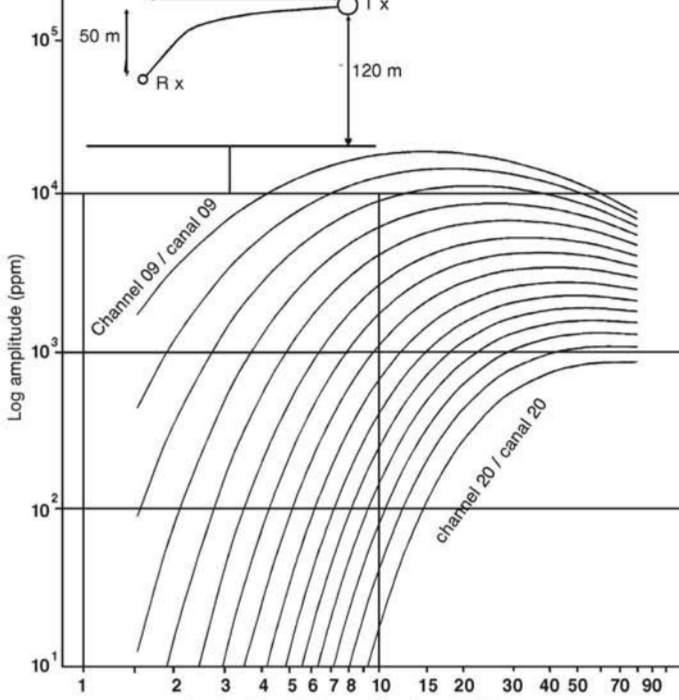


NOMOGRAM / NOMOGRAMME  
VERTICAL PLATE / PLAQUE VERTICALE  
90 HZ / 2ms



**DESCRIPTIVE NOTES**  
The data for the central area of this map over Lac aux Dorés were compiled from data acquired during an airborne electromagnetic survey carried out by Fugro Airborne Surveys during the period February 2nd to February 4th, 2002. Recent MEGATEM II data, acquired in 2008 in the Chibougamau area were added to the gridded compilation on this map. The Lac aux Dorés data were recorded using a MEGATEM II time domain electromagnetic (EM) system and a split-beam caesium vapour magnetometer. The EM receiver and the magnetometer were mounted on a fixed-wing aircraft (AS375). The nominal transmitter and receiver line spacing were, respectively, 150 m and 2 500 m, and the aircraft flew at a nominal terrain clearance of 120 m. Receiver lines were oriented N-S with a dogleg control line. The flight path was recorded following post-flight differential corrections to the raw Global Positioning System data. A vertically mounted video camera was used to record images of the ground. The magnetic data were recorded at 10 Hz.

**Electromagnetic System**  
Electromagnetic data were acquired using the MEGATEM II time domain EM system. The system transmits a signal from a horizontal loop, centered on the aircraft, and measures the response of buried conductors using a three axis (X, Y and Z) electromagnetic receiver, recording 20 channels of data four times per second on each of the three components. The EM receiver measures dB/dt directly, from which information the secondary magnetic field is numerically integrated. The base frequency of the system was 90 Hz.

The quantitative interpretation of the MEGATEM II data presented in the EM anomaly map was accomplished by comparing the EM responses with nomograms obtained from mathematical models. The channel amplitude ratios of a given response are mainly a function of the conductance of its source. The response amplitude varies with conductor depth and geometry. The reference nomogram for the survey is based on the response of a vertical rectangular thin plate having a 600 m strike length and 300 m depth oriented with its upper edge located at ground level. If the shape of a geological conductor differs significantly from a vertical plate, estimates will be inaccurate or, in extreme situations, meaningless. Therefore, caution should be exercised when making recommendations for drilling or other follow-up activities based on quantitative interpretation of airborne EM data. Different results will be obtained using other models for quantitative interpretation.

The MEGATEM II system responds to conductive overburden, near-surface horizontal conductive layers, man-made sources and bedrock conductors. Identification of natural conductors is based on the rate of transient decay, magnetic correlation and response shape, together with the response pattern and topography. Man-made responses are identifiable by examining the power line monitor and the flight track video.

**MEGATEM II**  
Frequency: 90 Hz  
Peak Dipole Moment: 1.715 x 10<sup>4</sup> Am<sup>2</sup>  
Pulse Width: 2200 µs  
Off Time: 3255 µs  
Pulse Repetition: 180 Hz

**ELECTROMAGNETIC ANOMALY SYMBOLS**  
SYMBOLS ANOMALIES ELECTROMAGNETIQUES

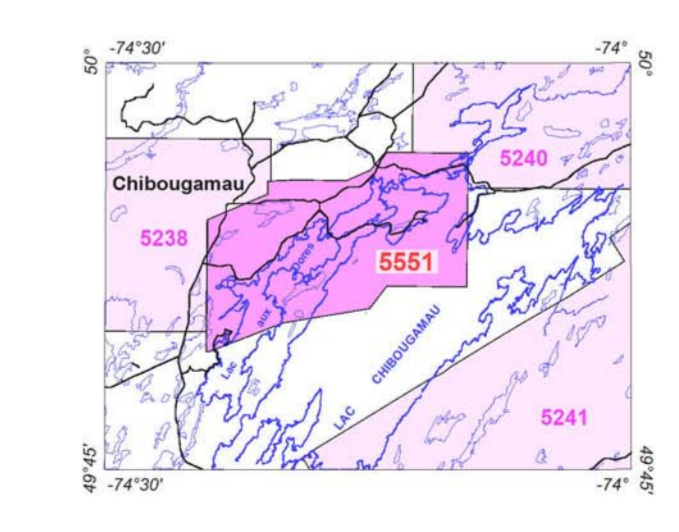
Anomaly	Channels
Surface	Surface
Cultural	Cultural
Antennique	Antennique
1-2	1-2
3-4	3-4
5-6	5-6
7-8	7-8
9-10	9-10
11-12	11-12

**SYMBOLS PLANIMÉTRIQUES** **PLANIMÉTRIC SYMBOLS**

Routes	Roads
Chemin de fer	Railway
Ligne de transport d'énergie	Power Line
Drainage	Drainage

Cette carte a été produite dans le cadre du projet IGC-3 Abitibi de Ressources naturelles Canada et contribue au programme de l'initiative géoscientifique ciblée (IGC-3) du Secteur des sciences de la Terre.

This map was produced as part of the TGI-3 Abitibi Project of Natural Resources Canada and is a contribution to the Targeted Geoscience Initiative (TGI-3) Program of the Earth Sciences Sector.



La Commission géologique du Canada et le ministère des Ressources naturelles et de la Faune du Québec remercient Ressources Campbell Inc. (Québec) pour avoir fourni les données géophysiques utilisées dans la compilation de cette carte.  
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(Commission géologique du Canada)

**CONDUCTANCE APPARENTE  
APPARENT CONDUCTANCE**

**LEVÉ MEGATEM II CHIBOUGAMAU - LAC AUX DORÉS  
MEGATEM II SURVEY CHIBOUGAMAU - LAC AUX DORÉS**  
SNRC / NTS : 32 G/16, Québec

Echelle 1/50 000 - Scale 1:50 000

Projections: NAD83 / UTM zone 18R Universal Transverse Mercator Projection  
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Données topographiques numériques de Géomatics Canada, Ressources naturelles Canada  
Digital Topographic Data provided by Geomatics Canada, Natural Resources Canada

Les versions numériques de ces cartes ainsi que les données géophysiques en formats « profi » et « maille » peuvent être téléchargées gratuitement depuis le site de la Collection de données géophysiques et géochimiques de l'États de données géoscientifiques de Ressources naturelles Canada <http://rdg.mnrc.gc.ca>. La carte et les données numériques sont aussi disponibles, moyennant des frais, au Centre de données géophysiques de la Commission géologique du Canada au 615, rue Booth, Ottawa (Ontario) K1A 0E9. Tél: (613) 995-5235, courriel: [info@dsag.mnrc.gc.ca](mailto:info@dsag.mnrc.gc.ca).

Digital versions of this map and the corresponding digital and gridded geophysical data may be downloaded, at no charge, from Natural Resources Canada's Geoscience Data Repository for Geophysical and Geochemical Data at <http://rdg.mnrc.gc.ca>. The map and digital data are also available, for a fee, from the Geophysical Data Centre, Geological Survey of Canada, 615 Booth Street, Ottawa, Ontario, K1A 0E9. Tel: (613) 995-5235, email: [info@dsag.mnrc.gc.ca](mailto:info@dsag.mnrc.gc.ca).

Cette carte et les données géophysiques numériques (DP-2007-02) peuvent être obtenues à partir de «Produits et services en ligne» sur le site internet du Ministère des Ressources naturelles et de la Faune du Québec: <http://www.mnrc.govr.ca>

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Data acquisition by Fugro Airborne Surveys, Ottawa, Ontario.  
Data compilation and map production by the Geological Survey of Canada, Ottawa, Ontario.

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L'acquisition des données fut effectuée par Fugro Airborne Surveys, Ottawa, Ontario.  
La compilation des données et la production des cartes furent effectuées par la Commission géologique du Canada, Ottawa, Ontario.

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