

## THESE TERMS GOVERN YOUR USE OF THIS PRODUCT

***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 Energy, Northern Development and Mines* (ENDM) 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. ENDM 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. ENDM is not responsible for any damage however caused, which results, directly or indirectly, from your use of the EIP or the Content. ENDM 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 ENDM. Linked Web sites may not be available in French. ENDM 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:

Priebe, E.H. 2021. Groundwater hydrochemistry, water isotope and manual water level data for the Early Silurian carbonates of the Niagara Escarpment cuesta; Ontario Geological Survey, Miscellaneous Release—Data 390.

**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 ENDM. 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 | ENDM Publication Services | Local: (705) 670-5691<br>Toll-Free: 1-888-415-9845, ext. 5691<br>(inside Canada, United States) | <a href="mailto:Pubsales.ndm@ontario.ca">Pubsales.ndm@ontario.ca</a> |
| The Purchase of ENDM Publications      | ENDM Publication Sales    | Local: (705) 670-5691<br>Toll-Free: 1-888-415-9845, ext. 5691<br>(inside Canada, United States) | <a href="mailto:Pubsales.ndm@ontario.ca">Pubsales.ndm@ontario.ca</a> |
| Crown Copyright                        | Queen’s Printer           | Local: (416) 326-2678<br>Toll-Free: 1-800-668-9938<br>(inside Canada, United States)            | <a href="mailto:Copyright@ontario.ca">Copyright@ontario.ca</a>       |

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

Publication Sales

Ministry of Energy, 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 should be aware that Indigenous communities may have Aboriginal or treaty rights or other interests that overlap with areas of mineral potential and exploration.

---

Miscellaneous Release—Data 390

**Groundwater Hydrochemistry, Water Isotope and Manual Water Level Data for the Early Silurian Carbonates of the Niagara Escarpment Cuesta**

by E.H. Priebe<sup>1</sup>

<sup>1</sup>Earth Resources and Geoscience Mapping Section, Ontario Geological Survey, Sudbury, Ontario.

This publication can be downloaded from

[http://www.geologyontario.mndm.gov.on.ca/mndmaccess/mndm\\_dir.asp?type=pub&id=MRD390](http://www.geologyontario.mndm.gov.on.ca/mndmaccess/mndm_dir.asp?type=pub&id=MRD390)

This data release comprises the hydrochemical, isotopic and manual water level data for a groundwater sampling event conducted in the Early Silurian carbonates of the Niagara Escarpment cuesta during the summer of 2016, and represents the final phase of a multiphase groundwater mapping project. The data published here—from 69 groundwater samples from 36 stations—were collected in support of an OGS-funded PhD thesis by Priebe (2019). Only data with the best accuracy and precision are published in this release. Accuracy and precision plots and the data used to create them are provided in a supporting document (*.pdf*) and a Microsoft® Excel® for Office 365 (*.xlsx*) file, respectively. The groundwater sampling protocols, sample handling, field measurements and analytical methods used are those of the OGS Ambient Groundwater Geochemistry Program and are described in the supporting document.

## Contents

There are 2 files provided in this release, along with this readme file:

*MRD390\_Support Document.pdf* provides background information and context for the groundwater sampling project; a description of data collection and analytical methods; quality control plots for analytical parameters and some field parameters; and references to publications produced as part of this multiphase groundwater mapping project.

*All\_data\_2016.xlsx* is a Microsoft® Excel® for Office 365 (*.xlsx*) file containing manual water level, hydrochemistry and isotope data, as well as station and sample details.

## References

Priebe, E.H. 2019. Investigating new approaches for mapping groundwater systems in karstic carbonate bedrock: A case study in the Early Silurian formations of the Niagara Escarpment cuesta, southern Ontario, Canada; unpublished PhD thesis, University of Waterloo, Waterloo, Ontario, 153p.