

STUDY ON VARIATION IN GROUND WATER QUALITY NEARBY CEMENT PLANT

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ABSTRACT : The present study was carried out in Ambuja cement plant, situated at Kodinar, District Junagarh, Gujarat during the month of May-June 2004. The paper deals with the quality of ground water polluted in the wells situated nearby cement plant. Different parameters of the ground water were analyzed which reflected the drastic impurity in the water of the wells. A total of 16 wells were studied nearby area of cement plant in which the water pH, Total Dissolve Solid (TDS), Total Hardiness and Chloride contents were studied. The highest average pH (8.5) reported in northern direction during May and 7.9 during June in Eastern direction from the cement plant. Highest TDS was reported in southern side as 2575 mg/l in May and 2271 mg/l in June. Total hardness (601 mg/l) was found highest in May at northern direction from cement plant and 595 mg/l in June. Chloride (376 mg/l) was observed maximum in western direction in the month of May and 344 mg/l in June in the same direction. The study drastically revealed that most of the ground water parameters were beyond the permissible limit which seems to be hazardous for human health.

Key Words : Cement plant, ground water quality, pH, total dissolve solid, total hardness, chlorides.