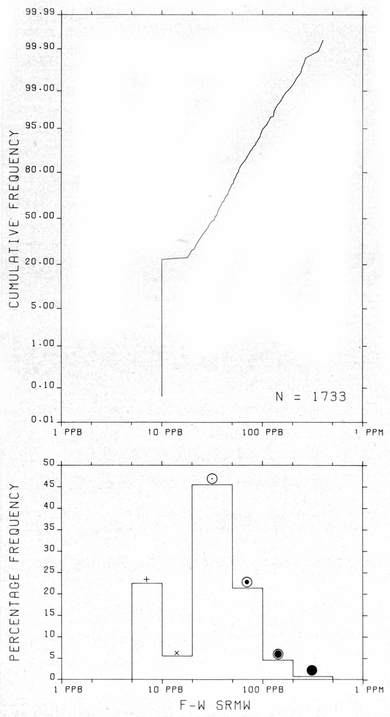


Geochemical Symbol and Data Presentation

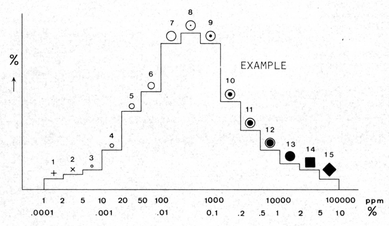
The concentration of an element at a sample site is graphically represented as one of 15 symbols. If a sample was collected but there is no data available a dot is plotted. The symbols are symmetrically arranged so that they first increase in size to the eighth symbol and then increase in blackness to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

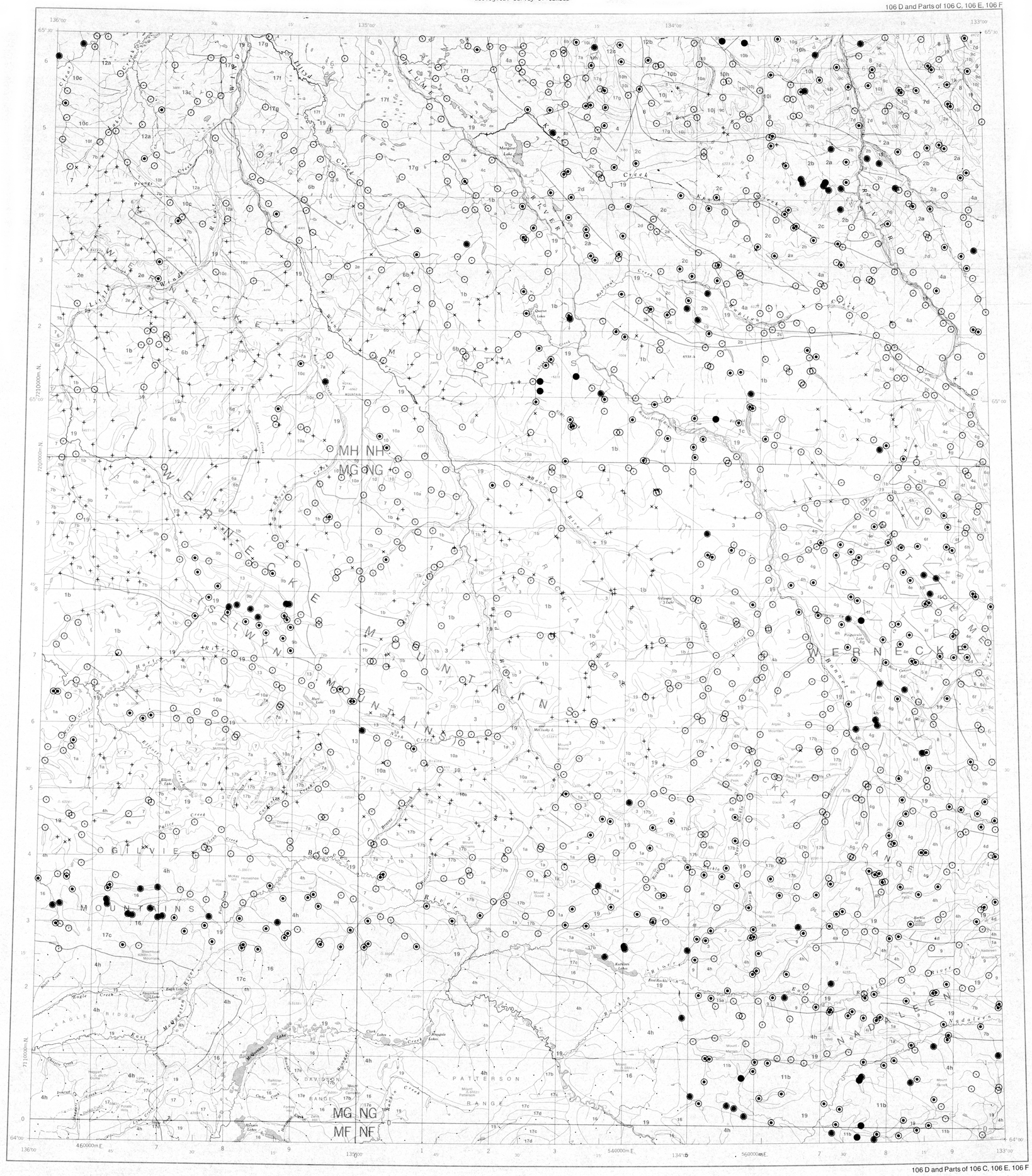
K.G. Campbell Corporation
880 Wellington Street
Bay No. 238
Ottawa, Ontario
K1R 6K7

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

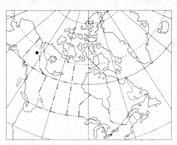
The Director
Computer Science Centre
Department of Energy, Mines and Resources
Ottawa, Ontario
K1A 0E4

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

106 D and Parts of 106 C, 106 E, 106 F



106 D and Parts of 106 C, 106 E, 106 F



Elevations in feet above mean sea level

Mean magnetic declination 1978, 34°56.6' East, decreasing 3.0' annually. Readings vary from 34°40.8' in the SE corner to 35°04.8' in the NW corner of the map-area

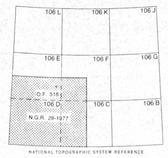
FLUORINE in water (ppb)
OPEN FILE 518
NATIONAL GEOCHEMICAL RECONNAISSANCE MAP 29-1977
URANIUM RECONNAISSANCE PROGRAM
CENTRAL YUKON 1977

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 1954, 1957, 1959, 1973



FLUORINE in water (ppb)
OPEN FILE 518
CENTRAL YUKON 1977

LEGEND

QUATERNARY

19 Unconsolidated glacial and alluvial deposits.

TERTIARY

18 Quartz porphyry

CRETACEOUS

17 Biotite granodiorite and quartz monzonite; 17a, hornblende/biotite syenite; 17b, diorite and gabbro; 17c, Keno Hill Quartzite: massive quartzite, minor slate and phyllite; 17d, phyllitic quartzite, graphitic and chlorite slate and phyllite; minor limestone; 17e, similar to 17c but may be older; 17f, Bonnet Plume Formation: sandstone, shale and coal; 17g, Bonnet Plume Formation: conglomerate and sandstone.

JURASSIC

16 Lower Schist Division: argillite, slate, phyllite and quartzite.

TRIASSIC

15 Black limy shale and limestone; 15a, quartzite and minor shale.

PERMIAN

14 Tahkandit Formation: chert, cherty limestone and limestone; 14a, limestone with some chert.

CARBONIFEROUS TO PERMIAN

13 Limestone, black shale, chert and chert-pebble conglomerate; 13a, dark shale, limestone, sandstone and minor chert-pebble conglomerate; 13b, shale, slate and minor limestone.

CARBONIFEROUS

12 Carbonates and clastics; 12a, Hart River Formation: shale, siltstone and limestone; 12b, shale; 12c, clastics and coal.

DEVONIAN AND MISSISSIPPIAN

11 Black shale, argillite, minor chert and chert-pebble conglomerate; 11a, Besa River Formation: black shale and siltstone; 11b, argillite, slate, phyllite and quartzite; 11c, black shale, argillite, slate, limestone, chert and chert-pebble conglomerate; 11d, Nation River Formation: chert-pebble conglomerate and chert-grain sandstone.

DEVONIAN

10 Grey, brown and black massive limestone; 10a, limestone and dolomite; 10b, shale; 10c, clastics; 10d, sandstone; 10e, shale; 10f, Canol Formation: black siliceous shale; 10g, Hume Formation: limestone; 10h, shale; 10i, Cranswick Formation: limestone; 10j, Arnica Formation: dolomite.

SILURIAN AND DEVONIAN

9 Dolomite and minor limestone; 9a, undivide 9 and 8; 9b, Delorme Formation: dolomite and limestone; 9c, carbonates and clastics.

ORDOVICIAN AND SILURIAN

8 Mount Kindle Formation: massive, vuggy and reefoid dolomite.

CAMBRIAN AND ORDOVICIAN

7 Dolomite and limestone; 7a, dark volcanic rocks, tuff and argillite; 7b, Road River Formation: shale and chert, 7c, carbonate debris flows; 7d, Franklin Mountain Formation: dolomite and shale.

CAMBRIAN

6 Unnamed clastics; 6a, carbonates and clastics; 6b, limestone and bioherms; 6c, Sekwi Formation: dolomite, limestone, shale and sandstone; 6d, Backbone Ranges Formation: quartzite, siltstone, shale and dolomite; 6e, quartzite, siltstone and shale; 6f, pisolitic dolomite and minor quartzite; 6g, dolomite, quartzite and shale; 6h, clastics and carbonates.

HADRYNIAN AND (?) CAMBRIAN

5 Sheepbed Formation: slate, siltstone, quartzite, conglomerate and limestone.

HADRYNIAN

4 Unnamed carbonates and clastics; 4a, Rapitan Group: mudstone, limestone, diamictite and iron formation; 4b, dolomite and quartzite; 4c, Rapitan Group undivided; 4d, dolomite; 4e, shale, siltstone, conglomerate and dolomite; 4f, dolomite, shale and sandstone; 4g, dolomite and limestone; 4h, "Grit Unit": slate, siltstone, sandstone and conglomerate; 4i, dolomite and limestone.

HADRYNIAN AND HELIKIAN

3 Orange-weathering dolomite, dark slate, phyllite and quartzite; 3a, pink-, orange - and grey-weathering dolomite, shale, quartzite, conglomerate and limestone; 3b, buff and orange dolomite, shale and quartzite; 3c, grey dolomite, shale and quartzite; 3d, dolomite-boulder conglomerate, 3e, shale, argillite, siltstone and dolomite.

HELIKIAN

2 Carbonates, shale and gypsum; 2a, dolomite, shale and gypsum; 2b, dolomite and limestone; 2c, Katherine Formation: sandstone and dolomite; 2d, Tsezotene Formation: sandstone and dolomite; 2e, clastics and carbonates.

HELIKIAN AND (?) APHEBIAN

1 Dolomite; 1a, dark shale, siltstone and argillaceous dolomite; 1b, slate, phyllite, argillite, quartzite and limestone; 1c, argillite, limestone and minor biotite calc-silicate hornfels.

GEOLOGICAL BOUNDARY.....

FAULT.....

The legend modified and geology derived for this geochemical map from G.S.C. map 1282A, G.S.C. Open File 279 and Open File 205."

Geological Survey of Canada
Resource Geophysics and Geochemistry Division

CONTRACTORS

Sample collection by Semco
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 analysis by Bondar-Clegg & Co. Ltd.

This map forms one of a series of 42 sheets released under the Geological Survey of Canada. Open Files 518, 519, 520. The Open Files consist of maps for 11 elements, each for stream sediments, 2 elements for stream waters and sample site locations.

FLUORINE in water (ppb)
OPEN FILE 518
CENTRAL YUKON 1977