

This aeromagnetic survey and the production of this map were funded by phase 2 of the Geo-Mapping for Energy and Minerals program (GEM-2) of the Earth Sciences Sector, Natural Resources Canada.

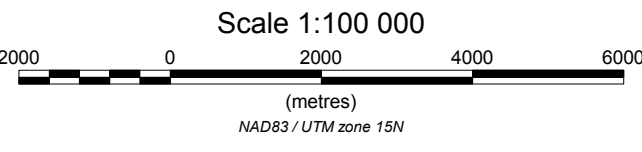
GEOLOGICAL SURVEY OF CANADA OPEN FILE 7676

RESIDUAL TOTAL MAGNETIC FIELD

AEROMAGNETIC SURVEY OF SOMERSET ISLAND AREA

Parts of NTS 58-B/3, 4, 5 and 6, and parts of NTS 57-G/13 and 14
NUNAVUT

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Data acquisition and data compilation by
EON Geosciences Inc., Montreal, Quebec.
Contract and project management and map production
by the Geological Survey of Canada, Ottawa, Ontario.



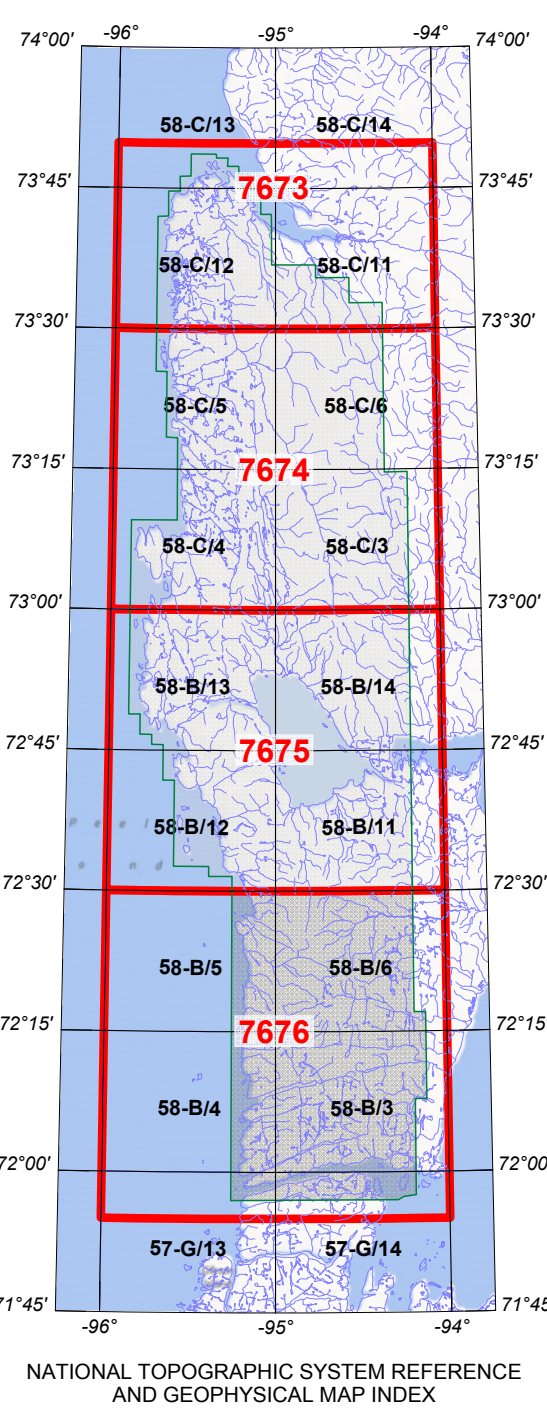
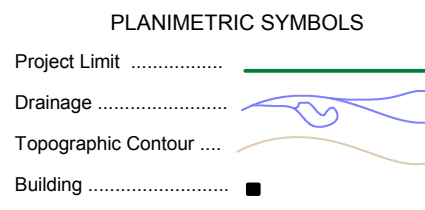
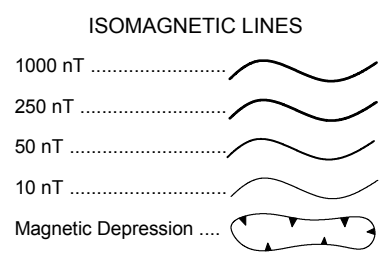
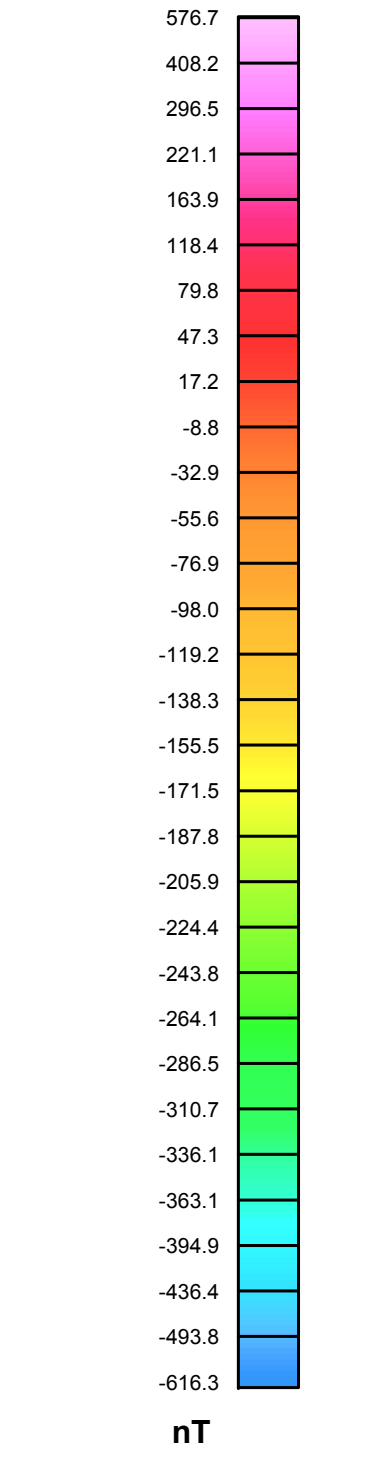
Universal Transverse Mercator Projection
North American Datum 1983
Other Map(s) the Queen in Right of Canada, as represented by the Minister of Natural Resources Canada, 2015
Digital topographic data from Natural Resources Canada



Residual Total Magnetic Field

This map of the residual total magnetic field was derived from data acquired during an aeromagnetic survey carried out by EON Geosciences Inc. from May 30 to July 8, 2014. The data were recorded using split-beam cesium vapour magnetometers (sensitivity = 0.005 nT) mounted in each of the tail booms of a Piper Cheyenne II aircraft (C-FCN) and a Casini 206 aircraft (C-FTN). The nominal traverse line spacings were 400 m and 500 m. The nominal control line spacing was 2400 m. The aircraft flew at a nominal terrain clearance of 150 m. Traverse lines were oriented E-W with orthogonal control lines. The flight path was recovered following post-flight differential corrections to the raw Global Navigation Satellite System (GNSS) data and inspection of ground images recorded by a vertically-mounted video camera. The survey was flown on a pre-determined flight surface to minimize differences in magnetic values at the intersections of control and traverse lines. These differences were computer-analysed to obtain a mutually levelled set of flight-line magnetic data. The levelled values were then interpolated to a 100 m grid. The International Geomagnetic Reference Field (IGRF) defined at the average GPS altitude of 359.88 m for the year 2014.465 was then removed. Removal of the IGRF, representing the magnetic field of the Earth's core, produces a residual component related almost entirely to magnetizations within the Earth's crust.

A digital version of this map can be downloaded, at no charge, from Natural Resources Canada's GeoGratis portal at <http://geogratis.gc.ca/>. Corresponding digital profile and gridded data as well as similar data for adjacent airborne geophysical surveys are available from Natural Resources Canada's Geoscience Data Repository for Aeromagnetic data at http://gdr.agu.nrcan.gc.ca/index_e.html. The same products are also available, for a fee, from the Geophysical Data Centre, Geological Survey of Canada, 615 Booth Street, Ottawa, Ontario K1A 0E9. Telephone: (613) 995-5326, email: info@geogratis.gc.ca.



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