

EXPLANATION

BEDDED ROCKS

- Gag**
Alluvium and glacial material
Includes outwash terraces and terrace gravel deposits as well as fluvial alluvium
- Gs**
Silt
Platocene (?) Gubik Formation
- Rs**
Regional Unconformity
- Ts**
Siltstone and sandstone
Miocene and Pliocene (?) marine, exposed only east of Chukchi River, includes Nuvuk Formation
- Tc**
Unconformity (?)
Conglomerate and sandstone
Pliocene and Holocene younger rocks to the east; unconformity between only part of Cape Barrow Stage and Nuvuk Formation

BROOKS RANGE SEQUENCE

(Allochthonous with respect to Laramide thrust faults, except units exposed in summit and remnants of Neotectonic may be autochthonous)

NUKA RIDGE SEQUENCE

(Allochthonous with respect to Alpin? thrust faults)

DELONG MOUNTAINS-SOUTHERN FOOTHILLS SEQUENCE

(Allochthonous with respect to Alpin? thrust faults)

SOUTHERN FOOTHILLS CONDENSED SEQUENCE

(Allochthonous with respect to Alpin? thrust faults)

NORTHERN FOOTHILLS AND ARCTIC PLAIN SEQUENCE

(Autochthonous)

- Kss**
Sandstone, shale and conglomerate
Turonian to Maastrichtian, may include Deinan sands east of Chukchi River; includes Gubik Group and upper part of Igark Formation
- Ksc**
Unconformity (Central area)
Sandstone, conglomerate and shale
Albinian to Comanchian, includes Nuvuk Group and lower part of Igark Formation
- Kc**
Conglomerate and sandstone
Albinian to Comanchian, includes Nuvuk Group and lower part of Igark Formation
- Ks**
Shale
Albinian to Comanchian, includes Nuvuk Group and lower part of Igark Formation
- Kjs**
Shale
Albinian to Comanchian, includes Nuvuk Group and lower part of Igark Formation

DISCONFORMITY (?)

- Rs**
Shale, limestone and chert
Upper Triassic; Ivavik Formation
- Rsh**
Shale and chert
Permian and Lower Middle Triassic; includes Permian and Lower Middle Triassic; includes Permian and Lower Middle Triassic; includes Permian and Lower Middle Triassic
- Ps**
Permian; includes Permian, Permian and Permian
- PNI**
Regional Unconformity
Limestone
Lower and Upper Mississippian in west, upper Mississippian in east; includes Devonian Group
- Ms**
Shale
Middle Lower Mississippian; includes Mayak Shale, member of Devonian Group, and upper Mississippian and Upper Devonian
- Mdc**
Conglomerate
Upper Devonian; includes Mayak Shale and Permian chert member of Devonian Group

REGIONAL UNCONFORMITY

- RMs**
Shale and argillite
Age limits uncertain, exposed only in area of Chukchi and Chukchi Rivers; may be facies equivalent of Rsh in Chukchi Mountains
- PMy**
Argillite and chert
Permian Formation

UNCONFORMITY

- KPs**
Shale, chert and limestone
Alluvium of condensed sequence exposed along and north of DeLong front west of Saganai River; includes Devonian, Permian and Permian
- PMs**
Shale, limestone, chert and mafic igneous rocks
Includes some Triassic rocks only located in area of Chukchi River area
- PMl**
Limestone
Mississippian, Lower Permian; dates, more bituminous than Permian Group

ANGULAR UNCONFORMITY

- Ds**
Siltstone and sandstone
Upper Devonian; includes Mayak Shale and Permian chert member of Devonian Group
- Dls**
Unconformity (?)
Limestone and siltstone
Upper Devonian
- Dl**
Limestone
Middle (?) and Upper Devonian; includes Mayak Shale and Permian chert member of Devonian Group
- Dsq**
Metamorphic rocks
Quartzite schist
Devonian; includes Mayak Shale and Permian chert member of Devonian Group

UNCONFORMITY

- Ddl**
Dolomite, limestone, sandstone and shale
Upper Devonian; Neoproterozoic Formation

IGNEOUS ROCKS

- g**
Granite
Exposed only in eastern Brooks Range; Mount Melville pluton may be Devonian, otherwise probably Cretaceous
- m**
Mafic and ultramafic rocks
Mainly gabbro and basalt; some diorite, gneiss and amphibolite; locally developed as extensive flows limited to large body crossing Nuvuk River at about lat. 68° 15' N and to Chukchi Mountains and southern foothills (Chukchi Mountains sequence); includes some mafic rocks in DeLong Mountains and southern foothills (Chukchi Mountains sequence); includes some mafic rocks in DeLong Mountains and southern foothills (Chukchi Mountains sequence); includes some mafic rocks in DeLong Mountains and southern foothills (Chukchi Mountains sequence)

GEOLOGIC SYMBOLS

- Contact
Dotted where concealed
- Boundary
Limit of mapped area or approximate contact in poorly known area
- Fault, showing relative movement
U, upthrown side; D, downthrown side; dashed where inferred, dotted where concealed
- Thrust fault
Sawtooth on upper plate, dashed where inferred, dotted where concealed
- Major thrust fault
Sawtooth on upper plate, dashed where inferred, dotted where concealed
- Anticline
Showing crestline and direction of plunge; dashed where probable; dotted where concealed
- Syncline
Showing troughline and direction of plunge; dashed where probable; dotted where concealed
- Minor anticline, showing plunge
- Core test location
- Test well location
Number refers to table of wells
- Oil well
- Gas well
- Oil field

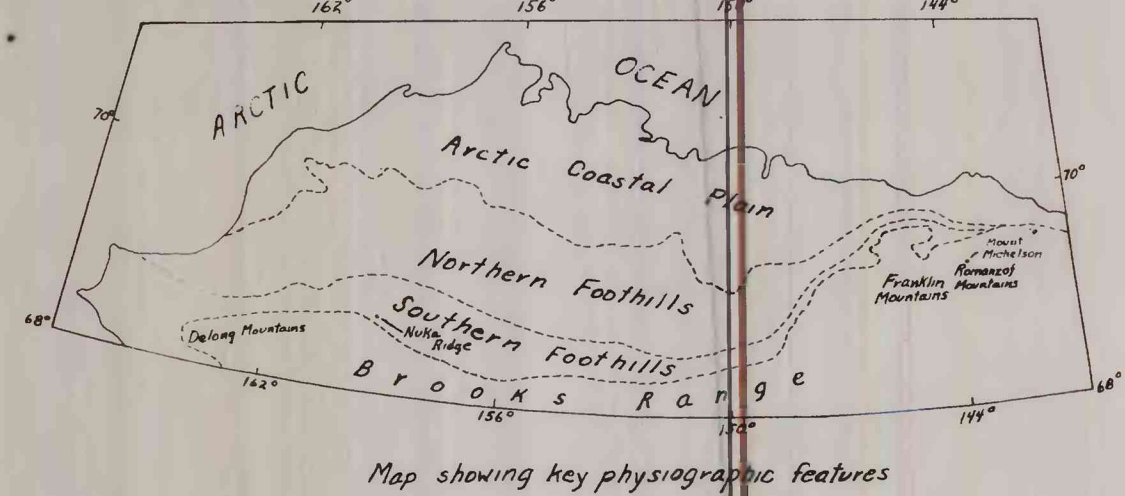
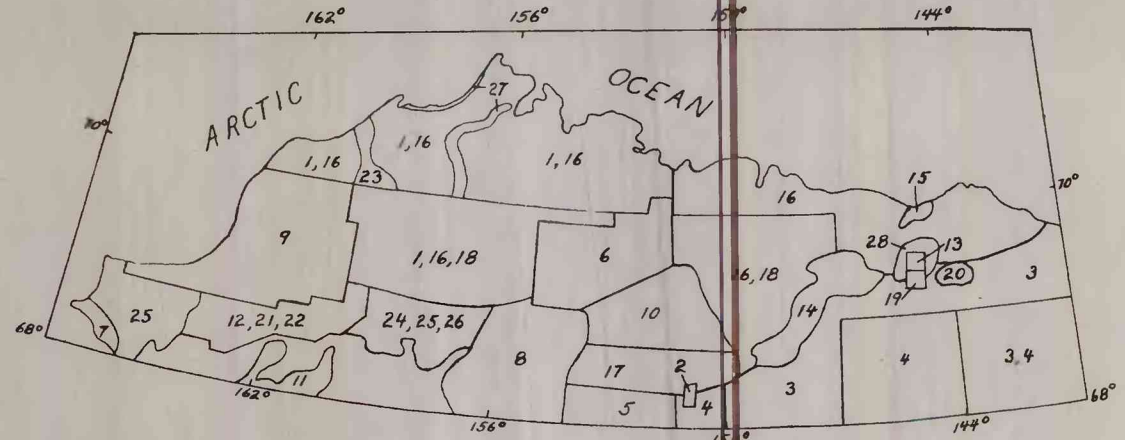


Table of wells, showing subsurface stratigraphy (autochthonous)

Equivalent Group Unit	Number, Name, and Total Depth of Well																																	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32		
Qs																																		
Kss																																		
Ksc																																		
Kc																																		
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Ds																																		
Dls																																		
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PRELIMINARY GEOLOGIC MAP OF NORTHERN ALASKA

Compiled by Ernest H. Latham

1965

This map is preliminary and has not been edited to conform with U.S. Geological Survey standards