

CATCHMENT BASIN ANALYSIS—ADD VALUE TO REGIONAL GEOCHEMISTRY

Presented by

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Catchment analysis provides an opportunity to add value to regional geochemistry sample (RGS) databases, particularly in light of the re-analyses of archived material using modern analytical methods in British Columbia by Geoscience BC. Geochemical data from individual samples represent a complex derivative of geochemical inputs from various bedrock and superficial geological units within a particular catchment. The size of the catchment will also determine the amount of dilution resulting from erosion of unmineralized bedrock units that will potentially obscure any geochemical signal derived from mineralization within the catchment.

A simplified approach to the determination of catchment area, correction for the effects of scavenging by secondary iron and manganese oxides and levelling of geochemical data for bedrock geology within the catchment is presented using examples from British Columbia and the Yukon Territory. Such analyses serve to highlight second and third order geochemical anomalies not immediately evident in the raw data. Further, the data can be queried to determine the proportion of effective coverage provided by existing stream sediment data sets.

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