Innovations in imaging subsurface geological features from 3-D seismic

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New technology manipulation of 3-D seismic data volumes are revealing previously unseen stratigraphic and structural subtleties in east coast offshore basins. Cooperative associations with industry have made several 3-D seismic data volumes available for GSC Atlantic research. Advances in the computer hardware and imaging software required to manipulate and extract information from multi-gigabyte data sets have led to the discovery of geological detail not formerly possible in subsurface marine geology. One example of this increase in detail is the imaging of a braided stream development, several hundreds of metres across, and tens of metres thick and at resolutions never before possible. The combination of new technologies and access to 3-D data sets greatly enhances our ability to quantify subsurface sedimentological and structural parameters, key to the full understanding of petroleum systems.

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