

# Project Highlights New Prospectivity in the Santos Basin

Reprocessing effort will cover 35,000 sq km.

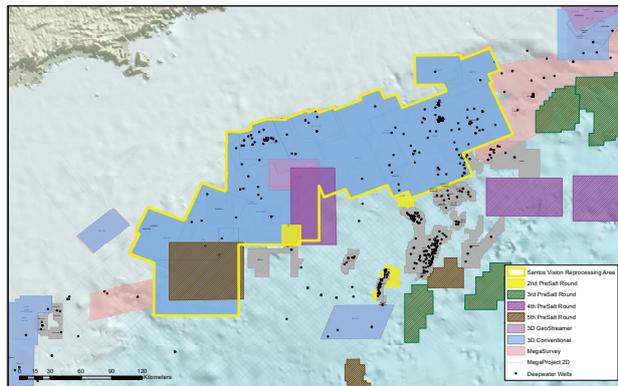
CONTRIBUTED BY PGS

Deeper and more detailed regional geological understanding forms the prerequisite for more successful exploration for oil and gas, and this is especially true for world-class producing basins such as the Santos Basin offshore Brazil. To support its customers in their continued interest in one of the world's most prolific petroleum systems, PGS is introducing the Santos Vision product.

By applying the latest broadband imaging technology from data conditioning, noise and multiple suppression to new model-building and high-end imaging to this large regional dataset, Santos Vision represents a platform to assess local hydrocarbon potential and to identify new leads and prospects.

Reprocessing efforts have been specifically aimed at optimizing the potential presalt targets. These have included the use of advanced broadband anisotropic velocity model-building and imaging technologies such as full-waveform inversion (FWI) and reverse time migration (RTM). Systematic use of true amplitude and angle domain gathers has facilitated iterative model updates and salt scenario testing and has resulted in very detailed and accurate velocity models. The final image volumes were generated using both RTM and PGS WEI (least squares imaging).

The Santos Basin has seen oil and gas production since the 1970s and remains active as new technology and play concepts reveal more potential than was ever originally envisioned. The presalt play fairway offshore Brazil has become the focus for many companies. Proven reservoir potential is associated with the micro-biolite and coquinas structures, which have been confirmed to contain large hydrocarbon accumulations. The recent opening of this play fairway to unitization and bid rounds has resulted in increased interest in the basin and further highlights the need for a much more detailed structural understanding, which the Santos Vision dataset provides.



Once fully complete, PGS' reprocessing effort for Santos Vision will cover 35,000 sq km (13,514 sq miles). Area 1 deliverables are available now, which include Q-Kirchhoff, RTM, PGS WEI and amplitude vs. azimuth products.

Visit booth 2122 to learn more about the PGS Santos Vision product. ■

Santos Vision covers an area of 35,000 sq km that includes upcoming license round areas, highlighted with a yellow outline in this image. (Image courtesy of PGS)

## Future-proofing Seismic Libraries

Software provides solutions for recovering large datasets.

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Seismic data represents a valuable asset to oil and gas companies, national authorities, and suppliers of nonexclusive datasets. Field and processed data are held in a variety of formats and media, including hierarchical storage management (HSM) systems. Maintaining an accurate and reliable database is vital to enable users to know what data is available and to deliver the correct datasets in a timely manner.

Since its foundation in 1994, Troika International has been involved with several projects where databases have not matched library contents or data have been missing. The company has developed a range of software and automated procedures to efficiently trawl through data repositories, extract metadata and perform quality control (QC) of seismic data. It provides solutions to retrieve and repair legacy formats, merge and check navigation data, and visualize QC attributes. The company's Magma data recovery software has become the industry standard front-end solution for conditioning big datasets, including field, pre- and post-stack seismic for in-house or

See **LIBRARIES** continued on page 5

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BGP is a leading geophysical contractor, providing geophysical services to our clients worldwide. BGP currently has 53 branches and offices, 65 seismic crews, 6 vessels and 14 data processing and interpretation centers overseas. The key business activities of BGP include:

- \* Onshore, offshore, TZ seismic data acquisition;
- \* Geophysical research and software development;
- \* Seismic data processing and interpretation;
- \* GME and geo-chemical surveys;
- \* Reservoir geophysics;
- \* Geophysical equipment manufacturing;
- \* Borehole seismic surveys and micro-seismic;
- \* Multi-client services.



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