

# **MRD283-REV METADATA**

## **GENERAL INFORMATION**

**Official Name of the Data Set or Information Holding:** Ambient Groundwater Geochemistry Data for Southern Ontario, 2007–2014

**Acronyms are Used to Identify the Data Set or Information Holding:** MRD283-REV

**Describe the Data Set or Information Holding:**  
Hamilton, S.M. (author)

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

The Ambient Groundwater Geochemistry project provides a comprehensive analytical characterization of the chemical state of groundwater across all of southern Ontario—an area approximately 96,000 square kilometres. This digital data release comprises data collected during the course of 8 field seasons. It revises the data and updates the original release of Miscellaneous Release—Data 283, published in 2011, which encompassed sampling during 2007 to 2010 over all of southwestern Ontario. The current release contains additional data compiled from the 2011 to 2014 field seasons collected in south-central and southeastern Ontario. The data include detailed inorganic chemistry for almost 2300 water samples. Parameters tested include dissolved gases, major ions, trace elements, isotopes of water, and field measurement of alkalinity, temperature, pH, redox potential and electrical conductivity.

The data release includes

1. a single flat-file with 134 fields that comprise analytical data plus station data including well depth, type, deepest formation penetrated and other parameters.
2. a folder with precision and accuracy plots for all parameters.
3. a folder with 91 single-parameter maps for bedrock wells plotted over bedrock geology.
4. a folder with 91 single-parameter maps for overburden wells plotted over surficial geology.
5. a support document with an explanation of the data and quality-control methods and HTML links to all maps and plots.

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:**

These data were collected as part of the Ambient Groundwater Geochemistry project at the Ontario Geological Survey. It is ongoing and is now part of the Ontario Geological Survey base mapping program. It has the following objectives.

1. to establish baseline groundwater geochemical conditions for aquifers in the major rock and overburden units in Ontario;
2. to relate natural variations in water quality to the rock and overburden materials that constitute the aquifers; and
3. to develop a high-quality geochemical database with consistent sample spacing to: i)

**Time Coverage:** Tuesday January 13, 2015

**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:**PT

**Keywords:**

MINISTRY OF NORTHERN DEVELOPMENT AND MINES

MNDM

OGS

BASE

GEOCHEMICAL GEOCHEMISTRY

GEOLOGY

GROUNDWATER

HYDROGEOLOGY

PALEOZOIC BEDROCK GEOLOGY

QUATERNARY SURFICIAL GEOLOGY

SAMPLING

SAMPLING TECHNIQUES

WATERWELL

**Business Theme:**

GEOLOGICAL SURVEY

GEOLOGY

**GEOGRAPHIC INFORMATION**

**Selected geographic type:** Bounding Box only

North Bounding Latitude: 45° 32'

South Bounding Latitude: 41° 42'

West Bounding Longitude: -83° 09'

East Bounding Longitude: -74° 18'

**Geographic Completeness:** irregularly shaped study area – 100% complete

**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:  
(maintain privacy)

+/- 100 m (locations rounded to 100m to

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:** survey and sampling conducted from April 1, 2007 to June 30, 2014

## **CONTACT**

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

allow the interpretation and integration of other groundwater geochemical data sets; and ii) support the determination of groundwater flow and aquifer conditions. The objective of this product is to collect and disseminate geoscience information for Ontario.

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**METADATA**

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