HyperLine™ Motor and TwinWells™ System Place SAGD Wells at Required 16- to 20-ft Distance in 4.7 Days

Objectives

- Drill a 2,789-ft (850-m) steam-assisted gravity drainage (SAGD) injector wellbore, and maintain the required 16- to 20-ft (5- to 6-m) vertical separation from a previously drilled lower producer wellbore.

Our Approach

- Weatherford deployed the TwinWells active magnetic ranging system, HyperLine™ 250 drilling motor, Inc-Sonde near-bit inclination sensor, and EMpulse™ electromagnetic measurement-while-drilling (MWD) system.
- The TwinWells system delivered precise magnetic measurements to accurately place the wells at the desired proximity to each other.
- The HyperLine 250 drilling motor provided increased torque capabilities to reduce stalling, deliver more consistent bit speeds, and improve steerability and rate of penetration (ROP).
- The Inc-Sonde sensor measured inclination close to the bit to reduce drilling tortuosity and maintain required spacing between ranging shots.
- Drilling was completed with the upper wellbore at the required 16- to 20-ft (5- to 6-m) vertical distance from the lower wellbore.

Value to Client

- Weatherford drilling technologies—including the TwinWells system, HyperLine motor, Inc-Sonde sensor, and EMpulse system—achieved a pacesetting drilling time of 4.7 days.
- The Inc-Sonde near-bit inclination sensor provided measurements that enhanced the drilling process and reduced the survey time across the lateral section.