

# Memorial to John Hall (Jack) Howard (1934–2009)

NANCY WOODSIDE HOWARD

*Katy, Texas, USA*

John Hall Howard, age 74, passed away 18 March 2009 at The Methodist Hospital–Houston from complications of acute leukemia. Jack was born 14 August 1934 in Norwalk, Connecticut. Jack grew up in Norwalk and Baltimore, Maryland, where he attended high school at Baltimore City College. He received his B.A. degree (cum laude) in earth sciences from Harvard College in 1956, completed graduate studies at Johns Hopkins University, and received his Ph.D. in structural geology from Columbia University in 1961. His thesis was on the Williams Range, Colorado, thrust fault, which he mapped to study the application and theory of elasticity to a field area.

Jack began his geologic career with Shell Development Company in Houston, Texas, in 1957; studied faulting and fracture mechanics in the company's Ventura, California, offices from 1966–1970; and contributed to several aspects of the then-developing theory of plate tectonics. In 1971, he moved to Lawrence Livermore National Laboratory as a member of the Plowshare Program to study the uses of nuclear energy for peaceful applications, such as stimulating reservoirs via fracturing. Later, he worked on geothermal energy resources at Lawrence Berkeley National Laboratory, where he was the manager of the Geothermal Research Program and then at Lawrence Livermore National Laboratory, where he was manager of the International Energy Technology Assessment Program. He was named North Atlantic Treaty Organization (NATO) senior fellow and was a visiting scientist with the U.S. Geological Survey. He also studied geothermal installations in Iceland and Italy.

In 1982, Jack returned to the oil business as structural geology research manager at Cities Service Company in Tulsa, Oklahoma (now Oxy USA), where he directed a variety of research and technical service projects in structural geology and tectonics, such as forward seismic modeling of complex structures and fracture systems. Later, through mergers in the petroleum sector, he worked successively at Sohio and British Petroleum (BP), where as consultant geologist, he provided technical support for problems in fractured reservoirs, dipmeter applications, and salt tectonics. At Mobil (Mobil Exploration and Producing US Inc.) in Dallas, Texas, from 1997 to 1999, Jack worked on geological and geophysical interpretations of Offshore Equatorial Guinea, southern Offshore Caspian, Turkmenistan, Iraq, Offshore Nigeria, and the Dead Sea.

In retirement, Jack became interested in technical writing, editing, and publishing, and was named editor in chief of publications and was the principal editorial reviewer for all technical publications at Halliburton Energy Services in Houston.

Jack was a fellow of the Geological Society of America, and he nominated many colleagues for fellowship in the Society. He was a certified petroleum geologist with the American Association of Petroleum Geologists; Registered Geologist, California; and a member of



Society of Petrophysicists and Well Log Analysts, Society of Petroleum Engineers, and Houston Geological Society. He was also an active member of the Emerson Unitarian Church in Houston.

In 1957 Jack married Nancy Woodside of El Paso, Texas, who survives him. Jack and Nancy met in geology classes at Harvard and were married 52 years. They had three children: Thomas, of Houston, Texas; Katharine Crawford (husband Mark) of Orinda, California; and John (wife Amy) of Frisco, Texas. Jack will be especially missed by his grandchildren Jack and Cole Crawford and Natalie and Hunter Howard, all of whom he loved dearly and who were devoted to him. Jack and Nancy loved to travel and in recent years had taken several cruises to beautiful locations around the world, taking in the local geology and cultures.

Jack was a kind, generous, and gentle man who endeavored to enrich the lives of all who knew him, and he will forever remain in the hearts of those who loved him.

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