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Three common misconceptions about geomodeling

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Teamwork has been, is and will always be essential to successfully produce a reservoir. We simply have too many different unknowns at hand: it would be impossible to get it right without our experts working well together. This was already important in 1968 when Banff Oil Ltd. was characterizing the Rainbow Lake reef reservoirs in Northern Alberta (Langton and Chin, 1968), and it is still important nowadays in studies like (Kam and als., 2015) about the characterization of the Horn River Shale.

Everything that can improve teamwork is potentially a step towards a better understanding of our reservoirs and better results for our companies. This is what motivates people like Emad Elrafie (Elrafie and als., 2008) (Elrafie and als., 2015) to look for new ways to work together. This is also with this in mind that this presentation was prepared.

Our own focus is on misconceptions, and more specifically on misconceptions about geomodeling: how they can corrupt a geomodeling project and how a team can get passed them.

Geomodeling is one of these tasks that rely heavily on data integration and so on geoscientists and engineers working well together. Without teamwork, a geomodeling project can fail to reach its goals.

The same way that geomodelers might have misconceptions about others' domains of expertise, it is not uncommon that non-geomodelers have misconceptions about what geomodeling can do. Realizing that these misconceptions exist is a first step towards sorting them out and from there, making it easier for the whole team to move in the same direction.

The authors identified three of the most common misconceptions about geomodeling:

1. Geomodeling, like automated contouring, is about mathematics, not geology.
2. Why spending time on 3D facies modeling while we only need a 3D petrophysical model?
3. Running probabilistic volumes with a Monte-Carlo approach is the same as running them in a geomodel.

This presentation will give some materials to help geomodelers and non-geomodelers alike in case these misunderstandings come to pollute their own geomodeling projects in the future.

References

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