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(54) Title: LOW CONDUCTIVITY WATER BASED WELLBORE FLUID

(57) Abstract: A low electrical conductivity water-based wellbore fluid for use in drilling wells through a formation containing a clay which swells in the presence of water, said wellbore fluid that includes an aqueous base fluid; and a polymeric non-ionic tertiary amine is disclosed. Methods of using such fluids are also disclosed.



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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2009/046040**A. CLASSIFICATION OF SUBJECT MATTER****C09K 8/24(2006.01)i**

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

C09K 8/24; C09K 7/02; C09K 8/04; E21B 43/26

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean utility models and applications for utility models since 1975.

Japanese utility models and applications for utility models since 1975.

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKOMPASS(KIPO internal) & Keywords: wellbore, fluid, tertiary amine, clay swelling, shale hydration

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X A	US 5424284 A1 (PATEL; ARVIND D. et al.) 13 June 1995 See line 52 section 12 to line 25 section 15	9,10,12,16,17,19 1-8,11,13-15,18,20 ,21
A	US 2008-0076681 A1 (M-I L.L.C.) 27 March 2008 See section [0052] to [0068]	1-21
A	US 5771971 A1 (HORTON; DAVID et al.) 30 June 1998 See claims 1 to 13	1-21

☐ Further documents are listed in the continuation of Box C.☒ See patent family annex.

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"P" document published prior to the international filing date but later than the priority date claimed

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Date of the actual completion of the international search

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INTERNATIONAL SEARCH REPORT

Information on patent family members

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
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US 5771971 A1	30.06.1998	None	