**INTRODUCTION:**

The study area is located about thirteen Km. southeast of Bhusawal city towards Mukainagar, Varangaon is the most important city in India because on East side about five Km. is Ordnance factory of India and southeast side near about six Km. is thermal power station (Deep Nagar), and two Km. Vilhala lake and ash ponds.

Water is the most precious gifts of the nature to mankind; the terrestrial ecosystem can not function without it. All life and peripheral activities are ceased without water. In addition to drinking and personal hygiene. Water is needed for agricultural production, industrial and manufacturing process; hydro electric power generation, waste assimilation, recreation and wildlife etc. When resource is used for so many diverse purposes. It is important that it be developed and used rationally and efficiently.

Water is the elixir for life, the quality of water is of vital concern for mankind because it sustain life. It is a matter of history that pollution of drinking water caused water born disease, epidemics and is still looming large of the horizon of developing countries like India [11]

The major source of contamination of underground water is the industrial waste, hospital waste and domestic discharge, ash pond etc. In order to ensure the right quality of water for this purpose it is extremely important to monitor underground water with all aspects into consideration

3/4th of the earth surface is covered by water. Earth surface water is held in two different kind of water bodies. Salt water bodies and fresh water bodies. Fresh water is defined as water that contains less than 0.5 ppt. of dissolved salt.(Nata 2006). The addition of varies kind of pollutants and nutrients through the agency sewage, industrial effluents, agricultural runoff, etc, into water bodies bring about a series of change in the physico-chemical characteristics of water, which have been the subject of several investigation [8]

In india most of the population is dependent on ground water as the only source of drinking water supply. Ground water is the major source of drinking water in both urban
and rural areas. The important of ground water for the existence of human society can not
be over emphasized. The ground water is belived to be comparatively much clean and
free from pollution than surface water.

Sources of water :-

1) Surface water :- Surface water sub classified into following types.

(a) Rain water - Rain water is most pure form of water. It is naturally occurring as it is
obtained by process of natural distillation,(Evaporation and distillation)

(b) River water - River water is another form of surface water. River water mainly
contains dissolved inorganic salts. Comprising chlorides, sulphates, bicarbonates of Ca,
Mg and Fe.

(c) Lake water - The chemical composition of lake water is almost fixed. If usually
contains much less amounts of dissolved minerals than even wall water but quantity of
organic matter present in it is quite high.

(d) Sea water - It is the most impure form of natural water. All impurities from river
water are carried in to the sea, hence sea water becomes more and more salty. Sea water
contains about 3.5% of dissolved salts, out of which about 2.6% is sodium chloride.
Other salts present are sulphates, chlorides, bicarbonates, carbonates of calcium,
magnesium and number of other compounds.

2) Under ground water:- The rain water when reaches to ground, gets percolated in soil
and becomes under ground water, Generally underground water is clear and colour less,
but when water seeps down the ground, it dissolved inorganic salts,