



**SEDIMENTARY DEPOSITS**

Qd  
Unconsolidated deposits  
Mainly glacial, glaciofluvial, and alluvial deposits,  
but locally includes eluvium

**IGNEOUS ROCKS**

TKgTKg  
Granitic intrusives  
Dikes and sills

TKmTKm  
Mafic intrusives  
Dikes and sills

TKp  
Pegmatite  
Dikes and sills

**METAIgneous ROCKS**

mgm  
Metagranitic sills

mgd  
Metagranodioritic sills

gt gt  
Greenstone sills

**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 Moffitt, F. H., 1913, Geology of the Nome and Grand Central Quadrangles; U. S. Geol. Survey Bull. 533, p. 17-19)

**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 quartz-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

**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

**Interbedded quartzite and schist**  
Predominantly green to gray-green chlorite-muscovite schist and quartz-chlorite-muscovite schist and quartz-chlorite-muscovite schist 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. Variants of all units with amphibole and garnet are sparingly present in the northern outcrop belt extending from upper Nome River to upper Eldorado River. Contact with underlying schist gradational

**Marble**  
Pmu consists mainly of calcareous, quartz-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  
Pm, 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

**Marble**  
Pmu consists mainly of calcareous, quartz-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  
Pm, 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

**EXPLANATION**

**QUATERNARY**

Graphitic, calcareous schist  
Pgu, 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. This unit in fault contact with what is considered to be next underlying rock

Note: Rocks making up all of the following lithologic units were previously included in the Kigluak Group. See references cited above

**CRETACEOUS OR TERTIARY**

Pab  
Interbedded biotite schist and quartzite  
Composed mainly of interbedded gray and black graphitic quartzite and red-brown-weathering biotite schist. Garnet, sillimanite, and staurolite are constituents of some schist. Minor units include calc-silicate rocks and diopside-bearing quartz-feldspar biotite schist. Contact with underlying marble gradational

**MESOZOIC OR CENOZOIC**

Pdm  
Dolomitic and calcitic marble  
Predominantly, white dolomitic marble and grayish-white to gray, impure biotite- and diopside-bearing calcitic marble; minor units include pale green, calc-silicate rocks, grayish-green to greenish-gray, diopside-bearing quartz-feldspar-biotite schist, and orange-, red-, and brown-weathering quartz-feldspar schist and quartz-biotite schist. Parts of the unit in which schist predominates are shown by inclined line pattern

**LOWER TO MIDDLE PALEOZOIC**

Contact  
Short dashes where approximately located; short dashes alternating with dots where inferred, extrapolated, or semi-obscured. All contacts 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

Anticline, approximately located  
Showing trace of axial plane and direction of plunge of axis

Syncline  
Showing trace of axial plane and direction of plunge of axis. Dashed where approximately located; queried where doubtful

Bearing and plunge of minor fold axis

Bearing of horizontal minor fold axis

Strike and dip of bedding foliation from aerial photographs

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

**LOWER TO MIDDLE PALEOZOIC**

Bearing and plunge of lineation

Bearing of horizontal lineation

Bearing and plunge of pencil structure

Strike and dip of joint

Strike of vertical joint

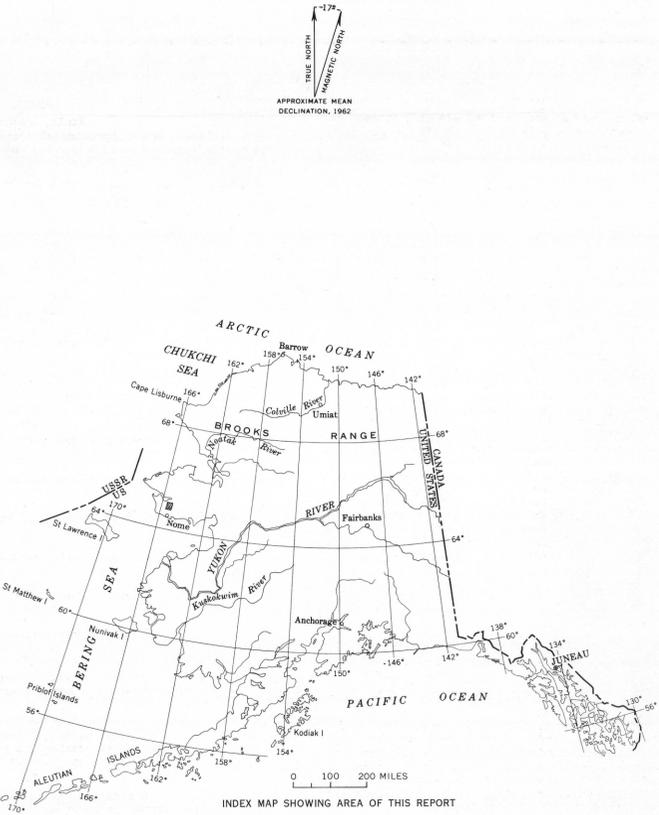
Mine or prospect  
Numbers refer to mines and prospects listed below

- |                            |                                  |
|----------------------------|----------------------------------|
| 1. Breen (East); Sb        | 11. MacDuffee (West); Au, FeS    |
| 2. Breen (West); Sb        | 12. Moffitt; graphite            |
| 3. California (Jensen); Au | 13. Nelson (Steep Creek); Pb, Zn |
| 4. Charley Creek; Bi       | 14. Nelson Gulch; Sch            |
| 5. Copper Creek; Cu        | 15. Slisovitch; Sb               |
| 6. Copper King; Cu, Pb     | 16. Slisovitch (South); Sb       |
| 7. Copper Mountain; Cu     | 17. Spring; Sb                   |
| 8. Hed and Strand; Sb      | 18. Tannery; Sb                  |
| 9. Lindfors; Sb            | 19. Thompson; Sb, Zn             |
| 10. MacDuffee (East); Au   | 20. Wyoming; FeS                 |

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

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|---------------------------|-------------------------|
| 21. 53Ahu 123; FeS        | 32. 51Ahu 522; FeS      |
| 22. 53Ahu 131; FeS        | 33. 57Ahu 132; Cu       |
| 23. 53Ahu 169; Sch        | 34. 57Ahu 135; FeS      |
| 24. 53Ahu 174; Sch        | 35. 57Ahu 216; Sch      |
| 25. 53Ahu 254; Cu         | 36. 57Ahu 244; graphite |
| 26. 53Ahu 291; Sch        | 37. 57Ahu 272; Zn, Sch  |
| 27. 51Ahu 280; FeS        | 38. 57Ahu 278; graphite |
| 28. 51Ahu 465 (Float); Cu | 39. 57Ahu 291; FeS      |
| 29. 51Ahu 510; Sb         | 40. 57Ahu 300; Sch      |
| 30. 51Ahu 518; Sb         | 41. 57Ahu 347; FeS      |
| 31. 51Ahu 519; Sb         |                         |

Prospects 21 through 41 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.



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

By  
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