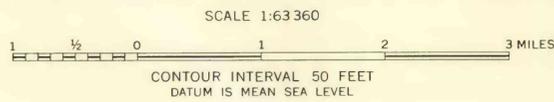


Base map from U. S. Geological Survey topographic quadrangles Fairbanks D-2, 1956, and Fairbanks D-3, 1949

INTERIOR—GEOLOGICAL SURVEY, WASHINGTON, D. C.—10437 Geology by Troy L. Pewé, 1947-55

GEOLOGIC MAP OF PART OF THE FAIRBANKS AREA, ALASKA



EXPLANATION

A blanket of sediments of Quaternary age a few inches to several hundred feet thick covers nearly all the mapped area. These sediments are not shown on the map where less than 3 feet thick

YUKON-TANANA UPLAND



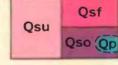
Fairbanks loess
Massive homogeneous unconsolidated eolian silt 3 to 100 feet thick on upper slopes and hilltops; well sorted; less than 10 percent clay; grains angular, consist mostly of quartz, feldspar, and mica; locally cemented by iron oxide; locally calcareous; buff to tan gray when dry, brown when wet

UNCONFORMITY



Reworked creek gravel
As mapped, gravel is placer-mine dredge tailings. Undisturbed gravel exposed in walls of excavations; consists of well-stratified layers and lenses of poorly sorted angular to subrounded auriferous sandy creek gravel; buff to brown with much iron staining; cobbles as much as 2 1/2 inches in diameter, composed mostly of quartz, gneiss, and schist. Locally perennially frozen

SEDIMENTARY ROCKS



Perennally frozen silt
Qsu, massive homogeneous unconsolidated eolian silt 1 to 300 feet thick; less than 10 percent clay. Grains angular; consist mostly of quartz, feldspar, and mica; locally cemented by iron oxide. Deposit contains organic material, especially in valley bottoms; color ranges from buff to brown to gray.
Qsf, silt, 2 to 30 feet thick, composing alluvial fans over flood-plain alluvium; small organic content.
Qso, organic silt, unconsolidated; 1 to 100 feet thick; organic material, both plant and animal; well sorted; less than 20 percent clay; brown to grayish black; locally mottled by decomposed vegetation. Contains large oval areas of peat, Qp, with high ice content; composed of dense undecomposed plant remains consisting mostly of Sphagnum mosses; color brown to black. Ground ice abundant except in Qst, where it is mainly interstitial

TANANA LOWLAND



Flood-plain alluvium
Well-stratified layers and lenses of unconsolidated gray silt, sand, and rounded river gravel; gravel consists mostly of quartz and gneiss. Permafrost discontinuous. Low ground ice content; mostly interstitial

IGNEOUS AND METAMORPHIC ROCKS



Altered dike rock
Gray to yellowish-brown porphyritic medium-grained granitic rocks composed mainly of quartz and feldspar; highly weathered



Birch Creek schist
pCbc, gray to brownish graphite, quartz-calcite and quartz-mica schist, amphibolite, quartzite, slate, and gneiss, seamed with quartz stringers. Original bedding largely obliterated. Locally weathered to depths of more than 50 feet. Contains local pods of coarse-grained white limestone, Is

Contact

Dashed where indefinite, gradational, or inferred

Frost-action study of railroad bridge

Subsurface-temperature recording site

QUATERNARY

MESOZOIC

PRECAMBRIAN