

Comparison of porosity information derived from impedance outputs from pre-stack and post-stack inversion of 3D seismic data

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Summary

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The ability to determine new well locations based on porosity information from existing well locations would be of significant importance in exploration of tight plays. The workflow in this particular project would be to create pre- and post-stack impedance volumes from a 3D data set, export a composite impedance trace at the available well location(s) in the 3D area to compare with available well log porosity curves by crossplotting. Furthermore, the seismically derived impedance traces can be used to create a porosity map of the 3D area to determine the porosity distribution and select new well locations. A final comparison will be made between the porosity map derived from pre-stack inversion with the porosity map derived from post-stack inversion.