

Wind, Dust and Sand in the Mississippian of the Northern Williston Basin

Dr. D. M. Kent
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(abstract & bio below)

Bushwacker Brewing Company,
2206 Dewdney Avenue, Regina

Lunch: 11:45 am

Meeting Talk: 12:15 to ~1:00 pm

For lunch, the cost is:

S.G.S Members: \$15.00

Student Members: \$5.00

Non-members: \$20.00

For those members not having lunch, the talk is free.

Please contact Kim Kreis k.kreis@sasktel.net or 306-539-9835
by 10:00 am, Monday, January 29th if you plan on having lunch.

Wind, Dust and Sand in the Mississippian of the Northern Williston Basin

By D.M. Kent

Abstract

Core and well log interpretations suggest that the quartz sands in the Mississippian rocks of the northern Williston Basin were sourced in the east and northeast. Sedimentary structures as observed in core suggest deposition in both marine and non-marine settings. Marine bodies vary in thickness from 6m to >30m and are commonly linear. Texturally, they range from particle-supported with dolomite cement to dolomitic matrix-supported. Trace fossils are present in these thicker sand bodies. They include Planolites, Chondrites, Palaeophycus, Thalassinoides and escape traces. Non-marine lithologies include nodular anhydrite in a sand matrix, and karst breccia. Bedding structures include poorly to well defined flat bedding as well as low angle (5-10°) bedding to moderately dipping (12-20°) foreset cross-bedding. The gamma ray log markers K1, K2, and K3 help to establish the lateral and vertical limits of the quartz sand bodies.

D. M. Kent Biography

Donald Kent was born in Medicine Hat, Alberta, and during his formative years, developed a keen interest in the surrounding geological landscape as well as the subsurface. He entered the University of Saskatchewan in 1953, graduating with a B.Sc. degree in geological engineering. In 1958 Don joined the Saskatchewan Department of Mineral Resources (DMR) as a Junior Research Geologist. His formal education culminated with a Ph.D. degree from the University of Alberta in 1968. His dissertation was published in 1974 as the ground-breaking DMR Report No. 99, on the Devonian Duperow Formation. Dr. Kent remained with DMR as a Senior Research Geologist producing numerous papers and reports until 1971 when he joined the Department of Geology, University of Regina as Associate Professor and subsequently full Professor in 1978. He became Emeritus and Adjunct Professor in 1996 and still maintains that position to this day. From 1976 to the present, Don consulted to the petroleum industry and government agencies, all the while fashioning an enviable research and mentoring career spanning several decades.

It is difficult to quantify the impact of Don Kent's voluminous contributions to our understanding of the sedimentary, structural, and petroleum geology of Canada, particularly Western Canada and the Williston Basin. In 2015, Dr. D. M. Kent was awarded the prestigious R.J.W. Douglas Medal by the Canadian Society of Petroleum Geologists (CSPG) for outstanding contributions to the understanding of sedimentary geology in Canada, commending major contributions to regional tectonics, petroleum and structural geology.