

Geological Survey of Canada
Resource Geophysics and Geochemistry Division
and
Manitoba Department of Energy and Mines
Mineral Resources Division

CONTRACTORS

Sample collection by Marshall Macklin Monaghan Ltd., Toronto
Sample preparation by Golder Associates, Ottawa

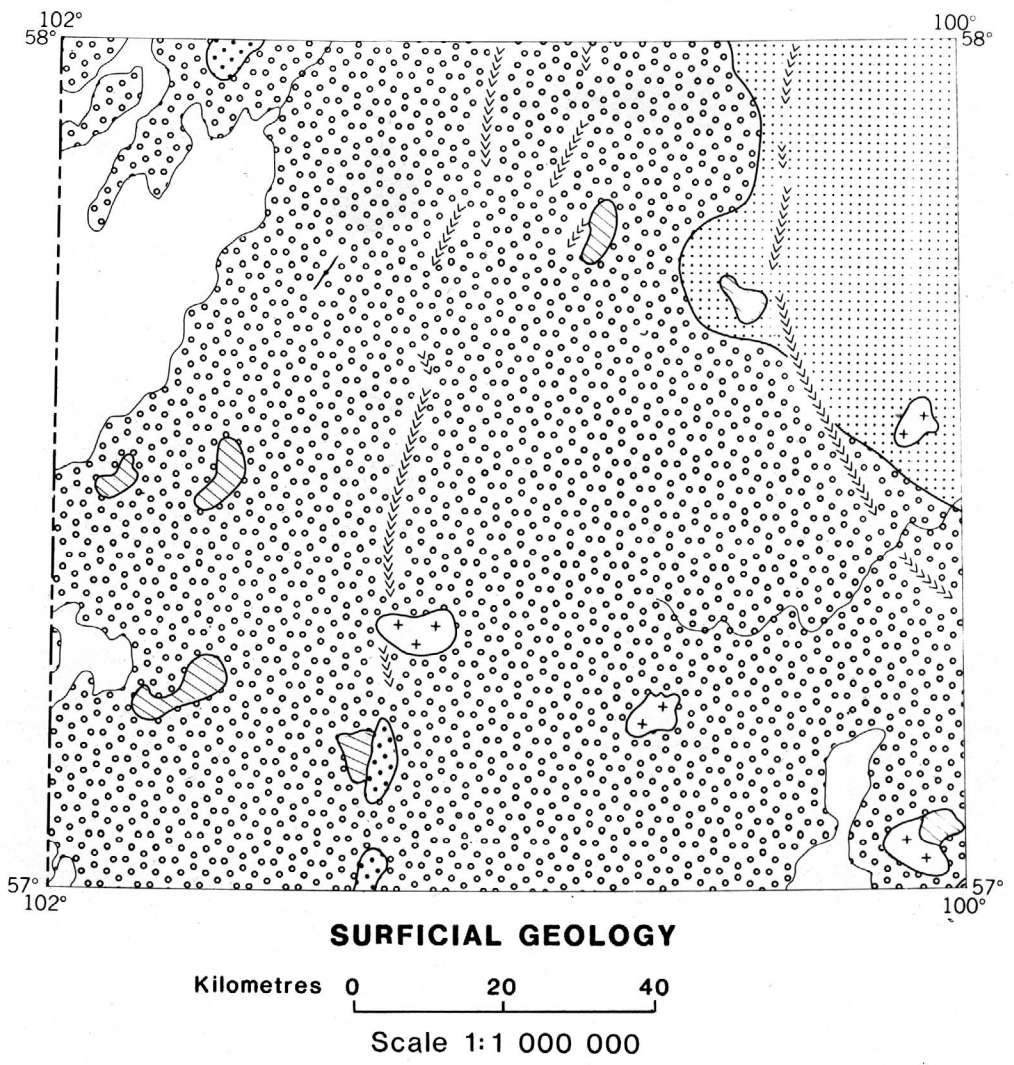
Sediment chemical analysis by Barringer Magenta Ltd., Rexdale, Ontario
Water chemical analyses by Barringer Magenta Laboratories (Alberta) Ltd., Calgary

Copies of map material and listings of field observations and analytical data,
from which the material was prepared, may be available at users expense by
application to:

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

The data are also available in digital form. For further information please
contact:

The Director
Computer Science Centre
Department of Energy, Mines and Resources
Ottawa, Ontario
K1A 0E4



PROGLACIAL AND GLACIAL ENVIRONMENT

GLACIOLACUSTRINE DEPOSITS: beach and nearshore deposits:
sand and gravel 1-4 m thick, forming distinct ridges

GLACIOLACUSTRINE DEPOSITS: deep basin deposits:
silt, clay and sand, 1-50 m thick

GLACIOFLUVIAL DEPOSITS: gravel, sand and silt, 1-100 m thick

GLACIAL ENVIRONMENT

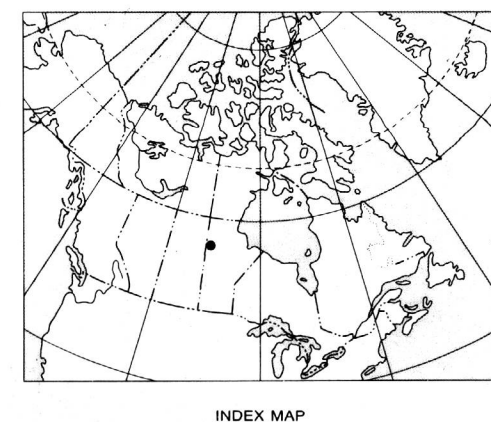
GLACIAL DEPOSITS: till: 1-5 m thick, derived primarily from
Precambrian bedrock

NONGLACIAL ENVIRONMENT

BEDROCK

ORGANIC DEPOSITS: marsh, fen, swamp and bog deposits up to
6 m thick, characterized by seasonal flooding

Striations
Flutings, drumlins, and drumlinoid ridges, oriented
parallel to ice flow direction
Esker (flow direction known or inferred)

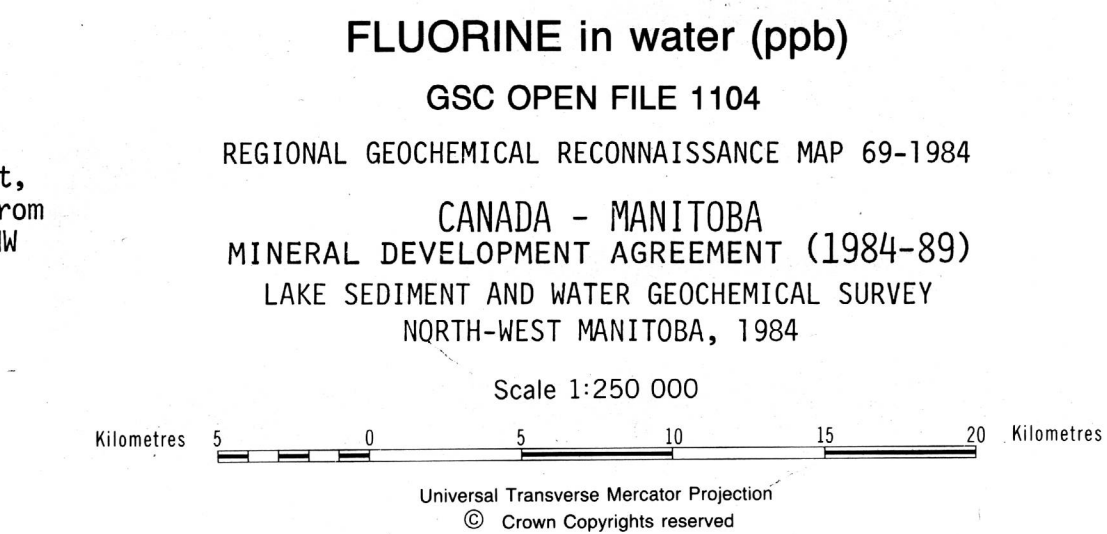
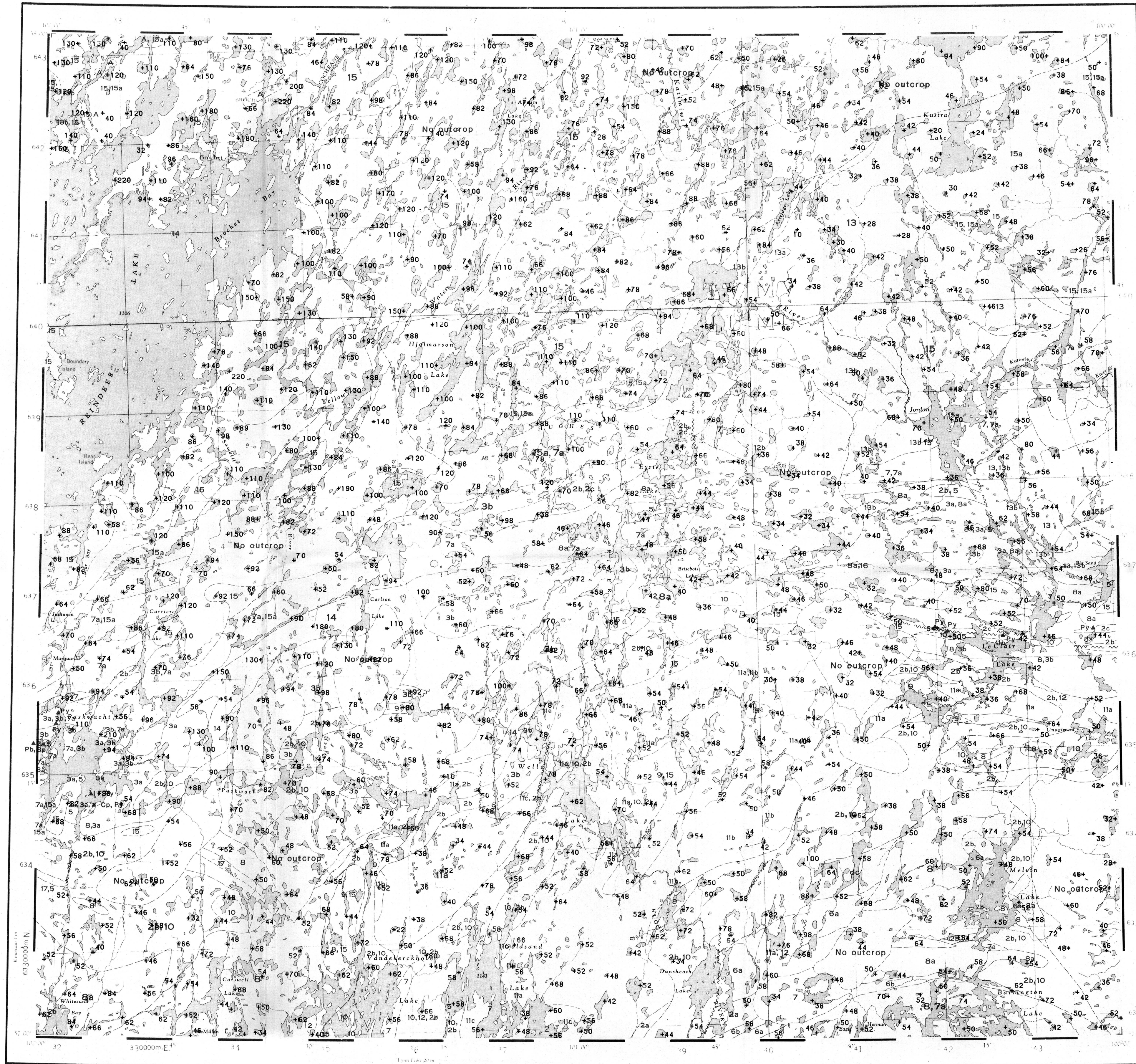


Elevation in feet above mean sea level

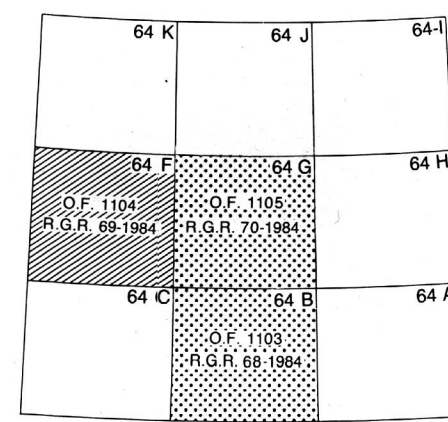
Mean magnetic declination 1985, 11°52' East,
decreasing 23.2' annually. Readings vary from
10°28' in the SE corner to 13°05' in the NW
corner of the map area

Manitoba
Department of Energy and Mines

Canada
Department of Energy, Mines and Resources
Geological Survey of Canada



Base map at the same scale published by
the Surveys and Mapping Branch in 1963



This map has been reprinted from a
scanned version of the original map
Reproduction par numérisation d'une
carte sur papier

FLUORINE in water (ppb)
GSC OPEN FILE 1104
NORTH-WEST MANITOBA, 1984

LEGEND

Note: This legend is common for Regional Geochemical Reconnaissance
Map 69-1984, Open File 1104.

A* Metadiorite, hornblende of possible Archean age

1 Amphibolite, volcanic derived with locally preserved pillows

2a Biotite-feldspar-quartz-paragneiss + garnet + granite ± muscovite

2b Biotite metatextite + garnet + granite (25-75% white granitic lit)

2c Biotite metatextite + garnet + cordierite

3a Light grey biotite (5-10%) quartz-feldspar-gneiss + magnetite + garnet
with discontinuous diorite gneiss lenses

3b Light grey to dark grey biotite (5-15%) quartz-feldspar-gneiss interlayered
with thin layers of amphibolite and/or hornblende-biotite bearing layers

4 Calc-silicate rock

5 Amphibolite, metagabbro, locally agmatitic

6a Metaconglomerate

6b Thin interlayered amphibolite and hornblende biotite-bearing layers

6c Arkosic gneiss

6d Metavolcanic rocks

6e Metagreywacke

7 Gneissic diorite and leucodiorite

7a Biotite ± hornblende granodiorite gneiss with white granitic lit

7b Gabbro

8 Grey, medium to coarse grained biotite (5%) + magnetite-tonalite to quartz
monzonite

8a Hybrid gneiss of grey biotite-quartz monzonite and gneissic diorite

9 Foliated quartz diorite + magnetite

10 Biotite (15-20%) - tonalite ± garnet

11a Megacrystic biotite-granodiorite

11b Megacrystic biotite-hornblende ± pyroxene-granodiorite

11c Coarse grained leucocratic granodiorite

12 White leucocratic medium grained to pegmatitic monzogranite ± garnet

13 Coarse grained to megacrystic-pyroxene-hornblende-monzonite to monzogranite
with olive-brown feldspar

13a Anorthositic gabbro

13b Hornblende-biotite-monzonite to quartz monzonite with variegated olive-brown
and pink feldspar

14 Megacrystic-biotite-magnetite quartz monzonite

15 Biotite ± hornblende coarse grained to megacrystic pink granite to quartz
monzonite

15a Biotite-hornblende granite gneiss

15b Leucocratic megacrystic pink granite

15c Fine grained quartz monzonite

16 Magnetite-biotite-hornblende quartz monzonite

17 Granite pegmatite

18 Diabase

Pyrite, chalcopyrite, galena, sphalerite,
Iron Formation ▲ Py; ▲ Cp; ▲ Pb; ▲ Sp; ▲ I.F.
Geological boundary (approximate, assumed, gradational)
Drift covered

Provisional Compilation map by H.W. Zwanig,
Manitoba Department of Energy and Mines

* A four character mnemonic name recorded rock type as part of the 1984
field observations

This map forms one of a series of maps released by the Geological Survey
of Canada, Open File 1103 to 1105. Each Open File consists of maps of
various geochemical variables: 16 for lake sediment, 3 for lake water
and 1 sample site location

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