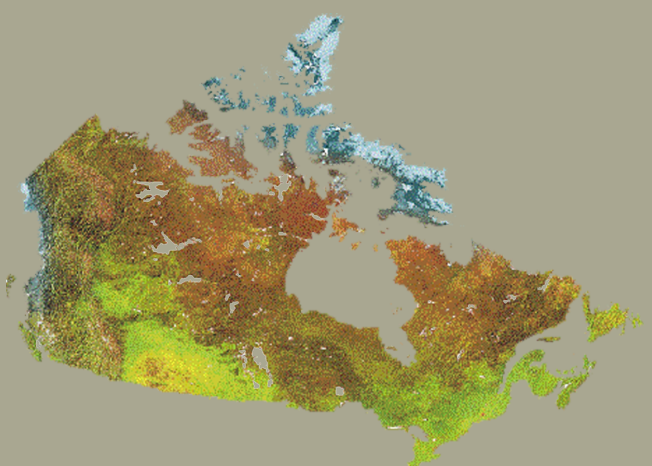
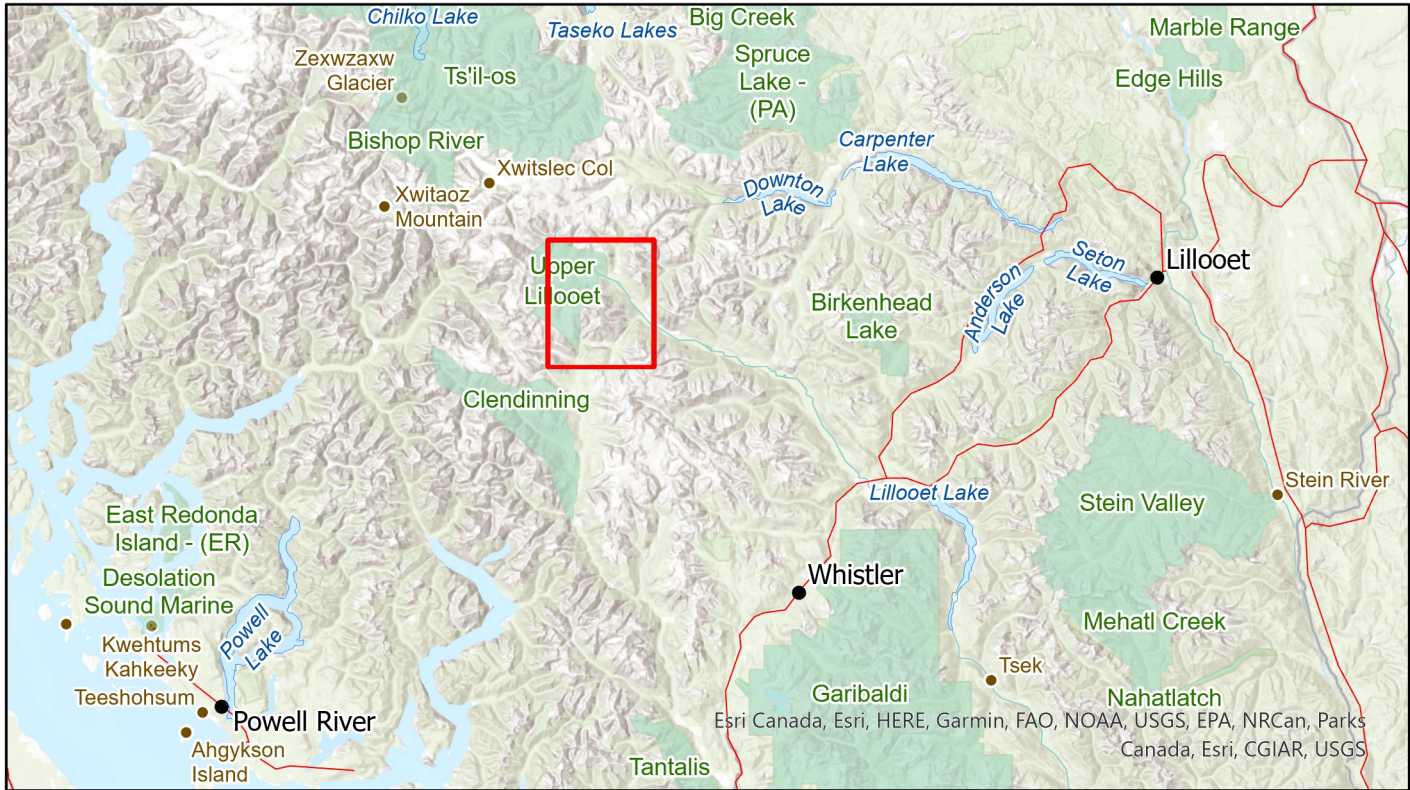


MOUNT MEAGER VOLCANIC COMPLEX, GARIBALDI VOLCANIC BELT, BRITISH COLUMBIA: EXPANDED BEDROCK MAP INCLUDING CRACKED MOUNTAIN, NORTH LILLOOET RIDGE, AND WEST MOUNT MEAGER

M. Harris¹, J.K. Russell¹, M. Muhammad², and G. Williams-Jones²



Mount Meager Volcanic Complex, Garibaldi Volcanic Belt, Canada:
Expanded Bedrock Map including Cracked Mountain,
North Lillooet Ridge, and West Mount Meager

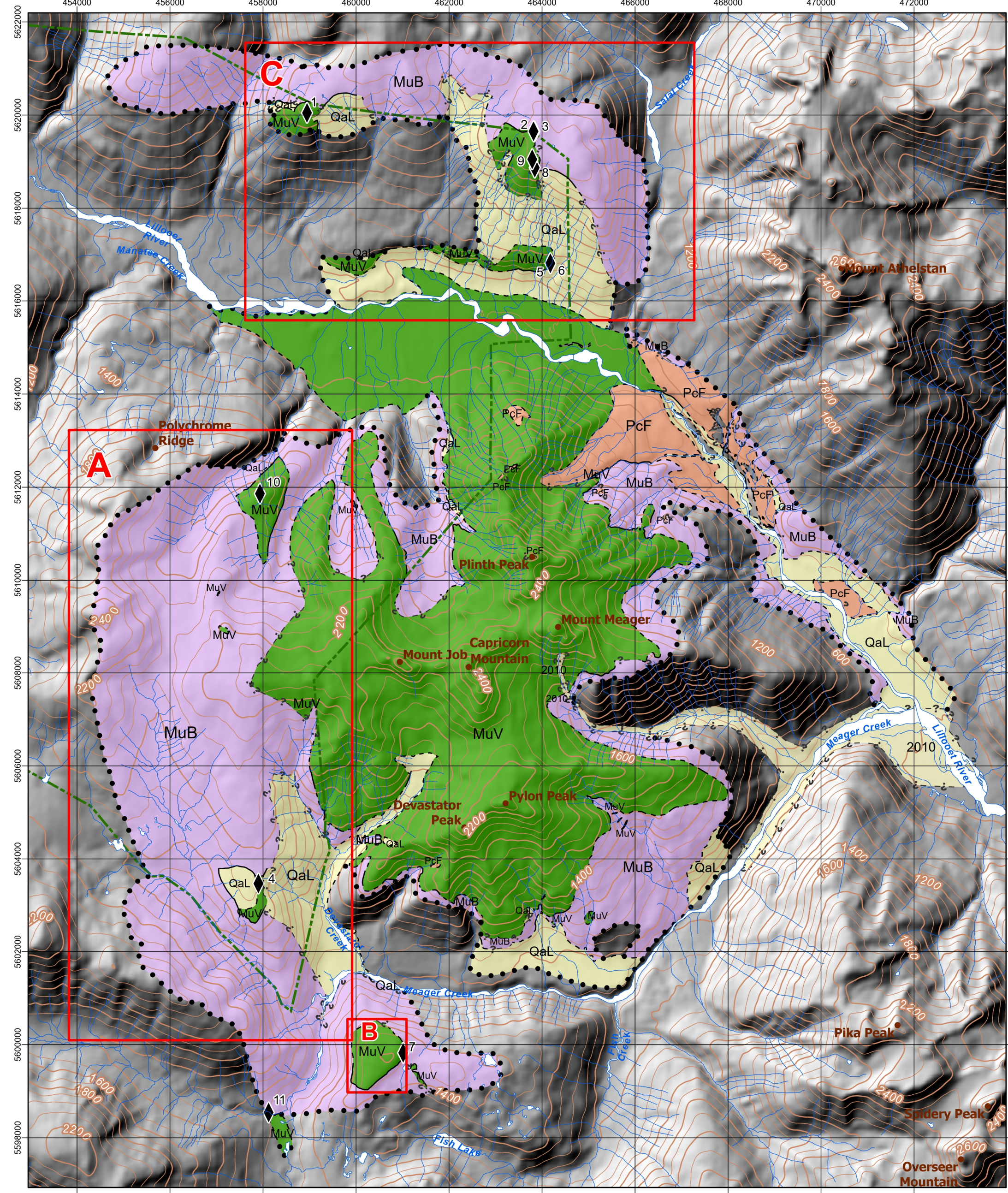


Sample Number	Samples	Map Region	Rock Type	Associated Map Unit	UTM Easting	UTM Northing	Plateau Age (ka) ± 2σ
1	Lillooet Ridge ^a	North Lillooet	Dacite	NLvj	458946	5620048	1120 ± 10
2	SFU-4	North Lillooet	Andesite	NLcj	463832	5619646	864.8 ± 6.2
3	SFU-1	North Lillooet	Andesite	NLcj	463817	5619651	850.7 ± 15.9
4	Devastator Creek ^b	West MMVC	Dacite	DCcj	457900	5603470	499.7 ± 3.7
5	MH-19-002	North Lillooet	Basalt	NLmpB	464179	5618008	441.7 ± 9.8
6	MH-19-006	North Lillooet	Basalt	NLmpB	464179	5618008	456.5 ± 5.8
7	Cracked Mountain ^b	Cracked Mountain	Basalt	CMLp	461014	5599824	401.6 ± 38.1
8	Lillooet Ridge ^a	North Lillooet	Basalt	NLmb	463843	5618872	205.1 ± 6.5
9	MH-19-116	North Lillooet	Basalt	NLmb	463789	5619051	201.1 ± 11.8
10	Mosaic Ridge ^a	West MMVC	Basalt	Ps-10x	457933	5611861	115.2 ± 9.7
11	Elaho Valley ^b	MMVC	Basaltic Andesite	N/A	458120	5595544	106.3 ± 11.0

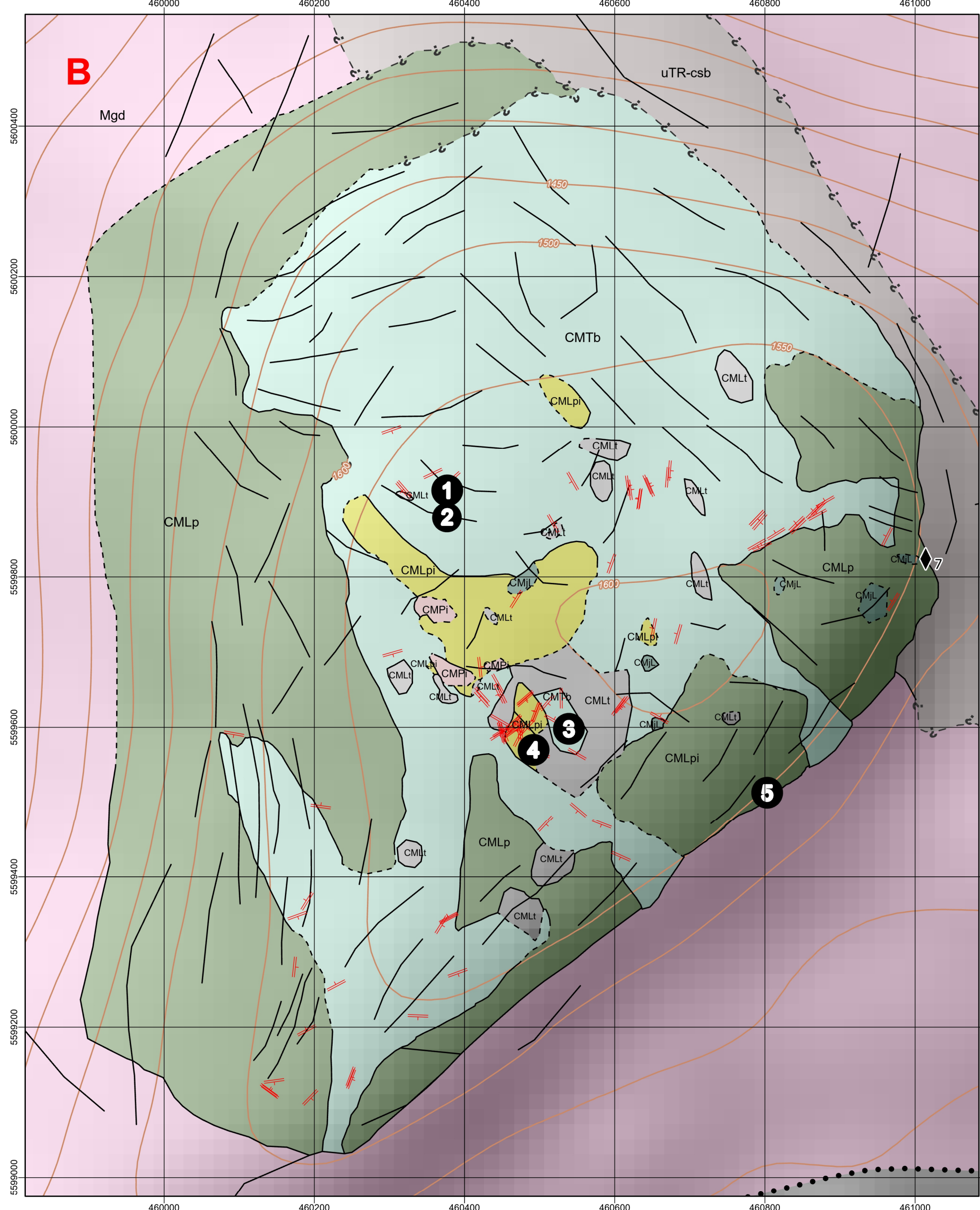
^a ⁴⁰Ar/³⁹Ar data for Mount Meager volcanic complex based on samples prepared and analysed by Oregon State University laboratories, Corvallis OR, USA.
^b ⁴⁰Ar/³⁹Ar data for Mount Meager volcanic complex based on samples prepared and analysed by WiscAr laboratories, University of Wisconsin-Madison, Madison WI, USA.

Recommended citation:
Harris, M., Russell, J.K., Muhammad, M., Williams-Jones, G. 2021. Mount Meager Volcanic Complex, Garibaldi Volcanic Belt, Canada: Expanded Bedrock Map including Cracked Mountain, North Lillooet Ridge, and West Mount Meager. Geological Survey of Canada.

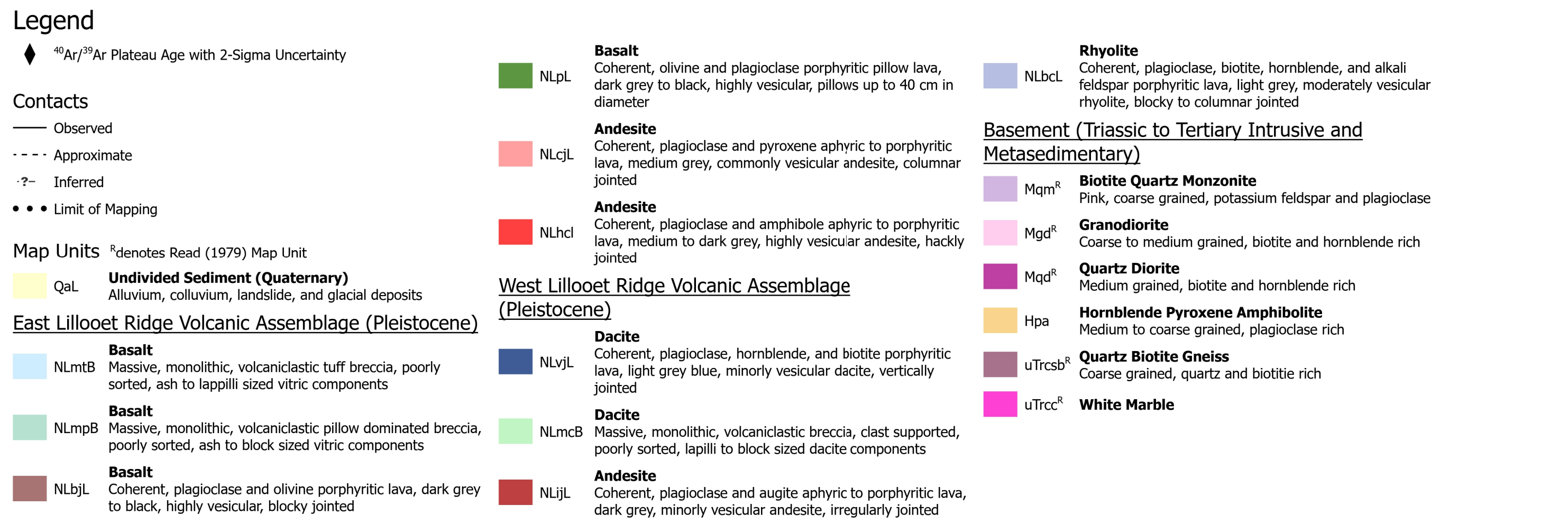
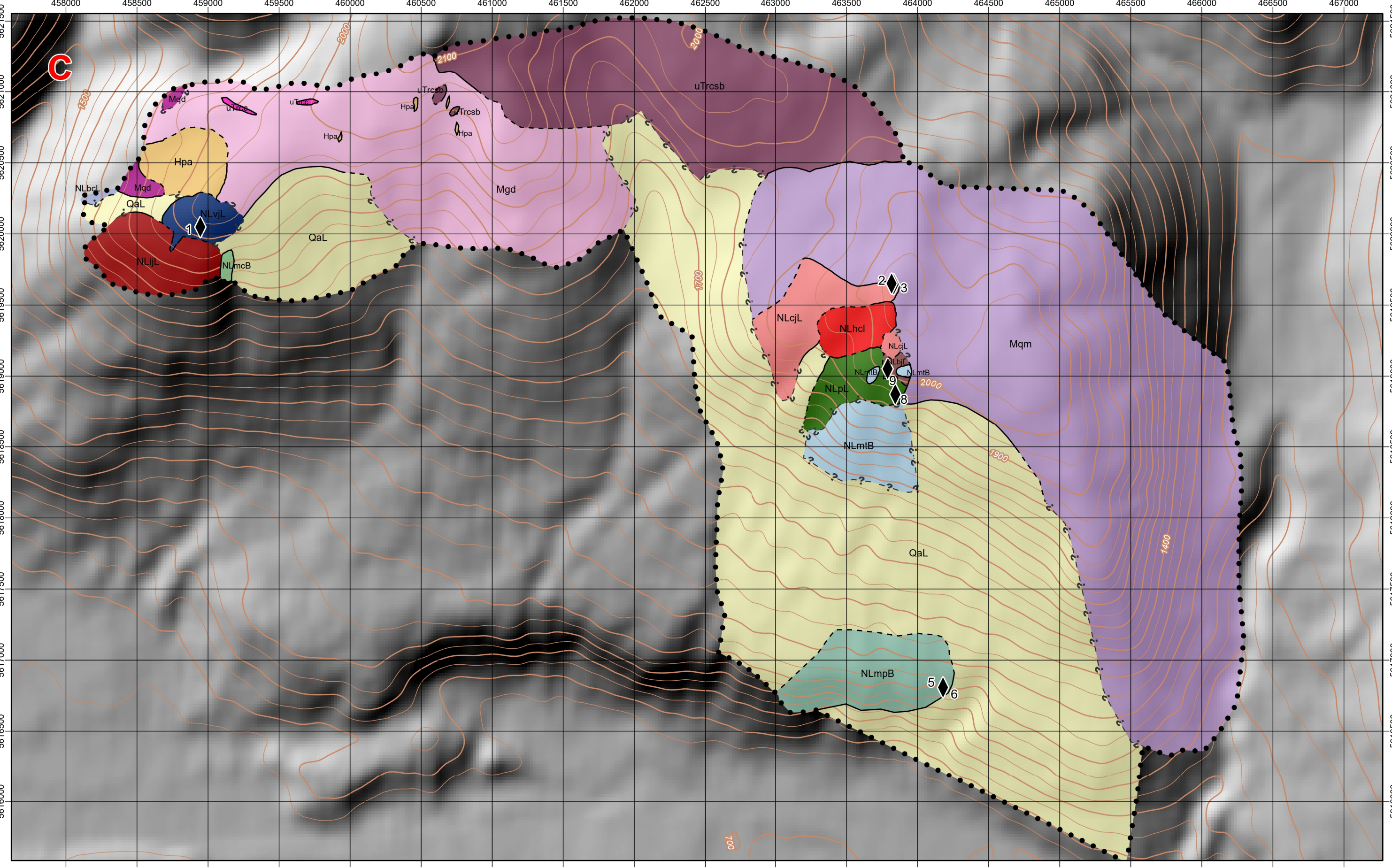
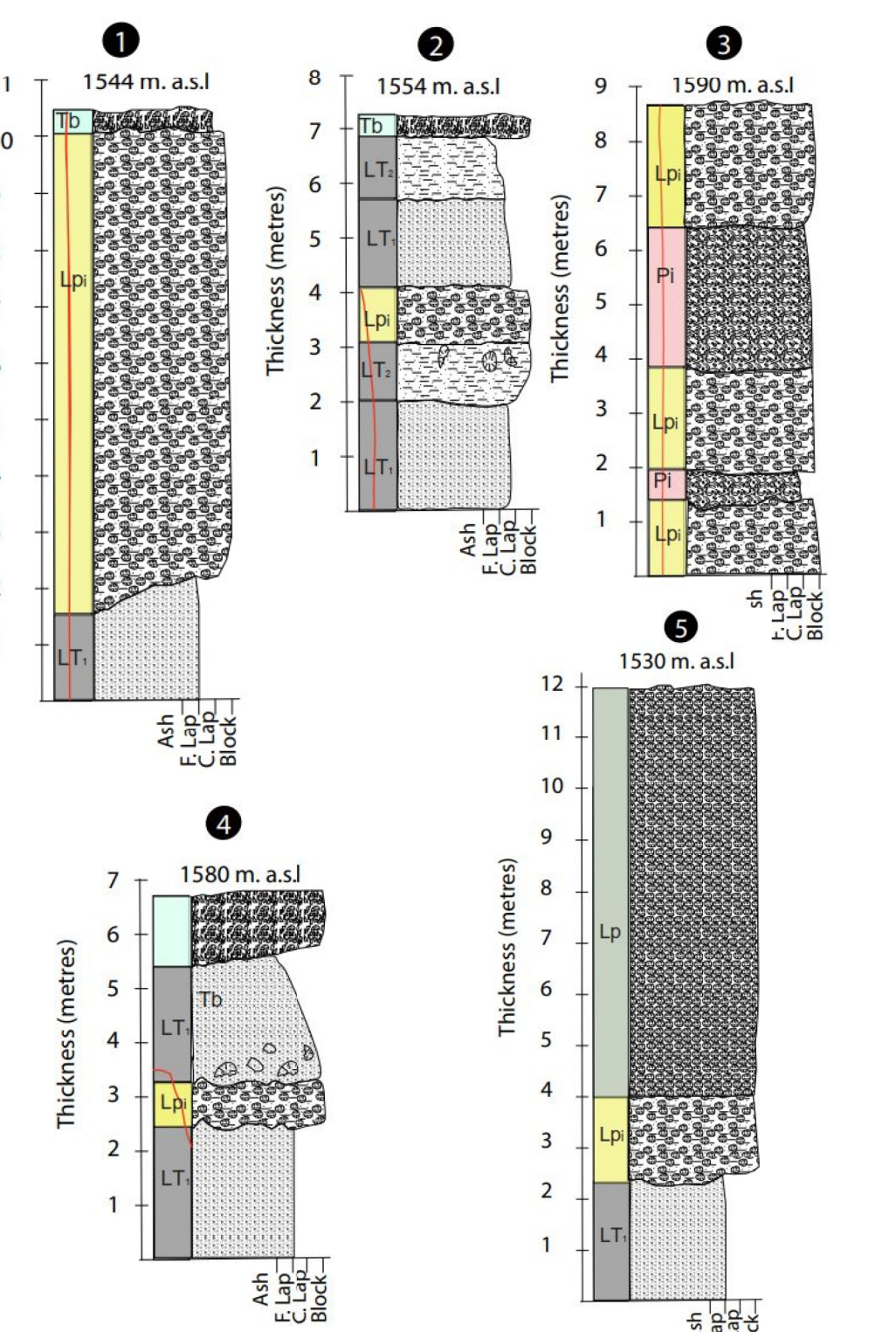
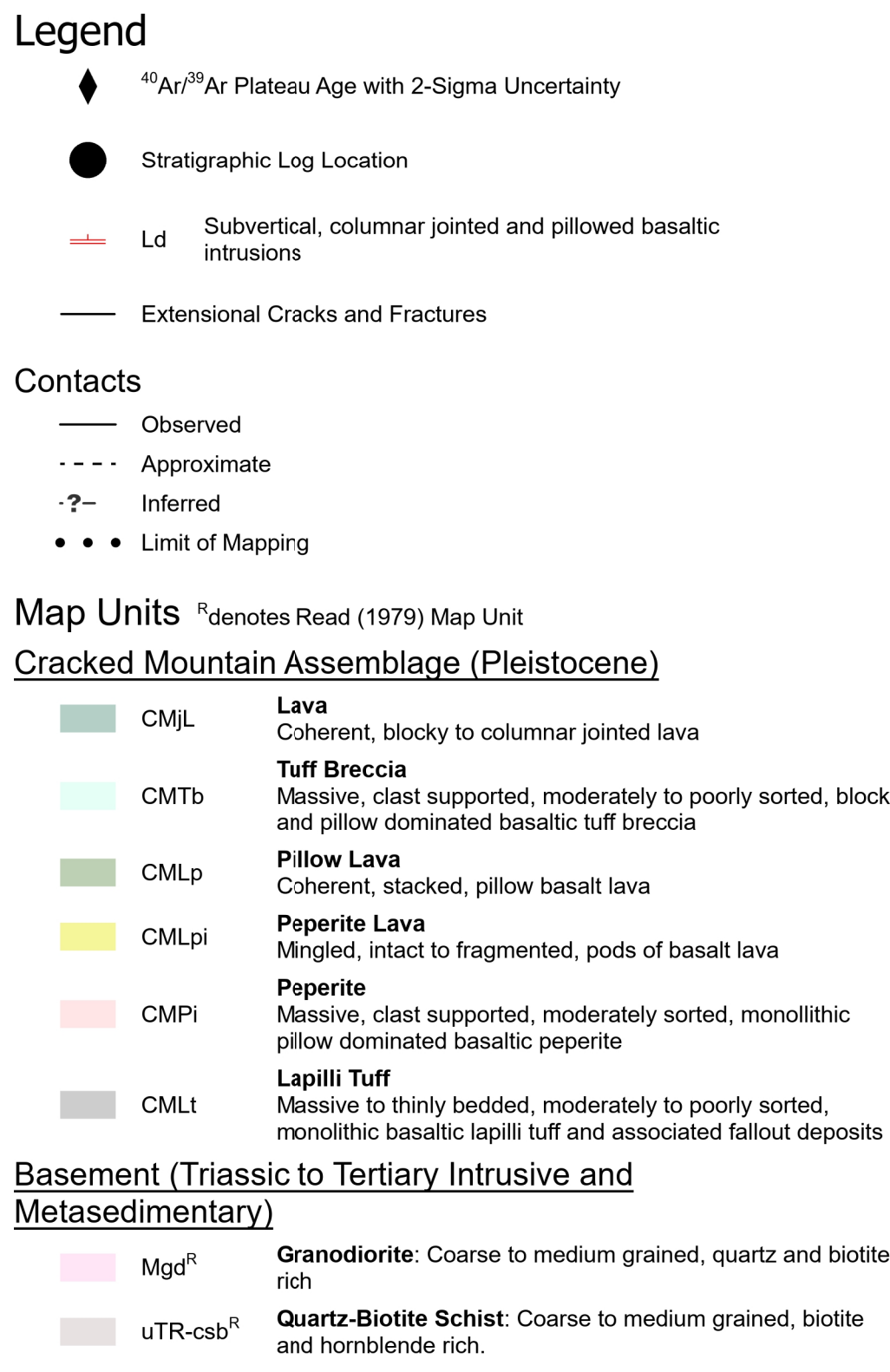
Base Map References:
Elevation contours (metres) and hillshade are generated from open source DEM (<https://sef.alaska.edu/data-sets/sar-data-sets/alos-palsar/>)
BC Parks, Ecological Reserves, and Protected Areas (<https://catalogue.data.gov.bc.ca/dataset/bc-parks-ecological-reserves-and-protected-areas>)
Indigenous Place Names (http://fb.maps.canada.ca/pub/mcan_mcan/Aboriginal-languages_Language-autochone/indigenous_place_names_2019/)
Additional Topographic Data from Natural Resources Canada
Projection: Universal Transverse Mercator North American Datum zone 10
References:
Green, N.L., Harakal, J.E., Souther, I.J.G., and Read, P.B., 1988. Eruptive history and K-Ar geochronology of the late Cenozoic Garibaldi volcanic belt, southwestern British Columbia. Geological Society of America Bulletin, v. 100, p. 563–579. <https://pubs.geoscienceworld.org/gsa/gsabulletin/article-pdf/100/4/563/3380343/0016-7606-100-4-563.pdf>.
Harris, M.A., Russell, J.K., Barendregt, R., Porritt, L.A., and Wilson, A., 2022. Explosive glaciovolcanism at cracked Mountain Volcano, Garibaldi Volcanic Belt, Canada: Journal of Volcanology and Geothermal Research, v. 423, p. 107477. doi:10.1016/j.jvolres.2022.107477.
Hickson, C.J., Russell, J.K., Stasiuk, M.V., and Swanson, D.A., 1999. Volcanology of the 2350 B.P. Eruption of Mount Meager Volcanic Complex, British Columbia, Canada: Implications for Hazards from Eruptions in Topographically Complex Terrain 1. Bulletin of Volcanology, v. 60, p. 489–507.
Read, P., 1979. Meager Creek Geothermal Area. p. 1 Sheet. doi:10.4095/129507.
Read, P., 1990. Mt Meager Complex, Garibaldi Belt, Southwestern BC. Geoscience Canada, v. 17, p. 167–170.
Robert, G., Ward, B., van Wyk de Vries, B., Friele, P., Perotti, L., Clague, J.J., and Giordano, M., 2015. Precursory slope distress prior to the 2010 Mount Meager landslide, British Columbia. Landslides, v. 15, p. 637–647. doi:10.1007/s10346-017-0901-0.
Stewart, M.L., Russell, J.K., and Hickson, C.J., 2008. Geology, Pebble Creek formation, British Columbia: p. 1 sheet.
Wilson, A.M., and Russell, J.K., 2016. Quaternary glaciovolcanism in the Canadian Cascade volcanic arc—Paleoenvironmental implications. Field Volcanology: A Tribute to the Distinguished Career of Don Swanson. Geological Society of America, v. 538, doi:10.1130/2018.2538(06).
Woodsword, G., 1977. Geology of Pemberton (92J) Map Area. Geological Survey of Canada, p. 1 sheet.



Regional Undivided Geology
Scale: 1:75,000



Cracked Mountain
Scale: 1:5,000



West MMVC
Scale: 1:35,000

North Lillooet
Scale: 1:25,000