

CZECH UNIVERSITY OF LIFE SCIENCES PRAGUE

FACULTY OF ENVIRONMENTAL SCIENCES (FES)

Department of Water Resources and Environmental Modeling



## **Pumping Test - Evaluation of Rehabilitation**

**(MASTER THESIS)**

**Supervisor - prof. Ing. Pavel Pech, CSc.**

**Author: Bc. Bhupin Karki**

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## Summary:

Nowadays, several countries are extracting groundwater to fulfil the global scarcity of fresh water. Generally, they are using pumping wells in the extraction process. So, after some period of production time, we have to use Well rehabilitation. Well rehabilitation is the art of the Well maintenance process. It is a very effective process to improve efficiency and the life span of Wells.

The main aims of this study are to evaluate transmissivity, skin factor, additional drawdown caused by skin factor and to check the effectiveness of the well rehabilitation process. we are evaluated skin factor and additional drawdown caused by skin factor using two different methods and compared the results. These are the Cooper-Jacob and Alternative methods. To check the effectiveness of the Well rehabilitation process RD-2 and MO-1 wells will be used.

To sum up, the Results shows that the effectiveness of well are positive in both wells. So, it shows that well rehabilitation is successful in both cases. The results of skin factor evaluation from both methods show a 1 to 37 per cent difference with each other.

Keywords: Aquifer, Storativity, Transmissivity, Pumping well, Skin factor, Well rehabilitation