GEOLOGY
OF
SANTA CRUZ ISLAND
BY
University of California, Santa Barbara Geological Survey,* 1964, 1965
Directors: D. W. Weaver, B. Nolf
QUATERNARY
RECENT
PLEISTOCENE
TERTIARY
MIOCENE
OLIGOCENE
EOCENE
PALEOCENE
UPPER CRETACEOUS
LOWER CRETACEOUS
PRE-LATE JURASSIC
Qal QUATERNARY ALLUVIUM
Unconsolidated alluvium, marine & terrestrial.
Qtg QUATERNARY FANGLOMERATES
Terrestrial.
Qls QUATERNARY LANDSLIDES
Landslide blocks and debris.
Qtg QUATERNARY TERRACE GRAVELS
Unconsolidated marine terrace gravels.
Qmu MIDDLE ANCHORAGE ALLUVIUM
Sandy pebble conglomerate & breccia.
Qph POTATO HARBOR FORMATION
White, organic clastic limestone and volcanic sandstone. Mollusks.
Tm MONTEREY FORMATION
Shale Member: Buff to white, chalky and siliceous shales with bedded chert and bentonite. Foraminifers.
Beechers Bay Member: Light buff laminated shale, siltstone, sandstone, and conglomerate. Corrugated bedding. Foraminifers.
Tv BLANCA VOLCANICLASTICS
Upper Member: Massive gray or gray, thick-bedded tuff-breccias with subbed to bipolar conglomerates and basalt dike.
Middle Member: White, massive tuff breccia with volcanic sandstones & siltstone.
Lower Member: Buff, volcaniclastic & metamorphic conglomerates, sandstones & siltstones.
Tsc SANTA CRUZ ISLAND VOLCANICS
Prisoner's Harbor Member: Dark gray, dacitic andesite flows with interbedded light bluish-green, tuffaceous sandstones.
Devil's Peak Member: Dark gray and red, scoriaceous andesite flows and flow breccias.
Stanton Ranch Member: Massive, red flow breccias with greenish-gray tuffs and tuff breccias.
Griffith Canyon Member: Olive gray, vesicular basalt flows and flow breccias with tuffaceous volcanic breccias.
(INTRUSIVE, (UNDIFFERENTIATED)
C Member: Buff and reddish gray leucocratic intrusive.
B Member: Black, porphyritic to glassy andesitic intrusive.
A Member: Dacitic intrusive.
Tso SAN ONOFRE BRECCIA
Glaucophane schist, dacite, diorite conglomerate with sandstones and siltstones. Mollusks.
Tr RINCON MEMBER
Gray or brown shales and mudstones with dolomitic interbeds. Foraminifers.
Tv VAQUEROS SANDSTONE
Conglomerate - dioritic, metamorphic,and volcanic clasts, with volcanic sandstone. Mollusks.
Tcd COZY DELL SHALE
Gray to blue-gray siltstones and shales with floppy limestone interbeds. Foraminifers.
Tjv JOLLA VIEJA FORMATION
Buff, medium-grained, massive or thick bedded sandstone and volcanic conglomerate.
Tc CAÑADA FORMATION
Greenish gray and bluish-gray shales and siltstones, thin interbedded sandstones, basal conglomerate. Foraminifers and mollusks.
Tp POZO FORMATION
Buff and gray sandy siltstones and shales, interbedded sandstones. Foraminifers and mollusks.
Jtap ALAMOS PLUTONITE
Dark to light gray quartz diorite.
Jtwd WILLOWS DIORITE
Deeply weathered, fine to coarse-grained, hornblende diorite, gray when fresh, weathers to salmon pink.
p-Jtsci SANTA CRUZ ISLAND SCHIST
Actinolite-chlorite schist and phyllite, green when fresh, weathers to red.
Marker beds and attitudes
Member contacts
Formational contacts, dashed where inferred or concealed
Fault, ruled by & reverse movement dashed where inferred or concealed
Syncline showing plunge, dashed where inferred or concealed
Anticline showing plunge, dashed where inferred or concealed
Bedding attitude
Horizontal
Foliation attitude
Paleocurrent direction
Foraminiferal locality
Dip of paleoscope
SANTA CRUZ ISLAND FAULT ZONE
SANTA CRUZ ISLAND FAULT NORTH
SANTA CRUZ ISLAND FAULT SOUTH
ANCHORAGE FAULT
NORTH VALLEY FAULT
SOUTH VALLEY FAULT
WILLOWS FAULT
LOS ALAMOS FAULT
MONTAÑON FAULT
SCALE
0 2 4 6 8 10 12,000
THOUSAND FEET
SEE MARK HURD AERIAL PHOTOGRAPH NA-WC-9 1964
*U.C.S.B. GEOLOGICAL SURVEY
1964
GASTIL, STEPHEN
DAVIS, GEORGE
DICKINSON, DAVID
EDWARDS, LLOYD
FISCHER, JOSEPH
GIBSON, DOUG
HOPKINS, RICHARD
O'SHEA, DENIS
POWELL, PENELOPE
SCHEUTER, BERND
SUPPE, JOHN
SWINDLEHURST, JAMES
WILSON, WILLIAM
1965
ANDERSON, TIMOTHY
BAKER, ROBERT
BERGSON, ROBERT
BLACKLOCK, JOHN
BYER, JOHN
EVERTS, CRAIG
GARRISON, RICHARD
GRIGGS, MARY
HARDING, MIKE
HEADLEY, KLYNE
HINTHORNE, JAMES
HOLLISTER, HAROLD
HOUSE, THOMAS
HOWE, WILTON
KROHN, JAMES
MATTRAW, HAROLD
MCCULLOCH, DAVEL
MORAN, JERRY
MIGUES, RICHARD
SJOBERG, JAMES
DRAFTING BY: ADOLPH LOSAMMER