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Physio-Chemical Chloride Content Monitoring of Ground Water Sample of Area at Khajri in Chhindwara

Manoj Kumar Mahore
Department of Chemistry
Government College, Chourai, Chhindwara, MP, India

Abstract: *Water in one of the most exciting large amount found in nature. The shaped portable water is absolutely essential for health water is covering approximately three-fourth of the surface of the earth. Groundwater is ultimate and most suitable fresh water resource for human consumption in both Urban and rural area. Groundwater serves as a major source of potable water of growing Chhindwara industrialization area. The industrial waste effluents pollute the ground water due to mixing of unfiltered pollutants. Ground water sample we are collected and analysed for chloride concentration chloride is used as disinfectant of drinking water and waste water but the chloride concentration is higher the permissible limit by WHO. Suitable suggestions were made to improve the quality of water.*

I. INTRODUCTION

Water fulfils the activities of human bodies about 2/3rd water is present in one or other form of water is a chemical substance its constituent being hydrogen and oxygen. Pure water is tasteless, it has no smell and colour. Generally, large water bodies seem to be bluish green in colour about 1370×10^{15} m^3 water is present on the earth surface about of this 97.3% is present in the form of salt water which not useful for agriculture domestic and industrial purposes. This shows that 2.7% of water in which 0.6% is in the form of fresh water available in liquid form 98% of rest of 2.1% is total water present (8.5×10^{16} m^3) is in the form of ground water and half of this ground water which shows that recovery of water from such a depth is very costly hence the fresh water resource available at shallow depth becomes an essential demand for careful utilization. Chlorine changes cyanide into cyanates such as NaOCN.

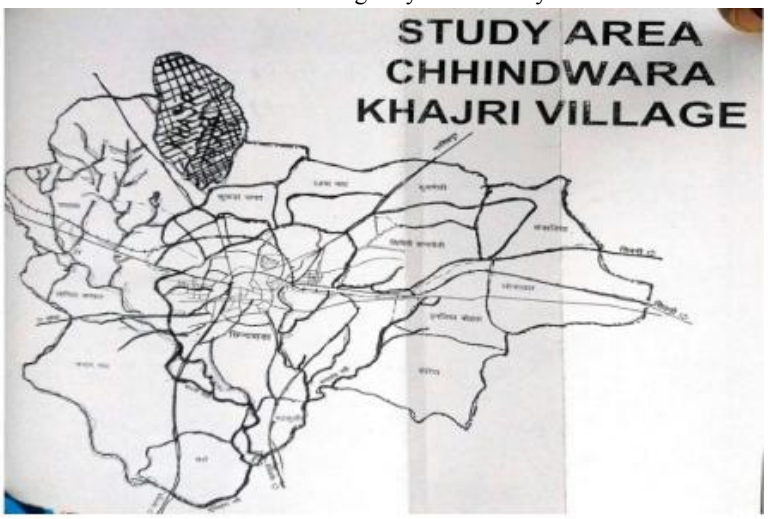

Figure 1: Typical graph for study area of Chhindwara village Khajray.

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S.N.	Area of Khajri	Chloride Concentration
1	$MKMW_1$	24.02
2	$MKMW_2$	25.02
3	$MKMW_3$	25.02
4	$MKMW_4$	24.02
5	$MKMW_5$	24.02
6	$MKMW_6$	15.01
7	$MKMW_7$	35.02
8	$MKMW_8$	25.02
9	$MKMW_9$	24.02
10	$MKMW_{10}$	15.01

Table 1: Concentration of chlorine in ground water

II. EXPERIMENTATION

Water samples were collected from different tube wells and wells in 10 different khajri area. The samples were collected in canes of 1-liter capacity. take 100 ml of sample in reach conical flask and add 1 mg of 5% K_2CrO_4 solution in each of them and stir well and titrate with 0.0282 N. $AgNO_3$ solution until a permanent reddish colour obtained. now note the ml of $AgNO_3$ solution used for the end point. Standard method of APHA were following during sampling and experimental analysis of ground water samples. the data were carried out the month October 2007.

III. RESULT AND DISCUSSION

The chloride in excess of 250 mg/l impart a salty taste to water and above 250 mg/l may have a laxative effect or indication of organic pollution. The concentration of chloride in to ground water sample from different area of Khajri is presented in table 1 the finding reveals that one sampling point has chloride concentration within the permissible limit higher chloride concentration cause adverse effect chloride are one of the major constituent found in all natural water in different concentration. This study it can be concluded that concentration of fluoride is higher in groundwater so treatment of industrial water waste efficient is essential after treatment. it can be discharged into water reservoirs.

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