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GEOLOGIC MAP UNITS

Please see accompanying report for descriptions of the map units.

- PLUTONIC ROCKS**
MIDDLE FORK VOLCANIC COMPLEX
IKlv FELSIC VOLCANICS ROCKS (latest Cretaceous)
IKsp PORPHYRYTIC GRANITE (latest Cretaceous)
Ksp PORPHYRY (early Late Cretaceous)
HARPER PLUTONIC SUITE
Khg GRANITE (late Early Cretaceous)
Khgd GRANODIORITE (late Early Cretaceous)
Khgp GRANITE PORPHYRY (late Early Cretaceous)
NAPOLEON CREEK PLUTONIC SUITE
Jg UNDIVIDED (Early Jurassic)
METAMORPHIC ROCKS
YUKON-TANANA TERRANE
KLONDIKE ASSEMBLAGE
Plevb METABASITE (Permian)
Pks SCHIST (Permian)
NASINA ASSEMBLAGE
MDms METABASITE (Mississippian to Devonian)
MDms METASEDIMENTARY ROCKS (Mississippian to Devonian)
FORTYMILE RIVER ASSEMBLAGE
MDms METASEDIMENTARY ROCKS (Mississippian to Devonian)
MDp PARAGNEISS (Mississippian to Devonian)
MDh AMPHIBOLITE (Mississippian to Devonian)
MDu ORTHOGNEISS (Mississippian to Devonian)
PARAUTOCHTHONOUS NORTH AMERICA
LAKE GEORGE ASSEMBLAGE
Jg META-ULTRAMAFIC ROCKS (Triassic to Paleozoic)
MDag DIVIDE MOUNTAIN AUGEN GNEISS (Early Mississippian to Late Devonian)
MDa AMPHIBOLITE (Early Mississippian to Late Devonian)
MDu ORTHOGNEISS (Early Mississippian to Late Devonian)
pMms METASEDIMENTARY ROCKS (Pre-Mississippian)
pMp PARAGNEISS (Pre-Mississippian)
MZu LAKE GEORGE ASSEMBLAGE, UNDIVIDED (Mississippian to

EXPLANATION OF MAP SYMBOLS

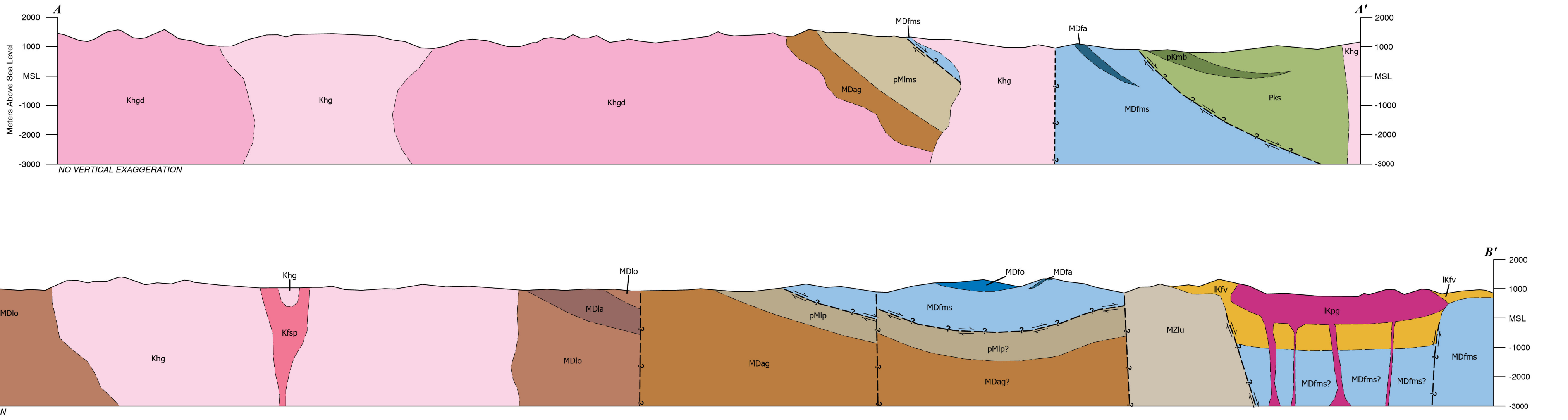
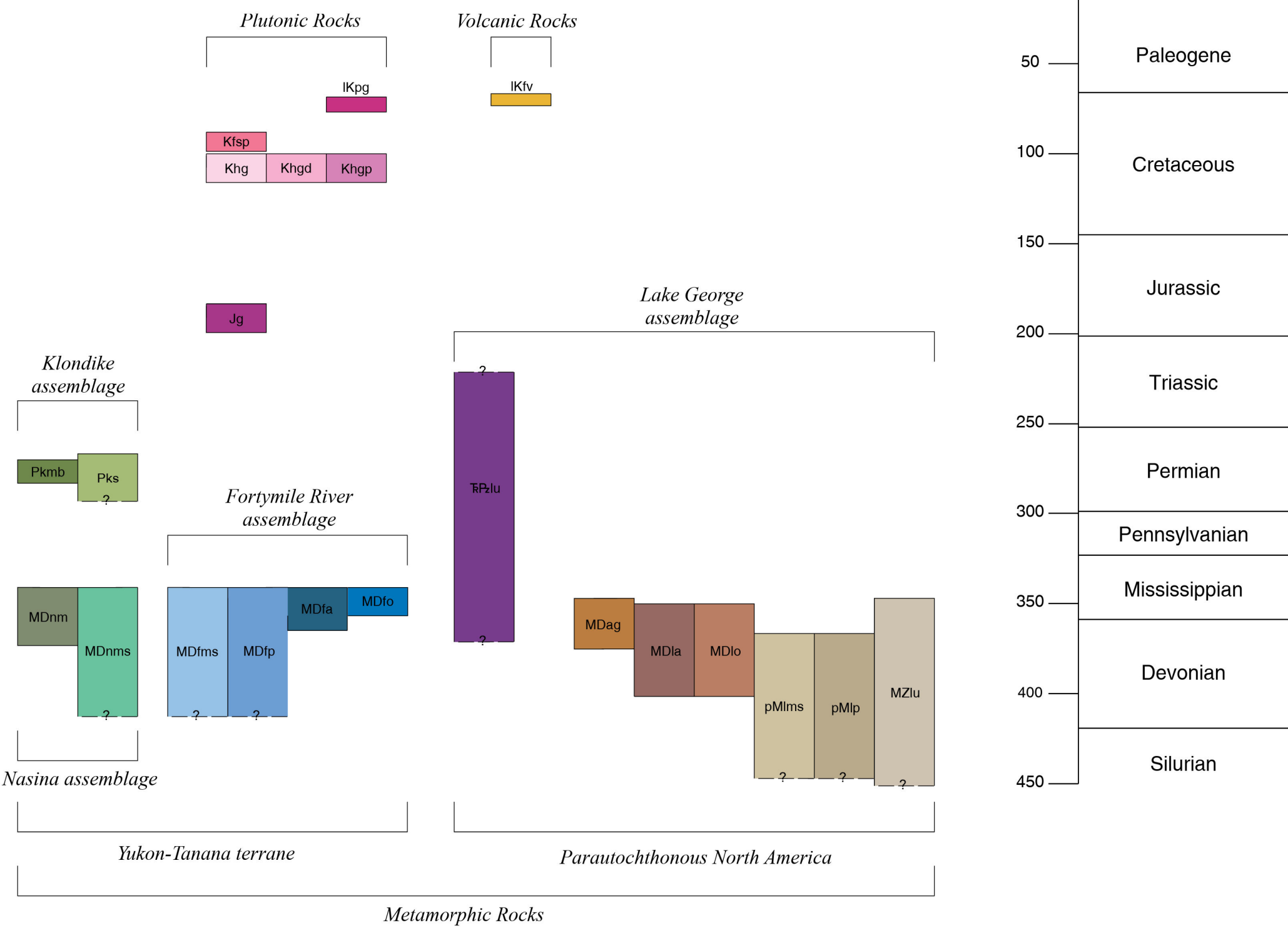
Linework is solid where location is accurate, long-dashed where location is approximate, and short-dashed where location is inferred. Question marks indicate the existence or identity of the feature is questionable. Localities with multiple planar feature measurements use asymmetric symbols with the tail ends joined at the measurement point.

- CONTACTS AND FAULTS**
--- CONTACT
--- FAULT — sense of movement indeterminate
--- STRIKE-SLIP FAULT, LEFT-LATERAL, OFFSET
--- DETACHMENT FAULT — boxes on hanging wall
--- LOW-ANGLE FAULT (UNKNOWN SENSE OF SLIP) — half-circles on hanging wall
PLANAR FEATURES
--- SMALL, MINOR INCLINED FAULT — showing strike and dip
--- SMALL, MINOR INCLINED JOINT — showing strike and dip
--- INCLINED CLEAVAGE — showing strike and dip
--- INCLINED BEDDING — showing strike and dip
--- INCLINED FLOW BANDING, LAMINATION, LAYERING, or FOLIATION IN IGNEOUS ROCK — showing strike and dip
--- INCLINED METAMORPHIC or TECTONIC FOLIATION — showing strike and dip
--- SMALL, MINOR INCLINED DIKE — showing strike and dip
--- SMALL, MINOR FOLD — showing direction of axial surface
--- INCLINED GNEISSIC LAYERING — showing strike and dip
--- ASYMMETRIC ANTIFORM — location questionable

- LINEAR FEATURES**
--- INCLINED SLICKENLINE ON FAULT SURFACE — showing trend and plunge
--- INCLINED ALIGNED-MINERAL LINEATION — showing trend and plunge
--- INCLINED CRENULATION LINEATION — showing trend and plunge
--- INCLINED FOLD HINGE OF SMALL, MINOR FOLD — showing trend and plunge
--- INCLINED INTERSECTION LINEATION — showing trend and plunge
MISCELLANEOUS MAP SYMBOLS
D—D' CROSS SECTION LINE
• FIELD STATION LOCALITY
• USGS LEGACY FIELD STATION LOCALITY (Weber and Foster, 1960–1979)
• U-Pb GEOCHRONOLOGY SAMPLE
• ⁴⁰Ar/³⁹Ar GEOCHRONOLOGY SAMPLE

- See table 1 in accompanying report (Twelker and others, 2025)

CORRELATION OF MAP UNITS



REFERENCES CITED

- Twelker, Evan, Newberry, R.J., Naibert, T.J., Wypych, Alicja, Gavel, M.M., Barrera, M.L., Szumigala, D.J., Truskowski, C.M., Muller, I.P., Fessenden, S.N., Blackwell, N.J., Harvey, D.A., and Wildland, A.D., 2025. Bedrock geologic maps of the Mount Harper–Middle Fork area, Volkmar River–Hooley River area, Goodpastor River–Shaw Creek area, and the Richardson mining district, Alaska: Alaska Division of Geological & Geophysical Surveys Preliminary Interpretive Report 2025-2, 38 p. <http://doi.org/10.14509/31648>
Weber, F.R., and Foster, H.L., 1960–1979. Unpublished field station locations, archived rock samples, and field notebooks from the Big Delta and Eagle quadrangles; courtesy of U.S. Geological Survey.

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