

PROPERTY OF DGG LIBRARY

Q1a

Surficial deposits
Recent alluvium and landslides; alluvial fans; terrace gravels and glacial deposits. Includes some outcrops of bedrock beneath terrace gravels and in stream banks

K3

Gray- to gray-green sandstone, conglomeratic sandstone, conglomerate and coal. Conglomerate pebbles of quartz and metasedimentary rocks

K2

Graywacke, conglomerate and shale
Conglomerate pebbles and boulders of mafic igneous rocks and gray quartzite. Plant fragments and pelecypods of Cretaceous(?) age

K1

Shale, siltstone, and graywacke
Locally includes rocks of unit K2. Contains ammonites of Early Cretaceous age

K0

Red, green, and dark-gray argillite and chert

M1

Lisburne group
Light- to medium-gray crinoidal limestone and dolomite in lower part. Dark-gray, dense, fine-grained limestone and dolomite with black chert in upper part. Thickness approximately 500 feet. Brachiopods of Barrois(?) Mississippian age in lower part. Gastropods of Late(?) Mississippian age in upper part

M2

Kayak shale
Black shale and slate with interbedded ferruginous limestone at top, and approximately 100 to 300 feet of clean quartzite at base. Approximately 250 to 300 feet thick

M3

Kanayut conglomerate
Gray to gray-green massive quartz-chert sandstone and quartzite; conglomeratic quartzite and shale. Conglomeratic beds about south of Hum Fork, Tentacle Creek, and Tilt Creek. More than 2,500 feet thick near Loch Lake. Apparently absent at Faleoola Mountain

D2a

Sandstone and shale
Gray-green, pink- to brown-weathering, thin-bedded, partly calcareous sandstone and schistose sandstone; green, fine-grained, massive, calcareous sandstone; siltstone and shale. Minor amounts of slate-pebble conglomerate. Approximately 2,500 feet thick. Gradually(?) with Kanayut conglomerate. Believed correlative with fossiliferous sandstones of late Devonian age on upper Kilik River

D2b

Skagit limestone
Light-gray, very fine crystalline massive dolomite and dolomite breccia in lower part; light- to dark-gray marble and limestone-pebble conglomerate in upper part. Minor interbedded microschist. Near thin greenstone dikes and sills. About 1,500 feet thick. Temporally correlated with unit D2c.

D2c

Black phyllite and slate

UNCONFORMITY(?)

LOWER MUTTONBERG CREEK - MIDDLE FORK KOTUKUK

D10

Phyllite

Schist

D11

Schist and marble

Black phyllite, slate, and mica-schist; gray silty siltstone; gray to gray-green schistose sandstone and sandstone. May include some rocks of unit K2. Black mica-schist, phyllite and quartz-mica-schist. D10, chloritic ferruginous mica-schist and quartz-mica-schist. Distinguished by its resistance. D11, quartzite-schist and quartz-mica-schist. D12, mica-schist, quartzite schist, chloritic quartzite, and interbedded marble. Gray marble, brown-weathering calcareous mica-schist and black quartz-mica-schist

UPPER JOHN RIVER

D2

Calcareous siltstone

D3

Sandy schist

D11

Phyllite and siltstone

D4

Slate and phyllite

D5

Limestone and siltstone

ALLEN RIVER - NORTH FORK KOTUKUK RIVER

D2

Calcareous siltstone

D3

Sandy schist

D11

Phyllite and siltstone

D4

Slate and phyllite

D5

Limestone and siltstone

NORTH FORK KOTUKUK RIVER - HAWKWOOD RIVER

D2

Calcareous siltstone

D3

Sandy schist

D11

Phyllite and siltstone

D4

Slate and phyllite

D5

Limestone and siltstone

Gray to buff calcareous siltstone, fine-grained calcareous mica-schist, silty limestone, and marble. Weathers pink to buff. Minor black phyllite and chloritic siltstone. D2, brown, platy sandy schist; phyllite and slate. May be equivalent to unit D2a. D3, gray-green, partly calcareous sandy schist; gray calcareous phyllite, chert-pebble conglomerate and limestone. Correlative(?) with unit D3. Brachiopods of Middle Devonian age. D11, gray-green to brown slate, siltstone, silty phyllite and schist. Weathers gray to pink. Dark-gray calcareous phyllite and dark-gray limestone. Corals and brachiopods of Middle(?) Devonian age. D4, green to gray, partly calcareous chloritic phyllite and chloritic schistose siltstone. Interbedded with black silicified siltstone; minor marble and dolomite. D5, gray-green to brown slate, siltstone, silty phyllite and schist. Weathers gray to pink. Dark-gray calcareous phyllite and dark-gray limestone. Corals and brachiopods of Middle(?) Devonian age. D11, green to gray, partly calcareous chloritic phyllite and chloritic schistose siltstone. Interbedded with black silicified siltstone; minor marble and dolomite. D12, white marble. D13, gray-green to brown slate, siltstone, silty phyllite and schist. Weathers gray to pink. Dark-gray calcareous phyllite and dark-gray limestone. Corals and brachiopods of Middle(?) Devonian age. D14, green to gray, partly calcareous chloritic phyllite and chloritic schistose siltstone. Interbedded with black silicified siltstone; minor marble and dolomite. D15, white marble. Schist, dolomite, and limestone. Interbedded gray to green, partly calcareous phyllite and chloritic mica-schist; massive dolomite and marble; black mica-schist with limestone and dolomite pebbles; brown-weathering partly calcareous silty schist with marble and dolomite pebbles. D16, orange-weathering, very fine grained, massive dolomite; dolomite and pink-weathering limestone. May include some Skagit limestone. Pink, green, and purple phyllite, foliated conglomerate, dark-gray phyllite, black silicified siltstone and orange-weathering dolomite and limestone. May include rocks equivalent to unit D1. D17, marble. D18, gray-green to brown slate, siltstone, silty phyllite and schist. Weathers gray to pink. Dark-gray calcareous phyllite and dark-gray limestone. Corals and brachiopods of Middle(?) Devonian age. D19, green to gray, partly calcareous chloritic phyllite and chloritic schistose siltstone. Interbedded with black silicified siltstone; minor marble and dolomite. D20, white marble.

UNCONFORMITY(?)

IGNEOUS ROCKS

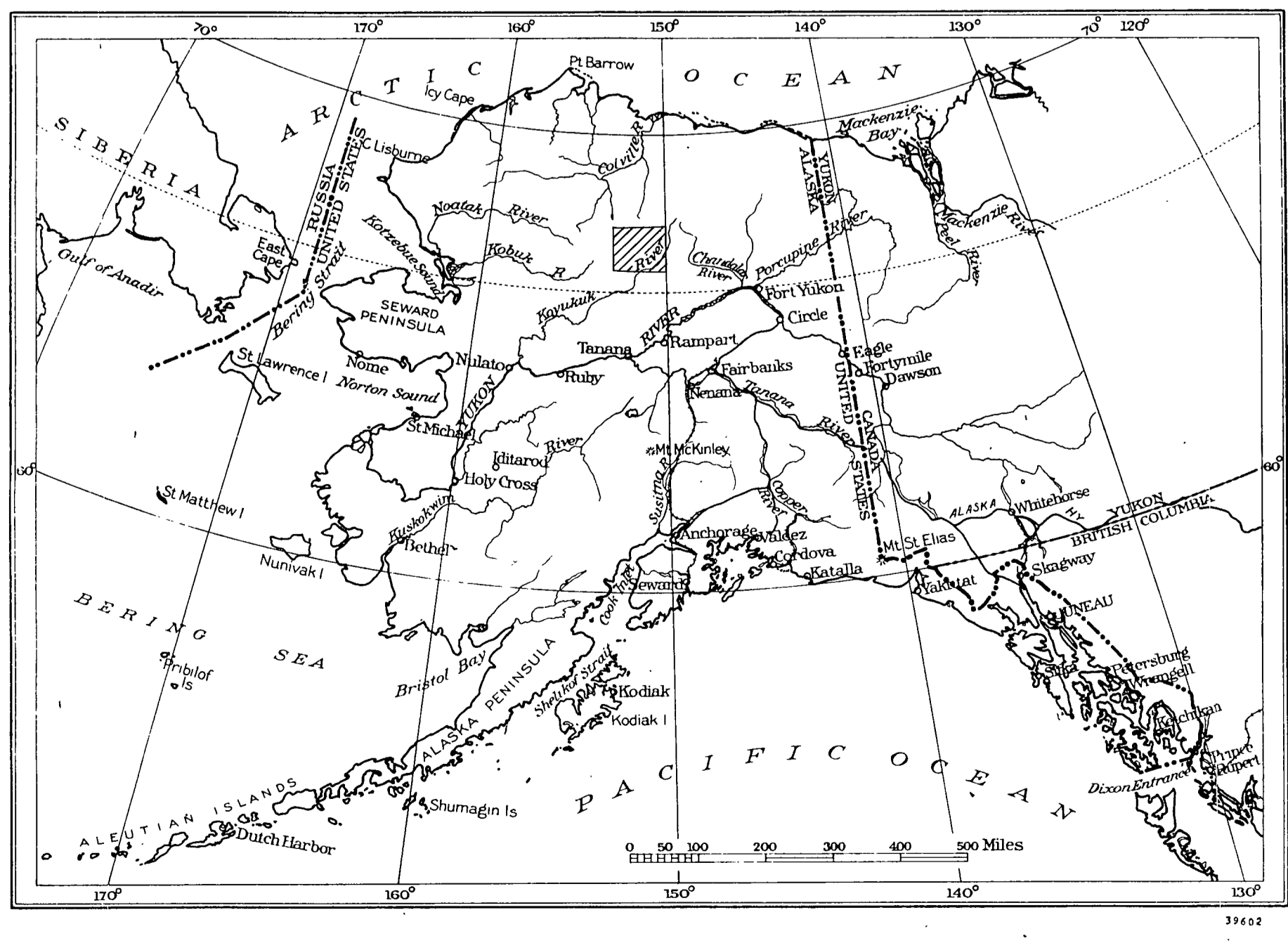
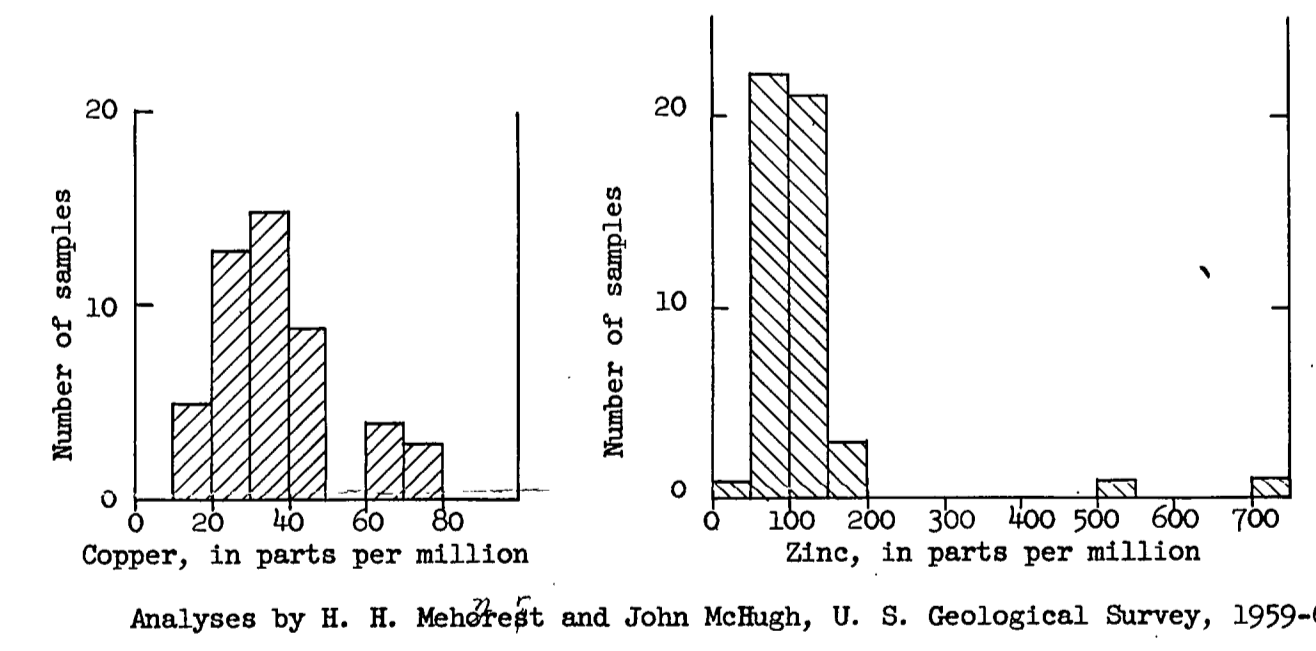
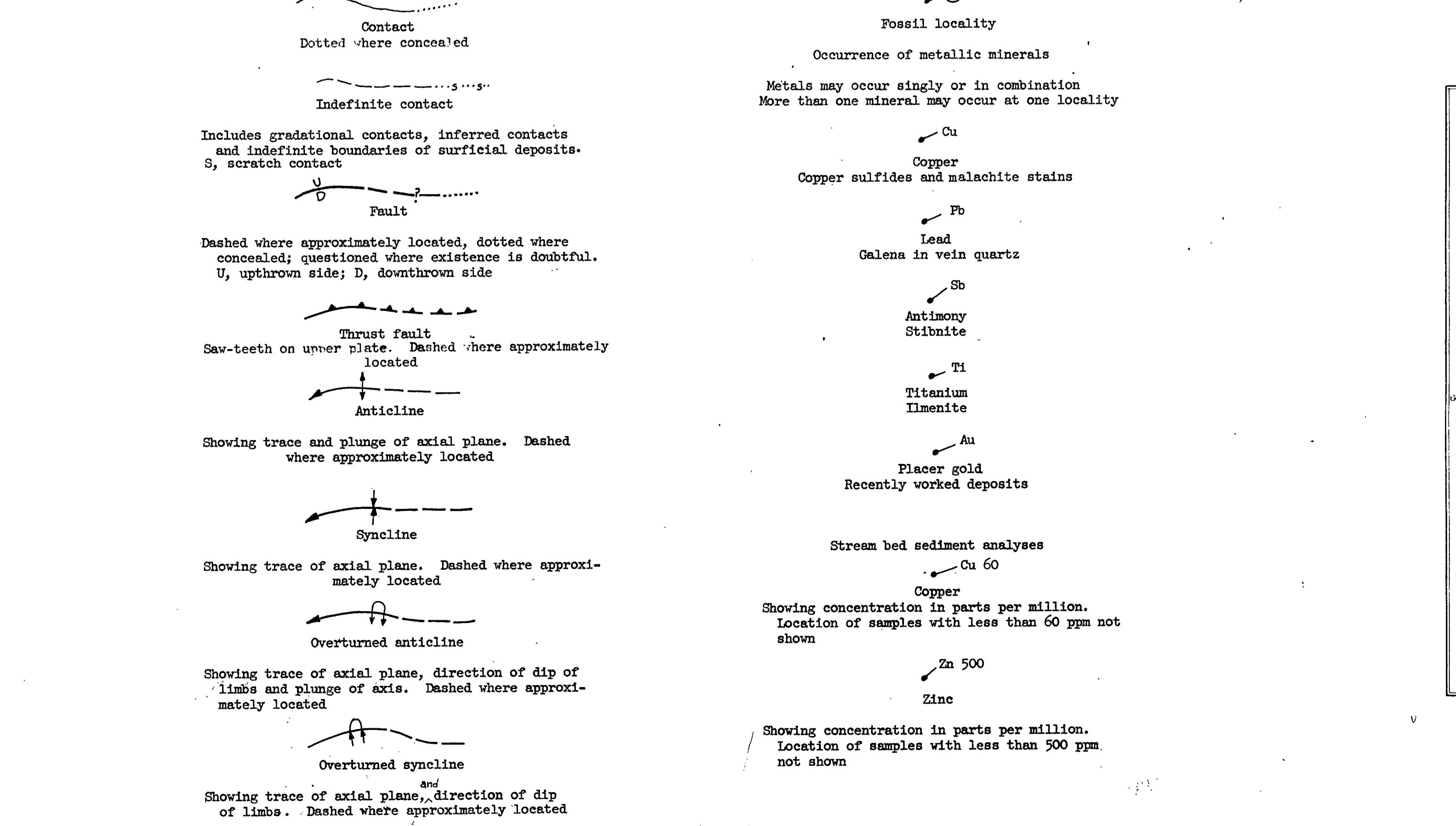
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Undifferentiated mafic igneous rocks

ns

Undifferentiated mafic igneous rocks and schist

SYMBOLS



PROGRESS MAP OF THE GEOLOGY OF THE WISMAN QUADRANGLE, ALASKA
By W. P. Broege and E. H. Reiser
Geology by W. P. Broege, Jr., M. D. Manges, M. P. Broege 1951
J. T. Dutro, Jr., M. D. Manges 1952
W. P. Broege, Jr., I. L. Skillew 1953
W. P. Broege, E. H. Reiser, O. L. Westington, V. L. Nystrum 1958
W. P. Broege, E. H. Reiser, J. O. Berkland, D. F. Kellum 1959

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

Quaternary geology and geology of Gray Mountain area and Brute Lake area largely from interpretation of aerial photographs