

STATISTICAL ANALYSIS OF SURFACE AND SUBSURFACE RADIOMETRIC URANIUM EXPLORATION DATA, PONGTUNG AREA, EAST KHASI HILLS DISTRICT, MEGHALAYA, INDIA: A MULTIVARIATE APPROACH

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Abstract

The radiometric analysis of grab and channel samples of Lower Mahadek sandstone of Pongtung area in the Pynursla Plateau have indicated presence of high uranium concentration though gamma ray logging of exploratory boreholes does not show significant results. To address this anomalous behavior between surface and subsurface data, statistical analyses of grab, channel and subsurface samples were carried out. The results indicate presence of thorium bearing minerals in Lower Mahadek sandstone and basement granites and confirm the subsurface continuation of three different geological formations.

Keywords: Statistical Analysis, Uranium Exploration Data, Lower Mahadek Sandstone, Basement Granites, Pongtung Area, East Khasi Hills