EXPLANATION

OFFSHORE FAULTS

Inferred fault; projects to within 50 m or less of the seafloor in unit QTs or cuts to seafloor in older units; may offset seafloor locally; bar and ball on relatively downthrown side

Inferred fault; pre-late Pleistocene in age; bar and ball on relatively downthrown side

Inferred fault; pre-Pliocene in age and overlain by QTs; may cut to seafloor locally; bar and ball on relatively downthrown side

ONSHORE FAULTS

Exposed fault

Concealed fault that cuts unit QTs at depth

ONSHORE CONTACT

Includes both exposed and concealed contacts

LINE OF STRUCTURE SECTION

B — B'

Broken to follow available information

LIST OF MAP UNITS

QTs HOLOCENE, PLEISTOCENE, AND PLIOCENE SEDIMENTS AND SEDIMENTARY ROCKS Chiefly semiconsolidated clay, silt, sand, and gravel. On offshore topographic highs, shown only where believed to be more than 165 ft (50 m) thick and on the mainland shelf, more than 650 ft (200 m) thick

Tm MIOCENE SEDIMENTARY ROCKS Chiefly claystone and siltstone with lesser amounts of sandstone and conglomerate. May include beds of early Pliocene and late Oligocene age at places as well as local intrusive igneous rocks

Tmi MIOCENE IGNEOUS AND SEDIMENTARY ROCKS, UNDIFFERENTIATED Chiefly shaly strata interlayered with basaltic to rhyolitic rocks that are intrusive in part; may include dioritic rocks near Santa Catalina Island

Tmv MIOCENE VOLCANIC ROCKS Chiefly andesitic and basaltic flows, flow breccias, aquagene tuffs, volcaniclastics and minor intrusives but includes rocks with rhyolitic to dacitic composition. Includes intrusive body of quartz diorite porphyry on Santa Catalina Island. Basaltic rocks are in part of Pliocene age at Northeast Bank

To OLIGOCENE SEDIMENTARY ROCKS, NONMARINE Chiefly sandstone, conglomerate and mudstone. Locally includes strata of late Eocene and early Miocene age. Exposed only on the mainland and Santa Rosa Island

Te EOCENE AND PALEOCENE SEDIMENTARY ROCKS Chiefly interbedded sandstone and siltstone. Offshore includes Upper Cretaceous sedimentary rocks in the vicinity of San Miguel Island and the unnamed bank west of San Nicolas Island as well as Oligocene sedimentary rocks on Cortes Bank and questionably on Tanner Bank. Onshore includes Upper Cretaceous sedimentary rocks in the eastern Santa Monica Mountains and the northern Santa Ynez Mountains

TMz MIOCENE IGNEOUS ROCKS AND PRE-UPPER CRETACEOUS IGNEOUS, SEDIMENTARY, AND METAMORPHIC ROCKS, UNDIFFERENTIATED Chiefly Catalina Schist and related ultramafic rocks intruded or covered by andesitic rocks of probable middle Miocene age

Mz PRE-UPPER CRETACEOUS SEDIMENTARY, IGNEOUS AND METAMORPHIC ROCKS Similar to Franciscan Formation, Catalina Schist, and related ultramafic igneous rocks south of northern Channel Islands. Includes metamorphic and plutonic rocks in south-central Santa Cruz Island

ND NO DATA

CORRELATION OF MAP UNITS

QTs		Holocene, Pleistocene, and Pliocene	QUATERNARY AND TERTIARY
Tm, Tmi, Tmv	Tmi	Miocene	TERTIARY
		Oligocene	TERTIARY
		Eocene and Paleocene	TERTIARY
TMz, Mz	Basement rocks	Pre-Upper Cretaceous	TERTIARY AND MESOZOIC; MESOZOIC

Composite base map constructed from U.S. Coast and Geodetic Survey Charts 12008-15,-16 and 13008-19,-20 (offshore area) and U.S. Geological Survey 1:250,000 topographic series San Diego 1959, Santa Ana 1959, Long Beach 1957, Los Angeles 1959, Santa Maria 1962, and San Bernadino 1958 (onshore area).

Bathymetric contour intervals: 10 m interval from 0 to 200 m depth
50 m interval from 200 m to maximum depth

Onshore contour interval: 200 feet

5 0 5 10 15 20 25 NAUTICAL MILES
10 0 10 20 30 40 MILES
10 0 10 20 30 40 50 KILOMETRES

TRANSVERSE MERCATOR PROJECTION

Fault at northwest end of East Cortes Basin should extend 27 nmi southeastward as an inferred fault. Position of fault is shown on Sheet 6.

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PRELIMINARY GEOLOGIC MAP

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