

**LEGEND**

**CRETACEOUS**

**LOWER CRETACEOUS**

**FORT ST. JOHN GROUP**

- KSu** Cl-Su **SULLY FORMATION:** Dark grey shale and siltstone with sideritic concretions; silt content higher in upper part.
- KSk** Cl-Sk **SIKANNI FORMATION:** Greenish grey sandstone, siltstone, and shale; sandstone is thick-bedded, commonly calcareous or glauconitic, typically thinly laminated and cross-laminated.
- KL** Cl-L **LEPINE FORMATION:** Dark grey mudstone with concretions, silty shale, and black fissile shale; lower part of unit abundantly fossiliferous.
- KSc** Cl-Sc **SCATTER FORMATION:** Resistant, greenish-grey, glauconitic, laminated sandstone; medium- to thick-bedded; silty, concretionary mudstone common in middle part of unit.
- KGr** Cl-Gr **GARBUTT FORMATION:** Grey shale and siltstone with sideritic concretions; minor thin-bedded, finely laminated sandstone.
- KCh** Cl-Ch **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**

- Pf** Pr-F **FANTASQUE FORMATION:** Rusty weathering, dark grey to white, well bedded, spiculitic chert; rhythmically interbedded with minor shale and siliceous siltstone.
- Pt** Pr-T **Tika map unit:** Buff weathering, light to medium brown, silty and sandy limestone or dolostone grading into calcareous siltstone and sandstone; thin- to medium-bedded and massive; rectilinear fracture pattern characteristic.

**LOWER CARBONIFEROUS**

**MATTSON FORMATION**

- CM-u** Cd-Ma-u **UPPER MEMBER:** Grey, fine- to coarse-grained quartz, arenite and sub-chert arenite, fossiliferous limestone, and shale; sandstone commonly shows large-scale crossbedding; fossils in the limestone are commonly silicified; may include Tika map unit.
- CM-m** Cd-Ma-m **MIDDLE MEMBER:** Grey to buff or brown, poorly- to well-indurated, fine-grained quartz arenite interbedded with subordinate siltstone and dark grey shale; minor coal; sandstone is thick-bedded, shows fine- to large-scale crossbedding, and forms fining-up packages.
- CM-l** Cd-Ma-l **LOWER MEMBER:** Greyish-orange weathering, light grey or buff, well-indurated, fine-grained quartz arenite interbedded with siltstone and dark grey shale; minor coal; cross-lamination and trace fossils common; thin- to medium-bedded with coarsening-up sequences.

**PALEOZOIC**

- CG** Cd-G **GOLATA FORMATION:** Dark grey to black shale and silty mudstone; subordinate muddy sandstone and fossiliferous limestone and dolostone; proportion of carbonates decreases and sandstone increases up section; thickens westward and merges with the Besa River Formation where Flett and Prophet formations shale out.
- CF** Cd-F **FLETT FORMATION:** Grey, cherty, skeletal lime wackestone and packstone; subordinate graptolite, calcareous shale, mudstone and spiculate; medial unit comprises sandstone, siltstone and mudstone with subordinate limestone; massive bedding; shales westward into the Prophet and Besa River formations.
- CP** Cd-P **PROPHET FORMATION:** Greyish-orange weathering, dark grey, calcareous to dolomitic, bedded chert and spiculate; subordinate medium to dark grey, cherty dolomitic limestone, sandstone, and black to dark grey shale; well bedded, commonly rhythmic; shales westward into the Besa River Formation.

**DEVONIAN AND CARBONIFEROUS**

- DCBR** DvCb-BR **BESA RIVER FORMATION:** Dark grey to black shale, sparsely fossiliferous; minor interbedded grayish - orange weathering sandstone, siltstone, limestone, and thick-bedded breccia; scattered arenitic nodules.

**MAP SYMBOLS**

Geological boundary (defined, approximate, assumed)

Geological marker, thin unit (defined, approximate, assumed)

Bedding, tops known (inclined, estimated)

Crossbedding (dip direction and dip, uncorrected)

Joints

Fractures

Outcrop stations (no orientation data)

Anticline (defined, approximate)

Syncline (defined, approximate, assumed)

Anticlinal kink fold - (defined, approximate)  
(See diagram below)

Synclinal kink fold - (defined, approximate)  
(See diagram below)

Fault, thrust (defined, approximate, assumed)

Well (status unknown)

Map unit abbreviations (on map, in GIS data files)

**FOLD SYMBOLOGY**

Cross-section view: double arrows are used to indicate folds where the dip direction changes across the hinge, and single arrows are used where the dip direction remains the same across a hinge (see Stockmal et al. 2002).

UWID	FULL NAME	SPUD DATE	SURFACE LOCATION (Easting, Northing)
1 300L636100124150	NORTHCOR ET AL JACKFISH L-63	24 Mar 1984	420333, 6750068

- References:
- 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.

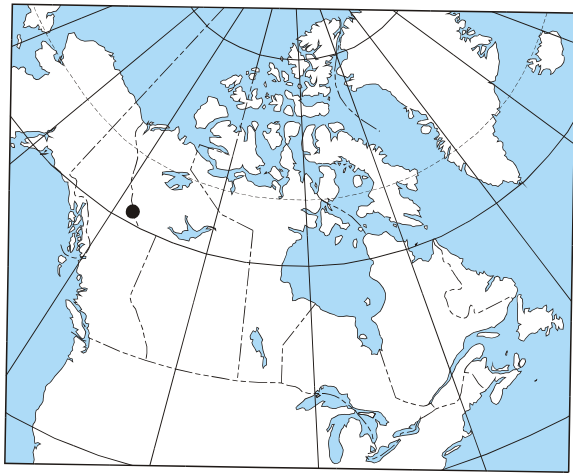
THIS MAP IS A PRODUCT OF THE CENTRAL FORELAND NATMAP PROJECT

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

THIS MAP IS A PROJECTED GRAPHIC OF THE MAIN THEMES INCLUDED WITH THIS GIS DATASET, COMBINED WITH TOPOGRAPHIC BASEMAP INFORMATION. IT IS PROVIDED AS A REFERENCE TO BE USED IN CONJUNCTION WITH THE GIS DATA FILES.

Recommended citation:  
Pallas, K.M., Hynes, G.F., and Lane, L.S.  
2003: A GIS dataset of geological features for the Etanda Lakes map area (95C/16), Northwest Territories and Yukon Territory, Geological Survey of Canada, Open File 1802, 1 CD-ROM.



Canada

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

**GEOLOGY**  
**ETANDA LAKES (95C/16)**  
**NORTHWEST TERRITORIES - YUKON TERRITORY**

Scale 1:50 000 Echelle 1/50 000

Kilometres 1 0 1 2 3 Kilomètres

Universal Transverse Mercator Projection  
North American Datum 1983  
©Her Majesty the Queen in Right of Canada 2003

Projection transverse universelle de Mercator  
Système de référence géodésique nord-américain, 1983  
©Sa Majesté la Reine du chef du Canada 2003

UNIVERSAL TRANSVERSE MERCATOR GRID, ZONE 10

95F/02	95F/01	95G/04
no title	Clausen Creek	The Twisted Mountain
95C/15	95C/16	95B/13
Dendale Lake	Etanda Lakes	Sawmill Mountain
95C/10	95C/09	95B/12
Tika Creek	Chinkeh Creek	Mount Flett

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