

**SURFICIAL GEOLOGY**

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

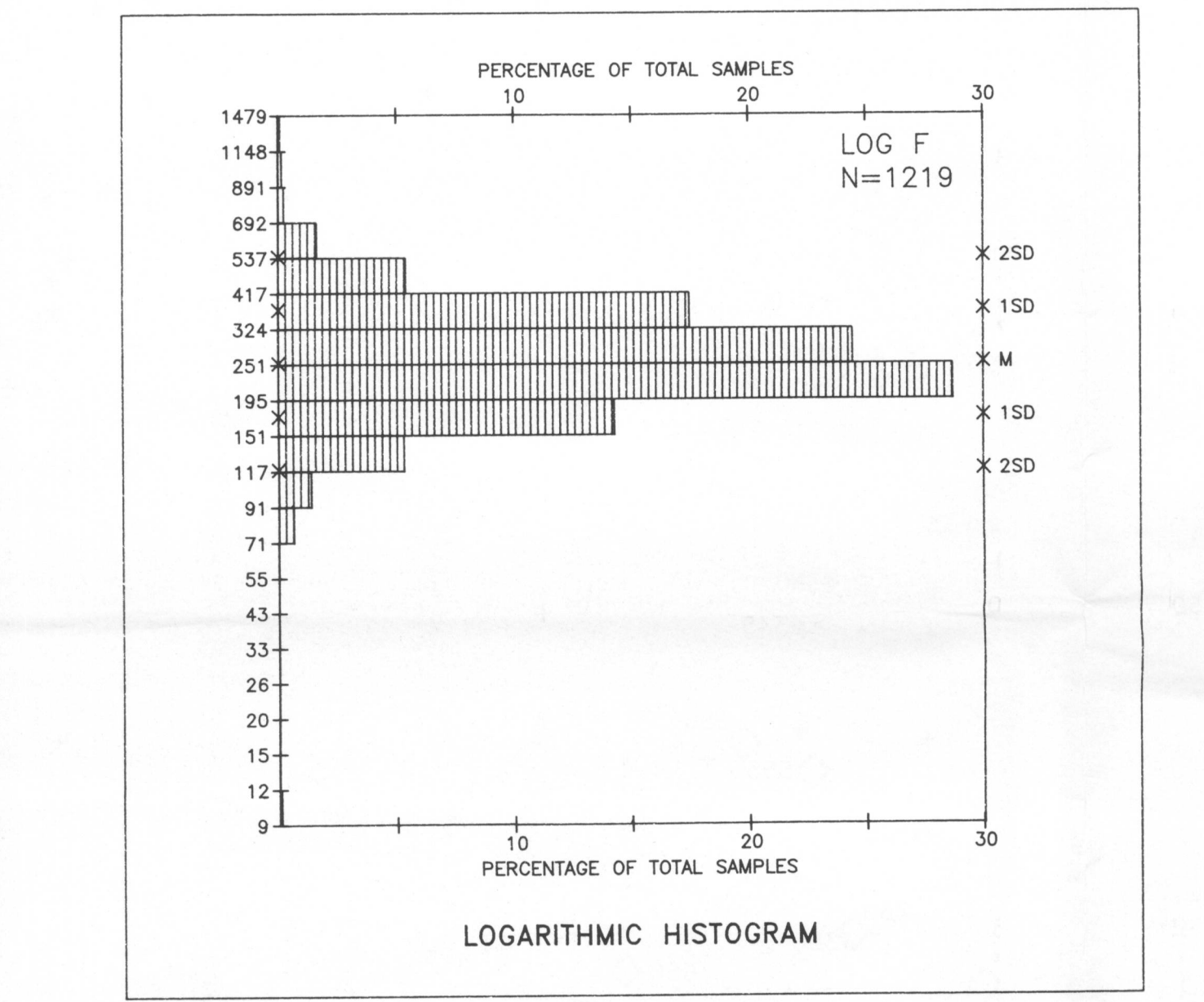
**GLACIAL DEPOSITS**  
**M** Clay sand and rock fragments deposited by glaciers. Includes Fraser Glaciation till and recent moraines. This unit includes small areas of colluvium, bedrock, glacioluvial, glaciolacustrine and eolian deposits.

**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**  
 Melwater channel  
 Glacial striation, direction of flow known, unknown  
 Drumlin, direction of flow known

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



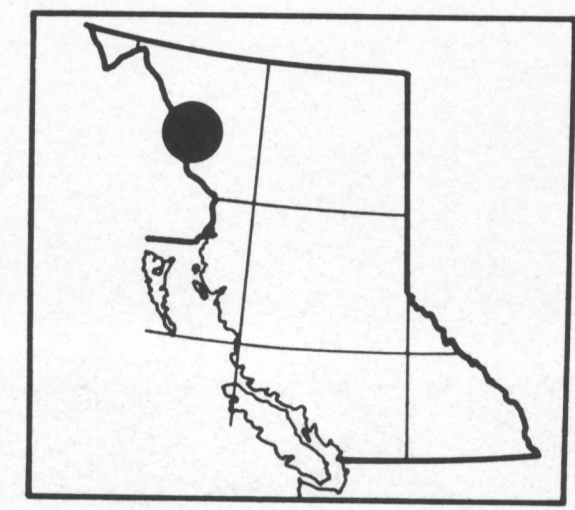
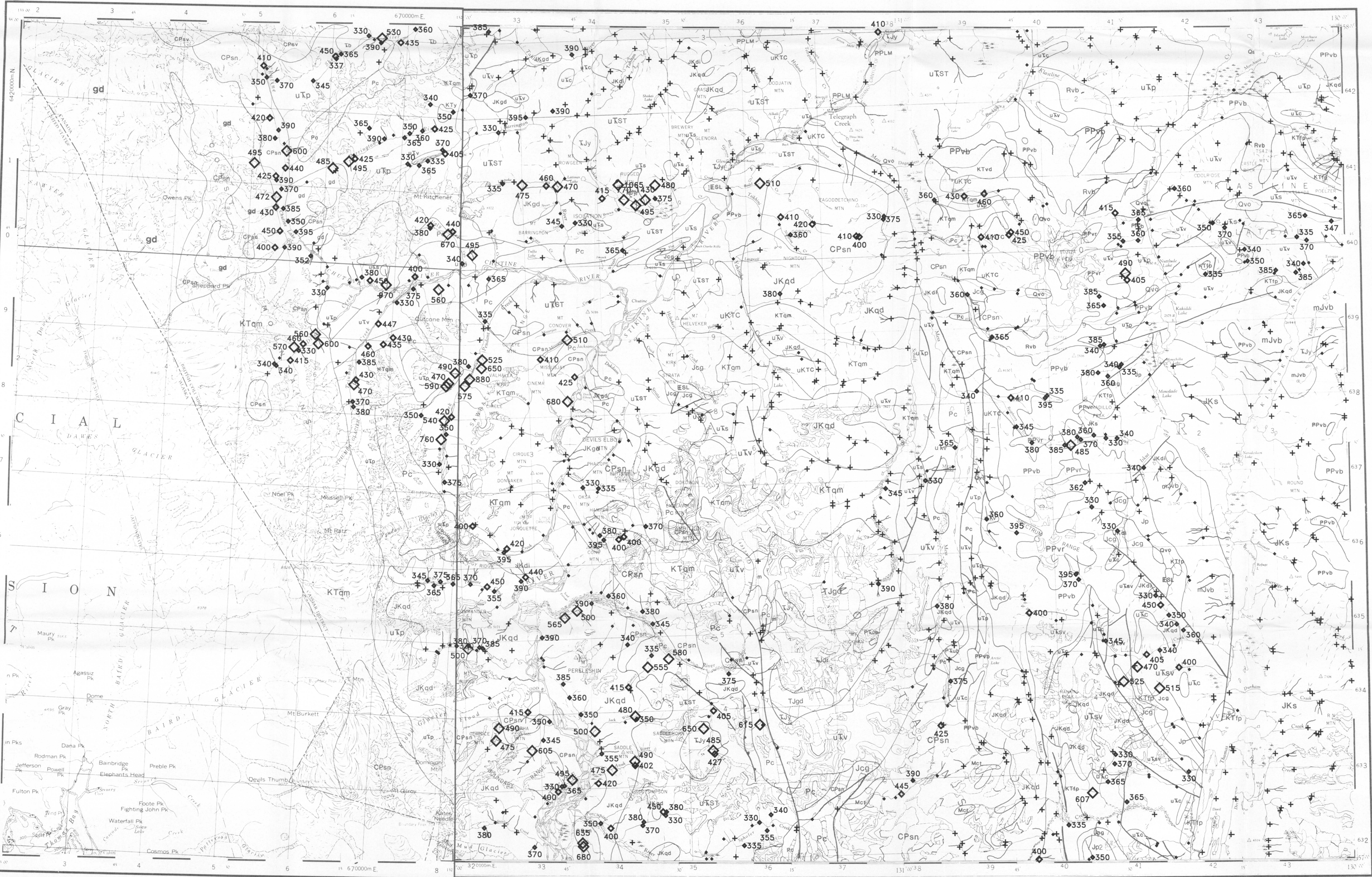
CONCENTRATION	FREQUENCY
461 - 1430	◆ N = 57 (4.7%)
396 - 460	◆ N = 63 (5.2%)
326 - 395	◆ N = 173 (14.2%)
251 - 325	+ N = 311 (25.5%)
10 - 250	+ N = 615 (50.5%)

**CONTRACTORS - 104F**  
 Sample collection by McElhenny 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 McElhenny 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 Chomez Labs, North Vancouver, B.C.

**OPEN FILE PRODUCTION**  
 British Columbia  
 Ministry of Energy, Mines and Petroleum Resources  
 Geological Survey Branch  
 Applied Geochemistry

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



This map forms one of a series of open file maps (B.C. RGS 18-20) released in 1980 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 scales, symbol and value maps for 20 elements in stream sediments and 2 elements in stream water, 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  
 Library of the Geological Survey of Canada  
 Map Library at the University of British Columbia, Vancouver

for purchase at:  
 Maps B.C.  
 655 Superior Street  
 Victoria, B.C.  
 V8V 1X2  
 (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 Sub-section  
 Geological Survey Branch  
 Ministry of Energy, Mines and Petroleum Resources  
 Parliament Buildings  
 Victoria, British Columbia, V8V 1X4  
 (604) 387-3234

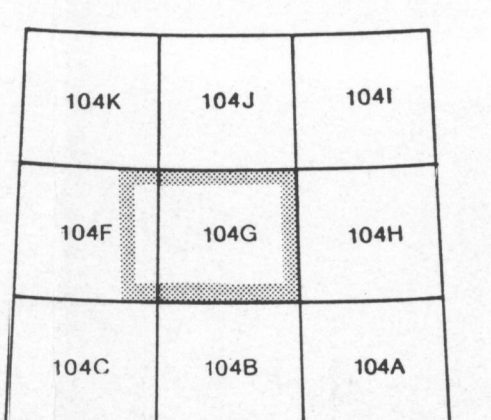
Province of British Columbia  
 Ministry of Energy, Mines and Petroleum Resources

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

**FLUORINE (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

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, 29°45' East in centre west edge of map area, increasing 3.8' annually

Universal Transverse Mercator Projection  
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 This project is a contribution to the CANADA-BRITISH COLUMBIA MINERAL DEVELOPMENT AGREEMENT, 1985-1989.



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**FLUORINE (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 (BSLT 64\*) Basalts, cinder, ash  
 PLEISTOCENE AND RECENT (TILL 64) Surficial clastic sediments and glacial deposits  
 (OLVB 64) Olivine basalt

**TERTIARY AND QUATERNARY**  
 PLEISTOCENE AND PLEISTOCENE (BSLT 63) LEVEL MOUNTAIN GROUP: basalt  
 (BTRT 63) Basalt, rhyolite, olivine, basalt  
 (RYLT 63) Rhyolite, trachyte, tuff

**TERTIARY**  
 EOCENE (RYL 59) SLOKO GROUP: rhyolite, trachyte, andesite, basalt

**CRETACEOUS AND TERTIARY**  
 (ANDS 56) Andesite

**CRETACEOUS**  
 (KTC 55) TANO CREEK: sandstone, siltstone, coal

**JURASSIC AND CRETACEOUS**  
 (SLSN 51) Siltstone, greywacke, conglomerate, shale (upper HAZELTON GROUP in part)

**JURASSIC**  
 (SLSN 50) HAZELTON GROUP: siltstone, greywacke, sandstone, shale  
 (BSLT 49) Basalt, pillow lava, tuff, volcanoclastic rocks  
 (SHE 49) Shale  
 (CGLM 49) TAKWAHONI: conglomerate, grit, greywacke  
 (CGK 49) Conglomerate, grit, greywacke

**TRIASSIC**  
 (PLT 45) Phyllite, argillite, siltstone, greywacke, limestone  
 (SLSN 45) Siltstone, chert, sandstone, tuff  
 (ANDV 45) Undifferentiated andesitic-volcanic and clastic sedimentary rocks  
 (VLRK 45) STUHN GROUP: undifferentiated volcanic and sedimentary rocks  
 (ANBT 45) Andesite, basalt  
 (ANDS 45) Andesite, pyroclastic rocks, greenstone

**PERMIAN**  
 (LMSH 36) Limestone, minor calcareous shale

**CARBONIFEROUS AND PERMIAN**  
 (SCST 35) Schist, gneiss  
 (GRNS 35) Greenstone, limestone, shale, clastic sedimentary rocks

**MISSISSIPPIAN**  
 (LMTF 34) Limestone, tuff, chert

**PLUTONIC ROCKS**  
 (FLSP 56) Felsite, hydric porphyry  
 (GTMZ 56) Quartz monzonite  
 (LSYN 56) Leucocratic syenite

**JURASSIC AND CRETACEOUS**  
 (GRDR 51) Granodiorite  
 (GRZD 51) Quartz diorite  
 (DORT 51) Diorite

**TRIASSIC AND JURASSIC**  
 (GRDR 46) Granodiorite  
 (GRZD 46) Quartz diorite, diorite, amphibolite  
 (SYNT 46) Syenite, monzonite

**TRIASSIC**  
 (DORT 42) Diorite, gabbro  
 (DORT 42) Diorite, monzonite

**PERMIAN AND TRIASSIC**  
 (UMFC 40) Ultramafic rocks, serpentinite

**AGE UNKNOWN**  
 (GRDR 65) Granodiorite  
 (AMPH 65) Amphibolite, gneiss, migmatite

**SYMBOLS**  
 Geological boundary  
 Fault  
 Thrust fault  
 Claciers  
 Field duplicate sample sites

**GEOLOGY AND MINERAL DEPOSITS**  
 Geological base and legend are derived from: Southern, J.G., Brew, D.A. and Cluett, A.V. (compilers) (1978) 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, M 104F - SUMDUM and M 104G - TELEGRAPH CREEK; assessment reports refer to Assessment Report Order Map, AS 104F - SUMDUM and AS 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.

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**STREAM SEDIMENTS**  
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