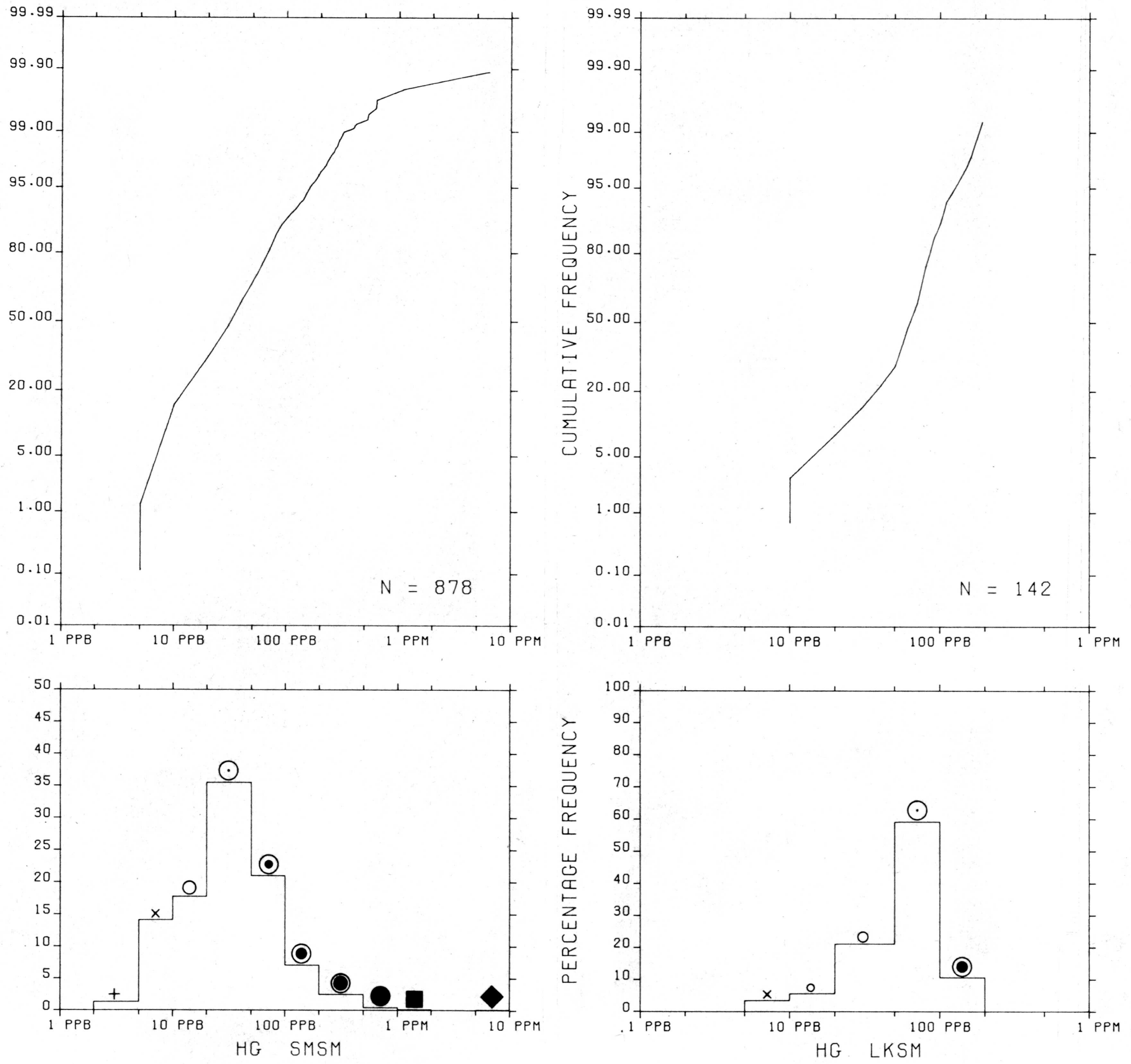


Geochemical Symbol and Data Presentation

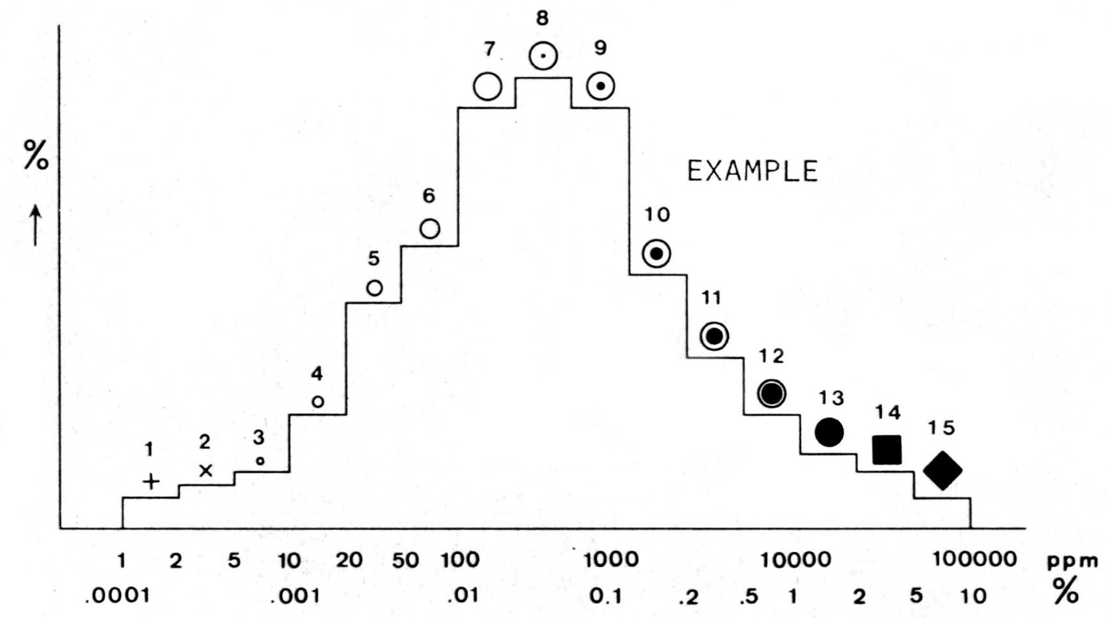
The concentration of an element at a sample site is graphically represented as one of 15 symbols. If a sample was collected but there is no data available a dot is plotted. The symbols are symmetrically arranged so that they first increase in size to the eighth symbol and then increase in blackness to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

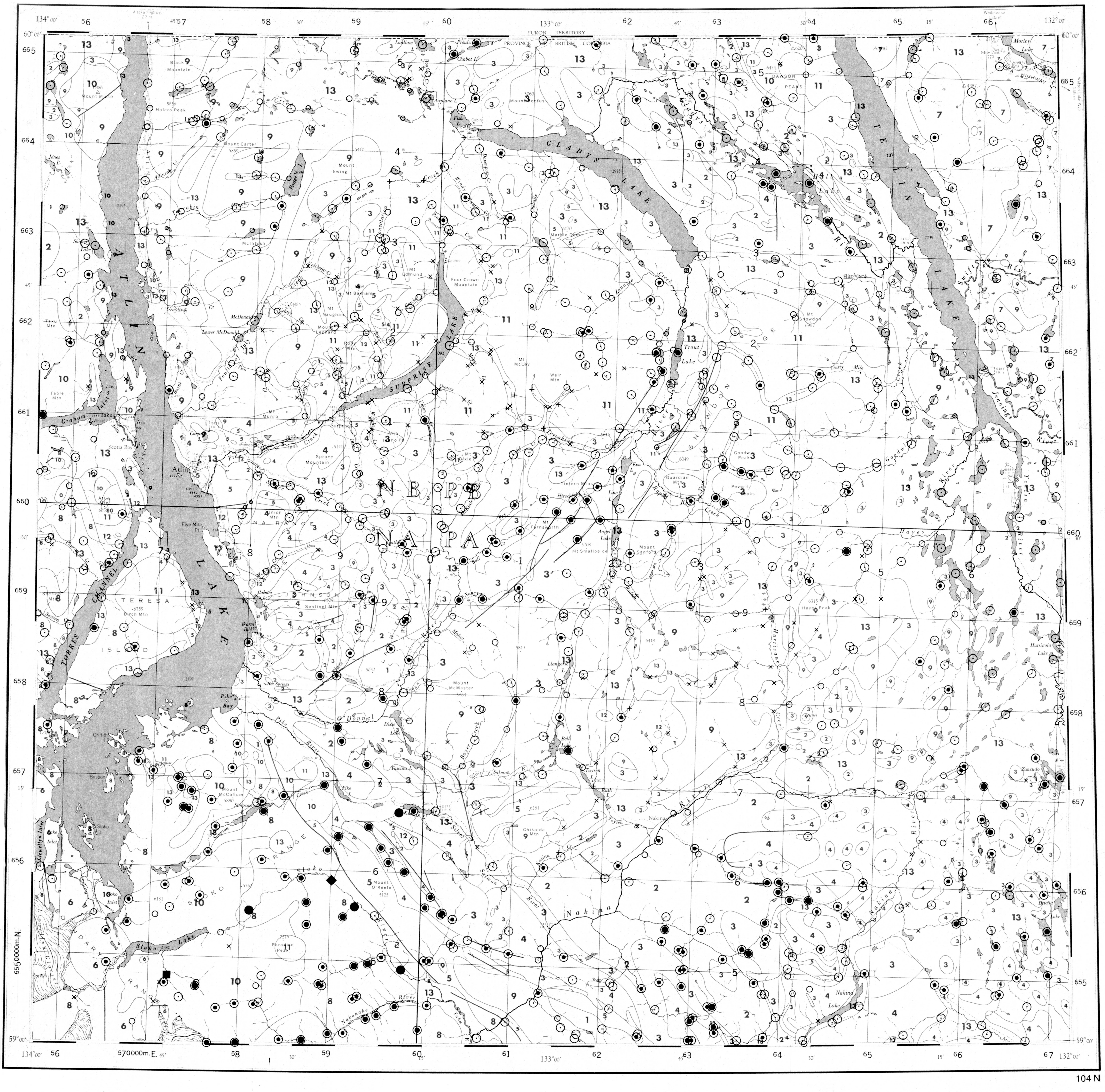
K.G. Campbell Corporation
880 Wellington Street
Bay No. 238
Ottawa, Ontario
K1R 6K7

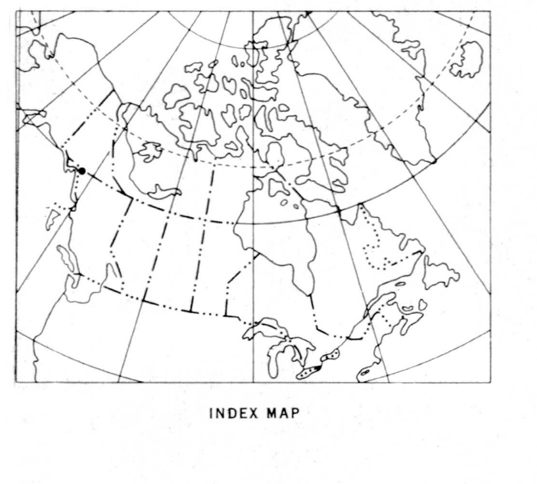
The data is also available in digital form. For further information please contact:

The Director
Computer Science Centre
Department of Energy, Mines and Resources
Ottawa, Ontario
K1A 0E4

Province of British Columbia
Ministry of Mines and Petroleum Resources

GEOLOGICAL SURVEY OF CANADA
DEPARTMENT OF ENERGY, MINES AND RESOURCES





Elevations in feet above mean sea level

Mean magnetic declination 1978, 30°32.7' East, decreasing 2.6' annually. Readings vary from 30°43.2' in the SE corner to 30°46.2' in the NW corner of the map-area

MERCURY (ppb)

OPEN FILE 517

NATIONAL GEOCHEMICAL RECONNAISSANCE MAP 28-1977

NORTHWESTERN BRITISH COLUMBIA, 1977

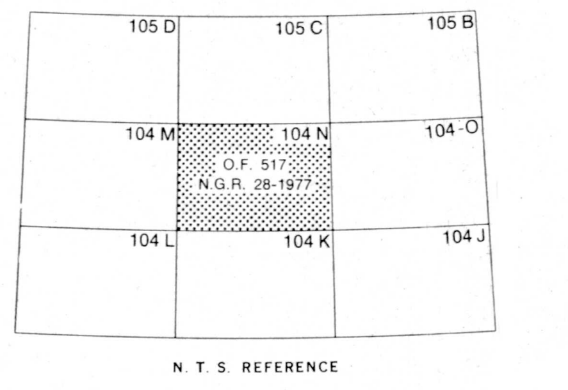
Scale 1:250,000

Kilometres 6 0 6 12 18 Kilometres

Miles 4 0 4 8 Miles

Universal Transverse Mercator Projection

Base map at the same scale published by the Mapping and Charting Establishment, Department of National Defence, 1954



N. T. S. REFERENCE

MERCURY (ppb)

OPEN FILE 517

NORTHWESTERN BRITISH COLUMBIA, 1977

LEGEND

Note: This legend is for National Reconnaissance Map 28-1977, Open File 517.

CENOZOIC

PLEISTOCENE AND RECENT

13	Glacial drift; alluvium [TILL]*

TERTIARY AND QUATERNARY

12	Olivine basalt [OLVB] and scoria

MESOZOIC

LATE CRETACEOUS AND/OR EARLY TERTIARY

11	Alaskite [ALSK], quartz monzonite
10	Sandstone, pyroclastic rock [PCLC], acid to intermediate volcanic rock

MIDDLE CRETACEOUS

9	Granite [GRNT], pink granite, diorite

JURASSIC

8	Graywacke [GRCK], sandstone, siltstone, pelite and conglomerate

TRIASSIC-JURASSIC

7	Sedimentary and volcanic rock [SMRK]

TRIASSIC

6	CACHE CREEK GROUP [ANDS]: volcanic rock, augite-porphyry basalt

PALEOZOIC

PERMIAN

5	Ultramafic rock [UMFC]

MISSISSIPPIAN-PERMAIN

4	Basalt [BSLT], minor diabase, pyroclastics
3	Chert [CHRT], cherty, pelite, local carbonate and basic volcanic pods
2	Limestone [LMSN], dolomitic limestone, local interbedded basic volcanic flow rock
1	Carboniferous low grade metavolcanics [MVCC] and metasediments

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

GEOLOGICAL BOUNDARY .... ∼

FAULT .... ∼

. ...STREAM SITE

\+ ....LAKE SITE

The legend modified and geology derived for this geochemical map from Map 1082A Geology, Atlin, Caesair district, B.C. and accompanying map from G.S.C. paper 74-47 figure 2 .

Geological Survey of Canada
Resource Geophysics and Geochemistry Division

and

Province of British Columbia
Ministry of Mines and
Petroleum Resources

CONTRACTORS

Sample collection by Semco 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 Chemex Labs Ltd.

This map forms one of a series of 13 sheets released under the Geological Survey of Canada, Open File 517. The Open File consists of maps of 10 elements, each for stream/lake sediments, 2 elements for stream/lake waters and sample site locations.

MERCURY (ppb)

OPEN FILE 517

NORTHWESTERN BRITISH COLUMBIA, 1977