Leroy Wallace Holm

1923-1989

By Henry J. Ramey, Jr.

Wally Holm, an oil recovery research pioneer and prolific inventor of enhanced oil recovery methods, died October 23, 1989, of cancer at age sixty-six. Wally Holm retired in 1986 after forty years with Union Oil Company of California (UNOCAL). He began work on enhanced oil recovery processes after becoming an authority on lubricating oils. His innovative approach to solving problems led to sixty-four patents and more than forty publications. His patents and publications cover a broad spectrum of oil recovery methods: carbon dioxide waterflooding, hydrocarbon-alcohol miscible displacement, nitrogen and steam flooding, steam and carbon dioxide processes, chemical flooding with surfactants and polymers, and use of foam for mobility control. His interests were always on the cutting edge of the technology. He used producing oil fields as his laboratory, and his efforts will aid human movement on planet Earth for years to come. His work led to greater prosperity for many parts of the United States and other nations in the world.

Wally Holm was born in Chicago, Illinois, on May 19, 1923. He received a B.S. in chemical engineering from Northwestern University in 1945. He served three years in the U.S. Navy reaching the rank of lieutenant. He married Vivian Lorenz of Chicago, Illinois, in 1945, and they had

three children: Lawrence, Carol, and Jeffrey. Wally was encouraged by his loving family; six grandchildren; and brothers, Willard and Marvin.

In 1946 Wally joined the Pure Oil Company in Illinois, where he became a senior research engineer in petroleum refining. Because of original innovative talents, he became an expert on refining of lubricating oils and enhanced oil recovery. He received eighteen patents assigned to the Pure Oil Company. In 1965 the Pure Oil Company was purchased by the Union Oil Company. Wally continued his career with UNOCAL, serving as senior research engineer of petroleum production, research section supervisor, research engineering and senior research associate, and staff consultant, the highest scientific position at the Fred L. Hartley Research Center, Brea, California. Perhaps Wally's greatest gift was his unflagging, youthful enthusiasm for investigation. He was articulate and inspiring. For the Society of Petroleum Engineers (SPE) of the American Institute of Mining, Metallurgical and Petroleum Engineers, he was one of the SPE Distinguished Lecturers in 1972. He was an invited lecturer at many universities.

As a researcher, Wally was extremely creative and innovative. He was an experimentalist and always had several programs going simultaneously. His curiosity and tremendous energy drove him to investigate many different areas. He made significant contributions to miscible flooding, foam applications, and micellar/polymer flooding. He had a great ability to generate enthusiasm and a spirit of cooperation among his coworkers. This came from his friendly nature and his generosity in sharing ideas and credit for results throughout his career. This is demonstrated by the great number of collaborators Wally had at Pure Oil, Union Oil, and other companies. It was his generosity with both time and ideas that attracted so many good people. Many consider the time spent working with Wally as the most enjoyable times of their careers. He was honored and loved by his colleagues. He greeted everyone with a ready smile. He

was described as one of the top three pioneers of enhanced oil recovery in the world.

The SPE honored Wally as a Distinguished Member (1984), a Distinguished Author (1981), an Enhanced Oil Recovery Pioneer (1984), and by the John Franklin Carll Award (1985). His citation for the Carll Award included "for distinguished achievement in contributions to petroleum engineering and the technology of fluid mechanics, oil recovery processes and Enhanced Oil Recovery (EOR)." His service to the SPE included all local section offices through chairman of the Chicago Section and many national chairmanships. Wally was also recognized nationally. At a joint SPE-Department of Energy symposium on EOR in 1984, Wally was designated EOR Pioneer. He was elected to the National Academy of Engineering in 1986.

In addition to his professional career, Wally had many interests outside of work. He was an avid sailor and tennis player and spent many weekends at his mountain cabin. He was an excellent athlete and played senior league softball into his sixties. Wally and Vivian were superb round dancers and they often sought out local dances when travelling on business. Wally was also closely involved with the Presbyterian Church. He served the First Presbyterian Church of Fullerton, California, faithfully for many years as deacon and elder and as member and chairman of key committees. Wally initiated a program through the church to promote international peace, and this program continues today with his vision. We will all miss him.