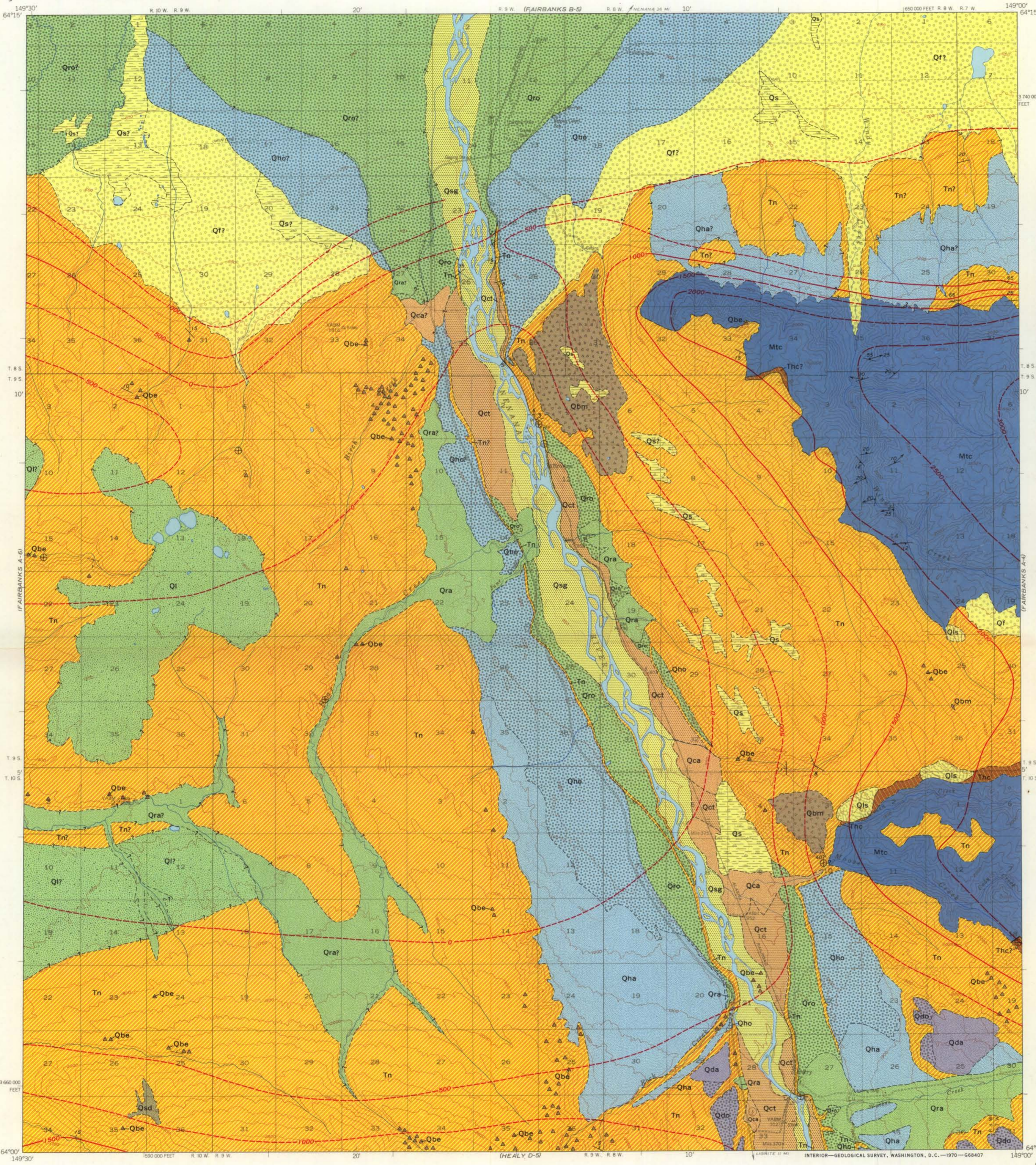


DEPARTMENT OF THE INTERIOR  
UNITED STATES GEOLOGICAL SURVEY



EXPLANATION

- |   |  |                                 |  |
|---|--|---------------------------------|--|
| Qf  | Qsg  | Qls                             | Qs   |
| Fan deposits<br>Mixed alluvium<br>and colluvium | Stream gravel<br>Gravel of the<br>Nenana River | Landslide<br>deposits           | Swamp deposits                             |
| Qca   | Qct  | Qra                             | Qro  |
| Alluvium  | Outwash and<br>terrace gravel                  | Alluvium and<br>pediment gravel | Outwash gravel                             |
| Qha   | Qho  | Ql                              | Qsd  |
| Alluvium and<br>pediment gravel                 | Outwash gravel                                 | Loess                           | Dune sand<br>Age relationship<br>uncertain |
| Qda   | Qda  | Qbe                             |  |
| Alluvium and<br>pediment gravel                 | Outwash gravel                                 | Glacial<br>erratics             |  |
| Qbm   | Qbe  |                                 |  |
| Morainal<br>deposits                            | Glacial<br>erratics                            |                                 |  |

UNCONFORMITY

- |   |                       |
|---|-----------------------|
| Tn  | Nenana Gravel         |
| <i>Buff to reddish-brown, poorly consolidated, pebble to boulder conglomerate and coarse sandstone, with interbedded mudflow deposits, thin claystone layers and local thin lignite beds</i>                              |                       |
| Thc   | Healy Creek Formation |
| <i>Interbedded poorly consolidated clay-rich quartz and quartz-and-mica sandstone, quartz-and-chert conglomerate, claystone, and subbituminous coal in lenticular beds. Characterized by abrupt lateral facies change</i> |                       |

MAJOR UNCONFORMITY

- |  |                         |
|--|-------------------------|
| Mtc  | California Creek Member |
| <i>Gray quartz-orthoclase-sericite schist and augen gneiss</i> |                         |

Contact  
Dashed where approximately located; short dashed where indefinite, gradational, or inferred from aerial photographs; queried where doubtful

Fault

- |                                      |            |
|--------------------------------------|------------|
| 65° 20'                              | ⊕          |
| Inclined                             | Horizontal |
| Symbol broken where strike uncertain |            |

Strike and dip of beds

- |     |                                 |
|-----|---------------------------------|
| 20° | Strike and dip of foliation     |
| 25° | Bearing and plunge of lineation |

Elongation of mineral grains and streaks on cleavage or foliation surfaces

Structure contours

—1000—  
—1500—  
Drawn on base of Nenana Gravel; solid, position known within half a contour interval; long dashes, contoured surface above ground, position thought to be known within half a contour interval; short dashes, uncertainty of position greater than half a contour interval. Contour interval 500 feet

SELECTED BIBLIOGRAPHY

Péwé, Troy L., Wahrhaftig, Clyde, and Weber, Florence, 1966, Geologic map of the Fairbanks quadrangle, Alaska: U.S. Geol. Survey Misc. Geol. Inv. Map I-455, scale 1:250,000  
 Wahrhaftig, Clyde, 1958, Quaternary geology of the Nenana River valley and adjacent parts of the Alaska Range: U.S. Geol. Survey Prof. Paper 293-A, p. 1-68  
 Wahrhaftig, Clyde, 1968, Schists of the central Alaska Range: U.S. Geol. Survey Bull. 1254-E, p. E1-E22  
 Wahrhaftig, Clyde, Wolfe, Jack A., Leopold, Estella B., and Lanphere, Marvin A., 1969, The coal-bearing group in the Nenana coal field, Alaska: U.S. Geol. Survey Bull. 1274-D, p. D1-D30.

Base by U.S. Geological Survey, 1965  
10,000-foot grid based on Alaska coordinate system, zone 4



SCALE 1:63,360  
0 1 2 3 4 MILES  
0 1 2 3 4 KILOMETERS

CONTOUR INTERVAL 100 FEET  
DOTTED LINES REPRESENT 50-FOOT CONTOURS  
DATUM IS MEAN SEA LEVEL



Geology by Clyde Wahrhaftig, 1948, 1949, 1952, and 1963, and John W. James, 1948; assisted by J. P. Johnson and Kirk Bryan, Jr., 1949, J. H. Birman, 1952, and Lawrence Mayo, 1963

GEOLOGIC MAP OF THE FAIRBANKS A-5 QUADRANGLE, ALASKA

By  
Clyde Wahrhaftig  
1970