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Ontario Geological Survey, Miscellaneous Release—Data 392.

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These data accompany:

Open File Report 6369, *Quaternary Geology Mapping in the Great Clay Belt of Northeastern Ontario: A Study of Sediments and Glacial Landforms Along the Highway 11 Corridor from Kapuskasing to Iroquois Falls*.

Preliminary Map P.3836, *Quaternary Geology of the Kapuskasing Area, Northeastern Ontario*, scale 1:50 000.

Preliminary Map P.3837, *Quaternary Geology of the Smooth Rock Falls Area, Northeastern Ontario*, scale 1:50 000.

Preliminary Map P.3838, *Quaternary Geology of the Cochrane Area, Northeastern Ontario*, scale 1:50 000.

Preliminary Map P.3839, *Quaternary Geology of the Abitibi Area, Northeastern Ontario*, scale 1:50 000.

Preliminary Map P.3840, *Quaternary Geology of the Iroquois Falls Area, Northeastern Ontario*, scale 1:50 000.

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Miscellaneous Release—Data 392

Results of Till and Esker Sand Sampling in the Great Clay Belt of Northeastern Ontario

by A.S. Marich

This publication can be downloaded from

http://www.geologyontario.mndm.gov.on.ca/mndmaccess/mndm_dir.asp?type=pub&id=MRD392

This digital data release presents the results of till and esker sand sampling as part of a Quaternary geology mapping program conducted within the Great Clay Belt of northeastern Ontario between 2016 and 2019. The data comprise fine-fraction ($\sim 63\mu\text{m}$) geochemical analyses and geochemical and compositional analyses of particulate gold grains, metamorphic/magmatic massive sulphide indicator minerals (MMSIM[®])¹ and kimberlite indicator minerals (KIMs) recovered from Matheson (12 samples) and Cochrane (40 samples) till samples. Files, provided as 9 Microsoft[®] Excel[®] for Office 365 (.xlsx) workbook files, contain information on sample site locations, geochemical analyses, gold grain data, MMSIM[®] data, KIMs data and pebble lithology data. Also included are previously published *Summary of Field Work and Other Activities* articles that are related to the project, for 2016, 2017, 2018 and 2020, as portable document format (.pdf) files. These data augment Preliminary Maps P.3836, *Quaternary Geology of the Kapuskasing Area, Northeastern Ontario*; P.3837, *Quaternary Geology of the Smooth Rock Falls Area, Northeastern Ontario*; P.3838, *Quaternary Geology of the Cochrane Area, Northeastern Ontario*; P.3839, *Quaternary Geology of the Abitibi Area, Northeastern Ontario*; P.3840, *Quaternary Geology of the Iroquois Falls Area, Northeastern Ontario*. The shared geological and symbols legends are also provided in 1 portable document (.pdf) format file.

¹ MMSIM is a registered trademark of Overburden Drilling Management Limited, Nepean Ontario

CONTENT

This digital data set comprises the following 9 Microsoft® Excel® for Office 365 (.xlsx) workbook files and 1 folder containing previous published *Summary of Field Work and Activities* articles and an extract of the common geologic legend for the accompanying Quaternary geology maps (P.3836 to P.3840) as portable document (.pdf) format files. A short description of these files follows.

Appendix 1_Grain Size Analyses of Till Samples.xlsx

Summary of grain size analyses of till samples

Appendix 2_Carbonate Analyses of Till Samples.xlsx

Summary of carbonate analyses

Appendix 3_Pebble Lithology Analyses of Till Samples.xlsx

Pebble lithology counts

Appendix 4_ICP_AES Analyses of Till Samples.xlsx

Geochemical data (by inductively coupled plasma atomic emission spectroscopic analysis)

Appendix 5_ICP_MS Analyses of Till Samples.xlsx

Geochemical data (by inductively coupled plasma mass spectrometric analysis)

Appendix 6_Lead Fire Assay ICP-MS Finish Analyses of Till Samples.xlsx

Geochemical data (by lead-fire assay with inductively coupled plasma spectrometry finish)

Appendix 7_Kimberlite Indicator Mineral Analyses of Till and Esker Sand Samples.xlsx

Summary of kimberlite indicator mineral (KIM) grain counts

Appendix 8_Gold Summary of Till and Esker Sand Samples.xlsx

Summary of gold grain counts

Appendix 9_MMSIMs Grain Counts for Till and Esker Sand Samples.xlsx

Summary of metamorphic/magmatic massive sulphide indicator minerals (MMSIM®) grain counts

/Publications

2016_SoFW_OFR6323-23 Marich.pdf

2017_SoFW_OFR6333-20 Marich.pdf

2018_SoFW_OFR6350-19 Marich.pdf

2020_SoFW_OFR6370-13 Marich.pdf

P3836-3840_legend.pdf

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- Marich, A.S. 2016. Quaternary geological mapping along the Highway 11 corridor, northeastern Ontario; *in* Summary of Field Work and Other Activities, 2016; Ontario Geological Survey, Open File Report 6323, p.23-1 to 23-7.
- 2017. Quaternary geological mapping of the Highway 11 corridor, northeastern Ontario: An update; *in* Summary of Field Work and Other Activities, 2017, Ontario Geological Survey, Open File Report 6333, p.20-1 to 20-12.
- 2018. An update on multi-year Quaternary geological mapping along the Highway 11 corridor, northeastern Ontario; *in* Summary of Field Work and Other Activities, 2018; Ontario Geological Survey, Open File Report 6350, p.19-1 to 19-10.
- 2019a. Quaternary geology of the Cochrane area, northeastern Ontario; Ontario Geological Survey, Preliminary Map P.3838, scale 1:50 000.
- 2019b. Quaternary geology of the Abitibi area, northeastern Ontario; Ontario Geological Survey, Preliminary Map P.3839, scale 1:50 000.
- 2019c. Quaternary geology of the Iroquois Falls area, northeastern Ontario; Ontario Geological Survey, Preliminary Map P.3840, scale 1:50 000.
- 2020a. Quaternary geology of the Kapuskasing area, northeastern Ontario; Ontario Geological Survey, Preliminary Map P.3836, scale 1:50 000.
- 2020b. Quaternary geology of the Smooth Rock Falls area, northeastern Ontario; Ontario Geological Survey, Preliminary Map P.3837, scale 1:50 000.
- 2020c. Quaternary geology mapping in the “Great Clay Belt” of northeastern Ontario; *in* Summary of Field Work and Other Activities, 2020; Ontario Geological Survey, Open File Report 6370, p.13-1 to 13-12.
- 2021. Quaternary geology mapping in the Great Clay Belt of northeastern Ontario: A study of sediments and glacial landforms along the Highway 11 corridor, Kapuskasing to Iroquois Falls; Ontario Geological Survey, Open File Report 6369, 57p.