

## **Microfacies Analysis of a Transect along a Pennsylvanian to Early Permian Shelf Margin and its Adjacent Slopes: Sverdrup Basin, Arctic Canada**

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### **Abstract**

The Sverdrup Basin, Arctic Canada, contains one of the worlds largest Pennsylvanian to Early Permian shelf margins at a thickness of up to 2.0km and a length of 400km. Eight stratigraphic sections were measured along Borup Fiord, Ellesmere island, in order to construct a shelf to basin transect. Petrographic analysis and field observations identified four main depositional environments: 1) a back reef, 2) reef, and 3) shelf comprised dominantly of the Nansen Formation, and 4) a slope setting comprised dominantly of the Hare Fiord Formation.