



## AEROMAGNETIC VERTICAL GRADIENT MAP CARTE AÉROMAGNÉTIQUE DU GRADIENT VERTICAL

MAP 41271G CARTE  
11D/10e,f  
NOVA SCOTIA  
NOUVELLE-ÉCOSSE

SCALE 1:25 000 - ÉCHELLE 1/25 000

Metres 1000 500 0 500 1000 Mètres



Contribution to Canada-Nova Scotia Mineral Development Agreement 1984-1989, a subsidiary agreement under the Economic and Regional Development Agreement. Project funded by Geological Survey of Canada.  
Contribution à l'Entente auxiliaire Canada/Nouvelle-Écosse sur l'Exploitation minière 1984-89 faisant partie de l'Entente de développement économique et régional. Ce projet a été financé par la Commission géologique du Canada.

This map was compiled from data recorded during an aeromagnetic gradiometer survey carried out by Aerodat Limited using a rotary wing aircraft. Two oriented cesium vapour magnetometers were mounted in a bird towed 30 m below the helicopter. The magnetometers were vertically separated by a distance of 3 m with each measuring the total magnetic field to a resolution of 0.002 gammas. The survey operations were carried out from October 1985 to February 1986. The flight altitude of the bird was 150 m above ground. The survey lines were flown in a north-south direction at 300 m average flight line spacing. Control lines were flown at an average spacing of 10 kilometres. Flight path recovery was effected using a Syledis radio positioning system supplemented by a vertically mounted 35 mm camera.

The vertical gradient values, which approximate closely to the first vertical derivative of the earth's total field, are obtained by dividing the difference between the total field readings of the two magnetometers by their vertical separation. The vertical gradient data were filtered with a digital operator to remove instrument noise. The vertical gradient data from the control lines were not used in the compilation of the map. The data were edited, compiled, levelled and gradient values for contouring interpolated onto a square grid (0.25 cm grid spacing at the published map scale) by automatic computer processes at Aerodat Limited. The base for this map was reproduced from a 1:50 000 topographical map published by the Department of Energy, Mines and Resources, Ottawa.

Copies of this map may be obtained from the Department of Mines and Energy, Halifax, Nova Scotia, or from the Geological Survey of Canada, Ottawa. The survey data used to compile this map are available in digital form from the Geological Survey of Canada at the cost of retrieval and copying.

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