

From Shut-in to Standout:

Precision Modeling Meets Field Execution to Deliver Lasting Production Gains in Malaysia

Objectives

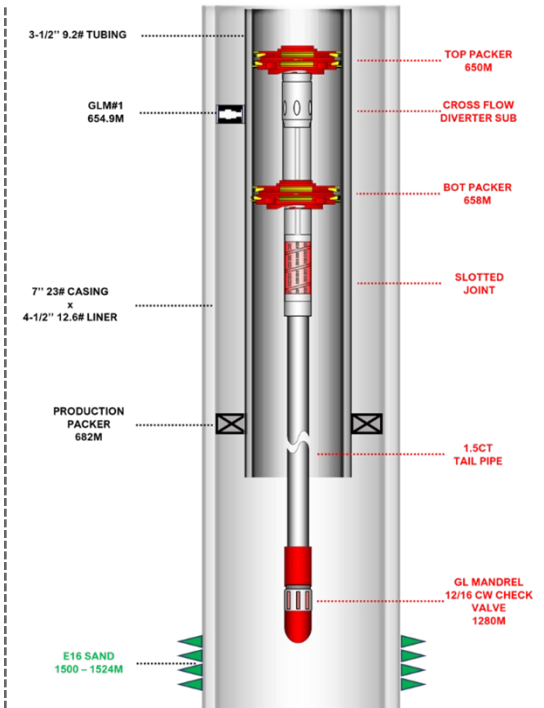
- Restore production from a well shut in for 3 years. The well, completed in December 2022, was a single oil producer with a single gas lift injection-point located at 2,148.6 ft (654.9 m), designated as GLM #1.
- Enable continuous, stable flow by optimizing gas lift performance through a deeper injection point. The well needed to be unloaded into a test separator to flow at a lower pressure.

Our Approach

- Weatherford experts assessed the well data and modeling results to determine the optimal gas lift injection-depth. Further modeling was run using the WellFlo[®] design and analysis software to evaluate gas lift deepening approach. The results were very encouraging with a clear indication on the possibilities about restoring well production
- The deep gas lift (DGL) simulation setup achieved a maximum gas injection point of 4,265 ft (1,300 m) MD with an injection rate of 0.92 MMscf/d and a pressure of 1,420 psig (9.79 MPa). Based on the results and considering for best optimization, the new gas lift injection- depth was agreed to be at 4,199 ft (1,280 m).
- Using 1 1/2-in. coiled tubing, Weatherford Well Services installed the WidePak[™] DGL system at a depth of 2,148.6 ft (654.9 m), positioning the system against GLM#1.
- The new system successfully deepened the gas lift injection-point to 4,199 ft (1,280 m), extending the injection-depth by 2,050.8 ft (625.1 m), 721 ft (220 m) above perforations.

Value to Customer

- With the DGL system in place, the first well test results showed a production of 267 BOPD. After well stability, the well settled at a higher production rate 600 BOPD with a total liquid production of 1,600 BPD.
- The well, the deepest tail pipe installation in Malaysian waters, is now restored after being shut in for 3 years. With this new depth of gas injection, the well is not only restored but expected to produce for a longer time.



The WidePak deep gas lift system as installed in the wellbore.

LOCATION

Malaysia

WELL TYPE

Oil producer

PERFORATED DEPTH

4,921 to 5,000 ft (1,500 to 1,524 m)

PRODUCTS/SERVICES

- Thru-tubing services
- WidePak DGL system
- WellFlo software

