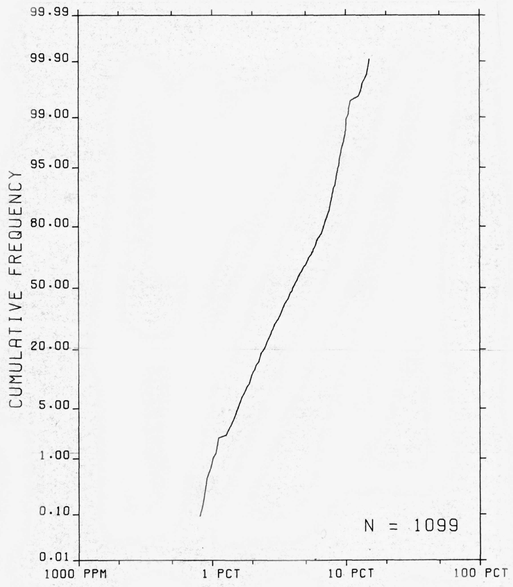
Canada
Department of Energy, Mines and Resources
Geological Survey of Canada

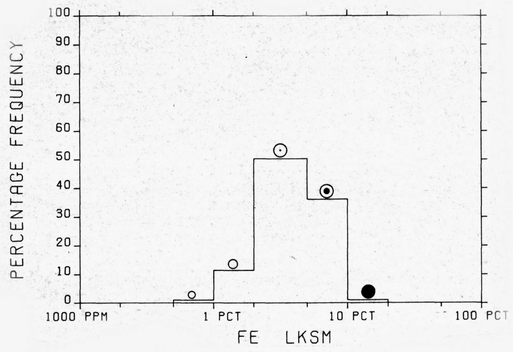
46 N and Part of 47 B

IRON (%)

OPEN FILE 521 A

MELVILLE PENINSULA 1977





Geochemical Symbol and Data Presentation

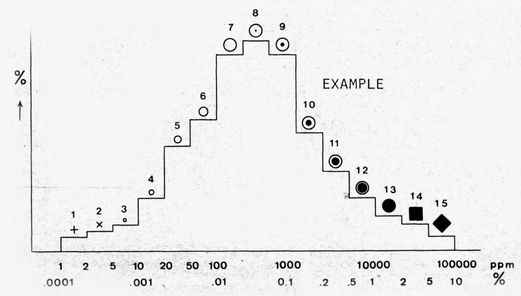
The concentration of an element at a sample site is graphically represented as one of 15 symbols. If a sample was collected but there is no data available a dot is plotted. The symbols are symmetrically arranged so that they first increase in size to the eighth symbol and then increase in blackness to 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.

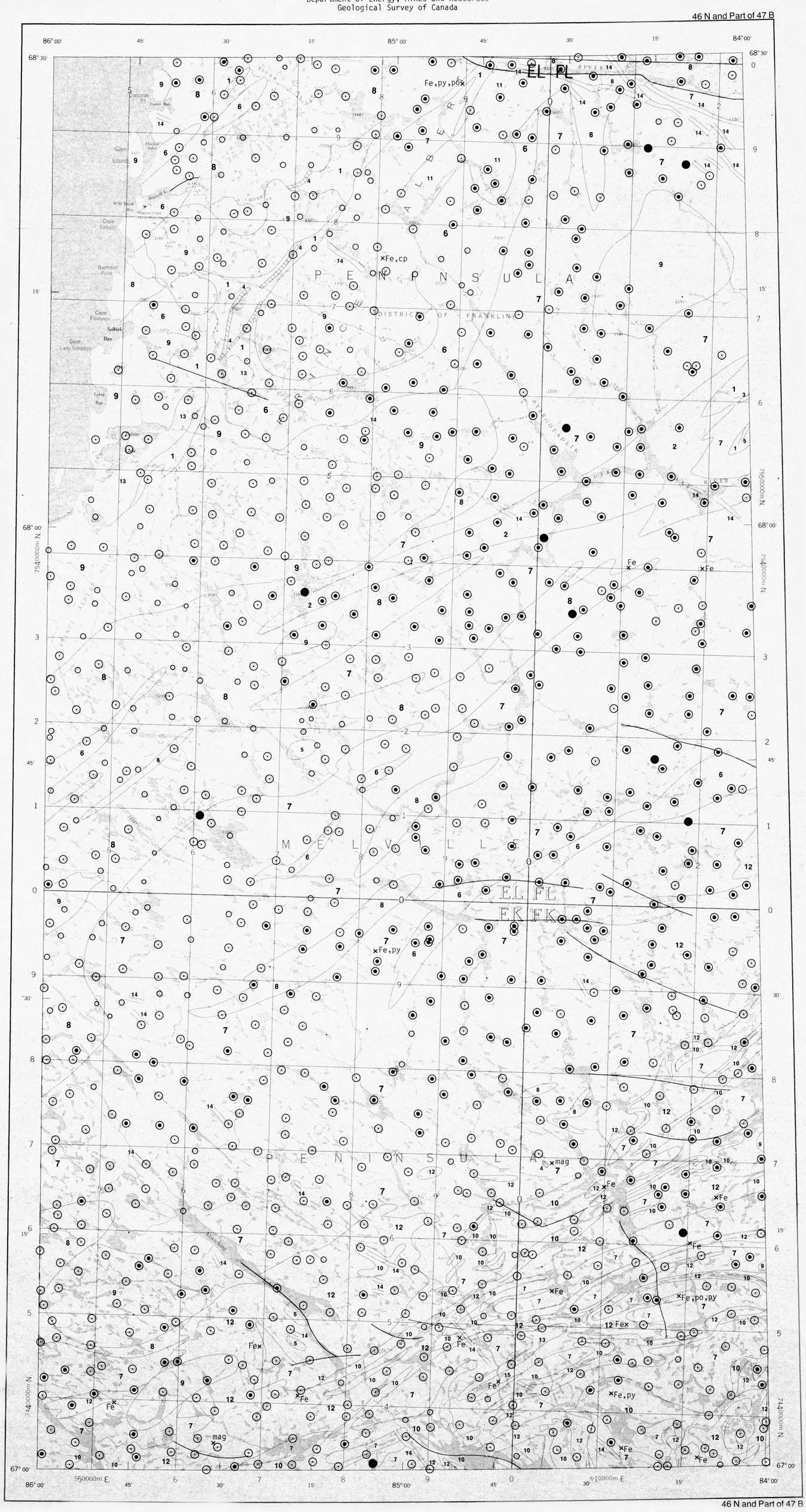


Copies of map material and listings of field observations and analytical data from which the material was prepared may be available at users expense by application to:

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 0E4



46 N and Part of 47 B

LEGEND

PALEOZOIC

ORDOVICIAN AND SILURIAN

15 [DLMT] + dolomite, minor sandstone

APHEBIAN

14 [DIBS] diabase dykes and sills

13 [QRTZ] quartzite, may be correlative with unit 11

PENRHYM GROUP (10, 11, 12)

12 [SCST] paragneiss, schist, undifferentiated crystalline limestone and quartzite

11 [QRTZ] quartzite

10 [LMSN] crystalline limestone, minor quartzite

ARCHEAN AND/OR APHEBIAN

9 [GRNT] granite, granodiorite, quartz monzonite and allied rocks massive to slightly foliated. Locally includes units 6, 7, 8

8 [MGMT] migmatite, locally includes 6, 7, 9

7 [GRNG] granite gneiss

6 [GNSS] layered gneiss; [PRGS] paragneiss and schist

5 [PRDT] peridotite, supentinite; [DORT] diorite, gabbro

PRINCE ALBERT GROUP (1-4)

4 [IRFM] iron formation

3 [QRTZ] quartzite, minor paragneiss and schist

2 [MSDM] undifferentiated metasedimentary rocks, includes impure quartzite, phyllite, sericite schist, quartz-mica schist, paragneiss and layered mafic gneiss

1 [GRNS] greenstone, greenschist, amphibolite derived from intermediate to basic volcanic rocks. Minor undifferentiated acid volcanic and sedimentary rocks

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

Geological boundary.....
Fault.....
Mineral occurance.....Fe,po,py x

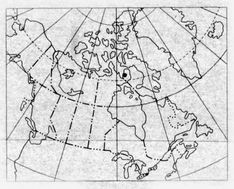
The legend modified and geology derived for this geochemical map from G.S.C. paper 66-40, map 14-1966.

Geological Survey of Canada
Resource Geophysics and Geochemistry Division

CONTRACTORS

Sample collection by Marshall Macklin Monagham 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.

This map forms one of a series of 28 sheets released under the Geological Survey of Canada, Open Files 521, 522. The Open Files consist of maps for 11 elements, each for lake sediments, 2 elements for lake waters and sample site location.


INDEX MAP

Elevations in feet above mean sea level

Mean magnetic declination 1978, 38°26.0' West, decreasing 30.1' annually. Readings vary from 37°12.0' in the SE corner to 40°25.5' in the NW corner of the map-area

IRON (%)

OPEN FILE 521A

NATIONAL GEOCHEMICAL RECONNAISSANCE MAP 32A-1977

URANIUM RECONNAISSANCE PROGRAM

MELVILLE PENINSULA 1977

Scale 1:250,000

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

Universal Transverse Mercator Projection

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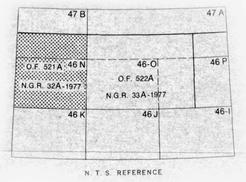
Base-map assembled by the Geological Cartography Unit from maps published at the same scale by the Surveys and Mapping Branch in 1961, 1967



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