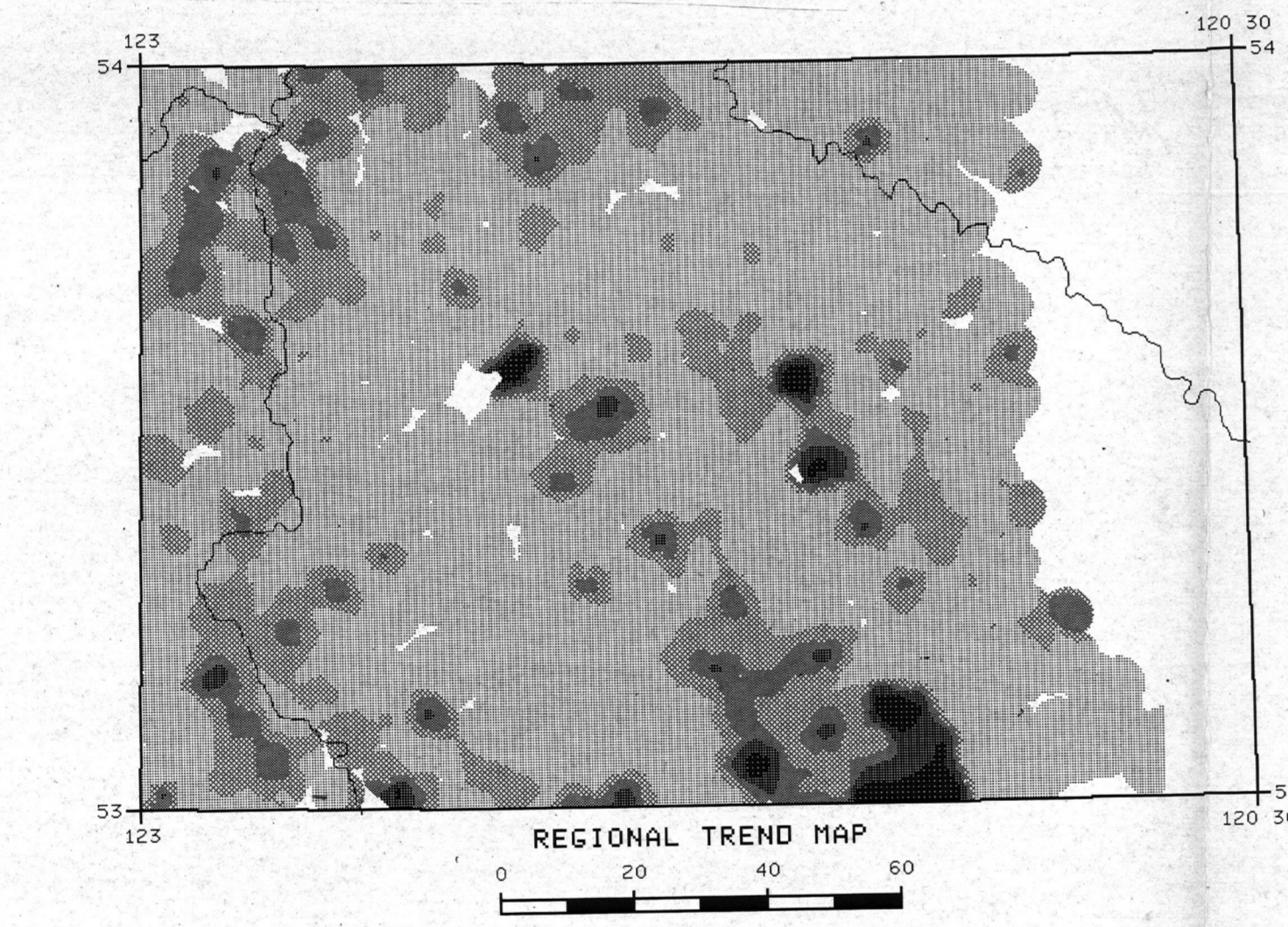
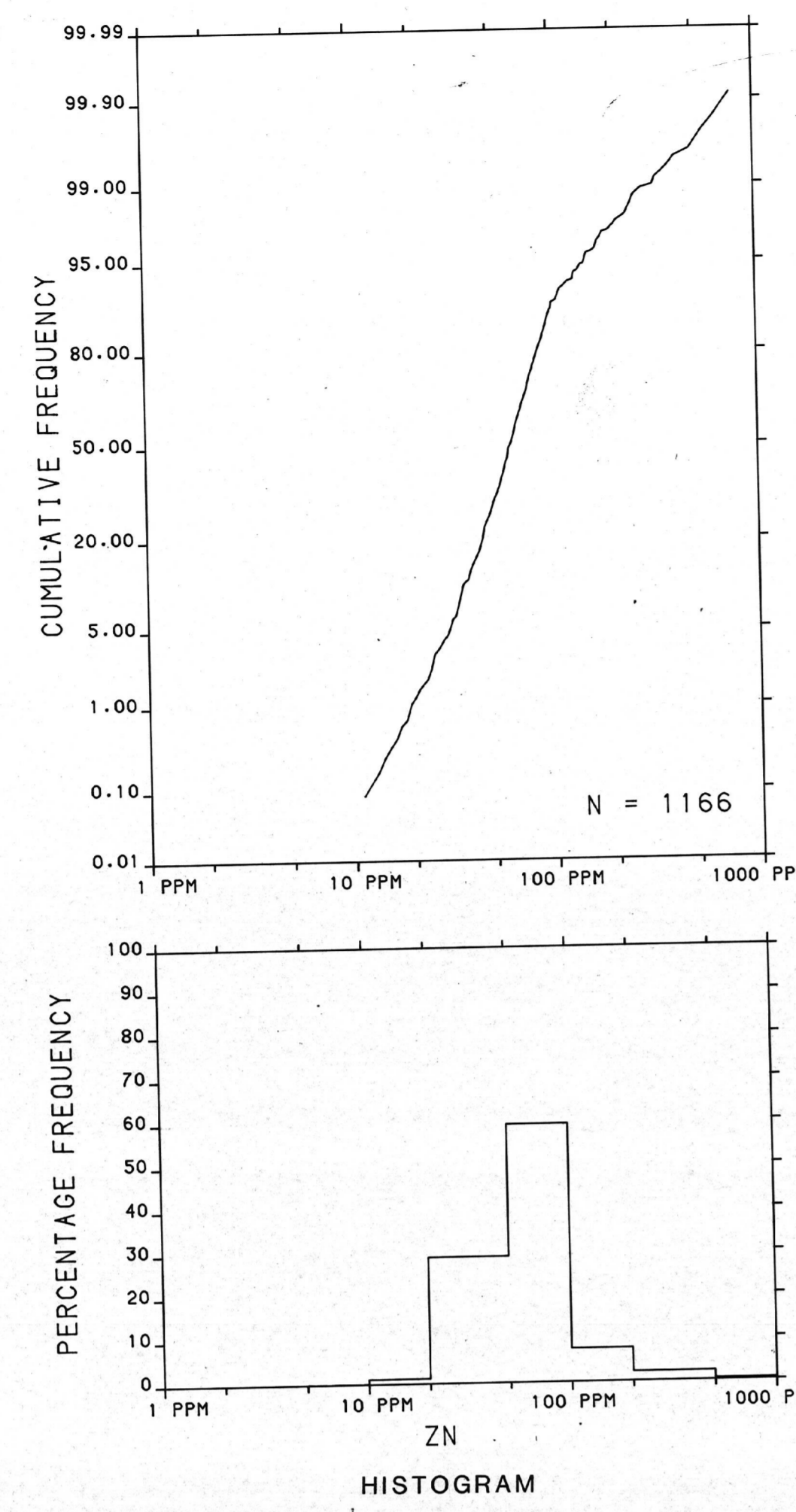


SURFICIAL GEOLOGY

Kilometres 0 20 40 60
Scale 1:1 000 000

- BRITISH COLUMBIA SURFICIAL DEPOSITS**
- PROGLACIAL DEPOSITS**
LACUSTRINE DEPOSITS: Varved silt, clay, and sand, locally drumlinized and fluted through minor ice re-advance, fringed by beach deposits. Deposits up to 120 m thick along Nechako, >200 m thick along Blackwater.
 - Meltwater or outwash channel deposits bounded by cutbanks or terraces
 - UNDIVIDED GLACIO-LACUSTRINE AND GLACIOFLUVIAL DEPOSITS: Sand, silt and clay with local accumulations up to 70 m thick along valley bottoms
 - GLACIAL DEPOSITS**
Undivided glacial till and ground moraine. Areas of low relief include abundant drumlins, rock drumlins, flutings, and esker complexes. Bedrock exposures predominate above 1700 m elevation.
- Outwash channel cutbank or terrace
Small meltwater or abandoned stream channel indicating direction of flow
Fluting or glacial striation
Drumlin, direction of flow known
Eskers and esker complexes
Kettled and pitted terrain

- Note: Glacial deposits and features within NTS 93H are unmaped
- Sources of information:
- Geological Survey of Canada
1938: Geology of Willow River Sheet
Map 335 A, West Half
Map 336 A, East Half
 - Tipper, H.W.
1971: Glacial Geomorphology and Pleistocene History of Central British Columbia
Geological Survey of Canada, Bulletin 156, 89p., (esp. Map 1288A, scale 1:250 000)
 - Tipper, H.W., Campbell, R.B., Taylor, G.C. and Stott, D.F.
1979: Parsnip River, British Columbia
Geological Survey of Canada, Map 1424A, scale 1:1 000 000



Provincial Open File
BC RGS-12-1984 (93E E/2, 93H W/2)

LEGEND
(This legend to be used west of 122°00' only)

Note: This legend is common for Regional Geochemical 72-1984 Open File 1107

GEOSZONIC
QUATERNARY
PLEISTOCENE AND RECENT
(TILL, SILT, GRAVEL, SAND, SILT, ALLUVIUM)

TERTIARY
MIOCENE AND PLEISTOCENE
BEST 42 OLIVINE BASALT FLOWS, BRECCIA, AND TUFF
15 UNDS 43 SANDSTONE, SHALE, CONGLOMERATE, DIATOMITE, LIMONITE
14 OLIGOCENE AND MIOCENE
UNDS 40 SANDSTONE, ANDESITE, BASALT, DATITE

PALEOGENE, EOCENE, OLILOCENE
13 UNDS 38 SANDSTONE, CONGLOMERATE, SANDSTONE, SHALE, TUFF, BRECCIA

MESOZOIC - CENOZOIC
UPPER CRETACEOUS AND LOWER TERTIARY
12 UNDS 37 SANDSTONE, SHALE, CONGLOMERATE
11 UNDS 36 ANDESITE, TUFF, BRECCIA, ARGILLITE, ARKOSE, CONGLOMERATE

CRETACEOUS
10 UNDS 35 SANDSTONE, CONGLOMERATE, GREYWACKE, SHALE, COAL, VOLCANIC BRECCIA

JURASSIC
MIDDLE JURASSIC
9 UNDS 34 SANDSTONE, SHALE, CONGLOMERATE, GREYWACKE, MUDSTONE, CONGLOMERATE
8 UNDS 33 SANDSTONE, SHALE, CONGLOMERATE

LOWER AND MIDDLE JURASSIC
7 UNDS 32 SANDSTONE, SHALE, CONGLOMERATE, GREYWACKE, SHALE, LIMESTONE

TRIASIC
UPPER TRIASSIC
6 UNDS 31 SANDSTONE, SHALE, LIMESTONE, QUARTZITE
5 UNDS 30 SANDSTONE, SHALE, LIMESTONE, QUARTZITE

PALEOZOIC
PENNYNANIAN AND PERMIAN
4 UNDS 29 SANDSTONE, SHALE, LIMESTONE, QUARTZITE
3 UNDS 28 SANDSTONE, SHALE, LIMESTONE, QUARTZITE

MISSISSIPPIAN AND YOUNGER
2 UNDS 27 SANDSTONE, SHALE, LIMESTONE, QUARTZITE
1 UNDS 26 SANDSTONE, SHALE, LIMESTONE, QUARTZITE

CAMBRIAN
1 UNDS 25 SANDSTONE, SHALE, LIMESTONE, QUARTZITE

PROTEROZOIC
HADRNYAN
UNDS 01 SANDSTONE, CONGLOMERATE, GRIT, PHYLLITE, SCHIST, AMPHIBOLITE, MARBLE, GNEISS

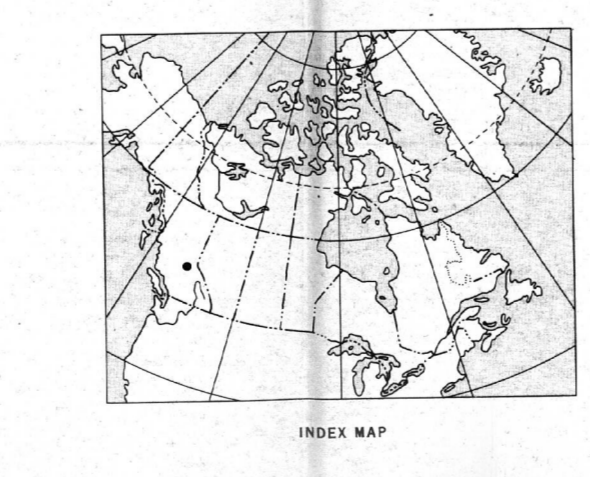
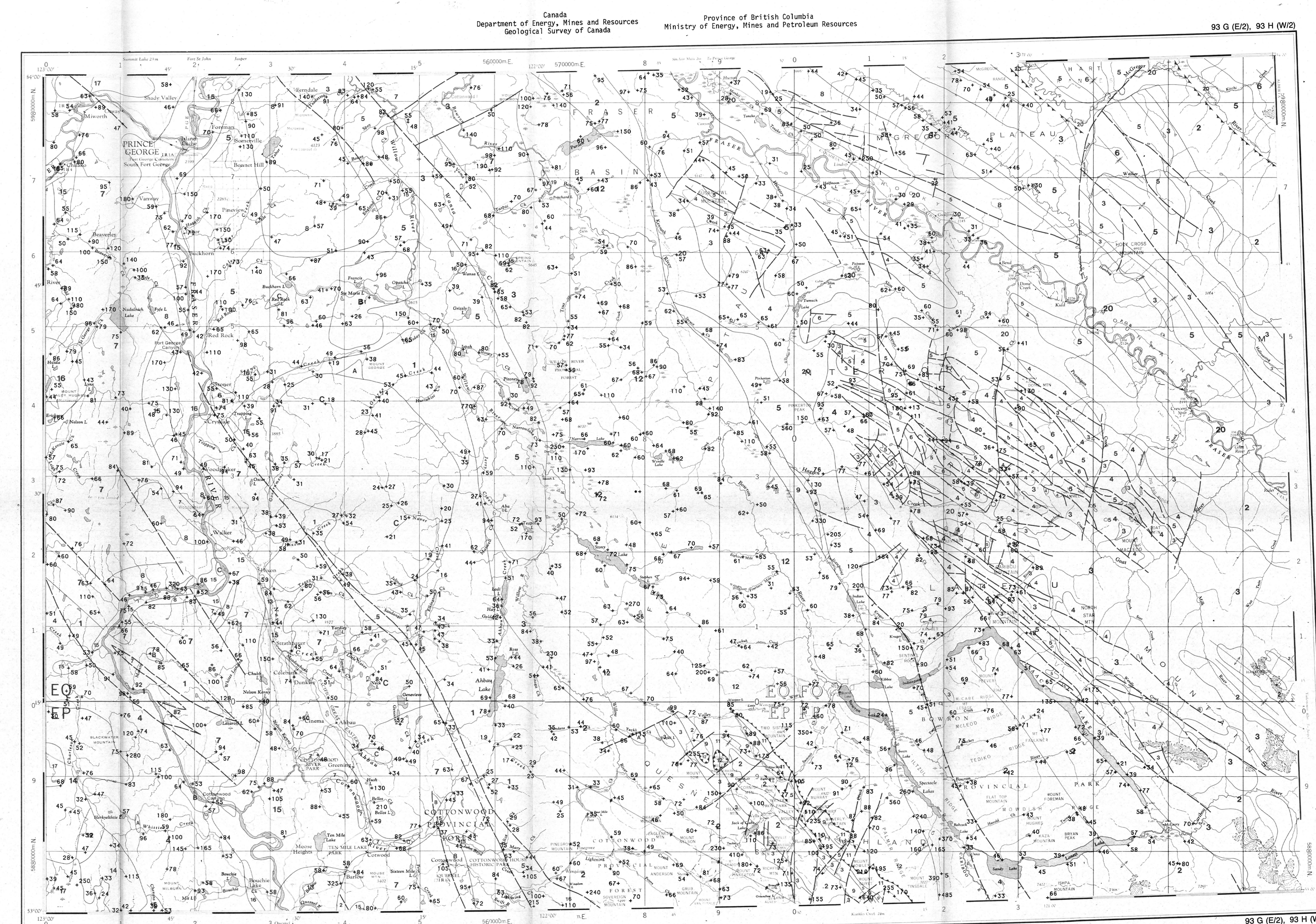
PLUTONIC ROCKS
1 UNDS 02 GRANODIORITE, QUARTZ DIORITE, QUARTZ MONZONITE
LOWER CRETACEOUS
UNDS 03 GRANODIORITE, DIORITE

UPPER TRIASSIC
UNDS 04 SANDSTONE, SHALE, LIMESTONE, QUARTZITE
UNDS 05 SANDSTONE, SHALE, LIMESTONE, QUARTZITE

PERMIAN AND/OR TRIASSIC
UNDS 06 SANDSTONE, SHALE, LIMESTONE, QUARTZITE
UNDS 07 SANDSTONE, SHALE, LIMESTONE, QUARTZITE

SYMBOLS
GEOLOGICAL BOUNDARY: MAPPED, ASSUMED
FAULT: MAPPED, ASSUMED
THRUST FAULT (TEETH ON HANGINGWALL): MAPPED, ASSUMED
ANTICLINAL AXIS
SYNCLINAL AXIS
STREAM SAMPLE SITE

GEOLOGY AND MINERAL DEPOSITS
Generated geology after Geological Survey of Canada Map 48, 1965, Prince George, British Columbia, 1:500 000 scale. Mineral Deposits, refer to Mineral Inventory Map 581, 1982, Prince George, British Columbia, 1:500 000 scale. Mineral Deposits, refer to Mineral Inventory Map 581, 1982, Prince George, British Columbia, 1:500 000 scale. Mineral Deposits, refer to Mineral Inventory Map 581, 1982, Prince George, British Columbia, 1:500 000 scale. Mineral Deposits, refer to Mineral Inventory Map 581, 1982, Prince George, British Columbia, 1:500 000 scale.

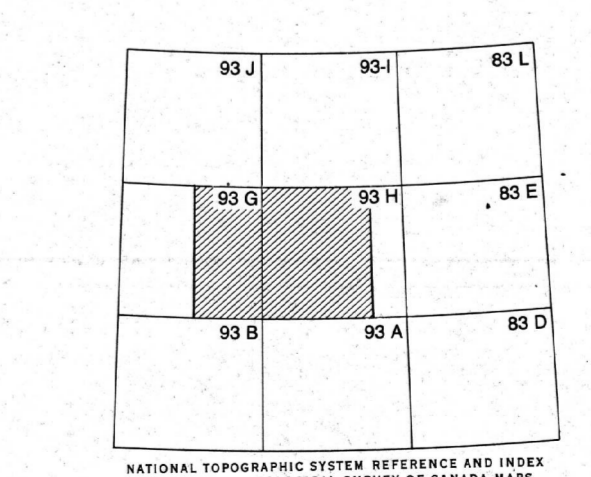


Elevation in feet above mean sea level

Mean magnetic declination 1985, 27°34' West, decreasing 9.9' annually. Readings vary from 20°41' in the SW corner to 26°27' in the NE corner of the map area

ZINC (ppm)
GSC OPEN FILE 1107
REGIONAL GEOCHEMICAL RECONNAISSANCE MAP 72-1984
JOINT CANADA/BRITISH COLUMBIA PROGRAM
STREAM SEDIMENT AND WATER GEOCHEMICAL SURVEY
EAST-CENTRAL BRITISH COLUMBIA
Scale 1:250 000
Kilometres 0 20 40 60
Universal Transverse Mercator Projection
© Crown Copyright reserved

Base map assembled by the Geological Cartography Unit from maps published at the same scale by the Surveys and Mapping Branch in 1969, 1970



ZINC (ppm)
GSC OPEN FILE 1107
EAST-CENTRAL BRITISH COLUMBIA

LEGEND
(This legend to be used east of 122°00' only)

Note: This legend is common for Regional Geochemical 72-1984 Open File 1107

QUATERNARY
PLEISTOCENE AND RECENT
20 (TILL, SILT, GRAVEL, SAND, SILT, ALLUVIUM)

CRETACEOUS OR TERTIARY
UPPER CRETACEOUS OR PALEOGENE
15 UNDS 41 SANDSTONE, SHALE, CONGLOMERATE, BRECCIA, SANDSTONE, SHALE, COAL
UPPER JURASSIC AND LOWER CRETACEOUS
18 UNDS 38 SANDSTONE, CONGLOMERATE, SANDSTONE, SILTY SHALE, SILTSTONE

JURASSIC
LOWER TO UPPER JURASSIC
77 UNDS 34 SANDSTONE, SHALE, SILTY SHALE, SILTSTONE

TRIASIC
UPPER TRIASSIC
16 UNDS 31 SANDSTONE, ARGILLITE, MUDSTONE, QUARTZITE
MIDDLE AND UPPER TRIASSIC
15 UNDS 30 SANDSTONE, ARGILLITE, MUDSTONE, QUARTZITE

LOWER AND MIDDLE TRIASSIC
14 UNDS 29 SANDSTONE, ARGILLITE, MUDSTONE, QUARTZITE

MISSISSIPPIAN AND PERMIAN
13 UNDS 28 SANDSTONE, ARGILLITE, MUDSTONE, QUARTZITE

MISSISSIPPIAN
LOWER MISSISSIPPIAN AND/OR YOUNGER
12 UNDS 27 SANDSTONE, ARGILLITE, MUDSTONE, QUARTZITE

LOWER MISSISSIPPIAN AND/OR OLDER
11 UNDS 26 SANDSTONE, ARGILLITE, MUDSTONE, QUARTZITE

DEVONIAN
UPPER AND MIDDLE DEVONIAN
10 UNDS 25 SANDSTONE, ARGILLITE, MUDSTONE, QUARTZITE

LOWER DEVONIAN AND YOUNGER
9 UNDS 24 SANDSTONE, ARGILLITE, MUDSTONE, QUARTZITE

SILURIAN
LOWER SILURIAN
8 UNDS 23 SANDSTONE, ARGILLITE, MUDSTONE, QUARTZITE

OROVIAN
LOWER AND MIDDLE OROVIAN
7 UNDS 22 SANDSTONE, ARGILLITE, MUDSTONE, QUARTZITE

CAMBRIAN
1 UNDS 21 SANDSTONE, ARGILLITE, MUDSTONE, QUARTZITE

PROTEROZOIC
HADRNYAN
UNDS 01 SANDSTONE, CONGLOMERATE, GRIT, PHYLLITE, SCHIST, AMPHIBOLITE, MARBLE, GNEISS

PLUTONIC ROCKS
1 UNDS 02 GRANODIORITE, QUARTZ DIORITE, QUARTZ MONZONITE
LOWER CRETACEOUS
UNDS 03 GRANODIORITE, DIORITE

UPPER TRIASSIC
UNDS 04 SANDSTONE, SHALE, LIMESTONE, QUARTZITE
UNDS 05 SANDSTONE, SHALE, LIMESTONE, QUARTZITE

PERMIAN AND/OR TRIASSIC
UNDS 06 SANDSTONE, SHALE, LIMESTONE, QUARTZITE
UNDS 07 SANDSTONE, SHALE, LIMESTONE, QUARTZITE

SYMBOLS
GEOLOGICAL BOUNDARY: MAPPED, ASSUMED
FAULT (DOT ON DOWNTHROW SIDE): MAPPED, ASSUMED
THRUST FAULT (TEETH ON HANGINGWALL): MAPPED, ASSUMED
ANTICLINAL AXIS
SYNCLINAL AXIS
STREAM SAMPLE SITE

GEOLOGY AND MINERAL DEPOSITS
Generated geology after Geological Survey of Canada, Map 136A to accompany Paper 72-36, Geology of Middle River Area, British Columbia, 1:500 000 scale. Mineral Deposits, refer to Mineral Inventory Map 581, 1982, Prince George, British Columbia, 1:500 000 scale. Mineral Deposits, refer to Mineral Inventory Map 581, 1982, Prince George, British Columbia, 1:500 000 scale. Mineral Deposits, refer to Mineral Inventory Map 581, 1982, Prince George, British Columbia, 1:500 000 scale. Mineral Deposits, refer to Mineral Inventory Map 581, 1982, Prince George, British Columbia, 1:500 000 scale.

This map forms one of a series of maps released by the Geological Survey of Canada, Open File 1107. The Open File consists of maps of various geochemical variables: 16 for stream sediments, 3 for stream water and 1 sample site location

This map has been reproduced from a photoreduced version of the original map. Reproduction per numeration d'une carte au grand format.

ZINC (ppm)
GSC OPEN FILE 1107
EAST-CENTRAL BRITISH COLUMBIA