

Title (en)

A MODIFIED PROCESS FOR HYDROCARBON RECOVERY USING IN SITU COMBUSTION

Title (de)

MODIFIZIERTES VERFAHREN ZUR GEWINNUNG VON KOHLENWASSERSTOFFEN UNTER VERWENDUNG VON IN-SITU-VERBRENNUNG

Title (fr)

PROCÉDÉ MODIFIÉ DE RÉCUPÉRATION D'HYDROCARBURES FAISANT APPEL À UNE COMBUSTION IN SITU

Publication

EP 2324195 A4 20130626 (EN)

Application

EP 09710585 A 20090123

Priority

- CA 2009000066 W 20090123
- CA 2621013 A 20080213
- US 6888108 A 20080213

Abstract (en)

[origin: WO2009100518A1] A modified method of in situ recovery of hydrocarbon from an underground hydrocarbon-containing formation. An "L" shaped production well, having a vertical upper section, and a lower horizontally-extending leg which is positioned low in the hydrocarbon formation, is provided. The horizontal leg connects to the vertical section of the production well at a heel portion and has a toe portion at an opposite end thereof. An oxidizing gas is injected into the formation proximate the vertical section of the production well. A vertical combustion front is created which is caused to sweep outwardly therefrom and laterally within the formation above the horizontal leg, from the heel to the toe of the horizontal leg, causing hydrocarbons in the formation above the horizontal leg to be upgraded and liquify, and thereafter to drain downwardly into the horizontal leg which is permeable, where such liquified hydrocarbons are then delivered to surface via production tubing. A non-oxidizing gas is injected into the heel portion of the horizontal leg via injection tubing contained within the vertical section of the production well. Benefits of the modified method of in situ recovery include decreased costs and lessened environmental impact.

IPC 8 full level

E21B 43/243 (2006.01); **E21B 43/30** (2006.01)

CPC (source: EP GB)

E21B 43/243 (2013.01 - EP GB); **E21B 43/305** (2013.01 - EP GB)

Citation (search report)

- [Y] US 2006207762 A1 20060921 - AYASSE CONRAD [CA]
- [Y] US 2007256833 A1 20071108 - PFEFFERLE WILLIAM C [US]
- See also references of WO 2009100518A1

Designated contracting state (EPC)

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 SE SI SK TR

DOCDB simple family (publication)

WO 2009100518 A1 20090820; AR 070424 A1 20100407; AU 2009214765 A1 20090820; BR PI0905786 A2 20160607; CN 102137986 A 20110727; CN 102137986 B 20140507; CO 6210832 A2 20101020; EC SP10010151 A 20100629; EP 2324195 A1 20110525; EP 2324195 A4 20130626; EP 2324195 B1 20140910; GB 201014076 D0 20101006; GB 2469426 A 20101013; GB 2469426 B 20120111; HK 1156673 A1 20120615; MX 2010008938 A 20101109; NO 20101134 L 20100910; PE 20100024 A1 20100226; RO 126048 A2 20110228; RU 2444619 C1 20120310; TR 201006697 T1 20110421

DOCDB simple family (application)

CA 2009000066 W 20090123; AR P090100498 A 20090212; AU 2009214765 A 20090123; BR PI0905786 A 20090123; CN 200980113011 A 20090123; CO 09069914 A 20090707; EC SP10010151 A 20100504; EP 09710585 A 20090123; GB 201014076 A 20090123; HK 11111040 A 20111017; MX 2010008938 A 20090123; NO 20101134 A 20100811; PE 2009000196 A 20090211; RO 201000735 A 20090123; RU 2010137516 A 20090123; TR 201006697 T 20090123