

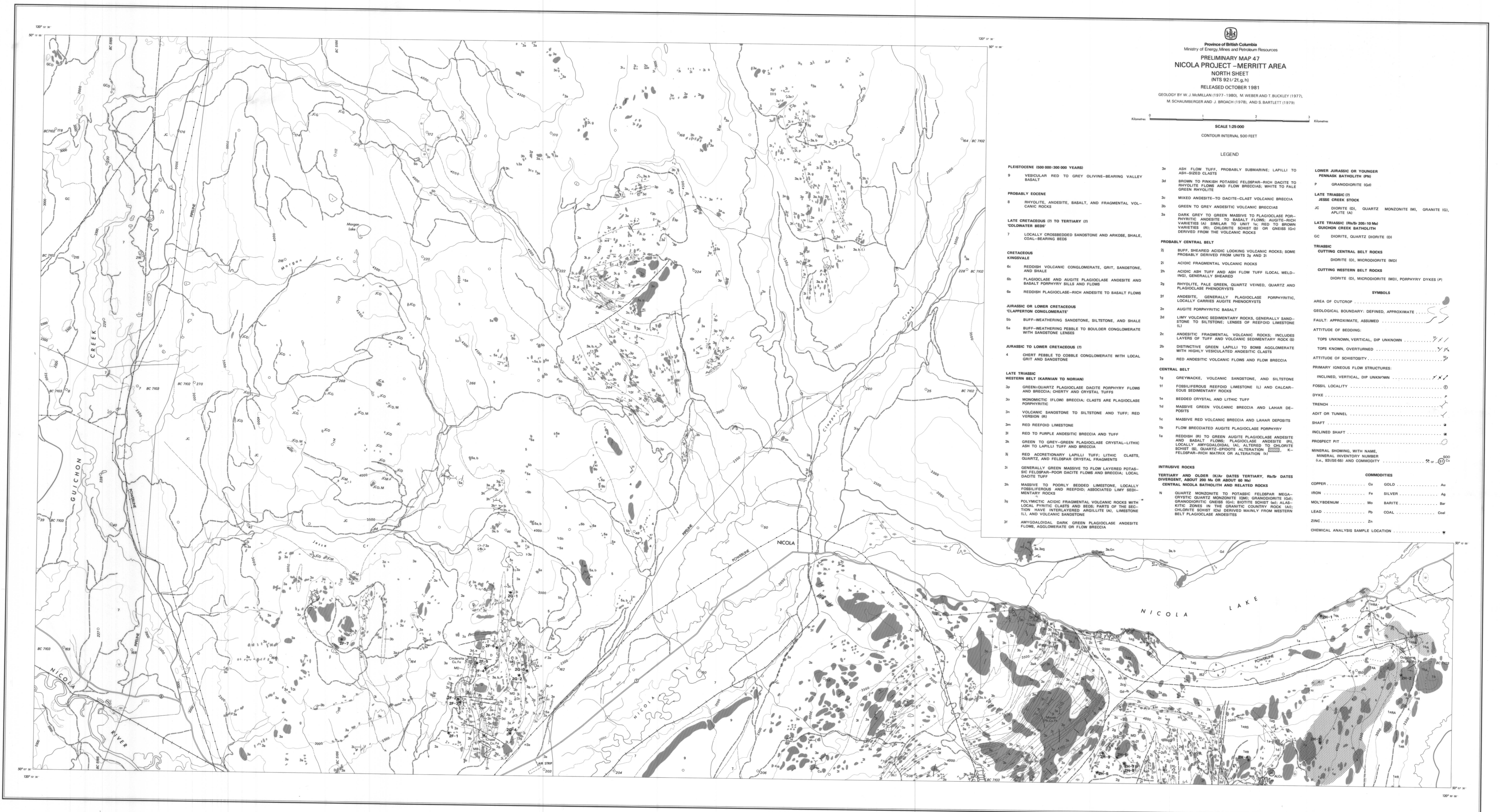
Province of British Columbia
 Ministry of Energy, Mines and Petroleum Resources
PRELIMINARY MAP 47
NICOLA PROJECT - MERRITT AREA
 NORTH SHEET
 NTS 92/21 (g,h)
 RELEASED OCTOBER 1981
 GEOLOGY BY W. J. MAMILLAN (1977-1980), M. WEBER AND T. BUCKLEY (1977),
 M. SCHAUMBERGER AND J. BROACH (1978), AND S. BARTLETT (1979)

Scale 1:25,000
 Contour Interval 500 Feet

LEGEND

- PLEISTOCENE (500 000-300 000 YEARS)**
- 9 VESICULAR RED TO GREY OLIVINE-BEARING VALLEY BASALT
- PROBABLY EOCENE**
- 8 RHYOLITE, ANDESITE, BASALT, AND FRAGMENTAL VOLCANIC ROCKS
- LATE CRETACEOUS (?) TO TERTIARY (?)**
- 7 LOCALLY CROSSBEDDED SANDSTONE AND ARKOSE, SHALE, COAL-BEARING BEES
- CRETACEOUS**
- 6c REDDISH VOLCANIC CONGLOMERATE, GRIT, SANDSTONE, AND SHALE
 - 6b PLAGIOCLASE AND AUGITE PLAGIOCLASE ANDESITE AND BASALT PORPHYRY SILLS AND FLOWS
 - 6a REDDISH PLAGIOCLASE-RICH ANDESITE TO BASALT FLOWS
- JURASSIC OR LOWER CRETACEOUS**
- 5a BUFF-WEATHERING SANDSTONE, SILTSTONE, AND SHALE
 - 5b BUFF-WEATHERING PEBBLE TO BOULDER CONGLOMERATE WITH SANDSTONE LENSES
 - 4 CHERT PEBBLE TO COBBLE CONGLOMERATE WITH LOCAL GRIT AND SANDSTONE
- LATE TRIASSIC**
- 3b GREEN-QUARTZ PLAGIOCLASE DACITE PORPHYRY FLOWS AND BRECCIA; CHERTY AND CRYSTAL TUFFS
 - 3a MONOMICTIC (FLOW) BRECCIA; CLASTS ARE PLAGIOCLASE PORPHYRYTIC
 - 2b VOLCANIC SANDSTONE TO SILTSTONE AND TUFF; RED VERSION (R)
 - 2a RED REEFOLD LIMESTONE
 - 2c RED TO PURPLE ANDESITIC BRECCIA AND TUFF
 - 2d GREEN TO GREY-GREEN PLAGIOCLASE CRYSTAL-LITHIC ASH TO LAPILLI TUFF AND BRECCIA
 - 2e RED ACCRETIONARY LAPILLI TUFF; LITHIC CLASTS, QUARTZ, AND FELDSPAR CRYSTAL FRAGMENTS
 - 2f GENERALLY GREEN MASSIVE TO FLOW LAYERED POTASSIC FELDSPAR-POOR DACITE FLOWS AND BRECCIA; LOCAL DACITE TUFF
 - 2g MASSIVE TO POORLY BEDDED LIMESTONE, LOCALLY FOSSILIFEROUS AND REEFOLD; ASSOCIATED LIMY SEDIMENTARY ROCKS
 - 2h POLYMICTIC ACIDIC FRAGMENTAL VOLCANIC ROCKS WITH LOCAL PYRITIC CLASTS AND BEES; PARTS OF THE SECTION HAVE INTERLAYERED ARGILLITE (A), LIMESTONE (L), AND VOLCANIC SANDSTONE
 - 2i AMYGDALOIDAL DARK GREEN PLAGIOCLASE ANDESITE FLOWS, AGGLOMERATE OR FLOW BRECCIA
- INTRUSIVE ROCKS**
- TERTIARY AND OLDER (K/A) DATES TERTIARY, Rb/Sr DATES DIVERGENT, ABOUT 200 Ma OR ABOUT 80 Ma
 - CENTRAL NICOLA BATHOLITH AND RELATED ROCKS
 - N QUARTZ MONZONITE TO POTASSIC FELDSPAR MEGA-CRYSTIC QUARTZ MONZONITE (QM); GRANDIORITE (GD); GRANDIORITIC GREENS (GG); BIOTITE SCHIST (BS); ALASKITIC ZONES IN THE GRANITIC COUNTRY ROCK (AZ); CHLORITE SCHIST (CS) DERIVED MAINLY FROM WESTERN BELT PLAGIOCLASE ANDESITES
- LOWER JURASSIC OR YOUNGER PENNASK BATHOLITH (PN)**
- P GRANDIORITE (GD)
- LATE TRIASSIC (?)**
- JC DIORITE (D), QUARTZ MONZONITE (M), GRANITE (G), ALTITE (A)
- LATE TRIASSIC (RUBS 200-10 Ma)**
- GC DIORITE, QUARTZ DIORITE (QD)
- TRIASSIC**
- CUTTING CENTRAL BELT ROCKS
 - DIORITE (D), MICRODIORITE (MD)
 - CUTTING WESTERN BELT ROCKS
 - DIORITE (D), MICRODIORITE (MD), PORPHYRY DYKES (P)
- SYMBOLS**
- AREA OF OUTCROP
 - GEOLOGICAL BOUNDARY: DEFINED, APPROXIMATE
 - FAULT: APPROXIMATE, ASSUMED
 - ATTITUDE OF BEDDING:
 - TOPS UNKNOWN, VERTICAL, DIP UNKNOWN
 - TOPS KNOWN, OVERTURNED
 - ATTITUDE OF SCHISTOSITY
 - PRIMARY IGNEOUS FLOW STRUCTURES:
 - INCLINED, VERTICAL, DIP UNKNOWN
 - FOSSIL LOCALITY
 - DYKE
 - TRENCH
 - ADIT OR TUNNEL
 - SHAFT
 - INCLINED SHAFT
 - PROSPECT PIT
 - MINERAL SHOWING, WITH NAME, MINERAL INVENTORY NUMBER (i.e., RVSSES) AND COMMODITY
 - COMMODITIES:

COPPER	Cu	GOLD	Au
IRON	Fe	SILVER	Ag
MOLYBDENUM	Mo	BARITE	Bar
LEAD	Pb	COAL	Coal
ZINC	Zn		
 - CHEMICAL ANALYSIS SAMPLE LOCATION



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

PRELIMINARY MAP 47
NICOLA PROJECT-MERRITT AREA
SOUTH SHEET
(NTS 92/2a,b,c)
RELEASED OCTOBER 1981

GEOLOGY BY W. J. MCMILLAN (1977-1980), M. WEBER AND T. BUCKLEY (1977),
M. SCHAUMBERGER AND J. BROACH (1978), AND S. BARTLETT (1979)

Scale 1:25,000
CONTOUR INTERVAL 500 FEET

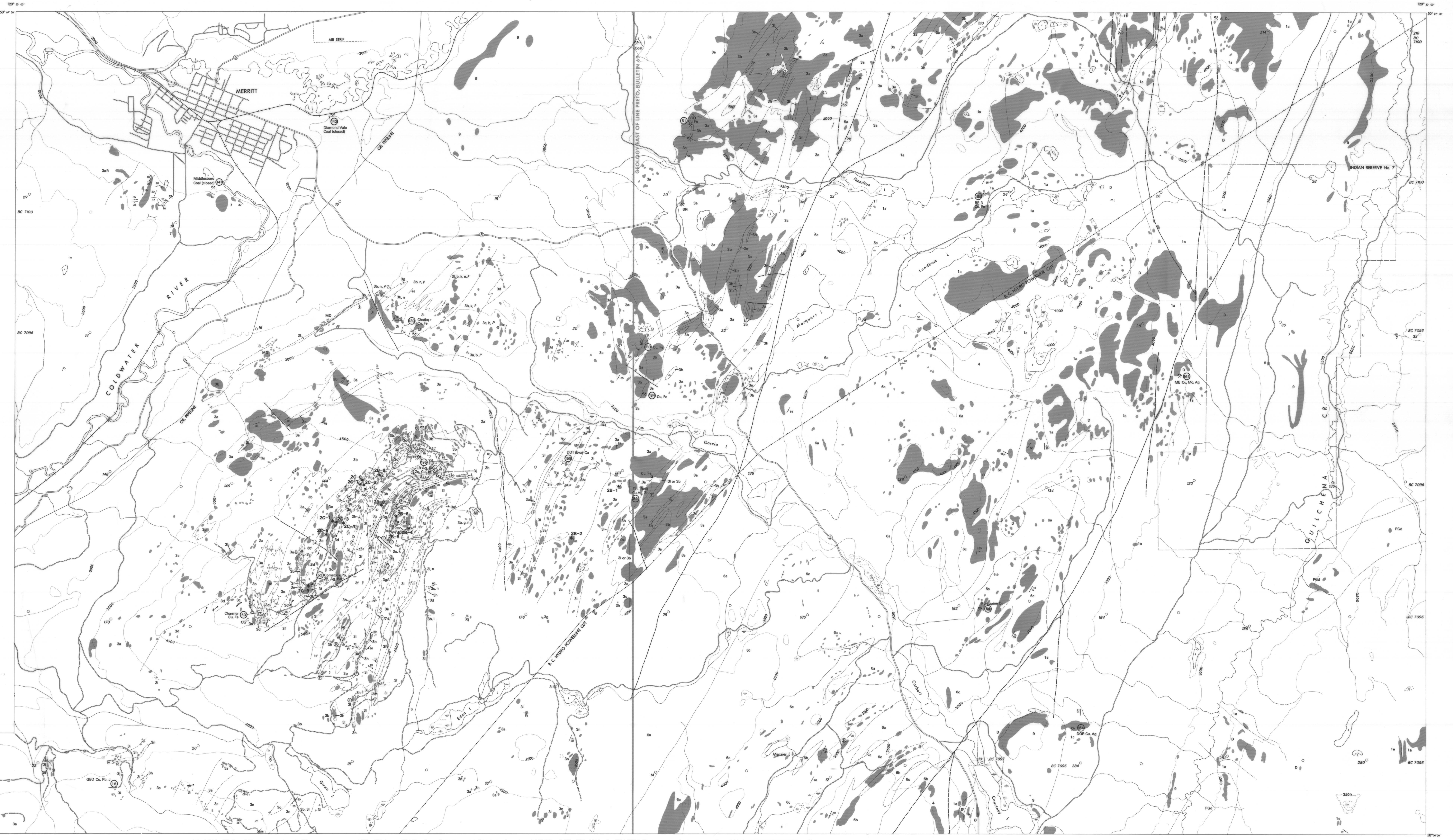
LEGEND

- PLEISTOCENE (500 000-100 000 YEARS)**
- 9 VESICULAR RED TO GREY OLIVINE-BEARING VALLEY BASALT
- PROBABLY EOCENE**
- 8 RHYOLITE, ANDESITE, BASALT, AND FRAGMENTAL VOLCANIC ROCKS
- LATE CRETACEOUS (?) TO TERTIARY (?) 'COLDWATER BEDS'**
- 7 LOCALLY CROSSBEDDED SANDSTONE AND ARKOSE, SHALE, COAL-BEARING BEDS
- CRETACEOUS KINGSVALE**
- 6c REDDISH VOLCANIC CONGLOMERATE, GRIT, SANDSTONE, AND SHALE
 - 6b PLAGIOCLASE AND AUGITE PLAGIOCLASE ANDESITE AND BASALT PORPHYRY SILLS AND FLOWS
 - 6a REDDISH PLAGIOCLASE-RICH ANDESITE TO BASALT FLOWS
- JURASSIC OR LOWER CRETACEOUS 'LAPPERTON CONGLOMERATE'**
- 5b BUFF-WEATHERING SANDSTONE, SILTSTONE, AND SHALE
 - 5a BUFF-WEATHERING PEBBLE TO BOULDER CONGLOMERATE WITH SANDSTONE LENSES
- JURASSIC TO LOWER CRETACEOUS (?)**
- 4 CHERT PEBBLE TO COBBLE CONGLOMERATE WITH LOCAL GRIT AND SANDSTONE
- LATE TRIASSIC WESTERN BELT (KARNIAN TO NORIAN)**
- 3d GREEN QUARTZ PLAGIOCLASE DACITE PORPHYRY FLOWS AND BRECCIA; CHERTY AND CRYSTAL TUFFS
 - 3c MONOMICTIC (FLOW) BRECCIA; CLASTS ARE PLAGIOCLASE PORPHYRYTIC
 - 3b VOLCANIC SANDSTONE TO SILTSTONE AND TUFF; RED VERSION (R)
 - 3a RED REEFID LIMESTONE
 - 3i RED TO PURPLE ANDESITIC BRECCIA AND TUFF
 - 3k GREEN TO GREY-GREEN PLAGIOCLASE CRYSTAL-LITHIC ASH TO LAPILLI TUFF AND BRECCIA
 - 3j RED ACCRETIONARY LAPILLI TUFF, LITHIC CLASTS, QUARTZ, AND FELDSPAR CRYSTAL FRAGMENTS
 - 3l GENERALLY GREEN MASSIVE TO FLOW LAYERED POTASSIC FELDSPAR-POOR DACITE FLOWS AND BRECCIA; LOCAL DACITE TUFF
 - 3m MASSIVE TO POORLY BEDDED LIMESTONE, LOCALLY FOSSILIFEROUS AND REEFID; ASSOCIATED LIMY SEDIMENTARY ROCKS
 - 3n POLYMICTIC ACIDIC FRAGMENTAL VOLCANIC ROCKS WITH LOCAL PYRITIC CLASTS AND BEDS; PARTS OF THE SECTION HAVE INTERLAYERED ANGIILLITE (A), LIMESTONE (L), AND VOLCANIC SANDSTONE
 - 3f AMYGDALOIDAL, DARK GREEN PLAGIOCLASE ANDESITE FLOWS, AGGLOMERATE OR FLOW BRECCIA
 - 3g ASH FLOW TUFF, PROBABLY SUBMARINE; LAPILLI TO ASH-SIZED CLASTS
 - 3h BROWN TO PINKISH POTASSIC FELDSPAR-RICH DACITE TO RHYOLITE FLOWS AND FLOW BRECCIAS; WHITE TO PALE GREEN RHYOLITE
 - 3e MIXED ANDESITE-TO DACITE-CLAST VOLCANIC BRECCIA
 - 3k GREEN TO GREY ANDESITIC VOLCANIC BRECCIAS
 - 3l DARK GREY TO GREEN MASSIVE TO PLAGIOCLASE PORPHYRYTIC ANDESITE TO BASALT FLOWS; AUGITE-RICH VARIETIES (A) SIMILAR TO UNIT 1c; RED TO BROWN VARIETIES (R); CHLORITE SCHIST (S) OR GNEISS (G) DERIVED FROM THE VOLCANIC ROCKS
- PROBABLY CENTRAL BELT**
- 2i BUFF, SHEARED ACIDIC LOOKING VOLCANIC ROCKS; SOME PROBABLY DERIVED FROM UNITS 2a AND 2i
 - 2j ACIDIC FRAGMENTAL VOLCANIC ROCKS
 - 2k ACIDIC ASH TUFF AND ASH FLOW TUFF (LOCAL WELDING), GENERALLY SHEARED
 - 2l RHYOLITE, PALE GREEN, QUARTZ VEINED, QUARTZ AND PLAGIOCLASE PHENOCRYSTS
 - 2m ANDESITE, GENERALLY PLAGIOCLASE PORPHYRYTIC, LOCALLY CARRIES AUGITE PHENOCRYSTS
 - 2n AUGITE PORPHYRYTIC BASALT
 - 2o LIMY VOLCANIC SEDIMENTARY ROCKS, GENERALLY SANDSTONE TO SILTSTONE; LENSES OF REEFID LIMESTONE (L)
 - 2p ANDESITIC FRAGMENTAL VOLCANIC ROCKS; INCLUDES LAYERS OF TUFF AND VOLCANIC SEDIMENTARY ROCK (S)
 - 2q DISTINCTIVE GREEN LAPILLI TO BOMM AGGLOMERATE WITH HIGHLY VESICULATED ANDESITIC CLASTS
 - 2r RED ANDESITIC VOLCANIC FLOWS AND FLOW BRECCIA
- CENTRAL BELT**
- 1g GREYWACKE, VOLCANIC SANDSTONE, AND SILTSTONE
 - 1f FOSSILIFEROUS REEFID LIMESTONE (L) AND CALCAREOUS SEDIMENTARY ROCKS
 - 1e BEDDED CRYSTAL AND LITHIC TUFF

- INTRUSIVE ROCKS**
- TERTIARY AND OLDER (K/A+ DATES TERTIARY, R/W+ DATES DIVERGENT, ABOUT 200 Ma OR ABOUT 60 Ma)**
- CENTRAL NICOLA BATHOLITH AND RELATED ROCKS**
- N QUARTZ MONZONITE TO POTASSIC FELDSPAR MEGACRYSTIC QUARTZ MONZONITE (QM); GRANDIORITE (GR); GRANDIORITIC GNEISS (GG); BIOTITE SCHIST (BS); ALASKATIC ZONES IN THE GRANITIC COUNTRY ROCK (AG); CHLORITE SCHIST (CS) DERIVED MAINLY FROM WESTERN BELT PLAGIOCLASE ANDESITES
- LOWER JURASSIC OR YOUNGER PENNAK BATHOLITH (PN)**
- P GRANDIORITE (G)
- LATE TRIASSIC (?) JESSE CREEK STOCK**
- JC DIORITE (D), QUARTZ MONZONITE (M), GRANITE (G), APLITE (A)
- LATE TRIASSIC (R/W+ 200-10 Ma) GUNCHON CREEK BATHOLITH**
- DIORITE, QUARTZ DIORITE (D)
- TRIASSIC CUTTING CENTRAL BELT ROCKS**
- GC DIORITE (D), MICRODIORITE (MD)
- CUTTING WESTERN BELT ROCKS**
- DIORITE (D), MICRODIORITE (MD), PORPHYRY DYKES (P)

- SYMBOLS**
- AREA OF OUTCROP
 - GEOLOGICAL BOUNDARY: DEFINED, APPROXIMATE
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 - DYKE
 - TRENCH
 - ADIT OR TUNNEL
 - SHAFT
 - INCLINED SHAFT
 - PROSPECT PIT
 - MINERAL SHOWING, WITH NAME, MINERAL INVENTORY NUMBER (i.e., 2335-59) AND COMMODITY

- COMMODITIES**
- COPPER Cu GOLD Au
 - IRON Fe SILVER Ag
 - MOLYBDENUM Mo BARYTE Bar
 - LEAD Pb COAL Coal
 - ZINC Zn
 - CHEMICAL ANALYSIS SAMPLE LOCATION



Some Mistakes