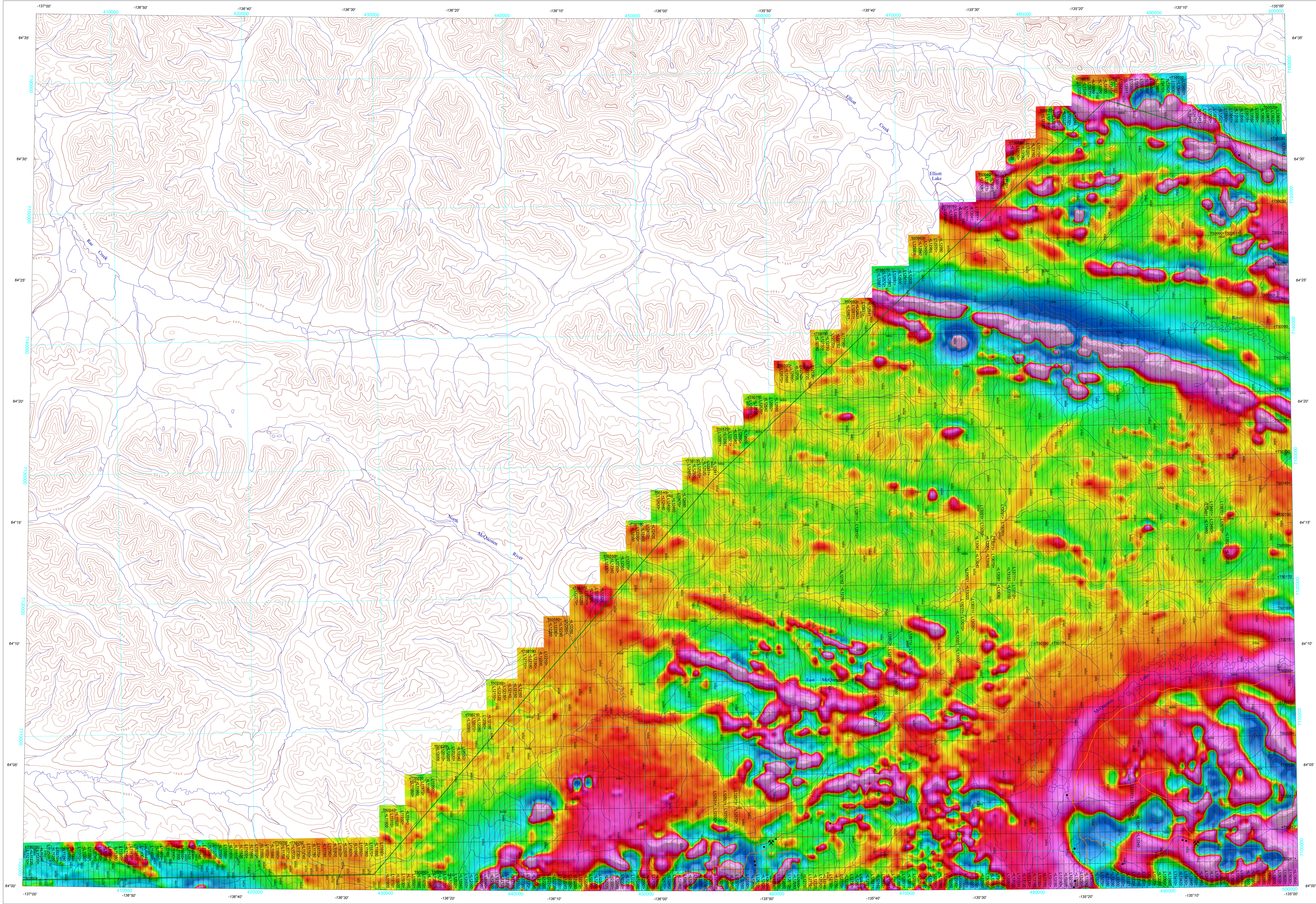


FIRST VERTICAL DERIVATIVE OF THE MAGNETIC FIELD



First Vertical Derivative of the Magnetic Field

This map of the First Vertical Derivative of the Magnetic Field was derived from data acquired during an aeromagnetic survey carried out by Geo Data Solutions (GDS) Inc. from January 16, 2020 to March 26, 2020. The data were recorded using a split-beam cesium vapour magnetometer (sensitivity = 0.005 nT) mounted in the tail boom of a Beechcraft King Air aircraft (C-FLRB). The normal baseline and control line spacing were, respectively, 400 m and 200 m, and the aircraft flew at a nominal terrain clearance of 100 m. Traverse lines were oriented N45°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-averaged to obtain a mutually leveled set of flight-line magnetic data. The leveled values were then interpolated to a 100 m grid. The International Geomagnetic Reference Field (IGRF) defined at the average GPS altitude of 160 m for the year 2020.2 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.mcm.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.mcm.gc.ca>. For more information about this survey, please contact the Geophysical Data Centre, Geological Survey of Canada, 601 Booth Street, Ottawa, Ontario K1A 0E8. Telephone: (613) 995-5335, email: mcm-rtgdp@nrc.mcm.gc.ca.

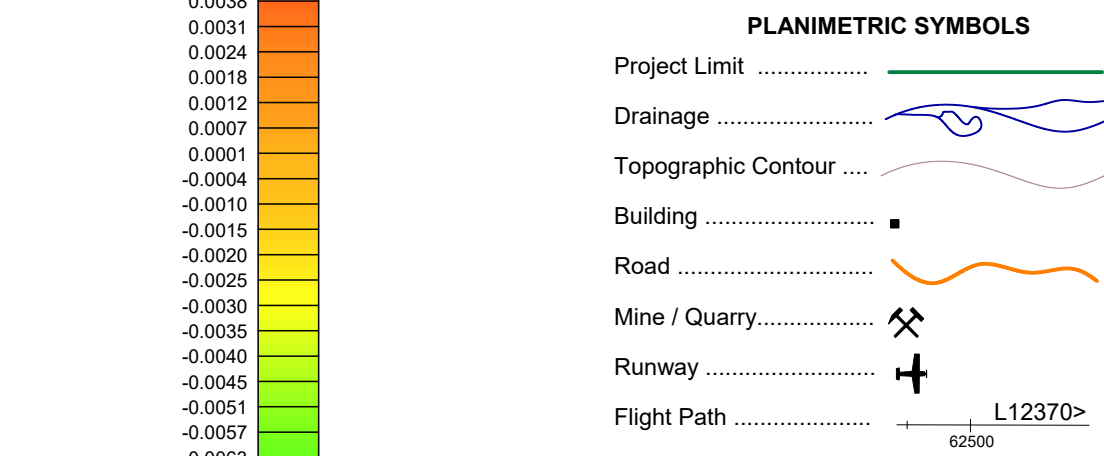
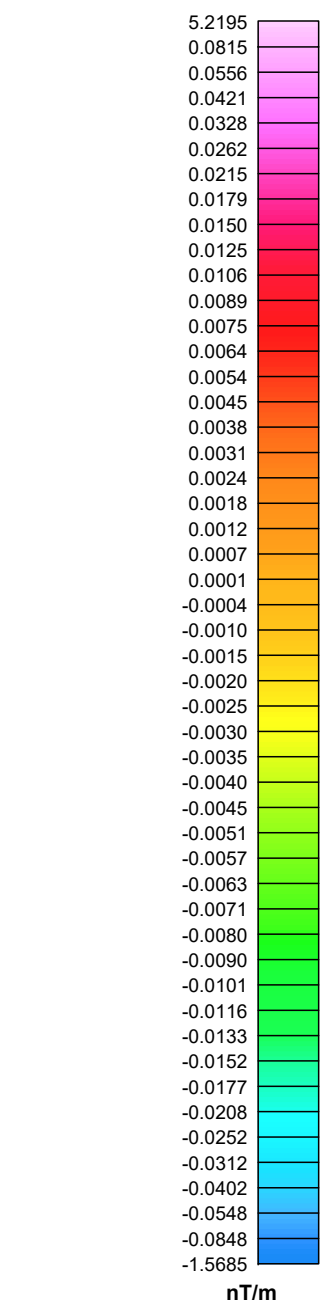
Copies of this map may also be obtained from the Yukon Geological Survey, Energy, Mines and Resources, Government of Yukon, P.O. Box 2703 (K-162), Whitehorse, Yukon, Y1A 2C6. Telephone: (867) 667-3201, email: geokey@gov.yk.ca, website: <http://www.geology.gov.yk.ca>.

Reference

Hood, P.J., 1965. Gradient measurements in aeromagnetic surveying. *Geophysics*, v. 30, p. 891-892.

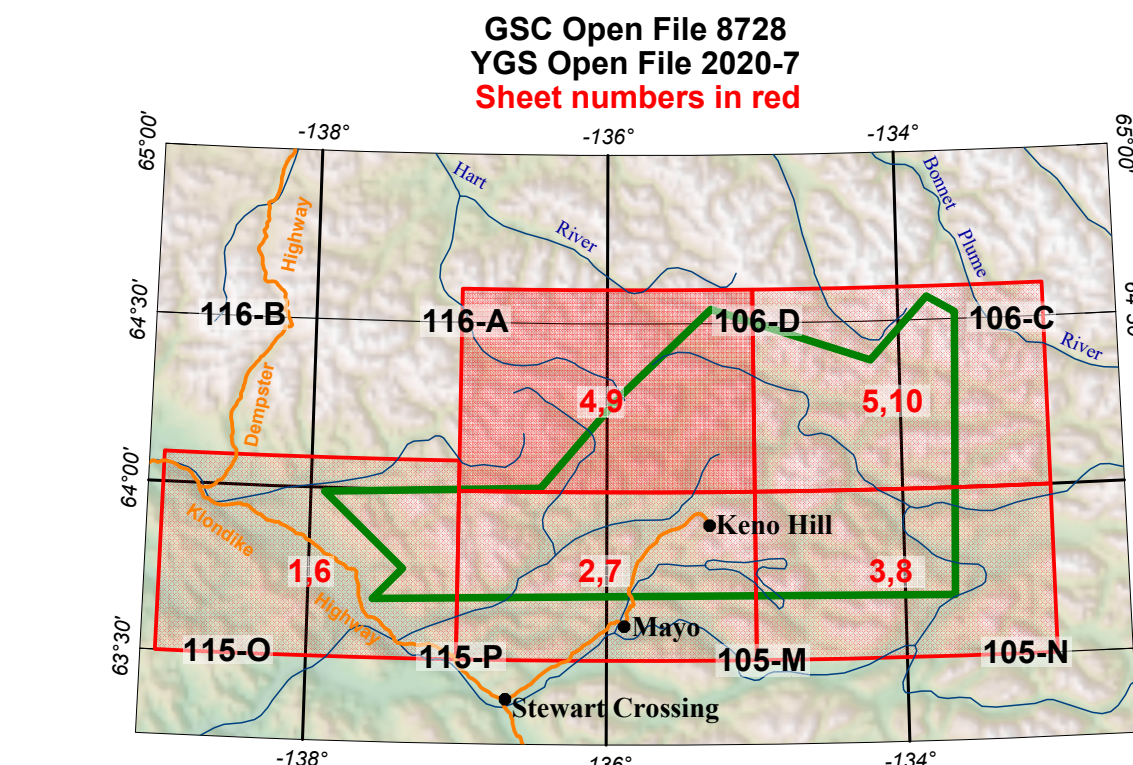
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MAP SHEET SUMMARY

- Sheet 1: Residual Total Magnetic Field, parts of NTS 115-P (north half) and 116-A (south half)
- Sheet 2: Residual Total Magnetic Field, parts of NTS 105-M (north half) and 115-P (north half)
- Sheet 3: Residual Total Magnetic Field, parts of NTS 105-M (N (north halves))
- Sheet 4: Residual Total Magnetic Field, parts of NTS 116-A (south half) and 106-D
- Sheet 5: Residual Total Magnetic Field, parts of NTS 106-C, D
- Sheet 6: First Vertical Derivative of the Magnetic Field, parts of NTS 115-P (north half) and 116-A (south half)
- Sheet 7: First Vertical Derivative of the Magnetic Field, parts of NTS 105-M (north half) and 115-P (north half)
- Sheet 8: First Vertical Derivative of the Magnetic Field, parts of NTS 105-M (N (north halves))
- Sheet 9: First Vertical Derivative of the Magnetic Field, parts of NTS 116-A (south half) and 106-D
- Sheet 10: First Vertical Derivative of the Magnetic Field, parts of NTS 106-C, D



AEROMAGNETIC SURVEY OF THE NASH CREEK AREA YUKON

OPEN FILE DOSSIER PUBLIC 8728

GEOLGICAL SURVEY OF CANADA COMMISSION GEOLOGIQUE DU YUKON

2020

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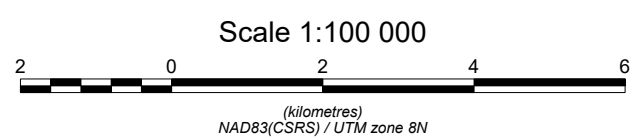
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YUKON GEOLOGICAL SURVEY OPEN FILE 2020-7
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PARTS OF NTS 105-M, N, 106-C, D, 115-P AND 116-A
FIRST VERTICAL DERIVATIVE OF THE MAGNETIC FIELD
PARTS OF NTS 116-A (SOUTH HALF) AND 106-D



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Base map at the scale of 1:250 000 from Natural Resources Canada, with modifications
Elevations are in metres above sea level

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