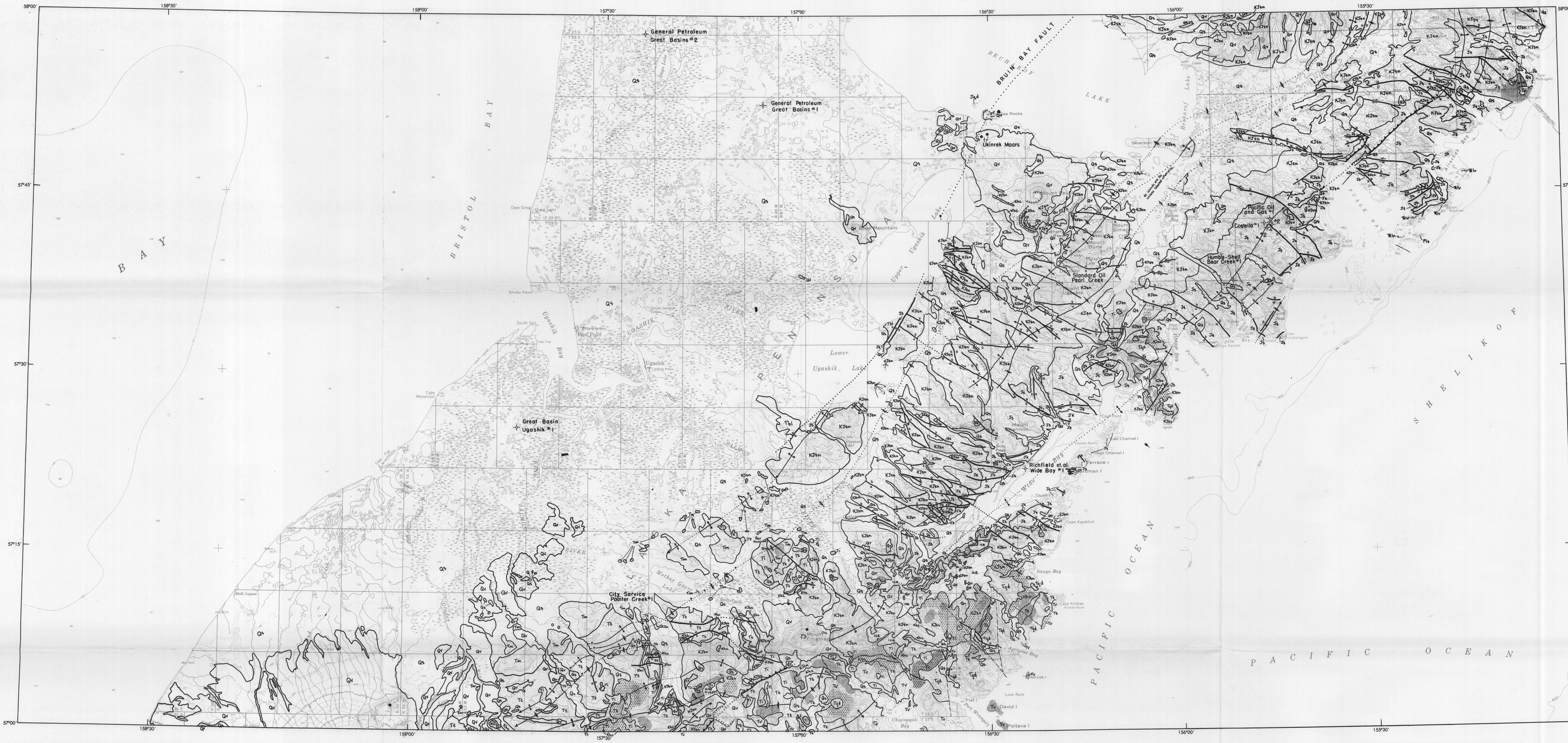
DEPARTMENT OF THE INTERIOR
UNITED STATES GEOLOGICAL SURVEY

MISCELLANEOUS FIELD STUDIES
MAP MF-1539-A



Base from U.S. Geological Survey, Ugashik, Bristol Bay, and Karluk, 1963

SCALE 1:250 000

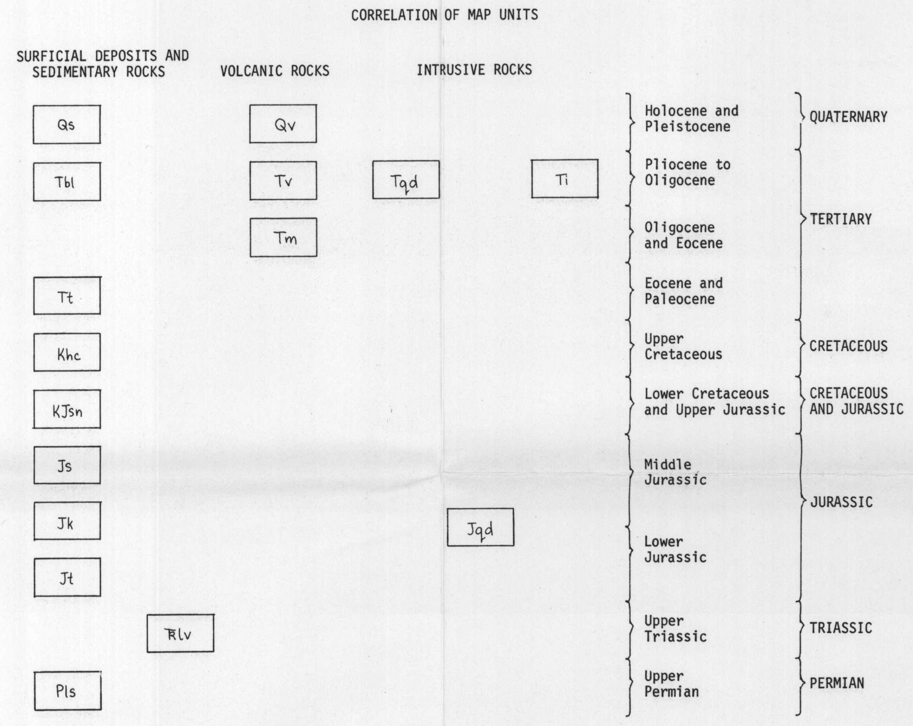
5 0 5 10 15 20 MILES

5 0 5 10 15 20 25 30 KILOMETERS

CONTOUR INTERVAL 200 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

Geology by R.L. Detterman, J.W. Miller, M.E. Yount, 1979-1982,
J.E. Case, F.H. Wilson, 1979-1981; L.B. Magoon, 1979-1980;
T.P. Miller, 1979, 1981-1982; W.A. Allaway, Jr. 1980-1981; D.P. Cox, 1980; J. Riehle, 1981-1982;
N.B. Shew 1981. Some geology modified from Burk (1965).

CORRELATION OF MAP UNITS



DESCRIPTION OF MAP UNITS

SURFICIAL DEPOSITS AND SEDIMENTARY ROCKS

Qs — SURFICIAL DEPOSITS (HOLOCENE AND PLEISTOCENE) - Unconsolidated alluvium, alluvial fans, and glacial, marine, lake, swamp, eolian, and landslide deposits; mainly silt, sand, gravel, pumice, and rock fragments

Tbl — BEAR LAKE FORMATION (MIOCENE) - Sandstone, siltstone, shale, minor coal, and conglomerate; nonmarine

Tt — TOLSTOI FORMATION (EOCENE AND PALEOCENE) - Sandstone, conglomerate, siltstone, shale, coal, and tuff; dominantly volcaniclastic and nonmarine

Khc — HOODOO AND CHIGNIK FORMATIONS, UNDIVIDED (UPPER CRETACEOUS) - Hoodoo Formation: dark rhythmically-bedded siltstone and shale, minor thin sandstone; deep-water marine. Chignik Formation: sandstone, conglomerate, siltstone, and shale; mainly shallow marine

KJsn — STANIUKOVICH AND NAKNEK FORMATIONS, UNDIVIDED (LOWER CRETACEOUS AND UPPER JURASSIC) - Staniukovich Formation of Late Jurassic and Early Cretaceous age: thin-bedded feldspathic sandstone, commonly laumontitic; minor siltstone and shale. Naknek Formation of Late Jurassic age: thin-bedded sandstone, siltstone, and dark shale with limestone concretions in upper part. Massive arkosic sandstone and conglomerate in lower part; abundant granitic- and metamorphic-rock clasts in conglomerate. Upper part marine; lower part nonmarine fluvial

Js — SHELIKOF FORMATION (MIDDLE JURASSIC) - Dark siltstone and shale with limestone concretions, sandstone, and conglomerate; nonmarine to near-shore marine, and deep-water turbidite

Jk — KIALAGVIK FORMATION (MIDDLE AND LOWER JURASSIC) - Sandstone, siltstone, mudstone, and shale; mainly shallow water marine

Jt — TALKEETNA FORMATION (LOWER JURASSIC) - Tuffaceous sandstone, siltstone, and limestone; minor bedded tuff

Pls — LIMESTONE (UPPER PERMIAN) - Light-gray massive crystalline limestone

SEDIMENTARY AND VOLCANIC ROCKS

T̄Rlv — LIMESTONE AND VOLCANIC ROCKS (UPPER TRIASSIC) - Light- to dark-gray thin-bedded to massive limestone, limestone conglomerate, and basalt

VOLCANIC ROCKS

Qv — VOLCANIC ROCKS (HOLOCENE AND PLEISTOCENE) - Block and ash flows, debris flows, volcanic mud flows, cinder cones, and andesitic and dacitic lava flows; includes minor hypabyssal rocks

Tv — VOLCANIC ROCKS (PLIOCENE TO OLIGOCENE) - Basalt, andesite, and dacite lava flows, volcanic breccia, and rubble flows; locally includes hypabyssal rocks

Tm — MESHIK FORMATION (OLIGOCENE AND EOCENE) - Basalt flows, volcanic rubble flows, and lahars; locally minor volcanogenic sedimentary rocks

INTRUSIVE ROCKS

Tqd — QUARTZ DIORITE (PLIOCENE TO OLIGOCENE) - Agripina Bay pluton; hornblende-biotite and pyroxene-biotite quartz diorite; medium to coarse grained

Ti — INTRUSIVE ROCKS (PLIOCENE TO OLIGOCENE) - Diorite, quartz diorite, hypabyssal andesite and dacite

Jqd — QUARTZ DIORITE (MIDDLE AND LOWER JURASSIC) - Medium to coarse grained, hornblende and biotite bearing; part of the Alaska-Aleutian Range batholith

GEOLOGIC MAP SYMBOLS

CONTACT--Dotted where concealed

FAULT--Dotted where concealed; queried where probable. U, upthrown side; D, downthrown side. Arrows indicate relative lateral movement

THRUST OR HIGH-ANGLE REVERSE FAULT--Dotted where concealed; sawteeth on upper plate

FOLDS--Showing trace of axial plane; dotted where concealed; queried where probable. Arrow indicates direction of plunge

Anticline

Syncline

LINEAMENT

VOLCANIC CRATER

VOLCANIC VENT OR CINDER CONE (OTHER THAN WITHIN CRATERS)

HORNFELS

ALTERATION--Includes sericitic alteration and silicification

EXPLORATORY DRILL HOLE

OIL SEEPS

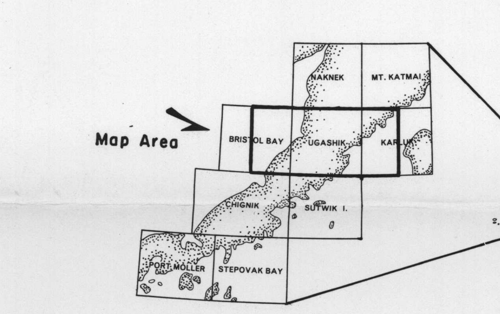
HOT SPRING

COLD SPRING

GAS SEEP--Carbon dioxide

REFERENCES CITED

Burk, C.A., 1965, Geology of the Alaska Peninsula--Island Ark and the Conitental Margin: Geological Society of America Memoir 99, 250p.



GENERALIZED GEOLOGIC MAP OF THE UGASHIK, BRISTOL BAY, AND PART OF KARLUK QUADRANGLES, ALASKA

By

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M. Elizabeth Yount, and William H. Allaway, Jr.

1983

Interior—Geological Survey, Reston, Va.—1983

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