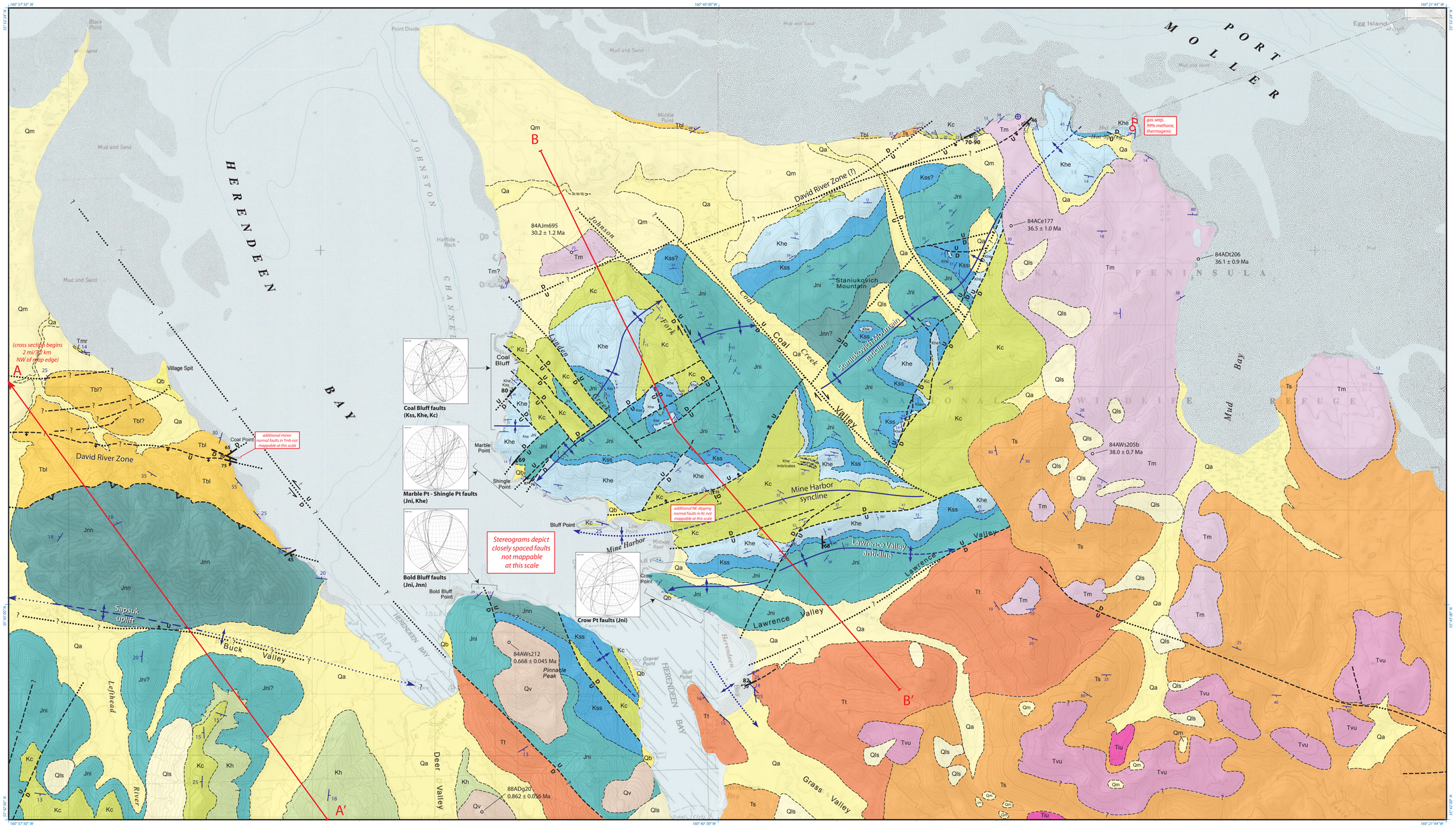


TN / MN 14.1°

Base from U.S. Geological Survey Port Moller C-2 (1963), C-3 (1983), D-2 (1963), and D-3 (1963) quadrangles. Universal Transverse Mercator projection, Zone 4. 1927 North American datum. 2006 magnetic declination 14° 8′ E, changing annually by 0° 10′ W.

Index to Adjoining Quadrangles

0.0 0.5 1.0 1.5 2.0 miles
0.0 0.5 1.0 1.5 2.0 2.5 3.0 kilometers

Scale 1:50,000

Geologic mapping extensively revised after Wilson and others (1995) based on 2005-2006 DNR field studies.

EXPLANATION

List of Map Units

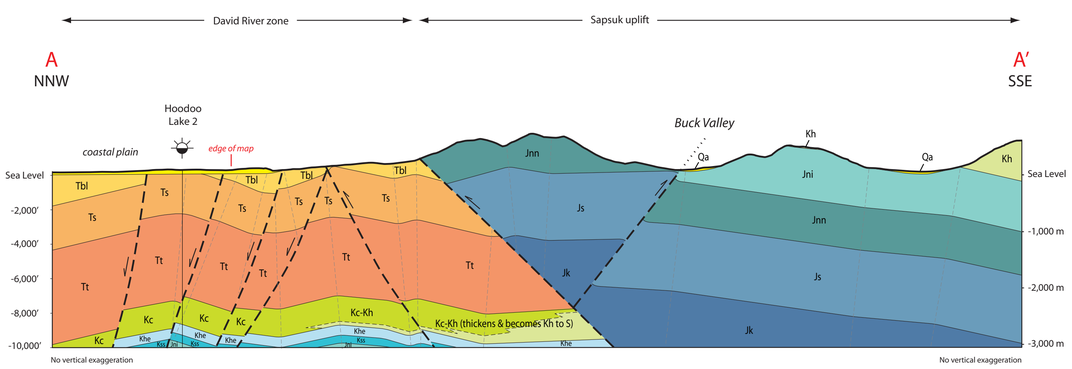
See Sheet I-2 for map unit descriptions

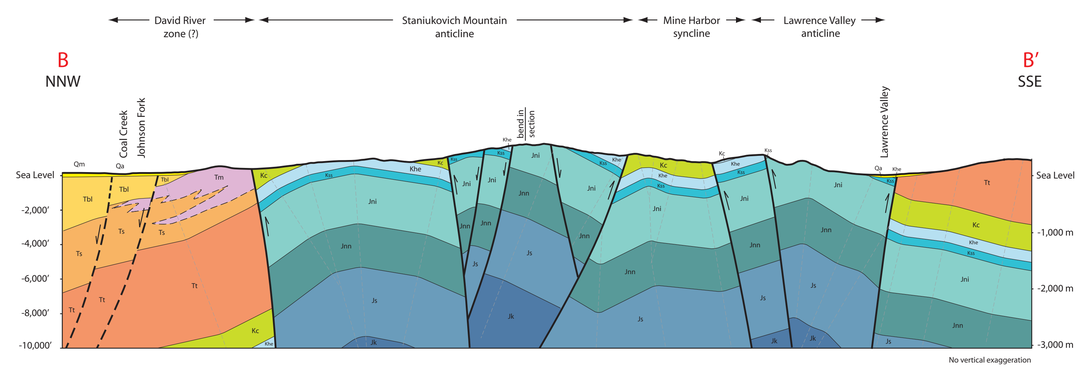
- **Qa** alluvial deposits
- **Qb** beach, other marine deposits
- **Qls** landslide, other colluvial deposits
- **Qm** moraine, other glacial deposits
- **Qv** volcanic rocks (Quaternary)
- **Tmr** Milky River Formation
- **Tbl** Bear Lake Formation
- **Ts** Stepovak Formation
- **Tiu** intrusive rocks, undiff. (Tertiary)
- **Tvu** volcanic rocks, undiff. (Tertiary)
- **Tm** Meshik volcanics
- *major unconformity (evident in map pattern)*
- **Tt** Tolstoi Formation
- **Kc-Kh** Chignik and Hoodoo Formations — *The Hoodoo Formation is largely a deep-water facies equivalent of the Chignik Formation (Detterman and others, 1996). Kc is locally mapped as overlying Kh in southwest part of map, but formation calls are uncertain.*
- **Khe** Herendeen Formation
- **Kss** Staniukovich Formation upper siltstone unit
- **Jni** Naknek Formation, Indecision Creek Member
- **Jnn** Naknek Formation, Northeast Creek Member — *The Kss unit mapped here constitutes the distinctive red-brown upper siltstone unit of the Staniukovich Formation. Buchia-rich sandstones of the formation's lower unit are not differentiated here from the underlying Buchia-rich sandstones of the upper Naknek Formation Indecision Creek Member (Jni unit).*

Map Symbols

- bedding: *inclined, horizontal*
- strike and dip of fault
- gas seep
- well: *oil and gas shows*
- K-Ar radiometric age locality *(Wilson and others, 1994)*
- contact
- fault, type unknown: *relative vertical +/- lateral displacement indicated*
- normal or normal-oblique fault: *D on hangingwall, +/- lateral displacement*
- reverse or reverse-oblique fault: *barb and U on hangingwall, +/- lateral displacement*
- thrust fault: *teeth on hangingwall*
- anticlinal fold axis: *indicating plunge direction if known*
- fold axis: *indicating plunge direction if known*
- traceable beds *(map)*
- axial surface *(cross section)*

Contacts, faults, and fold axes dashed where approximate, dotted where concealed, queried where uncertain





Sheet I-1: Preliminary geologic map and cross sections of the Staniukovich Peninsula -- Herendeen Bay area, Alaska Peninsula

by
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2008

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Sources of previous geologic mapping in the Staniukovich Peninsula -- Herendeen Bay area

Amoco, 1979, Geologic map of the Alaska Peninsula: Amoco Production Company Geologic Report FR-02-79, scale 1 in = 16,000 ft (1:192,000) (unpublished report of 1977 field season, available through Alaska Geologic Materials Center).

Amoco, 1983, Geologic map of the Staniukovich Mountain area: Amoco Production Company Geologic Report FW-18-81R, scale 1:63,360 (unpublished report of 1981 field season, available through Alaska Geologic Materials Center).

Atwood, W.W., 1911, Geology and mineral resources of parts of the Alaska Peninsula: U.S. Geological Survey Bulletin 467, 137 p.

Burk, C.A., 1965, Geology of the Alaska Peninsula-Island arc and continental margin: Geological Society of America Memoir 99, 250 p.

Wilson, F.H., Shew, N., DuBois, G.D., and Bie, S.W., 1994, Sample locality map and analytical data for potassium-argon ages in the Port Moller, Stepovak Bay and Simeonof Island quadrangles, Alaska Peninsula; U.S. Geological Survey Miscellaneous Field Studies Map MF-2155-E, scale 1:250,000, 18 p., 1 sheet.

Wilson, F.H., Detterman, R.L., Miller, J.W., and Case, J.E., 1995, Geologic map of the Port Moller, Stepovak Bay, and Simeonof Island quadrangles, Alaska Peninsula, Alaska: U.S. Geological Survey Miscellaneous Investigations Series Map I-2272, scale 1:250,000.

Wilson, F.H., Detterman, R.L., and DuBois, G.D., 1999, Digital data for geologic framework of the Alaska Peninsula, southwest Alaska, and the Alaska Peninsula terrane: U.S. Geological Survey Open-file Report 99-317, 41 p., 1 map sheet, scale 1:500,000.