

Rig for Turkmenistan is designed to 3 sets of specs

A HIGH PERFORMANCE drilling rig has been designed and built by **Bentec Drilling & Oilfield Systems GmbH**, Bad Bentheim, Germany for **Turkmenneft** in Turkmenistan. The rig is scheduled to begin drilling in early October as part of a 30-well program.



Rig built for Turkmenneft will begin drilling in October in Turkmenistan on a 30-well program.

In mid February, the rig had arrived at the location and was scheduled to be rigged up soon under Bentec supervision. A Bentec crew will also train the local crew.

Bentec is a leading rig manufacturer specializing in high performance products and systems.

THE DESERT-READY RIG

The 2,000-hp, desert-ready "Turk 1" was designed and built to meet ISO 9001, API, and Russian specifications.

The 156-ft cantilever mast has a hook load capacity of 1.3 million lb (with 14 lines) and is mounted on a 35-ft high substructure capable of holding 800,000 lb of drill pipe or 1.3 million lb of casing.

The 2,000-hp drawworks and other systems will be powered by four **Caterpillar** 3512 engines connected to four 1,900-kva **Leroy-Somer** generators.

An enhanced Bentec diesel electric silicon controlled rectifier (SCR) unit will convert AC current to supply the DC motors. This high performance SCR unit could be upgraded with the Bentec Soft Torque Rotary System, Bentec Soft Pump System, Bentec Anti Collision System and other systems.

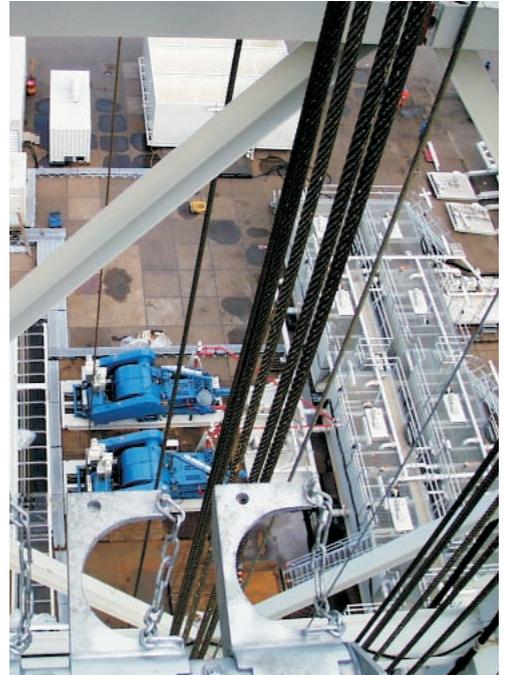
The hoisting system includes a **National Oilwell** 1320 UE drawworks, D-375 rotary table, B500 travelling block, and P500 swivel. The drawworks could be upgraded with the Bentec Feed Off Control System to increase operating efficiency.

The active mud system includes a 370-bbl shaker tank, 440-bbl suction tank, three reserve tanks (1,320 bbl total), two barite tanks (250 bbl total), and a 58-bbl trip tank.

Solids control equipment includes a **Brandt** dual tandem shale shaker, degasser, desander unit, and mud cleaner.

The shale shakers could be equipped with the Bentec Cutting Flux Measurement System to measure the output of cuttings and to carry out analysis of the well.

Two National Oilwell 12P 160 triplex pumps will



View from above shows mud pump and mud pit layout of new desert-ready rig that will work for Turkmenneft.

circulate mud. As mentioned above, the high pressure pulses could be reduced and MWD signals enhanced by use of the Bentec Soft Pump System.

In the future, Turkmenneft may upgrade the rig to include a top drive and the Bentec Mechanized Catwalk System (MCS). ■



Shaker, suction, reserve, barite and trip tanks, along with solids control equipment and 2 triplex pumps make up rig's fluid system.