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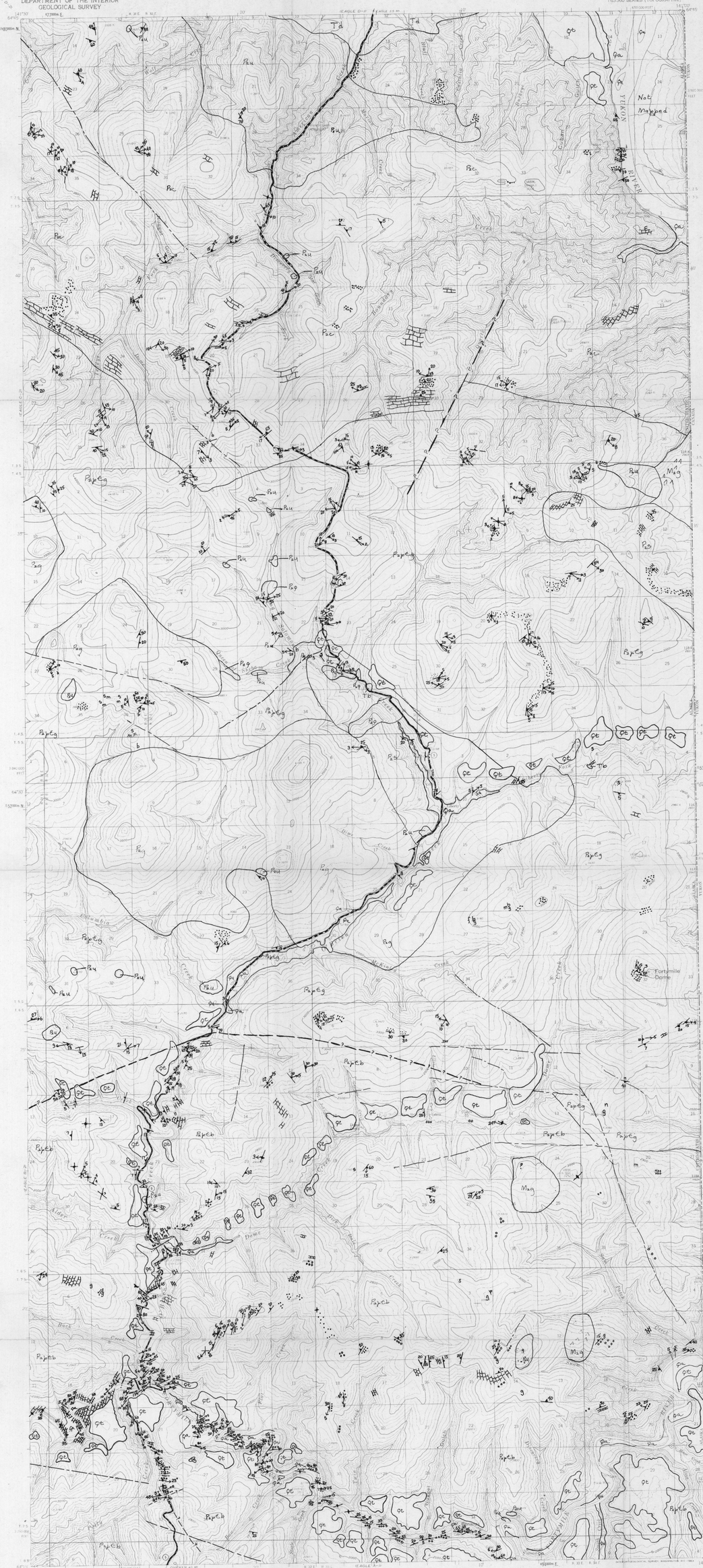
UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

EAGLE (C-1) QUADRANGLE
ALASKA
1:63,360 SERIES (TOPOGRAPHIC)



EXPLANATION

Unconsolidated Deposits

Qa — Floodplain alluvium and low terrace alluvium

Gravel, sand, and silt; locally includes 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 3 feet of wind-blown silt

Sedimentary Rocks

Td — Detrital rocks

Conglomerate, sandstone, and shale; non-marine. At lower contact conglomerate includes rounded boulders over 2 feet in diameter of ultramafic and dike rock, well-rounded and polished jasper, red and green chert(?) pebbles, black shale, and greenstone, matrix locally calcareous; conglomerate above contact mostly well-rounded pebbles and cobbles in dirty matrix of silty black chert pebbles, abundant chert pebbles not locally derived. Sandstone, mostly brown; some weathers red-brown, contains plant fragments and impressions

Igneous Rocks

Tb — Basalt

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

Mzg — 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

Pzu — Ultramafic rocks

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

Pzq — 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 thick foliation planes. Small sandstone dikes common where schist present

Metamorphic Rocks

Pzs — Slightly metamorphosed sedimentary rocks

Light green, gray, light tan, pinkish-gray, and dark gray argillite and phyllite; dark gray porous limestone, and minor massive greenstone. Cleavage locally developed; only slightly metamorphosed

Pzg — Greenstone

Massive to somewhat foliated greenstone; locally vesicular and amygdaloidal; only pillow structures noted. Derived from mafic lavas and other volcanic rocks including tuff and breccia. Appears to intrude and overlie other metamorphic rocks. Metamorphosed to greenschist facies

Pzc — Calc-schist unit

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

PzPg — Quartz-graphite schist unit

Quartz-graphite-schist and dark gray quartzite dominant with interlayers of white and tan quartzite, quartz-mica schist, and graphitic schist. Some marble, calc-schist, and a few outcrops of quartz-feldspar mica schist with bluish-gray quartz "eyes". Complexly folded with much plastic crinkling. Mostly greenschist facies

PzPgb — Gneiss and schist unit

Amphibolite, quartz-biotite gneiss, hornblende gneiss, quartzite, marble, metadiorite, altered hornblende very abundant in variety of gneisses and schists; most widespread and abundant. Completely deformed; original sedimentary and igneous structures completely obliterated. Original sedimentary layering, including marble beds, not continuous. Mostly amphibolite facies

SYMBOLS

- Contact, approximately located
- Inclined / vertical / horizontal
- Strike and dip of foliation
- Inclined / horizontal
- Bearing and plunge of axis of tight minor fold or mineral lineation
- Fault, dashed where approximate; queried where doubtful; dotted where concealed
- Fault or lineament from aerial photographs
- Quartzite
- Marble or limestone
- Garnetiferous rock
- b — Fault breccia
- F — Fossil locality
- g — Granitic dike or sill
- s — Abundant, finely disseminated sulfides in rock
- Quartz porphyry
- m — Mafic dike, mostly fine-grained
- f — Felsic dike, many with quartz phenocrysts
- n — Gneissic granitic dike
- p — Dike of primarily quartz and feldspar, mostly coarse grained
- u — Ultramafic dike

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

Cenozoic

- Quaternary — Holocene; Pleistocene
- Tertiary(?)

Mesozoic(?) and Cenozoic(?)

Paleozoic(?)

Paleozoic

Precambrian and/or Paleozoic

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

by Helen L. Foster and Terry C. Keith

Mapped, edited, and published by the Geological Survey
Control by USGS and USC&GS and international Boundary Commission
Topography by photogrammetric methods from aerial photographs taken 1954 and 1955. Field annotated 1956. Map not field-checked
Universal Transverse Mercator projection. 1927 North American Datum
10,000-foot grid based on Alaska coordinate system zone 2
1000-meter Universal Transverse Mercator grid ticks, zone 7, shown in blue
Land lines represent unsurveyed and unmarked locations predetermined by the Bureau of Land Management
Fairbanks Meridian

Base from U. S. Geological Survey
1:63,360 topographic series:
Eagle (C-1) Eagle (B-1), 1956, Alaska.
Compiled, Menlo Park, Base Map Unit.
12-28-67.

SCALE 1:63,300
CONTOUR INTERVAL 100 FEET
DATUM IS MEAN SEA LEVEL

ROAD CLASSIFICATION
Light duty — Unimproved dirt
State Route

EAGLE (B-1), ALASKA
N6415 - W14100/15X30
1956

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