LEGEND

Note: This legend is common to the two level Geochemical Reconnaissance Map Series, Open File 415, May 26/1976, Open File 414 and Map 13-1976, Open File 416.

MELVILLE

TKV	Gabbro, meta-gabbro and diabase dykes [GABB]
M	Granite, quartz monzonite and granodiorite (Beaufort Lake granite) [GRNT]
SPARGMUIR	
SAC	Granite, quartz monzonite and granodiorite [GLMG]
M	Lithic greywacke to subgreywacke [LGSG]
M	Conglomerate [CLGM]
SF	Arkose to subgreywacke [ARKS]
M	Lutite, quartz lutite,dacite and tuff [DCIT]
TKS	Metapelite, paraschist, calc-silicate beds derived from SC [SPAS]
M	Undivided SF, SC and SS [UNDIV]
SC	Dolomite, limestone and minor argillite, phyllite [DMSC]
SS	Gabbro sills [GABSS]
M	Argillite, phyllite, greywacke, some minor dolomite [LSMS]
SC	Quartzite, orthoquartzite [QRQT]
M	Greywacke-conglomerate, greywacke, orthoquartzite [LSAG]
ARCHEAN	
TKV	Meta-gabbro dykes [MGAB]
A	Quartz monzonite, granodiorite and granites, massive to foliated [GLMG]
A	Diorite and gabbro [DORT]
A	Grey biotite granodiorite gneiss [GGNG]
A	Paragneiss, minor paraschist [PGNS]
A	Amphibolite, amphibolite gneiss [AMPH]
A	Greywacke, greywacke-conglomerate, argillite, phyllite, minor SUPC [SUPC]
A	Meta-volcanic rocks [MVC]

Drift-covered areas.....
Geological contact.....
Fault.....
Limit of geological mapping.....
Eskers (direction of flow known).....
Mineral occurrence.....

Legend modified and geology derived for the geochemical map by R.G. Garrett from maps 24-1970, 3-1972 and 4-1972 and G.S.C. Paper 74-54 BY: K.E. Eade

Geological cartography by the Geological Survey of Canada

Base-map at the same scale published by the Mapping and Charting (stab)ishment, M.C.E., 1966

Mean magnetic declination 1977, 33°06.6'W decreasing 3.6' annually. Readings vary from 30°01.2' in the SE corner to 35°06.6' in the NW corner of the map area

Elevation in feet above mean sea-level

Geochemical Symbol and Data Presentation

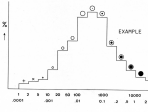
The concentration of an element at a sample site is graphically represented as one of 15 symbols. The range of concentration for each symbol is determined and a dot is plotted. The symbols are geometrically arranged so that they first increase in size to the eighth symbol and then increase in blackness to the fifteenth. The two small crosses at the toe and of the scale are used to respectively denote concentrations below the analytical detection limit, or, in the data group consisting of 30 or more samples, the lowest 5 percentile of the concentrations. The 1,2,5,10,20,30,40,50 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 made after histograms, probability plots and tables are prepared for each survey data from one, or more contiguous, open file sheets covered in one field season. The eighth symbol is used for the model group as defined by the histogram and probability plot. Includes the median of the data as defined by the G.S [50%] ports on the cumulative frequency plot. Some, or all, of the remaining 14 symbols are chosen so as to achieve an approximate spatial impact. An example of all 15 symbols is given below.

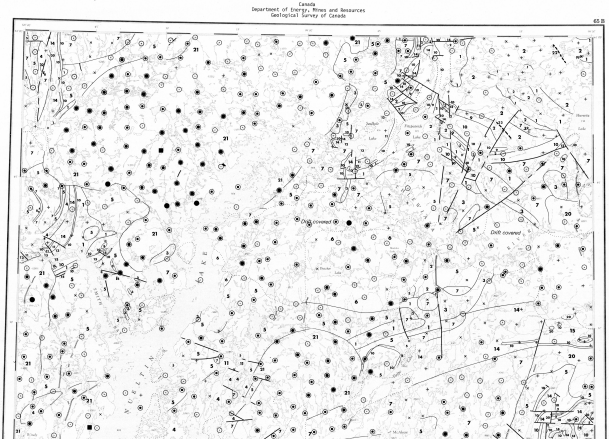
The symbol maps, being based on the total survey data distributions, are unaffected by the application of ever increasing levels of knowledge to regional and vertical geological and other environmental factors. Therefore, the raw data symbol maps are only intended to be used as a framework on which to superpose 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 available. This is the task of the user with knowledge available. To assist in the appraisal and modification of the data in terms of the symbol map bedrock geology, a table of summary statistics and proposed threshold values for populations predominantly derived from each mapped bedrock unit, or broad lithologic unit, table based on the total survey data, is presented below the histogram. This table can be used to locate, on the symbol maps, those sample location maps and data listings to indicate those threshold samples where they occur on the map. In many instances, the table will also illustrate, numerically, the lack of significant presence of mean geochemical levels on bedrock type. It may often be also observed that while the total data appears to approximate a log-normal distribution the data for each bedrock unit does not, necessarily, approximate a log-normal distribution. The proposed threshholds presented are tentative and could be useful in interpreting the data from a mineral exploration viewpoint. Areas characterized with concentrations in excess of the threshold for the rock unit they appear to be derived from, should be studied carefully. The above threshold concentration values may, or may not, indicate the presence of mineralization, but some of these could be the presence of abnormal concentrations of the element in a form of interest to the mineral exploration[ist].

To comprehensively study an area, all available geological, environmental and recorded data should be utilized. The data separation by bedrock type can often be refined by subdividing the data for a specific bedrock unit by threshold levels based on the most detailed and up-to-date knowledge available.

The term reliability factor and value that appears below the table is an estimate of the reliability of the geochemical map. On the basis of duplicate samples of all taken sampled it can be stated that there is a 95% chance that if any location is resampled the new value will be between the original value divided by and the original value multiplied by where Y is the original value obtained. This factor takes into account variability due to both heterogeneity of the centre-like bottom sediments and sample preparation and analytical causes.



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



NATIONAL GEOCHEMICAL RECONNAISSANCE MAP 10-1976
MOLYBDENUM IN LAKE SEDIMENTS
URANIUM RECONNAISSANCE PROGRAM
Scale 1:250,000
Kilometres 0 5 10 15 20 Kilometres
Miles 0 5 10 15 Miles
Universal Transverse Mercator Projection
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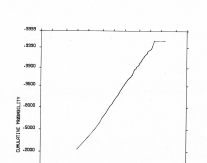

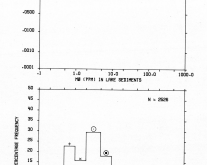

Table of Thresholds by Major Geological Units

Lithology	No. of Samples	Mean	S.D.	C.V.%	Threshold
GBBO	2	1.0			
GRNT	335	14.4	13.9	97	60
SPAS	418	5.4	7.7	142	30
UNDIV	14	2.9	1.0	33	10
CGLM	14	1.9	1.0	53	10
ARKS	70	3.4	5.9	171	10
SPRG	167	4.5	7.4	169	20
DMSC	23	2.5	2.7	83	10
LSMS	8	4.0	2.6	66	-
DORT	6	4.3	2.6	61	-
GGNG	422	6.0	10.1	250	25
PGNS	105	5.5	5.8	105	25
AMPH	84	5.1	5.1	100	20
SUPC	50	4.4	4.9	112	15
MVCC	74	6.4	4.9	76	40
Unknown	581	4.1	6.3	153	25

Data units are ppm Reliability Factor = 1.70

NATIONAL GEOCHEMICAL RECONNAISSANCE MAP 10-1976
OPEN FILE 414

Resource Geophysics and Geochemistry Division

Geological Survey of Canada, Ottawa

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

Contractors

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

This map forms one of a series of 45 sheets released under Geological Survey of Canada, Open Files 413, 414, 415. The Open Files consists of data for 11 elements each for lake sediments, percent loss on ignition, two elements for 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 0E8

NATIONAL GEOCHEMICAL RECONNAISSANCE MAP13-1976
OPEN FILE 416

SOUTHERN DISTRICT OF KEEWATIN N.W.T., 1976

MOLYBDENUM