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PRODUCTION OPTIMIZATION BY MODELING.

Scop:

Since most well performance modeling employed today utilizes well productivity software such as PROSPER, the objective of this work is to evaluate a software tool of this nature to determine if this software detects differences in gas/water fluid flow behavior and optimize the production from well. For the main modeling work, the software package PROSPER will be used, as it is readily available and a popular the program utilized in industry.

Method:

While running the Software Prosper, And using Black Oil Model for optimization production. And including all the important properties of well that have to optimize its Production. This study evaluates the capability of the well productivity software PROSPER to the use of data for two wells located in a tight gas and other reservoirs. The wells used in this study have different geometry but were drilled from the same pad. Using the well data and fluid PVT properties, a fractured well model is constructed and matched to the well's production. It will help us in many other well Design and tubing optimization.

Results:

Results from this work illustrate a slight advantage for the well configuration based on the screening criteria applied. However, it should be emphasized that standard well productivity software is limited in modeling this problem. While the result depends upon the input data. Those limitations are identified in the work. It is also possible to use one of the reservoir simulation tools available in the industry such as Prosper which will capture the detailed well optimization and relevant effects in the reservoir. More focus on developing a new/improved model for analysis of flow behavior and critical rate in wells should be investigated.

ADDITIVE INFORMATION OF PAPER:

Our Abstract is based on the additive information to the existing body of literature that can be of benefit to a practicing engineer.

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