Piercey SJ, 2014, Modern analytical facilities 2. A review of Quality Assurance and Quality Control (QA/QC) procedures for lithogeochemical data, Geoscience Canada, 41, 1, 75-88

Quality assurance and quality control (QA/QC) are critical components of modern analytical geochemistry. A properly constructed QA/QC program identifies both the source of analytical error and provides a means of establishing confidence in and assessing limitations of analytical data. A QA/QC program involves monitoring precision, accuracy, and potential contamination from sampling to analysis. Precision can be monitored via the systematic insertion of sample, pulp, and analytical duplicates, and reference materials; the resulting data are subsequently evaluated using scatterplots, statistical tests (e.g. % relative standard deviation), Thompson-Howarth plots, and the average coefficient of variation (CV_{avg} (%)). Accuracy is determined through the submission of reference materials and monitored using statistical tests (e.g. % relative difference, t-test) and Shewart control charts. Blanks test contamination and results are monitored using Shewart control charts.

NSERC-CMIC Mineral Exploration Footprints Project Contribution 004.

https://doi.org/10.12789/geocanj.2014.41.035