



www.gondwanags.org.in

Original Article

ISSN : 2455-1953

JGSR
Journal of Geosciences Research

Vol. 7, No.2, July, 2022, pp. 216-220

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Evaluation of Aquifer Parameters in the Bori-Chikli Watershed of Jalgaon District, Maharashtra State, India

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Abstract

Groundwater is valuable source of drinking water. Groundwater potential in consolidated and unconsolidated sediments varies due to variation in hydraulic parameters of an aquifer. In present study aquifer parameters were assessed by pumping test. Groundwater occurrence and movement in the area is mainly through the Deccan Basalt and/or alluvium. The Deccan Basalt is hydrogeologically very complex, and it may or may not be useful everywhere to tap groundwater. The fractured and weathered basalt behaves as a good aquifer whereas massive basalt doesn't. In the present study, aquifer parameters like Specific Capacity (C), Coefficient of Transmissivity (T) and Storage Coefficient (S) are calculated by conducting pumping test. Majority of the basaltic areas of the watershed is characterized by good to moderate and moderate to poor groundwater potential. Alluvium is representing excellent to good groundwater potential.

Keywords: Pumping Test, Specific Capacity, Coefficient of Transmissivity, Time-draw Down and Theis Recovery Plot

(Manuscript Received : 01 January 2022 ; Manuscript Accepted : 01 May 2022)

<https://doi.org/10.56153/g19088-022-0084-13>