U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

Geologic and Bathymetric Reconnaissance Overview of the San Pedro Shelf Region, Southern California

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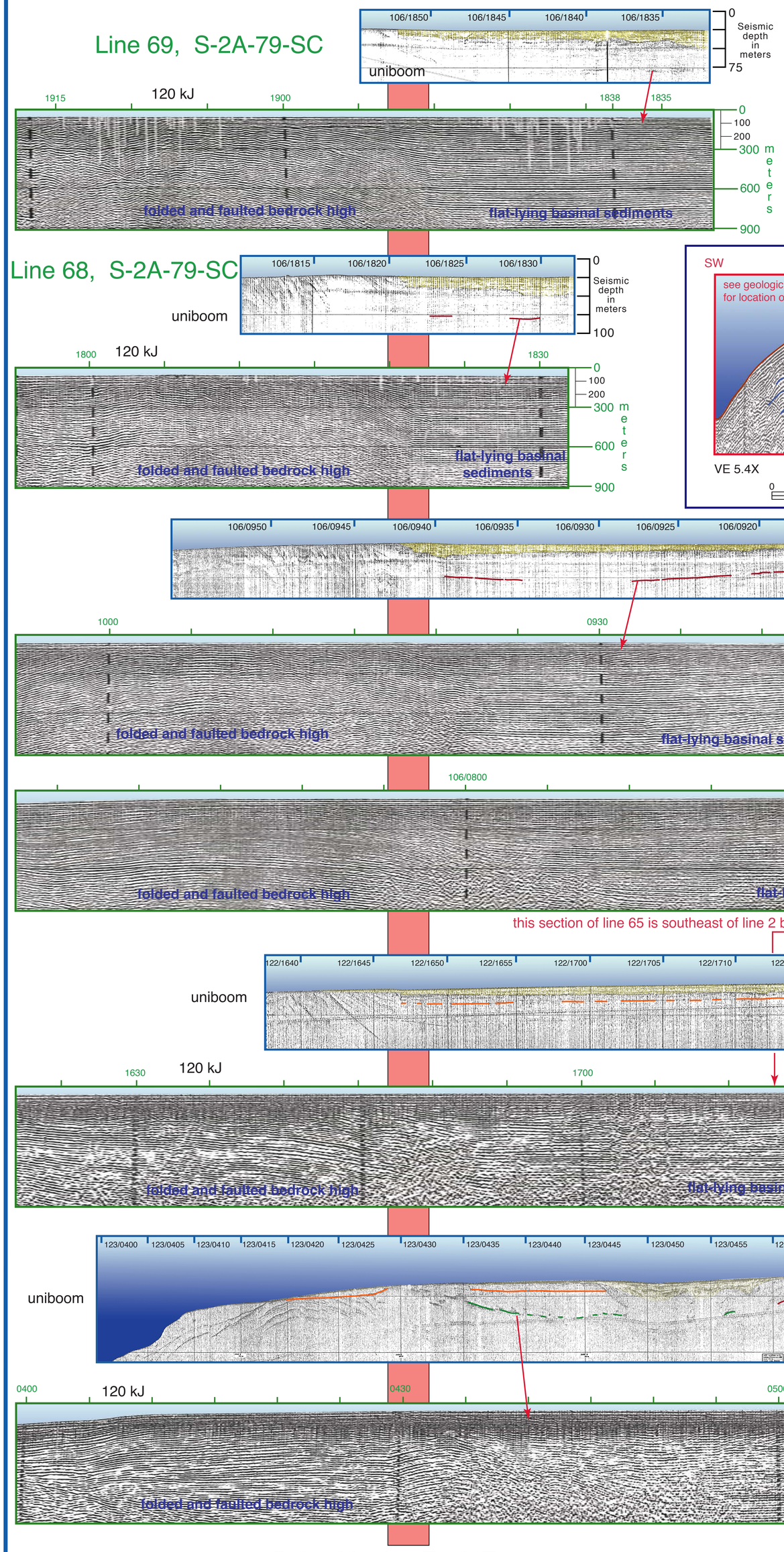
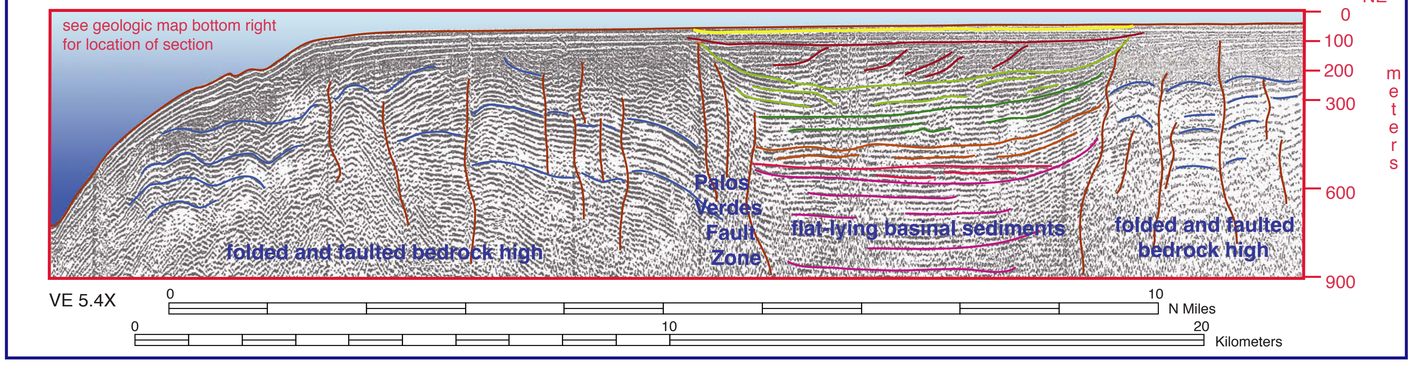
Sheet 5 of 7, Version 1.0
Palos Verdes FZ geologic map, cross-section and seismic profiles

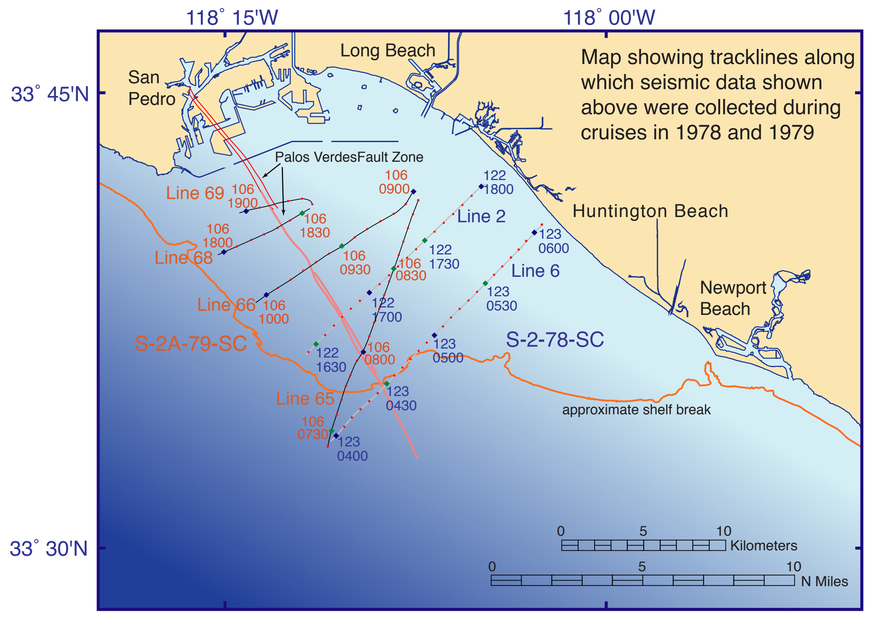
The geologic map and generalized cross-section shown here are derived from 120 kilo-Joule single-channel sparker and high-resolution uniboom seismic-reflection data. Seismic profile pairs shown below were collected simultaneously during the cruises indicated. Single-channel, 120 kJ sparker profiles are shown outlined in green. The corresponding uniboom (high-resolution) profiles are also shown, except for line 65, and are outlined in blue. Red arrows indicate corresponding reflectors on the paired profiles, and the thin veneer of unconsolidated(?) sediment is yellow on the uniboom profiles. The horizontal scale is identical for both sets of seismic profiles. The Palos Verdes Fault Zone is correlated to each profile and is used as the axis for their alignment.

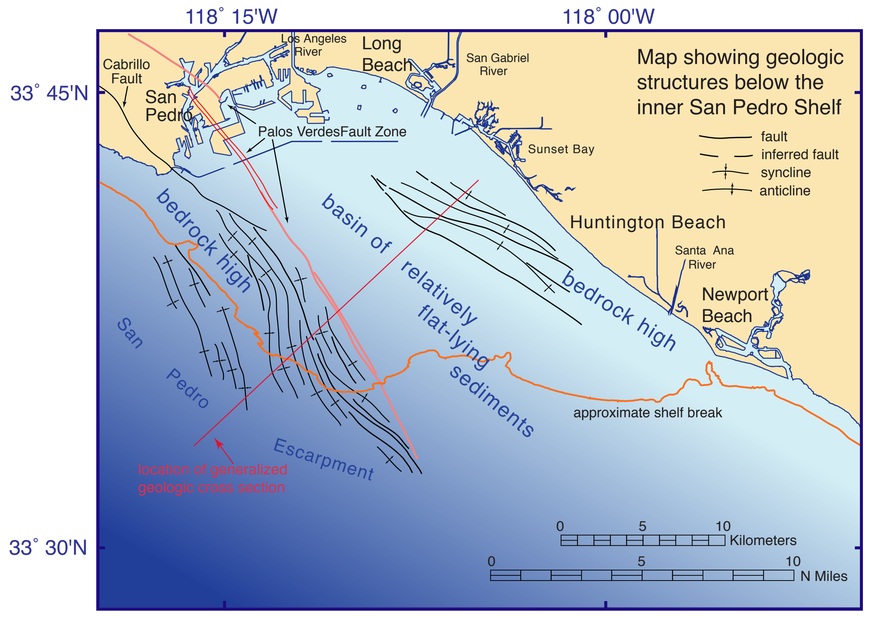


Representative northeast/southwest seismic/geologic cross-section showing bedrock highs near- and offshore separated by a basin filled with multiple sequences of sedimentary deposits which are generally flat-lying. A thin veneer of unconsolidated(?) sediment (yellow) overlies the basin fill.



Positions of harbor area Palos Verdes Fault Zone, and offshore faults and axes of anticlines and synclines, are interpreted from seismic data; they are approximate and are primarily shown to illustrate the structural grain of the bedrock highs west/ southwest of the Palos Verdes Fault Zone and along the inner San Pedro Shelf.





References Sheet 5

(see Sheet 7 for complete reference list)

For Cabrillo Fault and onshore location of Palos Verdes Fault Zone:
Jennings, C.W., compiler, 1962, Geologic Atlas of California: Long Beach, California Division of Mines and Geology GAM-007, scale 1:250,000 (reprinted 1992)

This map was printed on an electronic plotter directly from digital files. Dimensional calibration may vary between electronic plotters and between X and Y directions on the same plotter, and paper may change size due to atmospheric conditions; therefore, scale and proportions may not be true on plots of this map.

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