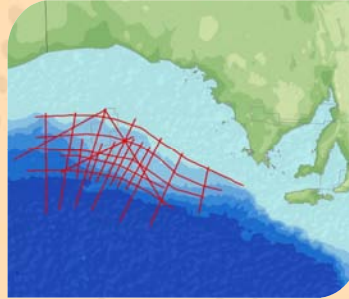


# BightSPAN

## PROGRAM OVERVIEW

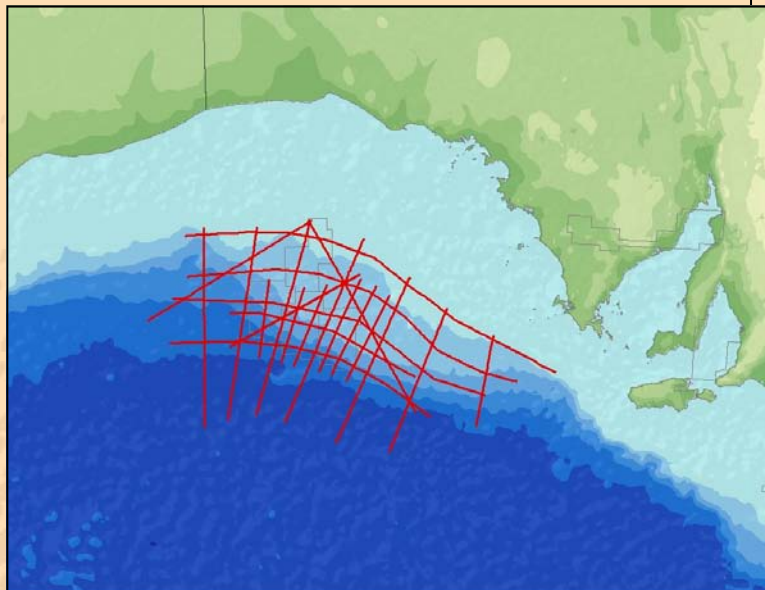
The BightSPAN™ survey has been undertaken in conjunction with the Australian Government's 2009 Offshore Petroleum Acreage Release Areas S09-1 to S09-6, Ceduna Sub-Basin, Bight Basin, offshore South Australia in the Great Australian Bight.



Prospectivity of this frontier province is characterized by:

- Multiple potential source rock intervals including Cenomanian-Turonian oil-prone marine organic-rich rocks
- Geochemical links between bitumen strandings and Cenomanian-Turonian potential source rocks
- Large number of structural and stratigraphic plays in late Cretaceous marine and deltaic sequences
- Reservoir seal facies demonstrated
- Large frontier Jurassic-Cretaceous sub-basin

Acquisition of BightSPAN was completed in July 2009. The survey was designed by ION's GeoVentures group to image down to the base crust with a 5,880 cubic inch source, 10,200 meter cable and 18 second record intervals. ION has acquired ~5,000 km of multi-client, 2D seismic data to date in this prospective region.



## About BasinSPANS™

ION's BasinSPANS (SPANS) are geologically inspired, basin-scale seismic data programs acquired and depth-imaged by ION's unmatched GX Technology experts using the most advanced geological and geophysical processing tools available. They provide upstream companies with the ability to evaluate the geologic evolution, deep basin architecture and depositional and structural histories of entire petroleum systems in a region.

Unlike conventional multi-client seismic surveys, BasinSPANS are custom designed in collaboration with ION's GeoVentures group, regional experts and the O&G companies. Once the program objectives are agreed upon, ION serves as project manager and applies the best survey design, acquisition and processing technologies with a proprietary mindset that adds value and achieves exceptional results. Such in-depth data and the associated interpretation tools greatly assists asset managers with portfolio management and provides significant risk mitigation as they develop exploration and appraisal programs with greater confidence.

ION owns one of the most up-to-date seismic data libraries in the industry, consisting of 2D, 3D and full-wave (multicomponent) data from around the world.

## PROGRAM OBJECTIVES

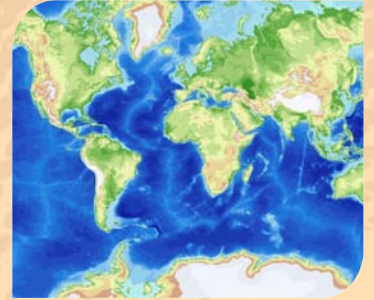
- Designed to deliver new insights into the architecture of the Ceduna sub-basin and examine new and existing play types. In particular examines deeper parts of the basin that are poorly understood and underexplored
- Better understand general Source, Structure, Reservoir and Seal character and mechanisms of the region
- Build comprehensive basin model to aid in determining hydrocarbon maturation; heat flow modeling and structural/tectonic evolution
- Tie key wells in the region
- Establish total sediment thickness and regional stratigraphic framework

## KEY COMPONENTS

- Program design and layout are driven by known geology and client input providing a consistent seismic regional framework that ties into existing seismic lines
- 18 sec records, 10,200 m cables
- Integrated geologic and geophysical interpretation
- Improved understanding of key geologic features, placing them in a basin-wide context
- Applies technical specifications of acquisition, data processing and depth imaging of the seismic data

## DELIVERABLES, WITH FULL PARTICIPATION, INCLUDE

- Raw navigation merged shot gathers (SEG-Y)
- Final Kirchhoff PSDM and PSTM stacks (SEG-Y)
- Final PSDM depth-interval velocity model (SEG-Y)
- Final PSTM velocity model (SEG-Y)
- Gravity and magnetics data
- Structural and stratigraphic interpretations (faults and horizons)
- Final acquisition, processing and interpretation reports



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