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Lewis, D. 2013. Geological, geochemical and geophysical data related to the Rowan Lake area, Superior Province; Ontario Geological Survey, Miscellaneous Release—Data 307.

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These data accompany:  
Preliminary Map P.3766, *Precambrian Geology of the Rowan Lake Area, Northwestern Ontario*

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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.

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## Miscellaneous Release—Data 307

### **Geological, Geochemical and Geophysical Data Related to the Rowan Lake Area, Superior Province**

by

*D. Lewis*

Earth Resources and Geoscience Mapping Section, Ontario Geological Survey, Sudbury

This publication can be downloaded from

[http://www.geologyontario.mndm.gov.on.ca/mndmaccess/mndm\\_dir.asp?type=pub&id=MRD307](http://www.geologyontario.mndm.gov.on.ca/mndmaccess/mndm_dir.asp?type=pub&id=MRD307)

This release contains whole-rock chemistry (including assay), geochronology, and magnetic susceptibility data collected as part of the Rowan Lake mapping project (PU11-002) during the summer of 2011; it complements geological mapping results recently published as Map P.3766, *Precambrian Geology of the Rowan Lake Area, Northwestern Ontario*, a digital version (featuring 488 hyperlinked and georeferenced field photographs) of which is included on this MRD, along with 2 Summary of Field Work articles, and 2 posters.

This release consists of 6 Microsoft® Excel 03® (.xls) files, 488 Joint Photographic Experts Group (.jpg) files and 7 portable document format (.pdf) files.

Data are organized into 4 folders, as follows:

**Geochemistry and Geophysics**

**Geochronology**

**P3766**

**Publications**

**1. Geochemistry and Geophysics Folder.** This folder contains 2 .xls files.

Full Geochemistry.xls: This spreadsheet contains multi-element (major, minor, and trace element) geochemical data on 109 whole rock samples that were collected during the 2011 field season. Sample location information is provided in UTM Zone 15N co-ordinates, NAD83 datum.

Abbreviations used in this spreadsheet: oz, ounces; ppm, parts per million; wt. %, weight percent; ICP-AES, inductively coupled plasma atomic emission spectroscopy; ICP-MS, inductively coupled plasma mass spectrometry; IRS, infrared absorption; TRI, titration; XRF, X-ray fluorescence; AA, atomic absorption.

Magnetic Susceptibility.xls: This spreadsheet contains magnetic susceptibility data of various bedrock outcrops. Measurements were collected using an Explorium® KT-9 magnetic susceptibility meter. Magnetic susceptibility is defined as the degree to which a substance can be magnetized, and in this case, is expressed as the ratio of the intensity of magnetization (k) to the ratio of the Earth's magnetic field to magnetic field induced by the susceptibility meter. The readings (k) are expressed as  $10^{-3}$  times the SI unit for susceptibility and are dimensionless. The minimum value that can be recorded by the meter is 0.01 times  $10^{-3}$  SI units; the largest value is 999 times  $10^{-3}$  SI units. Sample location information is given in UTM zone 15N co-ordinates, NAD83 datum.

**2. Geochronology Folder.** This folder contains 2 .xls files, and 3 .pdf files.

11DL-428B Report.pdf: This file consists of an extraction from the annual geochronology report released by the Department of Geology at the University of Toronto for the Ontario Geological Survey. Sample 11DL-428B was dated by Sandra L. Kamo by U-Pb ID-CA-TIMS on 4 single zircon grains.

11DL-428B Table 1.xls: This file is a table of zircon data for sample 11DL-428B.

11DL-428B Concordia Plot Photos.pdf: This file (identified as Figure 1 in file 11DL-428B Table 1.xls ) shows the Concordia plot and photographs of the analyzed zircons for sample 11DL-428B.

11SW-657 Report.pdf: This file consists of an extraction from the annual geochronology report released by the Mineral Exploration Research Centre at Laurentian University for the Ontario Geological Survey. Sample 11SW-657 was dated by Robert D. Lodge and Joseph Petrus by U-Pb LA-ICP-MS on 48 single zircon grains.

11SW-657.xls: This file is a table of zircon data for sample 11SW-657.

**3. P3766 Folder.** This folder contains 1 .xls file, 1 .pdf file, and the P3766 subfolder. The P3766 subfolder contains the ESRI® ArcGIS® 9.3 p3766.mxd geodatabase.

Photo Hyperlinks.xls: This spreadsheet is a collection of data for 488 field photographs. This file contains station numbers, UTM co-ordinates (Easting/Northing; NAD83 Zone 15N, measured in metres), photograph links, photograph descriptions, and the number of photographs for a given station. The photograph links are not hyperlinked through this document, although the folder relative path can be found through \P3766\Photos\.

P3766 Legend.pdf: This .pdf file is the legend for Preliminary Map 3766. It is included for reference because the \P3766\p3766.mxd geodatabase does not include a legend.

P3766\p3766.mxd: This file, in the P3766 subfolder, is the geodatabase for Preliminary Map 3766, *Precambrian Geology of the Rowan Lake Area, Northwestern Ontario*. It is based on UTM co-ordinates, NAD83 Zone 15N datum. It includes images of the Total Magnetic Field and 1<sup>st</sup> Vertical Derivative of the

Total Magnetic Field (Ontario Geological Survey 2002), field alteration zones (based on Eilu et al. 1999), and hyperlinked georeferenced field photographs. The hyperlinked photographs can be accessed by clicking on the hyperlink button and then selecting the photograph of interest in the main map screen. In areas where multiple photographs have been taken, the folder directory will open and the photographs will be selectable. Photograph captions are shown on the map and they can also be accessed through the hyperlinked photographs attribute table.

#### **4. Publications.** This folder contains 5 .pdf files

6270-10.pdf: This file is the Summary of Field Work and Other Activities 2011 report on *Structural Controls and Alteration Patterns of Gold Mineralization at Rowan Lake, Northwest Ontario* by D. Lewis and S. Woolgar.

6280-09.pdf: This file is the Summary of Field Work and Other Activities 2012 report on *New Geochemical and Geochronological Results from the Rowan Lake Area, Northwestern Ontario* by D. Lewis, S.L. Kamo, and R.W.D. Lodge.

NW-ROWAN2012.pdf: This file is the poster, entitled *Geology of the Rowan Lake area, Western Wabigoon Subprovince, Northwest Ontario*, which was presented at the 2012 Northwestern Ontario Mines and Minerals Symposium, April 2 – 4 2012, in Thunder Bay, Ontario.

OEGS-ROWAN2012.pdf: This file is the poster, entitled *New geochemical and geochronological results from the Rowan Lake area, Northwest Ontario*, which was presented at the 2012 Ontario Exploration and Geoscience Symposium, November 6 - 7 2012, in Sudbury, Ontario.

Preliminary Map P3766 link.pdf: This file contains a link to the online location of Preliminary Map 3766, Precambrian Geology of the Rowan Lake Area, Northwestern Ontario, by D. Lewis and S. Woolgar.

#### **Other Associated Files**

Preliminary Map 3766. Precambrian Geology of the Rowan Lake Area, Northwestern Ontario.  
[http://www.geologyontario.mndm.gov.on.ca/mndmaccess/mndm\\_dir.asp?type=pub&id=P3766](http://www.geologyontario.mndm.gov.on.ca/mndmaccess/mndm_dir.asp?type=pub&id=P3766)

#### **References**

- Eilu, P.K., Mathison, C.I., Groves, D.I. and Allardyce, W.J. 1999. Atlas of alteration assemblages, styles and zoning in orogenic lode-gold deposits in a variety of host rock and metamorphic settings; University of Western Australia, Geology and Geophysics Department (Centre for Strategic Mineral Deposits) and University Extension, Publication no.30, 65p.
- Ontario Geological Survey 2002. Ontario airborne geophysical surveys, magnetic and electromagnetic data, grid and profile data, ASCII and Geosoft® formats, Kakagi Lake area—Purchased data; Ontario Geological Survey, Geophysical Data Set 1208—Revision 1.