

VISVESVARAYA TECHNOLOGICAL UNIVERSITY
BELGAUM – 590 010



A PROJECT REPORT ON

**“AQUIFER MAPPING AND LOCATION OF SUITABLE SITES FOR
GROUND WATER RECHARGING IN JAGALUR TALUK OF
DAVANAGERE DISTRICT (KARNATAKA)”**

SPONSERED BY KSCST

**Submitted in partial fulfillment of the requirements for the award of the
degree of**

BACHELOR OF ENGINEERING

in

CIVIL ENGINEERING DEPARTMENT

UNDER THE GUIDANCE OF

S A GANGARAJU

M.Sc.,(Geology)

Dr B.E.Basavarajappa

M.Sc., Ph.D.(Chemistry)

PROJECT ASSOCIATES

THEJASVI M

4BD09CV049

VIRUPAKSHA K S

4BD09CV054

ARAVIND G M

4BD09CV057

AVINASH S PATIL

4BD07CV044



2013

BAPUJI INSTITUTE OF ENGINEERING AND TECHNOLOGY

SHAMANUR ROAD DAVANGERE – 577004, KARNATAKA

(Affiliated to Visvesvaraya Technological University)

AQUIFER MAPPING AND LOCATION OF SUITABLE SITES FOR GROUND WATER RECHARGING IN JAGALUR TALUK OF DAVANAGERE DISTRICT (KARNATAKA)

SYNOPSIS

Jagalur taluk is one of the six taluks coming under Davangere revenue district. It lies between 76°00'N longitude and 14°33' E latitude. It is located 48 kilometer NE of Davangere and at an altitude of 600m above sea level.

In Jagalur taluk granitic-gneiss and schists are the main water bearing formations. Ground water occurs within the weathered and fractured granitic-gneiss and schists under water table condition and semi-confined condition.

In the present study water has been collected from 27 different locations in Jagalur taluk and tests have been conducted to evaluate certain characteristics. These are compared with standards for potable water to identify the locations which are not as per standards.

The geographical locations of these bore wells have been noted down by using GPS and later their positions have been marked over the geographical map to ascertain the quality of ground water in terms of various rock formations. Chemical quality of water has been plotted using GIS software. The impact of rainfall over ground water fluctuation has also been studied.

A 3D aquifer map has been generated using elevation, the level where the water table was struck. An integrated map of drainage and contour has been prepared to identify the suitable sites for ground water recharging.