



LEGEND

This legend is common to maps 1937A, 1938A, 1939A, 1940A, and 1941A. Coloured legend blocks indicate map units that appear on this map. Not all map symbols shown in the legend necessarily appear on this map.

- SURFICIAL DEPOSITS**
- QUATERNARY**
- POSTGLACIAL**
- NONGLACIAL ENVIRONMENT**
- O** **ORGANIC DEPOSITS:** organic matter; 1 to 2 m thick; formed by the accumulation of vegetation in poorly drained depressions (swamps and bogs); usually forms flat terrain; may contain shallow permafrost; in places forms mounds and plateaus; Oh, hummocky topography
 - C** **COLLUVIAL DEPOSITS:** massive diamicton, usually at the foot of a slope or cliff and brought there chiefly by gravity
 - A** **FLUVIAL DEPOSITS:** alluvium; gravel and sand >1 m thick; A, floodplains and mantling valley floors; Al, meander scars and point bars; At, terraces along valley sides; Ai, alluvial fans; Av, thin discontinuous veneer
 - L1** **LACUSTRINE DEPOSITS:** sand, silt, and minor clay deposited in a former lake; >1 m thick; generally overlain by organic deposits in lowlands; level topography; L1r, sandy stratiflutes; L1d, deltaic sediments, sequences of stratified sand, silt, clay, and gravel; L1h, hummocky topography
- NONGLACIAL AND PROGLACIAL ENVIRONMENTS**
- E** **EOLIAN DEPOSITS:** medium to fine sand; >2 m thick; in sheet or dune form; derived from deltas or glaciolacustrine deposits; in some areas, siltier sediments are thin or absent between dunes; Ee, ridged topography; Eh, hummocky topography
 - Ev** Eolian deposits forming a thin discontinuous veneer; <1 m thick
- POSTGLACIAL OR LATE WISCONSINAN PROGLACIAL AND GLACIAL ENVIRONMENTS**
- L** **GLACIOLACUSTRINE DEPOSITS:** sand, silt, minor clay or gravel, deposited in lakes formed by ice-dammed valleys or along the margin of the retreating Laurentide Ice Sheet
 - Lh** Sediment >1 m thick; may contain rhythmic bedding; usually forms flat topography; Lh, hummocky topography in the west; Ld, deltaic sediments; Ld1, sequences of stratified sand, silt, clay, and gravel that form terraces; Lr, strandlines
 - Lv** Sediment forming a thin discontinuous veneer; <1 m thick; Lvh, hummocky topography
 - G** **GLACIOFLUVIAL DEPOSITS:** gravel, sand, minor sand diamicton; 1 to 40 m thick; deposited behind, at, or in front of the ice margin
 - Gv** G, braided outwash deposited in front of the ice margin; Gt, level outwash terraces; Gd, braided outwash deltas; Gd1, delta terraces; Gh, hummocky topography
 - Gv** Outwash forming a thin, discontinuous veneer; <1 m thick
 - Gi** Ice-contact stratified drift; deposited behind or at the ice margin; topography is undulating, irregular, or ridged
 - T** **TILL:** diamicton deposited directly by glacial ice; matrix is sandy to silty and contains striated clasts
 - T** Till blanket; >1 m thick; forming undulating topography that may be fluted or drumlinized in places
 - Tv** Till veneer; <1 m thick and discontinuous; underlying bedrock topography is discernable
- BEDROCK PRE-QUATERNARY**
- R1** Devonian limestone, dolomite, gypsum
 - R** Precambrian granite, gneiss, and metasedimentary rocks; forming bare, hilly outcrops
- NOTE:** In areas where the surficial cover forms a complex mosaic, the area is coloured according to the predominant unit and labeled with hyphenated letters in descending order of cover

- Geological boundary (defined, approximate)
- Organic deposits (swamp or bog)
- Sand dune
- Salt flat; saline groundwater discharge
- Strandline
- Abandoned or underfit channel (large, small and direction of flow inferred, small and direction of flow unknown)
- Escarpment
- Karst area
- Kettle
- Esker (direction of flow inferred, unknown)
- DeGear moraines
- End moraine
- Drumlin or fluting parallel to ice flow (undifferentiated)
- Crag and tail (tail fall)
- Ice molded bedrock form (roche moutonnée, rock drumlin)
- Striae
- Depressional lineament in bedrock
- Small bedrock outcrop
- Gravel pit
- Quarry

Geology by J.M. Bednarski (1992-1994)

Digital cartography by D. Nunez, General Dynamic Consulting; T. West and J. Pratt, Geoscience Information Division

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

Digital base map from data compiled by Geomatics Canada, modified by the Geoscience Information Division

Magnetic declination 1989, 20°49' E, decreasing 13.4' annually. Readings vary from 20°28' E in the SE corner to 21°31' E in the NW corner of the map

Elevations in feet above mean sea level

Contour interval of 50 feet except, west and south of 111°30' and 59°45' respectively, where contour interval is 100 feet



85 A1	75 B4	75 D5	75 D2	75 D1	75 G4
84 P16	74 M13	74 M14	74 M15	74 M16	74 M13
	1937A		1938A		
84 P9	74 M12	74 M11	74 M10	74 M9	74 M12
84 P8	74 M5	74 M6	74 M7	74 M8	74 M5
84 P1	74 M4	74 M3	74 M2	74 M1	74 M4
84 U16	74 U13	74 U14	74 U15	74 U16	74 U13
84 U8	74 U10	74 U11	74 U12	74 U9	74 U8

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

MAP 1937A
SURFICIAL GEOLOGY
DOG RIVER
ALBERTA

Scale 1:100 000 - Échelle 1/100 000

Kilometres 0 2 4 6 8 Kilometres

Universal Transverse Mercator Projection / Projection transversale universelle de Mercator
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Contribution to Canada-Alberta Agreement on Mineral Development (1992-1995), a subsidiary agreement under the Canada-Alberta Economic Regional Development Agreement.

Contribution à l'Entente Canada-Alberta sur l'exploitation minière (1992-1995), entente auxiliaire négociée en vertu de l'Entente Canada-Alberta de développement économique et régional.

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