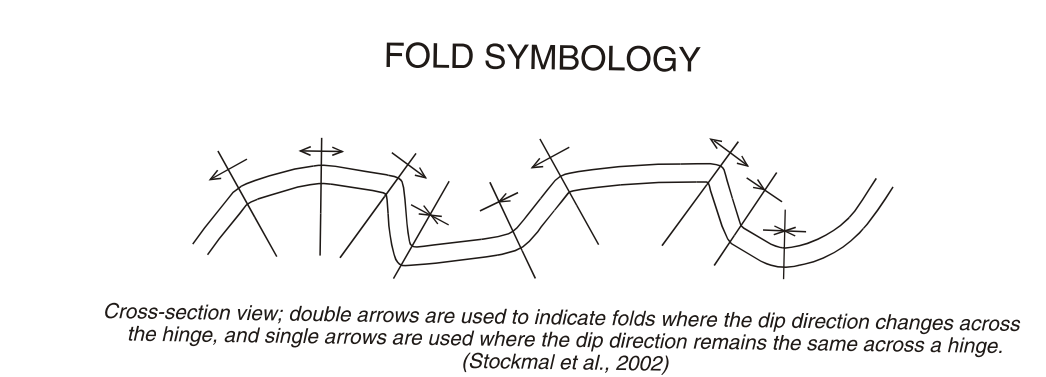


- ### LEGEND
- CRETACEOUS**
- LOWER CRETACEOUS**
- FORT ST. JOHN GROUP**
- KL** LEPINE FORMATION: Dark grey mudstone with concretions, silty shale, and black fissile shale; lower part of unit abundantly fossiliferous.
 - KSc** SCATTER FORMATION: Resistant, greenish-grey, glauconitic, laminated sandstone; medium- to thick-bedded; silty, concretionary mudstone common in middle part of unit.
 - KGr** GARbutt FORMATION: Grey shale and siltstone with sideritic concretions; minor thin-bedded, finely laminated sandstone.
 - KCh** CHINKEH FORMATION: Chert-pebble conglomerate overlain by bioturbated quartz arenite with variable chert content, and argillaceous siltstone; woody or plant debris common.
- PERMIAN**
- ISHBEL GROUP**
- PT** Tika map unit: Buff weathering, light to medium brown, silty or sandy limestone or dolostone; medium-bedded; massive to cross-stratified; rectilinear fracture pattern characteristic.
- LOWER CARBONIFEROUS**
- MATTSON FORMATION**
- CM-mu** MIDDLE AND UPPER MEMBERS UNDIVIDED: see Note 1
 - CM-u** UPPER MEMBER: Light to medium grey, fine- to coarse-grained, locally calcareous or dolomitic quartz arenite and sub-chert arenite; subordinate fossiliferous limestone, dolostone, and grey to green shale; sandstone commonly shows large-scale crossbedding.
 - CM-m** MIDDLE MEMBER: Grey to buff to brown, poorly to well-indurated, fine-grained quartz arenite and subordinate sub-chert arenite with siltstone and dark shale; sandstone shows fine- to large-scale crossbedding; typically forms sharp-based, thick-bedded, fining-up sequences.
 - CM-l** LOWER MEMBER: Greyish-orange weathering, light grey or buff, well-indurated, fine- to very fine-grained quartz arenite interbedded with siltstone and dark grey shale, dolostone, and lithoclast breccia; cross-stratified and trace fossils common; typically fine- to medium-bedded with coarsening-up sequences.
- DEVONIAN AND CARBONIFEROUS**
- DCBR** BESA RIVER FORMATION: Dark grey to black shale, locally weathers buff; minor interbedded greyish- to orange weathering sandstone and siltstone; scattered sideritic nodules.

- ### MAP SYMBOLS
- Geological contact (defined, approximate, assumed)
 - Outcrop stations
 - Outcrop: observation by helicopter
 - Bedding (inclined, overturned, estimated); tops established by sedimentary structures and/or stratigraphic order
 - Shear fractures
 - Joints
 - Crossbedding (dip direction, dip) (uncorrected for bedding orientation)
 - Anticline (defined, approximate, assumed)
 - Syncline (defined, approximate, assumed)
 - Overtured anticline (approximate)
 - Overtured syncline (approximate)
 - Anticlinal kink fold (defined, approximate, assumed) (See diagram below)
 - Synclinal kink fold (defined, approximate, assumed) (See diagram below)
 - Fault, thrust (defined, approximate, assumed) (teeth on upper plate)
 - Fault, type unspecified (defined, approximate) (U/D indicate upthrown and downthrown sides respectively)
 - Measured section



STRATIGRAPHIC SECTIONS

| SECTION | NOTES |
|---------|---|
| 1 L14 | Chinkeh Fm (type section) - D.A. Leckie (Leckie et al., 1991) |

- NOTES:**
- This map was revised in April 2003 to correct minor errors in the orientation data and update the legend.
 - Middle and Upper members of the Mattson Formation are not divided in parts of the map area due to difficulties in delineating the characteristic carbonate beds of the Upper Mattson where exposure is limited or poor quality.
 - Bedding orientations are shown at station locations; crossbedding and joint orientations are shown slightly offset from stations for clarity.

- References:**
- Leckie, D.A., Potocki, D.J., and Visser, K., 1991: The Lower Cretaceous Chinkehe Formation: A frontier-type play in the Liard Basin of Western Canada, AAPG Bulletin, v. 7 no 8, p. 1324-1352.
 - Stockmal, G.S., Kubli, T.E., Currie, L.D., and McDonough, M.R., 2002: Map symbology and analysis of box- and polycylindrical folds; with examples from the Rocky Mountain Foothills of northeastern British Columbia and the Liard Ranges of southeastern Yukon Territory and southwestern Northwest Territories. Canadian Journal of Earth Sciences, vol. 39, pp. 145-155.

Compilation by K.M. Falles based on fieldwork and studies of vertical air photographs 2002.
 THIS MAP IS A PRODUCT OF THE CENTRAL FORELAND NATMAP PROJECT

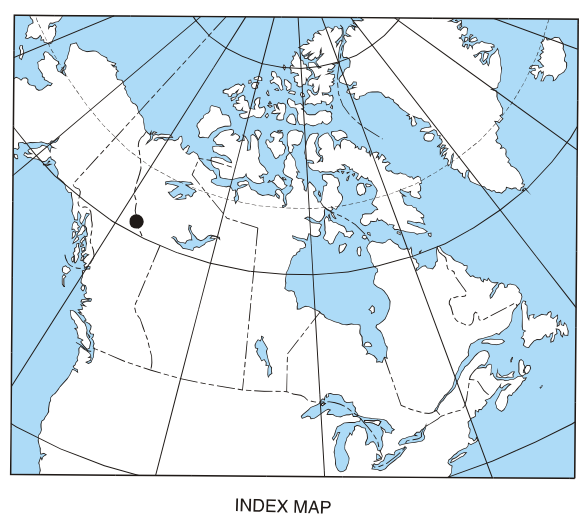
Geology from fieldwork by K.M. Falles 2002, with contributions from L.C. Pigage, I.R. Smith, G.F. Hynes, and L.S. Lane

Geological cartography by S. J. Hinds

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

Base map at the same scale published Surveys and Mapping Branch in 1971
 CONTOUR INTERVAL 100 FEET
 Elevations in Feet above Mean Sea Level

Recommended citation:
 Falles, K. M.
 2002: Geology, Dendale Lake (95C/15), Yukon Territory and Northwest Territories; Geological Survey of Canada, Open File 1460, scale 1:50 000.



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 Canada's National Geoscience Mapping Program
 Le Programme national de cartographie géoscientifique du Canada

GEOLOGY
DENDALE LAKE (95C/15)
 YUKON TERRITORY - NORTHWEST TERRITORIES

Scale 1:50 000 Echelle 1/50 000
 Kilometers 1 0 1 2 3 Kilometers

Universal Transverse Mercator Projection
 North American Datum 1983
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Projection transversale universelle de Mercator
 Système de référence géodésique nord-américain, 1983
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 2002

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| | | |
|--------------------------|--------------------------------------|---------------------------------------|
| 95F03 no title | 95F02 no title | 95F01 Clausen Creek |
| 95C14 no title | 95C15 Dendale Lake GSC OF 1460 | 95C16 Etanda Lakes GSC OF 1676 |
| 95C11 Whitefish River | 95C10 Tika Creek GSC OF 1660 | 95C09 Chinkeh Creek GSC OF 1674 |

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