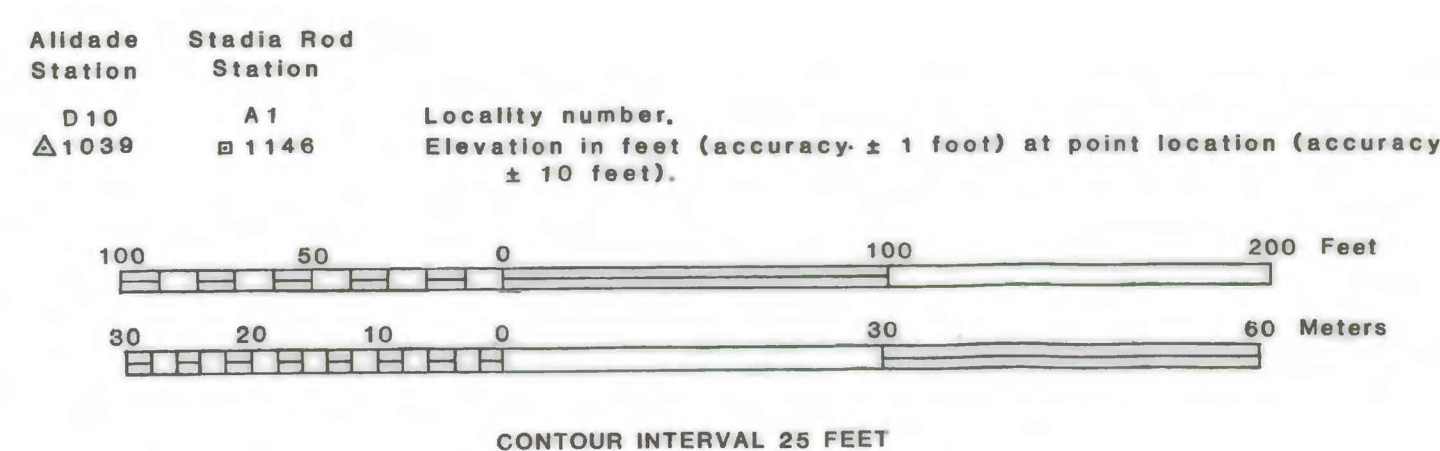
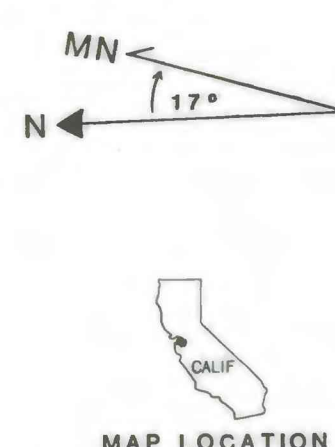


Topography of quarry pit surveyed by plane table methods by Kathleen M. Williams and Madeline P. Williams, 28 May 1980; area surrounding quarry pit surveyed by Towill Inc., 24 Dec. 1972. Vertical datum is MSL 1927.

NOTE: All the dike contacts are mapped from steep, 30-ft-high cliffs along the quarry benches. Since the dikes dip at various angles, the dikes' intersection with the steep ground surface will not coincide with their strike which is measured for intersection with a horizontal surface. On this map the contacts and faults are drawn as if the cliffs are a horizontal surface because the cliffs are too steep to measure the actual trends along the ground surface.



MAP OF SHEETED DIABASE DIKE COMPLEX OF COAST RANGE OPHIOLITE AT MOUNT DIABLO IN THE KAISER QUARRY, CLAYTON, CALIFORNIA

By
Kathleen M. Williams
1984

EXPLANATION

Contact
inclined, dashed where approximate

Fault
inclined, dashed where approximate, vertical,
U = upthrown side, D = downthrown side, ~ = breccia
in shear zone, ~ = moderately sheared rock unit

Spring

Paleomagnetic sample location

Units of the sheeted diabase dike complex

D; older diabase: medium-grained, calc-alkalic, subophitic plagioclase-clinopyroxene-hornblende diabase

L; late-stage leucocratic segregations of older diabase: medium-grained, calc-alkalic, hypidiomorphic-granular plagioclase anorthosite with minor hornblende, prehnite, calcite, and primary sphene and zircon

F; fine-grained diabase dike: tholeiitic, subophitic, unalitized plagioclase-clinopyroxene diabase; it intrudes D and L

M; medium-grained diabase dike: same modal composition as F, but with a larger grain-size

G; green diabase dike: microcrystalline, chloritized, epidotized fine-grained diabase dike; it intrudes D, L, F, M

GB; green-banded dike: microcrystalline, allotriomorphic-granular chlorite-feldspar-quartz rock; probably a more altered, larger green diabase dike with rhythmic white banding along chill margins

B; black dike: magnetite-rich green diabase dike

This map is preliminary and has not been reviewed for conformity with U.S. Geological Survey editorial standards and stratigraphic nomenclature.

Geology mapped by K. M. Williams 1979-1980.