

(12) **UK Patent Application** (19) **GB** (11) **2625033** (13) **A**

(43) Date of Reproduction by UK Office **05.06.2024**

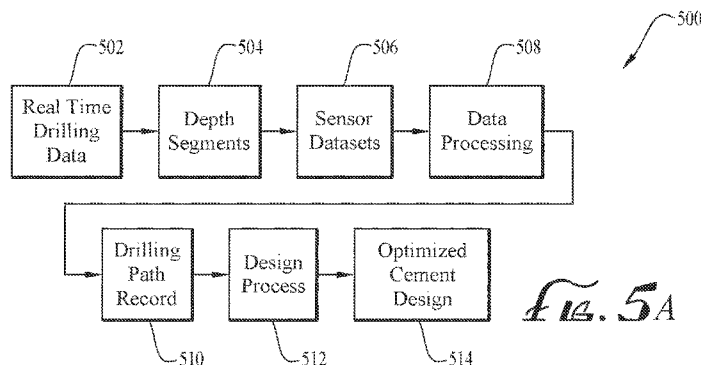
(21) Application No: **2404316.8**
 (22) Date of Filing: **15.09.2022**
 Date Lodged: **26.03.2024**
 (30) Priority Data:
 (31) **17550064** (32) **14.12.2021** (33) **US**
 (86) International Application Data:
PCT/US2022/043605 En 15.09.2022
 (87) International Publication Data:
WO2023/113883 En 22.06.2023

(51) INT CL:
E21B 33/14 (2006.01) **E21B 44/02** (2006.01)
E21B 47/04 (2012.01) **E21B 47/06** (2012.01)
E21B 47/10 (2012.01) **E21B 47/18** (2012.01)
 (56) Documents Cited:
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US 20210310331 A1 **US 20180196898 A1**
US 20170096874 A1
 (58) Field of Search:
 INT CL **B01F, E21B, G01N, G06F**
 Other: **eKOMPASS(KIPO internal)**

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(54) Title of the Invention: **System to correlate suitable slurry designs with petrophysical while-drilling measurements in real time**
 Abstract Title: **System to correlate suitable slurry designs with petrophysical while-drilling measurements in real time**

(57) A method of designing a cement blend for a wellbore isolation barrier from datasets indicative of drilling a wellbore. The drilling datasets may include drilling equipment data, bottom hole assembly data, and mud system data. A drilling path record comprising depth segments with averaged data values of drilling data can be generated by processing the drilling datasets. A design process can determine a stress state for each depth segment of the drilling path record and design a cement blend with mechanical properties exceeding the stress state. The design process can determine an optimized cement design comprising the cement blend for each depth segment of the drilling path record.



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