

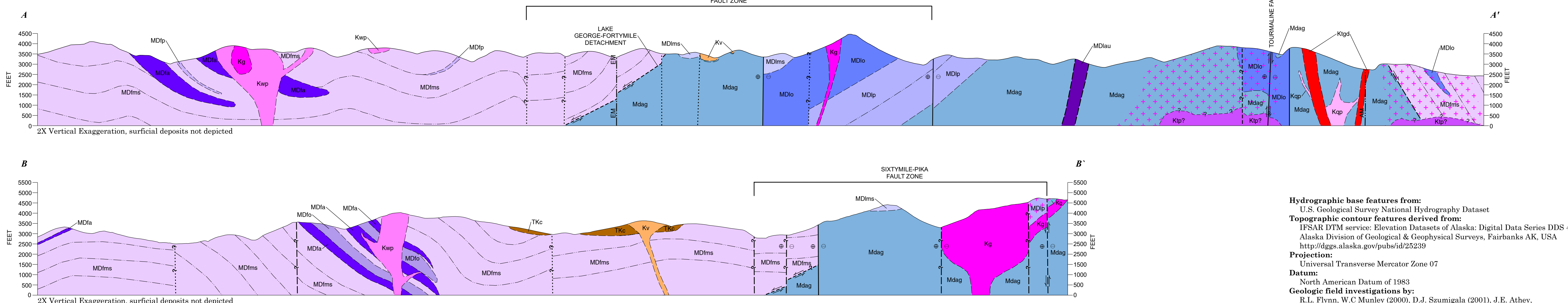
Table 1. Age data for samples collected in the Northeastern Tanacross Quadrangle

Label	Sample number	Map unit	Lithology	Latitude	Longitude	Material analyzed	Best Age (Ma)	Comments	Reference
Ar 1	17ZE005	Kg	pegmatite	63.783	-141.2799	zircon	185.2 ± 6.7	Nabert and others (2018)	Nabert and others (2018)
Ar 2	17RS109	Kv	granite	63.793	-141.5910	biotite	118.3 ± 1.8	Nabert and others (2018)	Nabert and others (2018)
Ar 3	17MBW135	Kv	orthic altered folio-dike	63.809	-141.3442	biotite	63.7 ± 0.5	Nabert and others (2018)	Nabert and others (2018)
Ar 4	17MBW213	Kp	diorite	63.819	-141.3962	biotite	66.3 ± 0.7	Nabert and others (2018)	Nabert and others (2018)
Ar 5	17MBW228	Kv	dacite	63.826	-141.2485	whole rock	65.5 ± 0.4	Nabert and others (2018)	Nabert and others (2018)
UP1	17AW009	Kp	quartz porphyry	63.6428	-141.3318	zircon	70.6 ± 0.9	Todd and others (2019)	Todd and others (2019)
UP2	17AW017	Mdsg	gneiss orthogneiss	63.7827	-141.2040	zircon	355.0 ± 4.5	crystallization age (n = 19)	Todd and others (2019)
UP3	17RT007	Kp	diorite porphyry	63.8093	-141.5457	zircon	70.3 ± 0.5	crystallization age (n = 20)	Todd and others (2019)
UP4	17ZE001	Mdsg	orthogneiss	63.7929	-141.2896	zircon	370.6 ± 5.6	crystallization age (n = 7)	Todd and others (2019)
UP5	17MLW028	Kv	andinite	63.8811	-141.2154	zircon	71.5 ± 3.0	crystallization age (n = 7)	Todd and others (2019)
UP6	17MLW080	Kv	andinite	63.7812	-141.4213	zircon	68.1 ± 0.9	crystallization age (n = 20)	Todd and others (2019)
UP7	79AF015	Mdsg	gneiss orthogneiss	63.7388	-141.6228	zircon	342 ± 3	crystallization age (n = 1)	Almouk and others (2006)
UP8	81AD014C	Mdsg	gneiss orthogneiss	63.7667	-141.6533	zircon	342 ± 2	crystallization age (n = 1)	Almouk and others (1996)
UP9	79AF015	Mdsg	gneiss orthogneiss	63.7388	-141.6228	zircon	350.4 ± 5.6	crystallization age (n = 1)	Dusel-Bacon and others (2006)
UP10	90AD06	Mdsg	gneiss orthogneiss	63.776	-141.107	zircon	323 ± 4	crystallization age (n = 1)	Dusel-Bacon and others (2006)
UP11	81AD014	Mdsg	gneiss orthogneiss	63.753	-141.605	zircon	356 ± 2	crystallization age (n = 1)	Almouk and others (1996)
UP12	90AD024	Mdsg	gneiss orthogneiss	63.8364	-141.5353	zircon	370.5 ± 5.9	crystallization age (n = 1)	Dusel-Bacon and others (2006)
UP13	90ET59	Mdsg	gneiss orthogneiss	63.7794	-141.6	zircon	368.5 ± 7.5	crystallization age (n = 1)	Dusel-Bacon and others (2006)
UP14	07M-143	Kp	folio porphyry	63.6328	-141.5474	zircon	71.4 ± 0.3	crystallization age (n = 1)	Allen and others (2013)
UP15	07M-142	Kp	granodiorite	63.6422	-141.4973	zircon	71.6 ± 0.6	crystallization age (n = 1)	Allen and others (2013)

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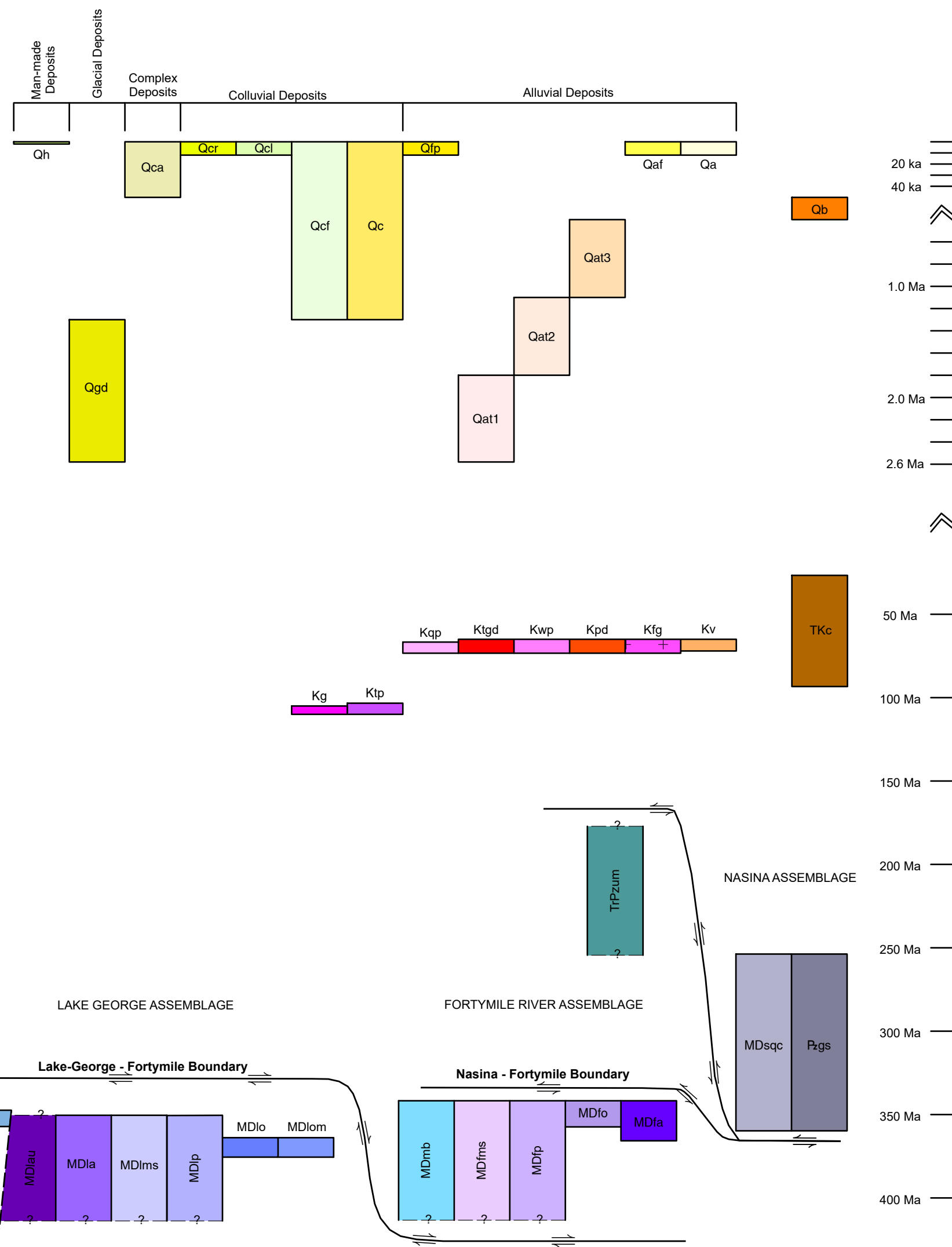
### Northeastern Tanacross Geologic Map, Tanacross D-1, D-2, C-1, and C-2 Quadrangles, Alaska

by  
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2019

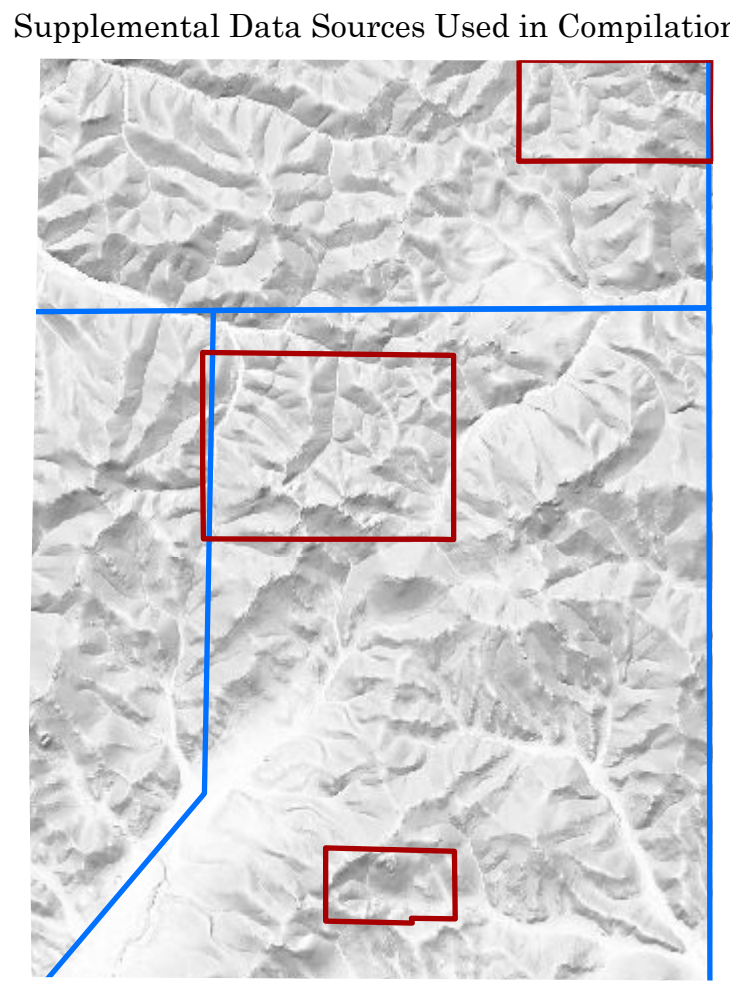
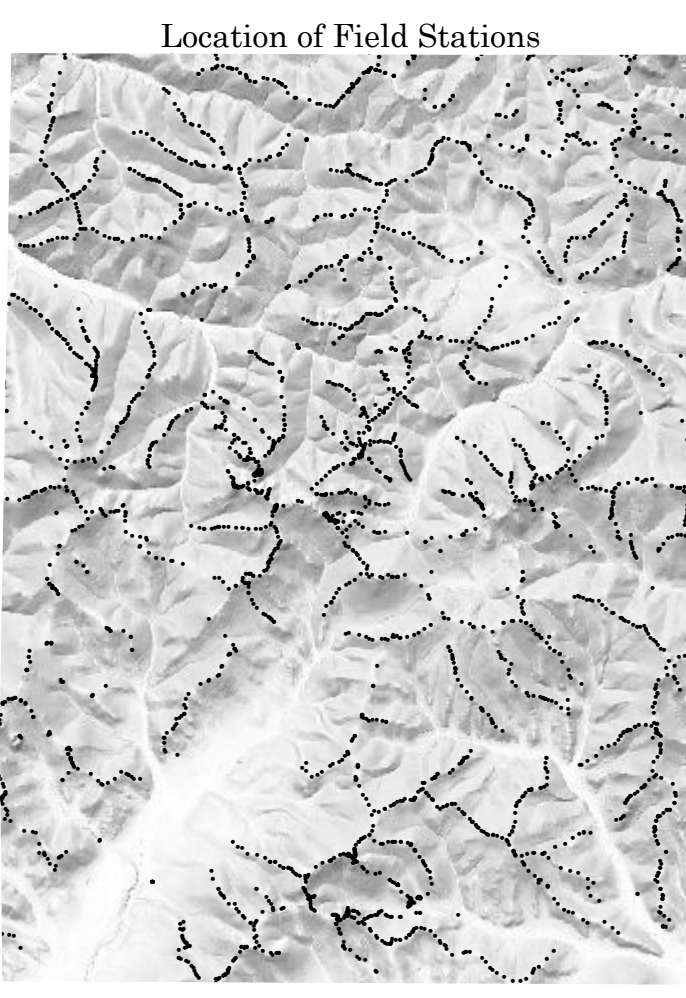
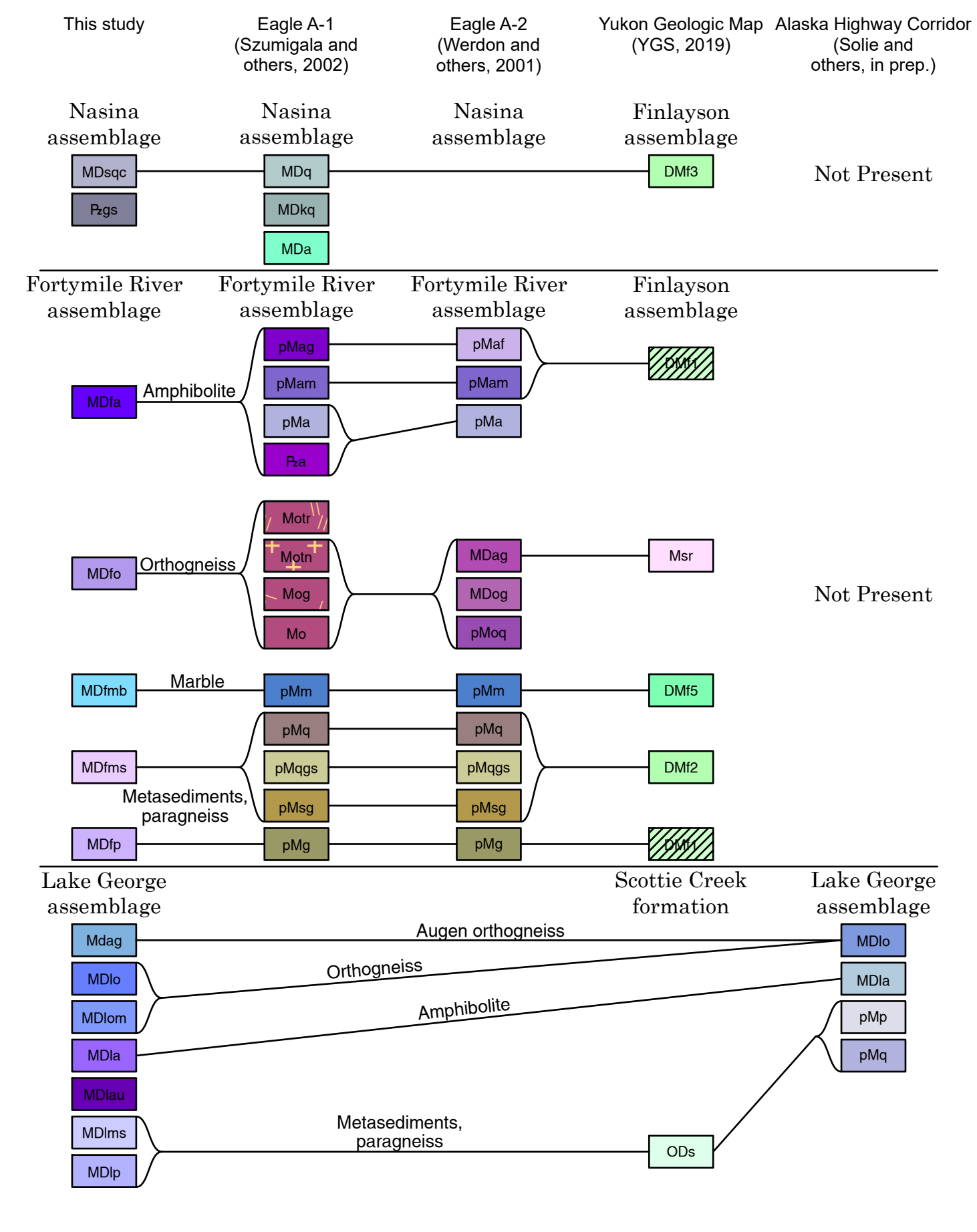


CONTOUR INTERVAL 100 FEET  
NORTH-WEST TO SOUTH-EAST

### CORRELATION OF MAP UNITS



### CORRELATION OF UNITS WITH ADJACENT GEOLOGIC MAPS



### DESCRIPTION OF MAP UNITS

- UNCONSOLIDATED DEPOSITS**
- MAN-MADE DEPOSITS**
    - Oh PLACER-MINE TAILINGS AND ARTIFICIAL FILLS
  - ALLUVIAL DEPOSITS**
    - Qn ALLUVIUM OF MODERN STREAM CHANNELS
    - Qaf ALLUVIAL-FAN DEPOSITS
    - Qat3 YOUNG TERRACE ALLUVIUM
    - Qat2 OLD TERRACE ALLUVIUM
    - Qat1 OLDEST TERRACE ALLUVIUM
    - Qap FLOODPLAIN ALLUVIUM
  - COLLUVIAL DEPOSITS**
    - Qc UNDIFFERENTIATED COLLUVIUM
    - Qcf FINE-GRAINED COLLUVIUM AND SILT
    - Qcl COLLUVIAL LANDSLIDE DEPOSITS
    - Qcr RUBBLE DEPOSITS
  - COMPLEX DEPOSITS**
    - Qca COLLUVIAL AND ALLUVIAL VALLEY-FILL
  - GLACIAL DEPOSITS**
    - Qgl UNDIFFERENTIATED GLACIAL DRIFT
    - Qgp PINGO
- SEDIMENTARY ROCKS**
- TK Conglomerate and Sandstone (Cretaceous - Tertiary)
- IGNEOUS ROCKS**
- Qb PRINDLE VOLCANIC BASALTITE (Quaternary)
  - Qp PRINDLE-TYPE BASALTITE FLOW (Quaternary)
  - Kv VOLCANIC FLOWS, DIKES, AND PLUGS (Late Cretaceous)
  - Kp WITHERSPOON FELDSPAR PORPHYRY (Late Cretaceous)
  - Kpl PIKA DIORITE (Late Cretaceous)
  - Kpd TAURUS GRANODIORITE (Late Cretaceous)
  - Kpq TAURUS QUARTZ-FELDSPAR PORPHYRY (Late Cretaceous)
  - Kgr PRED GRANITOID (Cretaceous)
  - Kg GRANITE AND PEGMATITE (Cretaceous)
  - Kp Timber Granitoid (Cretaceous)
- BEDROCK GEOLOGIC UNITS**
- MDsg CARBONACEOUS SCHIST AND QUARTZITE (Devonian-Mississippian)
  - MDg GNEISS AND SCHIST (Paleozoic, questionable)
- NASINA METAMORPHIC ASSEMBLAGE**
- MDm MARBLE AND IMPURE MARBLE (Mississippian - Devonian)
  - MDms INTERLAYERED QUARTZITE AND SCHIST (Mississippian - Devonian)
  - MDp PARAGNEISS (Mississippian - Devonian)
- FORTYMILE RIVER METAMORPHIC ASSEMBLAGE**
- MDf TRONDHJEMITIC ORTHOGNEISS DIKE (Mississippian)
  - MDfs AMPHIBOLITE (Mississippian - Devonian)
  - MDfb ORTHOGNEISS (Mississippian - Devonian)
  - MDfm MARBLE (Mississippian - Devonian)
  - MDfs Interlayered Quartzite and Schist (Mississippian - Devonian)
  - MDp Paragneiss (Mississippian - Devonian)
- LAKE GEORGE METAMORPHIC ASSEMBLAGE**
- MDlg DIVIDE MOUNTAIN AUGEN GNEISS (Mississippian)
  - MDlo ORTHOGNEISS (Mississippian - Devonian)
  - MDlm ORTHOGNEISS, MAGNETIC (Mississippian - Devonian)
  - MDls AMPHIBOLITE (Mississippian - Devonian)
  - MDlp SERPENTINITE AND AMPHIBOLITE (Mississippian-Devonian)
  - MDms INTERLAYERED QUARTZITE AND SCHIST (Mississippian - Devonian)
  - MDp PARAGNEISS (Mississippian - Devonian)

- EXPLANATION OF MAP SYMBOLS**
- Line work is solid where location is accurate, long-dashed where location is approximate, short-dashed where location is inferred, and dotted where location is concealed. Question marks indicate identity or existence is questionable.
- CONTACTS, FAULTS, AND FOLDS**
- CONTACT
  - FAULT - sense of movement indeterminate
  - NORMAL FAULT - ball and bar on hanging wall
  - STRIKE-SLIP FAULT - arrows indicate sense of slip
  - OBLIQUE-SLIP FAULT - arrows indicate sense of slip, ball and bar on hanging wall
  - THRUST FAULT - teeth on hanging wall
  - DETACHMENT FAULT - teeth on hanging wall
  - FAULT - located by aeromagnetic survey
  - FAULT - located by electromagnetic survey
  - ANTIFORM
  - SYNFORM
- PLANAR FEATURES**
- SMALL, MINOR INCLINED FAULT - Showing strike and dip
  - SMALL, MINOR VERTICAL or NEAR-VERTICAL FAULT - Showing strike
  - SMALL, MINOR INCLINED JOINT - Showing strike and dip
  - SMALL, MINOR ANTICLINE, INCLINED AXIAL SURFACE - Showing strike and dip
  - INCLINED BEDDING - Showing strike and dip
  - INCLINED CLEAVAGE - Showing strike and dip
  - INCLINED METAMORPHIC or TECTONIC POLIATION - Showing strike and dip
  - INCLINED CRINKLED or DEFORMED METAMORPHIC or TECTONIC POLIATION - Showing approximate strike and dip
  - INCLINED GNEISSIC LAYERING - Showing strike and dip
  - INCLINED MYLONITIC POLIATION - Showing strike and dip
  - SMALL, MINOR INCLINED DIKE - Showing strike and dip
- LINEAR FEATURES**
- INCLINED SLICKENLINE ON FAULT SURFACE - Showing trend and plunge
  - INCLINED ALIGNED-MINERAL LINEATION - Showing trend and plunge
  - INCLINED ALIGNED DEFORMED-MINERAL LINEATION - Showing trend and plunge
  - INCLINED ALIGNED STRETCHED-OBJECT LINEATION - Showing trend and plunge
  - INCLINED RODDING - Showing trend and plunge
  - INCLINED LINEATION AT INTERSECTION OF TWO SURFACES - Showing trend and plunge
  - INCLINED FOLD HINGE OF SMALL MINOR FOLD - Showing trend and plunge
  - INCLINED CREULATION LINEATION - Showing trend and plunge
- MISCELLANEOUS MAP SYMBOLS**
- CROSS SECTION LINE
  - INTERNAL CONTACT - form line to dominant metamorphic fabric in cross section
  - "Age" AGE LOCALITY - showing sample number
  - U-Pb ZIRCON AGE LOCALITY - showing sample number
  - SCLERITE ALTERATION - in hand sample or thin section
  - FORMALINE - in hand sample or thin section
  - TROMAULT DIKES - unit intruded by abundant pegmatite dikes of granitic composition
  - HORNFIELD ZONE
  - BOUNDARY OF STATEMAP DELIVERABLE

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Aerophoto interpretation by: T.D. Hubbard, Alia Wypych, T.J. Nabert (2018, 2019)  
Geologic GIS data layers created by: Alia Wypych, T.J. Nabert (2018, 2019)  
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Cartographic review by: P.E. Elberg (2019)  
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