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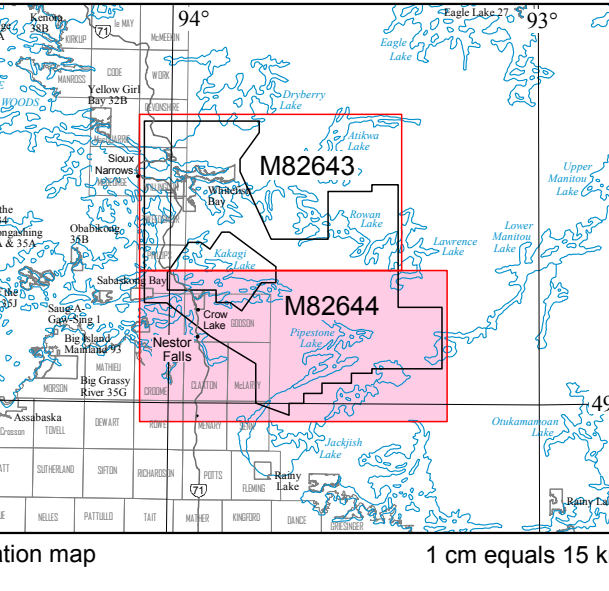
Ontario Geological Survey 2014. Airborne magnetic and electromagnetic surveys, colour-filled contours of the residual magnetic field and electromagnetic anomalies, Nestor Falls area; Ontario Geological Survey, Map 82 644, scale 1:50 000.

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**SOURCES OF INFORMATION**  
Base map information derived from the Land Information Ontario Data Warehouse, Land Information Ontario, Ontario Ministry of Natural Resources and Forestry, scale 1:50 000.  
Magnetic declination for the centre of the map area was approximately 0.1° W in 2014.  
Metz, Maxwell, A. 1998. Short Note: A simple method of transient electromagnetic data analysis, Geophysics, v.63, no.2, p.405-410.

**CREDITS**  
Data acquisition, data compilation and map production by Geotech Limited, Aurora, Ontario.  
Project management and quality assurance by Paterson, Grant and Watson Limited, Toronto, Ontario.  
Contract management, base maps and map surrounds by the Ontario Ministry of Northern Development and Mines, Sudbury, Ontario.  
Every possible effort has been made to ensure the accuracy of the information presented; however, the Ontario Ministry of Northern Development and Mines does not assume liability for any errors that may occur. Users should verify critical information.  
Corresponding digital data for this survey are available from the following Ontario Geological Survey publication:  
Ontario Geological Survey 2014. Ontario airborne geophysical surveys, magnetic and electromagnetic data, grid and profile data (ASCII and Geobase formats) and vector data, Nestor Falls area, Ontario Geological Survey, Geophysical Data Set 1076, issued 2014.

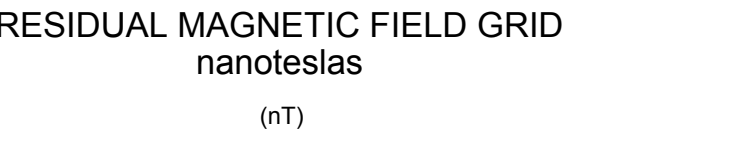
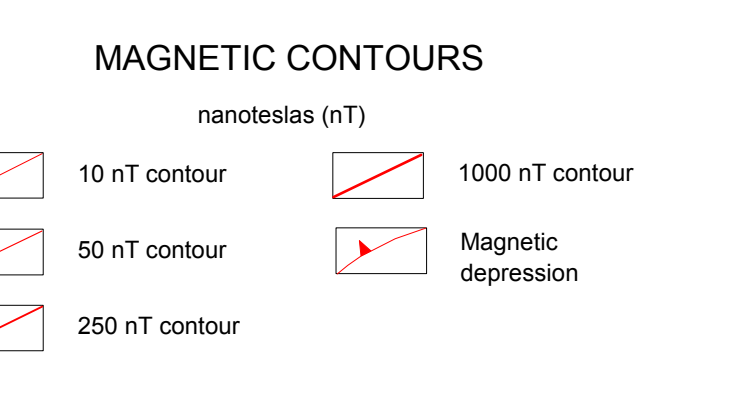
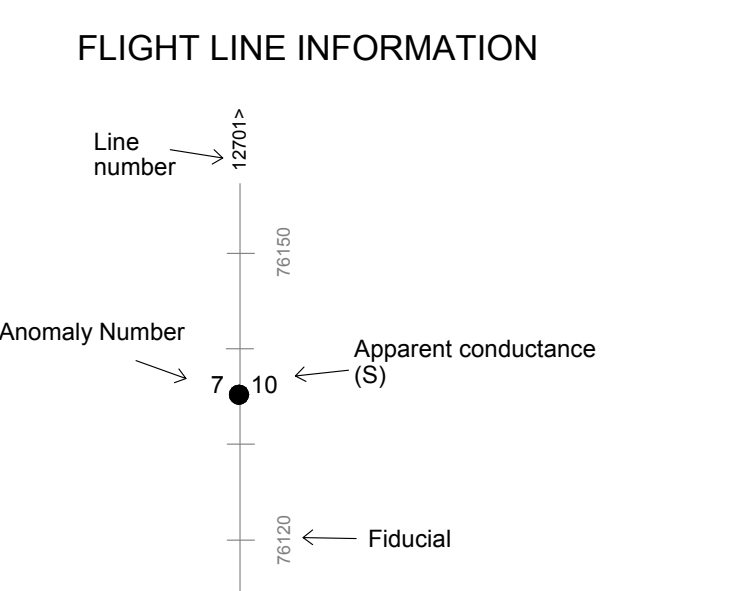
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Ontario Geological Survey 2014. Airborne magnetic and electromagnetic surveys, colour-filled contours of the residual magnetic field and electromagnetic anomalies, Nestor Falls area, Ontario Geological Survey, Map 82 644, scale 1:50 000.

Users of OGS products are encouraged to contact those Aboriginal communities whose traditional territories may be located in the mineral exploration area to discuss their project.

**LEGEND**

**ELECTROMAGNETIC ANOMALY SYMBOLS**

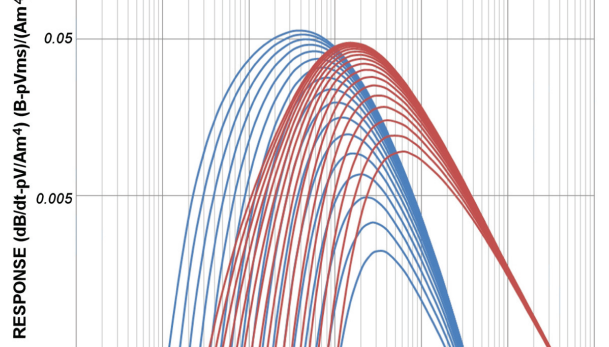
Anomaly	Conductance Classification
●	> 50 siemens
●	35 - 50 siemens
●	20 - 35 siemens
●	10 - 20 siemens
●	5 - 10 siemens
●	< 5 siemens
□	cultural response



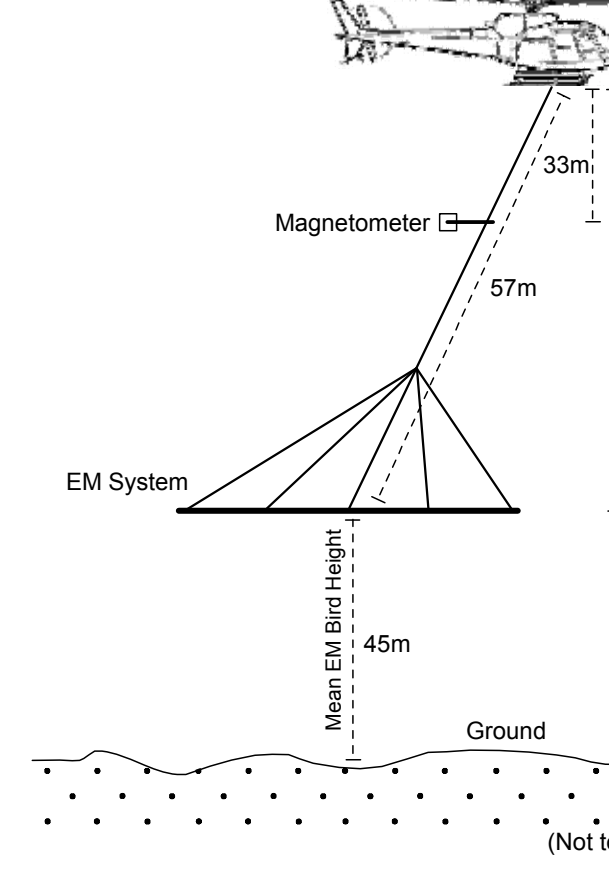
**DESCRIPTIVE NOTES**

**Introduction**  
This survey was flown using the Geotech VTEMPlus helicopter-mounted magnetic and electromagnetic system. The aircraft was also equipped with a GPS navigation system and a digital data acquisition system.  
**Residual Magnetic Field Map**  
The contours of residual magnetic intensity were generated from digitally recorded data. The magnetic data were corrected for diurnal variations, leveled to the control lines and interpolated onto a 40 m regular grid, using the minimum curvature algorithm. An International Geomagnetic Reference Field (IGRF) correction was applied to the total magnetic field data at survey altitude using the 2010 model year extrapolated to March 1, 2014. A regional correction was applied to level the magnetic field to the Ontario Master Aeromagnetic Grid.  
Magnetic declination from January 26, 2014 to March 1, 2014 for the centre of the survey area was 0.1° W. Magnetic inclination from January 26, 2014 to March 1, 2014 for the centre of the survey area was 74.7° N. Magnetic field strength was 57.6 nT (calculated using IGRF).  
**EM Anomalies**  
The VTEMPlus system will respond to conductive overburden, near-surface horizontal conducting 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.  
Anomalies were classified as having an inductively thin source, which produces a double-peaked (M-shaped) response with the trough centered over the conductor, or as an inductively thick source, which produces a single-peaked response centered over the conductor. The anomaly source conductance was computed assuming a 100 m by 100 m pixel size.

**VERTICAL PLATE NOMOGRAM**



**SYSTEM CONFIGURATION**



**SURVEY PARAMETERS**

**AIRCRAFT**  
Type: AS300B3  
Registration: C-FKCI

**MAGNETOMETER**  
Type: Geometrics® G823A cesium vapour  
Sensitivity: 0.05 nT  
Noise level: ±0.004 nT  
Sample interval: 10 readings per second  
Sensor location: 33 m below aircraft

**ELECTROMAGNETIC SYSTEM**  
Type: VTEMPlus  
Base frequency: 30 Hz  
Current waveform: trapezoid  
Peak dipole moment (N·A): 522 430 Am²  
Pulse width: 4.4 msec  
Off time: 7036 usec  
Pulse repetition: 30 pulses per second  
Parameters: 2, 60 pulses per second  
Sampling interval: 10 readings per second  
Noise level: 0.0005 pV(A·m²)  
Sensitivity: 0.05 nT  
Noise level: 0.0005 pV(A·m²)  
Bit Location: 47 m below aircraft

**NAVIGATION SYSTEM**  
GPS receiver: MID-TECH® R4400p  
GPS sample interval: 5 readings per second  
Radar altimeter: Terra TRA3000/TRI-40  
Radar sample interval: 5 readings per second  
Video flight path recorder: Archos™ 605 W-Fi

**BASE STATION**  
Magnetometer: Geotech Base Station - Geometrics®  
G823B cesium-vapour sensor  
Magnetometer sample interval: 10 readings per second

**SURVEY SPECIFICATIONS**  
Survey date: January 26 to March 1, 2014  
Nominal aircraft terrain clearance: 92 m  
Traverse line spacing: 200 m  
Control line spacing: 1500 m  
Traverse line direction: north-south  
Control line direction: east-west

**CO-ORDINATE SYSTEM**  
Projection: Universal Transverse Mercator  
Datum: NAD83  
Central meridian: 93°00'W (UTM zone 15)  
Central scale factor: 0.9996  
False easting: 500 000 m  
False northing: 0 m