

EPMA study of heavy minerals in the Annah Rais-Bayur area, Sarawak

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The EPMA technique is applied in the geochemical exploration for heavy minerals in stream sediments in the Annah Rais-Bayur area in Sarawak. The rivers sampled include Sg. Semadang, Sg. Tebia, Sg. Abang O, Sg. Nibong and Sg. Temurang.

Among the five rivers draining the area, it was found that ilmenite and rutile were present in all the rivers sampled with higher concentrations in Sg. Semadang and Sg. Tebia. Zircon and monazite were also found in all the rivers but with higher concentrations in Sg. Abang O and Sg. Tebia. Cassiterite was found in Sg. Nibong and Sg. Tebia while cinnabar was found in Sg. Temurang. More importantly, gold was also found in Sg. Nibong, Sg. Tebia and Sg. Abang O.

The Annah Rais-Bayur area has good potential for economic mineral resources in particular Au, Sn, Ti and Hg. More intensive geochemical exploration is recommended to delineate the source areas of the minerals of economic potential.