

### LEGEND

**QUATERNARY SURFICIAL DEPOSITS**

**POSTGLACIAL**

**NONGLACIAL ENVIRONMENTS**

- O** ORGANIC DEPOSITS: organic matter; 1 to 2 m thick; formed by the accumulation of vegetation in poorly drained depressions (swamps and bogs); usually form flat terrain; may contain shallow permafrost; occasionally form mounds and plateaus.
- A** FLUVIAL DEPOSITS: alluvium; gravel and sand > 1 m thick; forming floodplains.
- L** LACUSTRINE DEPOSITS: sand, silt, and minor clay deposited in a former lake; > 1 m thick; often overlain by organic deposits in lowlands; level topography. Thicker units may be glaciolacustrine sediments deposited in proglacial lakes.
- Lv** LACUSTRINE VENEER: thin, discontinuous, < 1 m thick.

**NONGLACIAL AND PROGLACIAL ENVIRONMENTS**

- E** EOLIAN DEPOSITS: medium to fine sand; > 2 m thick; in sheet or dune form; derived from deltaic or glaciolacustrine deposits; in some areas eolian sediments are thin or absent between dunes; thin veneer. Ev.

**POSTGLACIAL OR LATE WISCONSINAN PROGLACIAL AND GLACIAL ENVIRONMENTS**

- G** GLACIOFLUVIAL DEPOSITS: gravel, sand, minor sandy diamicton, usually 1 to 40 m thick; deposited behind, at, or in front of the ice margin.
- Gv** outwash deposited, at or in front of the ice margin; level outwash terraces, Gt, braided outwash deltas, Gd.
- Gv** discontinuous sand and gravel lag, commonly overlies bedrock, < 0.5 m thick.

**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 and drummized in places.
- Tv** till veneer, < 1 m thick and discontinuous; underlying bedrock topography is discernible.

**PRE-QUATERNARY BEDROCK**

- R** Precambrian granite, gneiss and metasedimentary rocks; forming bare, hilly outcrops.

Note: In areas where the surficial cover forms a complex pattern, the area is coloured according to the dominant unit and labelled in descending order of cover.

### MAP SYMBOLS

- Geological boundary
- Striae
- Ice moulded bedrock form (rock drumlin)
- Crug and tail
- Esker (direction of flow inferred, not inferred)
- Abandoned or underfit meltwater channel (large, small, direction of flow inferred, not inferred)
- Kettle holes
- Strandline
- Sand dune (blown out parabolic dunes)
- Organic deposits (swamp or bog)

Geology by: J. Bednarski, 1992, 1993, 1994.

**REFERENCES:**

- Bednarski, J. M. 1993. Preliminary report of the Quaternary geology of the Canadian Shield of northeastern Alberta. Geol. Surv. Canada, Paper 93-1E, p.191-196.
- Bednarski, J. 1993. Geochemistry of surficial deposits in northeastern Alberta (74M and part of 74L). Geol. Surv. Canada, Open File OF 2747.

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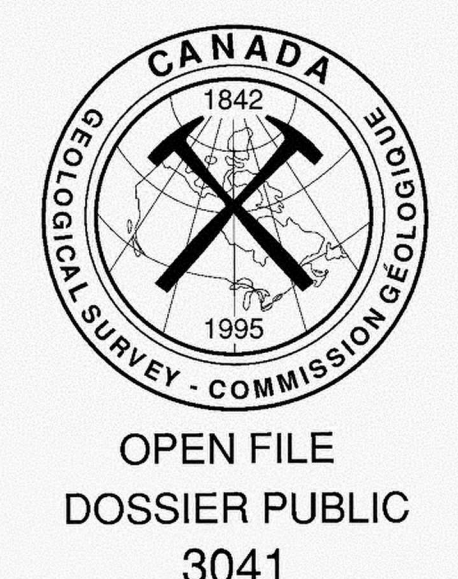
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SURFICIAL GEOLOGY  
**COLIN LAKE (74M/9)**  
 ALBERTA - SASKATCHEWAN

Scale 1:50 000 Echelle  
 Kilometres 1 0 1 2 3 Kilometres

Transverse Mercator Projection  
 North American Datum 1927  
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