

Title (en)  
METHOD AND SYSTEM FOR DETERMINING CORE ORIENTATION

Title (de)  
VERFAHREN UND SYSTEM ZUR BESTIMMUNG DER KERNAUSRICHTUNG

Title (fr)  
PROCÉDÉ ET SYSTÈME PERMETTANT DE DÉTERMINER L'ORIENTATION D'UN NOYAU

Publication  
**EP 3869000 A1 20210825 (EN)**

Application  
**EP 21168345 A 20171222**

Priority  
• AU 2016905363 A 20161223  
• EP 17883213 A 20171222  
• AU 2017051463 W 20171222

Abstract (en)  
A method (60) of determining core orientation of a core sample (12) cut from the ground by a drill rig (10) having a drill string and a drill bit (20) coupled to a downhole end of the drill string. Drilling data (Cn, Rn) is continuously acquired while the drill rig (10) is operating to cut and retrieve the core sample (12). The drilling data is a combination of core orientation data Cn and rig operational data Rn, where the rig operational data is constituted by either one or both of: (a) near bit rig data Nn; and, (b) at surface rig data Sn. The drilling data is analysed for a specific pattern of rig operational data Rn indicative of the core sample being broken from ground by operation of the drill rig (10). On detection of the specific pattern, the orientation of the core sample prior to being broken from the ground is the acquired core orientation data Cn coinciding with that specific pattern of rig operational data Rn.

IPC 8 full level  
**E21B 25/16** (2006.01); **E21B 44/00** (2006.01); **E21B 47/024** (2006.01); **G01V 1/50** (2006.01); **G05B 13/04** (2006.01)

CPC (source: EP US)  
**E21B 25/16** (2013.01 - EP US); **E21B 47/024** (2013.01 - EP US); **E21B 7/06** (2013.01 - US); **E21B 25/02** (2013.01 - US); **E21B 44/00** (2013.01 - US); **E21B 47/026** (2013.01 - US)

Citation (applicant)  
• WO 2016154677 A1 20161006 - GLOBALTECH CORP PTY LTD [AU]  
• US 2015300162 A1 20151022 - DRENTH CHRISTOPHER L [CA], et al  
• US 2015136488 A1 20150521 - HEJLEH KHALED [AU], et al

Citation (search report)  
• [AD] WO 2016154677 A1 20161006 - GLOBALTECH CORP PTY LTD [AU]  
• [AD] US 2015300162 A1 20151022 - DRENTH CHRISTOPHER L [CA], et al  
• [AD] US 2015136488 A1 20150521 - HEJLEH KHALED [AU], et al

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**WO 2018112560 A1 20180628**; **WO 2018112560 A9 20200730**; AU 2017381411 A1 20190725; AU 2023251414 A1 20231109; CA 3052073 A1 20180628; EP 3559398 A1 20191030; EP 3559398 A4 20200916; EP 3559398 B1 20210609; EP 3869000 A1 20210825; EP 3869000 B1 20230913; FI 3869000 T3 20231115; PL 3559398 T3 20211213; PL 3869000 T3 20240318; US 2021222541 A1 20210722; US 2023374899 A1 20231123; ZA 201904786 B 20200325

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