

**Gamma Spectrometry Data**  
The airborne gamma spectrometry measurements were made with an EGPR-800 gamma spectrometer using lithium 102:102:406 mm NaI(Tl) crystals. The main detector was composed of three modules (two 102:102:406 mm NaI(Tl) crystals and one 102:102:406 mm NaI(Tl) crystal) which were used to detect gamma rays and background radiation caused by atmospheric radon. The system also includes 500 channels spectrometers from the EGPR-800 NaI(Tl) detectors with the use of Pulse Processor. Spectral analysis was accomplished by means of the EGPR-800 software.

Potassium is measured directly from the 1460 keV gamma-ray photon emitted by <sup>40</sup>K, whereas uranium and thorium are measured indirectly from gamma-ray products emitted by daughter products of <sup>238</sup>U and <sup>232</sup>Th. Although the gamma-ray photon emitted by <sup>232</sup>Th is not measured, the presence of <sup>232</sup>Th is inferred from the presence of <sup>208</sup>Tl, a daughter product of <sup>232</sup>Th. The average ambient dose rate was measured with a dose rate meter (DRM) from the EGPR-800 system.

Gamma-ray spectra were recorded at second intervals. Data processing followed standard procedures as described in AEA, 1984 and AEA, 2003. House built background level was determined (HBL) and was used to correct the data for background. Data processing was done using the EGPR-800 software. Data processing was done using the EGPR-800 software. Data processing was done using the EGPR-800 software.

Count rates were measured with a counter and were converted to counts per second (cps). Counts from the main detector were recorded in 1000-1000 cps bins and a total of 1000 bins was used for the 1000-1000 cps bin. The average ambient dose rate was measured with a dose rate meter (DRM) from the EGPR-800 system.

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**Magnetic Data**  
The magnetic field was sampled 50 times per second using a fluxgate magnetometer (FIM) with a resolution of 0.005 nT. The FIM was mounted on the aircraft and was used to measure the magnetic field. The magnetic field was sampled 50 times per second using a fluxgate magnetometer (FIM) with a resolution of 0.005 nT. The FIM was mounted on the aircraft and was used to measure the magnetic field.

**Données de spectrométrie gamma**  
Les mesures de spectrométrie gamma ont été effectuées à l'aide d'un spectromètre gamma EGPR-800 utilisant quatre cristaux de NaI(Tl) de 102 x 102 x 406 mm. Le principal détecteur est composé de deux cristaux de NaI(Tl) de 102 x 102 x 406 mm. Le système comprend également 500 canaux spectrométriques de la série EGPR-800 NaI(Tl) détecteurs avec l'utilisation de Pulse Processor. L'analyse spectrale a été effectuée à l'aide du logiciel EGPR-800.

**Données sur le champ magnétique**  
Le champ magnétique a été mesuré à l'aide d'un magnétomètre à fluxgate (FIM) avec une résolution de 0,005 nT. Le FIM était monté sur l'avion et était utilisé pour mesurer le champ magnétique. Le champ magnétique a été mesuré à l'aide d'un magnétomètre à fluxgate (FIM) avec une résolution de 0,005 nT. Le FIM était monté sur l'avion et était utilisé pour mesurer le champ magnétique.

**References/Bibliographie**  
AEA, P.J., 1985. Gamma-ray spectrometry in aerogeophysics. Geophysics, 50, 891-902.  
International Atomic Energy Agency, 2003. Guidelines for radiometric mapping using gamma-ray spectrometry data. Technical Reports Series 1963, IAEA, Vienna.

**PLANIMETRIC SYMBOLS**  
Topographic contour  
Drainage  
Wetland  
Dry river bed  
Esker  
Sand  
Fog Line

**SYMBOLS PLANIMÉTRIQUES**  
Courbe de niveau  
Drainage  
Terres humides  
Lit de cours d'eau séché  
Esker  
Sable  
Ligne de brouillard

**MAP SHEET SUMMARY / SOMMAIRE DES FEUILLETS**  
GSC Sheet / Feuillelet  
1. Natural Air Absorbed Dose Rate  
2. Potassium  
3. Uranium  
4. Thorium  
5. Uranium / Thorium  
6. Uranium / Potassium  
7. Thorium / Potassium  
8. Terrain Radiocesium Map  
9. Residual Total Magnetic Field  
10. First Vertical Derivative of the Magnetic Field

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GEOPHYSICAL SERIES / SÉRIE DES CARTES GÉOPHYSIQUES

NTS 46-O/01, NTS 46-O/02 and part of NTS 46-O/03 / SNRC 46-O/01, SNRC 46-O/02 et partie de SNRC 46-O/03

AIRBORNE GEOPHYSICAL SURVEY MIERTSCHING LAKE EAST, NUNAVUT  
LEVÉ GÉOPHYSIQUE AÉROPORTÉ MIERTSCHING LAKE EST, NUNAVUT

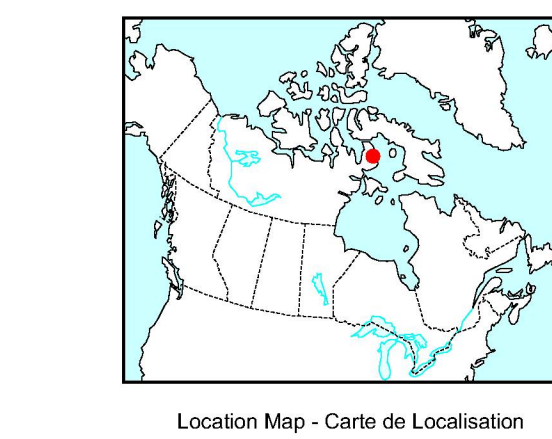
NATURAL AIR ABSORBED DOSE RATE  
TAUX D'ABSORPTION NATUREL DES RAYONS GAMMA DANS L'AIR



Authors: Fortin, R., Coyle, M., and Faulkner, E.L.  
Data acquisition, compilation and map production by  
Sander Geophysics Limited, Ottawa, Ontario  
Contract and project management  
by the Geological Survey of Canada, Ottawa, Ontario

Scale 1 : 50 000 - Échelle 1 / 50 000

Auteurs: Fortin, R., Coyle, M., et Faulkner, E.L.  
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Commission géologique du Canada, Dossier public 6480.  
échelle 1:50 000.