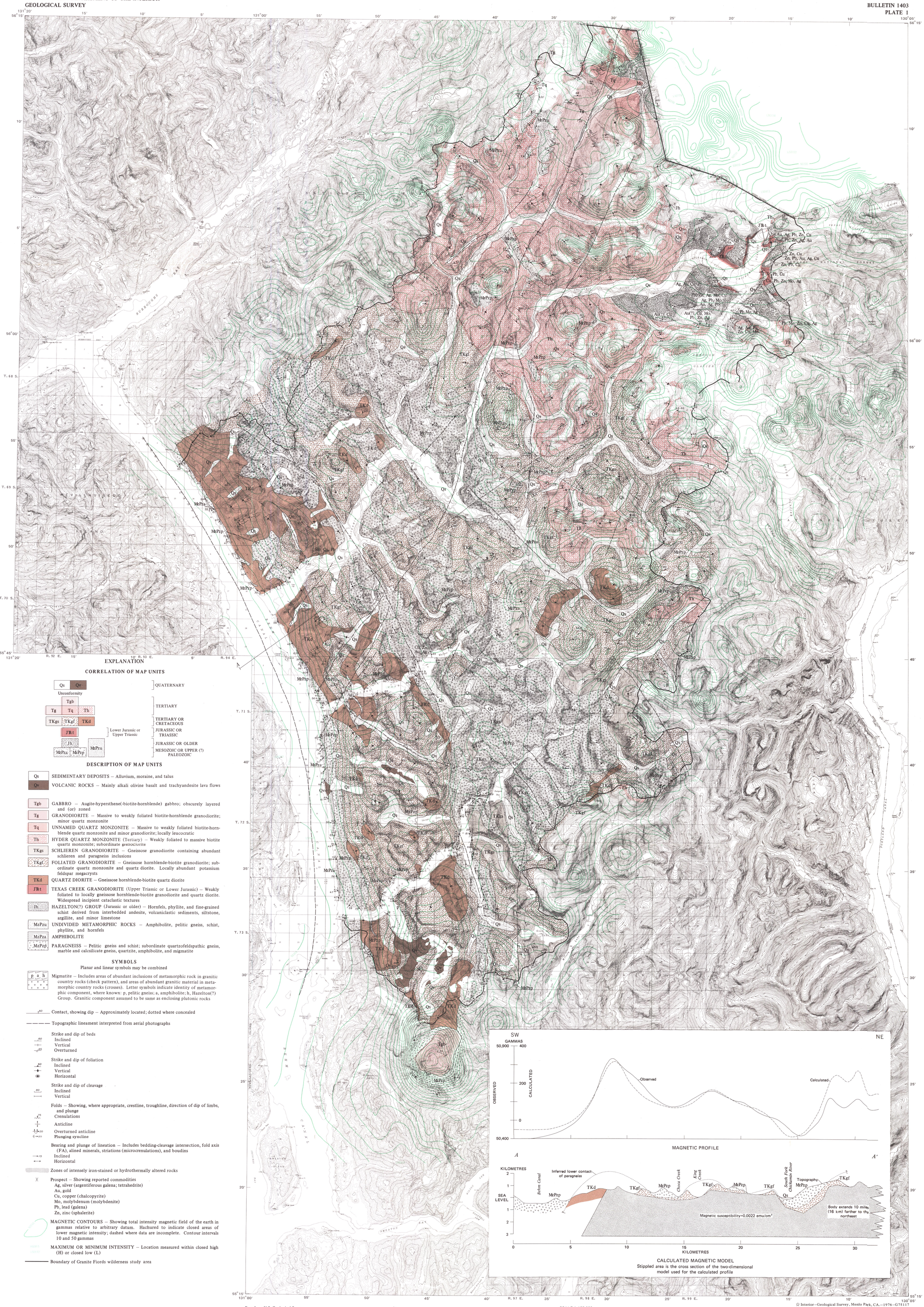

EXPLANATION

CORRELATION OF MAP UNITS

Qs, Qv	QUATERNARY
Unconformity	
Tgb, Tg, Tq, Th	TERTIARY
TKgs, TKgf, TKd	TERTIARY OR CRETACEOUS
JRt	JURASSIC OR TRIASSIC (Lower Jurassic or Upper Triassic)
Jh	JURASSIC OR OLDER
MzPza, MzPzp, MzPzu	MESOZOIC OR UPPER (?) PALEOZOIC

DESCRIPTION OF MAP UNITS

Qs SEDIMENTARY DEPOSITS – Alluvium, moraine, and talus

Qv VOLCANIC ROCKS – Mainly alkali olivine basalt and trachyandesite lava flows

Tgb GABBRO – Augite-hypersthene(-biotite-hornblende) gabbro; obscurely layered and (or) zoned

Tg GRANODIORITE – Massive to weakly foliated biotite-hornblende granodiorite; minor quartz monzonite

Tq UNNAMED QUARTZ MONZONITE – Massive to weakly foliated biotite-hornblende quartz monzonite and minor granodiorite; locally leucocratic

Th HYDER QUARTZ MONZONITE (Tertiary) – Weakly foliated to massive biotite quartz monzonite; subordinate granodiorite

TKgs SCHLIEREN GRANODIORITE – Gneissose granodiorite containing abundant schlieren and paragneiss inclusions

TKgf FOLIATED GRANODIORITE – Gneissose hornblende-biotite granodiorite; subordinate quartz monzonite and quartz diorite. Locally abundant potassium feldspar megacrysts

TKd QUARTZ DIORITE – Gneissose hornblende-biotite quartz diorite

JRt TEXAS CREEK GRANODIORITE (Upper Triassic or Lower Jurassic) – Weakly foliated to locally gneissose hornblende-biotite granodiorite and quartz diorite. Widespread incipient cataclastic textures

Jh HAZELTON(?) GROUP (Jurassic or older) – Hornfels, phyllite, and fine-grained schist derived from interbedded andesite, volcaniclastic sediments, siltstone, argillite, and minor limestone

MzPzu UNDIVIDED METAMORPHIC ROCKS – Amphibolite, pelitic gneiss, schist, phyllite, and hornfels

MzPza AMPHIBOLITE

MzPzp PARAGNEISS – Pelitic gneiss and schist; subordinate quartzofeldspathic gneiss, marble and calcsilicate gneiss, quartzite, amphibolite, and migmatite

SYMBOLS

Planar and linear symbols may be combined

p a h — Migmatite – Includes areas of abundant inclusions of metamorphic rock in granitic country rocks (check pattern), and areas of abundant granitic material in metamorphic country rocks (crosses). Letter symbols indicate identity of metamorphic component, where known: p, pelitic gneiss; a, amphibolite; h, Hazelton(?) Group. Granitic component assumed to be same as enclosing plutonic rocks

60 — Contact, showing dip – Approximately located; dotted where concealed

Topographic lineament interpreted from aerial photographs

Strike and dip of beds
- 60 Inclined
- Vertical
- 85 Overturned

Strike and dip of foliation
- 60 Inclined
- Vertical
- Horizontal

Strike and dip of cleavage
- 80 Inclined
- Vertical

Folds – Showing, where appropriate, crestline, troughline, direction of dip of limbs, and plunge
- 75 Crenulations
- Anticline
- 20 Overturned anticline
- 25 Plunging syncline

Bearing and plunge of lineation – Includes bedding-cleavage intersection, fold axis (FA), alined minerals, striations (microcrenulations), and boudins
- 15 Inclined
- Horizontal

Zones of intensely iron-stained or hydrothermally altered rocks

Prospect – Showing reported commodities
- Ag, silver (argentiferous galena; tetrahedrite)
- Au, gold
- Cu, copper (chalcopyrite)
- Mo, molybdenum (molybdenite)
- Pb, lead (galena)
- Zn, zinc (sphalerite)

MAGNETIC CONTOURS – Showing total intensity magnetic field of the earth in gammas relative to arbitrary datum. Hachured to indicate closed areas of lower magnetic intensity; dashed where data are incomplete. Contour intervals 10 and 50 gammas

MAXIMUM OR MINIMUM INTENSITY – Location measured within closed high (H) or closed low (L)

Boundary of Granite Fiords wilderness study area

Base from U.S. Geological Survey Ketchikan (B-1, B-2, B-3) (C-1, C-2, C-3) (D-1, D-2, D-3, D-4), Bradfield Canal (A-1, A-2, A-3, A-4) Alaska, 1:63, 360, 1955

APPROXIMATE MEAN DECLINATION, 1976

SCALE 1:125 000

CONTOUR INTERVAL 100 FEET
DATUM IS MEAN SEA LEVEL
DEPTH CURVES IN FEET–DATUM IS MEAN LOWER LOW WATER
SHORELINE SHOWN REPRESENTS THE APPROXIMATE LINE OF MEAN HIGH WATER

☆ Interior—Geological Survey, Menlo Park, CA.—1976—G75117
Geology mapped in 1972–73

GENERALIZED GEOLOGIC AND MAGNETIC INTENSITY MAP OF THE GRANITE FIORDS WILDERNESS STUDY AREA, ALASKA