

INTERNATIONAL EXPLORATIONISTS GROUP EVENING MEETING—FEBRUARY 15, 1984

WILLIAM H. KANES—Biographical Sketch



William H. Kanes is Professor of Geology at the University of South Carolina and Director of the Earth Sciences and Resources Institute which is associated with the University. He is also Co-director of the Earth Resources Institute at University College Swansea, the University of Wales. Prior to entering the academic world, he was senior exploration geologist with Esso Standard in Libya

and senior research geologist with Esso Production Research in Houston. Bill received his B.S. degree in Geological Engineering from City College of New York in 1956, his M.S. degree in geology from West Virginia University in 1958, and his Ph.D. in Geology from West Virginia University in 1965.

Bill has authored or co-authored numerous scientific publications pertaining to structure, sedimentation, rifting and plate tectonics, as well as the regional geology of diverse areas of the world, including: Libya, Niger, Chad, Morocco, Egypt, Tunisia, Appalachia, coastal South Carolina and Texas. He has been principle investigator for a number of National Science Foundation and industrial grants and awards totaling some \$3 million. These grants have investigated, among other subjects, continental break-up, rifting, and the evolution of continental margins for North and West Africa, and sedimentological studies in the U.S. and other areas. His corporate sponsors have included Aminoil, Amoco, Anschutz, Cities Service, Conoco, Louisiana Land and Exploration, Monsanto, Petronas, Phillips Petroleum, Shell, Sun, Tenneco, Union Oil, and others. He has, in addition, served as advisor to the Executive Branch of the U.S. Government on energy problems and controls, to the National Oil Company of Libya, and to the Atomic Energy Establishment and Nuclear Materials Corp. of Egypt. He has been an appointed member of the Federal Power Commission, working as part of a technical advisory task force concerned with natural gas resources of this country.

Bill is a member of the American Association of Petroleum Geologists in which he has chaired a research symposium and has been active on the Academic Affairs and Public Affairs committees. He is also a member of the American Geophysical Union, the Society of Economic Paleontologists and Mineralogists, the Society of Sigma Xi, and National Association of Geology Teachers, and is a fellow of the Geological Society of America and the American Association for the Advancement of Science. Bill has been recognized in his academic profession by having been named Honorary Professorial Fellow at the University of Wales and the National Science Foundation Resident Research Professor at the Academy of Scientific Research and Technology in Egypt.

THE REGIONAL GEOLOGY OF MOROCCO

The onshore sedimentary basins of Morocco can be defined best by the positive tectonic elements which border or shape the basin margins. Perhaps the three most easily defined basins would be: (1) the Tindouf, a strongly defined

Paleozoic downwarp which borders the south flank of the positive Anti-Atlas; (2) the Cenozoic Rharb-Said basinal complex formed by the positive edge of the partly metamorphosed Moroccan Meseta; and (3) the Guercif, a well defined upper Mesozoic and Cenozoic downwarp formed by the intersection of the East-West-striking "zone of horsts", the Northeastern-striking Middle Atlas and the Rif thrust on the West. These three basinal units have abundant oil shows and some oil production. The Guercif and Rharb basins, unlike the Tindouf, have been strongly influenced by the Alpine orogeny, although older deformational patterns can be observed.

Several additional areas in Morocco, although not basinal "sensu strictu", do have many of the similarities of basins (although they may lack the strong border elements). These basins, including the High Plateau Mesozoic-Tertiary complex, and Doukkala and contiguous areas, suggest the possibility of interesting petroleum plays. The High Plateau Basin has a Jurassic-Cretaceous section, as well as untested Triassic. The structural style of this area is dominated by normal faults, horsts, and grabens. The Doukkala-Essaouira Basin includes rocks of Paleozoic age in the Doukkala and of Mesozoic age in the Essaouira Basin. Devonian and Jurassic reefs, and oolitic lower Lias and supratidal dolomites have been described from outcrop and the Essaouira Basin subsurface. In almost every case, structural and seismic sections through the sedimentary or tectonic basins indicate there are multiple potential reservoirs and excellent possibilities for stratigraphic traps.