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## Optimization of a Reservoir Driven Field Development Plan in Unconventionals

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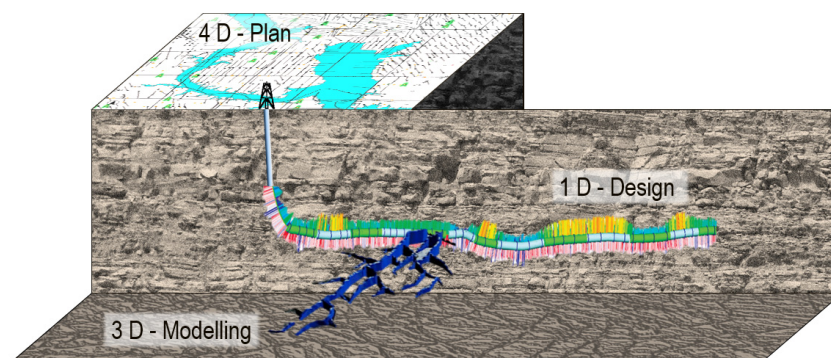
### Summary

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Optimizing a FDP in unconventionals requires different scales of understanding: a) how to optimize the reservoir contact that a well has with the target, b) how to optimize the hydraulic fracture model. c) the subsurface understanding has to translate to the surface.

The only way to approach a truly optimal FDP is through a reservoir-driven approach that forces cross-disciplinary understanding and optimization.





## Conclusions

Throughout this workflow, we have seen how the optimal FDP is only achieved in a multi-disciplinary environment, where the completion engineer working with the petrophysicist can assess and select the optimal connection to the reservoir through an engineered perforation strategy. Where the completion engineer utilizes the geology, geomechanics, and Kinetix Shale simulator in order to model and optimize the hydraulic fracture design. And where through different technologies, the hydraulic fracture understanding translates to a simulation model powered by a high-resolution simulator in order to update the FDP efficiently.

The only way to approach a truly optimal FDP is through a reservoir-driven approach that forces cross-disciplinary understanding and optimization.

## References

C. Cipolla, X. Weng, M. Mack, U. Ganguly, H. Gu, O. Kresse, and C. Cohen, SPE, Schlumberger. SPE 140185 - Integrating Microseismic Mapping and Complex Fracture Modeling to Characterize Hydraulic Fracture Complexity

C.L. Cipolla, M.J. Williams, X. Weng, M. Mack, and S. Maxwell, Schlumberger. SPE 133877 - Hydraulic Fracture Monitoring to Reservoir Simulation: Maximizing Value

SPE-157367-MS - Semi-Analytical Production Simulation of Complex Hydraulic Fracture Network

Jon Wallace (Hess Corp.) | Craig L Cipolla (Hess Corp.) SPE-168596-MS - Stimulated Reservoir Volume: A Misapplied Concept?

K.J. Wallace (Encana Oil & Gas.) | Pascual Reyes (Schlumberger) | E. Jinks (Encana Oil & Gas) | H. Yotter (Encana Oil & Gas), Raj Malpani (Schlumberger) | Felipe Silva (Schlumberger). SPE-179172-MS - Understanding Completion Performance in Niobrara-Codell Reservoir Through the Use of Innovative Software-Guided Workflows and Models