

## CASE STUDY

# OMEGA GYRO SURVEYS REVEAL INCORRECT PLACEMENT OF SMART COMPLETION STRING

### ▶ TECHNOLOGY

- Omega™ solid-state memory gyro system
- SPEAR™ solid-state sensors

### ▶ APPLICATION

- Memory multi-shot inside smart completion string

### ▶ LOCATION

- Offshore, Middle East

### INDUSTRY CHALLENGE + OBJECTIVE

An operator in the Middle East was placing a smart completion string in the main bore of multi-lateral wells. However, it could not be confirmed if the smart completion string had entered the main bore, or into the lateral. The operator required high-accuracy gyro survey data within the smart completion string to determine the desired placement of the string in the main bore of the well. In addition to the above challenge, the distance that was available to survey to determine the placement of smart completion string, was limited. This was due to avoiding the risk of the smart completion string being stuck in an open hole if it was to enter the lateral rather than the main bore of the well.

### TECHNOLOGY + SERVICE SOLUTION

- Gyrodata recommended deployment of the Omega memory gyro system, which is capable of surveying at all inclinations with high accuracy.
- The Omega system was deployed in conjunction with a downhole tractor to allow the tool string to traverse through the horizontal section of the well.
- Extremely fast data acquisition, efficient power usage, and increased reliability, allow maximum flexibility to optimize surveying during various stages of wellbore construction and production.

### RESULTS + VALUE DELIVERED

- For the first well, the Omega Gyro survey confirmed the smart completion string had entered into the main bore as per plan.
- Upon the successful completion of the Omega service in the first well, the operator wanted to verify the smart completion placement on another well in the same field.
- For the second well, the Omega gyro survey identified the smart completion string had in fact entered into the lateral instead of the main bore. Based on the Omega survey result, the client changed the smart completion string configuration and subsequently was able to successfully place the smart completion string in the main bore.
- Without the Omega surveys, the smart completion string in the second well could have been set in the incorrect section of the well, resulting in major production complications that would have necessitated costly workover operations.

