METADATA DETAIL PAGE

Ontario Geospatial Electronic Directory of Information Holdings

This is a selection from the Ontario Geospatial Electronic Directory Metadata, also known as ED. The following represents the Basic description of an information holding. To obtain more information about this holding, see the section named "Contacts".

Metadata Currency Date: Tuesday February 22, 2000

CITATION

Title: Quaternary Geology of Ontario Seamless Coverage ERLIS Data Set 14

Abstract:

Great Ice sheets have covered parts of Ontario several times, most recently during the Quaternary Period. This most recent glaciation has played a major role in shaping and creating the physical landscape of Ontario. The deposits and effects of these glaciations are widespread with till being the most common deposit left by the Laurentide Ice Sheet. Three main end members of till were produced, sandy tills from the erosion of Precambrian rocks; silty tills derived from the erosion of carbonate rocks and clayey tills deposited in front of the glacier in local or regional area of ponding. Considerable volumes of melt water were generated by, and discharged from, the glaciers that once occupied Ontario. Large amounts of glacial debris were transported by the meltwater and deposited as stratified sediments under the glacier and along the ice margin (glaciofluvial ice-contact deposits), and beyond the ice margin in rivers and streams (glaciofluvial outwash deposits), lakes (glaciolacustrine and lucustrine deposits) and seas (glaciomarine and marine deposits). The Quaternary Geology Data Set is a digital interpretation of this Surficial Geology for the Province of Ontario, illustrating the general distribution of the various types of Quaternary sediments and the major landforms associated with them. Glacial tills, fluvial, lacustrine and organic deposits are illustrated as 30 distinct structured geological units illustrating the Quaternary stratigraphy of Ontario. Also shown are landform deposits such as drumlins, moraines, eskers, sand dunes, and glacial related escarpments.

Purpose:

To provide a detailed overview of Quaternary geology in Ontario available to the environmental, construction and development community as well as government geoscientists, urban and regional planners and academic researchers. Also, the dataset will be of value to secondary school teachers, and members of the media and general public who have an interest in Ontario's glacial and surficial geological history.

Time Coverage: 01-01-1950 to 31-12-1988

Progress:

Complete

Data Maintenance Cycle: None Planned

Geographic completeness: 100% Complete

Access constraints: None

Use constraints:

The digital data are a proprietary product of the Ontario Crown and are protected by Canadian Copyright laws and

International Treaty. The data are licensed for your sole use and are NOT to be redistributed, sub-licensed, rented or leased, in original form to third parties. The distribution of any Value Added Product (VAP) derived in whole or in part, in any form or format whatsoever from any Ontario Geological Survey Digital Data, whether for sale, lease, loan or gift, shall first require the producer of the VAP to ensure that the recipient of the VAP has obtained a licence agreement and copy of the original data that the VAP was derived from. The recipient of the VAP may purchase the original data directly from the Ontario Geological Survey (OGS) or through the provider of the VAP (with monies remitted to the OGS in favor of The Minister of Finance) so as to ensure that they are a registered owner of the data. The data are provided "as is." The Ontario Ministry of Northern Development and Mines (MNDM) does not warrant that the data are free of defects or that they will meet your needs or the needs of any other user or that they will be merchantable or fit for any purpose. In no event will OGS or MNDM be liable for damages including any loss of profits, lost savings or other incidental or consequential damages arising out of your use of or inability to use the data.

Authority/Requirement for holding:

Part of the Ministry of Northern Development Mandate.

Keywords:

Business Theme(s): OGS Geoscience, Digital Data, Geological Exploration and Research

Chosen Keywords: Quaternary Geology, Surficial Geology, digital map, Geology of Ontario, ERLIS Data Set

Native Data-set Processing Environment:

The geological compilation was digitized from paper maps using AutoCAD. The digital CAD files were then imported into ArcInfo v7 to create the polygon topology. These files were subsequently saved as ArcView 3.1 shape files. (Windows 95 and Windows NT OS).

Native Data-set Format:

GIS Database - ArcView 3.1 (SHP, SHX, DBF, APR, AVL, AVP, TTF) Digital Map File - Bently Microstation; AutoCAD v12 (DGN, DXF) Electronic document - (RTF, ASCII)

GEOSPATIAL INFORMATION

Geographic Extent (Latitude - Longitude Boundary):

North Lat. : 56.9 N South Lat. : 41.7 N East Long. : 74.1 W West Long. : 95.5 W

MAPPING INFORMATION:

Grid Coordinate System Used: Latitude and Longitude

Map Projection: Decimal Degrees

Horizontal Geodetic Datum: NAD27

Vertical Datum: Not Applicable

Position Accuracy of Features: Horizontal: Approximate: +/- 250 m

Vertical: Not Applicable

The standard Projection that most other MNDM digital data is sold in is **Lambert Conic Conformal.** The parameters to convert decimal degree data to this projection are as follows:

- Select Projection Properties as Custom,
- ProjectionType as Lambert Conformal Conic;
- Spheriod-Clarke 1866;
- Central Meridian is -92;
- Reference Latitude is 0;
- Standard Parallel 1 is 49; Standard Parallel 2 is 77;
- False Easting is1000000;
- False Northing is 0

DATA SOURCE INFORMATION

Data Source Type:

Digital Map File. This geological map of Ontario was compiled from Quaternary, engineering terrain and surficial geology maps and reports of the Ontario Geological Survey, and the Geological Survey of Canada. In addition, the compilation incorporated unpublished maps and reports on file with the Ontario Geological Survey.

Source Contribution:

The quaternary data was compiled at a scale of 1:500,000 as Part of the 1988-1992 Geology of Ontario project by the Ontario Geological Survey. The dataset was published in hardcopy form as OGS Maps 2553 to 2556 in 1991 at a scale of 1:1,000,000. It was from these hard copy overlays that geological units and deposit symbology was digitized for the current dataset.

Source Currentness Reference:

OGS Maps and Reports: (1892-1988)

Other Compiled Data Source Information Data Source Type: Digital Map File

Source Contribution:

Used to produce the base map for the geological compilation

Originator Organization - Ontario Geological Survey

Title and Acronym - Geology of Ontario (GoO) - 1:1,000,000 Geology Base Map

Source Abbreviated Description - The topographic base portion of the Geology of Ontario map was used for the topographic base of this compilation. The GoO map is in Lambert Conic Conformal projection; central meridian -92 deg, 1st standard parallel 49 deg, 2nd standard parallel 77 deg, latitude of origin 0 deg, false easting 1,000,000 and false northing 0. Work performed on the base was done in ArcView 3.1. The base was re-projected to decimal degrees using ArcView 3.1.

DISTRIBUTION

General Distribution Information: Distribution Fees: CD-ROM; \$100 plus applicable taxes. Language: English Transfer Format: Off-line Ministry of Northern Development and Mines Publication Sales, 933 Ramsey Lake Road, Sudbury Ontario, CANADA Telephone voice business 705 670-5691; Telephone fax 705 670-5770 Toll Free in Canada and United States 1-888-415-9847 E-mail: pubsales@ndm.gov.on.ca

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CONTACTS

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