PLOT DERIVED FROM DEPARTMENT OF THE INTERIOR OPEN-FILE REPORT 97-456 SHEET 1 OF 1 U.S. GEOLOGICAL SURVEY **CORRELATION OF MAP UNITS MAP UNITS Surficial Deposits** Qs Qd Qal Qls _>Holocene Beach sands (Holocene) **Dune sands (Holocene)** Unconformity QUATERNARY Alluvium (Holocene) Qal >Pleistocene Rock Units within San Andreas fault zone Landslide deposits (Pleistocene and Holocene) Qoc Qmi Older dune sands (Pleistocene) Qod **Terrace deposits (Pleistocene)** Qt Unconformity Rock Units west of Rock Units east of >Pliocene San Andreas fault zone San Andreas fault zone Olema Creek Formation (Pleistocene) estuarine and alluvial sand, gravel, silt, and clay Qoc Millerton Formation (Pleistocene) alluvial and estuarine clay, silt, sand, and gravel Qmi >Upper Miocene TERTIARY Merced Formation (upper Pliocene to Pleistocene) marine siltstone and sandstone Unconformity >Miocene Unconformity ☐ Middle to Wilson Grove Formation (upper Miocene to Pliocene) marine sandstone and conglomerate Twg _____Upper Miocene | Purisima Formation (upper Miocene to lower Pliocene) marine siltstone, sandstone, and mudstone Unconformity Tpr Eocene Santa Cruz Mudstone (upper Miocene) marine siliceous mudstone Tsc Unconformity Upper Cretaceous Kg Kgr Kqd Santa Margarita Sandstone (upper Miocene) marine glauconitic and bituminous arkosic sandstone Tsm Upper Jurassic to Lower Cretaceous AND OLDER Monterey Formation (middle to upper Miocene) marine porcelanite and chert Tm Laird Sandstone (middle Miocene) Point Reyes Conglomerate of Galloway 1977 (lower Eocene) marine arkosic sandstone and conglomerate Porphyritic granodiorite of Point Reyes (Upper Cretaceous) **SYMBOLS Granodiorite and granite of Inverness Ridge (Upper Cretaceous)** Kgr **Tonalite of Tomales Point (Upper Cretaceous)** Kqd **Contact--** Dashed where approximately located or gradational, dotted where concealed **Fault--** Dashed where inferred, dotted where concealed. Franciscan complex (Jurassic and Cretaceous) Half arrows indicate relative horizontal movement graywacke, shale, conglomerate, chert, serpentinite, and limestone Fold axis-- Dashed where approximately located, dotted metamorphic rocks where concealed. Arrow on axial trace indicates mica schist, quartzite, calc-hornfels, and marble direction of plunge Anticline Syncline **OIL TEST WELLS** Strike and dip of beds Horizontal Chevron Oil Co., Mendoza No. 1, 1951, total depth 951 feet: Purisima Formation Landslide deposit-- Half arrows show general direction 853-951' "granite" Abandoned exploratory well Chevron Oil Co., Mendoza No., 2, 1951, total depth 1276 feet: Purisima Formation 1216-1248' Santa Margarita Sandstone 1248-1276' "granite" - ф³ Chevron Oil Co., Molseed No. 1, 1951, total depth 1780 feet: 0-1347' Purisima Formation 1347-1530' Santa Margarita Sandstone 1530-1620' Monterey Formation (lower Mohnian) ф⁴ Chevron Oil Co., (L.M. Lockhart) Tevis No. 1, 1947, total depth 6587 feet: Santa Cruz Mudstone-Santa Margarita Sandstone 1500-2150' Monterey Formation (upper Mohnian) 2150-3000' Monterey Formation (lower Mohnian) 3000-4685' Monterey Formation (Luisian-Relizian?) 4685-4790' Laird Sandstone 4790-4925' mudstone 4925-4941' altered olivine basalt dark gray to black shale (lower Eocene-upper Paleocene?) Chevron Oil Co., Robson No. 1, 1952, total depth 7286 feet: Santa Cruz Mudstone ("lower Delmontian") Santa Margarita Sandstone 2407-7286' Monterey Formation (lower Mohnian) ф L.M. Lockhart, R.C.A. No. 3-1, 1948-49, total depth 8409 feet: Santa Cruz Mudstone ("Delmontian") 3375-3430' Santa Margarita Sandstone Monterey Formation (upper Mohnian) Monterey Formation (lower Mohnian) Monterey Formation (Luisian) **INDEX TO MAP SOURCES OF DATA** (see text for full references) 1. Galloway (1977) 2. Blake and others (1974) 3. Wagner (1977) 4. Clark and others (1984) 5. Minard (1971) 6. Wagner and Bortugno (1982) 7. Grove and others (1995) GEOLOGY OF THE POINT REYES NATIONAL SEASHORE AND VICINITY Geology Compiled by Joseph C. Clark and Earl E. Brabb Digital Database Prepared by Heather A. Schoonover, Carolyn E. Randolph, Carl M. Wentworth, and Scott E.Graham SCALE 1:48,000 Contour Interval 80 Feet

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