LEGEND

Note: This legend is common to National Geochemical Reconnaissance Map 12-1976, Open File 416; Map 13-1976, Open File 417

PHANEROZOIC

HELIKIAN (MIDDLE PROTEROZOIC)

DUNDRET GROUP (1B-2E)

2E	Conglomerate, pebble sandstone, some intercalated sandstone. In part, may be older than 2D or 1B [GSLM]
2D	Mainly porphyritic (quartz and/or feldspar, biotite and/or pyroxene) igneous rocks; probably mainly extrusive, but in part intrusive; some breccia, tuff, agglomerate; minor sub-porphyritic specific rocks [DFPP]
1B	Sandstone and pebbly sandstone, grit, arkose; siltstone and minor breccia, probably includes some undifferentiated conglomerate [1B-and/or-2E] [DNRS]
1A	Conglomerate; intercalated gritty sandstone [CGLM]

ARCHEAN (LOWER PROTEROZOIC)

1G	Granite, granodiorite and allied rocks: in large part gneissic and impure, with many bands of partly assimilated schist, gneiss, amphibolite; stratiform granitic gneiss, veined migmatite, and minor pegmatite [GNIS]
1F	Pyroxene granulite. In part probably older than 1 and, possibly, 2 [GNET] pyroxene granulite. In part probably older than 1 and, possibly, 2
1Z	Gneiss, schist, amphibolite, and granulite derived mainly from sedimentary and volcanic rocks of Archaean and/or Lower Proterozoic (Aphebian) age; some impure quartzite and greywacke, commonly with some granitic material [GNSS]
1	Intermediate to basic volcanic rocks (greenstones) and derived amphibole schist and gneiss; in part includes much schistose greywacke (lower Twelve belt); some rhyolitic, tuff, agglomeratic, minor quartz-rich schist and metaconglomerate; numerous small bodies of serpentinized basic intrusives. May be younger in part [GVWT] [GRCK]
0	Diorite and gabbro in granitic and gneissic terrains [GDRT]
7	Basic syenites, diorites, gabbros [GBRR]

ARCHEAN

Geological contact.....
Fault.....
Mineral prospect.....

Geological cartography by the Geological Survey of Canada

Legend and geology for the geochemical map by R.G. Garrett, from map 1216A of G.S.C. Memoir 369 by O.R. Wright

Base-map at the same scale published by the Mapping and Charting Establishment, M.C.E., 1966

Mean magnetic declination 1972, 0°30' East increasing 0.3' annually. Bearings vary from 0°36.0' in the SE corner to 1°09' in the NW corner of the map area

Elevations in feet above mean sea-level

Geochemical Symbol and Data Presentation

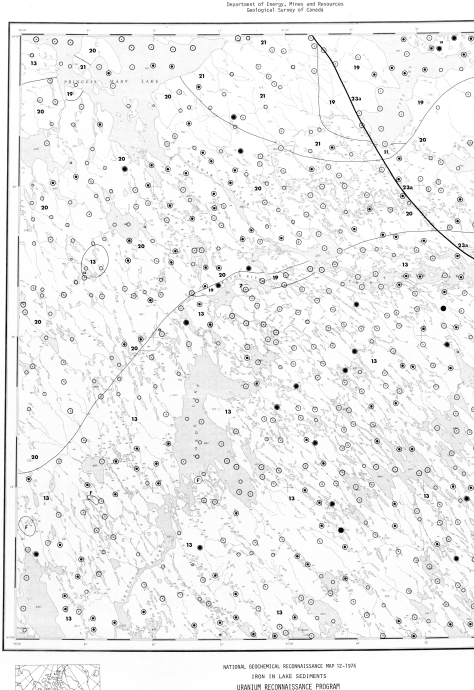
The concentration of an element at a sample site is graphically represented as one of 15 symbols, if a sample was collected but there is no data available a dot is plotted. The symbols are presented in 5 groups of increasing size, to increase visual contrast between symbols and their increase in thickness by the fifteenth. The two small groups 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. The eighth symbol is used for the modal group as defined by the histogram. Boundaries between data groups are set at the 2.5, 10, 16, 25, 50, 75, 84, 90, 97.5 (95%) 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 any thresholds that may be established by the follow-up prospecting and surficial geological 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 fulfil 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 available material. This will be the appraisal and modification of the proposed threshold values for drainage samples - the 84% point on the cumulative proposed threshold values for drainage samples - dominantly derived from each mapped bedrock unit, or broad lithological unit, again based on the total survey data, is presented below the histogram. This table can be used alone, or in conjunction, with the sample location map and data listings to indicate above threshold samples where they occur on the map. In many instances it will be found that the above threshold samples will be the surface expression of more geochemical levels as bedrock type. It may often be also observed that whilst the total data appears to approximate a log-normal distribution the data for individual map or lithologic units appears to approximate a normal distribution. The proposed thresholds presented are believed to be useful in interpreting the data from the reconnaissance survey, and should be used as follows:

- To inspect selectively 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.
- The term 'anomalous' is relative to the background. The table is an estimate of the variability of the geochemical map. On the basis of duplicate sampling 5% of all taken sampled it can be stated that there is a 95% chance that if any lake is resampled and identical methods of sample preparation and analysis are used the new value will lie between X ÷ 60 and X x 60 where X is the original value obtained. This factor takes into account variability due to both heterogeneity of the centre-lake bottom sediments and sample preparation and analytical causes.

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



NATIONAL GEOCHEMICAL RECONNAISSANCE MAP 12-1976
IRON IN LAKE SEDIMENTS
URANIUM RECONNAISSANCE PROGRAM

Scale 1:250,000

Kilometres 0 5 10 15 Kilometres
Miles 0 5 Miles

Universal Transverse Mercator Projection
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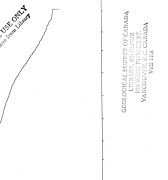

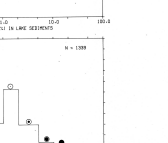

Table of Thresholds by Major Geological Units

Lithology	No. of Samples	Mean	S.D.	C.V.%	Threshold
CGLM	43	1.4	1.1	80	4.0
DFPP	1170	1.8	1.4	77	5.0
DNRS	170	1.8	1.4	79	5.0
GBRT	864	1.8	1.4	77	5.0
GNSS	54	1.9	1.3	66	5.0
VRCK	44	1.6	1.1	69	4.0
GDRT	4	1.3	0.5	42	3.0
GBRR	14	2.0	1.0	50	5.0

Data units are percent — Reliability Factor = 1.37

NATIONAL GEOCHEMICAL RECONNAISSANCE MAP 12-1976
OPEN FILE 416

Resource Geophysics and Geochemistry Division

Geological Survey of Canada, Ottawa

Geochemistry by T.H.K. Hornbrook
Analytical chemistry by J.J. Lynch
Data monitoring by R.G. Garrett, N.G. Lund and D.J. Ellwood

Contractors

Sample collection by Trigg, Woolfett & Associates Ltd.
Sample preparation by Golder Associates
Chemical analyses by Chemex Labs Ltd.

This map forms one of a series of 20 sheets released under Geological Survey of Canada Open Files 416-417. The Open Files consists of data for 11 elements each for lake sediments, percent fines on ignition, uranium in lake waters and sample site location

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

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Ottawa, Ontario K1A 0E4

NATIONAL GEOCHEMICAL RECONNAISSANCE MAP 12-1976
OPEN FILE 416
BAKER LAKE N.W.T., 1976
IRON

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