

Title (en)

A METHOD FOR DRILLING AND A SURFACE STEERABLE SYSTEM FOR USE WITH A DRILLING RIG

Title (de)

OBERFLÄCHENSTEUERBARES BOHRSYSTEM ZUR VERWENDUNG MIT EINEM STEUERBAREN DREHSYSTEM

Title (fr)

SYSTÈME DE FORAGE ORIENTABLE DE SURFACE DESTINÉ À ÊTRE UTILISÉ AVEC UN SYSTÈME ROTARY ORIENTABLE

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Application

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Abstract (en)

A method for drilling and a surface steerable system for use with a drilling rig are described, wherein the method comprises:receiving, by a surface steerable system coupled to a drilling rig, bottom hole assembly (BHA) information associated with a rotary steerable BHA at a first location in a borehole, wherein the rotary steerable BHA further comprises a pad on an exterior surface of the rotary steerable BHA or a bent main shaft;receiving, by the surface steerable system, geological information associated with a geological formation through which the borehole extends;calculating, by the surface steerable system, forecasted information including torsional and spatial forces that are predicted to act on a drill bit attached to the rotary steerable BHA, wherein the torsional and spatial forces are predicted to be caused by actuator forces associated with the pad or the bent main shaft, and wherein the forecasted information is calculated using the BHA information and the geological information;calculating, by the surface steerable system, a first vector representing a convergence path from the first location of the rotary steerable BHA to a target drilling path based on the forecasted information;causing, by the surface steerable system, at least one drilling parameter to be modified in order to enable drilling using the rotary steerable BHA according to the first vector, wherein the drilling rig is enabled for the drilling according to the at least one drilling parameter using the rotary steerable BHA; and drilling the borehole using the rotary steerable BHA according to the at least one drilling parameter.

IPC 8 full level

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