

EFFECT OF WEAR ON DRILLING RESPONSE OF AN IMPREGNATED DIAMOND BIT

MINEX CRC PROGRAM 1

Drilling Technologies

PHD PROJECT

Curtin University

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RESEARCH PROJECT

This research investigates the effect of wear on the drilling response of impregnated diamond bit. The goal of this research is to characterise the events for example polishing and sharpening of a working bit with field data, under the framework of bit-rock interaction model used in past studies.

The research aims at establishing an algorithm that identifies bit-rock interaction events with real time drilling data. The algorithm will interpret the drilling data and provide an analysis on the bit status.

The project works seamlessly to achieve drilling optimisation, which coincides with Project 1 of MinEx CRC.