

Middle East

Accelerated crude transfer recovery in extreme heat

Hercules™ HPS restored 70,000 BOPD 14 weeks ahead of schedule in high-ambient conditions

CHALLENGE

- Restore 70,000 BOPD in extreme heat
- Fit oversized motors on custom skids
- Align with 50 Hz power systems
- Compress build and logistics timeline

SOLUTION

- 30-60 Hz Hercules HPS pumps with wide operating range
- Used critical build process
- Shipped motors directly from Europe to job site with final assembly and acceptance testing performed onsite

RESULT

- Delivered system 14 weeks early
- Resumed 70,000 BOPD production
- Recovered US\$4M per day (at \$60 / BOE)
- Reduced investment costs due to shorter lead time and broader solution range



Crude oil transfer station.

Overview

A Middle East operator faced an urgent production challenge when three legacy units failed. The failure halted transfer of up to 70,000 BOPD in extreme ambient temperatures. To avoid prolonged downtime and revenue loss, the operator required a fast and reliable pumping solution.

The system had to perform in high heat, integrate with existing infrastructure, and meet strict delivery timelines. The project demanded high-horsepower equipment, wide operating flexibility, and compatibility with 50 Hz power, all without expanding the site footprint or compromising safety.

Challenge

The operator faced multiple constraints in restoring crude transfer. The project required three horizontal pumping system (HPS) units, each rated at approximately 600 hp and capable of handling 35,000 BPD. The system needed



CASE STUDY

to support variable speed drive (VSD) control to manage fluctuating operating conditions. The system had to align with 50 Hz power requirements and fit custom skids designed for oversized motor frames. The operator demanded compressed build and logistics timelines to minimize production downtime and revenue loss.

Solution

After evaluating multiple options, the team at Summit ESP® - a Halliburton service, recommended Hercules™ HPS pumps with an operating range of 30-60 Hz, controlled by VSD. This solution expanded the pump's range to cover all operating points for greater operational flexibility. The shorter length reduced the investment costs and simplified installation.

To accelerate delivery, motors were shipped directly from manufacturing facilities in Europe to the job site, which saved 14 weeks in lead time. Pump skids were delivered and installed on location. A third-party inspector verified the pump selection and installation after commissioning. The team followed a critical build process that included ultrasonic, liquid penetrant, and hydrostatic tests, along with full material traceability reports.

Result

Despite the complexity of the application, the local team delivered the high-capacity, high-ambient-temperature-compliant Hercules HPS systems 14 weeks early. This solution restored 70,000 BOPD production and enabled the customer to recover US\$4 million in daily revenue. The system also reduced capital investment and expanded the production range, all while maintaining safety and quality standards.

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