and discovered a new upper Mohnian sand, Reservoir 15, approximately 1,000 feet below the base of Reservoir 10. Formation tests of this new reservoir indicate excellent productivity of between 27° and 29° gravity oil and condensate.

Subsurface information is so limited to date that the mechanics of reservoir closure are not definitely known. Since the field lies on the southeasterly plunging Del Valle nose, the most logical cause seems to be either strong cross faulting between the Del Valle and the Castaic Junction fields, or merely the development of stratigraphic traps by lensing sands along the anticlinal structure. The highly lenticular nature of the sands and the general structure are depicted on the cross sections and maps. A strong northward shift of the subsurface structural axis is apparent. Current production is approximately 1,100 barrels per day with individual well potentials ranging from 450 to 750 through ¼-inch choke.

F. D. BODE and A. J. MACMILLAN, JR., The Texas Company, Los Angeles.

Geology of the Honor Rancho Oil Field, Los Angeles County.

The Honor Rancho field was discovered by The Texas Company's Honor Rancho (NCT-1) well No. 1 which was completed on August 22, 1950, flowing 1,414 barrels per day, 35.3° clean oil from the interval 5,302–5,340 feet. Six wells have subsequently been drilled, of which one, the Honor Rancho (NCT-1) No. 4, is a dry hole.

The section penetrated consists of approximately 4,000 feet of Pleisto-Pliocene Saugus and Pico, 700 feet of Pliocene Repetto, and 5,000 feet of upper Miocene shale, sand, and conglomerate within the Delmontian and Mohnian stages.

The discovery well was drilled on the assumption that the west-plunging anticlinal nose mapped at the surface in the area west of Castaic Creek would rise eastward across the Rancho to the San Gabriel fault and be closed by this fault.

Two productive horizons have been discovered: the upper Rancho zone; and the lower, Wayside zone. In the dry hole, Honor Rancho (NCT-1) No. 4, which was drilled to 10,086 feet, deeper sands and conglomerates were found non-productive.

The lithology of the oil zones varies from very fine thin-bedded sand to massive conglomerate. The fine sand, generally, is highly permeable while the conglomerate tends to be tight. The thickness of oil sand interval varies considerably from well to well and the electric logs are difficult to correlate. The field appears to be complexly faulted with, possibly, both normal and reverse faults present.

In view of the variable lithology and the complex faulting, the writers believe it is impossible to predict the extent of this field at the present time.

M. N. BRAMLETTE, H. L. DRIVER, E. C. EDWARDS, D. T. GRAVES, C. W. JOHNSON, D. I. JOHNSTONE, J. S. SHELTON, and R. T. WHITE.

Correlation Section Across the Los Angeles Basin.

The section extends northward from the ocean across the Palos Verdes Hills, through the Torrance, Dominguez, and Montebello oil fields, includes the type section of the Repetto formation, and continues north across the San Gabriel Valley to the San Gabriel Mountains north of Monrovia. Salient features are location and nature of lithologic and thickness changes in lower Pliocene and upper Miocene strata. A cross section of the Los Angeles sedimentary basin, and Los Angeles and San Gabriel structural basins is presented. The cross section portrays the need for clarification of stratigraphic terminology and need for differentiation between time-stratigraphic and rock-stratigraphic terms.

T. A. BALDWIN, R. R. THORUP, J. H. FACKLER, L. A. TARBET, and J. E. KILKENNY.

Salinas Valley Cross Section.

This transverse section extends from the Tertiary outcrop section west of the San Antonio River (R. 25 S., R. 10 E.), Monterey County, in a general north-northeast direction across the San Antonio Hills, the Salinas River, the San Ardo oil field, and the Gabilan Mesa to the San Andreas fault (T. 21 S., R. 12 E.).

Several interesting features are shown including the relationship of the deep Miocene shale basin underlying the San Antonio Hills to the thin veneer of sediments in the San Ardo field and the Gabilan Mesa, the "King City" thrust fault, and two interpretations of the stratigraphy in the controversial San Ardo group.

The name Aurignac sand is proposed for the lower producing zone in the San Ardo field. The Aurignac sand is separated from the upper producing sand, the Lombardi, by a thin siltstone bed and is underlain by basement within the limits of the field. The term "Orradre sand" was formerly applied to the Aurignac sand in the Campbell pool, but subsequent drilling has proved the two sands to be one. It is suggested that the name "Orradre sand" be dropped. The name Lombardi silt is proposed for the siltstone member underlying the Santa Margarita sand and overlying the Lombardi sand. The name Aurignac silt is proposed for the siltstone separating the Lombardi and Aurignac sands.