

LEGEND

Note: This legend is common to National Geochemical Reconnaissance Map 6-1976, Open File 409; Map 6-1976, Open File 410 and Map 7-1976, Open File 411

Quaternary
Glacial, lacustrine, and fluvio-deltaic gravel, sand, silt and clay

Tertiary
Plateau basalts, olivine basalts

Volcanic flow rocks with interbedded sedimentary rocks; 6a, conglomerate, sandstone, shale and tuff

5 CORYELL: alkalic plutonic rocks; porphyritic granite and rhyolite

JURASSIC - CRETACEOUS

4 NELSON and VALHALLA: granitic plutonic rocks

JURASSIC

3 Mafic and ultramafic intrusive rocks, pyroxenite, hornblende

serpentinite

PALEOZOIC (including UPPER PROTEROZOIC and TRIASSIC)

2 Basaltic and andesitic lavas, greenstone, tuff, quartzite, limestone

and argillite; 2a, quartzite, argillite, limestone, slate, schist, phyllite, sandstone and conglomerate

PROTEROZOIC (SHUSWAP TERRANE)

1 Gneiss, minor schist, limestone, marble, dolomite, slate, phyllite;

1a, schist, quartzite, limestone, slate, argillite

Geological contact.....
Fault.....
Dyke.....
Mineral occurrence.....

Legend modified and geology compiled for the geochemical map by T.E. Kalnins from maps 1059A, by H.M.A. Rice 1945, 1946, and A.G. Jones 1947, 1951

Geological cartography by the Geological Survey of Canada

Base-map at the same scale published by the Mapping and Charting Establishment, M.C.E., 1966. Additional drainage obtained from Department of Lands, Forests and Water Resources, British Columbia Land Use maps, 1:125,000 scale

Mean magnetic declination 1977, 23°07.2' East decreasing 4.9' annually.
Readings vary from 21°49.2' in the SE corner to 23°04.2' 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, 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 right of the symbol and then decrease back to the left. 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.

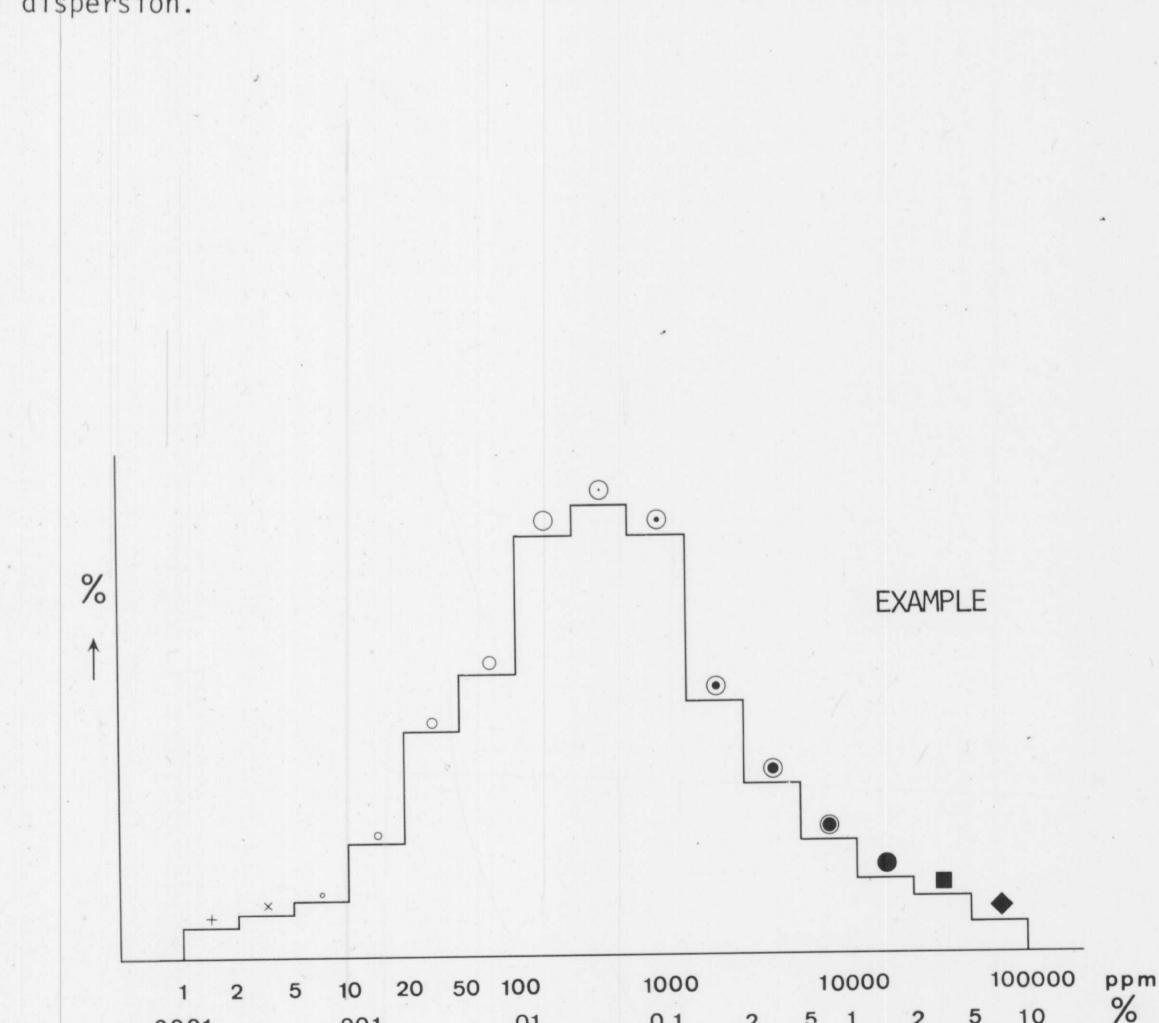
The choice of symbols and the data groups they represent for any specific element is based on the distribution of data points for that element over the total survey area. The symbols are distributed in discrete groups, the total survey area is from one, or more contiguous, open file sheets joined in one field section. 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 the 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 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 histograms. In addition, the data may be assembled and stratification of the data in terms of the symbol map bedrock unit, or broad lithologic unit, and proposed threshold values for each mapped bedrock unit, or broad lithologic unit, again based on the total survey data, is presented below the histogram. This table can be used along, 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, the table will also illustrate, more clearly than the map, the dependence of mean geochemical concentration on the type of geological unit. It should be noted that while 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 a mineral exploration viewpoint. Locations of samples with concentrations in excess of the threshold for the rock unit they appear to be derived from, should be studied carefully. The above threshold values can be used to estimate the range of geological and environmental factors. In some of these cases the presence of abnormal concentrations of the element in a form of interest to the mineral explorationist.

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.

The objective of the survey is to outline broad areas of increased mineral potential worthy of further study leading to the identification of exploration targets. Individual samples with high metal contents should not be automatically regarded as finite exploration targets. It is recommended that the data levels vary across the survey area with local geology and surficial environment.

The dispersion of elements in stream sediments is controlled by both mechanical and chemical processes. An insight into the relative importance of these processes can come from a study of local topography, bedrock and surficial geology particularly in terms of host minerals and the chemical properties of each element. The field observations on sediment composition and sample site environment recorded in the data listings can yield information on the relative importance of clastic versus chemical dispersion.



Province of British Columbia
Department of Mines and Petroleum Resources
Mineral Resources Branch
Canada
Department of Energy, Mines and Resources
Geological Survey of Canada



NATIONAL GEOCHEMICAL RECONNAISSANCE MAP 6-1976
ZINC IN STREAM SEDIMENTS

CANADA-BRITISH COLUMBIA AGREEMENT ON A URANIUM RECONNAISSANCE PROGRAM

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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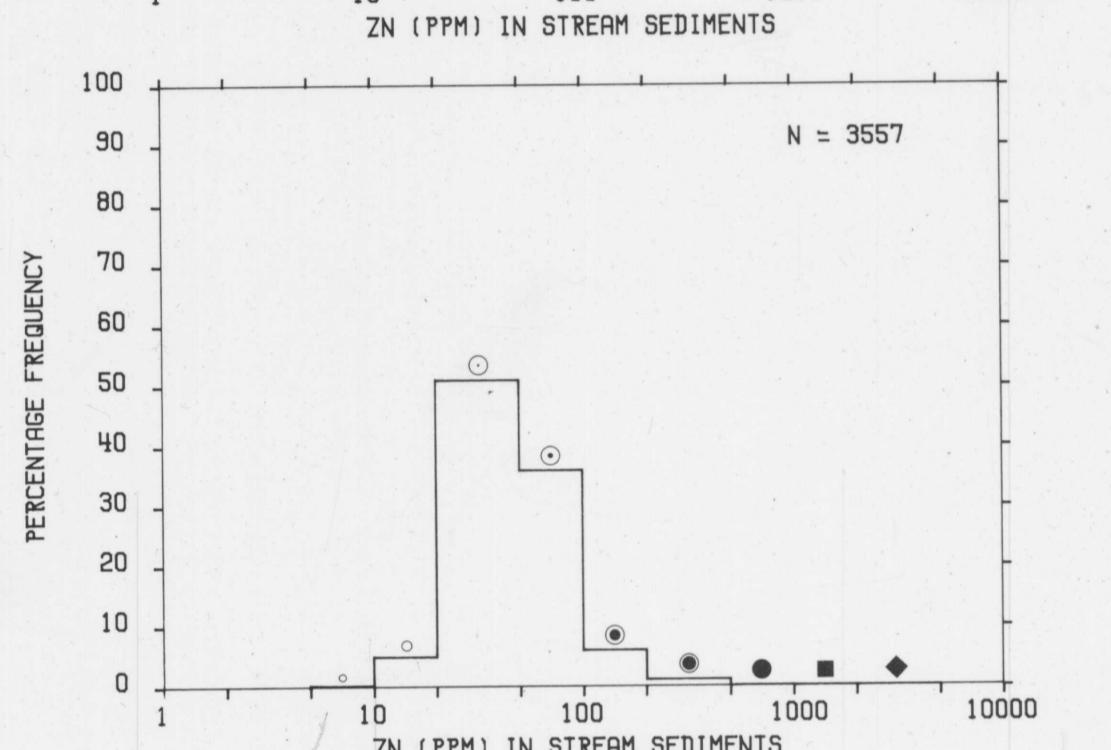
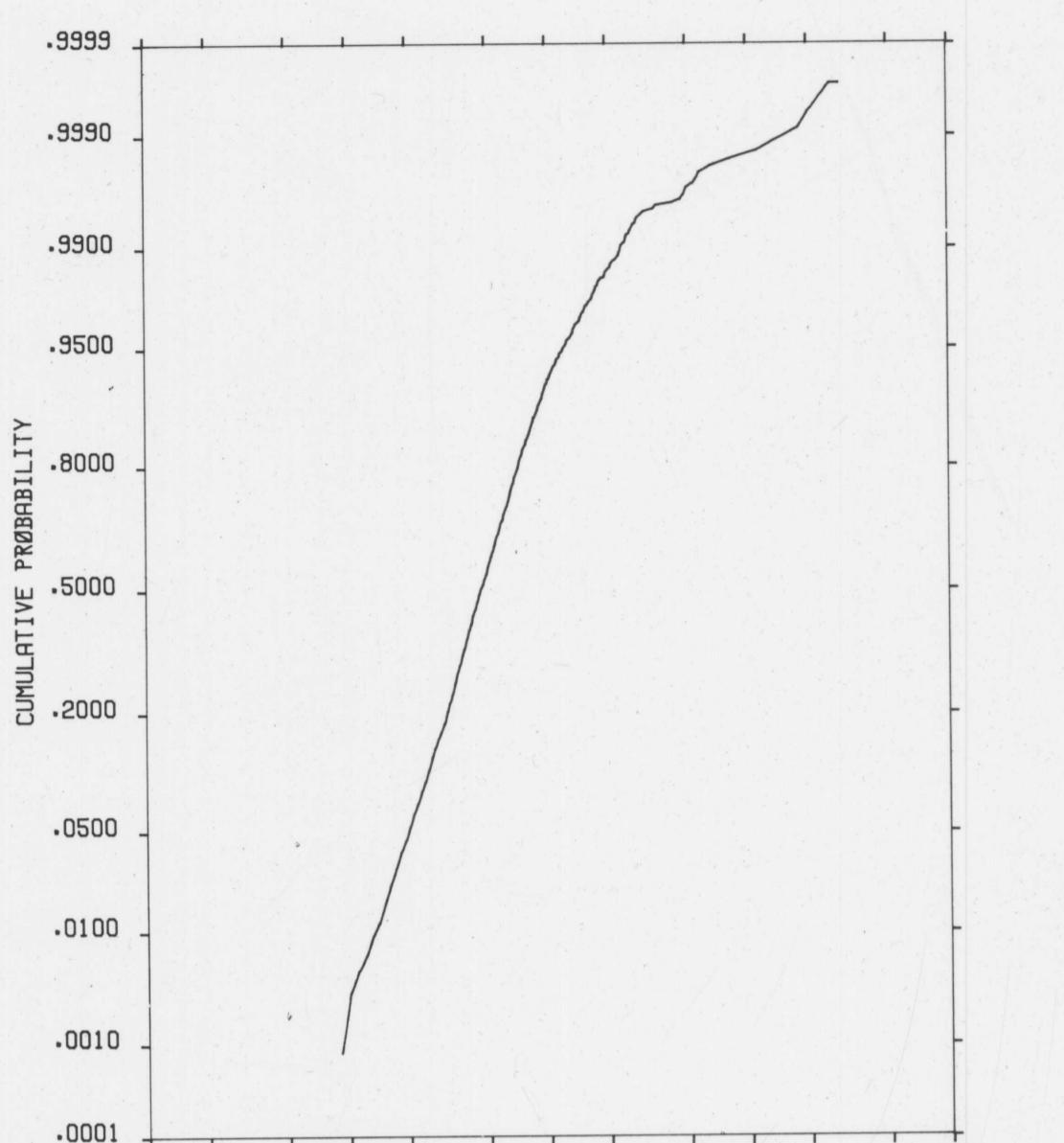
92 P 82 M
Map 7-1976
Open File 411
92 I 82 L
Map 6-1976
Open File 410
92 H 82 K
Map 6-1976
Open File 411
92 G 82 F
Map 6-1976
Open File 411

NATIONAL TOPOGRAPHIC SYSTEM REFERENCE
This map forms one of a series of 39 sheets released under Geological Survey of Canada, Open Files 409, 410, 411. The Open Files consists of data for 10 elements each for stream sediments, two elements for stream waters and sample site location. The data listing of each Open File includes pH data.

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

The Director,
Computer Science Centre,
Department of Energy, Mines and Resources
Ottawa, Ontario K1A 0E8

NATIONAL GEOCHEMICAL RECONNAISSANCE MAP 6-1976
OPEN FILE 410
SOUTH EASTERN BRITISH COLUMBIA, 1976
ZINC IN STREAM SEDIMENTS



Lithology	No. of Samples	Mean	S.D.	C.V.%	Threshold
8 TILL	405	52	31	60	150
7 OLVB	197	49	20	42	240
6a GCLM	23	48	23	49	180
6 ANDS	118	47	27	57	230
5 SYNT	146	54	45	83	120
4 GRMT	966	57	126	221	180
3 HMC	3	56	19	33	150
2 ORTC	50	97	154	100	100
2 GRNS	321	77	109	142	100
1a SCST	241	89	184	207	120
1 GNSS	1087	56	39	70	175

Data units are ppm

NATIONAL GEOCHEMICAL RECONNAISSANCE MAP 6-1976
OPEN FILE 410

Resource Geophysics and Geochemistry Division

Geological Survey of Canada, Ottawa

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Federal-Provincial coordination by E.H.W. Hornbrook
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British Columbia, Mineral Resources Branch

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Field operation assistance by T.E. Kalnins

Contractors
Sample collection staff and vehicles supplied by Stokes Exploration Management Co. Ltd.
Sample preparation by Golder Associates
Chemical analysis by Chemex Labs Ltd.

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