BRITISH COLUMBIA
Ministry of Energy and Mines

Geological Survey Branch
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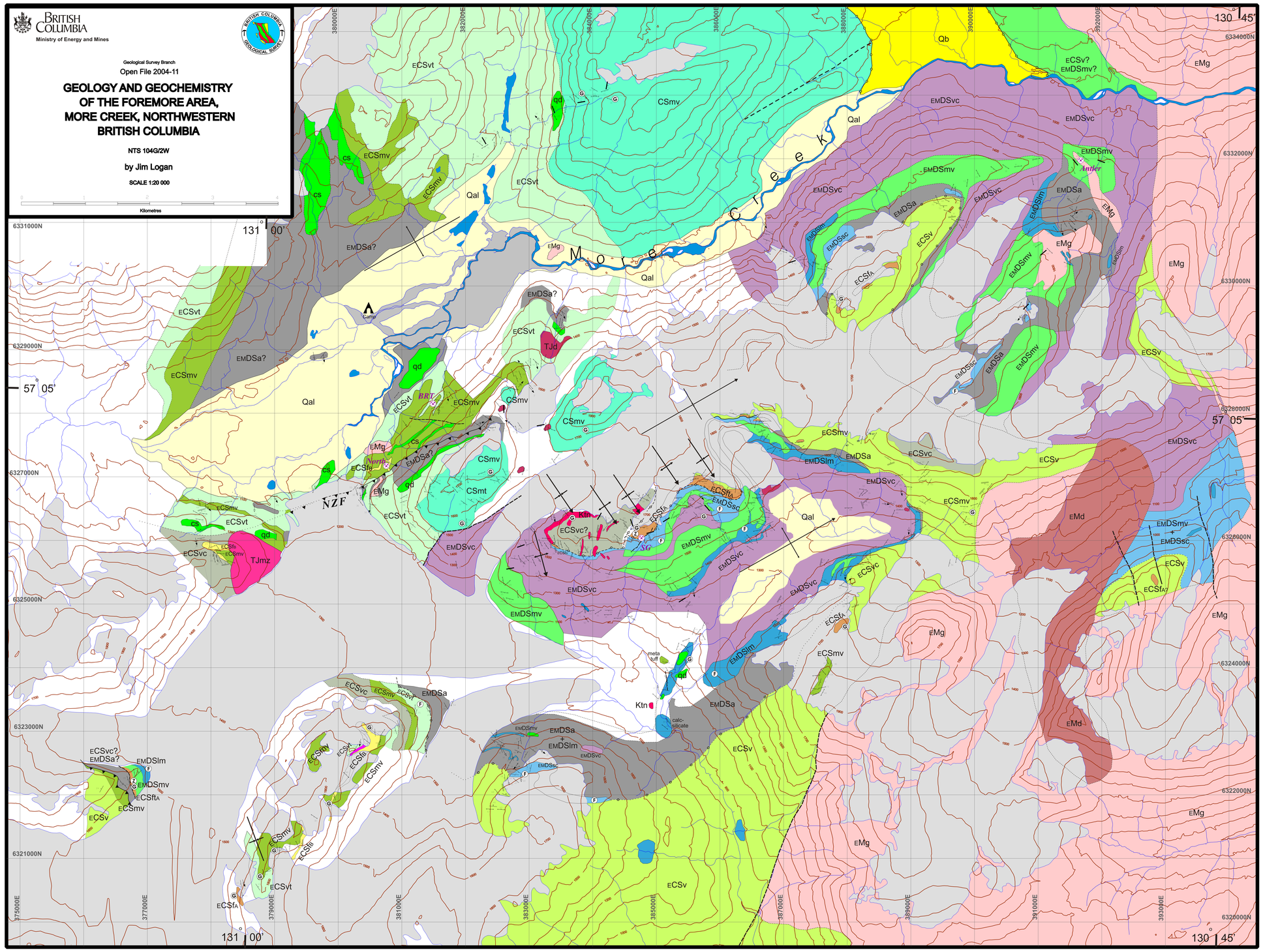
GEOLOGY AND GEOCHEMISTRY OF THE FOREMORE AREA, MORE CREEK, NORTHWESTERN BRITISH COLUMBIA

NTS 104G/2W

by Jim Logan

SCALE 1:20 000

Kilometres



LEGEND

QUATERNARY

Qal — Unconsolidated glacial till and poorly sorted alluvium

PLEISTOCENE

Qb — Arctic Lake Formation; Olivine-plagioclase-augite basalt, subaerial lava flows, pyroclastic breccia and sheets of alluvium

LATE(?) CARBONIFEROUS

CSmv / CSmt — Massive amygdaloidal aphyric to plagioclase and amphibole-phyric basalt, pillowed and breccia flows, with lesser trachyte and rhyolite (Unit 3); Black, green and maroon feldspar ± amphibole lapilli tuff, welded and non-welded ash flow tuff beds; common amphibole crystal tuff, with coarse amphibolite lapilli

EARLY CARBONIFEROUS

ECSv — Undifferentiated basalt, andesite, hyaloclastite; volcaniclastic and epiclastic rock

ECSfb — Quartz phyric and aphyric rhyolites and rhyodacite flows (Unit 2B), breccias and subvolcanic bodies

ECSvt — Pale grey and green, finely laminated intermediate to felsic ash and lapilli tuffs and rare epiclastic rocks (north of NZF, quartz-sericite±chlorite schists)

ECSmv — Purple and bright green massive to weakly foliated, amygdaloidal basalt and related hyaloclastite, pillowed flows and scoriaceous tephra (north of NZF, schistose equivalents)

ECSvc — Thin-bedded mafic and felsic tuffaceous sandstone, siltstone and cherty dust tuffs (north of NZF, graphitic and phyllitic equivalents)

ECSfa / ECSftA — Felsic volcanics (Unit 2A), rhyolite flows (Fv) and felsic volcaniclastic rocks (Ft); U/Pb zircon age ~360 Ma

EARLY TO MIDDLE DEVONIAN

EMDSa — Well-bedded graphitic and calcareous phyllite, cherty argillite, ash tuff, sandstone and local pebble conglomerate

EMDSsc — Mafic sill - Limestone complex - deformed thin layered to massive coralline marble intruded and inflated by aphyric green mafic dikes

EMDSmv — Massive green mafic to intermediate flows, and fine to medium grained subvolcanic intrusions

EMDSlm — Grey, white and buff limestone with tuffaceous and dolomitic horizons

EMDSvc — Maroon feldspar phyric volcaniclastic, coarse heterolithic breccias, swirled tuff and fine-grained epiclastic beds

INTRUSIONS

Cretaceous (75-80 Ma)

Ktn — Hornblende, biotite quartz diorite to tonalite

Triassic to Jurassic

TJmz — Biotite, hornblende quartz monzonite

TJd — Quartz diorite to Gabbro

Early Mississippian (~357Ma)

EMg — Biotite granodiorite, biotite tonalite and trondhjemite

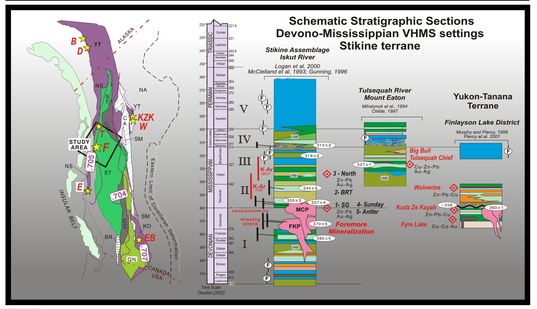
EMd — Hornblende monzodiorite and gabbro

Age Unknown

qd cs — Equigranular to foliated quartz diorite and chlorite schist

MAP SYMBOLS

- Geological boundary (defined, approximate, assumed)
- Unconformity (defined, assumed)
- Bedding; tops observed (inclined, overturned)
- Bedding; tops unknown (inclined, vertical)
- Compositional layering (inclined)
- Foliation; dominant (inclined, vertical)
- Foliation; late (inclined, vertical)
- Crenulation cleavage (inclined, vertical)
- Intersection lineation (unknown symmetry, M, S, Z)
- Fold axial plane (inclined, vertical)
- Fold axis (unknown symmetry, M, S, Z)
- Extensional fault plane (defined, assumed)
- Contraction fault plane (defined, assumed)
- Dike (inclined, vertical)
- Vein (inclined, vertical)
- Fossil locality (F)
- Isotopic age locality (Z)
- Mineral showing
- Rock geochemical sample locality (G)


Schematic Stratigraphic Sections
Devono-Mississippian VHMS settings
Stikine terrane
Stikine Assemblage
Iskut River
Logan et al. 2000
McClelland et al. 1992; Gunning, 1996
Tulsequah River
Mount Eaton
Mihalynuk et al., 1994
Child, 1997
Yukon-Tanana Terrane
Finlayson Lake District
Murphy and Piercy, 1999
Piercy et al. 2001
Big Bull
Tulsequah Chief
Wolverine
Kudz Ze Kayah
Fyre Lake
Foremore Mineralization
2- North
2- BRT
4- Sunday
5- Antler
KZK
W
F
E
STUDY AREA
TJMS
TJM
ED
PN
SM
KO
BR
NS
ST
NA
YT
CARMACKS GROUP
LEWES RIVER GROUP
SCHWATKA GROUP
Upper Cretaceous
Upper Triassic
Middle Triassic
Lower Triassic
Upper Devonian
Middle Devonian
Lower Devonian
Upper Silurian
Middle Silurian
Lower Silurian
Upper Ordovician
Middle Ordovician
Lower Ordovician
Upper Cambrian
Middle Cambrian
Lower Cambrian
Upper Proterozoic
Middle Proterozoic
Lower Proterozoic
Archean
Ma
Stratigraphic Units
Stikine Terrane
Cretaceous
Triassic
Devonian
Silurian
Ordovician
Cambrian
Proterozoic
Archean
Intrusions
Mineralization
Stratigraphic Contact
Fault
Unconformity
Depositional Contact
Sill
Dike
Sill Complex
Dike Complex
Pillow Lava
Pillow Breccia
Hyaloclastite
Tuff
Lapilli Tuff
Crystal Tuff
Lithic Tuff
Volcanic Breccia
Volcanic Sandstone
Volcanic Conglomerate
Epiclastic Rocks
Limestone
Argillite
Chert
Phyllite
Sandstone
Conglomerate
Gabbro
Diorite
Granodiorite
Tonalite
Trondhjemite
Monzodiorite
Monzonite
Quartz Monzonite
Granite
Ultramafic
Pillow Basalt
Massive Basalt
Massive Rhyolite
Massive Dacite
Massive Andesite
Massive Trachyte
Massive Trachyandesite
Massive Basaltic Andesite
Massive Rhyodac