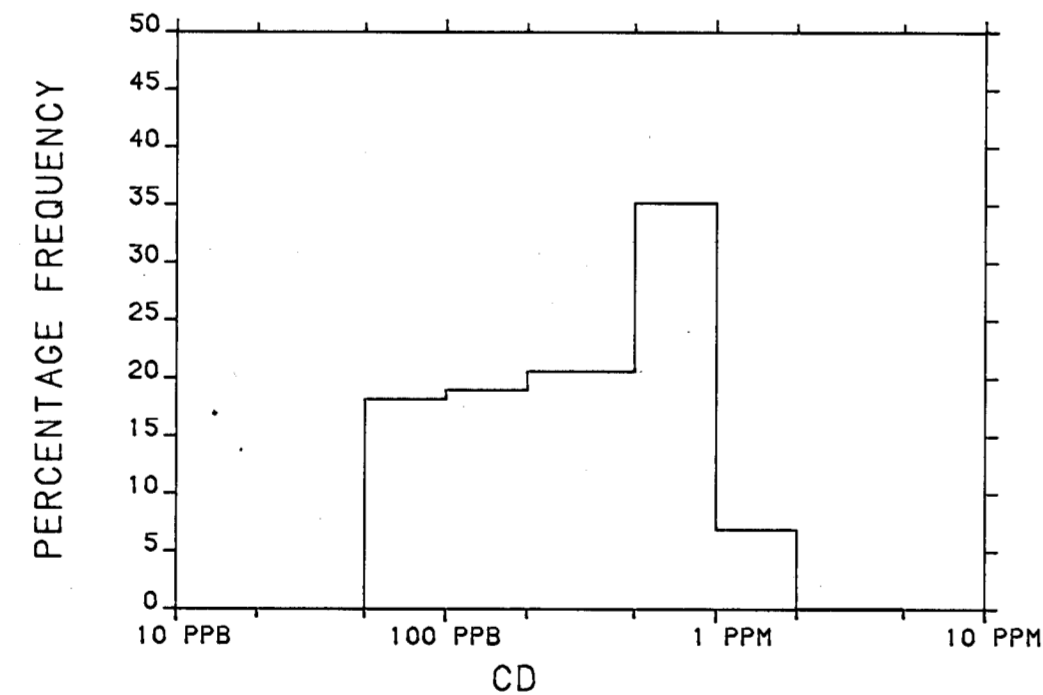
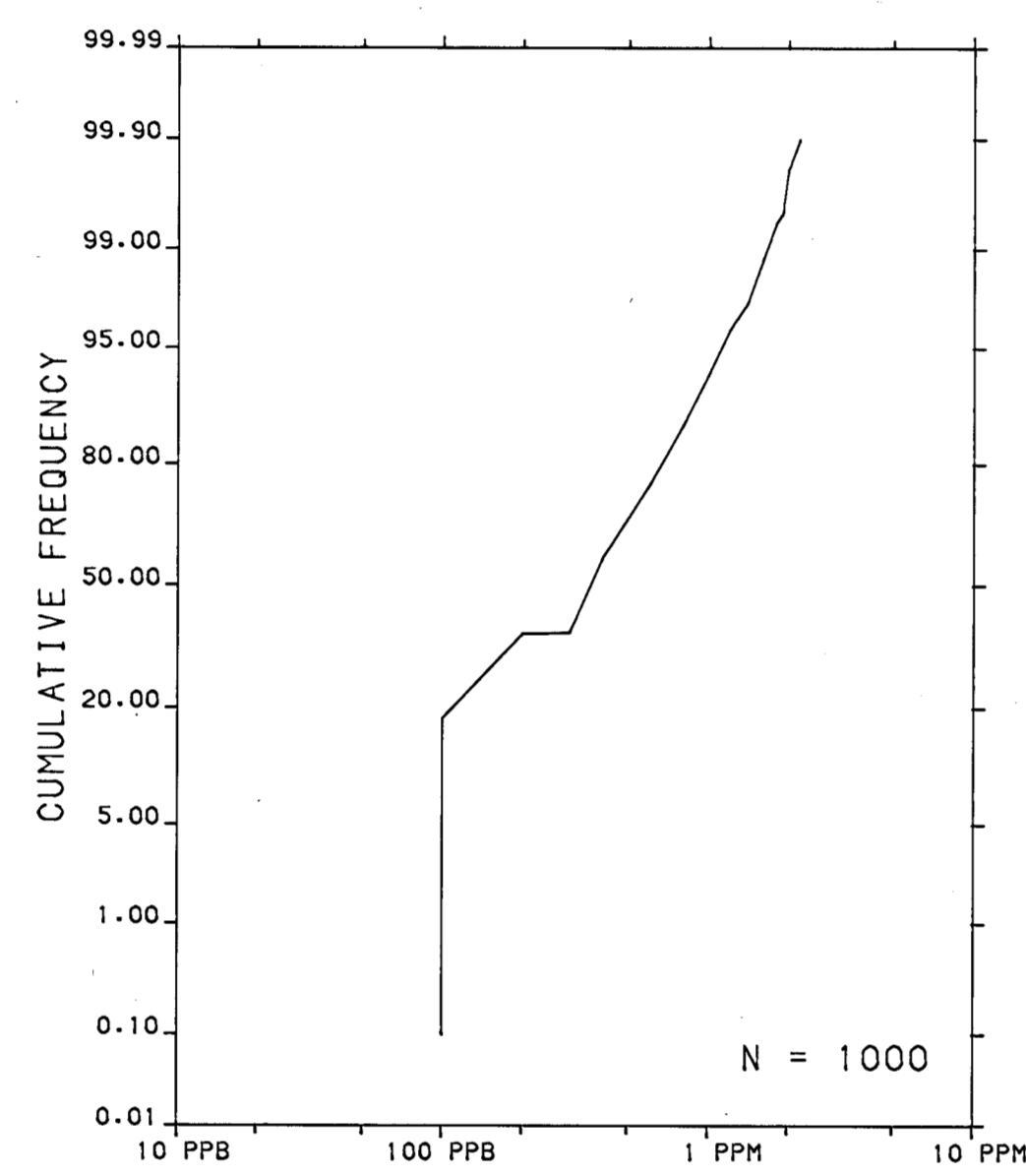


REGIONAL TREND MAP
KILOMETERS - SCALE 1:1000000

The regional geochemical trend map displayed above utilized a moving weighted average using an inverse distance function (1/d²) to filter out minor irregularities and emphasize broad-scale regional features. Single point anomalies may be suppressed or eliminated, however, geological units which are chemically enriched, or large metallic deposits undergoing weathering would be expected to produce identifiable anomalies.



CONCENTRATION	FREQUENCY
1.7 to 2.2	N = 11 (1.1%)
1.3 to 1.6	N = 26 (2.6%)
1.1 to 1.2	N = 33 (3.3%)
0.7 to 1.0	N = 171 (17.1%)
<.2 to 0.6	N = 759 (75.9%)

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,
Pres. V.C., 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

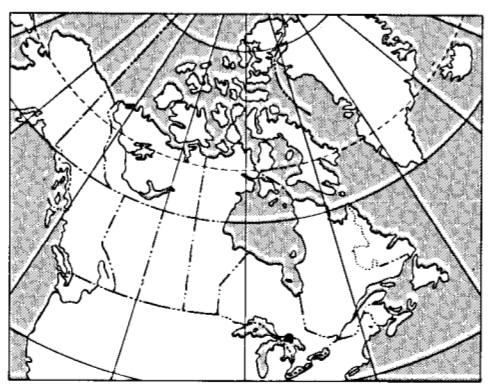
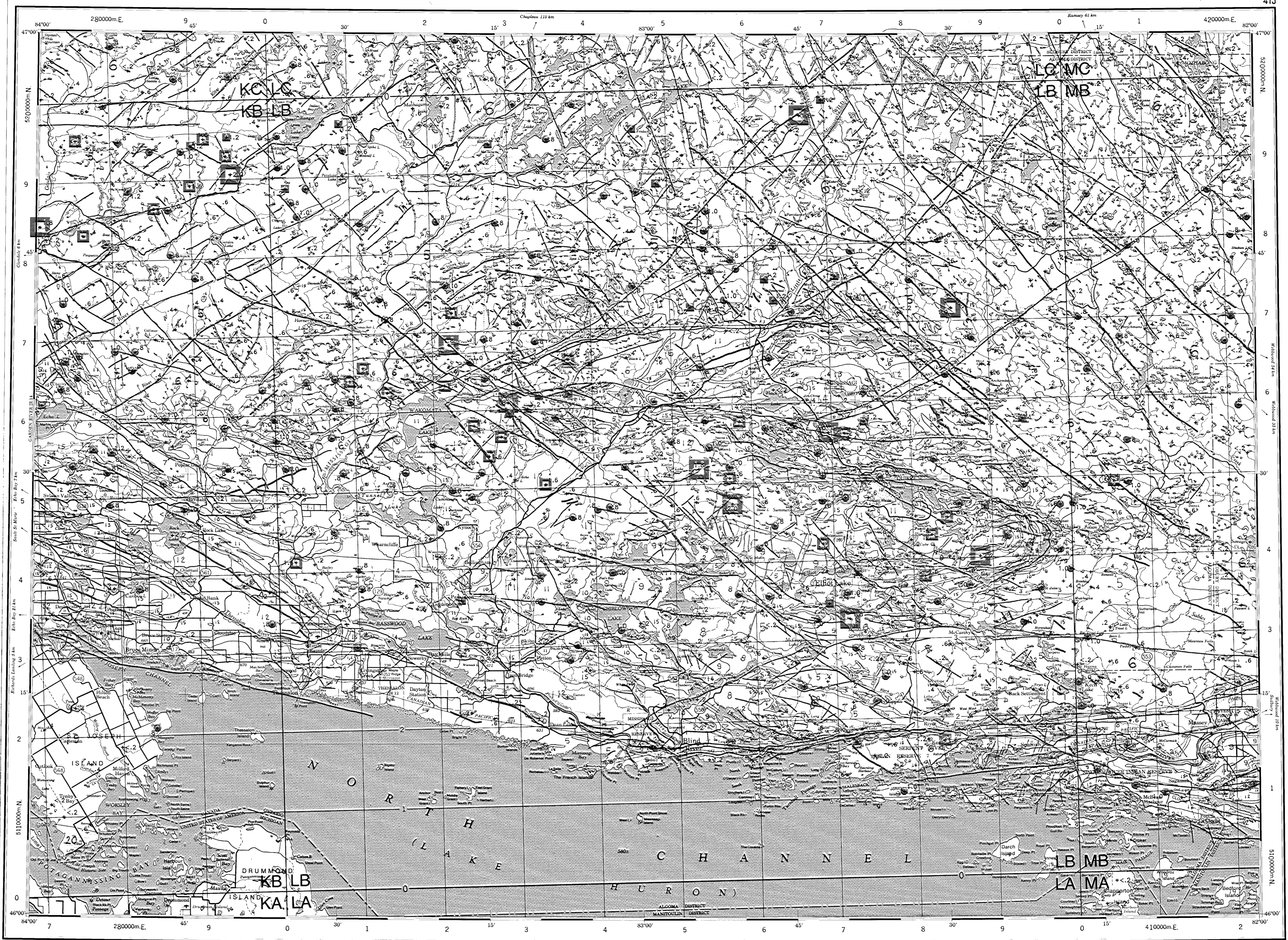
Sediment chemical analyses by Barringer Magenta Ltd., Rexdale, Ontario

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

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.



Energy, Mines and
Resources 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

**CADMIUM (ppm)
LAKE SEDIMENTS**

GSC OPEN FILE 1356

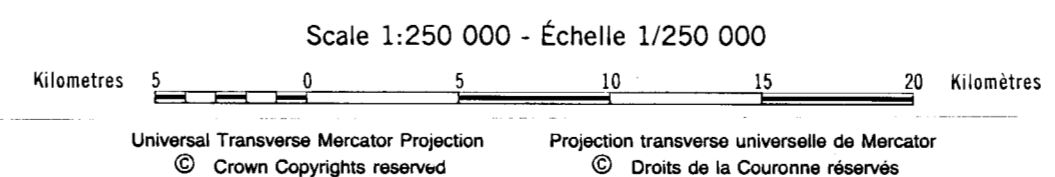
REGIONAL GEOCHEMICAL RECONNAISSANCE MAP 92-1986

CANADA - ONTARIO

MINERAL DEVELOPMENT AGREEMENT (1986-1990)

LAKE SEDIMENT AND WATER GEOCHEMICAL SURVEY

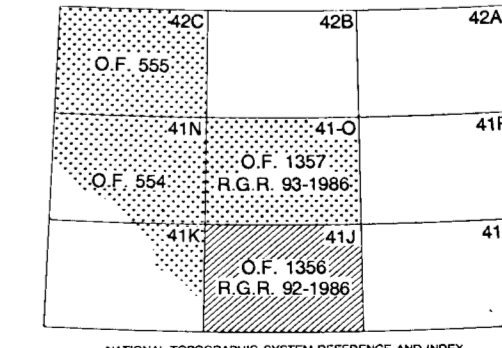
CENTRAL ONTARIO, 1986



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



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
Ottler 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
Espanola Formation; limestone, dolomite, calcareous
siltstone
Bruce Formation; conglomerate
- HOUGH LAKE GROUP**
- 9 MPHIL Aweres Formation; conglomerate, arkose, quartzite
Mississagi Formation; quartzite, conglomerate
Pecora Formation; argillite, siltstone
Ramsay Lake Formation; conglomerate
- ELLIOT LAKE GROUP**
- 8 MPGL Matinenda 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, monzodiorite,
pegmatite
- 5 AGN Foliated to gneissic felsic to intermediate plutonic
rocks; granite, granodiorite, tonalite, quartz monzonite,
diorite, migmatite
- 4 AUB Gabbro, diorite
- 3 ACSP Conglomerate, greywacke, arkose, quartzite, siltstone,
argillite, chert
- 2 AMWF Felsic to intermediate metavolcanics
- 1 AMVB 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 2419
Geological Compilation Series, Ontario Department of Mines,
1:253 440.
McCrack, G.F.D., Misura, J.D., and Brown, P.A. (1979):
Geology - Plutonic Rocks in Ontario, Geological Survey of Canada
Map 1533A, to accompany GSC Paper 80-23.

**CADMIUM (ppm)
LAKE SEDIMENTS**

GSC OPEN FILE 1356

CENTRAL ONTARIO, 1986

17 of 25

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