

Bouguer Anomaly

These data were acquired during a helicopter-borne gravity survey carried out by Sander Geophysics Limited between November 26 and December 19, 2009. The data were acquired with an AIRGrav gravimeter installed in an Astar helicopter (C-GSGH). The nominal traverse line spacing was 2 000 m with control line spacing of 10 km. The nominal aircraft altitude was 150 m above ground. The traverse lines were oriented N132° and control lines were flown at an orthogonal angle (N042°) to the traverse lines. The flight path was recovered with post-flight differential GPS. The survey was carried out according to a predetermined drapage surface in order to minimize the differences in altitude between the traverse and control lines. All gravimetric measurements were referenced to the International Gravity Standardization Network 1971 (IGSN71). The theoretical values of gravity are based on the Geodetic Reference System of 1980 (GRS80). The Bouguer anomaly was obtained after the application of corrections for Earth's free air, curvature of the Earth, and topography. A vertical gradient of 0.3086 mGal/m was used for the free air correction and a density of 2.670 kg/m³ used for the Bouguer correction. Allow-pass filter of a half-wavelength of 3000 m with a pass of 0% at 250 m and 100% at 4500 m was applied to the gridded data. The precision of the Bouguer anomaly is estimated at ±0.5 mGal. The differences at the intersections of the traverse and control lines were computer analyzed to obtain levelled Bouguer anomalies along the flight line. These levelled values were then interpolated to a 400 m grid. The values of the Bouguer anomaly were calculated at a frequency of 2 Hz along the traverse lines corresponding to a data spacing of approximately 20 m.

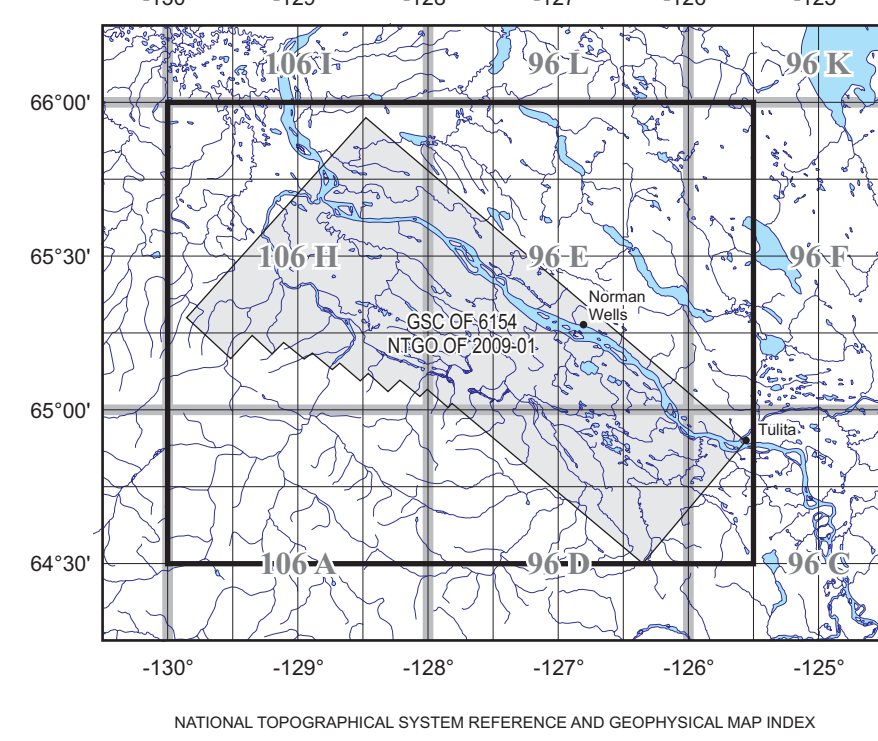
Digital versions of this map can be downloaded, at no charge, from Natural Resources Canada's Geoscience Data Repository (MIRAGE) at <http://gdr.nrcan.gc.ca>. The digital data may also be downloaded, free of charge, from Natural Resources Canada's Geoscience Data Repository for Gravity Data at <http://gdr.nrcan.gc.ca/gravity> and from the Northwest Territories Geoscience Office's publications portal at <http://gateway.nwtgeoscience.ca/browseA.php>. 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@dgsc.nrcan.gc.ca.

PLANIMETRIC SYMBOLS

Topographic contours	.....
Drainage	.....
Wellhead	.....
Mining Area	.....
Pipeline	.....
Power Line	.....
Road	.....
Trail	.....
Flight Line with fiducial	.....

ISOGRAMMETRIC LINES

50 mGal	.....
10 mGal	.....
2.5 mGal	.....
0.5 mGal	.....
Gravimetric depression	.....



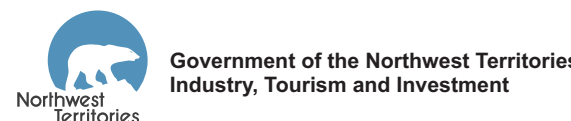
CENTRAL MACKENZIE VALLEY
AIRBORNE GRAVITY SURVEY, NORTHWEST TERRITORIES

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Contract specifications and technical standards developed by the NTGO, Yellowknife, Northwest Territories and the Geological Survey of Canada (GSC), Ottawa, Ontario. Data quality control procedures performed at the GSC.

Operational procedures, data acquisition, processing, compilation and map production carried out by Sander Geophysics, Ottawa, Ontario.

Map design by NTGO, GSC and Sander Geophysics.



GSC OPEN FILE 6154 / NTGO OPEN FILE 2009-01

GEOPHYSICAL SERIES

NTS 96 E, 106 H AND PARTS OF 96 C, 96 D, 96 F, AND 106 A

CENTRAL MACKENZIE VALLEY AIRBORNE GRAVITY SURVEY

NORMAN WELLS

NORTHWEST TERRITORIES

BOUGUER ANOMALY

Scale 1 : 250 000

Scale bar showing 0, 10, and 20 km.

United Nations Map Projection

North American Datum, 1983

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Digital Topographic Data provided by Geomatics Canada, Natural Resources Canada

Paper and digital copies of this map and the other maps in the Open File, digital geophysical and navigation data, digital elevation model, and the contractor's report are available from:

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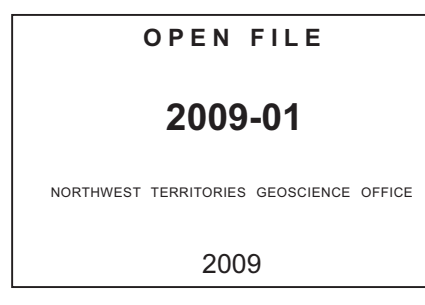
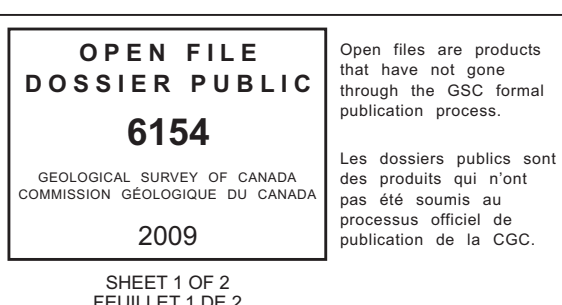
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Digital copies of the maps and data from this project can be downloaded from either NTGO or GSC web sites at:
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Location Map



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