

EXPLANATION

Recent

Qal
Alluvium
Unconsolidated gravel, sand, and silt of valley fills; wind-blown sand; playa clay

Pleistocene

Qoa
Older alluvium and fanglomerate
Weakly consolidated gravel and sand; fanglomerate composed of subrounded clasts as large as 2 feet in diameter of granitic and some volcanic rocks in matrix of gray coarse-grained arkosic sandstone; little or no bedding; locally tilted and dissected

Tertiary

Ttsb
Saddleback basalt
One or more flows of fine to medium-grained olivine-augite basalt; maximum thickness 600 feet

Ttrb
Red Buttes quartz basalt
One or more flows of fine-grained basalt with small quartz and plagioclase phenocrysts; maximum thickness 370 feet

Miocene(?)

Ttll
Ttllg
Ttllt
Ttld
Lower part
Sedimentary rocks of fluvialite and lacustrine origin. Maximum thickness 2000 feet. Ttll, gray arkosic sandstone, gray siltstone, clay shale, tuffaceous shale, limestone, dolomite, and chert; Ttllg, granitic conglomerate; Ttllt, pyroclastic rocks composed of white tuff, tuff-breccia, and bentonite; Ttld, flows of olivine basalt; Ttd, bodies of dacite

MESOZOIC(?)

qm
Crystalline rocks
Mainly quartz monzonite; includes granite, pegmatite, aplite, hornblende schist, meta-andesite, and quartz latite

Contact

U
D
Fault
Dashed where approximately located; short dashed where inferred. U, upthrown side; D, downthrown side

25
Strike and dip of beds

∞
Mine entrance or shaft

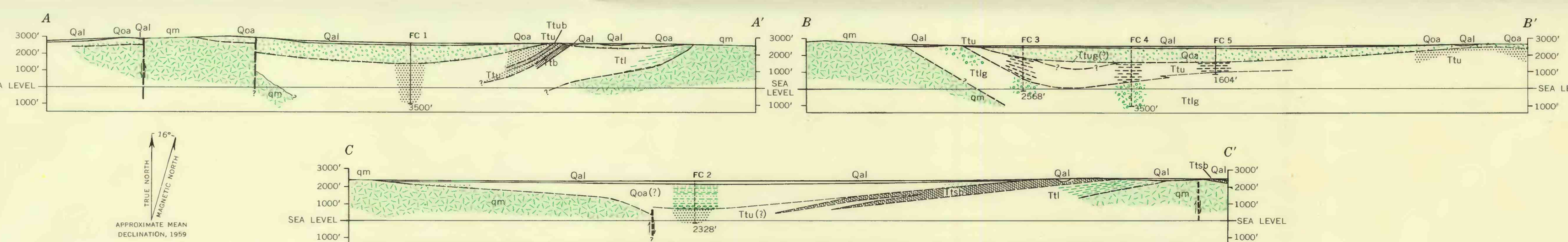
FC 3
Test hole drilled for U. S. Geological Survey

⊕
Other test hole

904.9
Gravimetric station showing complete Bouguer anomaly value plus 1000 milligals

900
Lines of equal Bouguer anomaly
Contour interval 1 milligal

Subsurface extent of Kramer borate body, after Gale (1946); horizontal pattern, calcium and calcium-sodium borates; vertical pattern, sodium borates



GEOLOGIC MAP AND SECTIONS OF KRAMER-FOUR CORNERS AREA, CALIFORNIA, SHOWING GRAVIMETRIC DATA

SCALE 1:62 500
1 0 1 2 3 MILES

Planimetric base from U. S. Geological Survey quadrangles

INTERIOR—GEOLOGICAL SURVEY, WASHINGTON, D. C., MR 2010

Geology by T. W. Dibblee, Jr., 1952-54.
Gravity survey by D. R. Mabey, 1953