

CASE HISTORY

VULCAN™ MFT 24 IDENTIFIES CASING DEFORMATIONS IN THERMAL EOR FIELD

APPLICATION

High Temperature Wellbore Integrity and Casing Evaluation

TECHNOLOGY

Vulcan™ MFT 24 (Multi-Finger Tool)

LOCATION

Middle East

CUSTOMER CHALLENGE

A heavy oil reservoir (thermal EOR field) was subject to steam injection, raising reservoir temperatures to over 500° F. When ceasing steam injection for a period of time, the bottom-hole temperature reduces to approximately 400° F. The customer was suspicious of tubing and casing integrity issues. They needed a fit-for-purpose, high accuracy cased hole solution to obtain data on the wellbore ID and possible anomalies in the 3 1/2" tubing and 7" liner in one run. A minimum completion ID of 2 1/4" posed another challenge to selecting the appropriate multi-finger tool.

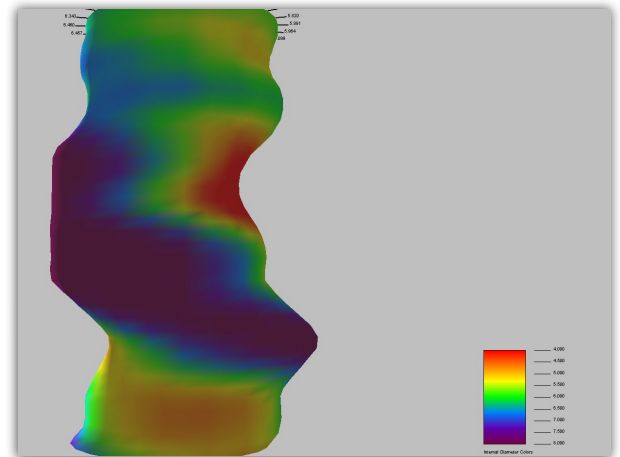
SCIENTIFIC SOLUTION

Scientific Drilling utilized their Vulcan™ MFT 24, due to its high temperature rating of 428°F and 1.85" OD, meeting the customer's requirement to acquire the in-depth analysis. The tool provided the customer with detailed measurements of the wellbore's ID, including the assessment of metal loss and scale build-up. It also carries an integral casing collar locator for enhanced depth correlation and a completion component for identification capabilities.

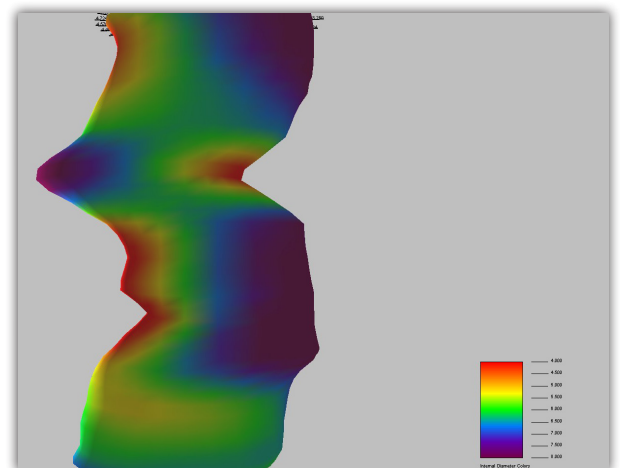
A 3D visualization showcasing the deformations and anomalies along the 75 ft of the 7" liner was also provided to the customer.

CUSTOMER VALUE

The in-depth analysis provided the customer with a previously unobtainable insight into the wellbore integrity in a high temperature environment. The tool's measurement range allowed the data to be logged in one run, ultimately saving the customer an entire day of lost injection time.



PIPE DEFORMATION - SECTION #1
Non-centralized data showcasing 20 ft of damage



PIPE DEFORMATION - SECTION #2
Non-centralized data showcasing 20 ft of damage

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