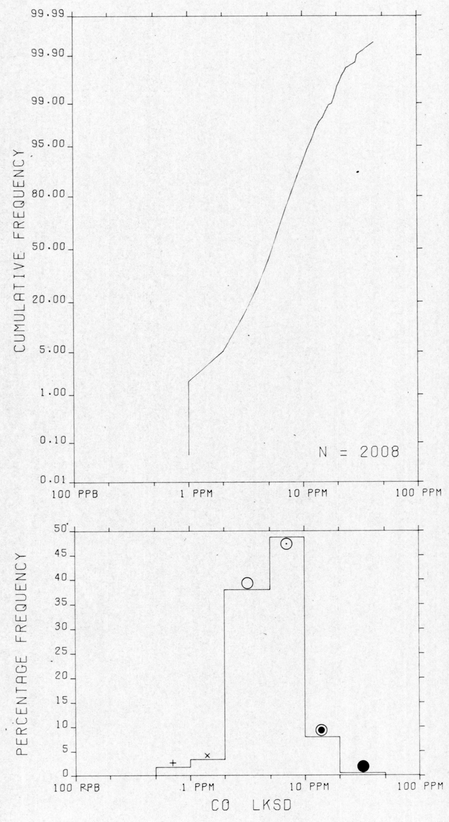
Province of Saskatchewan
Department of Mineral Resources
Saskatchewan Geological Survey

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

COBALT (ppm)

OPEN FILE 508

NORTHEASTERN SASKATCHEWAN, 1977



Geochemical Symbol and Data Presentation

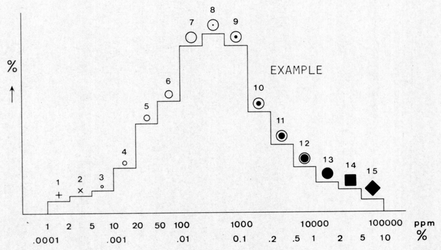
The concentration of an element at a sample site is graphically represented as one of 15 symbols. If a sample was collected but there is no data available a dot is plotted. The symbols are symmetrically arranged so that they first increase in size to the eighth symbol and then increase in blackness to the fifteenth. The two small crosses at the low end of the scale are used to respectively denote concentrations below the analytical detection limit, or, in the data group containing the detection limit. The data are grouped on a semi-logarithmic scale, i.e. 1,2,5,10,20,50,100 etc. Five decades can be spanned and this arbitrary division has been chosen for the continuing Canada wide series of maps constituting the National Geochemical Reconnaissance.

The choice of symbols and the data groups they represent for any specific element is based on the histogram and cumulative frequency plot for the total survey data from one, or more contiguous, open file sheets covered in one field season (above). The eighth symbol is used for the model group as defined by the histogram. This group usually includes the median of the data as defined by the 0.5 (50%) point on the cumulative frequency plot. Some, or all, of the remaining 14 symbols are chosen so as to achieve an appropriate graphical impact. An example of all 15 symbols is given below.

The symbol maps, being based on the total survey data distributions, are unaffected by tha availability of ever increasing levels of knowledge in bedrock and surficial geology, and other environmental factors. Therefore, the raw data symbol maps are only intended to assist the rapid inspection of the data for gross regional features. To fulfill the needs of a more specific and thorough interpretation, the raw symbol maps should be modified using the field and analytical data provided in the data listings and any other knowledge available.

The data listings contain notes on survey and analytical methods, raw data listing with legend and statistics for total data as well as for data grouped on the basis of rock type.

To comprehensively study an area, all available geological, environmental and recorded data should be utilized. The data separation by bedrock type can often be improved by constructing new data subsets and deriving local threshold levels based on the most detailed and up-to-date knowledge available.

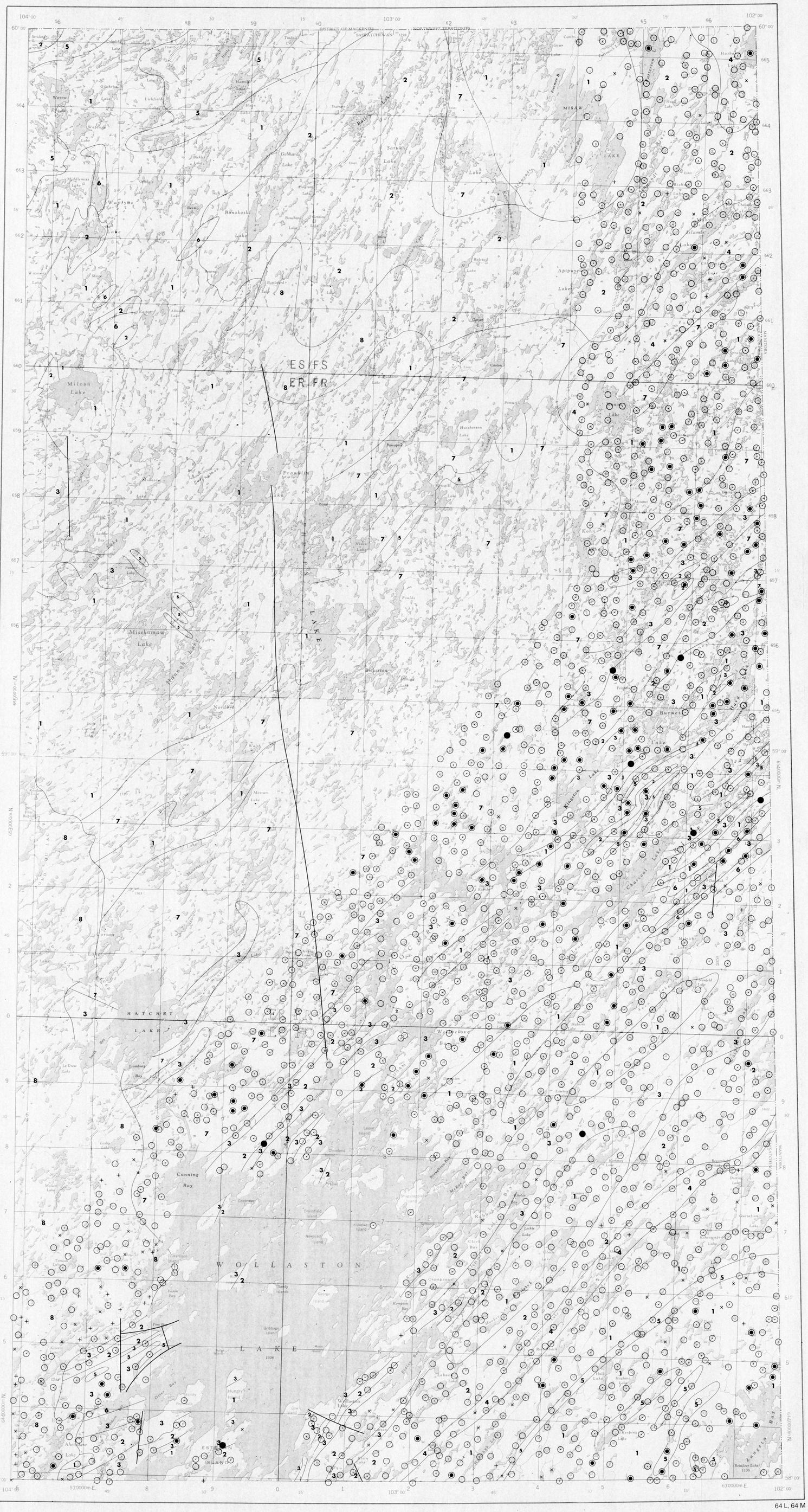


Copies of map material and listings of field observations and analytical data from which the material was prepared may be available at users expense by application to:

K.G. Campbell Corporation
880 Wellington Street
Bay No. 238
Ottawa, Ontario
K1R 6K7

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

The Director
Computer Science Centre
Department of Energy, Mines and Resources,
Ottawa, Ontario
K1A OE4



Elevations in feet above mean sea level

Mean magnetic declination 1978, 18°11.4' East, decreasing 6.3' annually. Readings vary from 16°20.0' in the SE corner to 20°11.4' in the NW corner of the map-area

COBALT (ppm)

OPEN FILE 508

NATIONAL GEOCHEMICAL RECONNAISSANCE MAP 19-1977

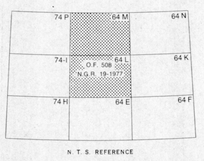
URANIUM RECONNAISSANCE PROGRAM

Scale 1:250,000

Kilometres 6 0 6 12 18 Kilometres
Miles 4 0 4 8 Miles

Universal Transverse Mercator Projection

Base-map assembled by the Geological Cartography Unit from maps published at the same scale by the Surveys and Mapping Branch in 1962, 1963



This map forms one of a series of 14 sheets released under the Geological Survey of Canada, Open File 508. The Open File consists of maps of 11 elements, each for lake sediments, 2 elements for lake waters and sample site location.

COBALT (ppm)

OPEN FILE 508

NORTHEASTERN SASKATCHEWAN, 1977

LEGEND

Note: This legend is for the National Reconnaissance Map 19-1977, Open File 508.

PRECAMBRIAN

SEDIMENTARY COVER

8 Athabasca Formation; predominantly fluviate sandstone [SNDS]* with minor shale and conglomerate

Pronounced Unconformity
Beneath the unconformity no stratigraphic order is implied by the sequence of the legend

BASEMENT COMPLEX

7 Migmatite [MGMT] and mylonite zones; complexes of mixed metasediments and granite

6 Marble [MRBL] and calc-silicate gneisses

5 Amphibolite [AMPB] and hornblende-bearing gneisses; in part may be volcanic, intrusive or sedimentary in origin

4 Mixed metasediments [MSDM]; undifferentiated schists and gneisses of pelitic, semi-pelitic and psammitic composition

3 Pelitic schists [PCSC] and gneisses; essentially aluminous metasediments including cordierite -, sillimanite-, staurolite-, and granite-bearing biotite gneisses

2 Psammites; essentially meta-arkose [MARK], quartzite and micaceous psammites

1 Granite [GRNT], granodiorite, quartz monzonites; may be massive or gneissic, includes areas in which metasediments may be intimately mixed

* A four letter mnemonic name recorded as rock type as part of field observations

Geological boundary.....

Fault.....

The legend modified and geology derived for this geochemical map from Geology Map of Saskatchewan, 1972.

Geological Survey of Canada
Resource Geophysics and Geochemistry Division

and

Department of Mineral Resources
Saskatchewan Geological Survey

CONTRACTORS

Sample collection by Marshall Macklin Monaghan Ltd.
Sample preparation by Golder Associates.
Uranium in sediment chemical analyses by Atomic Energy of Canada Ltd.
Other sediment chemical analyses by Chemex Labs Ltd.
Water chemical analyses by Barringer Research Ltd.