

Mistastin Batholith Aeromagnetic Survey

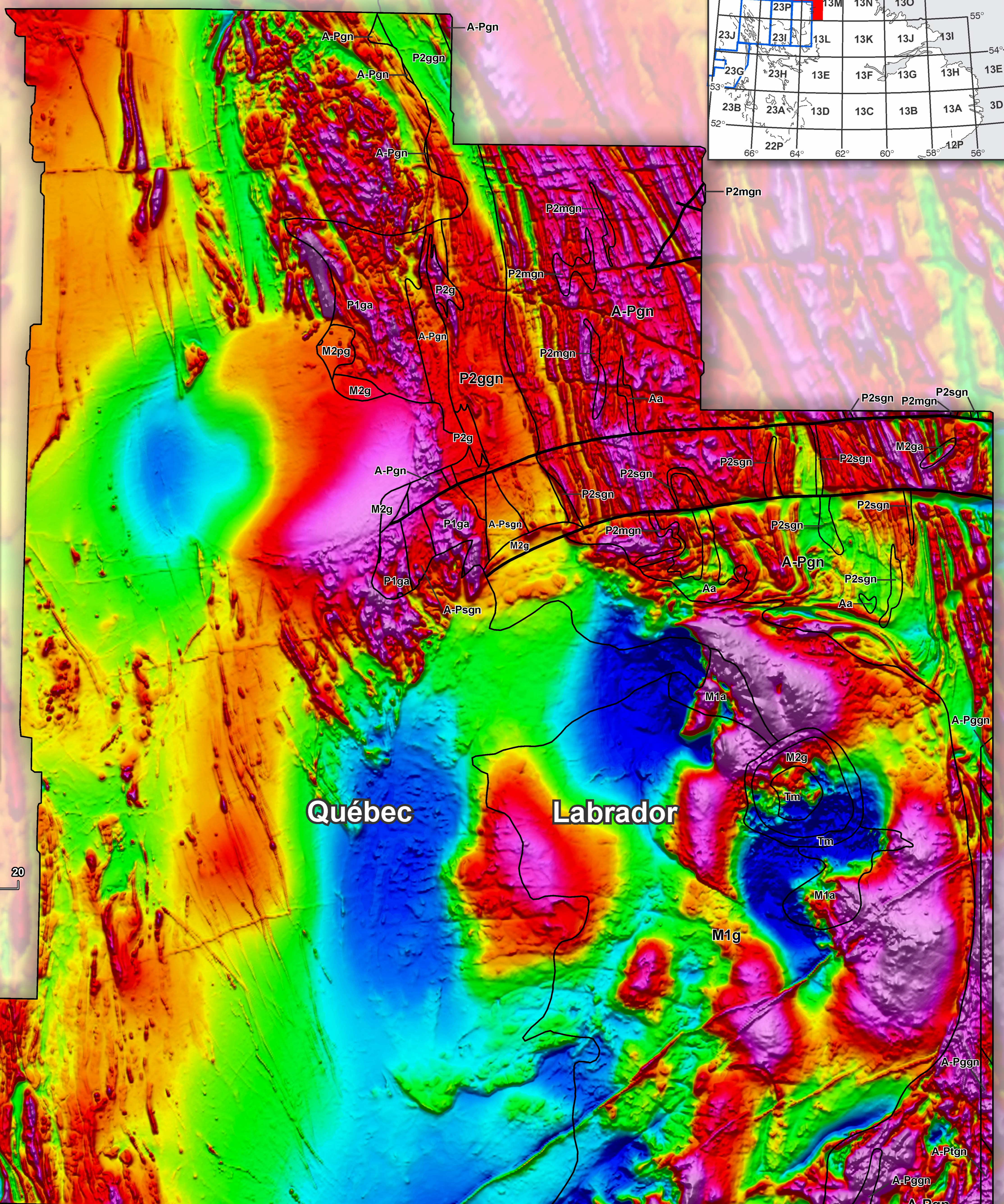
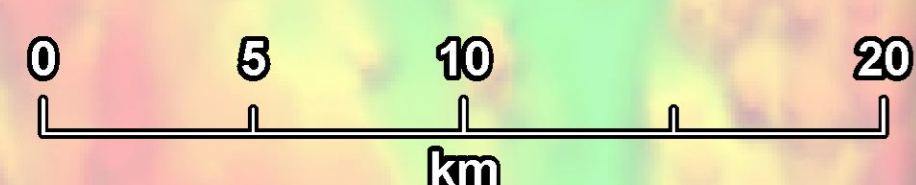
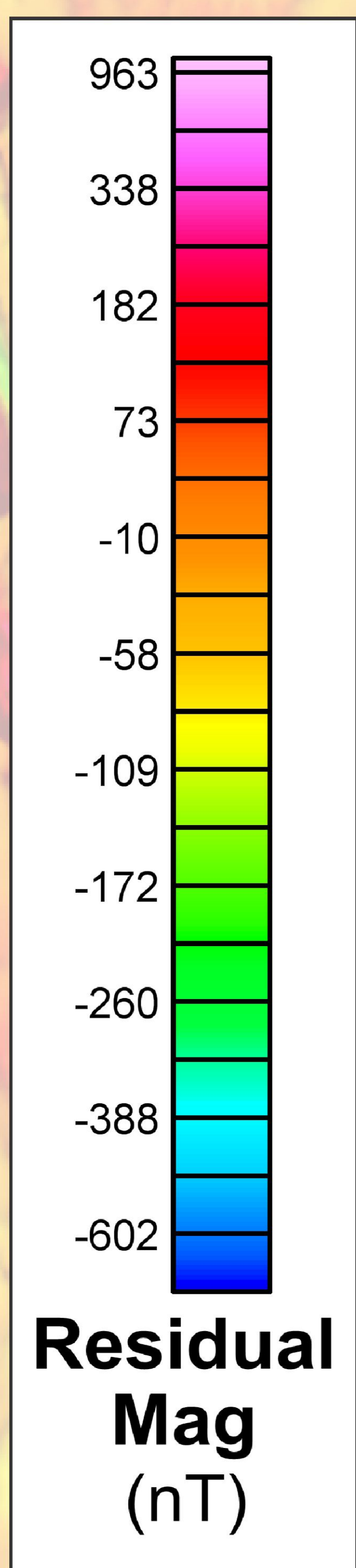
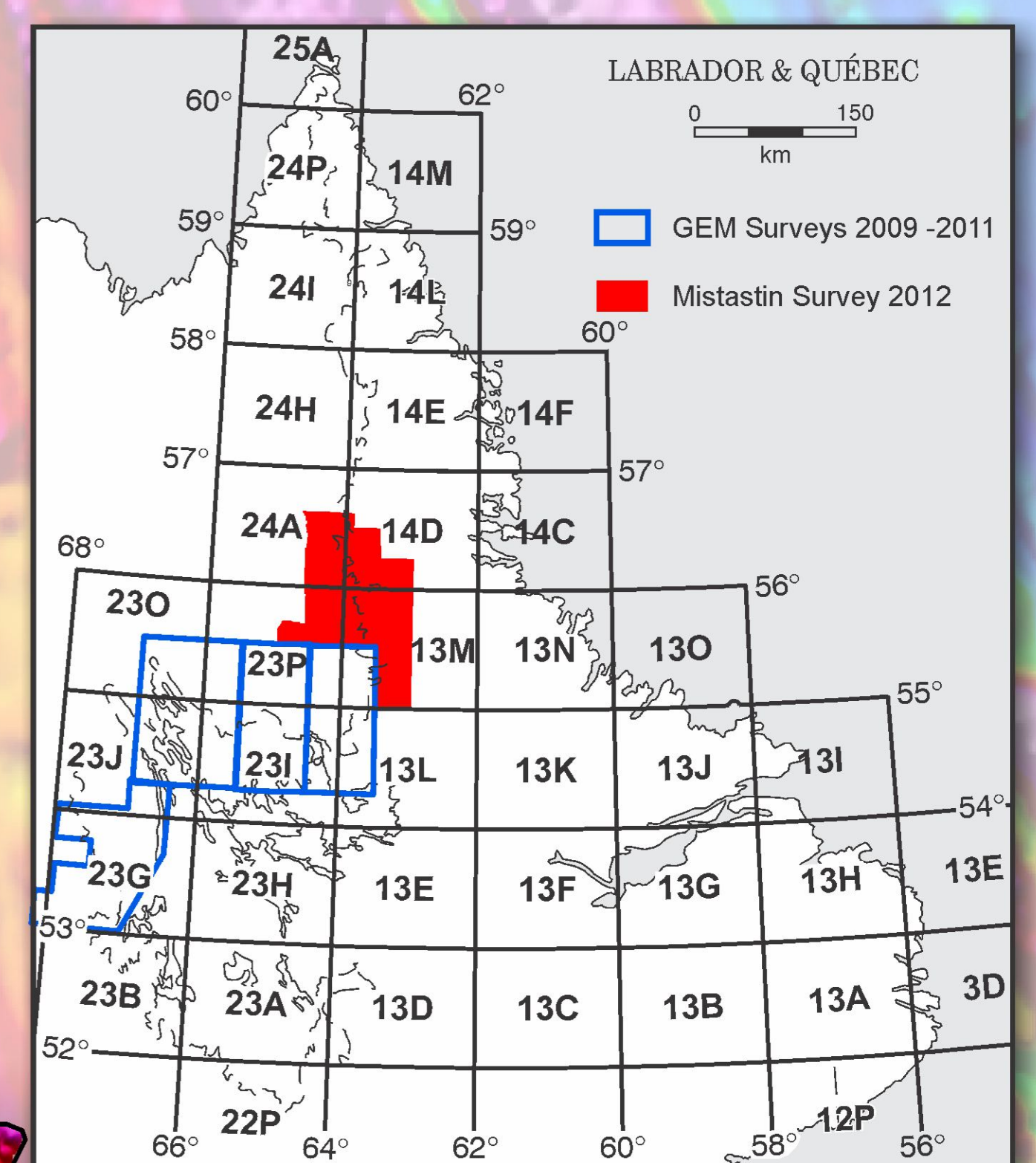
Residual Total Magnetic Field

TGI4: Targeted Geoscience Initiative 4 - Increasing Deep Exploration Effectiveness

Ressources naturelles
et Faune
Québec

TGI⁴ IGC⁴
Canada

Newfoundland
Labrador
Natural Resources



Legend

- CONTACT
 - FAULT
- Bedrock Geology extracted from Map 97-07 Wardle et al.*
- Geology**
- Tertiary [T]**
- Tm** Impact breccia and melt sheets
- Middle Mesoproterozoic [M2]**
- M2ga** Gabbro sills
 - M2aq** Arkose, grading south into quartzite
 - M2pg** Peralkaline granite and syenite intrusions, locally with ring structure
 - M2g** Granitoid rocks, including rapakivi varieties
- Early Mesoproterozoic [M1]**
- M1g** Granitoid rocks
 - M1a** Anorthosite and other, locally layered, mafic rocks
- Middle Paleoproterozoic [P2]**
- P2ggn** Granitic gneiss
 - P2g** Granite and granodiorite
 - P2mgn** mafic gneisses of mixed intrusive and extrusive origin
 - P2ga** Gabbro and leucogabbro sills
 - P2sgn** Pelitic metasedimentary gneiss, minor marble and calc-silicate rock
- Early Paleoproterozoic [P1]**
- P1ga** Gabbro and derived gneiss
- Archean [A]**
- A-Pgn** Granitic gneiss
 - A-Ptgn** Orthogneiss and associated migmatite of tonalite-granodiorite-granite
 - A-Psgn** Pelitic gneiss, minor marble and calc-silicate rock
 - A-Pgn** Undifferentiated gneiss
 - Aa** Anorthosite and leucogabbro

The Targeted Geoscience Initiative 4 (TGI-4) is a collaborative federal geoscience program that provides industry with the next generation of geoscience knowledge and innovative techniques, which will result in more effective targeting of buried mineral deposits.

Mistastin Batholith Aeromagnetic Survey - Technical Information

These data were acquired during a fixed-wing aeromagnetic survey carried out by Geo Data Solutions GDS Inc. and Oracle geoscience International during the period from February 16 to April 16, 2012. The data were recorded using a split-beam cesium vapour magnetometer (sensitivity = 0.005 nT) mounted in the tail boom of each of three Piper Navajo aircraft. The nominal traverse and control line spacings were 200 m and 1200 m, respectively, and the aircraft flew at a nominal terrain clearance of 80 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 Positioning System 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 50 m grid. The International Geomagnetic Reference Field (IGRF) defined at an altitude of 616 m for the year 2012.202 was then removed. Removal of the IGRF, representing the magnetic field of the Earth's core, produces a residual component related essentially to the magnetizations within the Earth's crust.