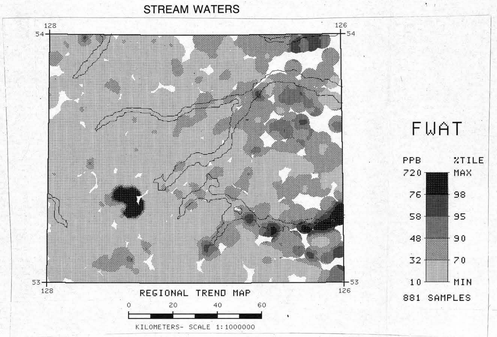
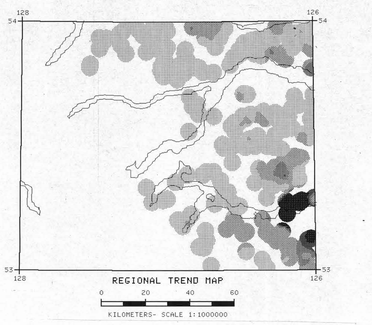
"Province of British Columbia
Ministry of Energy, Mines and Petroleum Resources
Provincial Open File
B.C. RGS-16-1986"

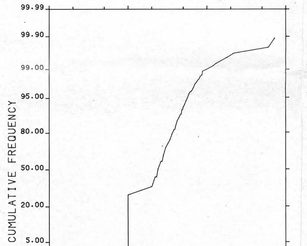
STREAM WATERS

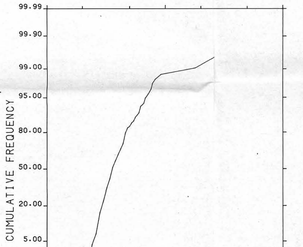


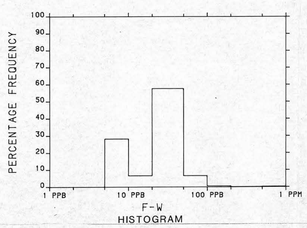
LAKE WATERS

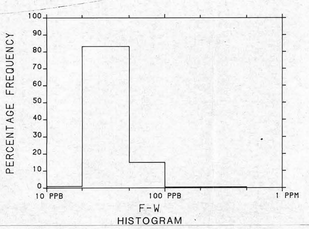


The regional geochemical trend map displayed above utilized a moving weighted average using an inverse distance function ($1/d^3$) to filter out minor irregularities and emphasize broad-scale regional features. Single point anomalies may be suppressed or eliminated, however, geological units which are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









MAP DATA IN ITALICS CORRESPOND TO LAKE SEDIMENT SITES

CONCENTRATION		FREQUENCY
77 to 720	⊡	N= 17(1.9%)
59 to 76	⊡	N= 22(2.5%)
49 to 58	■	N= 36(4.1%)
33 to 48	●	N= 168(19.1%)
10 to 32	+	N= 638(72.4%)

CONCENTRATION		FREQUENCY
79 to 260	⊡	N= 4(1.9%)
69 to 78	⊡	N= 6(2.8%)
61 to 68	■	N= 10(4.7%)
45 to 60	●	N= 39(18.2%)
20 to 44	+	N= 155(72.4%)

Contribution to Canada - British Columbia Mineral Development Agreement 1985-1989, a subsidiary agreement under the Economic and Regional Development Agreement. Project funded by the British Columbia Ministry of Energy, Mines and Petroleum Resources for sample collection, preparation and analyses and by the Geological Survey of Canada for Open File preparation.

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

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

Canada

British Columbia, Ministry of Energy, Mines and Petroleum Resources
Geological Survey Branch
and
Geological Survey of Canada
Mineral Resources Division
Exploration Geochemistry Subdivision

CONTRACTORS

Sample collection by McElhanney Engineering Services Limited, Vancouver, British Columbia
Sample preparation by Kamloops Research and Assay Laboratories, Kamloops

Sediment chemical analyses by Chemex Labs Limited, Vancouver

Water chemical analyses by Bondar Clegg and Company Ltd., Vancouver

Copies of map material and listings of field observations, analytical data and methods, from which the open file was prepared, are available from:

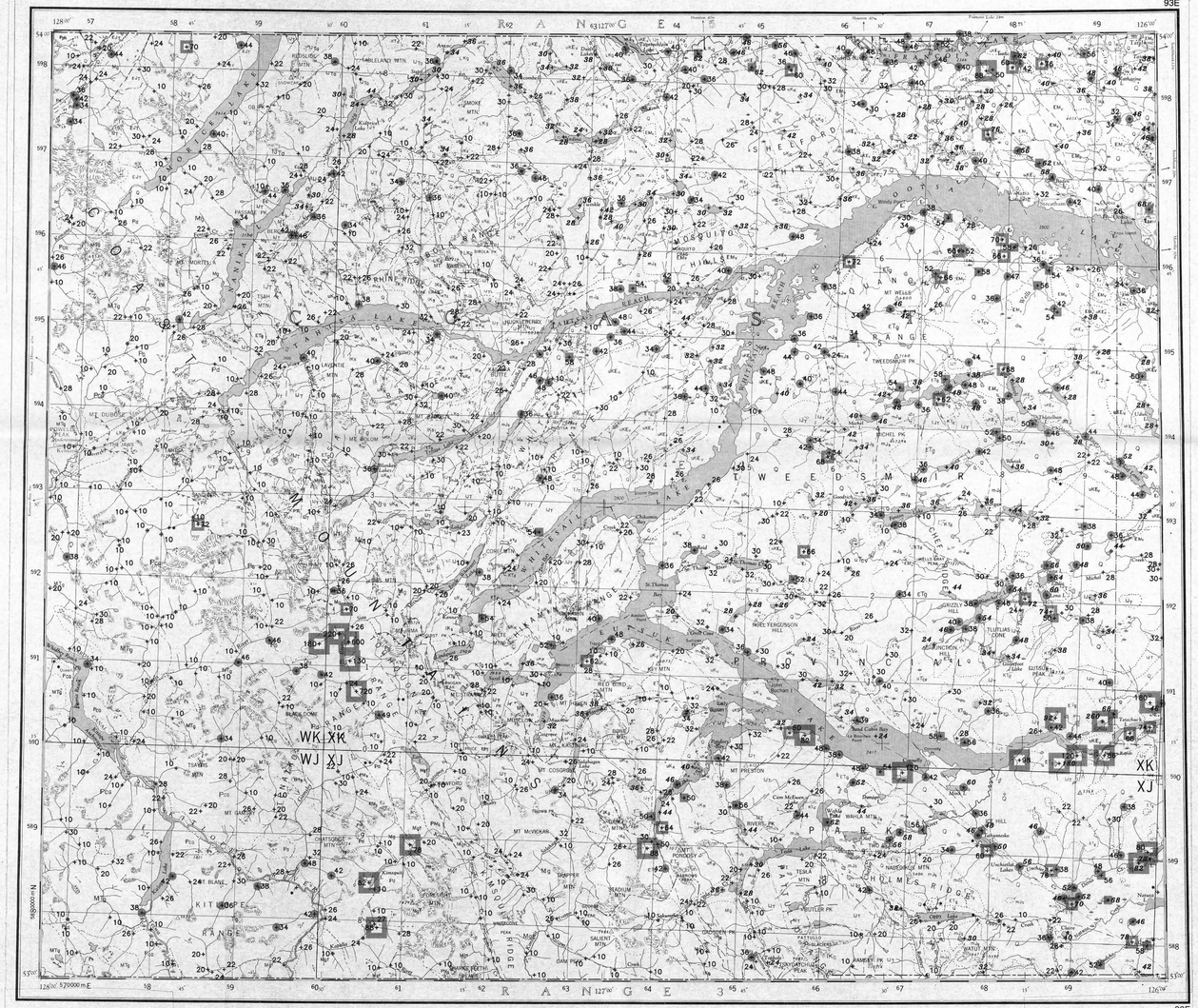
K.G. Campbell Corporation
880 Wellington St.
Bay 238
Ottawa, Ontario
K1R 6K7

Digital data are available on IBM-PC compatible diskette from:

Geological Survey of Canada
Publications Distribution
601 Booth St.
Ottawa, Ontario K1A 0E8
Tel.: (613) 995-4342

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

93E



Elevation in feet above mean sea level

Mean magnetic declination 1987, 24°08' East, decreasing 15.0' annually. Readings vary from 23°40'E in the SE corner to 24°36'E in the NW corner of the map area

FLUORIDE (ppb)
STREAM WATERS AND LAKE WATERS
GSC OPEN FILE 1360
REGIONAL GEOCHEMICAL RECONNAISSANCE MAP 96-1986

CANADA-BRITISH COLUMBIA
MINERAL DEVELOPMENT AGREEMENT (1985-1989)

STREAM SEDIMENT, LAKE SEDIMENT, AND WATER GEOCHEMICAL SURVEY
CENTRAL BRITISH COLUMBIA, 1986

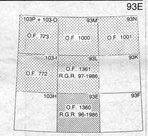
Scale 1:250 000 - Échelle 1/250 000

Kilometres 0 5 10 15 20 Kilometres

Universal Transverse Mercator Projection

Projection transverse universelle de Mercator

Base map at the same scale published by the Mapping and Charting Establishment, Department of National Defence in 1962. Streams were revised by the Geological Survey of Canada for this edition



FLUORIDE (ppb)
STREAM WATERS AND LAKE WATERS
GSC OPEN FILE 1360
CENTRAL BRITISH COLUMBIA, 1986

LEGEND

STRATIFIED ROCKS

QUATERNARY

PLEISTOCENE AND RECENT

Q (TILL 44)* Glacial, alluvial and fluvial deposits

TERTIARY

CHILCOTIN GROUP

uTc (EGLT 42) Olivine basalt

uTcv (EGLT 42) Plateau basalts; olivine basalt flows; breccia and sediment

ENDAKO GROUP

EMv (ANDS 42) Massive, vesicular, amygdaloidal basalt and andesite; minor breccia and tuff

CRETACEOUS (?) and TERTIARY

OOTSA LAKE GROUP

Er (KYLT 41) Rhyolite, quartz feldspar porphyry

uKEv (KYLT 41) Rhyolite and dacite flows, breccia and tuff; minor andesite, basalt and conglomerate

CRETACEOUS

uKv (KYLT 41) Dacitic to basaltic volcanics undivided; flows, basalt, and intermediate tuff and breccia

KASALKA GROUP

uKK (KYLT 41) Rhyolite to andesite flows, breccia, tuff, and lahar; minor red conglomerate and sandstone

SKEENA GROUP

Sks (SLSN 36) Micaceous sandstone, siltstone, shale; minor conglomerate

SKG (SLSN 36) Thick bedded andesite to rhyolite flows, tuff, and breccia; minor conglomerate, sandstone and siltstone

JURASSIC

mJA (SHLE 34) ASHMAN FORMATION: Thin bedded shale, siltstone, sandstone, greywacke, limy shale; minor chert pebble conglomerate and tuff

LOWER AND MIDDLE JURASSIC

HAZELTON GROUP

mJs (TUFF 34) SMITHERS FORMATION: Feldspathic volcanic sandstone, greywacke, tuff, breccia, tuffaceous sediments; minor conglomerate, limestone, and flows

mJW (TUFF 34) WHITESAIL FORMATION: Rhyolite flows, breccia and tuff; minor siltstone, sandstone

lJR (TUFF 34) RED TUFF MEMBER: Red, maroon, purplish and green breccia and tuff

lJT (TUFF 34) TELKWA FORMATION: Variegated basaltic to rhyolitic tuff, breccia and flows; lesser volcanic sediments

lJTA (TUFF 34) TELKWA FORMATION: Light coloured rhyolitic to dacitic breccia and tuff

TRIASSIC

uTRV (YCGS 32) Green, grey breccia and red tuff of basaltic to andesitic composition; lesser volcanic sandstone, argillite

PERMIAN AND TRIASSIC

PTRl (LMSN 24) (Lower Permian) limestone, dolomitic limestone with chert nodules, foliated green volcanic-chert clastics (Upper Triassic) black shale and calcareous siltstone, limestone-boulder conglomerate

PERMIAN AND/OR OLDER

Pyph (GNSS 10) Felsic mafic tuff and volcanogenic sandstone, phyllite, amphibolite, marble, skarn, flaser gneiss, mylonite and schist

PALEOZOIC (?)

GAMSBY GROUP

PG (GNSS 10) Felsic and mafic tuff and volcanogenic sandstone, phyllite, amphibolite, marble, skarn, flaser gneiss, mylonite and schist

PS (GNSS 10) Quartz feldspar ± biotite ± hornblende schist, amphibolite; lesser granitoid gneiss, marble and skarn

PCG (GNSS 10) CENTRAL GNEISS COMPLEX
Granitoid gneiss, migmatite, amphibolite, schist

GRANITOID ROCKS

TERTIARY

EOCENE

EG (GRNT 42) GOOSLY LAKE INTRUSIONS: Porphyritic gabbro and diabase

Eg (GRNT 42) Granite, quartz monzonite, quartz porphyry, felsite; partly equivalent to Namika intrusions

PALEOCENE AND EOCENE

ETg (GRNT 42) Granite to quartz diorite feldspar porphyry; lesser non-porphyritic phases; partly equivalent to Quanchus intrusions

Tg (GRNT 42) Granodiorite, quartz monzonite, granite; lesser gneiss and migmatite

CRETACEOUS AND/OR TERTIARY

KTd (GRDR 36) Diorite, gabbro, microdiorite, syenodiorite; partly equivalent to Kasalka intrusions

KTq (GRDR 36) Granodiorite, quartz monzonite, quartz diorite; lesser granite, generally non-porphyritic

CRETACEOUS

Kg (GRDR 36) Granodiorite, quartz diorite, monzodiorite, and monzonite; partly equivalent to Bulkley intrusions

MESOZOIC AND/OR CENOZOIC

MTq (QRZD 41) Granodiorite, quartz monzonite, quartz diorite; lesser granitoid gneiss, migmatite

Mg (QRZD 41) Green, chloritized quartz diorite and granodiorite; non- to weakly-foliated

MgF (QRZD 41) Green, chloritized quartz diorite; well foliated; lesser augen gneiss and chlorite schist

JURASSIC

EJT (GSMC 34) TOPLEY INTRUSIONS: Porphyritic, pink, quartz monzonite, granodiorite; quartz monzodiorite

PALEOZOIC (?)

PMq (QORT 10) Thin bedded, rusty-weathering siliceous porphyritic volcanics, rhyolite, sedimentary; minor argillite, limestone (may also be coded as QKU 41).

Pd (QORT 10) Diorite, quartz diorite and gabbro complexes; lesser mafic dykes, amphibolite and greenstone; includes Tahtsa and Blackbome Complexes

*A mnemonic code assigned to rock types and recorded as part of field observations.

Symbols

Geological boundary (defined; approximate and assumed)

Drift boundary

Fault (defined, approximate, assumed)

Thrust or high angle reverse fault (defined, approximate, assumed)

Bedding (horizontal, inclined, vertical)

Foliation, schistosity (inclined, vertical)

Minor fold axis, mineral lineation (inclined)

Anticline, antiform

Syncline, synform

Field duplicate sample sites

Geological base and legend are derived from: Woodsworth, G.J. (Compiler) (1990) Geology of Whitesail Lake (NTS Map Area 93E), Geological Survey of Canada, Open File 730.

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STREAM WATERS AND LAKE WATERS
GSC OPEN FILE 1360
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