

PETROLEUM ENGINEER

Donald J. Hammerlindl, P.E., P.ENG.

I worked for DeGolyer and MacNaughton from 1982 to 2011 as a senior petroleum engineer performing reserves estimates, appraisals, field studies, data room data gathering, fair market value determinations, gas deliverability studies and reports for the aforementioned. Throughout my career I have developed expertise in the United States [the most noteworthy areas being the Williston basin, Rocky Mountains, San Juan basin, Gulf Coast (onshore and offshore), Alaska (Cook Inlet and the North Slope)], western Canada, and offshore eastern Canada. My experience extends beyond the United States and Canada to hundreds of fields in the countries of Austria, Australia, India, Indonesia, Libya, and Tunisia.

In addition to conventional reservoirs, my skill in reserves estimates extends to shale gas, shallow gas, tight gas, coal bed methane, vertical and horizontal solvent floods, gas-cycling and storage, heavy oil, and bitumen recovery using steam assisted gravity drainage. I'm well versed in petrophysics, mapping, and sour-gas production. I'm proficient in complex geology, such as overthrusting, salt domes, multipay structures, shaly sands, naturally fractured reservoirs, and western Canada's Devonian-aged reefs.

I'm an expert in Canadian royalties and have considerable experience with NPI 51-101 and SEC rules and regulations. I'm an experienced user of PhdWin's Canadian, U.S., and International reserves and economics program.

I worked for Toltec Royalty Corporation from 1981 to 1982 as president and chief executive officer. My primary responsibilities were managing the corporation and purchasing oil and gas royalties using funds raised through publicly offered limited partnerships.

I worked for Triton Energy Corp. from 1980 to 1981 as chief reservoir engineer where I oversaw reserves studies, economics evaluations, field development, purchases, acquisitions, government reporting, and budgets.

I worked for Arco Oil and Gas Company from 1970 to 1980. I spent three years as an operations engineer in the Corpus Christi Bay area managing, from a technical aspect, primary and secondary oil reservoirs, normally pressured and overpressured gas reservoirs, and low-temperature separation, compression, and gas-lift systems. I spent seven years in Dallas, two years as a staff production engineer, consulting with Arco's various districts on production problems and updating an in-house set of production-engineering manuals, and five years as a staff reservoir engineer where I reviewed drilling and development projects, ran Prudhoe Bay simulation model cases, and coordinated Arco's eight-week training schools, teaching fluid properties and portions of other courses.

From 1964 to 1970 I attended college and worked. In the fall of 1964 when I enrolled in a two year Petroleum Technology program at the Southern Alberta Institute of Technology (SAIT) in Calgary, Alberta, Canada. In the summer of 1965, I

worked for Peter Bawden Drilling as a roughneck. We drilled 13 shallow wells and ran casing on 9 wells. I graduated in 1966 from SAIT with a petroleum technologist diploma and went to work for Pan American (now BP) in Drayton Valley, Alberta. I spent the first month as a roustabout, the next three months as a relief pumper at 13 different batteries and 16 months as a technician/engineering assistant. I left Pan Am in January 1968 to enroll in petroleum engineering at the University of Wyoming from which I graduated in January 1970 with a B.S. degree in petroleum engineering.

I'm a registered professional engineer in Texas and Alberta, and a member of the Society of Petroleum Engineers (SPE). I was the recipient of the SPE's Cedric K. Ferguson Medal in 1978 for one of my three papers on tubing movement and was named to Distinguished Members of the SPE in 1983.

Publications:

- SPE 3479 "Predicting Gas Reserves in Abnormally Pressured Gas Reservoirs"
- SPE 5143 "Movement, Forces and Stresses Associated with Combination Tubing Strings Sealed in Packers," Trans., AIME (1977) 263, 196-208.
- SPE 7594 "Basic Fluid and Pressure Force on Oil Well Tubulars," Trans., (1980) 269, 153-159.
- SPE 7552 "Packer-To-Tubing Forces for Intermediate Packers," Trans., AIME (1980) 269, 515-527.