






G.S.C. OPEN FILE 868
YUKON AND NORTHWEST TERRITORIES, 1981
NAHANNI MAP (NTS 105I)

The concentration of each element is represented by the actual value plotted adjacent to the sample site represented by a "u" symbol. In addition to enhance visual impact, values over the 75th percentile are designated by grey solid squares which are symmetrically arranged so that they increase in size from the 75th to the 99th percentile. The actual concentration range represented by each symbol is illustrated below with a histogram.

In addition to 25 geochemical maps, each Open File contains an appendix consisting of a short discussion of the geochemistry, survey and analytical methodologies, listing of field and analytical data, and statistical data. The statistical data is provided for the total data set as well as for data subsets grouped on the basis of major stratigraphic units.

CONCENTRATION		PERCENTILES
2181. TO 3000.		99TH TO MAX.
2001. TO 2180.		98TH TO 99TH
1681. TO 2000.		95TH TO 98TH
1451. TO 1680.		90TH TO 95TH
1051. TO 1450.		75TH TO 90TH

- Stratabound Zn-Pb (Lower Silurian Age)
- ▲ Stratabound Zn-Pb-Ba (Devonian Age)
- Stratabound Barite (Devonian Age)
- ◆ Replacement Zn, Pb (age unknown)
- Vein Zn, Pb, Ag, Au, Sb (age unknown)
- ▼ Skarn W, Zn (Cretaceous)

Note: Further information on each occurrence or deposit is given in the Appendix which accompanies this open file.

Geochemistry by W.D. Goodfellow
Geological Survey of Canada
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Sample collection by Marshall Macklin Monaghan Ltd., Toronto. Uranium in sediment chemical analysis by Nova Track Ltd., Vancouver. Other sediment chemical analysis by Bondar-Clegg and Company, Ottawa

This map forms one of a series of 26 maps released by the Geological Survey of Canada on Open File 868. Each Open File consists of maps for 19 elements for stream sediments, 5 elements for stream waters, and 1 each for water pH and sample site location.

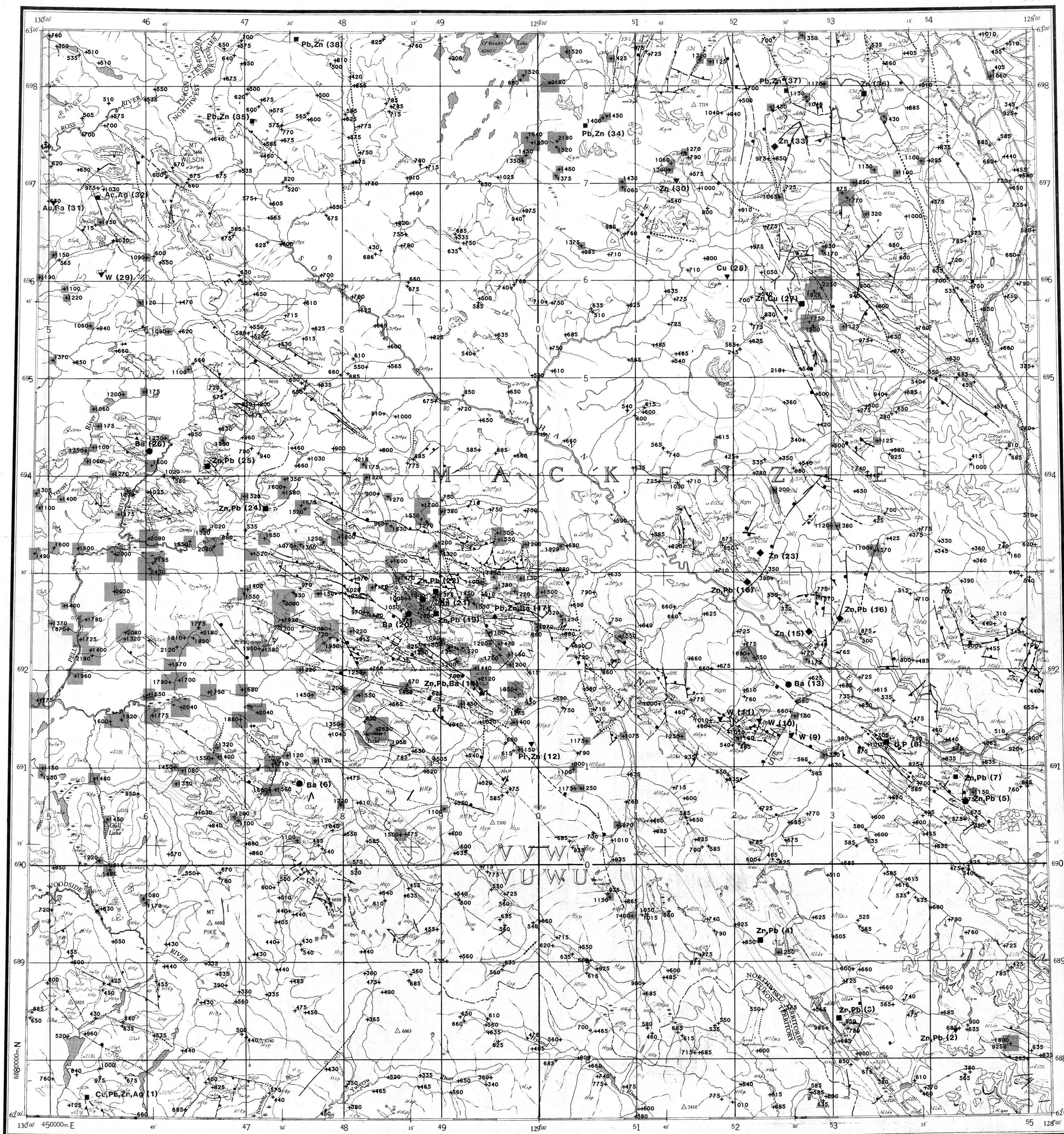
The Director
Geological Survey of Canada
601 Booth Street
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The data are also available in digital form. For further information please contact:

The Director
Computer Science Centre
Department of Energy, Mines and Resources
Ottawa, Ontario
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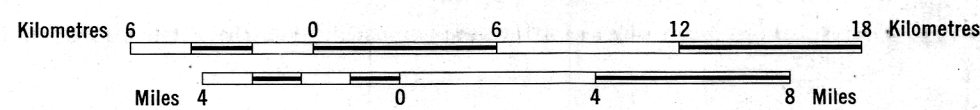
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NATIONAL GEOCHEMICAL RECONNAISSANCE MAP 51-1981

STREAM SEDIMENT AND WATER GEOCHEMICAL SURVEY

YUKON AND NORTHWEST TERRITORIES, 1981
NAHANNI MAP (NTS 105I)

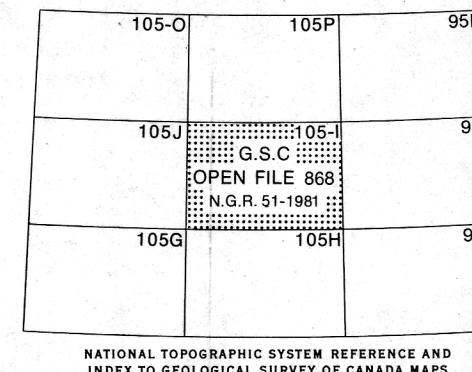
Scale 1:250,000



Universal Transverse Mercator Projection
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Elevation in feet above mean sea level

Base map drawn and printed by the
Army Survey Establishment R.C.E. 1949-54

NATIONAL TOPOGRAPHIC SYSTEM REFERENCE AND
INDEX TO GEOLOGICAL SURVEY OF CANADA MAPS

LEGEND

PERIOD	STAGE	DESCRIPTION
CRETACEOUS	Kgm	Grey weathering, resistant, medium-to coarse-grained, megacrystic (K-feldspar), blotite quartz monzonite
	M	Pelitic horrefels: red-rust to brown weathering, extremely well indurated, massive, fine grained Carbonate horrefels: white to grey weathering, extremely well indurated, fine-to coarse crystalline; large tremolite porphyroblasts abundant in hornfelsed u60l
TRIASSIC	ts	Tan weathering, thin bedded, ripple cross-laminated siltstone, fine grained sandstone, and shale
	Pt	Orange to grey weathering, thin bedded, locally lenticular, pale green to blue-grey chert; minor dark green to brown weathering, pale green, splintery shale
PERMIAN	Cp	Brown weathering, recessive, thin bedded, blue-grey shale, black laminated quartz siltstone, and pale green shale; minor fine- to medium-grained quartz arenite
	Es	Grey weathering resistant, massive, fine-to medium-grained quartz arenite
	u60ms	Grey weathering, resistant, thin- to very thick-bedded, massive, chert pebble conglomerate, and medium- to coarse-grained, light- to dark-grey, chert-quartz arenite and wacke; minor brown weathering, blue-grey to black shale, siltstone, and slate
	u60pt	Brown weathering, recessive, thin bedded, laminated, blue-grey to black shale, siltstone, and slate; minor grey weathering, thin- to medium-bedded, fine- to medium-grained, chert-quartz arenite and wacke Black to gun-blue weathering, massive, chert and shale clast granule to pebble conglomerate with mud matrix; contains minor quartz sand; clasts commonly matrix supported
CARBONIFEROUS	u60pt	Black weathering, thin- to medium-bedded, black chert; minor black weathering, black, siliceous shale Black, gun-blue or silvery white weathering, thin bedded, siliceous, black shale, chert, and slate; merges with mudt to southwest by increase in proportion of chert
	u60d12	Light grey weathering, resistant, thin- to thick-bedded, fine- to medium crystalline, dark grey limestone
	u60d1	Orange weathering, recessive, thin bedded, finely crystalline, dark blue-grey limestone
	u60d11	Orange-brown weathering, thin- to medium-bedded, finely crystalline, light- to dark-grey limestone
DEVONIAN	u60d11	Light grey weathering, resistant, thin- to thick-bedded, fine- to medium crystalline, dark grey limestone, in part crinoidal
	u60d1	Dark grey weathering, recessive, thin bedded, platy, finely crystalline, black limestone; minor grey weathering, medium bedded, finely crystalline, grey limestone
	u60d4	Dark grey weathering, thick bedded, finely crystalline black dolomite; white dolomite filling veins and vugs; sparse chert nodules
	u60d	Light grey weathering, medium bedded, fine- to medium crystalline light- to dark grey dolomite; member in middle part of unit of dark grey weathering, medium- to thick-bedded, fine- to medium crystalline, in part crinoidal, dark grey dolomite; top of unit marked by alternating light and dark grey dolomites
DEVONIAN	u60d1	Blue-grey weathering, resistant, thin- to very thick-bedded, grey crinoidal limestone characterized by abundant crinoid stem fragments with twin axial canals; massive fine- to medium crystalline, grey limestone; minor limestone breccia
	u60d1	Dark grey weathering, thin- to medium-bedded, finely crystalline, black limestone
	u60d1	Tan, buff or dark grey weathering, recessive, thin bedded, laminated, argillaceous, finely crystalline, black limestone; in the northeast, black weathering, finely crystalline, black, crinoidal limestone with crinoid stem fragments having twin axial canals occur near top of unit Blue-grey weathering, thin bedded, finely crystalline, porcellaneous, black or dark blue-grey limestone
	u60d1	Orange weathering, resistant, thick bedded, dolomitic, silty, grey mudstone characterized by discontinuous wisp black lamination and locally by abundant small pyritic cubes Black, gun-blue or silvery white weathering, recessive, black slate; minor thin interbeds of finely crystalline, black limestone and black chert; merges with u60t to southwest by increase in proportion of chert, and with upper part of u60l to east by increase in proportion of limestone
DEVONIAN, SILURIAN, AND ORDOVICIAN	u60d1	Black weathering, thin- to medium-bedded, dark grey to black chert; rare black siliceous shale; minor tan to brown weathering, recessive dark grey shale at base
	u60d1	White to grey weathering, thick- to very thick-bedded, massive, medium crystalline, grey dolomite, locally containing abundant nodules of black or grey chert
	u60d1	Grey to white weathering, medium- to thick-bedded, massive, fine- to medium crystalline, grey dolomite; in upper part minor thick beds of medium crystalline, black dolomite
	u60d1	Brick red weathering, thin- to thick-bedded, medium mudstone; orange to grey weathering, thick bedded, fine- to medium crystalline, light coloured dolomite; medium bedded, medium- to coarse-grained, dolomitic, grey quartz arenite; thick bedded, finely crystalline, blue-grey limestone
SILURIAN, ORDOVICIAN AND CAMBRIAN	u60d1	White to orange weathering, massive, fine- to medium crystalline, grey dolomite
	u60d1	Rust-brown weathering, resistant, pyritic, amygdaloidal basalt; grey and rust-grey weathering, fissile, green tuff; minor dolomite
	u60d1	Buff to grey weathering, recessive, thin bedded, finely crystalline, dark grey to black limestone
	u60d1	Blue-grey weathering, thin bedded, finely crystalline, porcellaneous, black limestone, minor grey weathering, thin bedded, finely crystalline, grey dolomite
SILURIAN, ORDOVICIAN AND CAMBRIAN	u60d1	Grey to white weathering, thick bedded, massive, fine- to medium crystalline, grey to black dolomite; local dolomite breccia with large blocks of finely crystalline, grey dolomite in matrix of coarsely crystalline, white dolomite
	u60d1	White to buff weathering, laminated or thin bedded, finely crystalline, blue-grey limestone; includes in upper part northward thin Howells Pass, thin bedded, finely crystalline, nodular, silty limestone; local thin bedded to massive, pale green, lapilli tuff
	u60d1	Tan to orange brown weathering, thin bedded, finely crystalline, blue-grey limestone, locally nodular; at base is minor thin bedded, fine grained, grey quartz arenite
	u60d1	Light grey weathering, resistant, thick bedded, massive, fine- to medium crystalline, grey dolomite
CAMBRIAN	u60d1	Tan to brown weathering, recessive, thin bedded, finely crystalline, grey limestone
	u60d1	Orange weathering, thin- to thick-bedded, finely crystalline, locally sandy, cream, orange, or grey dolomite; minor medium- to thick-bedded, medium grained, white quartz arenite; minor purple weathering, thin bedded, purple siltstone
	u60d1	upper - bright orange weathering, thin- to thick-bedded, finely crystalline light coloured dolomite middle - purple weathering, recessive, thin- to thick-bedded, brown to purple siltstone and dolomitic siltstone, minor thin bedded, orange weathering dolomite lower - light orange to brown weathering, resistant, medium- to thick-bedded, medium grained, grey quartz arenite and interbedded brown siltstone; thin to thick interbeds of orange weathering dolomite towards top
	u60d1	Grey to buff weathering, thin bedded, locally wavy bedded and nodular, finely crystalline blue-grey to black limestone; minor limestone conglomerate with rounded to subangular clasts of blue-grey weathering grey limestone and oolitic limestone in orange weathering, locally sandy, limestone matrix; upper 1/3 of field is white weathering, massive, finely crystalline, grey dolomite
CAMBRIAN AND MARYLAND	u60d1	Tan weathering, resistant, medium bedded, variably calcareous and dolomitic, blue-grey siltstone and mudstone; parallel lamination in grey to black disrupted to discontinuous wisp lamination
	u60d1	Brown to orange brown weathering, recessive, thin bedded, blue-grey slate and siltstone; minor fine grained subarkose to quartz arenite
	u60d1	Lenticular bodies of white weathering limestone conglomerate and minor blue-grey finely crystalline limestone; conglomerate clasts include fine grained blue-grey limestone, oolitic limestone, and archeocyath; matrix is orange to grey weathering, fine grained, locally sandy limestone
	u60d1	Dark brown to rust weathering, thin- to thick-bedded, greenish grey siltstone; very fine grained quartz arenite and/or subarkose slate; southwest of South Nahant River - dark brown weathering; pale green to blue-grey slate and siltstone, and minor greenish grey, very fine grained, quartz sandstone
CAMBRIAN AND MARYLAND	u60d1	Buff weathering massive dolomite
	u60d1	Maroon, purple or green weathering, recessive slate, thin bedded or laminated in like colours; minor thin intervals of thin- to medium-bedded, fine grained, pale green, quartz arenite to subarkose and interbedded pale green to tan slate
CAMBRIAN AND MARYLAND	u60d1	Orange, grey or tan weathering, thin- to medium-bedded, fine grained, pale green, quartz arenite to subarkose and interbedded pale green to tan slate
	u60d1	Grey to brown weathering, thin- to thick-bedded, coarse grained, calcareous, grey quartz arenite and subarkose quartz pebble conglomerate; brown to pale green slate; minor thin bedded grey or white finely crystalline limestone; sandstone contains conspicuous blue quartz, minor plagioclase and orthoclase

Geology by S.P. Gordey 1977, 1978, 1979, 1980 (with contributions from previous work by S.L. Blusson, J.A. Roddick, and L.H. Green (1967))

Limit of outcrop.....
Geological boundary (defined approximately as outcrop)

Geological boundary (defined, approximate, assumed or extrapolated beneath overburden).....

Fault steeply dipping (defined) approximate assumed or extra-

fault, steeply dipping (defined, approximate, assumed or extrapolated beneath overburden; barb on downthrown side).....

No analytical result

Geology by S.P. GORDEY (1981), Geological Survey of
Canada, Open File 780

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