RESERVOIR MONITORING

TENDEKA

Case Study:

World's first DTS installation in a horizontal ICD completion

DTS used to determine horizontal flow contribution and shut-in cross flow in world' s first DTS installation with a horizontal ICD completion

Well Data

Location: Saudi Arabia

Well Type: Single lateral horizontal oil producer

Installation Date: 2009

Hole Size: 6 1/8"

Project Objectives

To successfully install DTS in an ICD completion and use the data to determine the inflow rate allocation to within 20% of PLT results.

Tendeka Solution

Tendeka's high resolution DTS system was used to read the downhole temperature. The data was monitored using Tendeka's data interpretation software FloQuest. Multi-rate testing and PLT was compared.

Project Results

Results were published in SPE paper SPE 122448 showing flow. Contribution matches to within 20% of the PLT results, hence successful conclusion of the trial test.

- DTS surveys were successfully taken
- Clear indications of well shut-in, well producing and change of rate
- Flow detected along the horizonal interval in all segments at all production rates