

WELL SPACING OPTIMAZATION WITH DATA SUBSURFACE INTEGRATION THE FIELD "X" OF TALANGAKAR CEKUNGAN SOUTH SUMATERA BASIN

ABSTRAK

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The "X" field research area is about 60 km west of Prabumulih, South Sumatra, is part of the field of oil and gas development managed by PT. Pertamina EP Asset 2 in the South Sumatra Basin. which produce from the Talangakar Formation in the 1st, 2nd, 3rd, 4th, 5th, 6th and Granite Wash Layers. The main production of "X" Field comes from three layers, namely the 1st, 2nd, 3rd layers. In the 1st layer it has an OOIP of 61.70 MMbbl, Np of 16.42 MMbbl with a recovery factor of 26.61%. The 2nd layer has an OOIP of 49.30 MMbbl, Np of 15.62 MMbbl with a recovery factor of 31.69%. In the 3rd layer there was an OOIP of 62.17 MMbbl, an Np of 20.53 MMbbl and a recovery factor of 33.02%. The research focused on the 1st Layer which has a large OOIP with the smallest recovery factor

This study aims to get a potential area to be developed by optimizing the distance between production wells based on an integrated geological reservoir model using data from geology, geophysics, reservoir, production with sectorization methods to improve recovery factor, time effectiveness and cost efficiency. The results of the property map sectoralization analysis, OOIP and dynamic maps obtained two infill well point candidates where both wells were included in the good category which had a permeability range of $> 135\text{mD}$, OOIP > 90 MMBBL and OPU thickness > 6 meters and medium categories with permeability range ie $27\text{-}135$ mD, OOIP is $42\text{-}90$ MMBBL and OPU thickness is $2\text{-}6$ meters. With the distance (space) between infill wells that is equal to 85.02 m and the optimum number of wells with a distance of 22 infill wells is obtained

Determination of the location of infill well wells is based on the analysis of static and dynamic map settings. From the results of the sectoralization analysis of the wells it is in the good and medium category. From the results of the Decline Curve analysis, EUR was 17.64 MMSTB with RF 28.59% .

Keywords: Optimization, integration, subsurface, sectorization.