

THESE TERMS GOVERN YOUR USE OF THIS DOCUMENT

Your use of this electronic information product (“EIP”), and the digital data files contained on it (the “Content”), is governed by the terms set out on this page (“Terms of Use”). By opening the EIP and viewing the Content, you (the “User”) have accepted, and have agreed to be bound by, the Terms of Use.

EIP and Content: This EIP and Content is offered by the Province of Ontario’s *Ministry of Northern Development and Mines* (MNDM) as a public service, on an “as-is” basis. Recommendations and statements of opinions expressed are those of the author or authors and are not to be construed as statement of government policy. You are solely responsible for your use of the EIP and its Content. You should not rely on the Content for legal advice nor as authoritative in your particular circumstances. Users should verify the accuracy and applicability of any Content before acting on it. MNDM does not guarantee, or make any warranty express or implied, that the Content is current, accurate, complete or reliable or that the EIP is free from viruses or other harmful components. MNDM is not responsible for any damage however caused, which results, directly or indirectly, from your use of the EIP or the Content. MNDM assumes no legal liability or responsibility for the EIP or the Content whatsoever.

Links to Other Web Sites: This EIP or the Content may contain links, to Web sites that are not operated by MNDM. Linked Web sites may not be available in French. MNDM neither endorses nor assumes any responsibility for the safety, accuracy or availability of linked Web sites or the information contained on them. The linked Web sites, their operation and content are the responsibility of the person or entity for which they were created or maintained (the “Owner”). Both your use of a linked Web site, and your right to use or reproduce information or materials from a linked Web site, are subject to the terms of use governing that particular Web site. Any comments or inquiries regarding a linked Web site must be directed to its Owner.

Copyright: Canadian and international intellectual property laws protect the Content. Unless otherwise indicated, copyright is held by the Queen’s Printer for Ontario.

It is recommended that reference to the Content be made in the following form:

Gélinas, B.R. and Hollings, P. 2018. Geochemistry of the Balmer and Confederation assemblages at the Laird Lake property and associated gold mineralization, Red Lake greenstone belt, northwestern Ontario; Ontario Geological Survey, Miscellaneous Release—Data 357.

Use and Reproduction of Content: The EIP and the Content may be used and reproduced only in accordance with applicable intellectual property laws. *Non-commercial* use of unsubstantial excerpts of the Content is permitted provided that appropriate credit is given and Crown copyright is acknowledged. Any substantial reproduction of the Content or any *commercial* use of all or part of the Content is prohibited without the prior written permission of MNDM. Substantial reproduction includes the reproduction of any illustration or figure, such as, but not limited to graphs, charts and maps. Commercial use includes commercial distribution of the Content, the reproduction of multiple copies of the Content for any purpose whether or not commercial, use of the Content in commercial publications, and the creation of value-added products using the Content.

Contact:

FOR FURTHER INFORMATION ON	PLEASE CONTACT:	BY TELEPHONE:	BY E-MAIL:
The Reproduction of the EIP or Content	MNDM Publication Services	Local: (705) 670-5691 Toll-Free: 1-888-415-9845, ext. 5691 (inside Canada, United States)	Pubsales.ndm@ontario.ca
The Purchase of MNDM Publications	MNDM Publication Sales	Local: (705) 670-5691 Toll-Free: 1-888-415-9845, ext. 5691 (inside Canada, United States)	Pubsales.ndm@ontario.ca
Crown Copyright	Queen’s Printer	Local: (416) 326-2678 Toll-Free: 1-800-668-9938 (inside Canada, United States)	Copyright@ontario.ca

For information on purchasing all publications, including digital data, contact:

Publication Sales

Ministry of Northern Development and Mines

933 Ramsey Lake Rd., Level A3

Sudbury, Ontario P3E 6B5

Tel: 1-888-415-9845, ext. 5691 (toll-free inside Canada and the United States)

Tel: (705) 670-5691 (local calls)

Fax: (705) 670-5770

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.

Miscellaneous Release—Data 357

Geochemistry of the Balmer and Confederation Assemblages at the Laird Lake Property and Associated Gold Mineralization, Red Lake Greenstone Belt, Northwestern Ontario

by B.R. Gélinas and P. Hollings

Department of Geology, Lakehead University, 955 Oliver Road, Thunder Bay, Ontario P7B 5E1

This publication can be downloaded from

http://www.geologyontario.mndm.gov.on.ca/mndmaccess/mndm_dir.asp?type=pub&id=MRD357

This digital data release includes lithogeochemical data from 161 field and drill-core samples that were collected during the mapping of the Laird Lake property in Killala and Mulcahy townships, and the Medicine Stone Lake area of the Red Lake greenstone belt, northwestern Ontario. The field area encompasses both the Balmer (*circa* 2.98 Ga) and Confederation (*circa* 2.74) assemblages, with known gold occurrences occurring along the sheared tectonic contact between the 2 assemblages. A general description of the units sampled and their geochemistry, as well as a brief interpretation of the data, are provided as a Microsoft® Excel® 2013 (.xlsx) spreadsheet and a portable document format (.pdf) file, respectively.

The data and interpretation presented in this publication represent part of an unpublished Master of Science (MSc) thesis by the lead author at Lakehead University. Analytical support was provided by the Ontario Geological Survey (Project Unit (PU) 15-021). Analytical methods are described in detail in the Geoscience Laboratories (GeoLabs) brochure, which is included on this release as a .pdf file. Funding for this project was provided by Bounty Gold Corp. and the Mitacs-Accelerate Internship program. Additional funding was also provided by a Society of Economic Geologist (SEG) Graduate Student Fellowship and the Ontario Graduate Scholarship program.

There are 4 files provided in this release:

MRD357_readme – this document

MRD357_Geochemistry.xlsx – consists of 2 worksheets that contain the results of whole-rock geochemical analyses for each sample collected as part of this thesis study, performed at the Geoscience Laboratories (GeoLabs), Ontario Geological Survey, Sudbury. The methods used, lower detection limit for each method, and reported units for each method are included for each element (an oxide) listed. Also provided are the rock types, rock descriptions and associated tectonic assemblage names for the supracrustal rocks. All sample location data and location data for drill-hole collars are provided as Universal Transverse Mercator co-ordinates (“Eastings”, “Northing”) in North American Datum 1983 (NAD83), Zone 15.

- “Geochemical Data” worksheet contains 161 whole-rock geochemical analyses.
- “Abbreviations” worksheet contains explanations of abbreviations used in the “Geochemical Data” worksheet.

MRD357_Interpretation.pdf – provides a brief interpretation of the data collected as part of this thesis study.

2015 Geo Labs Brochure.pdf – Geoscience Laboratories’ schedule of fees and services, providing information on the analytical methods used by Geoscience Laboratories for this study.