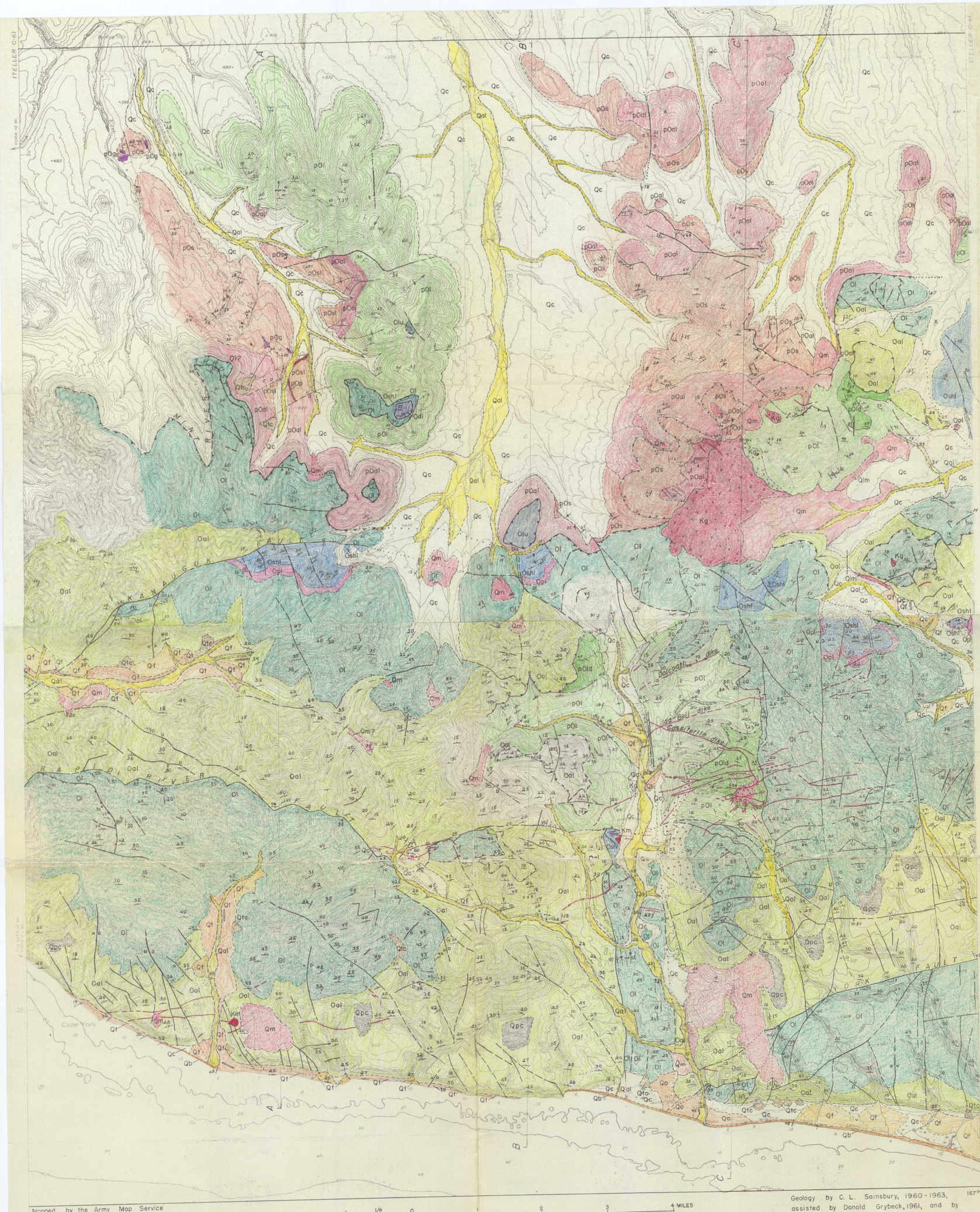

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EXPLANATION

QUATERNARY

Recent

Qal — Alluvium
Dip symbol in alluvium indicates isolated outcrop of bedrock

Qb — Beach deposits
Dip symbol in beach deposits indicates isolated outcrop of bedrock

Qc — Surficial cover
Principally tundra and soil, but locally includes frost-broken regolith and slope wash

Qtc — Talus cones

Pleistocene or Recent

Qf — Alluvial fan deposits

Qt — Terrace deposits
Includes stream terrace gravels and deposits on the Lost River terrace

Pleistocene

Qlm **Qm** — Glacial moraine
Shown only where it completely mantles bedrock
Qlm, lateral moraines

Qo — Glacial outwash

Qpc — Conglomerate
Includes lithified gravels of beach, deltaic and continental deposits on the York terrace

CRETACEOUS OR TERTIARY

Upper Cretaceous or Tertiary

Dikes
Includes rhyolite porphyry, feldspar porphyry and quartz-diabase or lamprophyre

Km — Mafic intrusive rocks
Dark augite-bearing plutonic rocks containing undigested limestone and dolomite

Upper Cretaceous

Kg — Granite
Includes coarse-grained and medium-grained biotite granite at Brooks Mountain and Tin Creek

ORDOVICIAN

Middle Ordovician

Odl — Limestone
Principally medium-bedded, medium-gray to dark gray, fossiliferous limestone

Olu — Limestone and argillaceous limestone

Oshl — Limestone and shale
Medium-bedded, medium-gray to medium dark gray limestone which weathers dark yellowish brown to dusky yellowish brown, underlain by dark carbonaceous and graptolitic shale

Opl — Limestone and argillaceous limestone
Distinct pinkish caste on fresh fracture; weathers light gray to light bluish gray. Locally contains lenses of light gray chert. Abundant trilobite fragments. Not differentiated south of Brooks Mountain owing to metamorphism

Lower Ordovician

Ol **Oal** — Limestone, argillaceous limestone and dolomitic limestone
Ol, massive micritic limestone with chert nodules locally, interbedded with argillaceous limestone. Sparse fossils include cephalopod siphuncles and brachiopods. Quiet water facies.
Oal, thin-bedded ruditic argillaceous limestone, dolomitic limestone and carbonaceous limestone, silty limestone, and subordinate massive micritic limestone. Thin-bedded units contain abundant ripple marks, swash marks, worm tube casts, cross beds, and limestone clasts. Local stromatolites. Shallow water facies

PRE-ORDOVICIAN

pOld **pOl** — Limestone and argillaceous limestone
pOl, limestone, argillaceous limestone and dolomitic limestone, generally thin to medium bedded. In upper part contains few worm tube casts. West of Mint River may contain infolded Oal and/or pOal, but for most part is probably pre-Early Ordovician in age.
pOld, medium-bedded to thick-bedded, medium-gray to dark gray micritic limestone with local nodules of dark chert

pOg — Gabbro

pOal — Limestone and argillaceous limestone
Principally thin-bedded light gray to light olive gray dolomitic and argillaceous limestone which weathers limonitic; locally schistose. Cut by numerous veins and veinlets of quartz-carbonate, some of which contain gold

pOsl **pOp** **pOs** **pOsg** — Slate of the York Region
pOsl, buff-weathering laminated siltstone, lenticular black limestone veined with white calcite, and schistose slate
pOp, schistose pelitic rock which weathers a distinctive light gray with bluish-gray streaks
pOsg, slate, slaty limestone, and sheared graywacke

Tactite

Breccia

A ° ° ° ° B • • • • •
Veins
A, tourmaline-fluorite or sulfides-fluorite
B, quartz-tourmaline (not shown outside of Brooks Mountain area)

70
Contact, showing dip
Dashed where gradational or approximately located, dotted where concealed

Fault, showing dip
U, upthrown side; D, downthrown side. Dashed where approximately located, dotted where concealed, queried where probable

Thrust fault, showing dip
Sawteeth on upper plate. Dashed where approximately located, dotted where concealed, queried where probable

10
Strike and dip of beds

Strike of beds and direction of dip

70 / 40
Strike and dip of cremulated beds
Showing ranges of dips to either side

Strike and direction of dip of cremulated beds

10
Strike and dip of cleavage or schistosity

Anticline
Showing crestline and direction of plunge; dashed where approximately located,

Syncline
rection of plunge; dashed where approximately located,

10
Bearing and plunge of dragfold axis

X
Prospect pit, trench, or adit

Glacial erratic of granite from Brooks Mountain

Mapped by the Army Map Service
Published for civil use by the Geological Survey

SCALE
1 1/2 0 1 2 3 4 MILES
DATUM IS MEAN SEALEVEL
CONTOUR INTERVAL 50 FEET

Geology by C. L. Sainsbury, 1960-1963, assisted by Donald Grybeck, 1961, and by Thomas E. Smith, 1962

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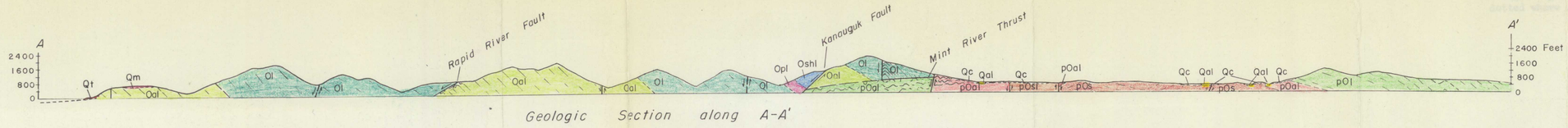
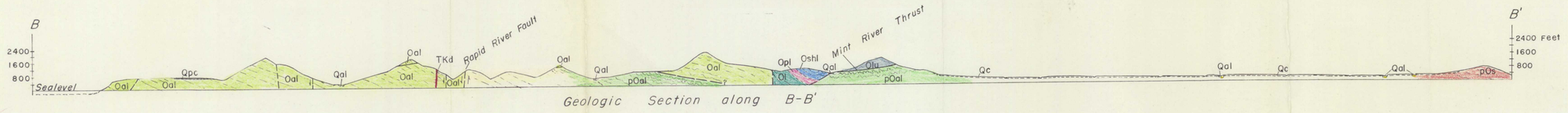
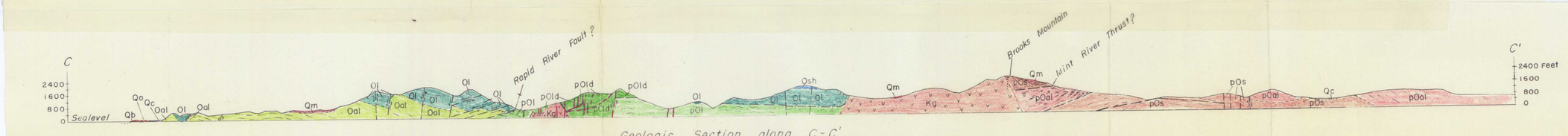
PRELIMINARY GEOLOGIC MAP AND STRUCTURE SECTIONS OF THE CENTRAL YORK MOUNTAINS, SEWARD PENINSULA, ALASKA



Geologic Section along A-A'



Geologic Section along B-B'



Geologic Section along C-C'