



AEROMAGNETIC VERTICAL GRADIENT MAP
CARTE AÉROMAGNÉTIQUE DU GRADIENT VERTICAL

MAP 41209G CARTE

63N/1c,d

MANITOBA

SCALE 1:20 000 ÉCHELLE 1/20 000

Kilometer 0 0.5 1.0 1.5 2.0 2.5 3.0 Kilometers

Contribution to Canada-Manitoba 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 avancée Canada-Manitoba sur l'exploitation minière, une contribution au titre de l'accord de développement économique et régional. Ce projet a été financé par la Commission géologique du Canada.

Energy, Mines and Resources Canada Energie, Mines et Ressources Canada Manitoba Energy and Mines Manitoba Énergie et Mines

INDEX MAP CARTE DE LOCALISATION

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This map was compiled from data obtained as a result of an aeromagnetic gradientometer survey carried out by Kenting Earth Sciences Limited using a Piper Navajo aircraft (registration C-FFRY). Two 0.005 gamma resolution self-aligning cesium vapour magnetometers are mounted in the twin tail booms of the survey aircraft and are vertically separated by 1.83 metres. The survey operations were carried out from October 1983 to February 1984, at a flight altitude of 150 metres above ground level. The survey flight spacing was 300 m. Control lines were flown at an average spacing of 10 km. Flight recovery was effected using a vertically offset 35 mm camera.

During the compilation of the data, the vertical gradient values, which approach magnitude of the earth's total field, were obtained by dividing the difference between the total field readings of the two magnetometers by their vertical separation. The vertical gradient data were then filtered with a digital operator to remove instrument noise and to level the data.

Then the vertical gradient values were interpolated on a 50 m grid and contoured using a digital computer program developed by Datotopographic Services Inc. Limited except gridding and contouring which was done using the computer facilities of Datotopographic Services Inc. The base used for this map was obtained 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 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.

Cette carte a été compilée d'après les données enregistrées durant un levé aéromagnétique ou gradientomètre, réalisé par la Kenting Earth Sciences Limited, au moyen d'un aéronef du type Piper Navajo, immatriculé C-FFRY. Deux magnétomètres à vapeur de cézium auto-alignés sont installés dans les deux longueurs de queue et séparés verticalement d'une distance de 1,83 m, sont montés dans deux longueurs de queue de l'aéronef utilisé. Les travaux de levé ont été réalisés entre octobre 1983 et février 1984, à une altitude de vol de 150 m au-dessus du sol, à 300 m au-dessus du sol. L'écartement moyen des lignes de vol était de 300 m tandis que l'écartement moyen des lignes de contrôle effectuées avec un écartement moyen de 10 km. Le recouvrement vertical a été effectué à l'aide d'un appareil photographique 35 mm monté verticalement.

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