Norne Group Project

This semester you will do simulation of the Norne Field, using the Eclipse 100 simulation model.

An input data file, and include files for Eclipse may be downloaded from https://github.com/OPM/opm-data. These files will be used as a base case for your work. Then, you will have to modify the file in order to add wells and optimize the oil recovery for the remaining life of the Norne Field.

The objective of the group project is to apply the Eclipse model to real field simulation, use of RESTART files, adding new wells in the field, and study effects of well locations on oil recovery.

Preliminary problem statement:

Use Reservoir Simulation Analysis to investigate the behavior of the Norne Field. Your analysis should include:

- *Study the .ppt and .pdf presentations of the Norne Field on Blackboard and search the net for additional information on the field.*
- *BASE CASE: Run Statoil's Norne model (downloaded from link above) to generate the base case. The generated RESTART file at 2006 will be the starting point for the following simulations. Visualize the reservoir conditions at 2006 and locate areas with potential for increased oil recovery.*
- *At the end of the BASE CASE in 2006 you are free to place one production well and one injection well (gas or water) in locations you feel are the best for high oil recovery until year 2020. You may use horizontal or vertical wells. Identify the well properties used in existing wells, and then decide what properties and what production/injection controls to use for the new wells. Predict the performance of the Norne Field for a number of well locations scenarios. Compare your recovery results with the base case above.*

All students should meet in P13 on Thursday March 1 at 1015 where we will discuss the project and answer questions related to the Norne Field. Each groups is responsible for arranging internal meetings and discussions as needed to solve the problem. You are encouraged to solve as much as possible in close collaboration.

Each group will make a final presentation of their results in P13 on Monday April 23, and turn in their presentation.

Groups in TPG4160, 2018

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