

# **GDS 1070a METADATA**

## **GENERAL INFORMATION**

**Official Name of the Data Set or Information Holding:** Ontario Airborne Geophysical Surveys, Magnetic and Electromagnetic Data, Grid and Profile Data (ASCII and Geosoft ® Formats) and Vector Data, South Simcoe County Area

**Acronyms are Used to Identify the Data Set or Information Holding:** GDS1070a

**Describe the Data Set or Information Holding:**

Ontario Geological Survey (author)

Geophysical Data Set (GDS) 1070a includes the results of an airborne magnetic and AeroTEM(TM) time-domain helicopter electromagnetic (HEM) survey flown in the southern part of Simcoe County in southwestern Ontario. The geophysical survey was flown by Aeroquest Surveys, (Mississauga, Ontario) for the Ontario Geological Survey in March 2012. The total number of line kilometres of this survey is 1898. GDS 1070a is contained on a single DVD.

This geophysical data set includes 40 m x 40 m grids and GeoTIFF images of magnetic and electromagnetic data; airborne magnetic and electromagnetic data—both raw and processed—in ASCII and Geosoft(R) (.gdb) file formats; grids (in ASCII and Geosoft(R) (.grd) file formats) of the magnetic and electromagnetic products; geoTIFF images of magnetic and EM decay constant grids; vector (.dxf) files of flight path, EM decay constant, apparent conductance and magnetic contours; constrained lateral EM inversion databases in ASCII and Geosoft(R) (.gdb) file formats; sections of electrical conductance in TIF format; and the survey and inversion processing reports in portable document format (.pdf).

Survey Parameters:

Date flown: 2012

Line kilometres: 1898

Line spacing: 200 m

Magnetic survey type: single sensor total field

Magnetometer height: 80 m

EM survey type: AeroTEM IV

EM domain: time

EM height: 44 m

VLF-EM: none

Gamma-ray survey: none

GDS 1070a is released in association with GDS 1070b, and is available separately. These

data accompany the following geophysical maps: Map 82580 to 82587.

Additional information and metadata are found within a readme file provided with the product.

**The Intended Use and Purpose for Collecting the Data Set or Information Holding:**

Airborne geophysics is an integral part and core function of the Ontario Geological Survey's (OGS) geoscience activities. The Ministry's objective is to evaluate the Time-Domain electromagnetic (TDEM) method for delineating subsurface sand and gravel aquifers, some of which are associated with buried bedrock valleys in southwestern Ontario as part of its groundwater mapping activities. The area chosen was selected as a) it is within an on-going aquifer mapping project area, b) there is relatively good subsurface information as a result of recent drilling and c) it includes a variety of bedrock and surficial materials. The objective of this product is to collect and disseminate geoscience information for Ontario.

**Describe any Restrictions and Legal Prerequisites for Accessing the Data Set (Data Privacy/Security):**

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Ontario Geological Survey 2012. Ontario airborne geophysical surveys, magnetic and electromagnetic data, grid and profile data (ASCII and Geosoft(R) formats) and vector data, south Simcoe County area; Ontario Geological Survey, Geophysical Data Set 1070a.

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**Describe any Legislated or Legal Authority for Collecting the Data Set:** N/A

**Select the Level of Privacy for this Metadata Information:** Internal

**Time Coverage:** Wednesday October 10, 2012

**Time Coverage Comments:** Date of Publication.

**Enter or Select the Current Status of the Data Set:** Complete

**Enter or Select the Frequency with which Changes or Additions are Made to the Data Set:** None Planned

**Enter the retention schedule number:** 9999

**Retention period or description:**PAT

**Keywords:**

MINISTRY OF NORTHERN DEVELOPMENT AND MINES

MNDM

OGS

ONTARIO GEOLOGICAL SURVEY

AEROMAGNETIC

APPARENT CONDUCTANCE

APPARENT CONDUCTIVITY

APPARENT RESISTIVITY

AIRBORNE EM

AIRBORNE EM AND MAG (TOTAL FIELD)

**Business Theme:**

GEOLOGICAL SURVEY

GEOLOGY

## **GEOGRAPHIC INFORMATION**

**Selected geographic type:** Bounding Box only

North Bounding Latitude: 44° 14'

South Bounding Latitude: 43° 59'

West Bounding Longitude: -79° 51'

East Bounding Longitude: -79° 38'

**Geographic Completeness:** irregularly shaped study area - completeness not available

## **MAPPING INFORMATION**

Grid Coordinate System Used:	Universal Transverse Mercator
Map Projection:	Transverse Mercator
Horizontal Geodetic Datum:	NAD83
Vertical Datum:	Not Applicable
Horizontal Position Accuracy of Features:	+/- 10 m
Vertical Position Accuracy of Features:	Not Applicable

## **DATA SOURCE INFORMATION**

**Data Source Type:** Includes Bibliographic Information

**Describe for the Source Data Contribution:** Product includes references to other sources of information

**Data Source Type:** Direct Field Collection

**Time Period Comments:** survey was flown by Aeroquest Surveys for the OGS and completed between March 13 and 18, 2012.

## **CONTACT**

### **GENERAL INFORMATION CONTACT:**

**Position:** Publication Sales Representative

**Language:** English

**Organization:** Ministry of Northern Development and Mines

**Organization Sub-Unit:** Ontario Geological Survey

**Business Phone:** (705)670-5691

**FAX:** (705)670-5770

**Internet EMail Address:** [pubsales@ndm.gov.on.ca](mailto:pubsales@ndm.gov.on.ca)

**ADDRESS:**

**Street No:** 933

**Street Name:** Ramsey Lake Road

**Municipality:** Sudbury

**Province/State:** ON Ontario

**Country:** CANADA

**Post Code:** P3E6B5

**Other Contact Method:** Toll Free Number (Canada & USA): 1-888-415-9845 x5691

### **DISTRIBUTOR / PUBLISHER CONTACT:**

**Position:** Publication Sales Representative

**Language:** English

**Organization:** Ministry of Northern Development and Mines

**Organization Sub-Unit:** Ontario Geological Survey

**Business Phone:** (705)670-5691

**FAX:** (705)670-5770

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**METADATA CUSTODIAN / CONTACT:**

**Position:** Publication Sales Representative

**Language:** English

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**AUTHOR - ORIGINATOR / DATASET CUSTODIAN:**

**Position:** Publication Sales Representative

**Language:** English

**Organization:** Ministry of Northern Development and Mines

**Organization Sub-Unit:** Ontario Geological Survey

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**METADATA**

**Date of this Metadata Description/Update:** September 21, 2012

**Date when Metadata Should be Reviewed:** December 31, 2016

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