

## Managing Casing Deformation Risk in the Duvernay Formation (Kaybob, Alberta)

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### Summary

Ovintiv undertakes a thorough risk-management approach towards understanding and managing the potential risk associated with casing deformation occurrences within the Duvernay Formation. In the South Simonette part of its Duvernay acreage, Ovintiv has drilled and completed over 50 Duvernay horizontal wells. Of those wells, some had confirmed occurrences of casing deformation with varying severities. Once investigated and characterized, it was determined that localized bedding plane slip events were the primary causal mechanism responsible for the observed deformations. To mitigate future occurrences, Ovintiv has trialed several well designs, made changes to lateral targets, utilized advanced plug and milling technologies as well as modified the order of hydraulic fracturing operations to reduce potential impacts.