

Title (en)  
Wellbore treatment

Title (de)  
Bohrlochbehandlung

Title (fr)  
Traitement de puits de forage

Publication  
**EP 2251524 A1 20101117 (EN)**

Application  
**EP 09251306 A 20090513**

Priority  
EP 09251306 A 20090513

Abstract (en)  
1. A method of strengthening a wellbore wall in a zone of a wellbore that penetrates through a formation that is susceptible to formation breakdown ("weak formation") comprising: (a) delivering a settable composition into the zone of the wellbore wherein the settable composition gradually increases in viscosity at the temperature encountered in the zone of the wellbore over a period of time of at least 1 hour, preferably, at least 2 hours, for example, 1 to 20 hours; (b) increasing the pressure in the zone of the wellbore to at or above the initial fracture pressure of the formation by subsequently pumping a displacement fluid into the wellbore such that fractures are induced in the wall of the wellbore; (c) continuing to pump the displacement fluid into the wellbore until the pressure in the zone of the wellbore remains substantially constant at an initial fracture propagating pressure; (d) interrupting the pumping of the displacement fluid into the wellbore for a sufficient period of time for the settable composition to increase in viscosity; (e) increasing the pressure in the zone of the wellbore by recommencing pumping of the displacement fluid into the wellbore until the pressure in the zone of the wellbore remains substantially constant at an increased fracture propagating pressure; (f) optionally repeating steps (d) and (e) one or more times over the setting period of the settable composition until the pressure in the zone of the wellbore is at least 100 psi above, preferably, at least 500 psi above, in particular, at least 750 psi above the initial fracture pressure of step (b); (g) maintaining the pumping pressure of the displacement fluid until the settable composition has completely set in the fractures and in the zone of the wellbore; and (h) drilling out the set composition from the zone of the wellbore

IPC 8 full level  
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CPC (source: EP US)  
**E21B 21/003** (2013.01 - EP); **E21B 33/138** (2013.01 - EP); **E21B 43/26** (2013.01 - EP US)

Citation (applicant)  
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Designated extension state (EPC)  
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