

Title (en)

METHOD, SYSTEM AND TOOL FOR RESERVOIR EVALUATION AND WELL TESTING DURING DRILLING OPERATIONS

Title (de)

VERFAHREN, SYSTEM UND WERKZEUG ZUR LAGERSTÄTTENBEWERTUNG UND BOHRLOCHUNTERSUCHUNG BEI BOHRVORGÄNGEN

Title (fr)

PROCEDE, SYSTEME ET OUTIL POUR EVALUATION D'UN GISEMENT ET ESSAI D'UN Puits PENDANT DES OPERATIONS DE FORAGE

Publication

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Application

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Priority

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Abstract (en)

[origin: WO02088522A1] A novel method, system and tool for performing formation and well evaluation while drilling are disclosed. These inventions determine the properties of a particular formation (F) within a reservoir as the reservoir is being intersected during well construction. In one form of the invention, the formation evaluation is made using a direct measurement of the formation's ability to flow fluids. The flow potential of a reservoir during underbalanced well construction is determined as the well is being constructed. The methods produce an understanding of the volumes and types of the fluids such as oil, gas, and/or water, that can be produced out of discrete sections of a formation within a reservoir as the reservoir is intersected. The trajectory and path of the wellbore through the reservoir are modified to intersect formation having more desirable permeability and productivity to decrease the time to market of the hydrocarbon reserves within a reservoir without the time delay inherent when conventional formation evaluation techniques are applied. A downhole flow measurement instrument (27) is used to obtain actual flow ratios. The instrument is integrated into a near-bit stabilizer (12) and can be used for early kick and benign "breathing" fractures detection in the open hole wellbore.

IPC 8 full level

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