GEOPHYSICAL SERIES
(HIGH RESOLUTION AEROMAGNETIC VERTICAL GRADIENT)

PROVINCE
OF
NOVA SCOTIA
DEPARTMENT OF MINES AND ENERGY
MINERAL RESOURCES AND GEOLOGICAL SERVICES

DEPARTMENT
OF
ENERGY, MINES AND RESOURCES
GEOLOGICAL SURVEY OF CANADA

40,063 G 11 E/16a&b

40,066 G 11 E/9e&f

40,058 G 11 F/12e

40,061 G 11 E/9a&b

62° 15'00" 12'30" 10'00" 07'30" 05'00" 02'30" 62° 00'00"

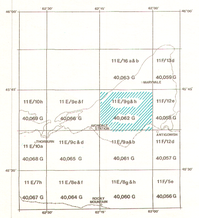
45° 45'00"

42'30"

40'00"

37'30"

INDEX MAP



MAGNETIC CONTOUR LINES

+.5 gammas/metre
+.1 gammas/metre
+.025 gammas/metre
−.5 gammas/metre
−.1 gammas/metre
−.025 gammas/metre
(1 gamma = 1 nanotesla in SI units)
Flight lines
Flight altitude: 150m above ground level 60558

MAP 40,062 G

11E/9g&h

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SCALE 1:25,000

FEET 2000 1000 0 1000 2000 3000 4000 5000 1 MILE

METRES 500 0 500 1000 1500 2000 METRES

PUBLISHED 1980

This map has been compiled from digitally-recorded high sensitivity aeromagnetic data obtained by two self-orienting rubidium-vapour magnetometers installed in twin tail booms mounted on the GSC Beechcraft 880 aircraft. The magnetometers are vertically separated by a distance of 2.08 metres with each measuring the total magnetic field to a resolution of 0.005 gammas.

Flight altitude was 150 m above ground at 300 m average flight line spacing. Double control lines were flown at an average spacing of 12 kilometres.

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 was filtered with a digital operator to remove instrument noise. The vertical gradient data from the control lines was not used in the compilation of the map. The data was 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. The final data grid was contoured and plotted using the automatic contouring program and digital plotter facilities of Dataplotting Services Ltd. The digital data used to compile this map is available in digital form from the Geological Survey of Canada at the cost of retrieval and copying.

Airborne survey and digital compilation was carried out by Resource Geophysics and Geochemistry Division, Geological Survey of Canada. The survey operations took place in October and November 1977 and October 1978 using Beechcraft Queenair 65-880 aircraft C-FWZG.

The topography for this map was reproduced from 1:50,000 topographical map sheets, published by the Department of Energy, Mines and Resources, Ottawa.

Funds for this survey were provided jointly by the Canada Department of Regional Economic Expansion, the Geological Survey of Canada, and the Nova Scotia Department of Mines and Energy.

Copies of this map may be obtained from the Mineral Resources, Nova Scotia Department of Mines, Halifax, or from the Geological Survey of Canada, Ottawa.

MAP 40,062 G
11E/9g&h
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