**ROBERT MACDONALD (BOB) HARDY (1905-1985)**

Edited by Jim Graham, in 2012, from an article by Murray Harris
in *Geotechnical Engineering In Canada: An Historical Review,*
published by BiTech Publishers, Richmond BC, 1997

Bob Hardy graduated in 1929 from the University of Manitoba as a Gold Medalist in Civil Engineering, and obtained a M.Sc. degree from McGill University in 1930 in structural engineering. He became a lecturer at the University of Alberta in applied mechanics in 1930 and introduced what was probably the first full course in soil mechanics in Canada in 1932. In 1939/40 he attended Harvard University and studied under Arthur Casagrande.

After returning to the University of Alberta, he started a soils engineering laboratory and became a leading authority in soil mechanics and foundation engineering. In 1943 he started the first graduate program in Geotechnical Engineering in Canada. In following years, Bob Hardy held positions as Professor, Chairman of the Department of Civil Engineering, and Dean of Engineering. He retired from the University of Alberta in 1959 to devote full time to his consulting practice, albeit still as a part-time professor.

In keeping with the tradition in civil engineering departments, his research sought solutions to regional problems in the areas of muskeg behaviour, frost action and its prevention, swelling clay and clay shale, oil sand, and pile behaviour.
Bob co-founded his consulting firm in 1951. It was renamed R.M. Hardy & Associates Ltd., in 1954, and Hardy Associates in 1978. The company engaged in foundation engineering and design, construction of earth dams and airports, investigation of structural failures, muskeg

and permafrost terrain constraints, pipeline construction, and mining of tar sands. Important projects included the collapse of the Peace River suspension bridge on the Alaska Highway, failure of the UGG grain elevator in Thunder Bay, the Review Board for Syncrude, and tailings dams for Suncor, and the use of draglines in open-pit mines.

Of his working style, George Ford wrote: “Hardy could talk to a staff member, read an article, plot a graph, answer the telephone, write a letter, and effectively deal with the problem at hand all at one time.” (*Sons of Martha, 1988)*.

Dr Hardy received many honours and awards that included the R.F. Legget Award from the Canadian Geotechnical Society, Fellowship in the Royal Society of Canada, and appointment as an Officer of the Order of Canada. He received honorary doctorates from three universities.

[Robert Hardy’s contributions to Canadian geotechnical engineering were documented by Murray Harris in *Geotechnical Engineering in Canada: An Historical Review,* 1997, a document that resulted from the CGS’s Canadian Geotechnical Heritage Project in 1986. Both the 1997 document and more information on the 1986 project can be found elsewhere in the Canadian Geotechnical Virtual Archives on the CGS website].