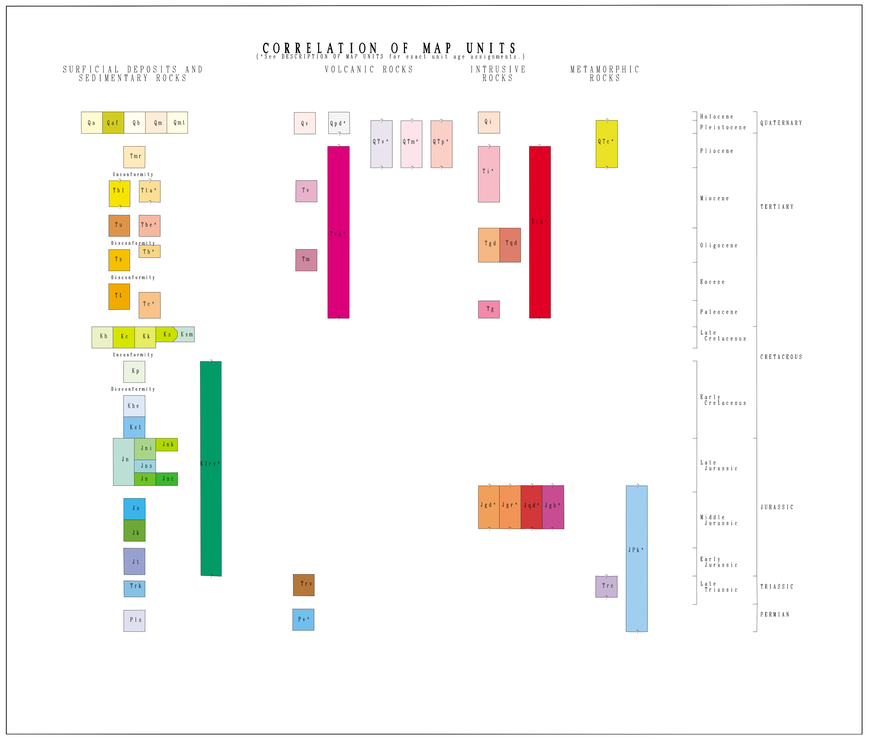


Geology mapped by Narin Albert, 1983; W.H. Allaway, Jr., 1980-81; L.M. Angeloni, 1983-85; Peter Burrell, 1983; J.E. Case, 1977-81, 1983-1985; C.L. Connor, 1982; D.P. Cox, 1977-78, 1980; John Decker, 1985; R.L. Detterman, 1977-86, 1988; G.D. DuBois, 1985, 1988, 1990; C.L. Engelhardt, 1977; B.M. Gamble, 1983-84; S.A. Zurinski, 1986; C.D. Holloway, 1977; D.G. Howell, 1977; T.E.C. Keith, 1984; L.B. Magoon, 1979-80; Louie Marincovich, Jr., 1978, 1982, 1984; Eric Martin, 1984; Hugh McLean, 1977; J.W. Miller, 1979-86; T.P. Miller, 1973-75, 1977-78, 1979, 1981-82, 1988; M.A. Pernokas, 1983; B.L. Reed, 1983-84; J.R. Riehle, 1981-86; Nora Shew, 1981-82; R.A. Spicer, 1977-78; F.R. Weber, 1983-85; F.H. Wilson, 1977-86, 1988, 1990; J.A. Wolfe, 1977-78; M.E. Yount 1977-86.

Data sources (by 1:250,000-scale quadrangle):
Afognak: Riehle and others, 1987, 1993; Riehle and Detterman, 1993; R.L. Detterman, written commun., 1989; interpretation of vertical airphoto, SLAR, and Landsat imagery, F.H. Wilson, 1989

Bristol Bay: Detterman and others, 1987a, b; R.L. Detterman written commun., 1988

Chignik: Detterman and others, 1981a, b; R.L. Detterman written commun., 1988

Cold Bay: Kennedy and Waldron, 1955; Waldron, 1961; Burk, 1965; McLean and others, 1978; DuBois and others, 1989; F.R. Weber, written commun., 1989; T.P. Miller, written commun., 1989; interpretation of vertical airphoto, SLAR, and Landsat imagery, F.H. Wilson, 1989-91; field work, F.H. Wilson, G.D. DuBois, and W.H. White, 1990

False Pass: Kennedy and Waldron, 1955; Waldron, 1961; Burk, 1965; McLean and others, 1978; DuBois and others, 1989; F.R. Weber, written commun., 1989; T.P. Miller, written commun., 1989; interpretation of vertical airphoto, SLAR, and Landsat imagery, F.H. Wilson, 1989-91; field work, F.H. Wilson, G.D. DuBois, and W.H. White, 1990

Karluk: Detterman and others, 1987a, b; R.L. Detterman, written commun., 1988

Mt. Katmai: Riehle and others, 1987, 1993; Riehle and Detterman, 1993; R.L. Detterman, written commun., 1989; interpretation of SLAR and Landsat imagery, F.H. Wilson, 1989

Naknek: Riehle and others, 1987, 1993; Riehle and Detterman, 1993; Muller, 1952; interpretation of SLAR and Landsat imagery, F.H. Wilson, 1989

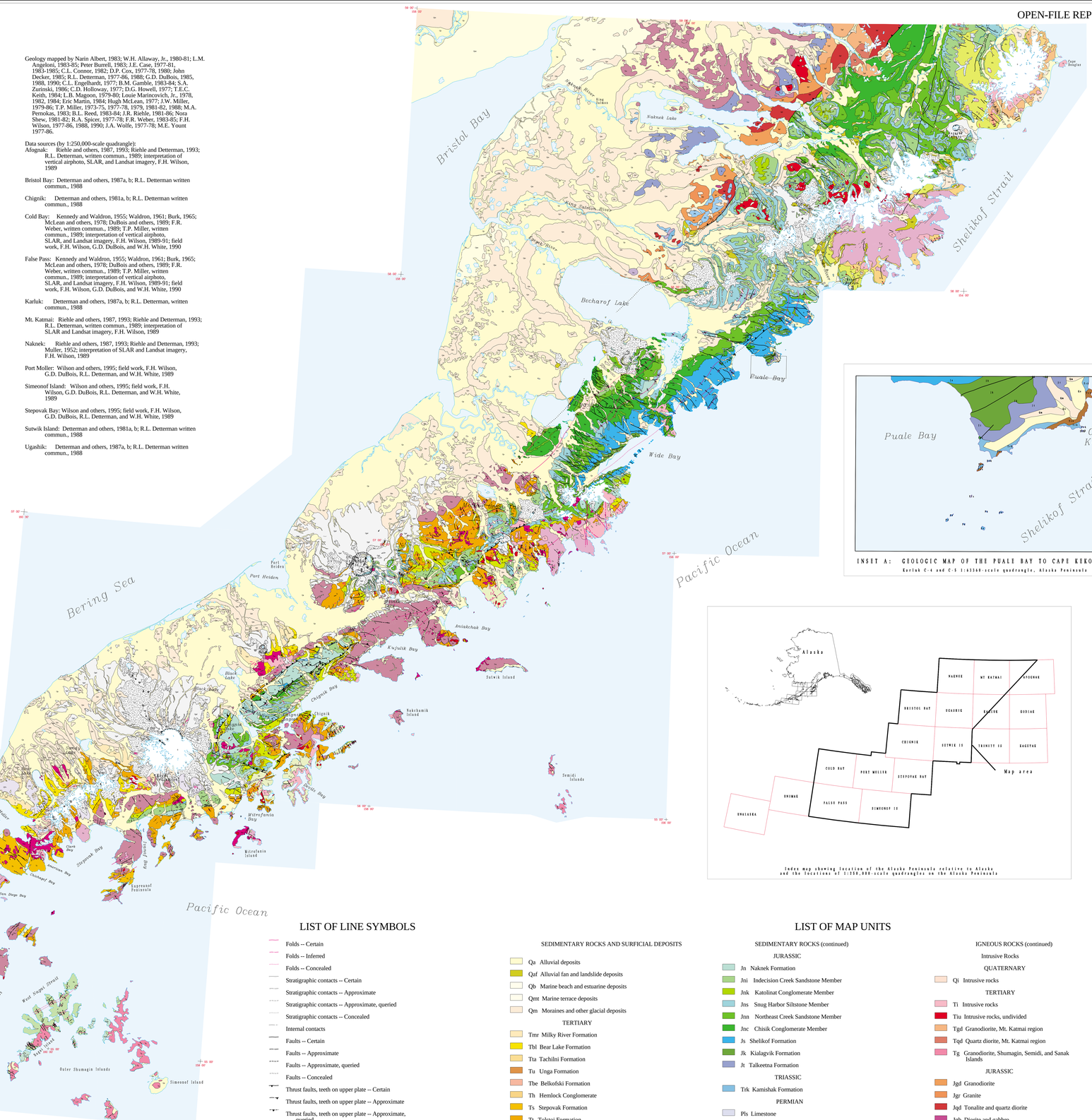
Port Moller: Wilson and others, 1995; field work, F.H. Wilson, G.D. DuBois, R.L. Detterman, and W.H. White, 1989

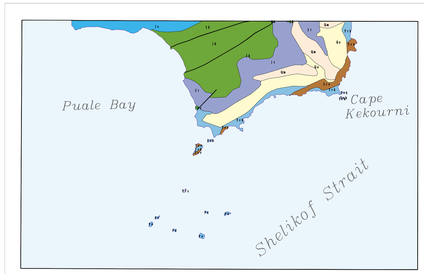
Simeonof Island: Wilson and others, 1995; field work, F.H. Wilson, G.D. DuBois, R.L. Detterman, and W.H. White, 1989

Stepovak Bay: Wilson and others, 1995; field work, F.H. Wilson, G.D. DuBois, R.L. Detterman, and W.H. White, 1989

Sutwik Island: Detterman and others, 1981a, b; R.L. Detterman written commun., 1988

Ugashik: Detterman and others, 1987a, b; R.L. Detterman written commun., 1988





INSET A: GEOLOGIC MAP OF THE PUALE BAY TO CAPE KEKOURNI AREA
Karluk C-4 and C-5 1:63360-scale quadrangle, Alaska Peninsula

Index map showing location of the Alaska Peninsula relative to Alaska and the locations of 1:250,000-scale quadrangles on the Alaska Peninsula

Base digitally derived from following U.S. Geological Survey 1:250,000-scale quadrangles, and contained 1:63,360-scale quadrangles in part,
Afognak, 1952 (revised 1970); Bristol Bay, 1963 (revised 1977); Chignik, 1963 (revised 1976); Cold Bay, 1943 (revised 1975); False Pass, 1949 (revised 1970); Karluk, 1952 (revised 1981); Mt. Katmai, 1951 (revised 1975); Naknek, 1952 (revised 1981); Port Moller, 1953 (revised 1988); Simeonof Island, 1963; Stepovak Bay, 1963 (revised 1981); Sutwik Island, 1963; Ugashik, 1963 (revised 1975).

Vicinity of Morzhovoi Bay to False Pass digitally derived from National Oceanic and Atmospheric Administration Chart 16535, Morzhovoi Bay and Isanotski Strait (Mercator Projection).

Inset map digitally derived from Karluk (C-4 and C-5), Alaska, quadrangle, scale 1:63,360.

USGS quadrangle sheets digitally transformed from:
Universal Transverse Mercator projection, zones 3, 4, and 5
to:
Albers Equal Area projection,
1st Standard Parallel; 55 degrees N
2nd Standard Parallel; 65 degrees N
Central Meridian; 154 degrees W
Projection origin; 50 degrees N

Scale 1:500,000

GEOLOGIC MAP OF THE ALASKA PENINSULA, SOUTHWEST ALASKA

By

F.H. Wilson, R.L. Detterman, and G.D. DuBois

LIST OF LINE SYMBOLS

- Folds -- Certain
- Folds -- Inferred
- Folds -- Concealed
- Stratigraphic contacts -- Certain
- Stratigraphic contacts -- Approximate
- Stratigraphic contacts -- Approximate, queried
- Stratigraphic contacts -- Concealed
- Internal contacts
- Faults -- Certain
- Faults -- Approximate
- Faults -- Approximate, queried
- Faults -- Concealed
- Thrust faults, teeth on upper plate -- Certain
- Thrust faults, teeth on upper plate -- Approximate
- Thrust faults, teeth on upper plate -- Approximate, queried
- Thrust faults, teeth on upper plate -- Concealed
- Dikes
- Caldera or crater rim
- Ice contacts and shorelines

LIST OF MAP UNITS

SEDIMENTARY ROCKS AND SURFICIAL DEPOSITS

- Qa Alluvial deposits
- Qaf Alluvial fan and landslide deposits
- Qb Marine beach and estuarine deposits
- Qmt Marine terrace deposits
- Qm Moraines and other glacial deposits

TERTIARY

- Tmr Milky River Formation
- Tbl Bear Lake Formation
- Tta Tachilni Formation
- Tu Unga Formation
- Tbe Belkofski Formation
- Th Hemlock Conglomerate
- Ts Stepovak Formation
- Tt Tolstoi Formation
- Tc Copper Lake Formation

CRETACEOUS

- Kh Hoodoo Formation
- Kc Chignik Formation
- Kk Kaguyak Formation
- Ks Shumagin Formation
- Ksm Mudstone
- Kp Pedmar Formation
- KJcv Chert and volcanic sequence
- Khe Herendeen Formation
- Kst Staniukovich Formation

SEDIMENTARY ROCKS (continued)

JURASSIC

- Jn Naknek Formation
- Jni Indecision Creek Sandstone Member
- Jnk Katolinat Conglomerate Member
- Jns Snug Harbor Siltstone Member
- Jnn Northeast Creek Sandstone Member
- Jnc Chisik Conglomerate Member
- Js Shelikof Formation
- Jk Kialagvik Formation
- Jt Talkeetna Formation

TRIASSIC

- Trk Kamishak Formation

PERMIAN

- Pls Limestone

IGNEOUS ROCKS
Volcanic Rocks
QUATERNARY

- Qv Volcanic rocks
- Qpd Pyroclastic and debris-flow deposits
- QTv Volcanic rocks
- QTp Pyroclastic flow deposits
- QTm Morzhovoi Volcanics

TERTIARY

- Tvu Volcanic rocks, undivided
- Tv Volcanic rocks
- Tm Meshik Volcanics

TRIASSIC

- Trv Volcanic rocks

PERMIAN

- Pv Volcanic rocks

IGNEOUS ROCKS (continued)

Intrusive Rocks

QUATERNARY

- Qi Intrusive rocks

TERTIARY

- Ti Intrusive rocks
- Tiu Intrusive rocks, undivided
- Tgd Granodiorite, Mt. Katmai region
- Tqd Quartz diorite, Mt. Katmai region
- Tg Granodiorite, Shumagin, Semidi, and Sanak Islands

JURASSIC

- Jgd Granodiorite
- Jgr Granite
- Jqd Tonalite and quartz diorite
- Jgb Diorite and gabbro

METAMORPHIC ROCKS

QUATERNARY or TERTIARY

- QTc Contact-metamorphic rocks

MESOZOIC

- JPk Kakhonak Complex
- Trc Cottonwood Bay Greenstone

OTHER MAP SYMBOLS

- g Glaciers
- Water
- Altered zones
- Hornfelsed zones.