Title (en)

Foam assisted enhanced oil-recovery in a layered oil reservoir

Title (de)

Von Schaum unterstützte, verbesserte Ölgewinnung in einem Ölvorkommen mit mehreren Lagen

Title (fr)

Récupération d'huile améliorée à l'aide de mousse dans un réservoir d'huile à couches

Publication

EP 2239415 A1 20101013 (EN)

Application

EP 09157775 A 20090409

Priority

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Abstract (en)

A foam assisted enhanced oil recovery (EOR) method in a layered oil reservoir (1) with an upper layer(2) that is more permeable than a lower reservoir layer(3) comprises: a) injecting an aqueous liquid through an injection well(5) into the upper layer(2); b) injecting a non-aqueous fluid into the lower layer(3); c) recovering oil from the layered oil reservoir through a production well(10); and wherein: - the aqueous liquid and/or the non-aqueous fluid carries a foaming agent; and - the injection and/or production well(5,10) has a substantially horizontal permeable fluid transfer section (10A). The generated foam may be used as a means to confine a majority of injected non-aqueous fluid, which may comprise carbon dioxide, nitrogen, methane, ethane, propane, butane and/or flue gas within the low permeable lower layer(3) and to enhance cross-flow of aqueous liquid from the high permeable upper layer (2) into the lower permeable lower layer (3) such that oil recovery from the layered oil reservoir (1) is enhanced.

IPC 8 full level

E21B 43/16 (2006.01); **E21B 43/30** (2006.01)

CPC (source: EP)

E21B 43/16 (2013.01); **E21B 43/305** (2013.01)

Citation (applicant)

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