

## **Sedimentology and Reservoir Fairway Distribution of the Upper Cretaceous Jumping Pound Sandstone, Second White Specks Formation, Southwestern Alberta.**

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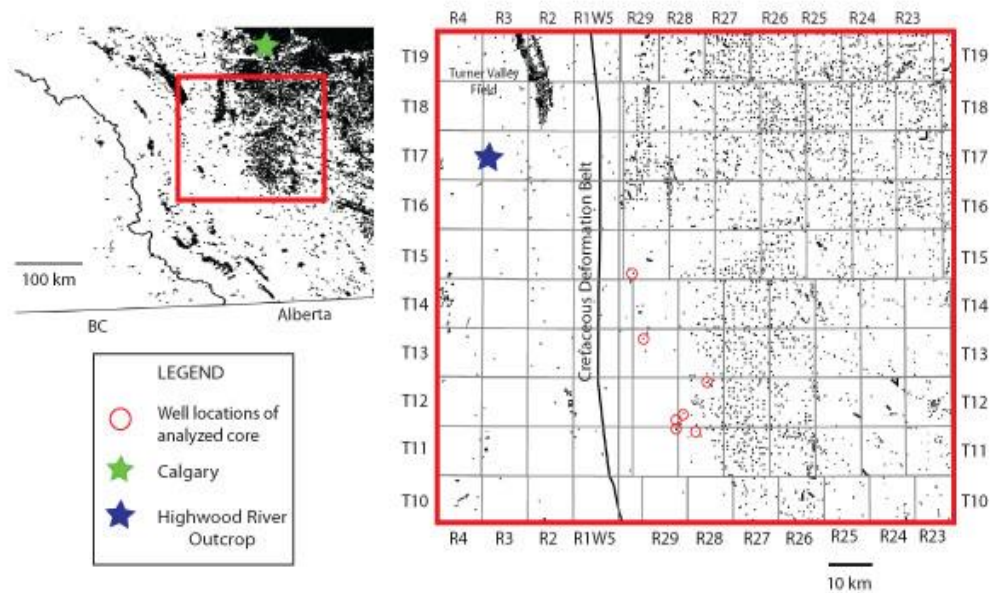
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### **Summary**

The Upper Cretaceous Second White Specks formation, found within the Alberta and Colorado Group across southern Alberta is famously known as a world-class marine source rock, responsible for charging multiple Cretaceous hydrocarbon reservoirs. With unconventional hydrocarbon plays flourishing, source rock intervals are increasingly found to contain potential unconventional type reservoirs, leading to an examination of the reservoir potential of the Second White Specks Formation as presented in this study. The Middle Cretaceous, Early Turonian Jumping Pound Sandstone, found at the top of the Second White Specks Formation in the southern Alberta foothills and plains, represents an unexplored reservoir with large hydrocarbon potential. In order to better understand this interval, lateral facies variability of the Jumping Pound Sandstone and the Second White Specks Shales must be understood so that reservoir fairway trends can be determined. A resulting depositional model along with future recommendations for further work on this formation concludes this paper.

### **Study Area/Methods**

The study area of this paper is located across the southern Alberta foothills and adjacent plains between townships 10 and 19, and ranges 2W5 and 24W4 (Figure 1.1). This area is located south of Calgary, AB and southeast of the Turner Valley field. The western lying Cretaceous deformation belt marks the boundary between the southern plains and western foothills deformation. Past conventional drilling within The Second White Specks Formation has resulted in mixed success,



**Figure 1.** Study area (TWP 10-19, R2W5-24W4) located within the southern Alberta foothills adjacent to both the eastern lying Alberta plains and the western Cretaceous deformation fold and thrust belt. Note that black dots refer to all wells drilled in this part of the WCSB.

## Acknowledgements

I would like to thank Dr. Per Kent Pedersen for providing guidance, technical support, criticisms and supervision for this study. I would like to thank both Adam Fraser and Kevin Jackson who provided insight and supporting data that aided this project. Dr. Michelle Spila and Erin Pemberton offered drafting support and constructive criticism of the paper.

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