

MISCELLANEOUS RELEASE—DATA (MRD) 357 METADATA

GENERAL INFORMATION

Official Name of the Data Set or Information Holding:

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

Acronyms are Used to Identify the Data Set or Information Holding: MRD357

Describe the Data Set or Information Holding:

Gélinas, B.R., Hollings, P. (authors)

This publication can be downloaded from GeologyOntario: see Distribution Information section.

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 present 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 The data and interpretation presented in this publication represent part of an unpublished Master of Science (MSc) thesis by the lead author at Lakehead University, Thunder Bay.

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:

This publication is a summary of a 2-year study aimed at enhancing the current knowledge of the tectonic setting of both the Balmer and Confederation assemblages, and determining the nature and controls of the gold mineralization associated with the tectonic contact between the 2 assemblages. The Balmer assemblage is interpreted to result from plume magmatism that penetrated through thin North Caribou Terrane crust, whereas the Confederation assemblage likely formed as an oceanic arc with simultaneous arc and back arc volcanism. Juxtaposition of the Confederation assemblage onto pre-existing Mesoproterozoic assemblages of the Red Lake greenstone belt created a zone of weakness for deformation and gold deposition. Analytical support was provided by the Ontario Geological Survey (Project Unit (PU) 15-021). 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.

The objective of this product is to collect and disseminate geoscience information for Ontario.

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Miscellaneous Release Data

MRD

Archean Bedrock Geology

Superior Province (Geological)

Geochemistry, General

Gold Au

Major Elements

Trace Elements

Business Theme:

Geological Survey

Geology

GEOGRAPHIC INFORMATION

Selected geographic type: Bounding Box only

North Bounding Latitude: 50° 56'

South Bounding Latitude: 50° 55'

West Bounding Longitude: -94° 11'

East Bounding Longitude: -94° 04'

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: Precise +/- 5 m

Vertical Position Accuracy of Features: Precise +/- 5 m

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

Source Data Set Description: Field work conducted from July 2015 to August 2015, and June 2016. Drill core samples collected in October 2015.

CONTACT INFORMATION

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