

## LEGEND

### PLUTONIC ROCKS

Mid-Cretaceous, Hyland suite

### METAMORPHIC ZONES

Chlorite and lower zone

Staurolite zone

Andalusite zone

Sillimanite zone

Sillimanite + k-feldspar zone

Interpreted contact aureole

### MINERAL ASSEMBLAGES

St	• Sil+Crd
And+St	■ Sil+And
And+St+Crd	■ Sil+And+Crd
And	▲ Sil+Kfs
And+Crd	▲ Sil+Kfs+Crd
Grt	■ Sil+Kfs+And
Sil	■ Sil+Kfs+And+Crd

### REGIONAL METAMORPHIC ISOGRADS

Andalusite (approximate, inferred)..... And-in

Sillimanite (approximate, inferred)..... Sili-in

Alkali feldspar (approximate, inferred)..... Kfs-in

### SYMBOLS

geologic contacts  
(defined, approximate, inferred, covered)....

fault, movement not known  
(defined, approximate, inferred, covered)....

normal fault  
(defined, approximate, inferred, covered)....

anticline (upright, overturned).....

syncline (upright, overturned).....

NOTES  
Field work completed during the summer of 2017. Geology by C. Padget with additional information from Moynihan, 2016 and Roots et al., 1986. Mineral abbreviations after Kretz, 1983.

This metamorphic map for the Anderson Lake area is based upon silicate minerals recording peak-metamorphic temperatures. Metamorphic zones are based on mineral assemblages in pelitic and semi-pelitic rocks. Mineral assemblages were identified from thin section petrography, hand samples, and field observations. Where K-feldspar (Kfs) is noted, the presence of myrmekite was also recorded as evidence of peak-metamorphic Kfs.

Cross sections with metamorphic isograds may be found on sheet 1. UTM grid on map corresponds to UTM coordinates given for samples in table to right.

### REFERENCES

KRETZ, R., 1983. Symbols of rock-forming minerals. *American Mineralogist*, 68, 277-279.

MOYNIHAN, D., 2016. Bedrock Geology of the upper Hyland River area, NTS 105H/07, 105H/09, 105H/10, 106H/15, 105H/16, 105H/02, southeast Yukon. Yukon Geological Survey, Open File 2016-36, 1:50 000 scale.

ROOTS, E.F., GREEN, L.H., RODDICK, J.A. and BLUSSON, S.L., 1966. Geology, Frances Lake, Yukon Territory and district of Mackenzie. Geological Survey of Canada, Preliminary Map 6-1966, scale 1:253 440.

### RECOMMENDED CITATION

PADGET, C., 2018. Bedrock geology and metamorphism of the Anderson Lake area, parts of NTS 105H/07, 105H/10, and 105H/11, southeastern Yukon. Yukon Geological Survey, Open File 2018-19, 2 sheets, scale 1:50 000.

Digital cartography and drafting by Colin Padget, University of Calgary.

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

A paper copy of this map may be obtained from the Yukon Geological Survey, Energy Mines and Resources, Government of Yukon, Room 102, 300 Main Street, Whitehorse, Yukon, Y1A 2B5. Phone 867-667-3201; Email: geology@gov.yk.ca

A PDF (Portable Document Format) of this map may be downloaded free of charge from the Yukon Geological Survey website: <http://www.geology.gov.yk.ca>.

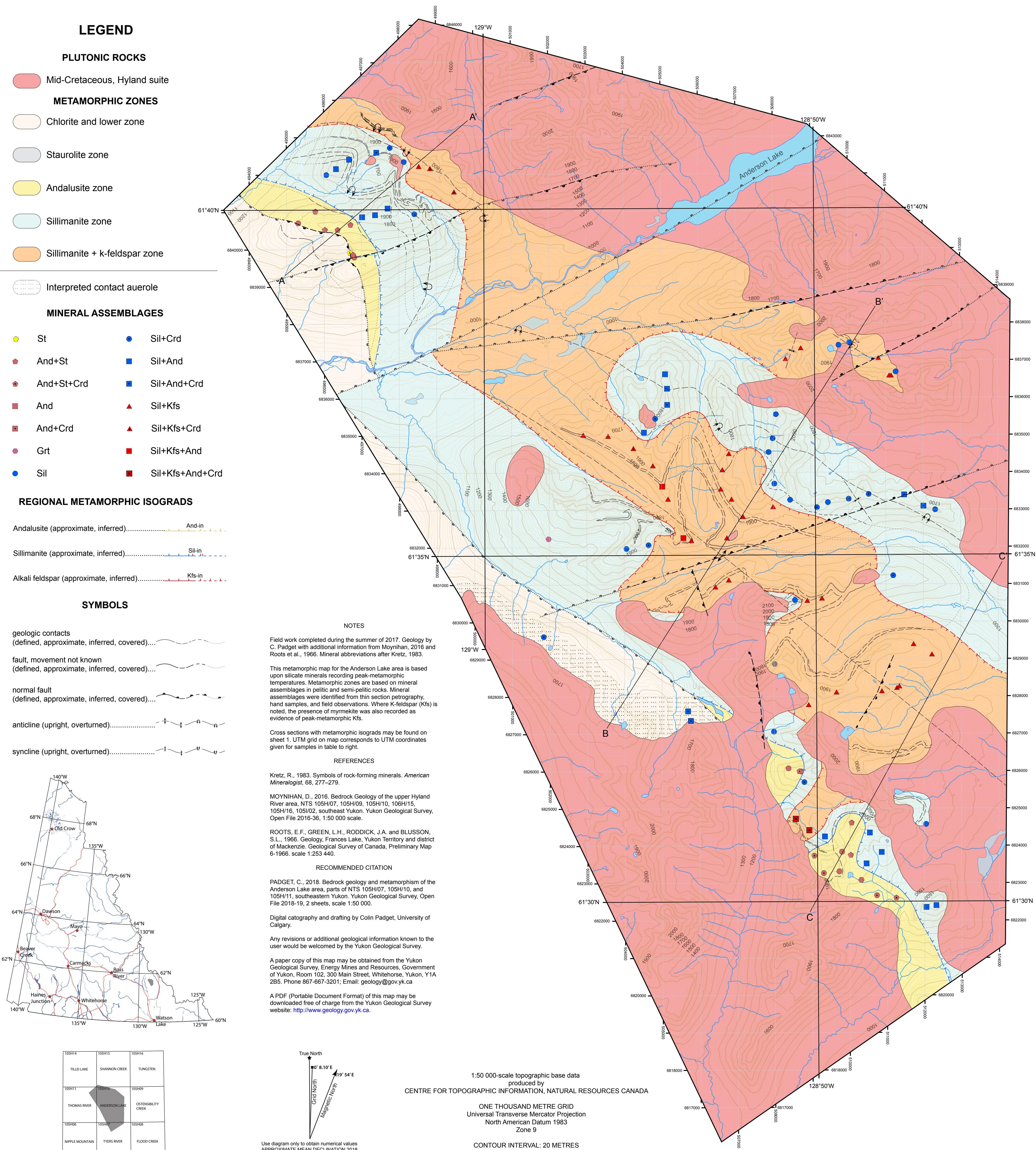
True North  
Grid North  
Magnetic North

1:50 000-scale topographic base data  
produced by  
CENTRE FOR TOPOGRAPHIC INFORMATION, NATURAL RESOURCES CANADA

ONE THOUSAND METRE GRID  
Universal Transverse Mercator Projection  
North American Datum 1983  
Zone 9

CONTOUR INTERVAL: 20 METRES  
Elevations in metres above Mean Sea Level

Use diagram only to obtain numerical values  
APPROXIMATE MEAN DECLINATION 2018  
FOR CENTRE OF MAP



Sample Locations and mineral assemblages from thin section														
Sample #	UTM E	UTM N	Elev (m)	Grt	Kfs	Sil	St	And	Crd	Bt	Chl	Ms	Otz	Pl
17-CP-001	530406	6800702	1720	x	x	x				x	x	x	x	x
17-CP-002	530525	6800870	1774	x	x	x				x	x	x	x	x
17-CP-004	529835	6800533	1688	x	x	x				x	x	x	x	x
17-CP-008	530703	6800545	1608	x	x	x				x	x	x	x	x
17-CP-108	530965	6799775	1588	x	x	x				x	x	x	x	x
17-CP-148	530226	6799322	1910											
17-CP-188	532685	6798455	1861	x	x	x				x	x	x	x	x
17-CP-258	509763	6833459	1717	x	x	x				x	x	x	x	x
17-CP-259	509473	6833387	1722	x	x	x				x	x	x	x	x
17-CP-031	510537	6833042	1548	x	x	x				x	x	x	x	x
17-CP-032	510302	6832691	1735	x	x	x				x	x	x	x	x
17-CP-033	509393	6832376	1727	x	x	x				x	x	x	x	x
17-CP-034	510839	6832378	1752	x	x	x				x	x	x	x	x
17-CP-037	508463	6833214	1819	x	x	x				x	x	x	x	x
17-CP-038	508056	6833027	1713	x	x	x				x	x	x	x	x
17-CP-040	508594	6829238	1875	x	x	x				x	x	x	x	x
17-CP-041	509607	6828803	1982	x	x	x				x	x	x	x	x
17-CP-043	506598	6829271	1968	x	x	x				x	x	x	x	x
17-CP-045A	506356	6830060	1852	x	x	x				x	x	x	x	x
17-CP-045B	506533	6830489	1782	x	x	x				x	x	x	x	x
17-CP-048	512046	6828979	1820	x	x	x				x	x	x	x	x
17-CP-049	511732	6829077	1812	x	x	x				x	x	x	x	x
17-CP-050	512128	6829380	1889	x	x	x				x	x	x	x	x
17-CP-051	510270	6829393	1874	x	x	x				x	x	x	x	x
17-CP-053	509753	6829269	1914	x	x	x				x	x	x	x	x
17-CP-054	509178	6829180	1924	x	x	x				x	x	x	x	x
17-CP-055	507713	6829064	1838	x	x	x				x	x	x	x	x
17-CP-056	504033	6825619	1975	x	x	x				x	x	x	x	x
17-CP-061	504590	6831069	1964	x	x	x				x	x	x	x	x
17-CP-062	503978	6830636	1893	x	x	x				x	x	x	x	x
17-CP-063	503204	6830961	1781	x	x	x				x	x	x	x	x
17-CP-066	508475	6832656	1761	x	x	x				x	x	x	x	x
17-CP-067	509309	6828233	1952	x	x	x				x	x	x	x	x
17-CP-071	504377	6828041	1856	x	x	x				x	x	x	x	x
17-CP-072	503783	6827948	1965	x	x	x				x	x	x	x	x
17-CP-073	504833	6832616	1755	x	x	x				x	x	x	x	x
17-CP-075	504896	6831801	1840	x	x	x				x	x	x	x	x
17-CP-076	504596	6831430	1860	x	x	x		</						