Title (en)

MODEL-DRIVEN SURVEILLANCE AND DIAGNOSTICS

Title (de)

MODELLGESTEUERTE ÜBERWACHUNG UND DIAGNOSTIK

Title (fr)

SURVEILLANCE ET DIAGNOSTICS PILOTÉS PAR DES MODÈLES

Publication

EP 2893378 A1 20150715 (EN)

Application

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- US 2013057901 W 20130904

Abstract (en)

[origin: WO2014039463A1] Performing diagnostic of hydrocarbon production in a field includes generating a thermal-hydraulic production system model of a wellsite and a surface facility in the field, and simulating, using the thermal-hydraulic production system model, and based on multiple root causes, a hydrocarbon production problem to generate a feature vectors corresponding to the root causes. Each of feature vectors includes parameter values corresponding to physical parameters associated with the hydrocarbon production. Performing diagnostic further includes configuring, using the feature vectors, a classifier of the hydrocarbon production problem, detecting the hydrocarbon production problem in the field, analyzing, using the classifier, and in response to detecting the hydrocarbon production problem, surveillance data from the wellsite and the surface facility to identify a root cause, and presenting the root cause to a user. The classifier is configured to classify the hydrocarbon production problem according to the root causes.

IPC 8 full level

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CPC (source: EP US)

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