United States
Department of the Interior
Geological Survey

MULTICHANNEL SEISMIC-REFLECTION PROFILES COLLECTED IN 1978 IN THE EASTERN PACIFIC OCEAN OFF THE CALIFORNIA COAST SOUTH OF POINT CONCEPTION

by

DENNIS M. MANN, THANE H. McCULLOH, JAMES K. CROUCH

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During the spring of 1978 the U.S. Geological Survey (USGS) collected approximately 1150 km of 24-channel seismic-reflection data across the continental margin in the eastern Pacific Ocean off the California coast south of Point Conception (fig. 1). The profiles were collected on the USGS research Vessel *S.P. Lee* using a sound source of five airguns totaling 1326 in^3. The recording system consisted of a 24-group streamer, 2400 meters long and a GUS (Global Universal Science) model 4200 digital recording instrument. Records were sampled at a 2-millisecond rate and later processed at a 4-millisecond rate. Navigational control for the survey was by satellite fixes augmented by Loran C (Rho-Rho) and doppler sonar-bottom-track navigation.

The seismic reflection records range from 8 to 11 seconds in length depending on water depth and geologic structure. The data have been edited, stacked, deconvoled, filtered, and graphically displayed on an electrostatic plot. All processing was done at the USGS Marine Geology Processing Center in Menlo Park, California. A trackline chart (1:500,000) scale showing shotpoint navigation accompanies this report (pl.1).

The seismic data are available for examination at USGS office, Room B-164, Deer Creek Facility, 3475 Deer Creek Road, Palo Alto, CA. (contact Mr. Alan Cooper at (415) 856-7094). Copies of the data are available for purchase through the National Geophysical and Solar-Terrestrial Data Center, NOAA, Boulder, Colorado 80302. Telephone (303) 599-1000, ext. 6542.

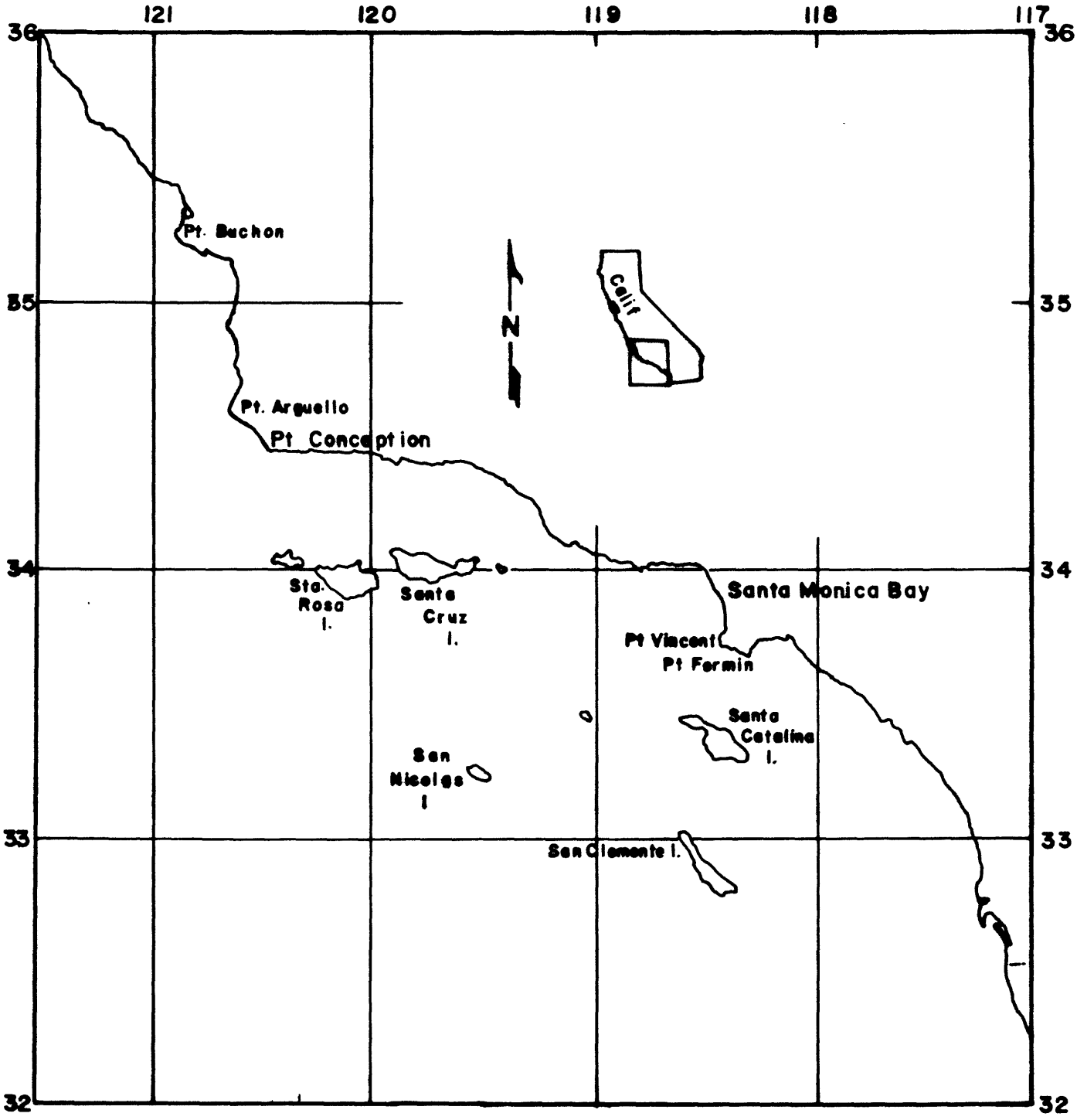

FIGURE 1. AREA OF STUDY. PLATE 1 SHOWS DETAILED LOCATION OF TRACKLINES AND SHOTPOINTS