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Miscellaneous Release—Data 337

Groundwater Hydrochemistry Data for Multi-Depth Well Sampling in the Early Silurian Carbonates of the Niagara Escarpment Cuesta

by E.H. Priebe and V.L. Lee

This publication can be downloaded from

http://www.geologyontario.mndm.gov.on.ca/mndmaccess/mndm_dir.asp?type=pub&id=MRD337

This digital data release comprises the hydrochemical data for 4 seasonally targeted groundwater sampling events that were conducted throughout 2011 and 2012. The sampling points consisted of a network of 12 multi-depth wells that are located in the Early Silurian carbonates of the Niagara Escarpment cuesta. Each multi-depth monitoring well contains 3 to 5 ports designed for both groundwater sampling and water level monitoring. This data release contains the analyses for 210 groundwater samples, for a total of 16 380 individual chemical measurements. The laboratory analyses include major ions, trace elements, bacteria and nutrients. Field analyses include alkalinity, temperature, pH, reduction–oxidation potential and electrical conductivity.

This publication is organized into 3 components.

MRD337_support_document.pdf is a hyperlinked Support Document (provided in portable document format (.pdf)), which contains a description of the study area, borehole logs, multi-depth well geometries, sampling methods, and analytical and quality-control methods. The borehole logs with well geometries for the 12 multi-depth wells are presented in Appendix A.

Hydrochem_data. This folder contains 13 Microsoft® Excel® 2010 (.xlsx) files:

12 workbooks (“DDHxx”) provide hydrochemical data corresponding to each of the 12 multi-depth wells, and 1 workbook (“ALL_HYDROCHEM”) provides data for all multi-depth wells in a single worksheet.

QC_plots. This folder contains 67 image (.tif) files in 5 subfolders, providing the quality-control plots for analyzed parameters, as identified in Table 1 of *MRD337_support_document.pdf*.

How to Navigate this Publication

This is an interactive publication with hyperlinks set up to enable quick access to the information of interest by selecting links in the Support Document (*MRD337_support_document.pdf*). Data can be accessed either by using hyperlinks or, alternatively, by directly opening files in the “Hydrochem_data” folder. A description of the hyperlinks contained within the Support Document is provided below.

Figure 1 is a location map showing the FLUTE™ multi-depth well locations. Each multi-depth well location is hyperlinked to its associated borehole log.

- To access the borehole log for an individual well, selecting the DDH well location will link to the borehole log (with well geometries) for the selected well; the borehole log is a page within the Support Document. To return to the previous view, select the “Back to map” link at the lower right-hand corner of the page.
- To access the hydrochemistry data for the selected well, selecting the text “Hydrochemical results” will link to and open a table of hydrochemistry data for the sampling ports contained within that well; the data table (Microsoft® Excel® (.xlsx) workbook) opens in a separate window. The hydrochemistry data can be accessed either by using hyperlinks or, alternatively, by directly opening files in the “Hydrochem_data” folder.

Table 1 is a table containing a list of parameters with their units and detection limits. Most (but not all) parameters are hyperlinked to its associated set of quality-control plots.

- To access the quality-control plots for a parameter selecting the text “QC_” in the “Quality Control Plots” column will link to the plots for that parameter; each quality-control plot opens as an image (.tif) in a separate window. The quality-control plots are provided within subfolders in the “QC_plots” folder.