

Title (en)  
CONSTRAINED OPTIMIZATION FOR WELL PLACEMENT PLANNING

Title (de)  
EINGESCHRÄNKTE OPTIMIERUNG FÜR EINE BOHRLOCHPLATZIERUNGSPLANUNG

Title (fr)  
OPTIMISATION CONTRAINTE POUR PLANIFICATION DE POSITIONNEMENT DE PUIT

Publication  
**EP 2948618 A4 20160608 (EN)**

Application  
**EP 14743637 A 20140124**

Priority  

- US 201361756800 P 20130125
- US 201414162687 A 20140123
- US 2014013057 W 20140124

Abstract (en)  
[origin: US2014214387A1] A method, apparatus and program product utilize a constrained optimization framework to generate a well placement plan based on a reservoir model. Candidate well placement plans are generated from control vectors proposed by an optimization engine to optimize based upon an objective function that generally involves an access to a reservoir simulator. Inexpensive constraints that are not based on computation of the objective function are evaluated prior to accessing the reservoir simulator to avoid unnecessary accesses to the reservoir simulator for candidate well placement plans determined to be infeasible in view of the inexpensive constraints. For candidate well placement plans that are determined to be feasible based upon the inexpensive constraints, the objective function may be calculated and additional expensive constraints may thereafter be evaluated to further determine the feasibility of candidate well placement plans.

IPC 8 full level  
**E21B 43/30** (2006.01)

CPC (source: EP US)  
**E21B 43/305** (2013.01 - EP US)

Citation (search report)  

- [A] US 2008120148 A1 20080522 - NARAYANAN KESHAV [US], et al
- [A] WO 2011096964 A1 20110811 - EXXONMOBIL UPSTREAM RES CO [US], et al
- [A] WO 2010053618 A1 20100514 - EXXONMOBIL UPSTREAM RES CO [US], et al
- [A] EP 2426630 A1 20120307 - IFP ENERGIES NOUVELLES [FR]
- See references of WO 2014117030A1

Cited by  
US11346215B2; US10808517B2

Designated contracting state (EPC)  
AL 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 RS SE SI SK SM TR

DOCDB simple family (publication)  
**US 2014214387 A1 20140731**; EP 2948618 A1 20151202; EP 2948618 A4 20160608; EP 2948618 B1 20180822; WO 2014117030 A1 20140731

DOCDB simple family (application)  
**US 201414162687 A 20140123**; EP 14743637 A 20140124; US 2014013057 W 20140124