

Title (en)

SYSTEM AND METHOD FOR DRILLING USING PORE PRESSURE

Title (de)

SYSTEM UND VERFAHREN ZUM BOHREN MITTELS PORENDRUCK

Title (fr)

SYSTÈME ET PROCÉDÉ DE FORAGE PAR PRESSION INTERSTITIELLE

Publication

EP 3283727 B1 20200108 (EN)

Application

EP 15805067 A 20151124

Priority

- US 201562147252 P 20150414
- US 2015062437 W 20151124

Abstract (en)

[origin: WO2016167841A1] A method and system for drilling a borehole in a subsurface formation, A method includes rotating a drill bit to remove formation material from the subsurface formation at an end of the borehole. A value of mechanical specific energy applied to remove the formation material is calculated. A value of drilling efficiency is calculated for drilling the borehole. Pore pressure of the subsurface formation in contact with the drill bit is calculated as a function of the drilling efficiency and the mechanical specific energy. Real-time operational decisions (such as adjusting density of drilling fluid or determining the final depth of the hole section) are made based on calculated pore pressure of the subsurface formation.

IPC 8 full level

E21B 44/04 (2006.01); **E21B 45/00** (2006.01); **E21B 49/00** (2006.01)

CPC (source: EP US)

E21B 44/04 (2013.01 - EP US); **E21B 44/06** (2013.01 - US); **E21B 45/00** (2013.01 - EP US); **E21B 47/06** (2013.01 - US); **E21B 49/003** (2013.01 - EP US)

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

WO 2016167841 A1 20161020; EP 3283727 A1 20180221; EP 3283727 B1 20200108; US 2016305231 A1 20161020

DOCDB simple family (application)

US 2015062437 W 20151124; EP 15805067 A 20151124; US 201514950717 A 20151124