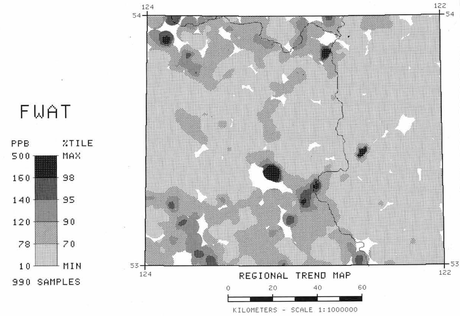
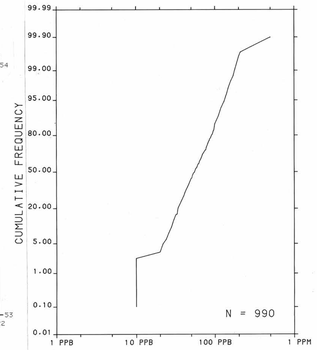
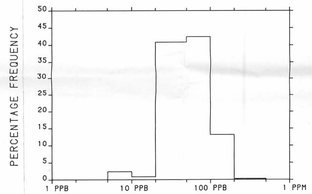
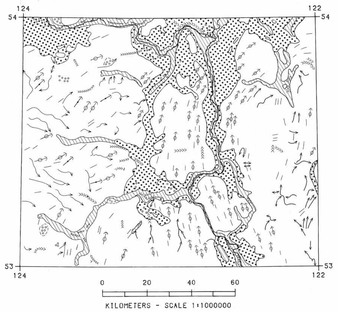
Province of British Columbia
Ministry of Energy, Mines and Petroleum Resources
Provincial Open File
BC RGS-13-1985



The regional geochemical trend map displayed above utilized a moving weighted average using an inverse distance function ($1/d^3$) to filter out minor irregularities and emphasize broad-scale regional features. Single point anomalies may be suppressed or eliminated, however, geological units which are chemically enriched, or large metallic deposits undergoing weathering would be expected to produce identifiable anomalies







CONTRACTORS

Sample collection by McElhanney Surveying and Engineering Ltd., Vancouver

Sample preparation by Golder Associates, Ottawa (1984) and Kamloops Research and Assay Laboratory Ltd., Kamloops B.C. (1985)

Sediment chemical analyses by Barringer Magenta Ltd., Rexdale, Ontario (1984) and Bondar-Clegg and Company Ltd., North Vancouver, B.C. (1985)

Water chemical analyses by Barringer Magenta Laboratories (Alberta) Ltd., Calgary (1984) and Chemex Labs Ltd., North Vancouver, B.C. (1985)

Copies of map material and listings of field observations and analytical data, from which the material was prepared, may be available at users expense by application to:

K.G. Campbell Corporation
880 Wellington St.
Bay 238
Ottawa, Ontario
K1R 6K7

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 0E4

Contribution to Canada-British Columbia Mineral Development Agreement 1985-89, a subsidiary argeement under the Economic and Regional Development Agreement. East half of the project jointly funded under a letter of understanding by the Geological Survey of Canada and British Columbia. West half of the project funded by British Columbia

Province of British Columbia — Ministry of Energy, Mines and Petroleum Resources

Energy, Mines and Resources Canada — Énergie, Mines et Ressources Canada

Canada

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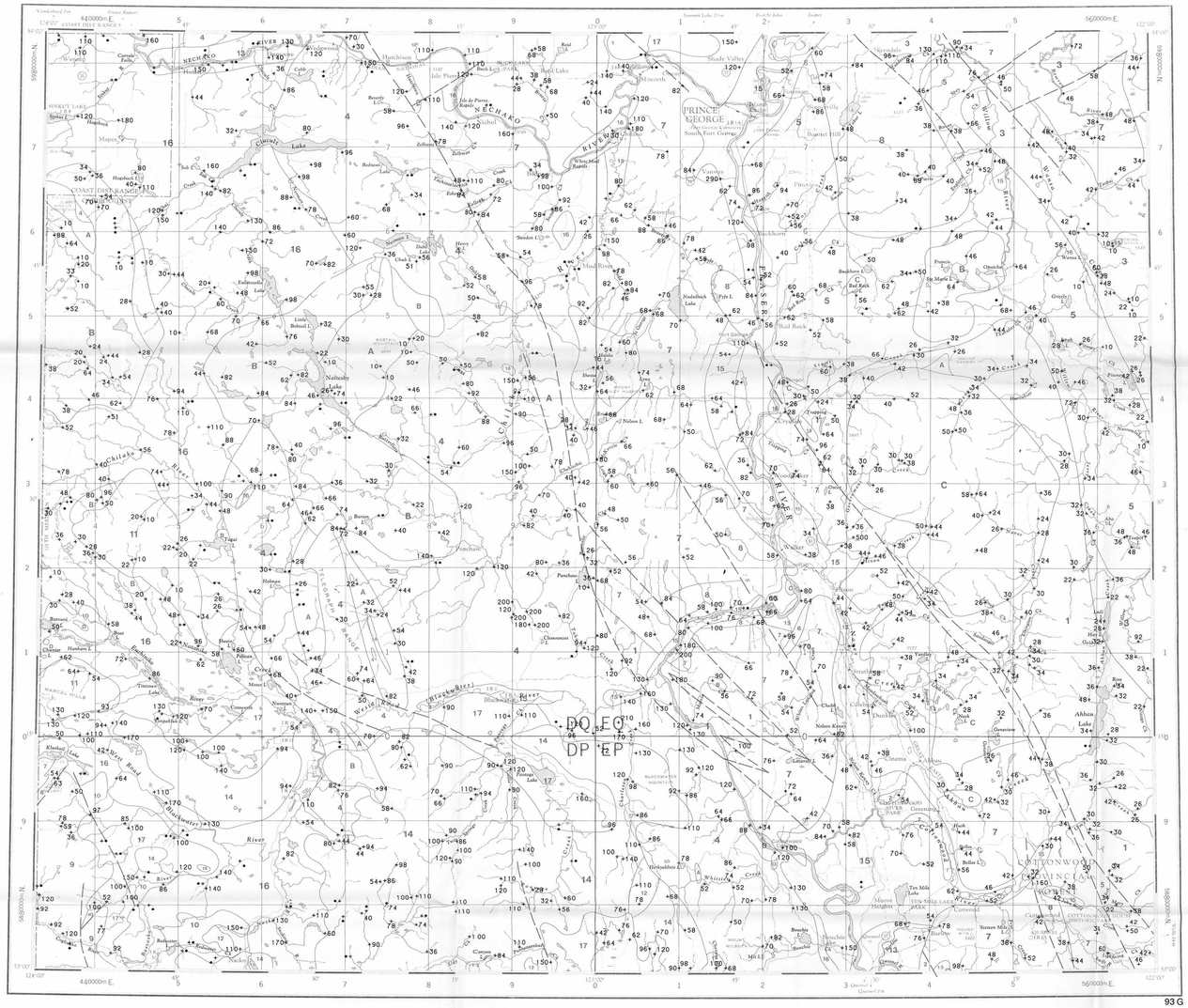
GEOLOGICAL SURVEY OF CANADA — COMMISSION GÉOLOGIQUE DU CANADA
DEPARTMENT OF ENERGY, MINES AND RESOURCES
MINISTÈRE DE L'ÉNERGIE, DES MINES ET DES RESSOURCES



PROGLACIAL DEPOSITS

LACUSTRINE DEPOSITS: Varved silt, clay, and sand, locally drumlinized and fluted through minor ice re-advance, fringed by beach deposits

GLACIOFLUVIAL DEPOSITS: Meltwater or outwash channel deposits bounded by cutbanks or terraces; sand, silt, clay, gravel 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, fluting, and esker complexes. Bedrock exposures predominate above 1,700 m elevation

SYMBOLS

Outwash channel, cutbank or terrace

Small meltwater or abandoned stream channel indicating direction of flow

Fluting or glacial striation

Drumlin, direction of flow known

Rock drumlin, direction known from crag and tail

Eskers and esker complexes

Kettled and pitted terrain

Sources of information:
Prest, V.K., Grant, D.R. and Rampton, V.N. (1967) Glacial Map of Canada, Geological Survey of Canada, Map 1253A (Scale 1:5 000 000)
Tipper, H.W. (1971) Surficial Geology - PRINCE GEORGE, British Columbia, NTS Map Area 93G, Geological Survey of Canada Map 1285A (Scale 1:250 000)

INDEX MAP

Elevation in feet above mean sea level

Mean magnetic declination 1986, 23°41' East, decreasing 15.1' annually. Readings vary from 23.09°E in the SE corner to 24°13'E in the NW corner of the map area

FLUORINE in water (ppb)

GSC OPEN FILE 1214
REGIONAL GEOCHEMICAL RECONNAISSANCE MAP 79-1985
CANADA - BRITISH COLUMBIA
MINERAL DEVELOPMENT AGREEMENT (1985-89)
STREAM SEDIMENT AND WATER GEOCHEMICAL SURVEY
EAST-CENTRAL BRITISH COLUMBIA, 1985

Scale 1:250 000

Kilometres 5 0 5 10 15 20 Kilometres

Universal Transverse Mercator Projection

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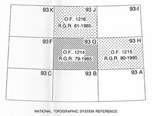
Base-map at the same scale published by the Surveys and Mapping Branch in 1967
Streams were revised by the Geological Survey of Canada for this edition



NATIONAL TOPOGRAPHIC SYSTEM REFERENCE

FLUORINE in water (ppb)

GSC OPEN FILE 1214
EAST-CENTRAL BRITISH COLUMBIA, 1985

LEGEND

CENOZOIC
QUATERNARY
17 — PLEISTOCENE AND RECENT (TILL* 44) TILL, GRAVEL, SAND, SILT, ALLUVIUM

TERTIARY
16 — MIOCENE AND PLIOCENE (BSLT 42) OLIVINE BASALT FLOWS, BRECCIA, AND TUFF
15 — (SNDS 42) SANDSTONE, SHALE, CONGLOMERATE, DIATOMITE, LIGNITE
14 — OLIGOCENE AND MIOCENE (ANDS 42) *ENDAKO GROUP*: ANDESITE, BASALT, DACITE
13 — PALEOCENE, EOCENE, OLIGOCENE (CGLM 42) CONGLOMERATE, SANDSTONE, SHALE, TUFF, BRECCIA

MESOZOIC – CENOZOIC
12 — UPPER CRETACEOUS AND LOWER TERTIARY (RYLT 41) *OOTSA LAKE GROUP*: RHYOLITE, DACITE, TRACHYTE, SANDSTONE, SHALE, CONGLOMERATE

CRETACEOUS
11 — (ANDS 36) ANDESITE, TUFF, BRECCIA, ARGILLITE, ARKOSE, CONGLOMERATE
10 — LOWER CRETACEOUS (CGLM 36) *SKEENA GROUP*: CONGLOMERATE, GREYWACKE, SHALE, COAL, VOLCANIC BRECCIA

JURASSIC
9 — MIDDLE JURASSIC (ANDS 34) *HAZELTON GROUP* (PART) UNDIVIDED: BASALT, ANDESITE, TUFF, BRECCIA, GREYWACKE, MUDSTONE, CONGLOMERATE
8 — LOWER AND MIDDLE JURASSIC (SHLE 34) SHALE, GREYWACKE, CONGLOMERATE
7 — UPPER TRIASSIC AND LOWER JURASSIC (ANDS 33) *TAKLA GROUP*: ANDESITE, BASALT, TUFF, BRECCIA, CONGLOMERATE, GREYWACKE, SHALE, LIMESTONE

TRIASSIC
6 — UPPER TRIASSIC (LMSN 32) LIMESTONE
5 — (PLLT 32) BLACK PHYLLITE, SILTSTONE, LIMESTONE, QUARTZITE

PALEOZOIC
PENNSYLVANIAN AND PERMIAN
4 — (CHRT 23) *CACHE CREEK GROUP*: RIBBON CHERT, BLACK ARGILLITE, LIMESTONE, GREENSTONE

MISSISSIPPIAN AND(?) YOUNGER
3 — (BSLT 21) *SLIDE MOUNTAIN* GROUP: BASALT, BRECCIA, TUFF, CHERT, ARGILLITE, SANDSTONE, LIMESTONE, CONGLOMERATE

CAMBRIAN
2 — LOWER CAMBRIAN (LMSN 12) *MURAL FORMATION*: LIMESTONE (INCLUDES *MAHTO FORMATION* SILTSTONE, SANDSTONE)

PROTEROZOIC
HADRYNIAN
1 — (SNDS 04) *KAZA GROUP*: SANDSTONE, CONGLOMERATE, GRIT, PHYLLITE, SCHIST, AMPHIBOLITE, MARBLE, GNEISS

PLUTONIC ROCKS

TERTIARY
D — (GRDR 42) GRANODIORITE, QUARTZ DIORITE, QUARTZ MONZONITE

LOWER CRETACEOUS
C — (GTMZ 36) *NAVER INTRUSIONS*: QUARTZ MONZONITE, SYENITE, MONZONITE, GRANODIORITE, DIORITE

UPPER TRIASSIC
B — (GRDR 32) TAKOMKANE BATHOLITH AND BODIES OF SIMILAR AGE AND LITHOLOGY: GRANODIORITE, QUARTZ DIORITE, QUARTZ MONZONITE

PERMIAN AND/OR TRIASSIC
A — (SRPN 31) TREMBLEUR INTRUSIONS AND SIMILAR BODIES: PERIDOTITE, DUNITE, PYROXENITE, SERPENTINITE

Geological boundary
Fault (mapped, assumed)
No analytical result

GEOLOGY AND MINERAL DEPOSITS

Generalized geology after Geological Survey of Canada Map 49–1960, Prince George, British Columbia, 1 inch to 4 miles, H. W. Tipper, 1959 and Geological Survey of Canada Map 1424A, Parsnip River, British Columbia, 1:1 000 000, compilation by H. W. Tipper, R. B. Campbell, G. C. Taylor, and D. F. Stott, 1979, used to determine dominant catchment basin rock type for grouping of geochemical data.

* The four-letter mnemonic name indicates rock type and the two-digit number indicates age.

For location of the following specific information for this area refer to British Columbia Ministry of Energy, Mines and Petroleum Resources: Mineral Deposits, refer to Mineral Inventory Map (MII) 93G (PRINCE GEORGE); Assessment Reports, refer to Assessment Report Index Map (AR) 93G (PRINCE GEORGE); Bedrock Geologic Mapping Reports, refer to *Index to Bedrock Geological Mapping, 1983*; Mineral and Placer Claim Maps, contact Ministry of Energy, Mines and Petroleum Resources, Titles Branch, for current editions.

This map forms one of a series of maps released by the Geological Survey of Canada, Open Files 1214 to 1216. This Open File consists of maps of various geochemical variables: 18 for stream sediment, 3 for stream water and 1 sample site location

The east half of this Open File was previously released as Open File 1107 in 1985