

POSTER SESSION ABSTRACTS

STRATIGRAPHY AND DEPOSITIONAL FACIES OF
THE UPPER TRIASSIC (NORIAN) BALDONNEL
CARBONATES — A MAJOR NATURAL GAS
RESERVOIR UNIT — NORTHEASTERN
BRITISH COLUMBIA

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Triassic carbonates are relatively rare in Canada, but economically important, at least in northeastern British Columbia, where, in the subsurface, reservoirs in Upper Triassic (Norian) Baldonnel carbonates contain 30 percent of the total initial gas reserves for the province. Despite this economic significance, the depositional-stratigraphic framework in which the Baldonnel carbonates accumulated is not well understood.

Detailed regional wireline log correlations calibrated by petrologic core information shows that the Baldonnel can be subdivided into mappable depositional units bounded by hiatal surfaces. These depositional units are characterized by repeated, shallowing-upward sequences of subtidal mudstones to wackestones → shallow subtidal to lower intertidal packstones to grainstones → capped by upper intertidal to supratidal microfacies. Deposition occurred on a shallow shelf to a westward-deepening, very shallow ramp overlying evaporitic sediments of the Charlie Lake Formation and succeeded, at least in the western areas by deeper water siliciclastics and carbonates of the Pardonnet Formation.

Reservoirs are best developed in the dolomitized, former skeletal-peloidal calcarenites.