1:500 000 GEOPHYSICS - 3D INVERSION ANALYSIS: AIRBORNE GRAVITY INTERPRETATION - SEA LEVEL DENSITY SLICE

1:250 000 NTS SHEETS 93A,B,C,F,G,H,I,J,K,N,O,P
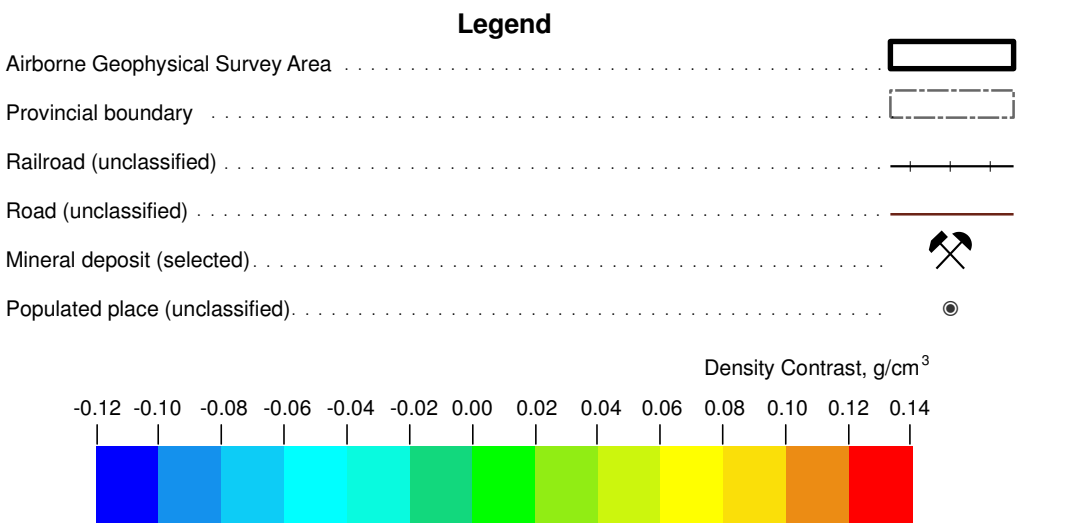PART OF 1:250 000 NTS SHEETS 82M; 83D,E,L,M; 84D; 92M,N,O,P; 93D,E,L,M AND 94A,B,C,D

Disclaimer: While every effort has been taken to ensure the accuracy of the information in this map, the data are provided on an 'as-is' basis, without any warranty, guarantee or representation of any kind, whether expressed or implied. It is the responsibility of the user to check the facts before entering any financial or other commitment based upon this information.

Location Map

YUKON TERRITORY
BRITISH COLUMBIA
ALBERTA
UNITED STATES OF AMERICA
Pacific Ocean
Prince George
QUEST Airborne Geophysical Survey Area
VICTORIA

National Topographic System Index

Legend

Airborne Geophysical Survey Area	
Provincial boundary	
Railroad (unclassified)	
Road (unclassified)	
Mineral deposit (selected)	
Populated place (unclassified)	

Density Contrast, g/cm³

-0.12 -0.10 -0.08 -0.06 -0.04 -0.02 0.00 0.02 0.04 0.06 0.08 0.10 0.12 0.14

QUEST Geophysics 3D Inversion Analysis - Airborne Gravity Interpretation - Sea Level Density Slice

The QUEST Airborne Gravity were inverted by Mira Geoscience for Geoscience BC using the UBC smooth model inversion algorithm Grav3D. This map presents a plan slice through the 3D density model.

Note that the inversion algorithm produces a model of density contrast above and below a norm. For practical purposes a norm of 2.67 g/cm³ can be used with this model. Also, the user should be aware that the model was computed using 500m x 500m x 250m blocks. A small, blocky high density feature will be smoothed over several blocks when it reports to the model, so it will look like a larger, smooth, lower valued density anomaly. The model shown here is a regional result, computed from regional data.

The data was acquired by Sander Geophysics using the AIRGRAV airborne gravity system. Flight line traverses were EW across the survey area. Flight lines were 2km apart and followed UTM northings divisible by 2000 metres. Some more detailed data was acquired using 1km flight line traverses around the Gibraltar, Cariboo Bell and Mount Milligan deposits.

The underlying digital data for this map is available for download at the Geoscience BC website. There is a full 3D block model from which a user may extract any section or plan slice of interest.

Data Analysis
Mira Geoscience Ltd (2009). QUEST Project: 3D inversion modelling, integration, and visualization of airborne gravity, magnetic, and electromagnetic data, BC, Canada; Geoscience BC Report 2009-15, 87 p.

Airborne Gravity Data
GBC QUEST Project Team (2008): QUEST Project Gravity Data and Report, Geoscience BC, 2008-6

Topographic Data
Massey, N.W.D, MacIntyre, D.G., Desjardins, P.J. and Cooney, R.T. (2005): Digital Geology Map of British Columbia: Whole Province; B.C. Ministry of Energy and Mines, GeoFile 2005-1.

Data Sources
Geoscience BC   Ministry of Energy, Mines and Petroleum Resources
www.geosciencebc.com   www.empr.gov.bc.ca/mining/geoscience

Acknowledgments
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Image processing by Peter Kowalczyk, Geoscience BC
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Mira Geoscience ...modelling the earth
Northern Development INITIATIVE TRUST

Geoscience BC

Geoscience BC is an industry-led, industry-focused not-for-profit society that works to attract mineral and oil and gas investment to British Columbia through collection and marketing of geoscience data.
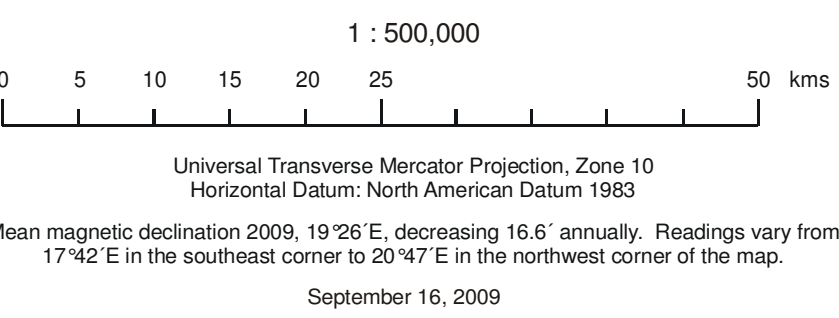www.geosciencebc.com

MAP 2009-15-1
GEOPHYSICS - 3D INVERSION ANALYSIS
Airborne Gravity Interpretation - Sea Level Density Slice
QUEST PROJECT

1:250 000 NTS SHEETS 93A,B,C,F,G,H,I,J,K,N,O,P
PART OF 1:250 000 NTS SHEETS 82M; 83D,E,L,M; 84D; 92M,N,O,P; 93D,E,L,M AND 94A,B,C,D

1 : 500,000
0 5 10 15 20 25   50 kms

Universal Transverse Mercator Projection, Zone 10
Horizontal Datum: North American Datum 1983

Mean magnetic declination 2009, 19°08' E, decreasing 16.6' annually. Readings vary from 17°42' E in the southeast corner to 20°47' E in the northwest corner of the map.

September 16, 2009

Citation:
Geoscience BC (2009): QUEST Project - Geophysics - 3D Inversion Analysis: Airborne Gravity Interpretation - Sea Level Density Slice; Geoscience BC, Map 2009-15-1, scale 1: 500,000.