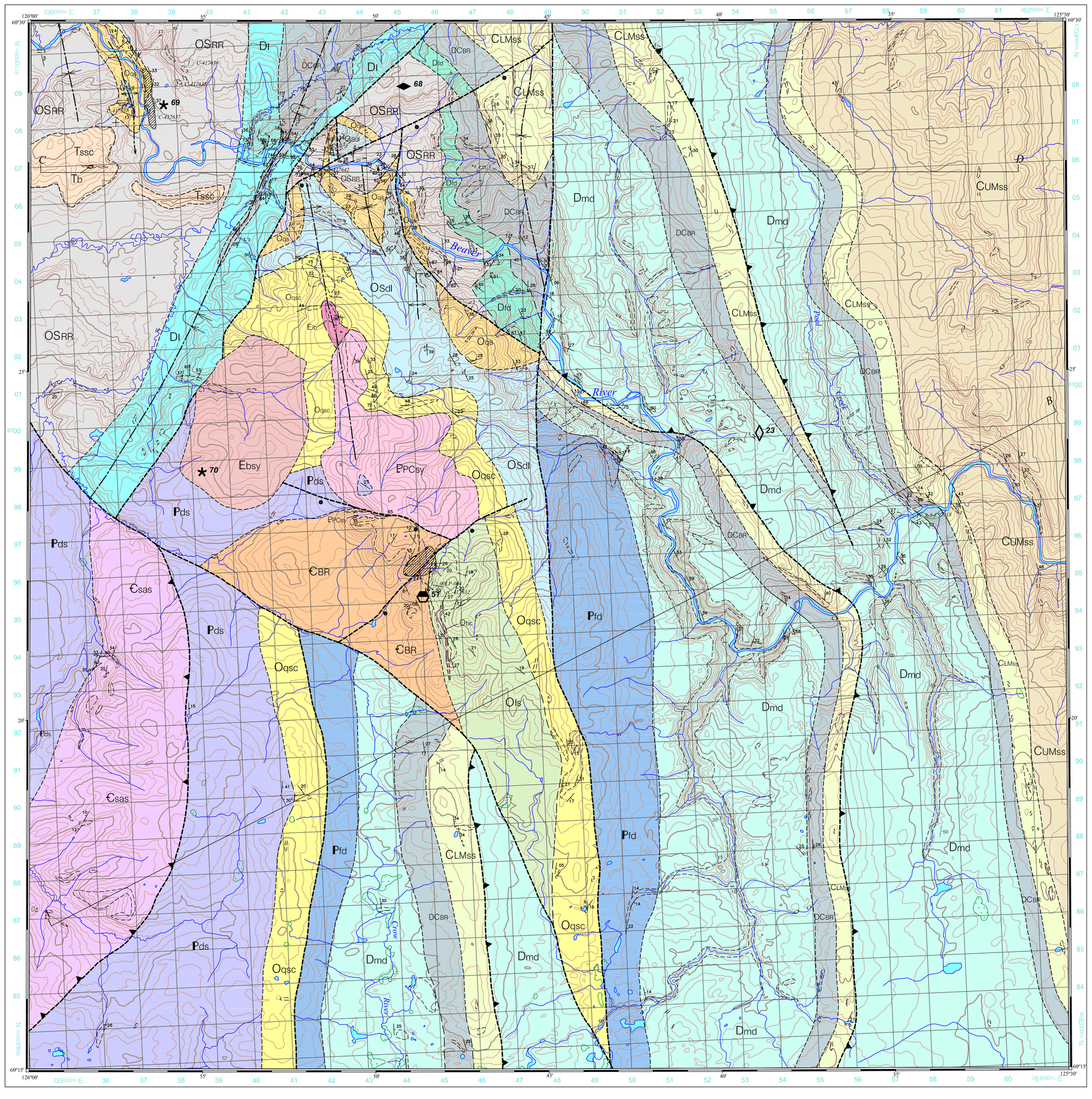
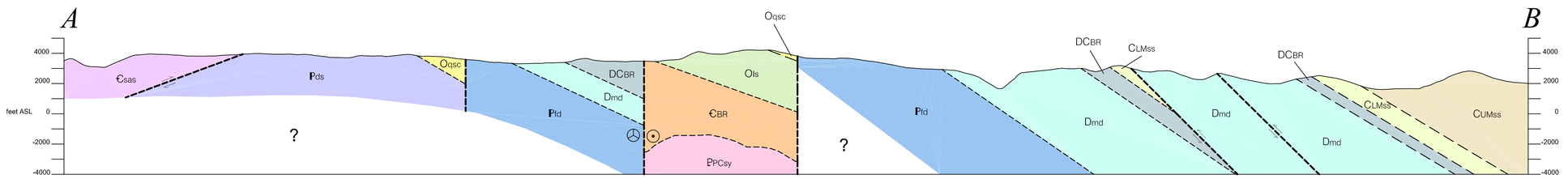
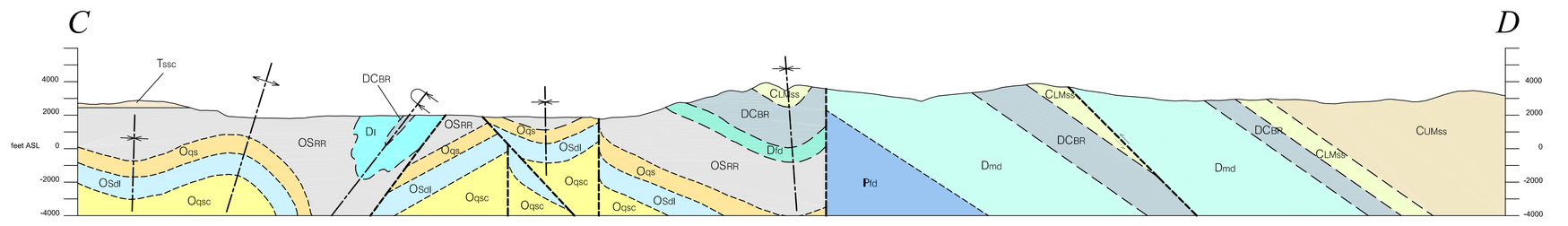



## LEGEND

### INTRUSIVE ROCKS

**EOCENE(?)**

*Intrusive Breccia*

**Eib** — Greyish-red and pale green, aphanitic, intrusive breccia. Xenoliths include Pool Creek syenite, volcanic rocks, and quartz sandstone.

*Biotite Syenite*

**Ebsy** — Coarsely crystalline, unfoliated, white-weathering K-feldspar and plagioclase with lesser coarse biotite.

**PRECAMBRIAN-CAMBRIAN**

*Pool Creek Syenite*

**PPCsy** — Pink, medium to coarsely crystalline, unfoliated syenite, Predominantly randomly oriented pink K-feldspar crystals with lesser dark, strongly chloritized biotite.

### LAYERED ROCKS

**TERTIARY(?)**

*Basalt*

**Tb** — Dark grey, aphanitic, amygdaloidal to massive basalt.

*Sediments*

**Tssc** — Poorly consolidated siltstone, sandstone and conglomerate.

**CARBONIFEROUS**

*Upper Mattson Formation*

**CUMss** — Orange-weathering, grey, calcareous, rippled, very fine- to fine-grained sandstone and siltstone.

*Lower Mattson Formation*

**CLMss** — Alternating quartz-rich, fine-grained sandstone and dark grey to black shale on the order of 10 to 15 metres. The sandstone is well sorted, well indurated with detrital coarse muscovite and pyrobitumen. Local ripples and load casts.

**DEVONIAN to CARBONIFEROUS**

*Besa River Formation*

**DCBR** — Dark grey to black, carbonaceous shale, siltstone, bedded chert and silliceous limestone. Weathers recessively to pale bluish-grey.

**DEVONIAN**

*Limestone*

**DI** — Buff- to grey-weathering, medium grey, argillaceous limestone, Micritic, with the exception of local thin grainstone beds (< 10 cm) containing *Gasterocoma bicauta* and other crinoids.

*Massive Dolostone*

**Dmd** — Buff- to grey-weathering, light to medium grey, massive, fine-grained, vuggy, unfossiliferous dolostone. Uppermost interval contains interbeds of fossiliferous dolostone with *Gasterocoma bicauta*.

*Dolostone*

**DId** — Medium dark grey to dark grey, thin to thickly bedded, fetid dolostone. Black, discontinuous, fossiliferous (crinoids, etc.) chert bands and nodules.

**ORDOVICIAN to SILURIAN**

*Road River Group*

**OSRR** — Dark grey to black, locally calcareous or dolomitic, graptolitic shale or siltstone with lesser very fine-grained sandstone, bedded chert (porcellenite) and limestone. Weathers recessively and contains few brachiopods and crinoids.

**ORDOVICIAN**

*Quartz sandstone*

**Oqs** — Grey to buff, quartz-rich sandstone to pebbly grit. Grains are subround to round. Contains beds up to 2 m thick of heavily burrowed, slightly dolomitic, very fine-grained sandstone and siltstone.

*Sunblood Formation*

**OSdl** — Mottled light to dark grey dolostone and limestone, Micritic to sucrosic. Weathers light brownish-grey to buff.

*White Quartz Sandstone-Conglomerate*

**Oqsc** — White, quartz-rich sandstone to pebbly grit with quartz sandstone conglomerate interbeds. Contains minor beds up to 6 m thick of maroon, micaceous sandstone or siltstone.

*Green Laminated Siltstone*

**Ols** — Green to grey, locally greyish-red, banded siltstone with very fine-grained sandstone. Sandstone beds, 1 to 5 cm thick, are quartzose, internally laminated, and graded. The unit also includes soft sediment deformation, minor green, matrix-supported conglomerate beds, and starved ripples.

*Basaltic Conglomerate*

**Obc** — Greyish-red, clast-supported conglomerate. Clasts are subangular to subround, commonly pebble to cobble size (maximum 40 cm across). Clasts predominantly basalt with lesser amounts of quartz, carbonate, and sandstone. Unit is up to 20 m thick.

**LOWER PALEOZOIC**

*Dark Dolostone*

**Pld** — Dark grey, fetid, medium to thick bedded, fossiliferous dolostone. Contains discontinuous lenses and beds of black chert.

*Carbonate-Siltstone*

**Pds** — Tan to off-white, dolomitic, laminated siltstone. Locally with abundant cross beds. Upper part of interval consists of medium to dark grey limestone and tan-weathering dolostone.

**CAMBRIAN**

*Reddish siltstone-argillite-sandstone*

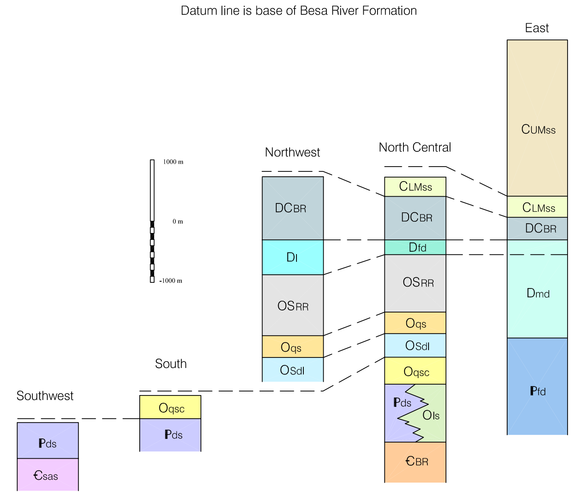
**Csas** — Greyish-red, laminated siltstone to argillite interbedded with very fine-grained, massive sandstone. Lower part of interval is calcareous.

*Backbone Ranges Formation (?)*

**CBR** — White to light grey quartzite, Very fine-grained to sugary, massive to faintly laminated. Interbeds of dark grey to black, laminated siltstone.

## POSSIBLE STRATIGRAPHIC CORRELATIONS

Datum line is base of Besa River Formation




## SYMBOLS

Geological contacts (defined, approximate, inferred)

Normal fault (dot on downthrown side) (defined, approximate, inferred)

Thrust fault (teeth on hanging wall) (defined, approximate, inferred)

Strike-slip fault (defined, approximate, inferred)

Fault, displacement unknown (defined, approximate, Inferred)

Metamorphic hornfels line (symbol on higher grade side)

Limit of outcrop

Gossan

Bedding (upright, overturned, vertical, horizontal) — 52 52

Bedding estimated (upright) — 52

Dominant foliation (transposition foliation; commonly parallel to compositional layering) (inclined, vertical) — 52

Intersection lineation created by intersection of bedding with dominant foliation (plunge of lineation indicated) — 52

Fold axis lineation (plunge of lineation indicated) — 52

Fold axial surface trace (anticline; upright, overturned; syncline; upright, overturned)

Line of cross section — A B

Fossil locality with sample number — f C-417636

## MINERAL OCCURRENCES
Yukon MINFILE, 1997

| | | | |
|---|---|---|---|
| 95C 023 | ◊ | TROUT, POOL | vein |
| 95C 051 | ◓ | BEAU, DUNN, KIDD, SID, VISTA | skarn |
| 95C 068 | ◆ | BEAV | sedex |
| 95C 069 | ★ | TRANZ | work target |
| 95C 070 | ★ | THOR | work target |

## FOSSILS

| Location | Material | CAI/TAI | Age Range | Unit | Ref |
|---|---|---|---|---|---|
| 00LP-004 | conodont | 2 | Tremadocian to Arenigian | Ols | (11) |
| GSC C-417632 | conodont | 3-4 | late Middle to Upper Ordovician | Ols | (11) |
| GSC C-417638 | conodont | 3-4 | Middle to Upper Ordovician | OSdl | (11) |
| GSC C-417642 | conodont | 3-4 | Upper Ordovician to Lower Devonian | OSRR | (11) |
| GSC C-417635 | Protospongia | | probably Silurian | OSRR | (10) |
| GSC C-417636 | Hexactractiellia | | probably Silurian | OSRR | (10) |
| GSC C-417637 | graptolites | | Early Silurian - Wenlock | OSRR | (10) |
| GSC 8-5 C97618 | conodont | 2 | Emsian to Givetian | Dmd | (11) |

## REFERENCES


1) Allen, T.L. and Pigage, L.C., 2000. Geological map of Pool Creek (NTS 95C/S), southeastern Yukon (1:50 000 scale). Exploration and Geological Services Division, Yukon, Indian and Northern Affairs Canada, Open File 2000-11.

2) Allen, T.L., Pigage, L.C., and MacNaughton, R.B., 2001. Preliminary geology of the Pool Creek map area (95C/S), southeastern Yukon. *In:* Yukon Exploration and Geology 2000, D.S. Emond and L.H. Weston (eds.), Exploration and Geological Services Division, Yukon, Indian and Northern Affairs Canada, p. 53-72.

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6) Heffernan, S., and Mortensen, J.K., 2001. Personal communication.

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## RECOMMENDED CITATION

Pigage, L.C. and Allen, T.L., 2001. Geological map of Pool Creek (NTS 95C/5), southeastern Yukon (1:50 000 scale). Exploration and Geological Services Division, Yukon Region, Indian and Northern Affairs Canada, Open File 2001-32.

Digital cartography and drafting by L.C. Pigage and T.L. Allen, Yukon Geology Program.

Any revisions or additional geological information known to the user would be welcomed by the Yukon Geology Program.

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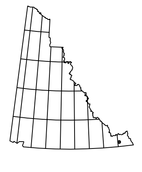

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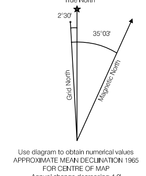
ONE THOUSAND METRE
Universal Transverse Mercator Grid
ZONE 10

POOL CREEK
YUKON TERRITORY
SCALE 1:50 000

Miles 1 0 1 2 3 Miles
Metres 1000 0 1000 2000 3000 4000 Metres

CONTOUR INTERVAL 100 FEET
Elevations in feet above Mean Sea Level
North American Datum 1983
Transverse Mercator Projection




Use diagram to obtain numerical values
APPROXIMATE MEAN DECLINATION 1965
FOR CENTRE OF MAP
Annual change decreasing 4.0'

| | | |
|---|---|---|
| 95D/9 | 95C/12 | 95C/11 |
| 95D/8 | THIS MAP | 95C/6 |
| 95D/1 | 95C/4 | 95C/3 |


Indian and Northern Affairs Canada
Exploration and Geological Services Division
Yukon Region

Open File 2001-32


# GEOLOGICAL MAP OF POOL CREEK (NTS 95C/5), SOUTHEASTERN YUKON (1:50 000 scale)

by


L.C. Pigage and T.L. Allen
Yukon Geology Program