

Journal of Chemical, Biological and Physical Sciences

An International Peer Review E-3 Journal of Sciences

Available online at www.jcbpsc.org

Section D: Environmental Sciences



CODEN (USA): JCBPAT

Research Article

Drinking Water Quality Assessment in Some Selected Villages of Nagar Valley Gilgit-Baltistan, Pakistan

Sartaj Ali*, Abid Hussain, Azhar Hussain, Amjad Ali and Muhammad Saeed Awan

Department of Agriculture and Food Technology, Karakoram International University, Gilgit, Gilgit-Baltistan, Pakistan.

Received: 22 October 2012; Revised: 17 November; Accepted: 23 November 2012

Abstract: Water and life are two sides of the same coin, since water sustains all life processes. The quality of water is of vital concern for mankind since it is directly linked with human health and environmental protection. Due to its outstanding significance to the consumer its parameters must follow the permissible limits set by international water regulating agencies. The present study was therefore undertaken to assess the quality of drinking water in some villages of Nagar valley. Some physical, biological and chemical parameters were examined from tap, channel and tank water. Among the tested characteristics, temperature values fluctuated between 12.10–13.50 °C, electric conductivity values ranged from 199.10-588.00 μ s/cm, turbidity values differed from 0.20–0.38 NTU, pH values varied between 7.00-7.93, total alkalinity values ranged between 57.00–102.33 mg/l, total dissolved solids ranged from 118–357 mg/l, calcium hardness contents fluctuated between 4.66–16.66 mg/l, cynuric acid level varied between 35.33–52 mg/l. Similarly, total coliform count ranged from 47.25–54.00 cfu/ml while the investigated samples were free from faecal contamination. All the inspected characteristics were within the approved standards set by WHO and EPA.

Keywords: Drinking water quality, physico-chemical characteristics, contaminants, WHO, EPA, Gilgit-Baltistan.