patterns in their respective graphs, whereas crude oils of different stratigraphic ages commonly have recognizably different patterns. The Permian crude oils of the West Texas basin tend to have a common pattern which, however, differs drastically from the pattern of the Sand Hills Ordovician and from the pattern of the crude from the deeper horizon at Chalk. The Cretaceous crude oils of the Powell district, Texas, show clear correlation in pattern with Cretaceous crude oils of North Louisiana and Arkansas. In the Powell district of Texas, the Corsicana 800-foot crude, the Corsicana 1,250-foot crude and the Powell 1,500-foot crude, the Woodbine crudes (all upper Upper Cretaceous) and the Kosse crude (Lower Cretaceous) have strikingly different patterns and seem not to have been derived one from the other. The serpentine plug crudes tend to have a common pattern. Three different patterns occur among the Woodbine crudes: (1) East Texas, (2) Van and Powell, and (3) Richland, Currie, and Mexia. The pattern of the last three crudes shows similarities to the common "serpentine-plug" pattern; and the Van-Powell pattern has close similarities to Nacatoch patterns of North Louisiana and Arkansas. The gravity interval therefore seems to have considerable possibilities in the study of the genetic relationships of crude oils.

3. Informal Symposium on Recent Petroleum Discoveries in California (abstract).

These are extemporaneous papers on areas of current interest and they are not intended for final publication at this time. Discussion is invited but consideration should be given to the fact that insufficient information is available on many of these for final conclusions to be reached.

(1) RICHARD W. SHERMAN, consulting geologist, Los Angeles: Newhall-Potrero Oil Field.

(2) E. B. NOBLE, chief geologist, Union Oil Company, Los Angeles: Rio Bravo Oil Field.

(3) JAN LAW, assistant petroleum engineer, Union Oil Company: A Possible Structural Interpretation of the Area of New Development at Rosecrans.

(4) ROBIN WILLIS, geologist, Basin Oil Company: (a) Northwestern Extension of the Long Beach Oil Field. (b) New Development at the Potrero Oil Field.

(5) F. M. ZIEGLER, petroleum engineer, Kern Oil Company: West Montebello Oil Field.

(6) E. J. BARTOSH, geologist, Bankline Oil Company: Eastern Extension of the Wilmington Oil Field.

(7) L. S. CHAMBERS: East Side Coalinga Extension.

(8) CLAYTON STEVENS and T. K. BOWLES, Ohio Oil Company, Bakersfield: Canal Oil Field.

(9) RICHARD G. REESE, Standard Oil Company of California, Los Angeles: New Development in the Southeastern Extension of the Torrance Oil Field.

4. HOWARD C. PYLE, Union Oil Company of California, Los Angeles: Core Analysis.

5. H. D. HOBSON, Continental Oil Company: The Nature and Extent of Movement along the San Cayetano Fault, Ventura County, California (abstract).

Data from wells recently drilled near the town of Fillmore, Ventura County, California, have shown the flat hade of the San Cayetano fault to persist laterally for a surprisingly long distance.

6. C. E. LEACH and J. C. MAY, Associated Oil Company: Notes on the Santa Susana Thrust Fault, Los Angeles County, California (abstract).

The Santa Susana thrust fault is located on the north front of the San Fernando Valley. A recent well has given data on the nature of this major structural feature.

7. HUBERT G. SCHENCK, Stanford University: Stratigraphy of Northern Iran (abstract). Presented by permission of the president, Seaboard Oil Company.

This report describes a generalized geological column for part of the Amiranian Oil Company concession in northeastern Iran, north of the main road from Teheran to Meched. The column, which is based chiefly on reconnaissance investigations by F. Reeves and B. F. Buie, shows a thickness of 30,000 ± feet of Mesozoic and Cenozoic sedimentary formations and 7,000 ± feet of Paleozoic strata. The formations of widest areal extent are Liassic, Upper Jurassic, Cretaceous, Eocene, and Miocene in age. One of the best control sections for the Cretaceous and adjacent formations is northeast of Meched, where the Cretaceous totals 9,000 ± feet. A marine Middle Eocene (Lutetian) formation, totaling 575 feet thick, rests unconformably on "red beds" of probable Danian age. Upper Senonian rudists and other megafossils occur in a 600-foot member immediately below these "red beds." At the base of the Cretaceous section is the "Red Grit Series," which is unconformably underlain by limestone containing Tithonian fossils. *Orbitolina* is present in oölitic limestones of Aptian age in the lower part of the Cretaceous sequence at many localities. No strictly marine fossils were collected from formations younger than Eocene.

8. FRANCIS P. SHEPARD, Scripps Institution of Oceanography, La Jolla: Structural Trends off the California Coast (abstract).

The sea bottom off the California coast shows a series of steep escarpments with a dominant trend in a north-northwesterly direction. The continental slope escarpment follows this direction and is not influenced by the large change in trend found on shore at Point Conception. Many of the submarine escarpments show offsets with the northerly portions set to the northeast. Also a number of the escarpments show slope reversals along their length. Directly outside the continental slope there are a series of oval mountains with trends in a north-northeasterly direction. These are probably volcanoes and from their trends suggest possible tensional phenomena.

9. JOHN H. MAXSON, California Institute of Technology, Pasadena: Miocene-Pliocene Boundary (abstract).

Geologic time is one of the great definite quantities of natural science. The measurement and subdivision of that quantity, however, introduces human error. Even in the type Tertiary section of Europe the absolute time span represented in a single epoch is difficult to establish. On the Pacific Coast further difficulties are introduced by errors in correlation by means of vertebrate, invertebrate, and micro fossils and by orogenies. Formations lying near