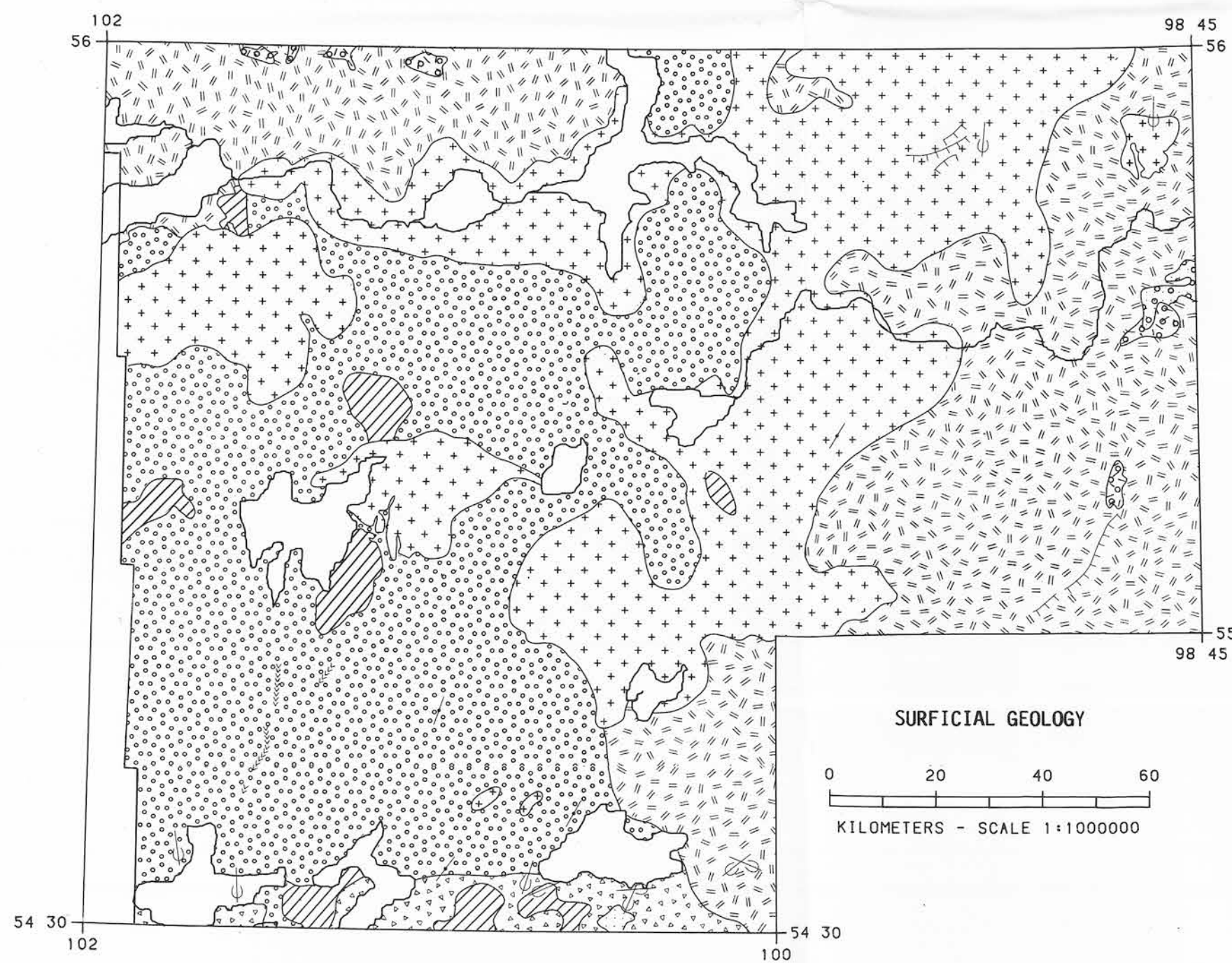


The regional geochemical trend map displayed above utilized a moving weighted average using an inverse distance function (1/d²) to filter out minor irregularities and emphasize broad-scale regional features. Single point anomalies may be suppressed or eliminated, however, geological units which are chemically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



NONGLACIAL ENVIRONMENT

ORGANIC DEPOSITS: marsh, fen, bog and swamp deposits up to 6 m thick, seasonally flooded, commonly displaying fine textured proglacial lake and glacial till deposits.

PROGLACIAL AND GLACIAL ENVIRONMENT

GLACIOLACUSTRINE DEPOSITS: clay silt, sand and minor gravel, 1-30 m thick, deposited in proglacial lakes.

Beach and marsh deposits: sand and gravel 1-4 m, sand blanket 0-1 m thick; includes areas of wave washed till and exposed bedrock.

Deep basin deposits: silt, clay and sand, 1-30 m thick, forming extensive lake plains and discontinuous veneer reflecting underlying topography; may include areas of iceberg scouring, thin alluvium, may include till and exposed bedrock.

GLACIOLUVIAL DEPOSITS: gravel, sand and silt 1-100 m thick, deposited in an ice-marginal environment; includes subaqueous outwash deposited in glacial lakes, and some late glacial valley fill.

GLACIAL ENVIRONMENT

GLACIAL DEPOSITS: unsorted glacial debris, 1-10 m thick, reflecting composition of underlying bedrock; predominantly lodgment tills also includes extensive areas of hummocky stagnation moraine, ribbed moraine and water deposited till.

Till: 1-10 m thick, highly calcareous, derived primarily from Paleozoic carbonate rock; typical composition: silt - 40%, sand - 21%, clay - 19%, gravel - 18%; includes bedrock exposures, evidence of wave-washing.

Till: 1-5 m thick, derived primarily from Precambrian bedrock; typical composition: sand - 40%, gravel - 20%, silt - 20%, clay - 4%; includes extensive areas of bedrock outcrop, surface reflects form of underlying bedrock surface.

NONGLACIAL ENVIRONMENT

BEDROCK: Precambrian, Paleozoic and Mesozoic bedrock of various lithologies. Detailed geological legend at right.

SYMBOLS

Surficial geological boundary

Striae

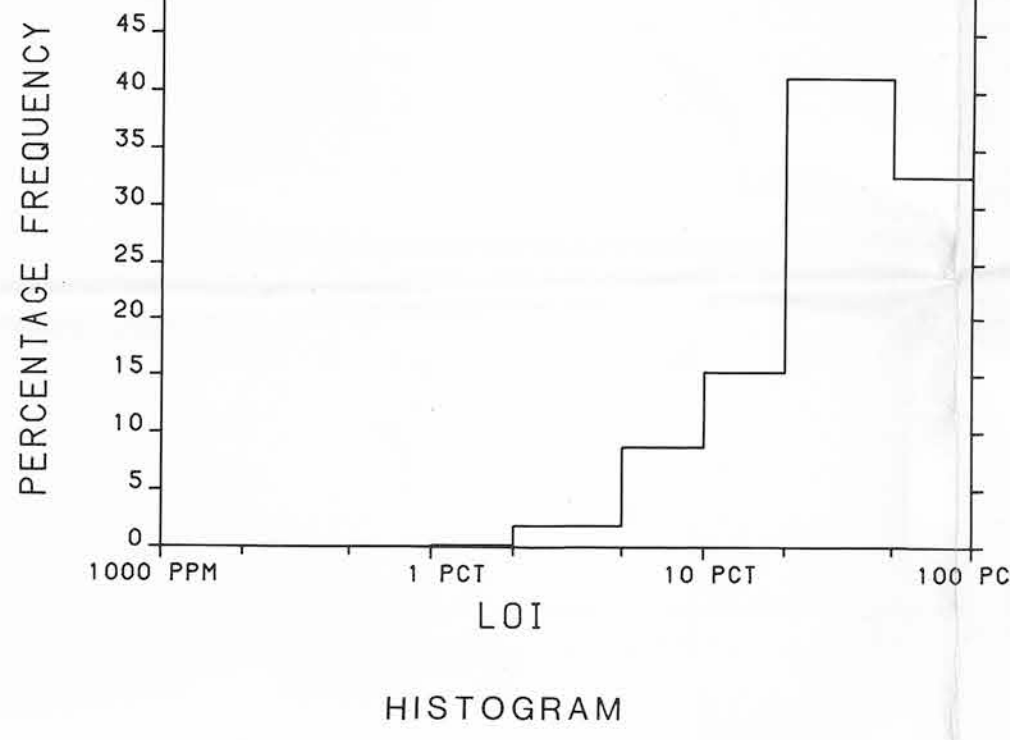
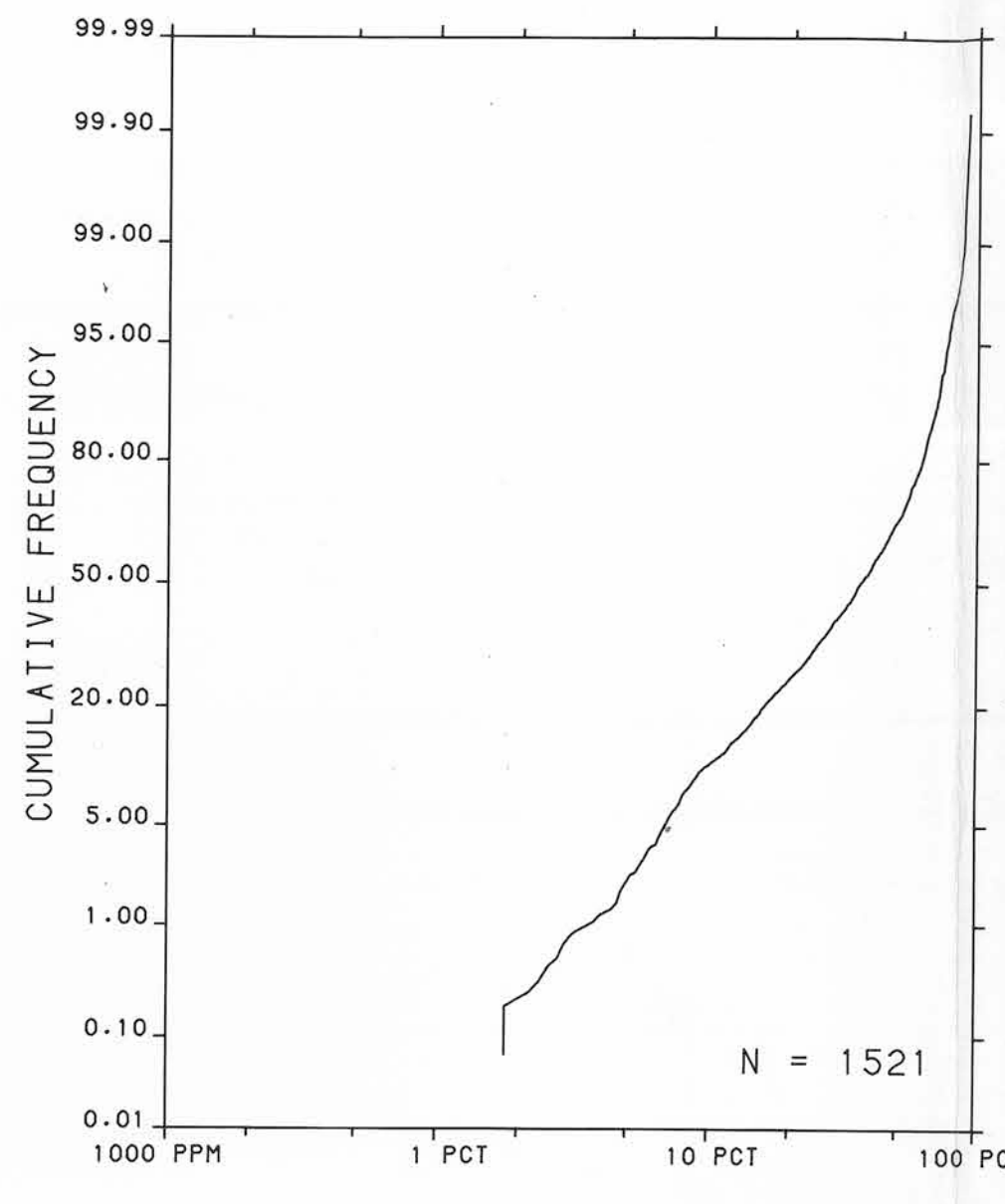
Flutings, drumlins and drumlinoid ridges

Moraines (including end, interlobate and recessional)

Beach ridges, bars and strandlines

Esker

Surficial geology derived from: Watson, S. et al. (1981) Surficial Geological Map of Manitoba, Aggregate Resources Section, Manitoba Mineral Resources Division, Map 81-1 (1:1,000,000 scale).



LEGEND

CENOZOIC
10 OBD 44* Overburden mainly glacial till and glaciolacustrine deposits

PALEOZOIC
9 DMLN 14 RED RIVER FORMATION: Mottled dolomitic limestone to dolomite, in part cherty and calcareous

PROTEROZOIC
8 ACIV 04 Felsic to intermediate plutonic rocks
7 IMIV 04 Intermediate plutonic rocks
6 BCIV 04 Mafic to intermediate plutonic rocks. Includes ultramafic rocks

5 AMPD 04 Amphibolite. Includes chert, marble
4 MARC 04 Meta-arkose and quartz-feldspathic gneiss
3 MGSC 04 Meta-greywacke and quartz-biotite gneiss
2 IEKV 04 Intermediate to felsic volcanic rocks
1 BEKV 04 Mafic to intermediate volcanic rocks

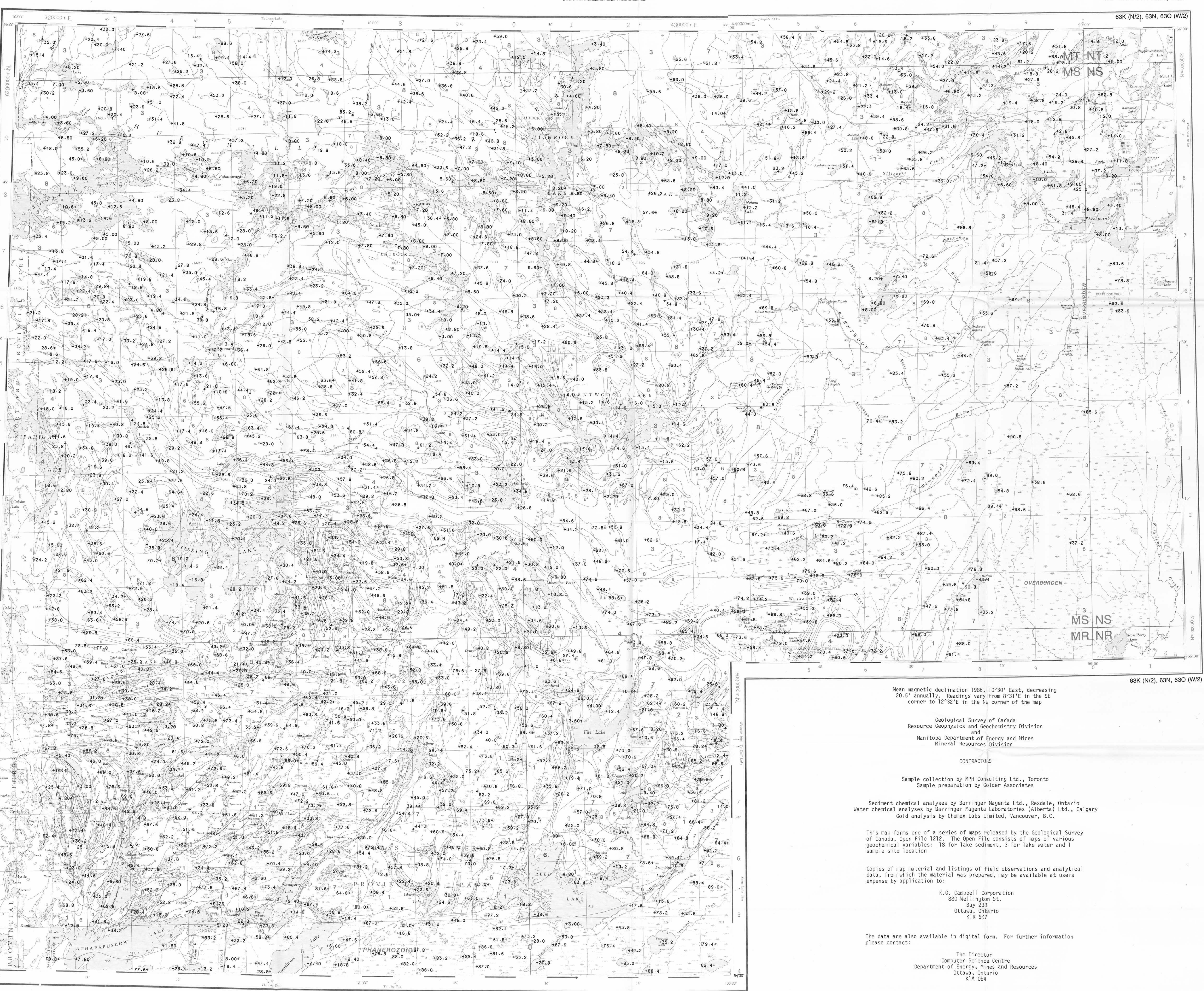
*A mnemonic code assigned to rock types and recorded as part of field observations

Geological boundary

Surficial deposit boundary

No analytical results

Provisional Synoptic Geological Compilation at 1:250,000 scale, by S. Parker, Geological Services, Manitoba Energy and Mines, 1985



Mean magnetic declination 1986, 10°30' East, decreasing 20.5' annually; readings vary from 8°31' in the SE corner to 12°2' in the NW corner of the map.

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

CONTRACTORS

Sample collection by MPM Consulting Ltd., Toronto
Sample preparation by Golden Associates

Sediment chemical analyses by Barringer Magenta Ltd., Rexdale, Ontario
Water chemical analyses by Barringer Magenta Laboratories (Alberta) Ltd., Calgary
Gold analysis by Chemex Labs Limited, Vancouver, B.C.

This map forms one of a series of maps released by the Geological Survey of Canada, Open File 1212. The Open File consists of maps of various geochemical variables: 18 for lake sediment, 3 for lake water and 1 sample site location.

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
380 Wellington St.
Box 238
Ottawa, Ontario
K1R 6K7

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

The Director
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Manitoba Energy and Mines

Energy, Mines and Resources Canada

Canada

LOSS ON IGNITION (%)

GSC OPEN FILE 1212

REGIONAL GEOCHEMICAL RECONNAISSANCE MP 77-1985

CANADA-MANITOBA

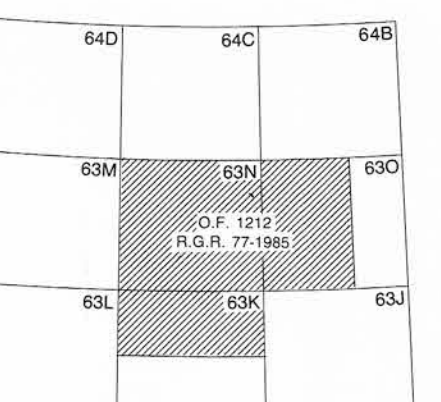
MINERAL DEVELOPMENT AGREEMENT (1984-89)

LAKE SEDIMENT AND WATER GEOCHEMICAL SURVEY

WEST-CENTRAL MANITOBA, 1985

Scale 1:250 000

Universal Transverse Mercator Projection
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