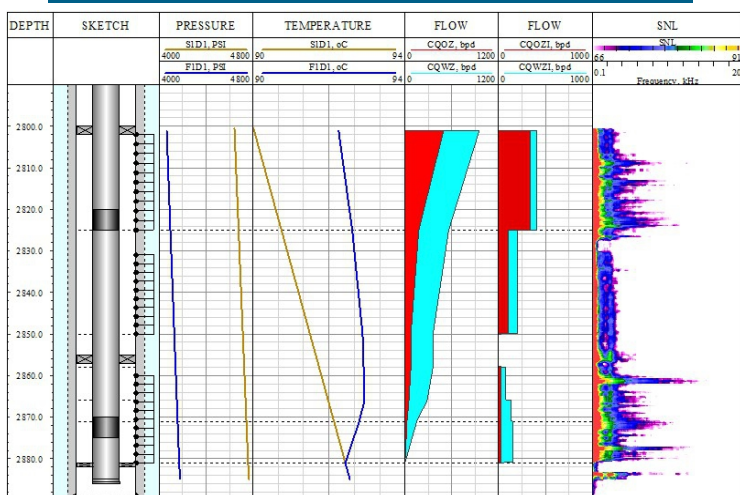
Technology advantages:

- No rate limitation due to threshold for production / injection measurement.
- Through tubing technology for complex completions where spinner can't work.
- True reservoir related production / injection profiling.

Specs	Value
HRT tool sensitivity, C	0.001
HRT response time, sec	0.25
HRT probe type	Platinum
Temperature rating, C	150
Pressure rating, PSI	14,500
SC-SNL in toolstring	Yes
GR	Yes
CCL	Yes
Pressure	Yes
CAP, Resistivity module	Yes
Array HRT (optional for horizontal wells)	Yes
Length,m	2.6



BEHIND TUBING RESERVOIR PERFORMANCE EVALUATION



RESERVOIR PERFORMANCE EVALUATION

