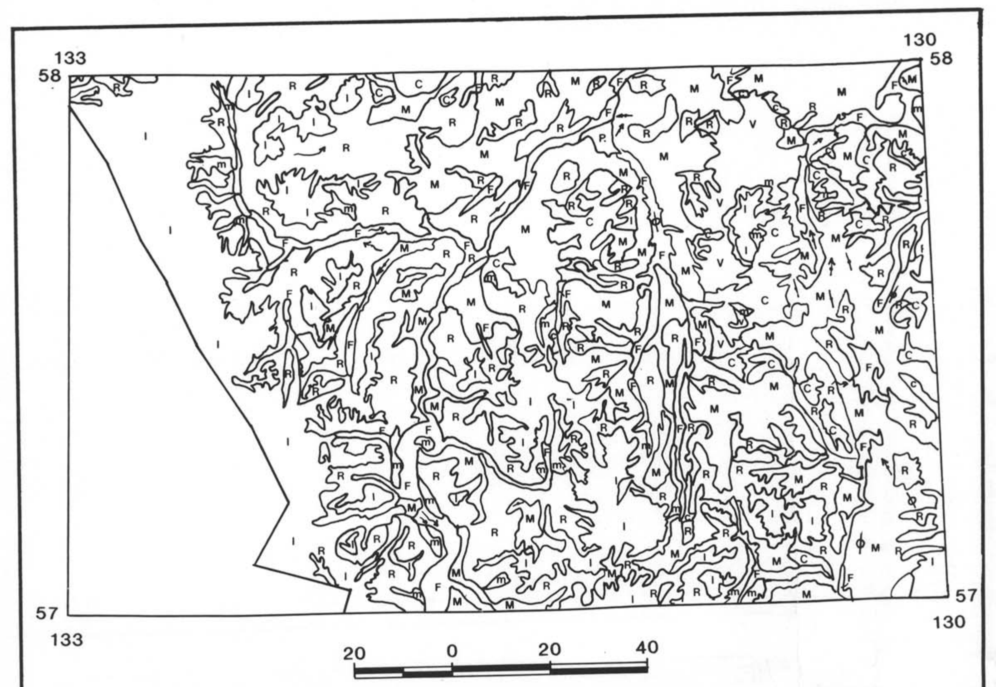



## SURFICIAL GEOLOGY

COLLUVIUM

**C** Material transported by gravity or material on gentle slopes derived form physical weathering of bedrock. Includes talus, landslide debris, debris flow deposits and avalanche cones

FLUVIAL DEPOSITS

**F** Gravels, sands and silts deposited by streams and rivers, includes alluvial fans and river terraces

ICE

**I** Permanent snow and ice; glaciers and snowfields

GLACIAL DEPOSITS

**M** Clay, sand and rock fragments deposited by glaciers, includes Fraser Glaciation till and recent moraines. This unit includes small areas of colluvium, bedrock, glaciofluvial, glaciolacustrine and eolian deposits

BEDROCK

**R** Outcrops and rock covered by a few centimetres of surficial material. Includes up to 30% colluvium by area

VOLCANIC DEPOSITS

**V** Unconsolidated volcanic ash, cinder and coarse ejecta and lava flows younger than Fraser Glaciation

SYMBOLS

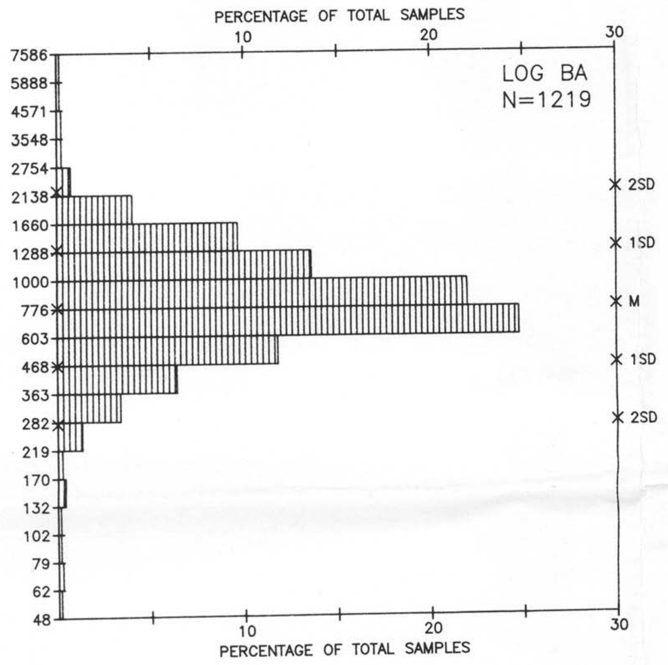
Meltwater channel ..........

Glacial striation, direction of flow known, unknown ..........

Drumlin, direction of flow known ..........

Source of Information:

Ryder, J.M. (1984) Inventory for the Stikine-Iskut Area (NTS 104F, 104G, and parts of 104B and 104H), British Columbia Ministry of Environment, Technical Report 11.




LOGARITHMIC HISTOGRAM

| CONCENTRATION | | FREQUENCY | |
|---|---|---|---|
| 1701 – 6794 | ◇ (large) | N=59 | (4.8%) |
| 1447 – 1700 | ◇ (small) | N=64 | (5.3%) |
| 1067 – 1446 | ◆ | N=182 | (14.9%) |
| 786 – 1066 | • | N=304 | (24.9%) |
| 48 – 785 | + | N=610 | (50.0%) |

### CONTRACTORS - 104F

**Sample collection by McElhanney Engineering Services Limited, Vancouver, B.C.**

**Sample preparation by Kamloops Research and Assay Lab, Kamloops, B.C.**

**Sediment chemical analyses by Bondar Clegg and Company Limited, North Vancouver, B.C.**

**Water chemical analyses by Barringer Magenta, Calgary, Alta.**

### CONTRACTORS - 104G

**Sample collection by McElhanney Engineering Services Limited, Vancouver, B.C.**

**Sample preparation by Golder Associates, Ottawa, Ont.**

**Sediment chemical analyses by Bondar Clegg and Company Limited, Ottawa, Ont.**

**Water chemical analyses by Chemex Labs, North Vancouver, B.C..**

### OPEN FILE PRODUCTION

**British Columbia**
**Ministry of Energy, Mines and Petroleum Resources**
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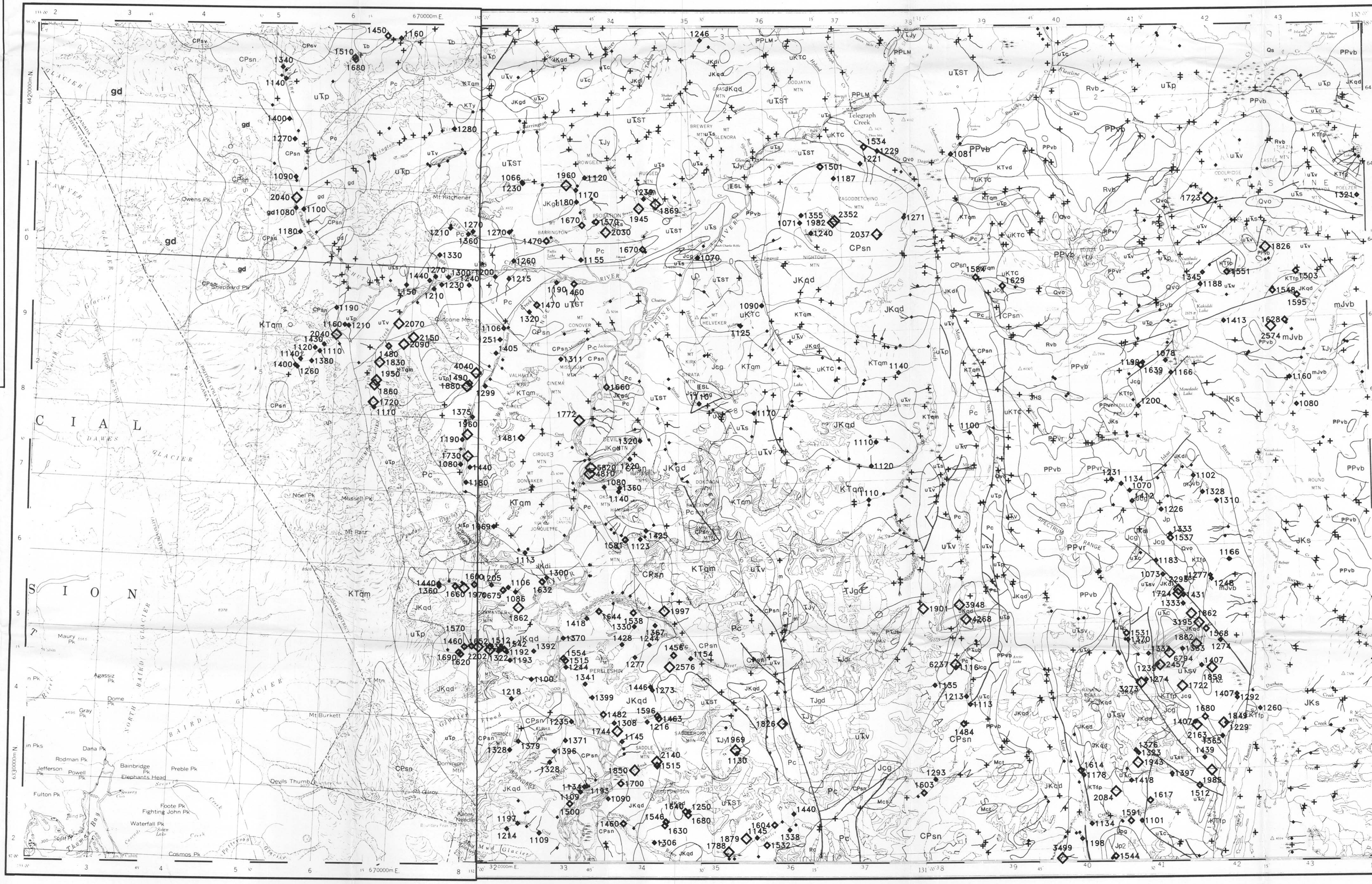
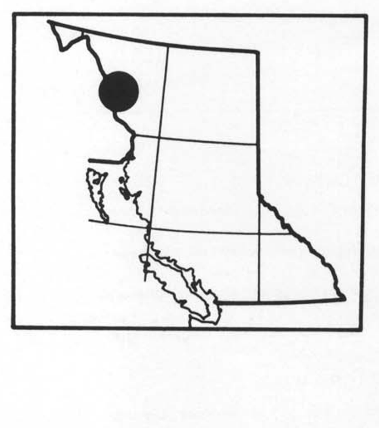
104F (Zone 8) & 104G (Zone 9)




104F (Zone 8) & 104G (Zone 9)



**This map forms one of a series of open file maps (B.C. RGS 18-20) released in 1988 by the British Columbia Geological Survey in co-operation with the Geological Survey of Canada.**
**Open File RGS 19 consists of sample location maps at 1:100 000 and 1:250 000 scale, symbol and value maps for 20 elements in stream sediments and 2 elements in stream waters, a current mineral inventory map, listings of field and analytical results and a statistical summary.**

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

**for reference at:**

**Ministry Library in Victoria**
**Libraries of the Geological Survey of Canada**
**Map Library at the University of British Columbia, Vancouver**

**for purchase at:**

**Maps B.C.**
**553 Superior Street**
**Victoria, B.C.**
**V8V 1X5**
**(604) 387-1441**

**The data are also available in digital form on MS-DOS 5 1/4" diskettes.**

**For further information please contact:**

**Applied Geochemistry Subsection**
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**Victoria, British Columbia, V8V 1X4**
**(604) 387-3234**

# BARIUM (ppm)
STREAM SEDIMENTS

## B.C. RGS 19

## GSC OPEN FILE 1646

**NATIONAL GEOCHEMICAL RECONNAISSANCE MAP 111**

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

STREAM SEDIMENT AND WATER GEOCHEMICAL SURVEY

NORTHWESTERN BRITISH COLUMBIA, 1987

SCALE 1: 250,000

5 0 5 10 15 20 25 30

KILOMETRES

**Elevation in feet above mean sea level**

**104G : Mean magnetic declination 1954, 30°15' East in centre of map area, decreasing 4.0' annually**

**104F : Mean magnetic declination 1966, 28°45' East in centre west edge of map area, increasing 3.8' annually**

**Universal Transverse Mercator Projection**
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Province of British Columbia Ministry of Energy, Mines and Petroleum Resources — Energy, Mines and Resources Canada / Énergie, Mines et Ressources Canada

THIS PROJECT IS A CONTRIBUTION TO THE CANADA/BRITISH COLUMBIA MINERAL DEVELOPMENT AGREEMENT, 1985 - 1990

| | | |
|---|---|---|
| 104K | 104J | 104I |
| 104F | 104G | 104H |
| 104C | 104B | 104A |

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# BARIUM (ppm)

## STREAM SEDIMENTS

B.C. RGS 19
GSC OPEN FILE 1646

104F - SUMDUM / 104G - TELEGRAPH CREEK
NORTHWESTERN BRITISH COLUMBIA, 1987

## LEGEND

STRATIFIED ROCKS

QUATERNARY

RECENT

| | | |
|---|---|---|
| Rvb | (BSLT 64)* | Basalts, cinder, ash |

PLEISTOCENE AND RECENT

| | | |
|---|---|---|
| Qs | (TILL 64) | Surficial clastic sediments and glacial deposits |
| Qvo | (OLVB 64) | Olivine basalt |

TERTIARY AND QUATERNARY

PLIOCENE AND PLEISTOCENE

| | | |
|---|---|---|
| PPLM | (BSLT 63) | LEVEL MOUNTAIN GROUP: basalt |
| PPvb | (BTRT 63) | Basalt, rhyolite, olivine, basalt |
| PPvr | (RYLT 63) | Rhyolite, trachyte, tuff |

TERTIARY

EOCENE

| | | |
|---|---|---|
| ESL | (RYLT 59) | SLOKO GROUP: rhyolite, trachyte, andesite, basalt |

CRETACEOUS AND TERTIARY

| | | |
|---|---|---|
| KTvd | (ANDS 56) | Andesite |

CRETACEOUS

| | | |
|---|---|---|
| uKTC | (SNDS 55) | TANGO CREEK: sandstone, siltstone, coal |

JURASSIC AND CRETACEOUS

| | | |
|---|---|---|
| JKs | (SLSN 51) | Siltstone, greywacke, conglomerate, shale (upper HAZELTON GROUP in part) |

JURASSIC

| | | |
|---|---|---|
| JHs | (SLSN 50) | HAZELTON GROUP: siltstone, greywacke, sandstone, tuff |
| mJvb | (BSLT 49) | Basalt, pillow lava, tuff, volcaniclastic rocks |
| Jp | (SHLE 49) | Shale |
| JT | (CGLM 49) | TAKWAHONI: conglomerate, grit, greywacke |
| Jcg | (CGGK 49) | Conglomerate, grit, greywacke |

TRIASSIC

| | | |
|---|---|---|
| uTRp | (PLLT 45) | Phyllite, argillite, siltstone, greywacke, limestone |
| uTRs | (SLSN 45) | Siltstone, chert, sandstone, tuff |
| uTRsv | (ANDV 45) | Undifferentiated andesitic volcanic and clastic sedimentary rocks |
| uTRST | (VLRK 45) | STUHINI GROUP: undifferentiated volcanic and sedimentary rocks |
| uTRv | (ANBT 45) | Andesite, basalt |
| uTRvd | (ANDS 45) | Andesite, pyroclastic rocks, greenstone |

PERMIAN

| | | |
|---|---|---|
| Pc | (LMSH 36) | Limestone, minor, calcareous shale |

CARBONIFEROUS AND PERMIAN

| | | |
|---|---|---|
| CPsn | (SCST 35) | Schist, gneiss |
| CPsv | (GRNS 35) | Greenstone, limestone, shale, clastic sedimentary rocks |

MISSISSIPPIAN

| | | |
|---|---|---|
| Mct | (LMTF 34) | Limestone, tuff, chert |

PLUTONIC ROCKS

CRETACEOUS AND TERTIARY

| | | |
|---|---|---|
| KTfp | (FLSP 56) | Felsite, feldspar porphyry |
| KTqm | (QTMZ 56) | Quartz monzonite |
| KTy | (LSYN 56) | Leucocratic syenite |

JURASSIC AND CRETACEOUS

| | | |
|---|---|---|
| JKgd | (GRDR 51) | Granodiorite |
| JKqd | (QRZD 51) | Quartz diorite |
| JKdi | (DORT 51) | Diorite |

TRIASSIC AND JURASSIC

| | | |
|---|---|---|
| TRJgd | (GRDR 46) | Granodiorite |
| TRJdi | (QRZD 46) | Quartz diorite, diorite, amphibolite |
| TRJy | (SYNT 46) | Syenite, monzonite |

TRIASSIC

| | | |
|---|---|---|
| TRb | (DORT 42) | Diorite, gabbro |
| TRdi | (DORT 42) | Diorite, monzonite |

PERMIAN AND TRIASSIC

| | | |
|---|---|---|
| PTRub | (UMFC 40) | Ultramafic rocks, serpentinite |

AGE UNKNOWN

| | | |
|---|---|---|
| gd | (GRDR 65) | Granodiorite |
| m | (AMPH 65) | Amphibolite, gneiss, migmatite |

SYMBOLS

Geological boundary ..........

Fault ..........

Thrust fault ..........

Glaciers ..........

Field duplicate sample sites ..........

### GEOLOGY AND MINERAL DEPOSITS

Geological base and legend are derived from:

Souther, J.G., Brew, D.A. and Okulitch, A.V. (compilers) (1979) Iskut River, *Geological Survey of Canada*, Map 1418A.

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

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, MI 104F – SUMDUM and MI 104G – TELEGRAPH CREEK; assessment reports refer to, Assessment Report Index Map, AR 104F – SUMDUM and AR 104G – TELEGRAPH CREEK; bedrock geological mapping refer to, Index of Bedrock Mapping, 1983; for mineral and placer claim maps contact the Ministry of Energy, Mines and Petroleum Resources, Mineral Titles Branch, Victoria, for current editions and status.

# BARIUM (ppm)

## STREAM SEDIMENTS

B.C. RGS 19
GSC OPEN FILE 1646

104F - SUMDUM / 104G - TELEGRAPH CREEK
NORTHWESTERN BRITISH COLUMBIA, 1987