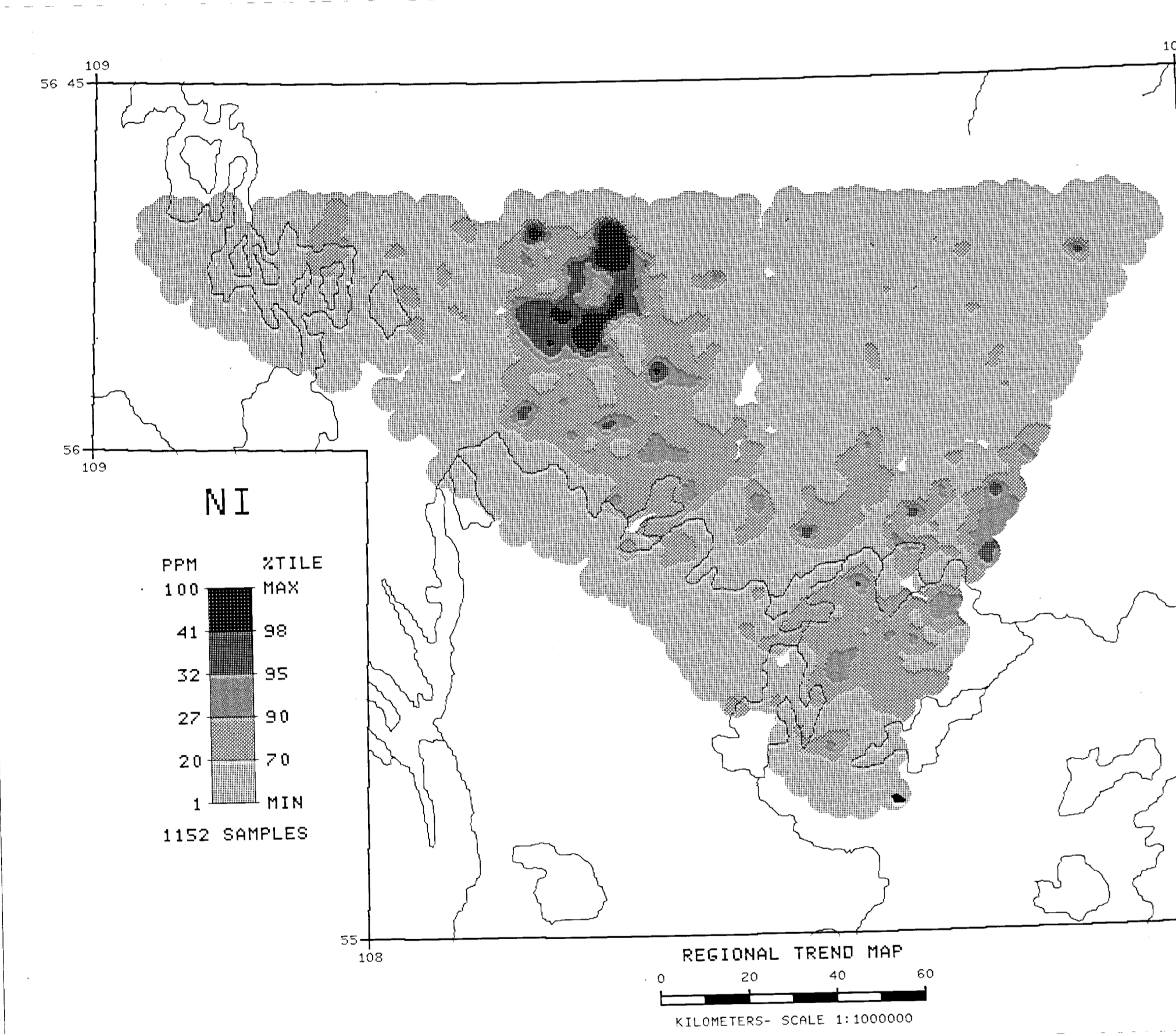


ENVIRONMENT CATEGORY		GEOMORPHIC MODIFIER	
[Symbol]	Organic	c	concealed
[Symbol]	Glaciolacustrine	w	weathered
[Symbol]	Glacioluvial	a	eroded
[Symbol]	Morainal	g	gullied
[Symbol]	Rock	cl	collapsed
[Symbol]	Eolian	p	plain
		v	vegetated
		r	ridged
		h	hummocky
		d	drumlinoid
		t	terrace

Complexes: where two or more classes of terrain are interspersed in a mosaic or repeating pattern the proportion of each component is given in a three-position designation set off by slashes denoting arbitrary percentage limits. For example, MWR/0/0 means that at least 60% of the area is underlain by thin till, with up to 40% boggy areas, and less than 1% scattered rock outcrops. 0/0/0 indicates more than 60% bedrock concealed by vegetation and less than 1% outcrop. MWR indicates at least 60% morainal veneer and up to 40% bedrock exposures.

GLACIAL FEATURE SYMBOLS  
 Boundary of overburden unit .....  
 Drumlin, drumlinoid ridge, fluting .....  
 Striation, groove (ice direction inferred) .....  
 End moraine .....  
 Esker, crevasse filling .....

Surficial geology modified from:  
 Schreiner, B.T. (1984) Quaternary Geology of the Precambrian Shield, Map 221A (1:1,000,000 scale), to accompany Report 221, Saskatchewan Energy and Mines.



The regional geochemical trend map displayed above utilized a moving weighted average using an inverse distance function (1/r<sup>2</sup>) 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.

Geological Survey of Canada  
 Resource Geophysics and Geochemistry Division  
 and  
 Department of Mineral Resources  
 Saskatchewan Geological Survey

CONTRACTORS  
 Sample collection by MPH Consulting Ltd., Toronto  
 Sample preparation by Golder Associates

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

This map forms one of a series of maps released by the Geological Survey of Canada, Open File 1213. The Open File consists of maps of various geochemical variables: 16 for lake sediments, 3 for lake water and 1 sample site location

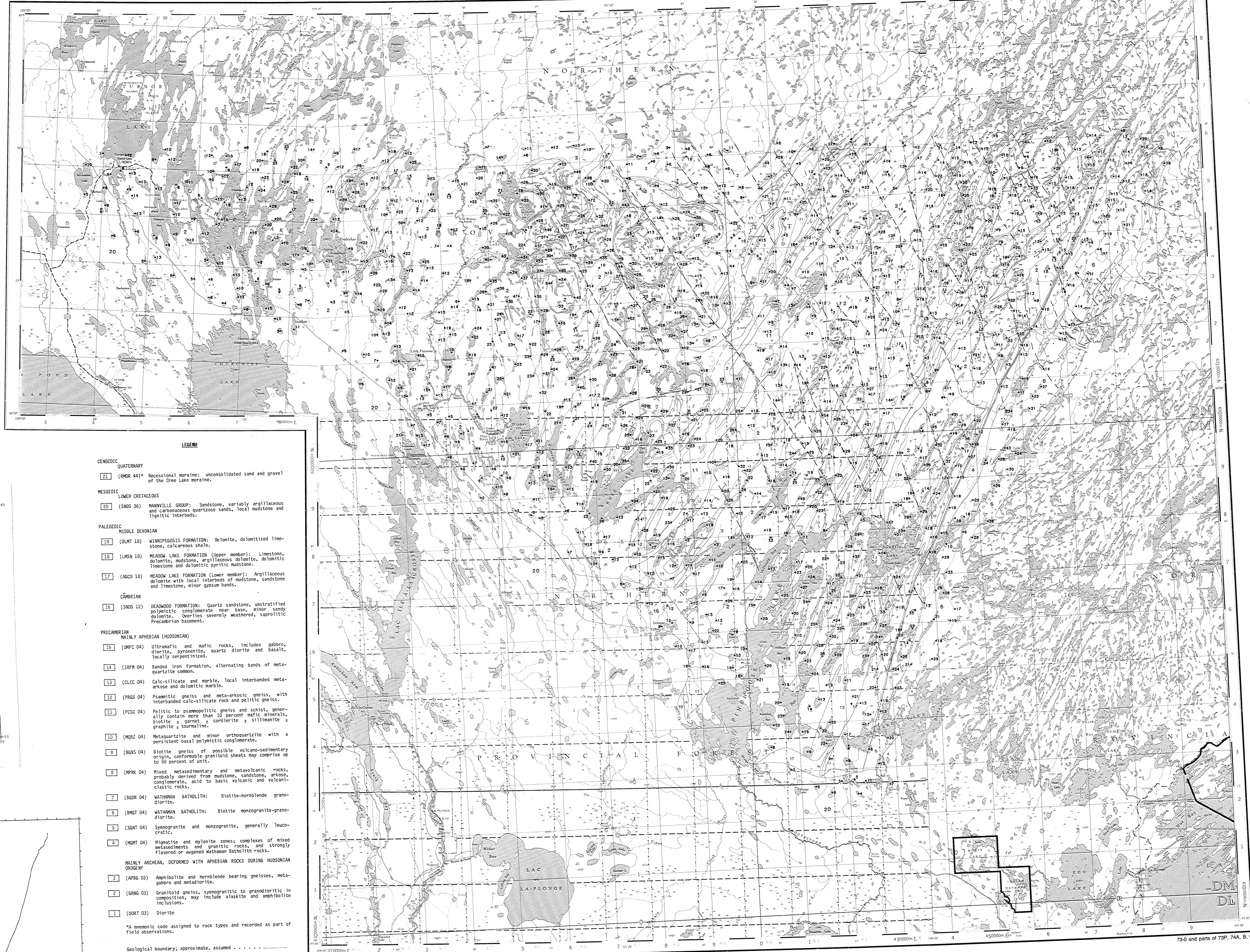
Copies of map material and listings of field observations and analytical data, from which the material was prepared, may be available at users expense by application to:

K.G. Campbell Corporation  
 900 Wellington St.  
 Box 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  
 K1R 6Z4

Contribution to Canada-Saskatchewan Minerals Development Agreement 1984-89, a subsidiary agreement under the Economic and Regional Development Agreement, Project funded by the Geological Survey of Canada.



**LEGEND**

**QUATERNARY**  
 [21] (RMQR 44) Reocasional moraines: unconsolidated sand and gravel of the Oree Lake moraine.

**MESOZOIC**  
**LOWER CRETACEOUS**  
 [20] (SNDS 36) MANNVILLE GROUP: Sandstone, variably argillaceous and calcareous quartzose sands, local mudstone and lignitic interbeds.

**PALEOZOIC**  
**MIDDLE DEVONIAN**  
 [19] (DLMT 18) WINNIPEGOSIS FORMATION: Dolomite, dolomitized limestone, calcareous shale.  
 [18] (LMSN 18) MEADOW LAKE FORMATION (Upper member): Limestone, dolomite, mudstone, argillaceous dolomite, dolomitic limestone and dolomitic argillite mudstone.  
 [17] (AGCD 18) MEADOW LAKE FORMATION (Lower member): Argillaceous dolomite with local interbeds of mudstone, sandstone and limestone, minor gypsum bands.

**CAMBRIAN**  
 [16] (SNDS 12) DEANWOOD FORMATION: Quartz sandstone, unstratified polymictic conglomerate near base, minor sandy dolomite. Overlies severely weathered, saprolitic Precambrian basement.

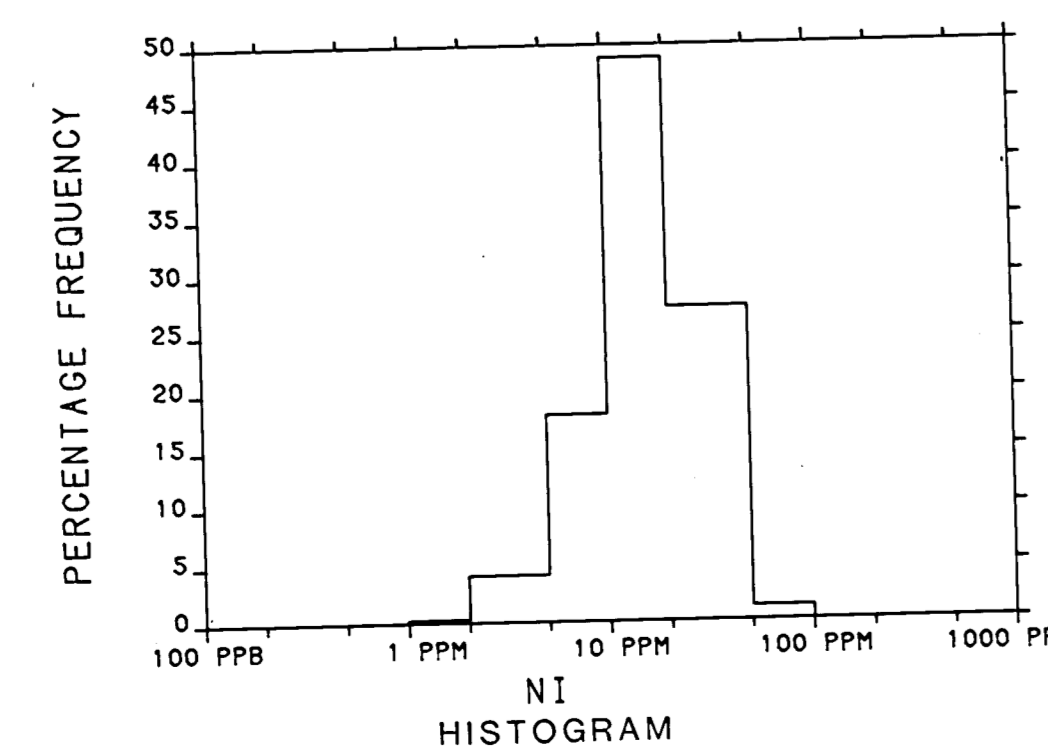
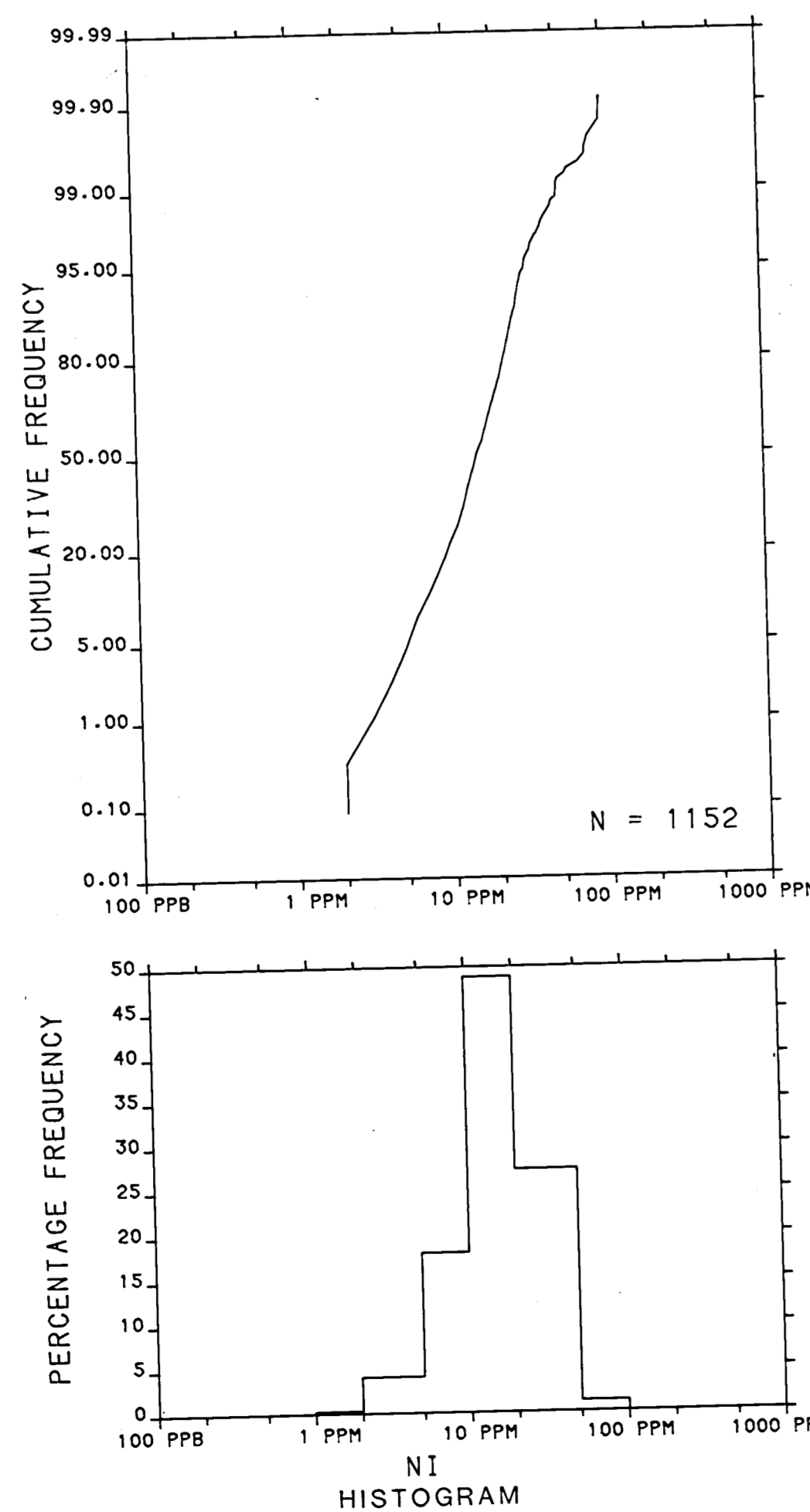
**PRECAMBRIAN**  
**MAINLY APHEBIAN (HUDSONIAN)**  
 [15] (UMFC 04) Ultramafic and mafic rocks, includes gabbro, diorite, pyroxenite, quartz diorite and basalt, locally serpentinitized.  
 [14] (IRFM 04) Banded iron formation, alternating bands of meta-quartzite common.  
 [13] (CLOC 04) Calc-silicate and marble, local interbedded meta-arkose and dolomitic marble.  
 [12] (PRSG 04) Psammite gneiss and meta-arkose gneiss, with interbedded calc-silicate rock and pelitic gneiss.  
 [11] (PCSC 04) Pelitic to psammopelitic gneiss and schist, generally contain more than 10 percent mafic minerals, biotite + garnet, + cordierite + sillimanite + graphite + tourmaline.  
 [10] (MQRZ 04) Metaquartzite and minor orthoquartzite with a persistent basal polymictic conglomerate.  
 [9] (BGKS 04) Biotite gneiss of possible volcano-sedimentary origin, conformable granitoid sheets may comprise up to 50 percent of unit.  
 [8] (WPKX 04) Mixed metasedimentary and metavolcanic rocks, probably derived from mudstone, sandstone, arkose, conglomerate, acid to basic volcanic and volcanoclastic rocks.  
 [7] (BGDR 04) WATHMAN BATHOLITH: Biotite-hornblende granodiorite.  
 [6] (BMGT 04) WATHMAN BATHOLITH: Biotite monzogranite-granodiorite.  
 [5] (SGMT 04) Syenogranite and monzogranite, generally leucocratic.  
 [4] (MGMT 04) Migmatite and mylonite zones; complex of mixed metasedimentary and granitic rocks, and strongly flasered or augenated Wathman Batholith rocks.

**MAINLY ARCHEAN, DEFORMED WITH APHEBIAN ROCKS DURING HUDSONIAN OROGENY**  
 [3] (APBG 03) Amphibolite and hornblende bearing gneisses, meta-gabbro and metadiorite.  
 [2] (GRNG 03) Granitoid gneiss, syenogranitic to granodioritic in composition, may include alaskite and amphibolite inclusions.  
 [1] (DORT 03) Diorite

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

Geological boundary; approximate, assumed .....  
 Fault .....  
 No analytical result .....

Geological base and legend are derived from: Thomas, M.W. and Simon, M.L. (1985): Compilation Bedrock Geology, Ile-a-la-Croix, NTS Area 200, Saskatchewan Energy and Mines, Report 245 (1:250,000 scale map with marginal notes).  
 Geology, Lac La Ronge, NTS Area 73P/731, Saskatchewan Energy and Mines, Report 225 (1:250,000 scale map with marginal notes).  
 Thomas, M.W. (1984): Preliminary Compilation Bedrock Geology, North Half, Saskatchewan Energy and Mines, Report 228 (1:250,000 scale map with marginal notes).  
 Thomas, M.W. (1984): Preliminary Compilation Bedrock Geology, South Half, Saskatchewan Energy and Mines, Report 229 (1:250,000 scale map with marginal notes).



**NICKEL (ppm)**  
 GSC OPEN FILE 1213  
 REGIONAL GEOCHEMICAL RECONNAISSANCE MAP 78-1985  
 CANADA - SASKATCHEWAN  
 MINERAL DEVELOPMENT AGREEMENT (1984-89)  
 LAKE SEDIMENT AND WATER GEOCHEMICAL SURVEY  
 NORTH-CENTRAL SASKATCHEWAN, 1985

Scale 1:250 000  
 Kilometers 0 20 40  
 Universal Transverse Mercator Projection  
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Elevation in feet above mean sea level  
 Mean magnetic declination 1985, 17°29' East, decreasing 20.4' annually. Readings vary from 15°30' East in the SE corner to 20°02' East in the NW corner of the map area

Base map assembled by the Geological Survey of Canada from maps published at the same scale by Map and Charting Establishment, Department of National Defence and the Survey and Mapping Branch, Department of Energy, Mines and Resources in 1974, 1977, 1982