

Constituent minerals in the boring core sediments, in Bangladesh As-polluted area

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Arsenic (As) groundwater pollution is recently becoming serious problem in the world. Specimens of boring core samples from 10 feet to 210 feet in Bangladesh were used for mineralogical study. Quartz, micas, feldspars, chlorite, amphibole and clay minerals were major constituent minerals. Under binocular microscope, pink garnet (almandine), calcite, dolomite, clinopyroxene(augite), opx, magnetite, ilmenite, topaz, zircon, tourmaline, pyrite etc. were found. TEM with EDS revealed that pyrite occurred in the mud and sand specimens and contained arsenic. Wood flakes sometimes show small arsenic EDS peak.

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Bangladesh case is one of the worst ones. Fundamental data on minerals or related materials, and their compositions are essentially inadequate. Specimens of boring core samples from 10 feet to 210 feet in Bangladesh were used for mineralogical study.

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