

(FRONT RANGES, WEST OF THE MCCONNELL THRUST)      (FOOTHILLS, EAST OF THE MCCONNELL THRUST)

**DEVONIAN**

UPPER DEVONIAN

**Dpa** PALLISER FORMATION: thick-bedded and massive, mottled dolomitic limestone; grey dense limestone; greyish brown dolomite

**Dax** ALEXO FORMATION: thin-bedded, silty dolomite, dolomitic sandstone, light grey dolomite, and breccia

FAIRHOLME GROUP (Dax - Dsx)

**Dsx** SOUTHSK FORMATION: massive to thick-bedded, light to medium grey, finely to coarsely crystalline dolomite; greyish brown, finely to coarsely crystalline dolomite

**Dcn** CAIRN FORMATION: massive to thick-bedded, dark brownish grey and grey, medium crystalline dolomite with Amphigora and stromatopoid beds; dark grey limestone, dolomitic limestone and dolomite in the lower part; minor chert and breccia; includes channel-fill red beds (Yahinda Formation) locally at base

MIDDLE AND UPPER CAMBRIAN

LYNX GROUP

**Clx** Dolomite, mainly microcrystalline to very finely crystalline, light grey to grey, locally pinkish grey, locally laminated, thick-bedded to massive; minor coarsely crystalline dolomite, silty dolomite, dolomitic siltstone and shale; local chert nodules

MIDDLE CAMBRIAN

**Car** ARCTOMYS FORMATION: thinly interbedded; purple-red, green, and grey shale; yellow dolomitic siltstone with ripple-marks, mud cracks, and salt casts; and minor yellow-weathering dolomite

**Cpk** PIKA FORMATION: grey, dense, thin-bedded, flaggy limestone with partings and mottling of dense dolomite; limestone pebble conglomerate, oolite, dolomitized equivalents; minor shale intervals near the base

**Cel** ELDON FORMATION: dense, predominantly grey, dolomite-mottled, massive limestone; dolomitized equivalent

**Cst** STEPHEN FORMATION: interbedded grey to green shale and limestone, partly dense, partly fragmental, minor oolitic; minor siltstone

**Cca** CATHEDRAL FORMATION: limestone, predominantly dense, dolomite-mottled, massive; dolomitized equivalent

**Emw** MOUNT WHYTE FORMATION: interbedded grey to green shale and grey dense thin-bedded limestone with dolomite partings and mottlings. As mapped, locally includes interbedded shale and glauconitic sandstone (Gog Group) at base

MIDDLE (?) AND LOWER CAMBRIAN

GOG GROUP

**Cgg** Quartz sandstone; siltstone; shale (occurs in structure sections only)

**CRETACEOUS**

UPPER CRETACEOUS

**Kbzu** BRAZEAU FORMATION (upper part): flaggy to slabby, grey and minor greenish grey, feldspathic sandstone; greenish grey and grey siltstone and rubby mudstone; minor bentonite and rare coal (nonmarine)

**Kbzl** BRAZEAU FORMATION (lower part): flaggy to slabby, greenish grey and grey feldspathic sandstone; greenish grey and grey siltstone and rubby mudstone; local pebbly sandstone and pebble-conglomerate (nonmarine)

ALBERTA GROUP

**Kwp** WAPIABI FORMATION: silty, dark grey, platy to rubby shale and calcareous shale, commonly with platy, laminated siltstone and sandstone layers; concretionary shale and mudstone; minor argillaceous sandstone; minor pebble layers and bentonite seams (marine)

**Kwph** WAPIABI FORMATION (Highwood Sandstone Member): fine-grained, brown, commonly limonitic sandstone and grey shale [marine and (?)nonmarine]

**Kcr** CARDIUM FORMATION: very fine- to fine-grained, grey sandstone; grey to dark grey, argillaceous siltstone and silty shale (locally concretionary); minor pebble conglomerate layers and lenses (marine)

MESOZOIC

**Kbk** BLACKSTONE FORMATION: dark grey shale, including silty shale, rubby shale, calcareous shale and minor concretionary shale; grey to dark grey siltstone; minor sandstone, bentonite seams and pebble layers (marine)

LOWER CRETACEOUS

BLAIRMORE GROUP

**Kbm** BEAVER MINES FORMATION: flaggy to slabby, greenish grey and grey, feldspathic sandstone, platy siltstone and rubby mudstone; minor grey shale; minor pebbly sandstone and conglomerate (locally including phenoclasts of igneous rock) (nonmarine)

**Kbl** LOWER BLAIRMORE: grey siltstone and sandstone, commonly calcareous, locally limonitic; grey and black, locally carbonaceous shale; minor coal seams and limestone. Includes conglomerate, pebbly sandstone and sandstone of the Cadomin Formation at the base (nonmarine)

JURASSIC AND (?) CRETACEOUS

UPPER JURASSIC AND (?) LOWER CRETACEOUS

**Jkk** KOOTENAY FORMATION: grey and black, fine- to coarse-grained, commonly carbonaceous and limonitic, crossbedded sandstone; grey to black commonly carbonaceous shale; minor coal (nonmarine and (?)marine)

SUBSURFACE ONLY (STRUCTURE CROSS-SECTIONS)

JURASSIC

FERNIE GROUP

**Jf** Shale; minor siltstone and sandstone (marine)

TRIASSIC

**Tsm** SULPHUR MOUNTAIN FORMATION: siltstone and mudstone (marine)

MISSISSIPPIAN

RUNDEL GROUP

**Mr** Limestone and dolomite (marine)

**Mbf** BANFF FORMATION: argillaceous and silty limestone; calcareous siltstone; limestone (marine)

DEVONIAN

UPPER DEVONIAN

**Dpa** PALLISER FORMATION: dolomite and limestone (marine)

UPPER DEVONIAN (Undivided)

**D** Mainly dolomite and limestone (marine)

CAMBRIAN (Undivided)

**C** Dolomite, limestone, shale and siltstone (marine)

Geological boundary (defined, approximate, assumed) .....  
 Bedding, tops known (horizontal, inclined, vertical, overturned) .....  
 Bedding, tops unknown (inclined, vertical) .....  
 Fault .....  
 Thrust fault (teeth in direction of dip; approximate, assumed) .....  
 Anticline (approximate) .....  
 Syncline (approximate) .....  
 Anticline and syncline (approximate, overturned) .....  
 Show of gas .....  
 Gas producer .....  
 Dry (abandoned) .....  
 Line of section ..... A B

Geology of the Foothills (east of and below the McConnell Thrust) by N.C. Oilerenshaw, 1966-67

Geology of the Front Range (west of and above the McConnell Thrust) after E.L. Fitzgerald (1962)<sup>1</sup> and R.A. Price (1971)<sup>2</sup> with minor additions by N.C. Oilerenshaw

Geological compilation by N.C. Oilerenshaw

Structural cross-sections by N.C. Oilerenshaw, 1971

NOTES

1. Fitzgerald, E.L.: Structure of the McConnell Thrust Sheet in the Ghost River area, Alberta; J. Am. Soc. Petrol. Geol., vol. 10, No. 10, Plate 1 (1962).

2. Price, R.A.: Lake Minnewanka (East Half); Geol. Surv. Can., Map 1271A (1971).

Geological cartography by the Institute of Sedimentary and Petroleum Geology, Geological Survey of Canada, 1972

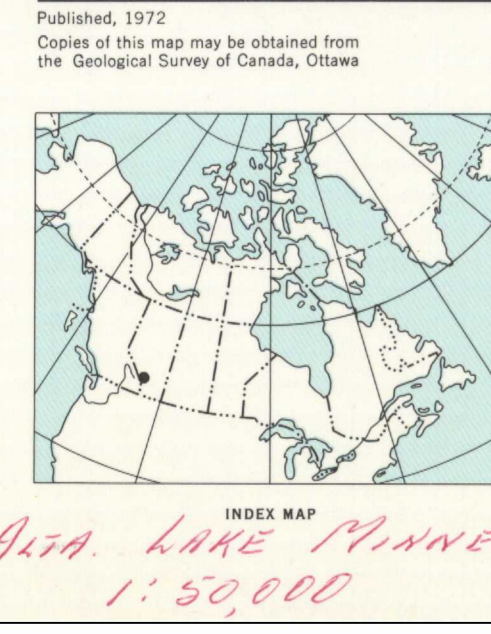
Any revisions or additional geological information known to the user would be welcomed by the Geological Survey of Canada

Base-map at the same scale published by the Surveys and Mapping Branch in 1958

Copies of the topographical edition of this map may be obtained from the Canada Map Office, 615 Booth Street, Ottawa, Ontario K1A 0E8

Approximate magnetic declination in 1972, 22° 02' East, decreasing 2.7" annually

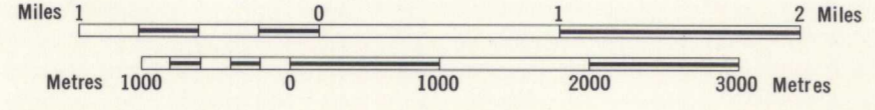
Elevations in feet above mean sea-level



MAP 1347A  
GEOLOGY  
LAKE MINNEWANKA  
(EAST HALF)

WEST OF FIFTH MERIDIAN  
ALBERTA

Scale 1:50,000



1274A	82 0/12	82 0/11	82 0/10
1273A	11-1965	549A	548A
82 0/5	1272A	1347A	1351A
	(1271A)		652A
82 0/4	82 0/3	82 0/2	
1266A	1265A	777A	653A

NATIONAL TOPOGRAPHIC SYSTEM REFERENCE AND INDEX TO ADJOINING GEOLOGICAL SURVEY OF CANADA MAPS

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