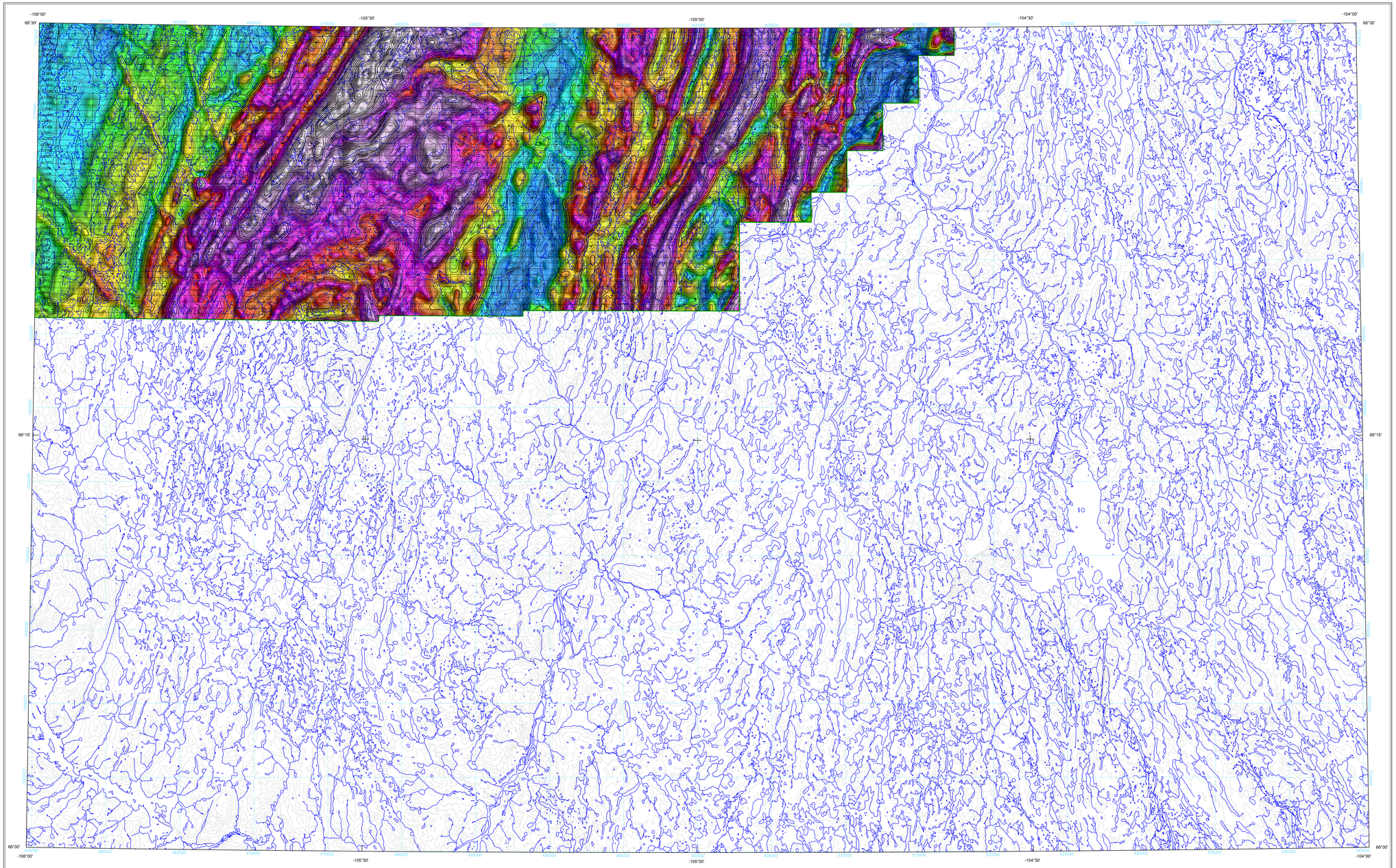
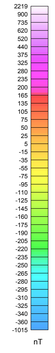
Natural Resources Canada | Ressources naturelles Canada

RESIDUAL TOTAL MAGNETIC FIELD

Celebrating 175 yrs





Residual Total Magnetic Field

This map of the residual total magnetic field was derived from data acquired during an aeromagnetic survey carried out by Geo Data Solutions GDS Inc. from March 10, 2017 to March 28, 2017. The data were recorded using a split-beam cesium vapour magnetometer (sensitivity = 0.005 nT) mounted in the tail boom of a Beechcraft KingAir 100 aircraft (C-FLRB). The nominal traverse and control line spacings were, respectively, 400 m and 2400 m, and the aircraft flew at a nominal terrain clearance of 150 m. Traverse lines were oriented N90°E with orthogonal control lines. The flight path was recovered following post-flight differential corrections to the raw Global Positioning System (GPS) 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 410 m for the year 2017.213 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.

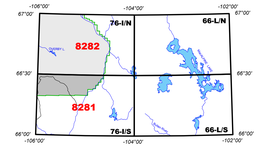
This publication is available for free download through GEOSCAN (http://geoscan.nrcan.gc.ca/). Corresponding digital profile and gridded data as well as similar data for adjacent airborne geophysical surveys are available from Natural Resources Canada's Geoscience Data Repository for Aeromagnetic data at http://gdr.agg.nrcan.gc.ca/index_e.html. The same products are also available, for a fee, from the Geophysical Data Centre, Geological Survey of Canada, 601 Booth Street, Ottawa, Ontario K1A 0E8. Telephone: (613) 995-5326, email: infogdc@agg.nrcan.gc.ca.

ISOMAGNETIC LINES

500 nT
100 nT
25 nT
5 nT
Magnetic low

PLANIMETRIC SYMBOLS

Topographic contour
Drainage
Survey boundary
Flight line — L:14104 — 15200



NATIONAL TOPOGRAPHIC SYSTEM REFERENCE AND GEOPHYSICAL MAP INDEX

AEROMAGNETIC SURVEY
OF THE OVERBY-DUGGAN AREA

OPEN FILE DOSSIER PUBLIC	Publications in this series have not been edited; they are released as submitted by the author.
8281	Les publications de cette série n'ont pas révisées; elles sont publiées telles que soumises par l'auteur.
GEOLOGICAL SURVEY OF CANADA COMMISSION GEOLOGIQUE DU CANADA	
2017	

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Geological Survey of Canada, Open File 8281,
scale 1:100 000. https://doi.org/10.4095/304673

TOPOGRAPHIC CONTOUR INTERVAL: 30 METRES

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GEOLOGICAL SURVEY OF CANADA OPEN FILE 8281

RESIDUAL TOTAL MAGNETIC FIELD

AEROMAGNETIC SURVEY OF THE OVERBY-DUGGAN AREA

Part of NTS 76-I South

NUNAVUT
Scale 1:100 000

2000 0 2000 4000 6000 metres

NAD83 / UTM zone 10N

Universal Transverse Mercator Projection
North American Datum 1983

Digital topographic data from Natural Resources Canada

Author: M. Coyle

Data acquisition, data compilation and map production by
Geo Data Solutions GDS Inc., Laval, Quebec
Contract and project management by
the Geological Survey of Canada, Ottawa, Ontario.
Cartographic design by A. Sayegh.

https://doi.org/10.4095/304673

MAP LOCATION

Canada