

CASE STUDY

GWD70 ELIMINATES RIG TIME ASSOCIATED WITH TRADITIONAL SURVEYING SYSTEMS IN CHALLENGING MPD OPERATION, SAVING OPERATOR \$75,000

► TECHNOLOGY

- GyroGuide™ GWD70

► APPLICATION

- Managed pressure drilling (MPD)
- High-angle wellbore surveying
- Collision risk mitigation

► LOCATION

- Offshore Malaysia

INDUSTRY CHALLENGE + OBJECTIVE

An operator working offshore Malaysia was conducting a drilling campaign incorporating MPD to deal with a highly unstable formation. The challenge with MPD was that it required the pumps to be switched on and off in stages before taking a survey or breaking a drillpipe connection, which causes interference with traditional surveying tools' sequences. To address this concern and the risk of collision with nearby wells, the operator required a solution that would allow them to take high-accuracy surveys without impacting the MPD pumping sequence.

TECHNOLOGY + SERVICE SOLUTION

- Our GWD70 system provided data for advanced collision avoidance and real-time knowledge of wellbore position, enhancing performance and safety.
- The GWD system required zero flow or complete BHA-string stationary time to record a survey. Any flow within the pipe would invalidate the survey.
- The GWD system's customizability allowed us to develop and implement the exact tool settings necessary to accommodate irregular MPD pumping sequences.

RESULTS + VALUE DELIVERED

- We conducted a comprehensive pre-job review before system deployment in anticipation of MPD-related challenges.
- GWD70 system "survey delay" and "tool shutdown time" functions were customized to adapt to MPD operations.
- We successfully completed 24 GWD surveys from 1855 to 2522 m at a maximum inclination of 66°. The surveys were taken without issue and without MPD interfering with the survey sequence.
- Under normal circumstances, a standard wireline gyro would have been an option to support MPD; however, this option would require mobilization of additional personnel to the rig, the added cost of wireline unit service, and extra rig time for running wireline. Additionally, there would be a risk of stuck pipe each time a survey was taken due to the drillpipe needing to be stationary.
 - By using GWD, we eliminated all these concerns, saving the operator approximately \$75,000.

