

Spring 2010

newsletter

Positive Feedback to Spectrum Multi-Client Growth Plans

Spectrum has received positive feedback from two prestigious Norwegian financial research analysts following the presentation of Spectrum Q4 2009 results in Oslo recently. Pareto Securities and First Securities have published independent reports analysing Spectrum's financial results with both focusing on Spectrum's ambitions and plans for investment and growth in Multi-Client library.

Pareto stated that "Spectrum is positioned for Multi-Client expansion with the financial flexibility to grow both organically and strategically". The report continued that the company is aiming to capitalise on a window of opportunity in the 2D Multi-Client market and expects to increase investment by 50% in 2010.

First Securities view Spectrum's Multi-Client expansion plans as "well timed" as oil companies increase frontier exploration efforts.

During the Q1 Oslo presentation, Spectrum announced plans for two new Multi-Client projects offshore US, both to be launched during 1H10.

In the eastern Gulf of Mexico, the Fourth Phase of the expansive *Big Wave* seismic programme is scheduled to commence in March/April probably utilising a third party vessel for the acquisition. *Big Wave* Phase 4 will be an additional 12,000 km of high quality long offset seismic data processed with both pre stack time and depth migration.

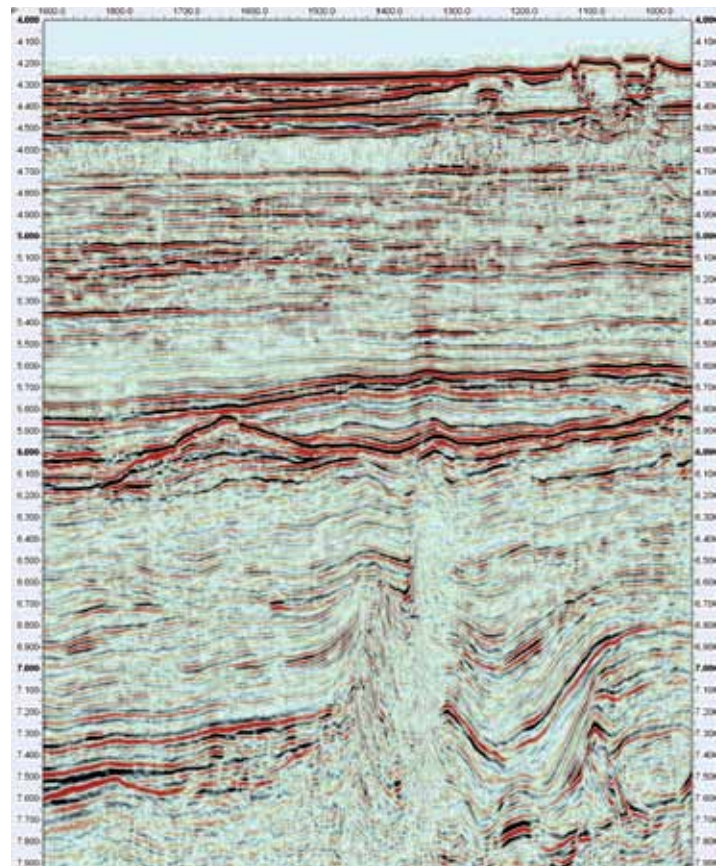
Following positive political statements to allow hydrocarbon exploration on the US East Coast, Spectrum has announced plans for a major 19,000km reprocessing project. The project will commence immediately and is scheduled for completion in Q3, 2010.

Big Wave Getting Even Bigger In 2010

Following on from recent successes Spectrum's exclusive *Big Wave* seismic programme in the eastern Gulf of Mexico will evolve further throughout 2010. The programme which currently incorporates 52,000 km of high quality, long offset data, will be increased with a strategically positioned 12,000 km infill survey (*Big Wave* Phase 4). The entire *Big Wave* programme is being processed in our Houston computer centre using both Kirchhoff and Wave Equation Pre-Stack Depth Migration (PSDM).

The attached image is a time converted depth section from the north east of the *Big Wave* programme area processed with Kirchhoff PSDM. The section clearly illustrates the presence of salt in the area together with other prospective play types both on the platform area and deeper water.

For further information on the various play types identified in the eastern Gulf of Mexico, please refer to the article compiled by Joe Erickson and Glyn Roberts and presented at the poster session of last year's AAPG Annual Convention in Denver.



A time converted depth section from the north east of the *Big Wave* programme area processed with Kirchhoff PSDM

A copy of the article "The Norphlet sandstone and other petroleum plays along the outboard of the Florida escarpment, eastern Gulf of Mexico", can be obtained by visiting www.spectrumasa.com/techpapers.

COME AND SEE US:

GEO2010
(Booth 467)
Bahrain
7th – 10th March

AAPG
(Booth 1245)
New Orleans
11th – 14th April

Exciting prospects for East Africa Exploration Offshore Seychelles

The results from the early stages of processing a 1150km survey on behalf of East Africa Exploration in partnership with Avana Petroleum Ltd are showing some interesting and possibly prospective geological structures. The recently acquired seismic survey is located towards the southwest of the Seychelles Bank.

The main exploration target is the Permo-Triassic Karoo sequence comprising non-marine sands interbedded with shales, expected to contain both the source and reservoir. East Africa Exploration are working closely with Spectrum's experienced data processing geophysicists to maximize resolution of the Karoo sequence and also the overall quality of the data. We will report on the progress of this exciting project in forthcoming issues of the Spectrum Newsletter.

Forthcoming Technical Papers:

Title: "Plays and Prospectivity Offshore Lebanon, Syria and Cyprus: New Insights from Depth Imaged Seismic Data."

Authors: Glyn Roberts, Charles Harmer, Dave Peace (East Mediterranean Exploration Company Ltd).

Shows: GEO2010 (Bahrain), AAPG Annual Convention (New Orleans).

Title: "Deepwater West Coast India: Pre Basalt And Other Mesozoic Plays"

Authors: Glyn Roberts, Charles Harmer, Ken Rutherford (Rutherford Exploration Ltd), Colin O'Brien (Geophysics International Ltd).

Shows: GEO2010 (Bahrain).

Title: "Andaman Basin, India: Hydrocarbon Prospectivity from Newly Reprocessed Seismic Data"

Authors: Glyn Roberts, Charles Harmer.

Shows: AAPG Annual Convention (New Orleans).

Title: "Modern Seismic Processing Techniques are Vital to Unlocking the Potential of the Trinidad and Tobago Ultra-Deep Offshore Area"

Authors: Gary Scaife, Greg Hatch, Steven Jdageo (Ministry Of Energy and Energy Industries (MEEI), Trinidad and Tobago).

Shows: AAPG Annual Convention (New Orleans)

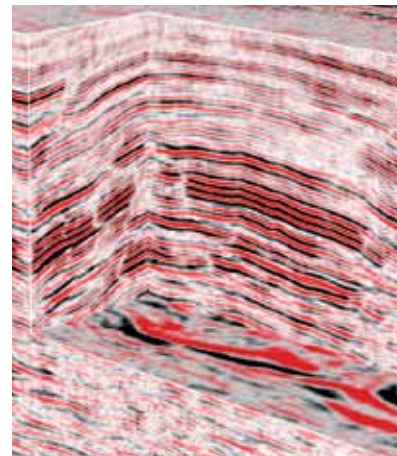
Spectrum Enhances Depth Imaging Technology

At Spectrum we have further upgraded our seismic data processing technology with a multi-core license of Tsunami's 3D anisotropic Kirchhoff Pre-Stack Depth Migration and tomographic model building software. The decision for this significant investment in technology was as a direct result of client demand for more advanced 3D pre-stack depth imaging services.

This is a considerable enhancement to Spectrum's software portfolio, and will enable the seismic processors to provide an even higher quality depth migration service.

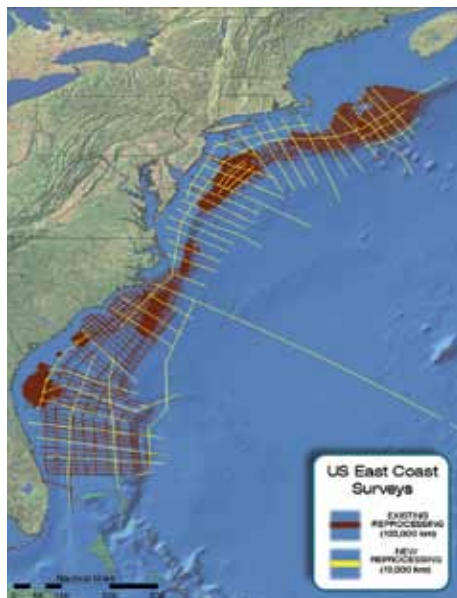
Initial projects to benefit from the new additions to Spectrum's software suite include a recently awarded sizable 3D reprocessing and imaging project in the Eastern Mediterranean. Spectrum was selected to reprocess and depth image this high density 3D volume to assist with a key client's exploration activities in the region.

Other projects already being processed with Tsunami's 3D Kirchhoff PSDM include surveys from India, and the Middle East as well as Multi-Client surveys from the Gulf of Mexico and India."



3D volume recently processed by Spectrum's dedicated geophysicists using Tsunami 3D anisotropic Kirchhoff Pre-Stack Depth Migration

Spectrum set sights on US East Coast



A Map of Spectrum's two US East Coast Datasets

Spectrum has commenced a major Multi-Client reprocessing project comprising 19,000km of vintage seismic data from offshore east coast of USA. This project has

been triggered by the recent announcement of the Department of the Interior to begin the environmental preparations ahead of geological and geophysical activities off the eastern US seaboard.

Spectrum was the first company to actively collate Multi-Client data in the region since the current moratorium on leasing and drilling was affected in the mid 1980's. It already has 103,000

km of reprocessed data in the area, finished as recently as 2008.

Following on from this data collation, we are now reprocessing from

field data using a contemporary processing sequence, more than 19,000 km of 2D vintage seismic. The reprocessing project is scheduled for completion in Q3 this year and will add to the rapidly expanding portfolio of Multi-Client data from US waters.

Spectrum Data Processing has established a dedicated team of processing geophysicists to commence a 10,000 mile reprocessing project on behalf of a major international oil company. The data extends from North Florida to New Jersey and the project award was based primarily on the oil company's previous experience with Spectrum's Houston-based geophysicists.

In the longer term Spectrum plans to acquire extensive new Multi-Client seismic data along this coastline to further enhance knowledge on the prospectivity of the region.

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