

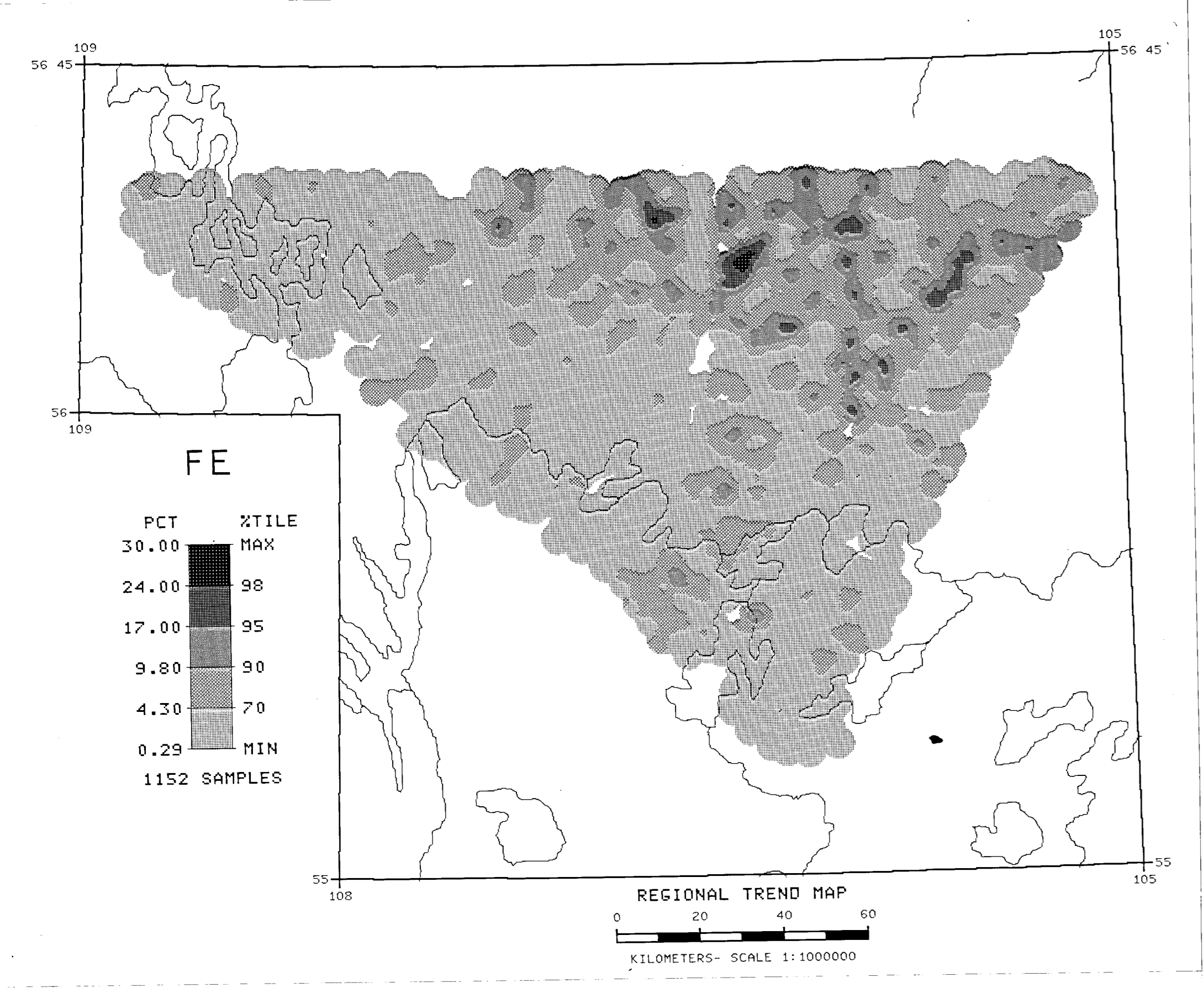
ENVIRONMENT CATEGORY	GEOMORPHIC MODIFIER
Organic	c concealed
Glaciolacustrine	e eroded
Glacioluvial	g gullied
	k collapsed
Moraine	p plain
Rock	r ridged
	h hummocky
	d drumlinoid
	t terrace

Complexes: where two or more classes of terrain are interspersed in a mosaic or repeating pattern the proportion of each component in the combination is given in a three-position designation set off by slashes denoting arbitrary percentage limits. For example, "M/W/R" means that at least 60% of the area is underlain by thin till, with up to 40% boggy areas, and less than 10% scattered rock outcrops. "R//W" indicates more than 80% bedrock concealed by vegetation and less than 10% outcrop. "M/R" indicates at least 60% moraine 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:
 Swenson, S. T. (1964) 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/r²) 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
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 and
 Department of Mineral Resources
 Saskatchewan Geological Survey

CONTRACTORS
 Sample collection by W.H. Consulting Ltd., Toronto
 Sample preparation by Gelder Associates
 Sediment chemical analyses by Barringer Magenta Ltd., (Oshawa), Ontario
 Water chemical analyses by Barringer Magenta Laboratories (Alberta) Ltd., Calgary

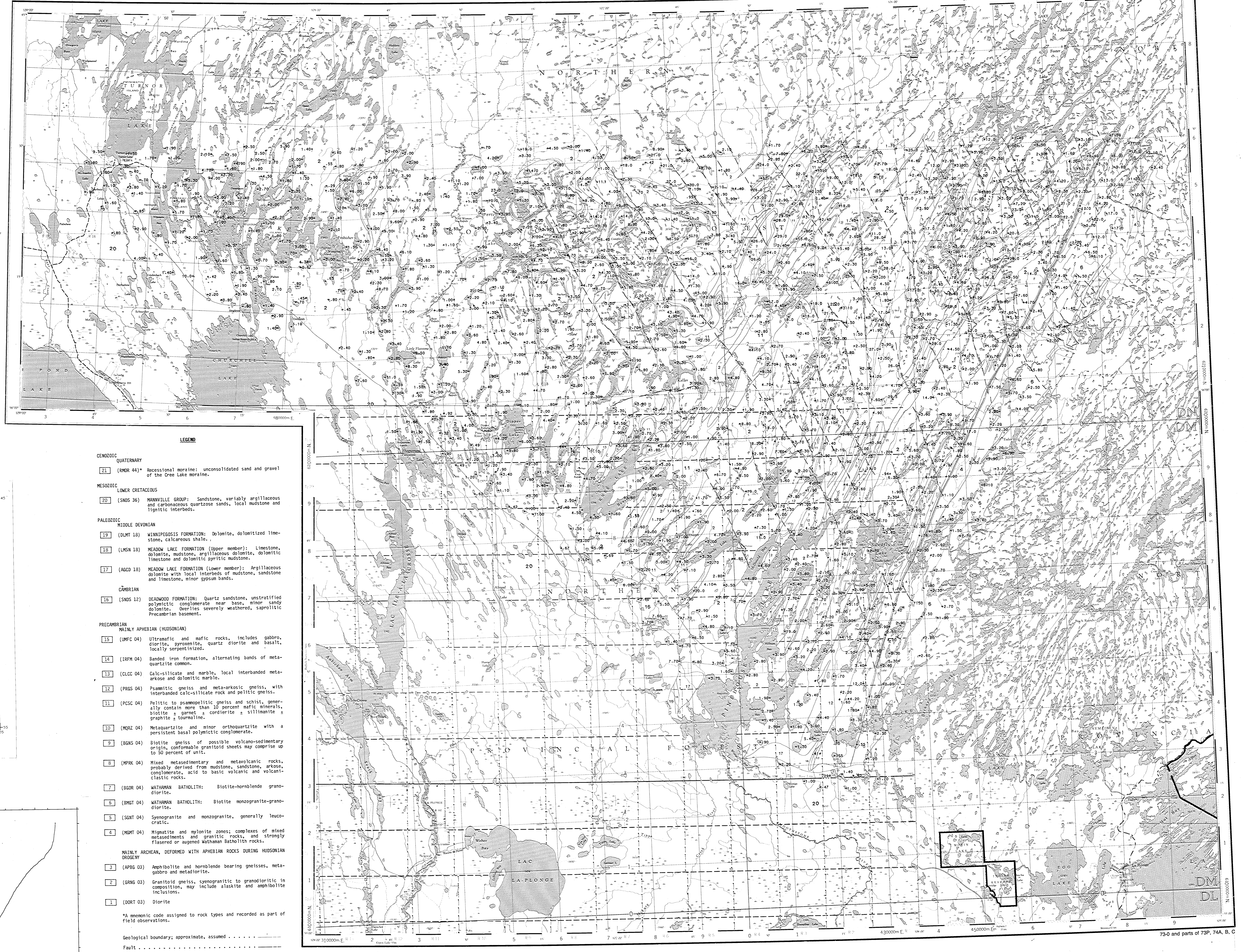
This map forms one of a series of maps released by the Geological Survey of Canada, Open File 1213. The Open File consists of maps of various geochemical variables: 16 for lake sediment, 2 for lake water and 1 sample site location.

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.S. Campbell Corporation
 880 Wellington St.
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The data are also available in digital form. For further information please contact:
 The Director
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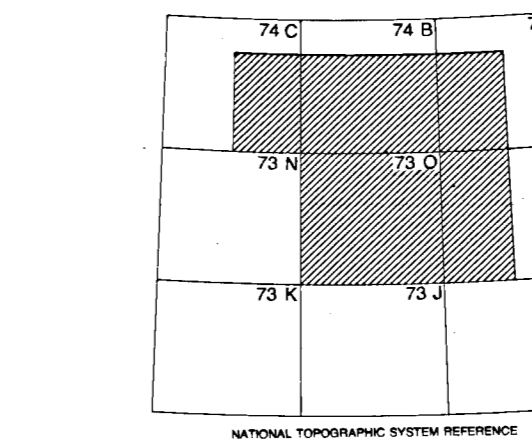
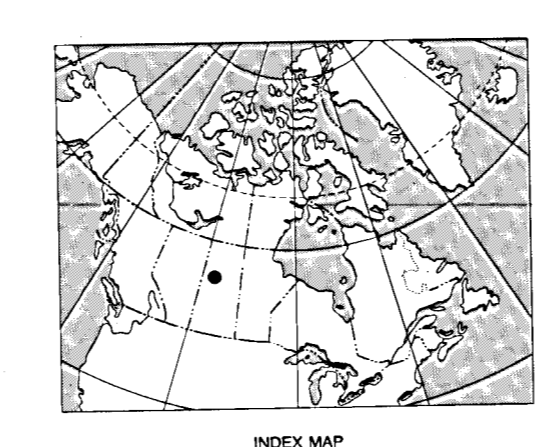
Contribution to Canada-Saskatchewan Mineral Development Agreement 1984-89, a subsidiary agreement under the Economic and Regional Development Agreement. Project funded by the Geological Survey of Canada.

Saskatchewan Energy and Mines
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- LEGEND**
- QUATERNARY**
 [11] (MOR 44) Successional moraine: unconsolidated sand and gravel of the Oree Lake moraine.
- MESOZOIC**
 LOWER CRETACEOUS
 [20] (SNDS 36) MANVILLE GROUP: Sandstone, variably argillaceous and carbonaceous quartzose sands, local mudstone and lignitic interbeds.
- PALEOZOIC**
 MIDDLE DEVONIAN
 [19] (DUMT 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 pyritic mudstone.
 [17] (ASGD 18) MEADOW LAKE FORMATION (Lower member): Argillaceous dolomite with local interbeds of mudstone, sandstone and limestone, minor gypsum bands.
- CAMBRIAN**
 [16] (SNDS 12) DEADWOOD FORMATION: Quartz sandstone, unstratified polymictic conglomerate near base, minor sandy dolomite. Overlies severely weathered, saprolitic Precambrian basement.
- PRECAMBRIAN**
 MAINLY APHEBIAN (HUDSONIAN)
 [15] (UMPC 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 and ironstone.
 [13] (CLCC 04) Calc-silicate and marble, local interbedded meta-arkose and dolomitic marble.
 [12] (PRGS 04) Psammite gneiss and meta-arkosic gneiss, with interbedded calc-silicate rock and pelitic gneiss.
 [11] (PCSC 04) Pelitic to psammopelitic gneiss and schist, generally contains 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 granitic sheets may comprise up to 50 percent of unit.
 [8] (MPRK 04) Mixed metasedimentary and metavolcanic rocks, probably derived from mudstone, sandstone, arkose, conglomerate, acid to basic volcanic and volcaniclastic rocks.
 [7] (BGDR 04) WATHAMAN BATHOLITH: Biotite-hornblende granodiorite.
 [6] (BNMT 04) WATHAMAN BATHOLITH: Biotite monzogranite-granodiorite.
 [5] (SGMT 04) Syenogranite and monzogranite, generally leucocratic.
 [4] (MOMT 04) Mispeltonite and mylonite zones; complexes of mixed metasediments and granitic rocks, and strongly foliated or augen Wathaman 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 02) Granitoid gneiss, syenogranitic to granodioritic in composition, may include alkali and amphibolite inclusions.
 [1] (DORT 02) 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 Stilleman, W.L. (1960): Compilation Bedrock Geology, Ulea-La-Crosse, NTS area 730; Saskatchewan Energy and Mines, Report 245 (1:250,000 scale map with marginal notes);
 Lowry, J.L. and Stilleman, W.L. (1965): Compilation Bedrock Geology, Lac La Poudre, NTS area 229/231; Saskatchewan Energy and Mines, Report 229 (1:250,000 scale map with marginal notes);
 Ray, G.E. (1963): Compilation Bedrock Geology, Foster Lake, NTS Area 744; Saskatchewan Energy and Mines, Report 228 (1:250,000 scale map with marginal notes);
 Thomas, M.W. (1964): Preliminary Compilation Bedrock Geology, Mudjatik, NTS Area 749 (1:250,000 scale map with marginal notes);
 McDonald, R. and Brogdon, P. (1968): Geological Map of Saskatchewan Provisional Edition, North Half, Saskatchewan Mineral Resources, (1:1,000,000 scale map with marginal notes).



Elevation in feet above mean sea level
 Mean magnetic declination 1985, 17°29' East,
 decreasing 20.1' 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 Mapping and Charting Establishment, Department of National Defence and the Surveys and Mapping Branch, Department of Energy, Mines and Resources in 1974, 1977, 1982.