

CASE HISTORY

PUSHING THE HIGH-TEMPERATURE ENVELOPE OF MEMORY PLT LOGGING

APPLICATION

Production Logging

TECHNOLOGY

Vulcan FLS 2.25

LOCATION

Europe

CUSTOMER CHALLENGE

The customer required critical reservoir and production data from its 194°C (381°F) gas producing well using a memory PLT. The client's objectives were the following: to obtain a flow profile, to determine the presence of any cross-flow, and to calculate productivity and sand face pressure with Selective Inflow Performance (SIP) analysis [the latter necessitating a multi-rate test]. To achieve these comprehensive goals, a run duration of up to 20 hours would be anticipated, posing a significant challenge within this high-temperature environment.

SCIENTIFIC SOLUTION

SDI's Vulcan FLS 2.25 was the ideal solution, capable of maximizing log duration within harsh conditions. The system comprised Pressure, Temperature, Gamma-ray/CCL, and Spinner in memory mode. Log passes were performed across a 250m interval in shut-in, flow rate 1, flow rate 2, and another set of shut-in passes before returning to surface. Despite the high-temperature and extended run duration, the internal temperature of the tool remained well below the maximum temperature rating of the electronics and battery. Excellent data quality was attained and the client's objectives were met.

CUSTOMER VALUE

Alternatives to the Vulcan FLS 2.25 would have ultimately included more limited flasked (m)PLT systems, jeopardizing run duration and/or requiring multiple runs in order to collect equivalent data. SDI's solution provided cost savings by eliminating additional runs, minimizing operating charges and production downtime, and by acquiring data from a single system without compromising the customer's data acquisition objectives.

