

ABSTRACT

EFFECTIVENESS STUDY OF DOG LEG REAMER TOOL AS A SOLUTION FOR BOREHOLE LEDGES IN 12 ¼" DIRECTIONAL DRILLING WELL 'SDR' FIELD

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The SR-11 well encountered obstacles to drilling operations in section 12 ¼" caused by poor or smooth borehole geometry due to the formation of ledges on the surface of the borehole wall that can hinder drilling operations such as tripping and casing installation activities. Therefore, there is a considerable increase in the cost of drilling operations from the planned cost.

The completion method used in this study is to evaluate the drilling results through reading the drilling report data and calculating the costs required in drilling planning. Then a solution is used by using Dog Leg Reamer in overcoming obstacles in drilling the next wells by selecting through the costs required in its use. Reevaluation of the drilling results that have used the Dog Leg Reamer is carried out.

Based on the results of the research conducted, the cost of tripping and casing installation activities at the "SR-11" well amounted to Rp 2.742.840.000,00. In the SR-12, SR-13, and SR-14 wells, the Dog Leg Reamer was used as a solution to obstacles in drilling activities. The cost of the drilling results in the tripping and casing installation activities of the "SR-12", "SR-13", and "SR-14" wells was found to be Rp 1.162.900.000, Rp 1.283.200.000, and Rp 1,090,720,000. With the calculation of the difference in costs required in the four wells, it was concluded that drilling with the Dog Leg Reamer was successfully used.

Keywords: pipe sticking, drilling cost, reamer, ledges.