

REAL RESULTS

Gas-Lift System Recovers Dead Well, Improves Fluid Rate, Avoids Shutting-In Gas Injector, Saves Downtime, Associated Costs

Objectives

• Maximize production by recovering fluid from deeper, dead, and loaded-production layers with the existing low pressure in a gas-supply line to reach a deep gas-injection point.

Results

- Weatherford used data provided by the operator and Weatherford's gas-lift-design software to design and model an optimal solution.
- Personnel deployed C-1 injection pressure operated (IPO) gas-lift and CV-1 check valves on 2.8 CM-1 tubing-retrievable conventional mandrels with 2 7/8-in. tubing.
- A Weatherford 5 1/2-in. Arrowset I-X mechanical-retrievable production packer was set at the desired depth to isolate the casing-tubing annular from formation fluid. The 2.875-in. WXA sliding sleeve was located one joint above the packer.
- Weatherford's gas-lift system increased the fluid-production rate from 76 to 189 B/D (12 to 30 m³/d).

Value to Client

- Using Weatherford's gas-lift system enabled the operator to increase the fluid-production rate and return dead, potentially lower zones back to production.
- The efficiency of Weatherford's gas-lift unloading procedure in the well saved the operator downtime and costs associated with performing unnecessary jobs using a pump truck, compressor, and swabbing unit.
- The operator avoided having to shut-in the gas supply line of the offset wells to increase injection pressure.
- The system enabled the adjustment of injection rates to the optimum injection-gas level and avoid extra gas consumption.



Weatherford's gas-lift system.

Location West Turkmenistan

Formation Sandstone

Liquid Rate

- 189 B/D (30 m³/day)
- Base sediment and water: 10%
- Gas-injection pressure: 580 psi (3.9 MPa)

Depth 10,299 ft (3139 m)

Tubing Setting Depth 10,040 ft (3060 m)

Casing Size and Angle

5 1/2-in., 20 to 23 lb/ft (29.8 to 34.2 kg/m), vertical

Products/Services

- Gas-lift equipment
- Cased-hole completion services

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