

SURFICIAL GEOLOGY

This legend is common to Open Files 1356 and 1357

PROGLACIAL AND GLACIAL ENVIRONMENTS

Glaciolacustrine Deposits:

- Varved or massive clay and silt
- Fine Sands, sands, and deltaic sand

Glaciofluvial and Ice Contact Deposits:

- Outwash sands and gravel
- End moraine, interlobate moraine; sand, gravel and boulders
- Esker or kame complex; sand, gravel, boulders

Glacial Deposits:

- Predominantly clayey till
- Predominantly silty to sandy till

NONGLACIAL ENVIRONMENT

- Bedrock

Complexes: when two or more types of glacial or non-glacial environment are interspersed in a mosaic or repeating pattern, the relative dominant/subordinate amount of each type is indicated by sequential order. For example, 2/1 indicates predominantly silty to sandy till with lesser clayey till.

SYMBOLS

Surficial geological boundary

Striae

Fluting, drumlin or drumlinoid ridge

Esker, kame or kame complex

Surficial geology derived from:
Boissonneau, A.N. (1965), Map S465, Ontario Department of Lands, Forests,
Press, V.K., Grant, D.R., and Rampton, V.N. (1969), Glacial Map of
Canada, Geological Survey of Canada, Map 1253A (Scale: 1:5 000 000).

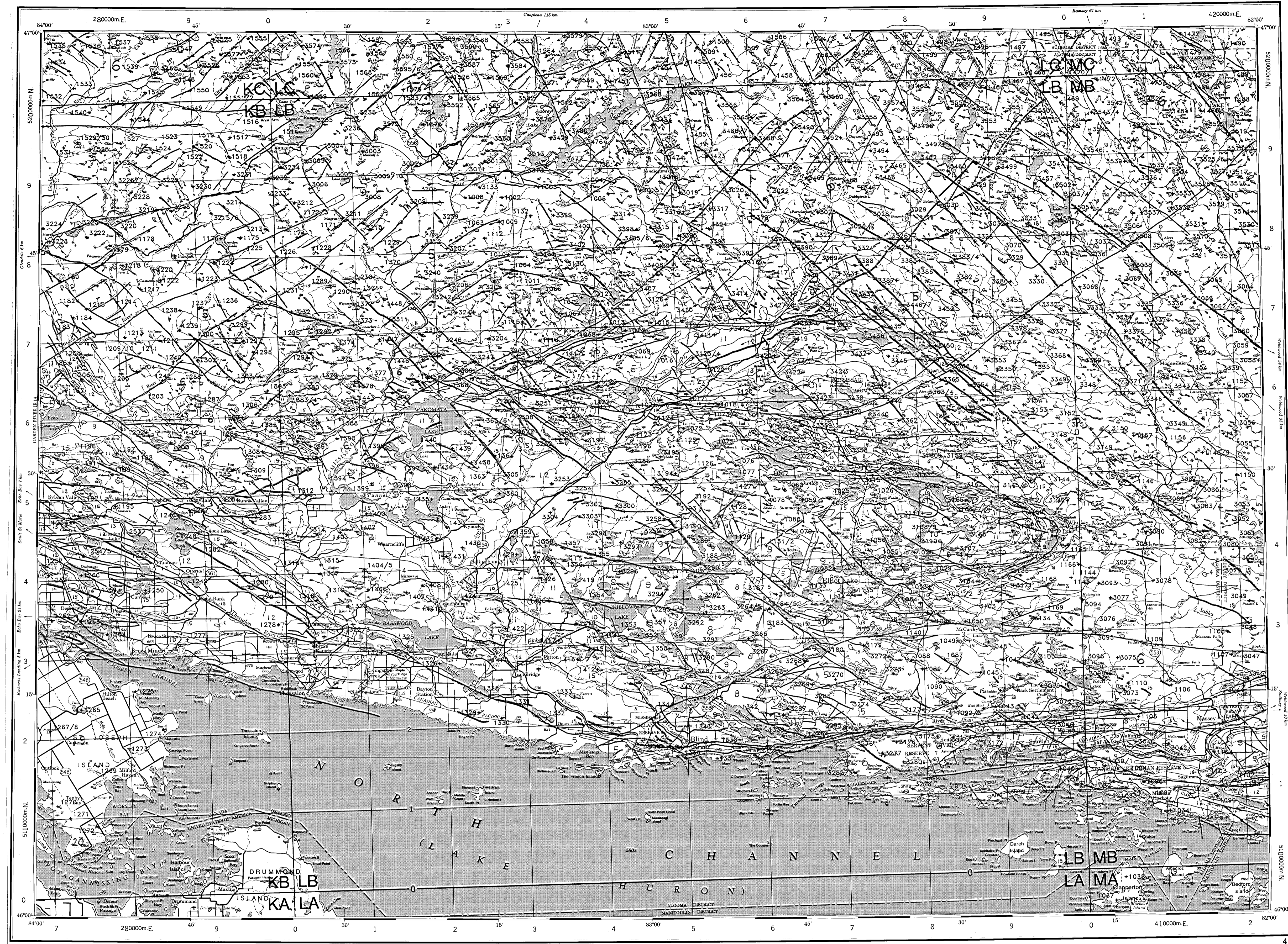
Geological Survey of Canada
Mineral Resources Division
Exploration Geochemistry Subdivision

CONTRACTORS

Sample collection by SIAL Geophysique Inc., Montreal
Sample preparation by Golder Associates, Ottawa

Sediment chemical analyses by Barringer Magenta Ltd., Rexdale, Ontario

Au analyses by Chemex Labs Limited, Vancouver
Water chemical analyses by Barringer Magenta Laboratories
(Alberta) Ltd., Calgary



LEGEND

PALEOZOIC

SILURIAN

- 20 SCP* Limestone, shale

UPPER CAMBRIAN AND ORDOVICIAN

- 19 OCCS Limestone, shale, sandstone, includes Munising Formation; sandstone

PRECAMBRIAN AND ARCHEAN

- 18 LPAD Diabase, gabbro, diorite

PRECAMBRIAN

LATE PRECAMBRIAN

- 17 LPAC Fenite, ijolite, pyroxenite, carbonatite

MIDDLE TO LATE PRECAMBRIAN

- 16 MPCC Croker Island Complex; granite, syenite, diorite, gabbro
Cutler Pluton; granite, quartz monzonite, granodiorite,
trondhjemite, pegmatite

MIDDLE PRECAMBRIAN

- 15 MPND Nipissing Diabase; diabase, gabbro, metagabbro, granophyre

HURONIAN SUPERGROUP

COBALT GROUP

- 14 MPBR Bar River Formation; quartzite
- 13 MPGL Gordon Lake Formation; siltstone, argillite, quartzite
- 12 MPL Lorrain Formation; quartzite, arkose, conglomerate
- 11 MPG Gowanda Formation; conglomerate, argillite, greywacke,
quartzite, siltstone

QUIRKE LAKE GROUP

- 10 MPQL Serpent Formation; quartzite, conglomerate
Espavola Formation; limestone, dolomite, calcareous
siltstone
Bruce Formation; conglomerate

HOUGH LAKE GROUP

- 9 MPHIL Awes Formation; conglomerate, arkose, quartzite
Mississagi Formation; quartzite, conglomerate
Pecora Formation; argillite, siltstone
Ramsay Lake Formation; conglomerate

ELLIOT LAKE GROUP

- 8 MPFL McKim Formation; siltstone, argillite, quartzite
Matimema Formation; quartzite, arkose, conglomerate,
uraniferous conglomerate
- 7 MPVB Basalt, andesite, amphibolite, gabbro, anorthosite,
ultramafic rocks and minor rhyolite

ARCHEAN

- 6 AGM Massive felsic to intermediate plutonic rocks; granite,
granodiorite, tonalite, quartz monzonite, monodiorite,
pegmatite
- 5 AGH Foliated to gneissic felsic to intermediate plutonic
rocks; granite, granodiorite, tonalite, quartz monzonite,
diorite, migmatite
- 4 AUB Gabbro, diorite
- 3 ACSF Conglomerate, greywacke, arkose, quartzite, siltstone,
argillite, chert
- 2 AMWF Felsic to intermediate metavolcanics
- 1 AMWB Mafic to intermediate metavolcanics; includes flows, minor
mafic pyroclastics and interflow sediments.

IF Iron formation

*A mnemonic code assigned to rock types and recorded as part of field observations.

Geological boundary:

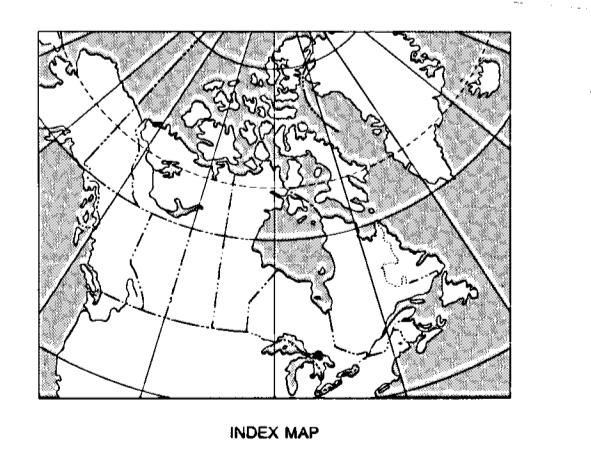
Fault:

No analytical results:

The geology base and legend for these geochemical maps were derived from: Geology - Sault Ste. Marie - Elliot Lake, Map 2449 Geological Compilation Series, Ontario Department of Mines, 1:253 440.
McCrack, G.F.D., Misiura, J.D., and Brown, P.A. (1979): Geology - Plutonic Rocks in Ontario, Geological Survey of Canada Map 1533A, to accompany GSC Paper 80-23.

Contribution to Canada - Ontario Mineral Development Agreement 1986 - 1990, a subsidiary agreement under the Economic and Regional Development Agreement. Project funded by the Geological Survey of Canada.

Ministry of Northern Development and Mines
Energy, Mines and Resources Canada
Energie, Mines et Ressources Canada



Copies of map material and listings of field observations, analytical data and methods, from which the open file was prepared, are available from:

K.G. Campbell Corporation
880 Wellington St.
Bay 238
Ottawa, Ontario
K1R 6K7

Digital data are available on IBM-PC compatible diskette from:

Geological Survey of Canada
Publications Distribution
601 Booth St.
Ottawa, Ontario K1A 0E8
Tel: (613)995-4342

SAMPLE LOCATION
GSC OPEN FILE 1356
REGIONAL GEOCHEMICAL RECONNAISSANCE MAP 92-1986
CANADA - ONTARIO
MINERAL DEVELOPMENT AGREEMENT (1986-1990)
LAKE SEDIMENT AND WATER GEOCHEMICAL SURVEY
CENTRAL ONTARIO, 1986

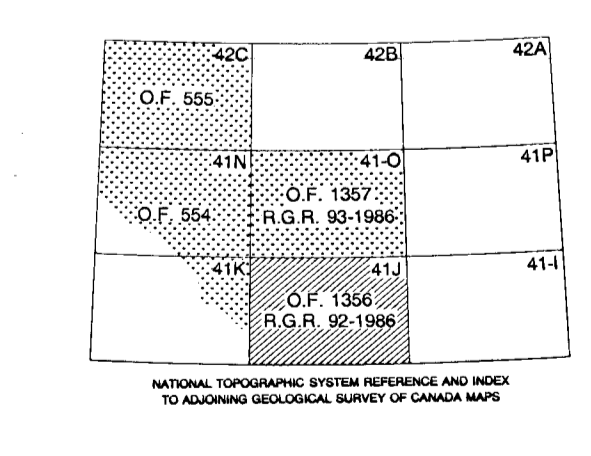
Scale 1:250 000 - Échelle 1:250 000

Universal Transverse Mercator Projection
Projection transversale universelle de Mercator

Elevation in feet above mean sea level

Mean magnetic declination 1987, 7°48' West, increasing 10.6' annually. Readings vary from 8°33' W in the SE corner to 7°00' W in the NW corner of the map area

Base map at the same scale published by the Surveys and Mapping Branch in 1979



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