CUSTOMER
Varco International Inc, Orange County, California, USA

BACKGROUND
The ‘top drive’ system was developed by Varco SystemsTM in the early 1980s for use in offshore drilling operations where harsh environments and demanding requirements called for more rugged and reliable drilling systems.

The top drive increased productivity and allowed for safer operation when drilling oil and gas wells. It was later adapted for land based drilling offering the same low maintenance, high reliability and low operational cost, as well as being highly mobile and fully transportable between rigs.

APPLICATION
Two Dellner SKD 50 hydraulic pressure applied brakes are used to hold back torque in the drill string to stop the motor stalling and assist with positioning the drill bit during directional drilling.

The two brake units are mounted on the motor shaft operating on a 305 mm (12 inch) diameter disc, providing 3,800 Nm (2,804 lbf ft) of torque with 100 bar (1,450 psi) applied hydraulic pressure. Through the gear reduction, the holding torque on the drill string is 39,900 Nm (29,442 lbf ft).

Varco SystemsTM is a registered trademark of Varco International, Inc, Orange County, California, USA.