

**Descriptive Notes**

The Campbell Lake map area (NTS 107-B/2) is located in the Northwest Territories on the eastern edge of the Mackenzie Delta. The area was mapped in the 1960s and 1970s and a compilation of that work was published by D.K. Norris (1981). All Mesozoic rock units on this map are as mapped by Norris (80) except that some unit names have changed based on new regional stratigraphic observations. The central Campbell Lake map area was remapped in the 1980s and early 1990s, and additional detailed geologic notes of L.D. Dylke from the 1970s have been re-evaluated and incorporated into the current interpretation of the geology.

The southern part of Campbell Uplift was first mapped as a faulted by Norris (1973) and described as Campbell uplift (lower case). It is briefly mentioned in the Geology of Canada #7 (Stott and Alvin, 1993) as the Campbell Uplift (lower case). Norris (1981) and Dixon (1987) provided the first detailed descriptions of the uplift. Dylke (84) described it as a 15 km south-southwest-trending, east-west-trending, faulted and faulted zone. The uplift consists of back faulted and gently folded Proterozoic and Paleozoic strata. The uplift consists of back faulted and gently folded Proterozoic and Paleozoic strata. The uplift consists of back faulted and gently folded Proterozoic and Paleozoic strata. The uplift consists of back faulted and gently folded Proterozoic and Paleozoic strata.

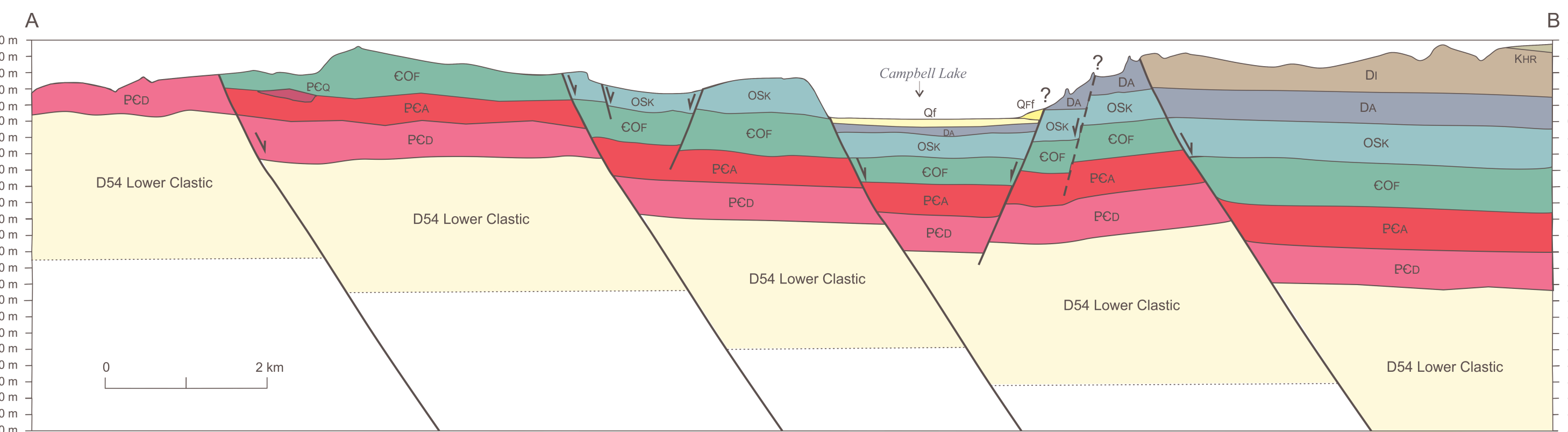


Figure 1. Structural cross-section Campbell Uplift, NTS 107-B/2.

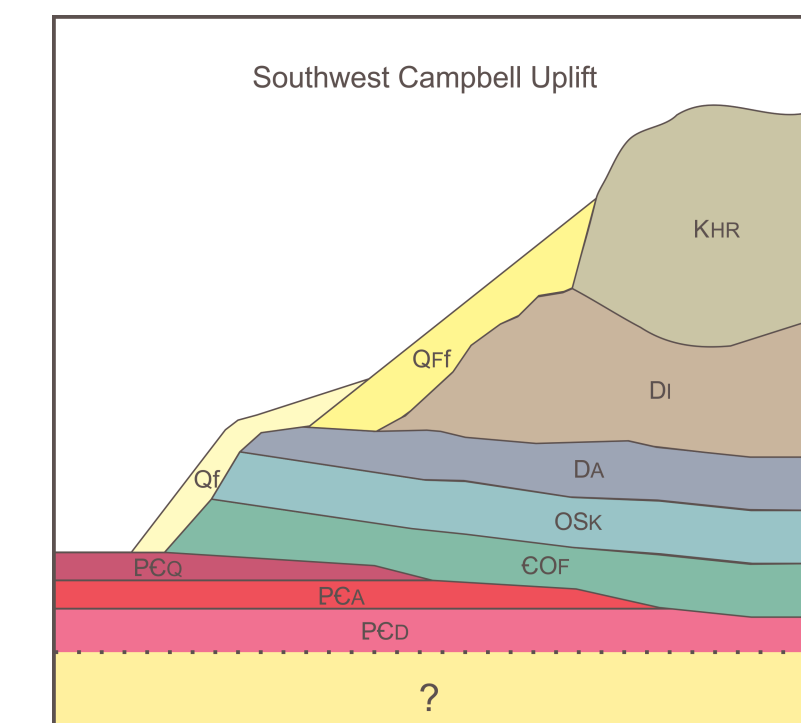
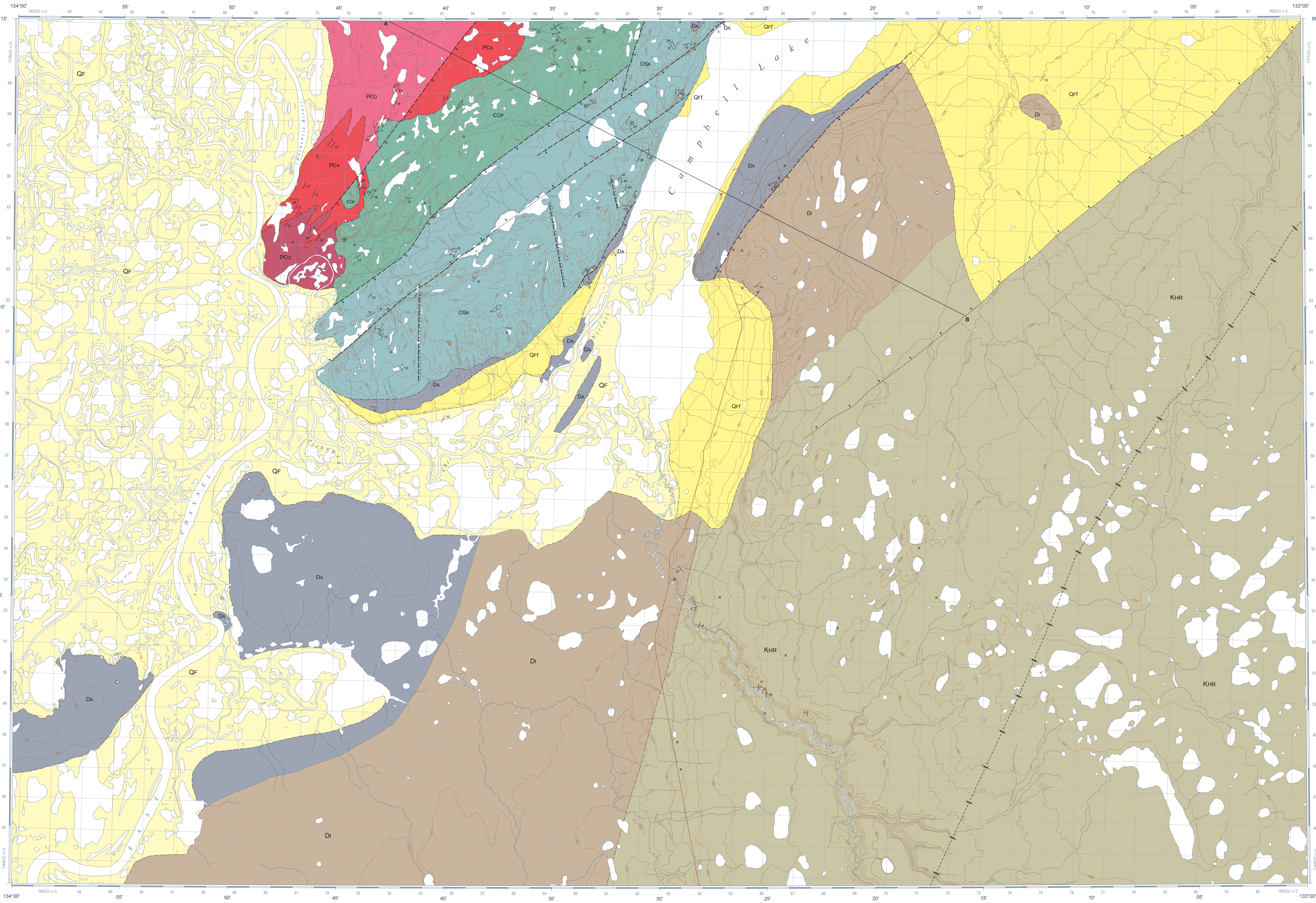


Figure 2. Stratigraphic schematic Campbell River, NTS 107-B/2.



CGM 178  
CGM 179

National Topographic System reference and index to adjoining published Geological Survey of Canada maps

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Authors: M.P. Cecile, L.S. Lane, L.D. Dylke, and D.K. Norris  
Geological compilation by M.P. Cecile, L.S. Lane, and L.D. Dylke, 2012-13, and D.K. Norris, 1981

Field Observations of area northwest and around Campbell Lake by M.P. Cecile, 1987; 1988; 1992; L.S. Lane, 1987; and L.D. Dylke, 1974. Geology of the remaining area interpreted from D.K. Norris' 1:250 000 Map 1517A compilation published in 1981.

Geomatics and cartography by L. Kung and F.A. Hardeweg

Map projection Universal Transverse Mercator, zone 8, North American Datum 1983  
Base map at the scale of 1:50 000 from Natural Resources Canada, with modifications.  
Elevations in feet above mean sea level.  
Magnetic declination 2017, 21°59'E, decreasing 33.1" annually.  
This map is not to be used for navigational purposes.

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BEDROCK GEOLOGY  
CAMPBELL LAKE  
Northwest Territories  
1:50 000

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1 2 3 4 km

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Title photography: Aerial view southwestward across Campbell Lake toward the Mackenzie River. The lake occupies a segment of the Sledge Craton, part of an extensive block fault system that was active leading to the initial formation of the Beaufort Sea in Cretaceous time, more than 100 million years ago. The lake features an unusual reverse delta. Normally, the stream drains water from Campbell Lake into the Mackenzie River. But during the spring flood when the water level in the river is high, the flow reverses, bringing silt-laden water from the river into the lake. Over time the silt has built up this reverse delta, filling up the centre of the lake. Photograph by L.S. Lane, 2014-02-23

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Preliminary publications in this series have not been scientifically edited.

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- QUATERNARY**
- QF Quaternary fluvial and lacustrine clay, silt, sand and gravel. Mostly covered in organic deposits.
  - QFI Quaternary alluvial fan and fan apron deposits; clay, silt, sand and gravel. Mostly covered in organic deposits.
- LOWER CRETACEOUS**
- KHR Devonian River Formation (Arctic Red Subfacies): shale and siltstone.
- UPPER DEVONIAN**
- DI Imperial Formation: shale, silt, clay, sand, and gravel. Shale and siltstone with a succession of thick alternating beds. Sandstone laminated and cross-bedded with fine, coarse sand and silt.
- LOWER DEVONIAN TO MIDDLE DEVONIAN**
- DA Anzac Formation: siltstone, with units of limestone, grey and white, often coarse crystalline. Poorly preserved stromatolites, stromatolites and iron concretions abundant. Locally fossiliferous with stromatolites, corals, brachiopods, and thin-walled crinoid ossicles. Some low-angle and siltstone.
- UPPER ORDOVICIAN TO LOWER SILURIAN**
- OSK Mount Kindle Formation: siltstone, grey to dark grey, fine to medium crystalline, local silt replacement. Chert and sandy corals, and other local fossiliferous. Rare crinoid stems and ossicles and brachiopods. Massive, laminated and cross-bedded, calcareous and fossiliferous.
- LOWER ORDOVICIAN TO UPPER CAMBRIAN**
- COF Franklin Mountain Formation: siltstone, grey and white, some weathering shaly. Mostly coarse (medium) crystalline, minor chert. Local orange weathering shales. Usually thickly bedded, coarse laminated and cross-bedded. Replacement high in the section. Minor zebra siltstone and vugs with calcite.
- PROTEROZOIC TO CAMBRIAN**
- PCD Quartzite unit: quartzite, massive to platy buff and green, minor siltstone, and argillite green and buff, locally spotted with hematite.
  - PCA Argillite unit: multistage, argillite, red, brown and green, locally calcareous or siliceous. Units of limestone, dolomite and quartzite. Locally with pencil concretion.
  - PCQ Dolomite unit: dolomite, buff-yellow, weathering, grey fine to medium grained. Minor grey chert and argillite. Local red and purple coloration. Rarely laminated, wavy and ripple cross-bedded, rare stromatolites, mold, thin, desiccation cracks, weakly stromatolites, and local thick beds of intraformational conglomerate, and beds of thin rip-up clasts.

- Geological contacts:**
- Approximate
  - Concealed
  - Syncline, upright, approximate
  - Horizontal
  - Inclined, no evidence for younging direction
  - Cleavage, spaced
  - Vertical
  - Inclined
  - Dip
  - Fossil
  - Station
- A B**  
Cross-section

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