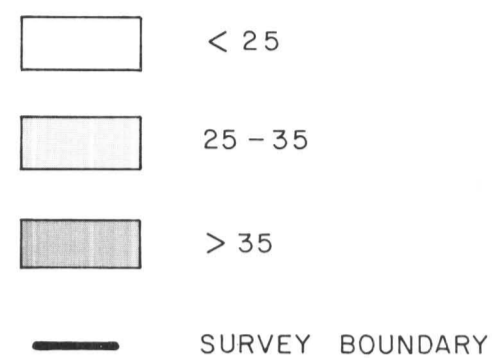


by: **H. STOLZ**

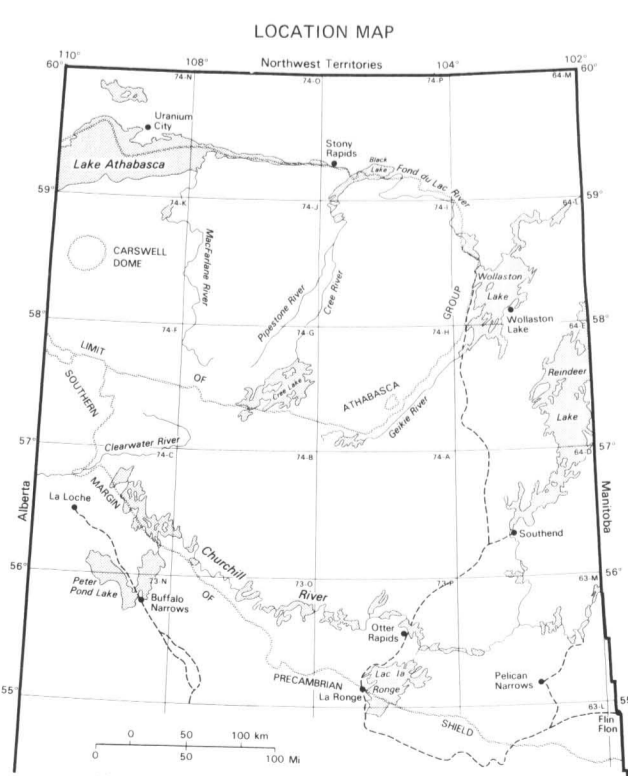
Legend:



During the period from 1974 to 1978 airborne gamma-ray spectrometry data were collected in Northern Saskatchewan by the Resource Geophysics and Geochemical Division of the Geological Survey of Canada and by the consortium of Terra Surveys Ltd., Kentville, Nova Scotia Ltd., and the Survey Corporation Ltd. The spectrometers employed 50 lithium-drifted sodium iodide (NaI(Tl)) detectors and recorded gamma radiation in four channels flying at a mean altitude and speed of 122 m and 200 km/hr along lines 5 km apart.

Channels 1, 2 and 3 were centered on the 2.62 MeV ^{210}Pb peak, on the 1.76 MeV Bi^{214} photo peak and on the 1.46 MeV ^{40}K photo peak respectively. Channel 4 recorded all gamma radiation in the energy interval from 0.40 to 2.82 MeV. The data were corrected for dead time, atmospheric changes in air humidity, background radiation, and for the absorption and attenuation of terrain clearance from the planned survey altitude. The corrected counts rates from channels 1, 2 and 3 were converted to concentrations of equivalent thorium, equivalent uranium and potassium, using conversion factors determined from the calibration measurements. The concentration of ^{210}Pb was determined from channel 4 were converted to units of radioelement concentration, using the same conversion factors.

The values shown on the contour maps are "average surface concentrations" over the area sampled by the spectrometer. This area generally includes some outcrop, overburden and water in small ponds, streams and swamps. Consequently, the average surface concentrations as shown on the contoured maps are usually considerably lower than the concentrations in the bedrock. However, the radioelement distribution pattern shown by the contour maps reflects the distribution of the elements in the bedrock.

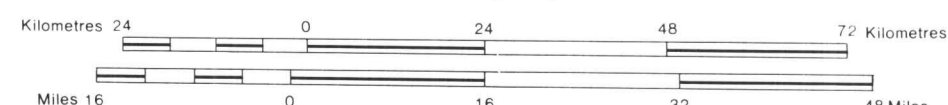


Map compiled by H. Stolz, W. Wilson and
R. Long, 1980.

This map was compiled from the Geological Survey of Canada, Uranium Reconnaissance Program, Geophysical Series Maps Nos. 257 (1974-75), 309-314 (1976), 36572G, 36673G, 35274G, 35374G (1977), 35464 (1978), and 36163G, 36463G, 36263G, 36363G, 35973G, 36673G (1979).

This map is issued with the "Summary of Investigations 1980, Saskatchewan Geological Survey" or separately.

Scale 1:1,000,000



Reference: Summary of Investigations 1980, Saskatchewan Geological Survey, Saskatchewan Dept. Mineral Resources, p. 86.

