

- QUATERNARY**
 Q Alluvium, colluvium
- DEVONIAN**
 D LA LOCHE AND FITZGERALD FORMATIONS: breccia, conglomeratic to arkosic sandstone, sandstone, mudstone, dolomite, dolomitic limestone, minor carbonaceous shale (see Note 4)
- PALEOPROTEROZOIC**
 WESTERN SLAVE GRANITE: massive to weakly, locally moderately, foliated, medium- to coarse-grained quartz monzonite, monzogranite, and granite; colour varies from white to pink; small clots of garnet, biotite, hercynite, and cordierite. Locally abundant rags of granitic gneiss, and pelitic and quartzitic paragneiss. Dykes on margin of main pluton intrude Arch Lake granite and high-grade mylonite of LLSZ
 HIGH-GRADE MYLONITE: well banded, quartz-feldspathic mylonite, protomylonite, and ultramylonite with sparsely preserved sub-horizontal quartz stretching lineations; amphibolite pull-aparts; ductile feldspars indicative of amphibolite to granulite facies during shearing. Protoliths include Taltson basement gneiss and Arch Lake granite. Variable greenschist and sub-greenschist grade overprint
 ARCH LAKE GRANITE: massive, weakly foliated to well-foliated, mylonitic granite to syenogranite gneiss with 30 to 50 percent feldspar; 1x3cm K-feldspar crystals in a fine- to medium-grained matrix of biotite, quartz, feldspar, and megacrysts. Locally forms L-S tectonite with rods of blue quartz in association with high-grade mylonite in the Charles Lake and Leland Lakes shear zones (see Note 3). PPal-d dated granodioritic to dioritic, biotite-hornblende, K-feldspar augen gneiss
 METASEDIMENTARY GNEISS: large inliers of quartzite, semipelite gneiss, and pelitic gneiss; common mineral assemblages in pelitic gneiss include biotite-garnet-sillimanite + cordierite in the Leland Lakes area, with biotite-garnet-sillimanite common in areas to the east; locally pervasive pegmatite veins and dykes
ARCHEAN? or EARLY PROTEROZOIC
 TALTSON BASEMENT COMPLEX: well foliated, banded mylonitic biotite-hornblende granite to granodioritic gneiss, hornblende dioritic gneiss, locally well layered, locally dismembered and sigmoidally folded, highly sheared; pervasively intruded by medium-grained pink granite dykes, sills, and small intrusions similar to western Slave granite suite. Unit forms the principal protolith for high-grade mylonites of Leland Lakes shear zone
 well foliated to mylonitic, locally layered, amphibolite gneiss

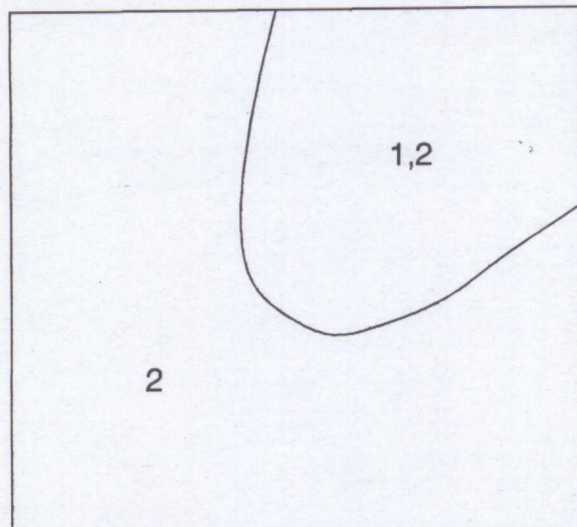
MAP SYMBOLS

- Geological contact (defined, approximate, assumed)
 Fault, displacement unknown (approximate)
 Antiform, trace of axial surface (overturned, approximate)
 Synform, trace of axial surface (overturned, approximate)
 Foliation, high-grade mylonite (inclined, vertical)
 Foliation, greenschist mylonite (inclined)
 First Foliation (inclined, vertical)
 Second Foliation (inclined, vertical)
 Lineation, high-grade stretching (inclined)
 Lineation, greenschist stretching (inclined)
 Lineation, mineral (inclined)
 Mesoscopic fold axis, vergence indicated by tick (inclined)
 Mesoscopic W-fold axis (inclined)
 Mesoscopic U-fold axis (inclined)
 Axial plane of mesoscopic fold (inclined, vertical)
 Veins: quartz (inclined, vertical)
 pegmatite (vertical)
 epidote (vertical)
 granite (inclined, vertical)
 Shear bands: ductile, sinistral (vertical)
 brittle, dextral (inclined, vertical)
 brittle, sinistral (vertical)
 Joint (inclined)
 Mineral occurrence (py, pyrite; Cu, chalcocopyrite)
 Gossan
 Brecciation

NOTES:

- The ages of granitoid units are not precisely known. Western Slave granite intrudes Arch Lake granite and high-grade mylonites of Leland Lakes shear zone. U-Pb dating is in progress.
- Leland Lakes shear zone (LLSZ) is a composite shear zone active under granulite facies conditions, and later at amphibolite to greenschist and sub-greenschist facies conditions (McDonough et al., 1993, GSC Paper 93-1C).
- East limit of greenschist grade shearing in LLSZ.
- Devonian formations from Norris, A.W., 1963, GSC Memoir 313.
- Elevations are in feet above mean sea level.

SOURCES OF INFORMATION:

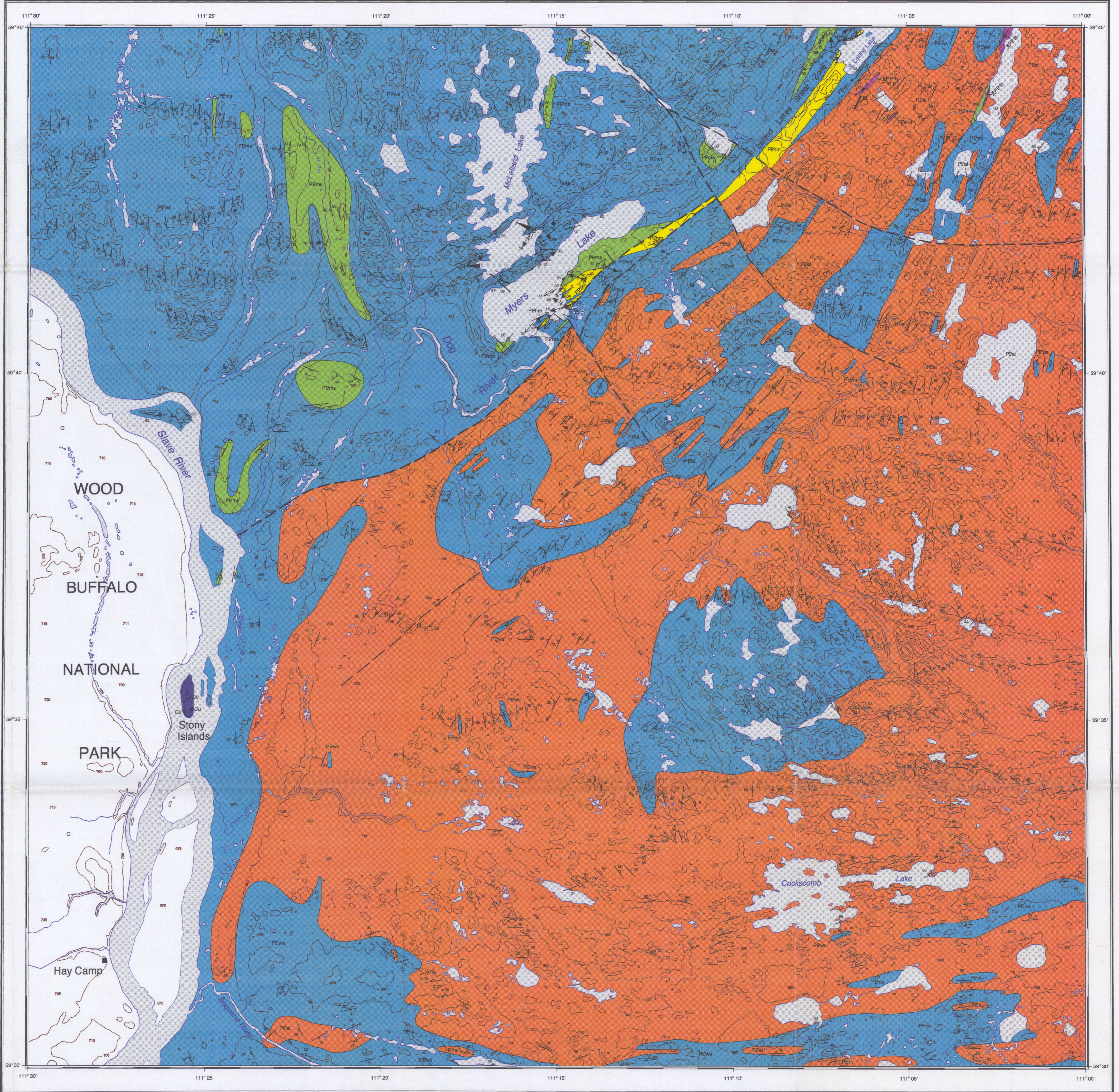


- McDonough, M.R., Cooley, M.A., and Schetselaar, E.M., unpublished mapping, 1993.
- Godfrey, J.G. and Langenberg, C.W., 1986, Geology of the Myers-Daly Lakes district, Alberta. Alta. Res. Coun., Report 1984-6.

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Caribou Islands 74M/12 ARC 1984-28	Hay Camp 74M/11 GSC O.F. 2832 ARC 1984-29,29	Cornwall Lake 74M/10 GSC O.F. 2896 ARC 1984-30,31
Darough Creek 74M/5	Boquene Lake 74M/6 ARC 1984-24,25	Turtle Lake 74M/7 GSC O.F. xxxx ARC 1984-26,27

GEOLOGY
HAY CAMP (74M/11)
ALBERTA

Scale 1:50 000 Echelle
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