

# On a mission in Darfur

Dando rigs are helping to quench thirst in Sudan

Only 44% of the Darfur population has access to decent water

Three 24t-capacity Dando water-well rigs are being commissioned in Darfur, Sudan, by Dando engineers Steve Goulding and Stan Kirby. The rigs are being used for a UN/African Union project that aims to improve water access across Darfur, where only 44% of the population can reach good-quality water supplies.

One rig has already drilled a 236m borehole in Gereida, South Darfur, which is expected to produce over 16,000L of water an hour. This new supply will be shared by both local Darfuris and the UN mission, which has drilled its first ever borehole using its own equipment and crew. The water-well rigs and training provided by Dando allows them to be more self-sufficient with their water supply. Similar wells are also being drilled in El Fasher (North Darfur) and El Daein (East Darfur).

A well of 120m depth has been drilled in the area of El Fasher. The borehole was started at 12¼in (31.1cm) using a tricone roller bit with mud flush. This was drilled to 29m in a sandstone formation and 10in (25.4cm) casing was installed and grouted. From 29m to 120m, the formation was a basement stratum (much like a quartzitic



conglomerate) consisting of a combination of basalt and granite, which was very hard and abrasive. The hole was drilled using air flush and an 8in (20.3cm) down-the-hole hammer with foam injection. Test pumping is due to begin soon.

In El Daein, another borehole of 336m was completed in a sandstone formation with a tricone rock roller bit and mud flush.

Depending on geological conditions, the Dando Watertec 24 rig can drill up to 830m with 4½in (10.8cm) drill rods (based on 80% of drill-string weight in a dry hole). The rig can perform a range of drilling techniques including reverse circulation/flooded reverse.

## African activities

Dando has been supplying equipment to Sudan for nearly 80 of its 145-year history. Customers have included the Sudanese government, UN agencies, non-governmental organisations and private contractors. In the 1930s Dando provided ferry pumps to Darfur that were still in working condition as late as the 1980s and may even still be functioning today, the company says.

Elsewhere in Africa, Dando has despatched four Watertec 40 borehole drilling rigs to Nigeria, which will undergo commissioning soon.

The company also supplies rigs for the mineral exploration sector in Africa. The Mintec 6, a 6t track-mounted mineral rig, has been used for gold exploration in Ethiopia and Sudan, while the small, multipurpose Dando Terrier rig is being used on mine sites in Namibia and Ghana. Two of the 12.8t-capacity exploration rigs, the Mintec 12.8 and a Dando Mule track carrier, are also destined for projects in West Africa soon. ▽

"One rig has already drilled a 236m borehole in Gereida, which is expected to produce over 16,000L of water an hour"



Near right: the Watertec 24 is capable of drilling down to 830m

Far right: drill rods



For more information: [www.dando.co.uk](http://www.dando.co.uk)