

# West Sask: Bakken

## Summary

The oil potential of the updip subcrop edge of the WCSB should not be overlooked. This historically productive portion of the Bakken Subcrop Play covers an area of 68 townships (625,000 ha), the majority of which is in southwestern Saskatchewan. Over 250 million barrels 39.7 E6M3 of oil has been recovered to date on this play. Approximately 80,000 bbls (12,719m3) of heavy (13 - 15° API [12,719m3]) oil per well. Water production is significant, both naturally and from waterflood operations to improve recover factor. The fine-grained sandstone reservoirs commonly have 3 to 7m of pay with up to 30% porosity and excellent permeability.

The Bakken formation is a thin clastic unit found at the base of a sequence of Mississippian carbonates. It is conformably overlain by the Mississippian Mission Canyon group of formations and lies unconformable on the Devonian Three Forks Group. The upper Bakken is a black to dark grey-brown fissile shale. The middle Bakken member is a tan to grey argillaceous siltstone to fine grained sandstone often having a minor dolomite or limestone content. The lower Bakken is a black to brown, hard, fissile, radioactive shale, which is generally considered as equivalent to the Exshaw formation in Alberta.

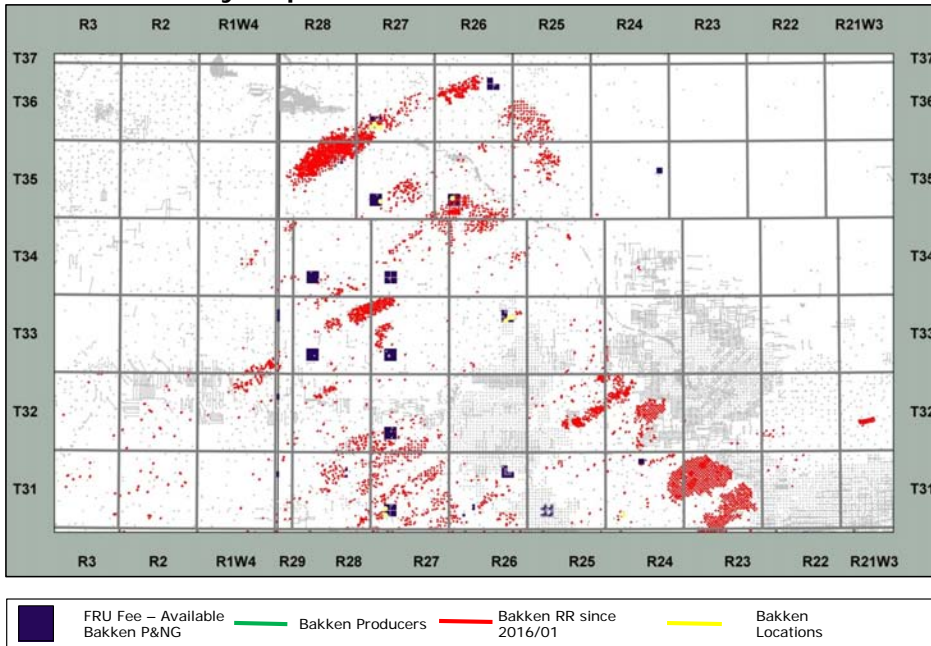
## Play Synopsis

Fluid	Oil, 13 API to 15 API
Pay Thickness	3m to 7m
Rf (Primary)	1.9% to 10.3%
Fm. Temp.	25°C
Active operators	Raging River, Northern Blizzard, Repsol
Completions	Open hole
Depth	770m to 815m
Lithology	Sands/Silts
Average Porosity	26% to 30%
Water Saturation	20% to 36%
Type Well EUR	67 mboe
Type Well IP90	44 boed

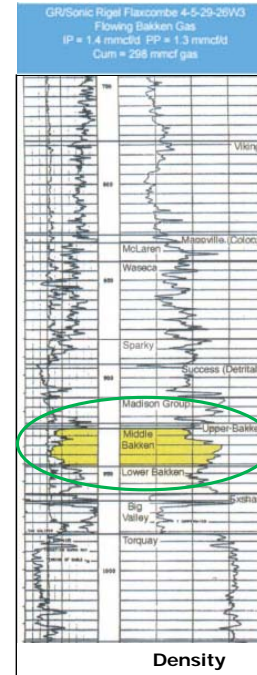
## Capital Costs

DCE&T: \$830M
<b>With 20% Lessor Royalty</b>
IRR BT: 42%
Payout: 2.1 years
F&D: \$12.39/boe
Netback (IP 90): \$25.27/boe
Recycle Ratio: 2.0

## Bakken Activity Map



## Offset Well Log



## Type Curve Analysis

