

**Regional Subsurface Correlations of Albian
Sequences North of the Peace River in NE British Columbia:
Northward Extent of Falher and Notikewin Sands along the
Eastern Flank of the Foredeep**

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ABSTRACT

The highly explored Peace River Region and Elmworth Deep Gas Basin has yielded a large database of geophysical wireline well logs and core. Recent exploration and research within the Trutch, Fort Nelson and the Liard Basin regions are providing a growing database of geological information, allowing for reliable correlation of the Cretaceous Ft. St John Group between these two regions, filling the gap between 55.5° N and 58° N. Within the western foredeep, Albian sedimentation to the northwest is preserved as distinct marine shales and mudstones of the Buckingham Formation. To the south this shale package is interrupted by distinct stacked coarsening upward sandstones. Along the eastern margin of the foredeep, regional wireline cross-sections show a northward extension of sandstones of the Notikewin Member, and the preservation of an attached lowstand facies including evidence for incised valley fill, prior to the transgression of the Hulcross/Harmon Sea. The northward extent of these sandstones, while shale deposition prevails to the east, may be a result of proximity to the eastern flank of the foredeep, transport of sand north during storms over an overall shallow shelf setting and strong basin wide currents allowing for the northward transport of these coarser deposits. In the southeast, as a result of an unconformity between the Paddy and Cadotte Members, Joli Fou sedimentation is not well preserved. The equivalent Viking marker bed in the foredeep can be detected by a subtle resistivity change and a foraminiferal zonal change within the Buckingham Formation.