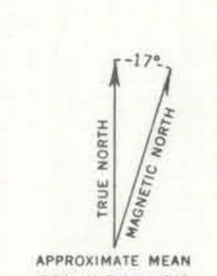
DEPARTMENT OF THE INTERIOR
UNITED STATES GEOLOGICAL SURVEY

MINERAL INVESTIGATIONS
FIELD STUDIES MAP MF-247

Base from Army Map Service topographic quadrangles

INTERIOR—GEOLOGICAL SURVEY, WASHINGTON, D. C.—62088

Geology mapped in 1953–54 and 1956–57



EXPLANATION

SEDIMENTARY DEPOSITS

Qd

Unconsolidated deposits

Mainly glacial, glaciofluvial, and alluvial deposits of Pleistocene and Recent age but locally includes eluvium and, in a narrow belt along the present coastline, beach deposits of Pleistocene age; small exposures of older, buried beach deposits of Tertiary and Pleistocene(?) age may be spottily exposed in dredged area on coastal plain south of Anvil Mountain

Pleistocene and Recent — QUATERNARY

IGNEOUS ROCKS

TKg

Granitic intrusives

Single aplite sill a mile west of Surprise Gulch in southeastern part of quadrangle

Upper Cretaceous or lower Tertiary — CRETACEOUS OR TERTIARY

METAIGNEOUS ROCKS

mgr

Metagranitic sills

mgd

Metagranodioritic sills

gt

Greenstone sills

MESOZOIC OR CENOZOIC

METASEDIMENTARY ROCKS

The following lithologic units were previously included in the Nome Group (Brooks, A. H., Richardson, G. B., and Collier, A. J., 1901, Reconnaissance in the Cape Nome and Norton Bay regions, Alaska: U. S. Geol. Survey Spec. Pub., p. 29, also Moffit, F. H., 1913, Geology of the Nome and Grand Central Quadrangles: U. S. Geol. Survey Bull. 533, p. 17-19)

Pzms

Interbedded marble and schist

Well-stratified sequence comprised principally of the following rocks: non-graphitic to slightly graphitic, quartz-chlorite-muscovite schist and chlorite-muscovite schist, non-graphitic to slightly graphitic calcareous and quartzo-calcareous-chlorite-muscovite schist, blue-gray and gray marble and buff-weathering and gray schistose marble, garnetiferous and non-garnetiferous amphibolite, and impure calcareous and non-calcareous quartzite. Garnet and feldspar are constituents of some chlorite-muscovite schist. Units consisting mainly of marble are shown with cross-hatched pattern. Contact with underlying calcareous schist gradational

Pzcs

Calcareous schist

Composed almost entirely of calcareous-rich rocks, including non-graphitic to slightly graphitic chlorite-muscovite schist and quartz chlorite-muscovite schist, buff-weathering calcareous chlorite-muscovite schist, buff-weathering and gray schistose marble, and sparse blue-gray marble. Contact with underlying quartzite and schist gradational

Pzqs

Interbedded quartzite and schist

Predominantly green to gray-green chlorite-muscovite schist and quartz-chlorite-muscovite schist and spotted, feldspathic variants of them with intimately interbedded lenticles and beds of buff- to brown-weathering calcareous quartzite and yellow-green argillaceous quartzite; lenticles range in size from a fraction of an inch in thickness and a few inches long to several feet in thickness and several tens to hundreds of feet long; minor units include calcareous chlorite-muscovite schist and gray and buff-weathering schistose marble. Contact with underlying schist gradational

Pzmu
Pzm

Marble

Pzmu consists mainly of calcareous, quartzo-calcareous, and quartz-chlorite-muscovite schist but includes blue-gray and gray marble, buff-weathering and gray schistose marble, and black quartzite. Gradational with underlying rock

Pzm, principally platy, slabby and massive blue-gray and gray marble, and buff-weathering and gray schistose marble; minor units include calcareous chlorite-muscovite schist, and graphitic and non-graphitic chlorite-muscovite schist and quartz-chlorite-muscovite schist. Contact with underlying graphitic, calcareous schist gradational

Pzgu
Pzg

Graphitic, calcareous schist

Pzgu, uppermost part of this unit is markedly more graphitic than the rest; includes gray to dark-gray, moderately to highly graphitic, calcareous quartz-chlorite-muscovite schist; graphitic quartz-chlorite-muscovite schist; gray, dark-gray, and black marble; and black quartz schist and black quartzite. Gradational with underlying rock

Pzg, predominantly gray, slightly graphitic, calcareous quartz schist; minor units include blue-gray, gray, and black marble, graphitic chlorite-muscovite schist, quartz-chlorite-muscovite schist, and black quartz schist and black quartzite. Non-graphitic to slightly graphitic quartz-chlorite-muscovite schist, and black graphitic quartz schist and black graphitic quartzite predominate in units shown by vertical line pattern

LOWER TO MIDDLE PALEOZOIC

Contact
Short dashed where approximately located; short dashes alternating with dots where inferred, extrapolated, or semi-obscured; queried where doubtful

Contact of unconsolidated deposit, approximately located

Fault, showing dip
Dashed where approximately located or inferred; dotted where concealed; queried where doubtful. U, upthrown side; D, downthrown side

Lineament or fault from aerial photographs

Shear zone

Anticline
Trace of axial plane approximately located

Bearing and plunge of axis of minor anticline

Bearing and plunge of axis of minor syncline

Bearing and plunge of overturned minor fold

Bearing and plunge of minor fold axis

Bearing of horizontal minor fold axis

Strike and direction of dip of beds from aerial photographs

Horizontal bedding foliation

Strike and dip of bedding foliation

Strike of vertical bedding foliation

Strike and dip of bedding foliation
Open arrow shows bearing and plunge of lineation

Strike and dip of bedding foliation
Solid arrow shows bearing and plunge of minor fold axis lying in plane of foliation

Strike and dip of bedding foliation
Open arrows indicate bearing of horizontal lineation

Bearing and plunge of lineation

Bearing of horizontal lineation

Strike and dip of joint

Strike of vertical joint

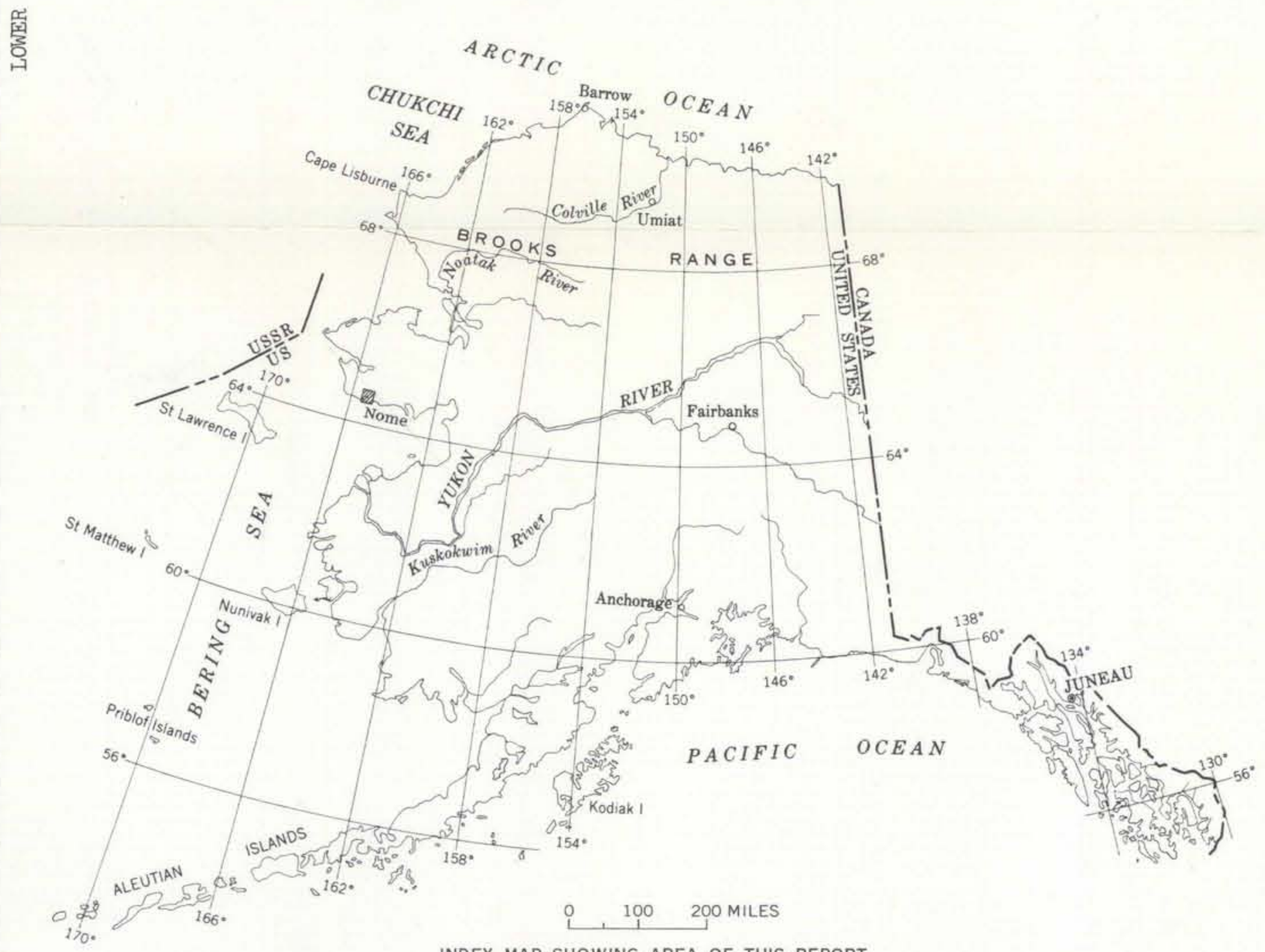
Mine or prospect
Numbers refer to mines and prospects listed below

1. Big Four; Au
2. Boulder Creek; Au
3. Gold Bug; FeS
4. Goodluck Gulch; Au, Sch
5. Hendrickson; Sb
6. Holmason and Helde; Cu, FeS
7. Hot Air; FeS
8. Jorgenson; Au, Sch
9. Lilly; Cu
10. Mohawk; FeS
11. Nelson (Skookum Creek); Sb
12. Olson; Sb
13. Peterson and Lamereaux; Pb
14. Pioneer Gulch; Au
15. Reinisch; Au, Sch
16. Scotia; FeS
17. Sophie; Sch
18. Stipec and Kotovic; Au
19. Widstedt #1; Sb
20. Widstedt #2; Sb

The names of the mines and prospects above are those by which they are referred in previous geologic literature of the area.

21. 56AHu 534; FeS
22. 56AHu 564; FeS
23. 56AHu 684; Cu
24. 56AHu 692; FeS
25. 56AHu 695; FeS
26. 56AHu 696; Au, Sb, Sch
27. 56AHu 722; FeS
28. 56AHu 768; Pb, Sb
29. 57AHu 123; FeS
30. 58AHu 124; Au, Sch

Prospects 21 through 30 were found or relocated during the current geologic investigation and no names could be found for them; they are here listed according to the field station designations. The principal constituents of the mines and prospects are indicated as follows: Au, native gold; Cu, copper; FeS, iron sulfides, mainly pyrite and arsenopyrite but rarely pyrrhotite; Pb, lead; Sb, antimony; Sch, scheelite



INDEX MAP SHOWING AREA OF THIS REPORT

PRELIMINARY GEOLOGIC MAP OF THE NOME C-1 QUADRANGLE, SEWARD PENINSULA, ALASKA

By
C. H. Hummel

SCALE 1:63 360
1 0 1 2 3 MILES
CONTOUR INTERVAL 50 FEET
DATUM IS MEAN SEA LEVEL

1962

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For sale by U. S. Geological Survey, price 50 cents