

Structure cross-section 5

LEGEND

QUATERNARY
PLEISTOCENE AND RECENT
 Qs Landslide blocks of nearby bedrock
 Qf Alluvium, colluvium, fill, gravel, sand, silt (shown only where bedrock is covered extensively)

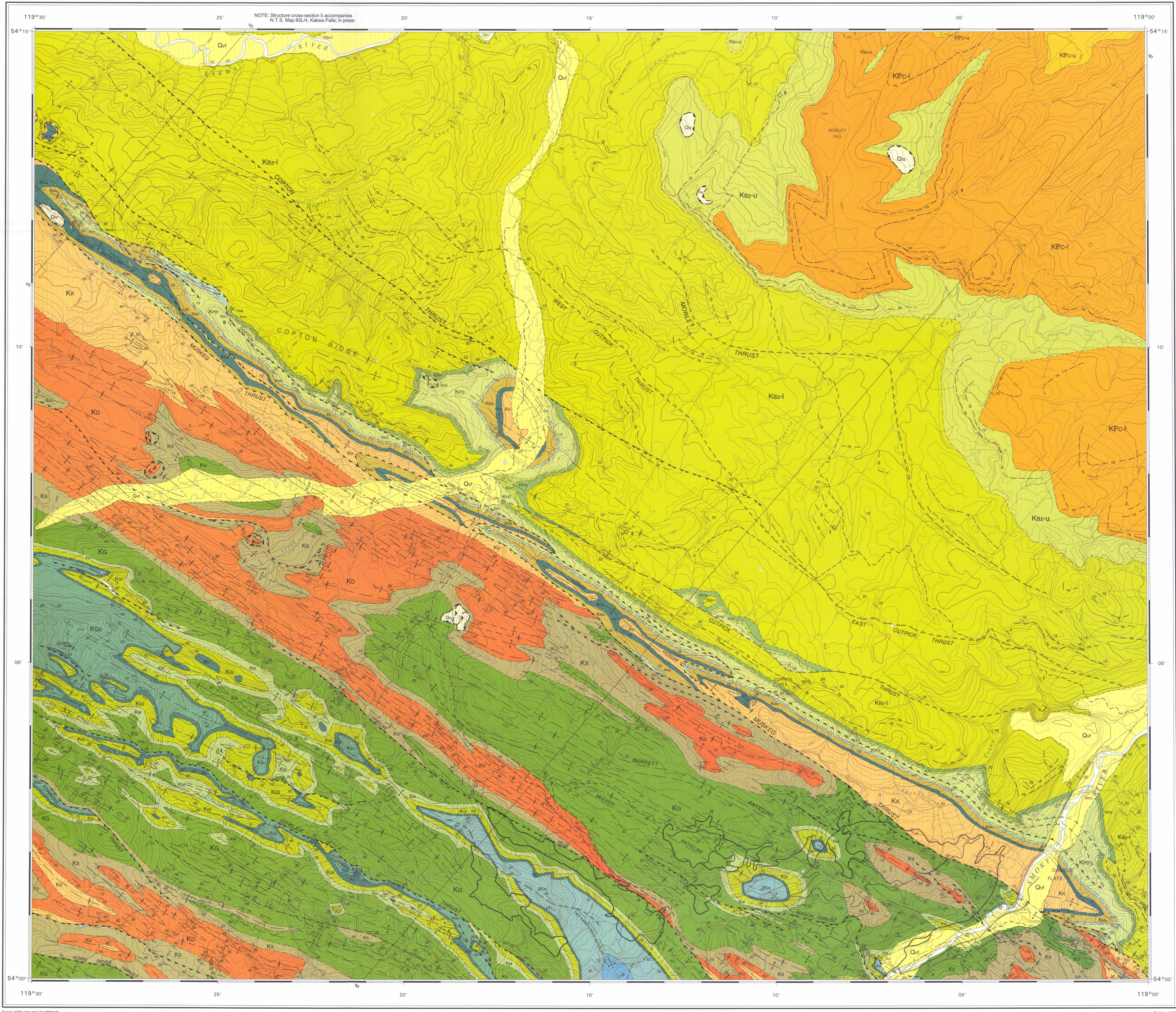
CRETACEOUS AND TERTIARY
UPPER CRETACEOUS AND PALEOCENE
 WARTI GROUP (Kw1 - Kw2)
 COALSPIR FORMATION (Kw1 - Kw2)
 Upper part: sandstone, light grey, fine grained, argillaceous, brownish weathering. Siltstone, mudstone, grey, greenish grey, carbonaceous, in thin upward cycles. Coal interbedded with thin beds of claystone. Base of local resistant units denoted by r1 on map.
 Lower part: sandstone, light grey, fine grained, argillaceous, commonly crossbedded. Brownish weathering. Siltstone, mudstone, grey, greenish grey, in thin upward cycles. Minor volcanic tuff, 25 to 30 m of light grey, fine to coarse grained, locally conglomeratic sandstone of the Entrance Member forms the base of the formation.
CRETACEOUS
UPPER CRETACEOUS
 Kbz-1 Upper part: sandstone, light grey, fine grained, argillaceous, carbonaceous, commonly crossbedded. Brownish weathering. Siltstone, mudstone, grey, greenish grey, carbonaceous, and coal. Relatively resistant, ribbed weathering unit. Lower two thirds of unit includes Copton Coal Measures.
 Lower part: sandstone, green, fine to very coarse grained, argillaceous, carbonaceous, locally conglomeratic. Mudstone, siltstone, green, brown, grey, carbonaceous. Ribbed weathering unit. Base of local resistant units denoted by r1 on map.
PUSKASKAU FORMATION (Kp - Kk)
 Nomat Member: siltstone, medium grey, argillaceous, interbedded with shaly, dark grey, rusty weathering. Relatively recessive weathering unit.
 Chungo Member: sandstone, grey, fine to medium grained, quartz and chert rich, laminated, well cemented, brown weathering. Resistant weathering unit.
 Dowling, Thistle and Hanson members: shale and calcareous shale, dark grey to black, commonly silty, grey to rusty weathering, silty concretions.
RECESSIVE WEATHERING UNIT
MARSHBANK FORMATION (Kma): sandstone, grey, fine grained, quartz and chert rich, well cemented, brown weathering (lower part). Interbedded mudstone, siltstone, sandstone and minor coal (upper part). The lower part forms a resistant weathering unit.
MUSKIKI FORMATION (Kmu): shale, dark grey, silty, rusty weathering with thin interbeds of grey argillaceous siltstone near the top. Recessive unit.
CARDIUM FORMATION (Kcd): sandstone, grey, fine grained, quartz and chert rich, well sorted and cemented, rusty brown weathering. Shaly, grey, carbonaceous with argillaceous siltstone to coarse grained sandstone interbeds. Local orange pebble conglomerate. Resistant marker unit.
KASKAPAU FORMATION (Kk): shale, dark grey to black, commonly silty, rusty weathering, with silty concretions and variable amounts of very finely interbedded grey, brown weathering siltstone. Calcareous shale, dark grey, silty, grey weathering. Recessive, poorly exposed unit. Mesoscopic faults and folds are common.
DUNVEGAN FORMATION (Kd): sandstone, grey, very fine to medium grained, argillaceous, brown weathering, micaceous bedding planes. Mudstone, grey, brown, silty, brown weathering, commonly carbonaceous, laminated, micaceous bedding planes. Sandstone - mudstone in thin upward cycles. Rare siltstone coal seams (C-1) on thick, and medium to coarse grained sandstone (quartzite, crossbedded, grey weathering). Relatively resistant marker unit with good topographic expression but usually poorly exposed.
LOWER AND UPPER CRETACEOUS
SHAFESBURY FORMATION (Ks): shale, dark grey, grey or rusty weathering. Red-brown weathering, laminated siltstone interbeds are common near top. Recessive, dark weathering unit.
LOWER CRETACEOUS
LUSCAR GROUP (Kl - Kk)
GATE FORMATION (Kl): sandstone, fine to coarse grained, carbonaceous, cross-bedded, tan or red-brown weathering. Interbedded with carbonaceous shale, grey, brown, carbonaceous siltstone, grey, cross-laminated coal beds commonly over 1 m thick and sandy pebble conglomerate, chert supported in beds up to 5 m thick. Sandstone, fine grained, well sorted, resistant, brown weathering unit, 0 to 20 m thick, forms base of succession in many areas. Ribbed weathering unit.
MOOSEBAR FORMATION (Kmo): shale, dark grey with ironstone concretions. Sandstone, grey, very fine grained, laminated, very thin to thin bedded, brown weathering, absent in lower part of unit, more common near the top. Recessive marker unit.
GLADSTONE FORMATION (Kgl): sandstone, fine to coarse grained, carbonaceous, crossbedded, orange-brown weathering, and local sandy pebble conglomerate. Interbedded with carbonaceous siltstone, carbonaceous shale and minor coal. Plant remains abundant throughout. Ribbed weathering unit.
CADOMIN FORMATION (Kco): conglomerate, pebble to cobble, chert supported in red-brown weathering sandy matrix. Local interbeds of sandstone and siltstone. Resistant, light grey weathering or black shales covered marker unit.
MINNES GROUP (Kmi - Kms)
GORMAN CREEK FORMATION (Kgc): interbedded sandstone, siltstone, mudstone, carbonaceous shale or coal in repetitive thin upward cycles generally 1 to 5 m thick. Sandstone, fine to coarse grained, carbonaceous, light cross-laminated or crossbedded, commonly rich in dark chert, locally conglomeratic, orange or brown weathering. Siltstone, grey, carbonaceous, orange or grey weathering. Shale, silty, carbonaceous, grey weathering, commonly grading to coal. An orange-brown weathering succession with few marker units, commonly complexly folded with minor faults.
UPPER JURASSIC AND LOWER CRETACEOUS
MONTEITH FORMATION (Kmt): sandstone, very fine grained, light brown grey, laminated, pale tan or light grey weathering with minor grey shale interbeds (lower part). Sandstone rich in dark chert. Shale and siltstone in the upper part. The lower part forms a resistant marker unit. Subsurface only.
JURASSIC
FERRIE FORMATION (Jf): undivided shale, grey, silty, brown weathering. Siltstone, brown grey, very fine to thin bedded. Sandstone, light grey, quartzose, well cemented, thin bedded, orange-brown weathering in the upper part. Shale, dark grey, locally rusty weathering, ironstone concretions. Minor quartz sandstone and glauconitic sandstone near base of lower part. A few metres of interbedded black shale and dark limestone occurs at base (Hordberg Member). Recessive unit.
SUBSURFACE ONLY
TRIASSIC
SPRAY RIVER GROUP (Sr): siltstone, shale, limestone, dolostone, sandstone and anthracite.
CARBONIFEROUS AND PERMIAN
BANFF FORMATION, RUNDLE GROUP AND BELCOURT AND MOWICH FORMATIONS: undivided limestone, shale, dolostone and minor sandstone.
DEVONIAN
UPPER DEVONIAN
FALLS FORMATION (Ff): limestone, brown-grey, wavy bedded to nodular, dolomitic and barren reefbed.
Fairholme Group: limestone, dolostone, argillaceous limestone and shale.
FLUME FORMATION (Fl): limestone, shale.
CAMBRIAN
MIDDLE AND UPPER CAMBRIAN
 muC Limestone, dolostone and shale.
LOWER CAMBRIAN
 CoG GOO GROUP: quartz sandstone.

JURASSIC AND CRETACEOUS
UPPER JURASSIC AND LOWER CRETACEOUS
 WIKANASSIN FORMATION: sandstone, very fine-grained, orange-brown weathering, in thin to very thick beds, interbedded with minor dark grey shale, silty shale and argillaceous sandstone in the lower part. Identifiable sandstone, siltstone, mudstone, carbonaceous shale of the upper part is lithologically similar to Gorman Creek Formation. The lower part is resistant weathering; the upper part is a ribbed, generally orange weathering unit.
FERRIE FORMATION AND MINNES GROUP: undivided. Subsurface only.
FERRIE AND WIKANASSIN FORMATIONS: undivided. Subsurface only.

WABAMUN FORMATION (Wb): limestone.
WOODBOND GROUP (Wd): limestone, dolostone, shale, argillaceous limestone.
ELK POINT AND BEAVERHILL LAKE GROUPS: undivided limestone, dolostone, siltstone and sandstone.

ESIC CIST
 APR 1 1997
 Earth Sciences Sector / Secteur des sciences de la Terre

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 Recommended citation:
 McMechan, M.E., 1996. Geology and structure cross-section, Copton Creek, Map 1903A, scale 1:50 000.



MAP 1903A
 GEOLOGY
COPTON CREEK
 WEST OF SIXTH MERIDIAN
 ALBERTA

Scale 1:50 000 - Echelle 1/50 000

SCHEDULE OF WELLS
 1. Amoco Canada Cash 11-21-59-89W
 2. Aquilone Copton 15-23-59-94W
 3. Winter A-1 Caw Creek 13-35-58-109W
 4. Mobil Gulf Shale Copton 14-23-59-89W
 5. Searfor Prairie Creek 11-32-60-89W
 6. TP or at Copton 8-10-60-109W

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