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Steering the HDD

Abstract:

The GST (Gyro Steering Tool) is nowadays used for the majority of large international HDD drillings and in our home counties it is becoming the standard for all drillings.

In Holland where the tool is developed about 90% of all wireline drillings are executed with the Gyro, but also in the USA, and Canada the percentage of drillings executed with the gyro is growing every year.

In the middle east we execute several drilling per years but apparently they are not always requiring the highest standards.

The system of Gyro steering for HDD is giving an smooth drill line, and substantially lower pull forces and less coating risk for steel pipelines.

Also the Gyro is having tolerances, where it is based on extremely accurate measuring of the azimuth and inclination and continuously calculating which is giving an accurate position of the drill bit.

This principle is different of magnetic tools where measuring form the surface is used and the accuracy is high at the entry and exit point but low at deeper sections. We developed a system with the accuracy of the Gyro and an accurate punch out. Our GPS tracker can detect the bit till 40m depth before exit to correct if required. Especially for the Geothermal energy or shallow oil drillings we developed the Geotool. This Geotool will give real time information of position, Gamma Ray and Resistivity during drilling.