



Quantitative gamma-ray spectrometric and aeromagnetic helicopter-borne geophysical survey of the Kamloops area, British Columbia. The survey was completed by Fugro Airborne Surveys. The survey was flown from September 1998 to November 6th, 2007 using an Aslar 350 B2 (C-GVFS) and from June 14th to July 28th, 2008 using an Aslar 350 B2 (C-GVFS). The nominal tower and control line spacings were 400 m and 2 400 m, respectively. The flight path was recorded using a Global Positioning System. The survey was flown on a pre-determined flight surface to minimize differences in magnetic values at the intersections of control and traverse lines.

Gamma-ray Spectrometric Data
The airborne gamma-ray measurements were made with an RS1 RS-500 gamma-ray spectrometer using eight 102 x 102 x 406 mm NaI (Tl) crystals. The main detector array consisted of eight crystals (total volume 33.6 litres). Two crystals (total volume 8.4 litres), shielded by the main array, were used to detect variations in background radiation caused by atmospheric radon. The system assemblies 1024 channel spectra from the individual NaI (Tl) detectors with no loss of Poisson statistics. Spectrum stabilization is accomplished by comparing several natural gamma-ray peaks to the recorded spectra.

Potassium is measured directly from the 1460 keV gamma-ray photons emitted by 40K, whereas uranium and thorium are measured indirectly from gamma-ray photons emitted by daughter products of uranium and 232Th (for Thorium). Although these daughters are far from their respective decay chains, they are assumed to be in equilibrium with their parents. Thus gamma-ray spectrometric measurements of uranium and thorium are referred to as equivalent uranium and equivalent thorium, i.e. eU and eTh. The energy windows used to measure potassium, uranium and thorium are, respectively, 1370 - 1570 keV, 1950 - 1983 keV and 2410 - 2810 keV.

This airborne geophysical survey and the production of this map were funded by the Geoscience for Sustainable Development program of the Government of Canada. The map and digital data are available for free from the Geophysical Data Centre, Geological Survey of Canada, 615, rue Booth, Ottawa, Ontario, K1A 0G8. Telephone: (613) 995-5300, email: gdc@geog.sc.gc.ca

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Digital versions of this map and the corresponding digital data, gridded geophysical data and anomaly maps are available for free from the Geoscience for Sustainable Development program of the Government of Canada. The map and digital data are available for free from the Geophysical Data Centre, Geological Survey of Canada, 615, rue Booth, Ottawa, Ontario, K1A 0G8. Telephone: (613) 995-5300, email: gdc@geog.sc.gc.ca

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