

CASE STUDY

MICROGUIDE HELPS OPERATOR IN CASPIAN REGION ANTICIPATE POTENTIAL PROBLEMS WHILE RUNNING CASING AND ACCURATELY CALCULATE LINER BEND

▶ TECHNOLOGY

- MicroGuide™ wellbore tortuosity logs
- GyroGuide™ gyro surveys

▶ APPLICATION

- Liner placement

▶ LOCATION

- Caspian region

INDUSTRY CHALLENGE + OBJECTIVE

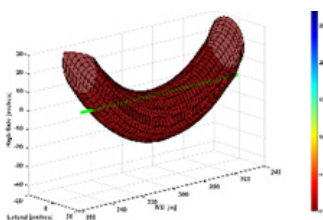
An operator in the Caspian region was experiencing issues with running 24-in. liner after driving a 30-in. conductor pipe with a 27-in. ID into the ground. While casing and conductor pipes are generally strong and stiff, when they are driven into the ground there is always a risk of bending them. Though it was suspected the cause of their liner trouble was due to conductor pipe bend, the operator needed a way to determine where the bend was occurring and by how much to prepare for any issues running the liner.

TECHNOLOGY + SERVICE SOLUTION

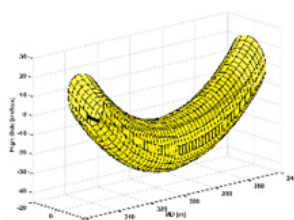
- Our MicroGuide solution was chosen for its ability to create a wellbore model from high-density survey information, which allowed the operator to visualize the degree and location of any bends within the conductor pipe. In addition to the wellbore modeling, MicroGuide revealed information on microdoglegs and maximum available tool ID giving the operator the extra information needed to make an informed liner placement decision.
- Prior to the job, MicroGuide showed the operator how much their liner would need to bend to fit through the conductor pipe. The survey information was acquired using our GyroGuide system. After the survey data was prepared in the MicroGuide software, the operator was presented with a visualization of the maximum tube diameter allowed in the conductor pipe at various angle bends.

RESULTS + VALUE DELIVERED

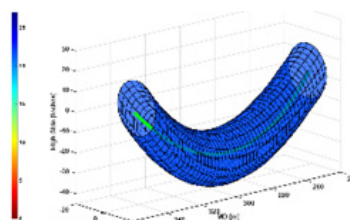
- The MicroGuide analysis of the gyro survey information allowed the operator to anticipate potential problems while running casing. After the findings, they began to keep 20-in. backup liner on location in case the MicroGuide analysis revealed there would be too much bend for the larger diameter liner. The ability to adjust their liner size and anticipate problems allowed the operator to save significant rig time by avoiding potential damages.



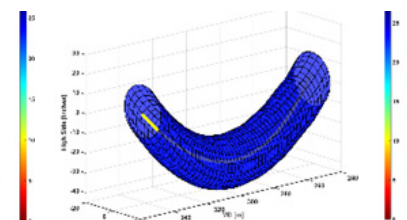
0.00°/100 ft bend, max diameter = 0.00 in.



0.50°/100 ft bend, max diameter = 9.89 in.



1.00°/100 ft bend, max diameter = 21.69 in.



1.21°/100 ft bend, max diameter = 23.34 in.