

Title (en)

ORIENTING AND SUPPORTING A CASING OF A COAXIAL GEOTHERMAL BOREHOLE

Title (de)

AUSRICHTUNG UND STÜTZUNG EINES GEHÄUSES EINES KOAXIALEN GEOTHERMISCHEN BOHRLOCHS

Title (fr)

ORIENTATION ET SOUTIEN D'UNE ENVELOPPE D'UN TROU DE FORAGE GÉOTHERMIQUE COAXIAL

Publication

EP 2776766 A2 20140917 (EN)

Application

EP 12786974 A 20121109

Priority

- GB 201119470 A 20111111
- GB 201215986 A 20120907
- EP 2012072332 W 20121109

Abstract (en)

[origin: GB2491664A] A casing support of a geothermal borehole heat exchanger having an outer casing is provided. The casing support comprises a base support element 30 incorporating an aperture 36 through it, the base support element being arranged to be supported by a ground surface around a borehole. An annular orientation guide element 58 is adapted to be fitted onto an upper surface of the base support element and has a central conduit (60, fig.7) communicating with the aperture. The orientation guide element has an upper surface 59 at a selected angle relative to a lower support surface 57 of the base support element. A casing support ring 54 is fitted around an outer casing 46 of a geothermal borehole heat exchanger, the casing support ring being coupled to the orientation guide element to support the casing in the borehole, where the outer casing extends through the ring, the conduit and the aperture. An associated method includes the step of drilling a borehole through the central conduit and the aperture at an orientation preset by the orientation guide element.

IPC 8 full level

F24J 3/08 (2006.01); **E21B 7/04** (2006.01); **E21B 19/24** (2006.01)

CPC (source: EP GB KR US)

E21B 7/04 (2013.01 - EP GB KR US); **E21B 19/24** (2013.01 - EP KR US); **F24T 10/00** (2018.04 - GB US); **F24T 10/13** (2018.04 - EP US); **F24T 2010/53** (2018.04 - EP US); **Y02E 10/10** (2013.01 - EP US)

Citation (search report)

See references of WO 2013068570A2

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)

GB 201119470 D0 20111221; **GB 2491664 A 20121212**; **GB 2491664 B 20140423**; CA 2854841 A1 20130516; CN 104040270 A 20140910; EP 2776766 A2 20140917; GB 201215986 D0 20121024; GB 201218685 D0 20121128; GB 2491746 A 20121212; GB 2491746 B 20140702; GB 2491794 A 20121212; GB 2491794 B 20150408; JP 2014533332 A 20141211; KR 20140127799 A 20141104; US 2014299291 A1 20141009; WO 2013068570 A2 20130516; WO 2013068570 A3 20130822

DOCDB simple family (application)

GB 201119470 A 20111111; CA 2854841 A 20121109; CN 201280066859 A 20121109; EP 12786974 A 20121109; EP 2012072332 W 20121109; GB 201215986 A 20120907; GB 201218685 A 20120907; JP 2014540493 A 20121109; KR 20147015903 A 20121109; US 201214356593 A 20121109