INTERNATIONAL EXPLORATIONISTS

INTERNATIONAL EXPLORATIONISTS DINNER MEETING—MAY 16, 1990

KEN O. STANLEY—Biographical Sketch

Kenneth Oliver Stanley received his BS and MS in geology from the University of California, Los Angeles, in 1964 and 1966 respectively. Stanley earned his PhD from the University of Wisconsin, Madison, in 1969. His dissertation title was the "Tectonic and Sedimentologic History of the Lower Jurassic Sunrise and Dunlap Formations, West-Central Nevada.

From 1969 to 1975, Stanley was a faculty member at the University of Nebraska in Lincoln. He spent the next six years as an associate professor at the Department of Geology and Mineralogy of Ohio State University in Columbus, Ohio. In 1981, he joined Exxon Production Research Company in Houston. Stanley was a Geological Associate for Esso Norge in Oslo from 1984 to 1987. He is currently Geologic Advisor for Exxon Company, International.

Stanley is a Fellow of the Geological Society of America and is a member of S.E.P.M. and I.A.S.

NOTE: A biographical sketch for Bill L. Lindemann was not available.

TECTONIC AND PALEOGEOGRAPHIC SETTINGS OF NORTHEAST ASIA HYDROCARBON SYSTEMS

Most of China and Soviet Asia were formed by the welding of micro-continents and accretionary wedge assemblages from Devonian through late Cretaceous time. The first hydrocarbon systems developed in late Precambrian to middle Paleozoic basins on continental platform blocks prior to the Hercynian welding of plates. Later hydrocarbon systems developed in both extensional and compressional successor basins associated with plate collisions from late Paleozoic to Cenozoic time.

Basins with cratonic tectono-stratigraphic assemblages, which formed on Archean - early Paleozoic microcontinent plates, feature hydrocarbon systems that are sourced by marine rocks and reservoired in weathered crusts and (or) clastic/carbonate platform rocks. The upper Precambrian and Paleozoic of east Siberia, the middle Paleozoic of west Siberia, and the lower Paleozoic of the Tarim Basin are examples of this hydrocarbon system.

The rift-sag successor basins, which developed on these welded micro-plates and accretionary wedges after collision, feature hydrocarbon systems produced from mostly non-marine rocks in China and mostly marine rocks in Russia. Example successor basins include the marine Jurassic-Cretaceous West Siberian interior sag basin formed over several micro-plates; the non-marine, Cretaceous-Tertiary, rift-sag Songliao and North China basins; and the neogene extensional strike-slip North Sakhalin Basin.

The compressional basins formed as a result of late Paleozoic to Cenozoic plate collisions. These basins feature hydrocarbon systems in marine and/or non-marine rocks depending on the paleogeographic setting. The best example is the late Paleozoic-Mesozoic, non-marine Junggar Basin in Northwest China.