

EXPLANATION

## UNCONSOLIDATED DEPOSITS

Qa  
Floodplain alluvium and  
low terrace alluvium  
Gravel, sand, and silt, locally in-  
cludes organic matter, mixed with  
colluvial material in places

**Qt**

High stream terrace deposits

Primarily gravel and sand with some silt. Gravel commonly boulders and generally well-rounded; material mostly fairly well-stratified and well-sorted; rock fragments are metamorphic and igneous rock types exposed in the present drainage basins. Locally covered by up to 5 feet of wind-blown silt.

## SEDIMENTARY ROCKS

**Td**

**Detrital rocks**

Conglomerate, sandstone, and shale. Non-hard. In contact with glomerate, includes rounded cobbles, matrix, and darker rock, well rounded and polished black, red, and green. Chert (?) pebbles, black shale, and greenstone, matrix. Locally calcareous. Conglomerate, locally contact with sandstone. Pebbles 3-4 inches in diameter with polished pebbles not locally abundant. Chert. Mostly brown. Some weathers red-brown, and some. Fragments and impressions.

## IGNEOUS ROCKS

Pleistocene      Holocene  
 Quaternary  
 Cenozoic

**Tb**  
Basalt

Dark gray or greenish black, mostly fine-grained but has small plagioclase phenocrysts in places. Locally slightly vesicular. Columnar jointing prominent. Mostly intruded as dikes.

**Meg**

Granitic rocks

Coarse to fine-grained; equigranular to porphyritic. Some porphyritic types have terminated quartz crystals. Coarse grained types composed mostly of feldspar and quartz, with minor biotite and/or hornblende. Exposures poor

**U**

Ultramafic rocks

Peridotite and dunite, mostly serpentized (serpentine is antigorite polymorph). Very coarse-grained non-serpentized biotite-amphibole gneiss. This rock intrudes gneiss and schist unit along the Fortymile River and ridge north of Fortymile River.

**Qz**  
Quartz-feldspar rock  
White, massive rock composed dominantly of quartz and feldspar. Locally much fractured and cracks filled with quartz. Includes light green or yellow-green, muscovite schist with slick foliation planes. Small landslides common where schist present.

## METAMORPHIC ROCKS

**PZS**  
Slightly metamorphosed  
sedimentary rocks

29  
Greenstone


92

**Calc-schist unit**  
Green quartz-chlorite-epidote schist, green quartz-chlorite-sericite schist, quartzite, green calcareous schist, white and gray marble, and minor gray quartz-graphite, quartz-mica schists, quartz-chlorite-epidote schist with small blue-gray quartz "eyes". Many layers calcareous. Some greenschists contain small lenses of gray marble. North of Boundary Creek in eastern part of C-1 quadrangle, marble contains crinoid columns.

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Quartz-graphite schist unit




Quartz-graphite-schist and dark gray quartzite dominant with interbedded white and tan quartzite. Quartz-mica schist, greenschist, a few min marble beds, and a few outcrops of quartz-feldspar mica schist with medium gray quartz eyes. Complexly folded with much ~~thin~~ crinkling. Most greenschist facies.



**Gneiss and gneiss unit:**  
Amphibolite, quartz-diorite gneiss, hornblende gneiss, quartz-feldspar, metadiorite, green hornblende. Very abundant is a variety of igneous rocks: garnet, microcline and abundant. Completely metamorphic. Sedimentary and igneous structures completely obliterated. Original sedimentary layering, including marble beds, and dykes, veins. Marble amphibolite facies.



## SYMBOLS

Contact, approximately located



inclined vertical horizontal

Strike and dip of foliation

inclined horizontal

Bearing and plunge of axis of right minor fold or mineral lineation

\_\_\_\_\_ ? \_\_\_\_\_

Fault, dashed where approximately queried where doubtful; dotted where concealed

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Fault or lineament from aerial photographs

This map is preliminary and has not been edited or reviewed for conformity with U.S. Geological Survey standards or nomenclature.

PRELIMINARY GEOLOGIC MAP OF THE EAGLE B-1 AND C-1 QUADRANGLES, ALASKA  
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