

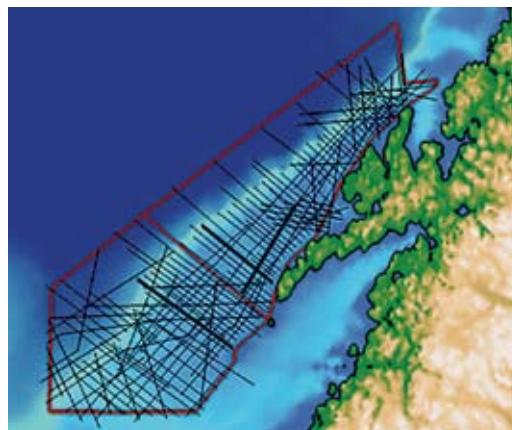
NORDLAND MULTI-CLIENT REPROCESSING

GGG-Spectrum are well advanced with a complex reprocessing project incorporating various data sets from Nordland IV and VII offshore Norway. This huge area includes the spectacular Lofoten Islands situated due north of the Arctic Circle (between 67° and 70° N) and is famous for fabulous scenery and rich offshore fishing grounds. The area remains largely unexplored due to the efforts of environmentalists and conservationists, however successful environmentally conscious drilling to the south gives encouragement that hydrocarbons may be present in significant amounts in the Mesozoic and Cenozoic.

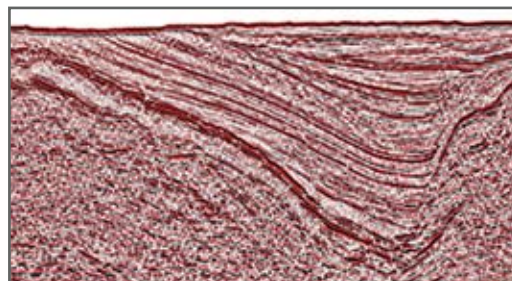
The existing seismic data is over 20 years old and the original processing sequences applied to the data are typical of large scale regional production sequences of that era. The limitations in these sequences have resulted in considerable multiple contamination and the subsequent problems with deriving a reliable velocity model. Our recent reprocessing concentrated on various pre- and post-stack demultiple techniques used both in isolation and in combination. The optimum final sequence which included Tau-p deconvolution and Radon demultiple, applied pre-stack, also incorporated targeted residual post-stack multiple elimination. The targeted pre-stack demultiple was applied on offset planes before Kirchhoff Pre-Stack Time Migration (PSTM). The combined effects of Kirchhoff PSTM and several passes of targeted demultiple techniques have produced a significant improvement on the original processing of the various surveys. The result is a high quality and uniform reprocessed data set from this prospective area.

Our thanks goes to the input and suggestions from local Norwegian oil companies who are participating in this project. These suggestions have resulted in beneficial refinements to the processing flow.

The current issue of GEOExpro (Vol 4, No 3, 2007) includes an article written by Svein-Erik Sjulsen and Chris Stevens which describes in more detail the improvement in resolution and structural imaging achieved through this reprocessing initiative.



GGG-Spectrum Reprocessing



Look Out for at EAGE LONDON 2007

You can easily locate GGS-Spectrum at the EAGE London 2007 by looking out for our new logo which will be suspended above booth number 742. The company's focus for this year's conference is to promote our latest Multi-Client projects and Data Processing techniques.

A Senior Energy Expert from the office of the Lebanese Ministry of Energy and Water will be a guest of GGS-Spectrum at our booth. The government of Lebanon is currently compiling their petroleum legislation with the aim of a possible bid round next year. GGS-Spectrum has benefited from a long-term relationship with Lebanon. We acquired two non-exclusive surveys in 2000 and 2002 respectively.

We have given particular emphasis to Straight Ray Datuming (SRD) with examples demonstrated in a paper describing this technique to be presented on Thursday, June 14th in Lecture Room 5 at 10.30 am by our technical associate Tariq Alkhalifah. The paper is co-authored by Woking based geoscientists Henk Innemee and Chris Benson. With current bid rounds offshore Cyprus and Syria, it is also an opportune time to promote the East Mediterranean PSDM MC2D data set, the only commercially available data in these countries which has been processed with PSDM. The improvements in structural imaging due to PSDM are spectacular. If you are attending the conference it is well worth stopping at our booth to look at this data. We guarantee you will be impressed.

We are using dual high resolution LCD screens to project various presentations covering both Data Processing and Multi-Client surveys.

www.ggs-spectrum.com – Our New Website

The Corporate re-branding of GGS-Spectrum announced in the last edition of GGS-Spectrum News issue (Number 40) has continued at a rapid pace. This process is expected to be completed in time for the EAGE 2007. The new website (www.ggs-spectrum.com) will be unveiled in June and demonstrates a distinctive and fresh appearance which is consistent with the new corporate identity that is evolving for the contemporary GGS-Spectrum.



GGs-Spectrum's new home page

www.ggs-spectrum.com is intuitive and facilitates a user friendly drop down to required information whether for clients, investors, job seekers or general enquiries. The website has been carefully designed to illustrate the synergy between GGS and Spectrum which has naturally emerged since the two companies joined forces. The site is designed and structured giving prominence to the three GGS-Spectrum divisions of Data Processing, Multi Client Surveys and Offshore Acquisition.

An image of the new corporate homepage is displayed above. It readily illustrates the clarity and user friendliness of the site. The three buttons allow direct navigation to the required service. The same buttons have been used as service identifiers on the new corporate and product brochures which will be available for the first time at the EAGE conference, London, 2007. Thereafter the various pages for each of the three services are differentiated by the colour of the background. Green is Data Processing, blue for Multi-Client and a combination of green and blue for Offshore Acquisition.

Tariq Alkhalifah on Straight Ray Datuming

At this year's EAGE conference in London, GGS-Spectrum in association with Tariq Alkhalifah, are presenting a paper on the application of Straight Ray Datuming (SRD). Tariq's knowledge and reputation in the area of geophysics precedes him. His talks have been described as "forceful and colourful" and "a mainstay of geophysical meetings". We expect this year's presentation to be no different.

Straight Ray Datuming (SRD) is a technique that can be used either as an alternative or as a supplement to conventional statics application.

Conventional statics provide an invariant time-shift, assuming surface consistency in the weathering layer, and vertical ray-paths. Straight Ray Datuming (SRD) does not assume vertical incidence, and can correct for time distortions in the weathering layer arising from rapid lateral variations of the weathering elastic parameters, and remove non-hyperbolicity in reflection moveout.



Tariq Alkhalifah

SRD requires velocity information above datum, which can be provided from field data, existing depth models, or refraction statics. SRD fills the gap between the simple surface consistent static correction, and the more rigorous Kirchhoff pre-stack re-datuming.

In addition to applications to land surveys with high velocity near surface layers, SRD can be effective for shot re-datuming of seabed data in deep water seismic surveys.

Please contact uksales@ggs-spectrum.com should you require further information on SRD. We refer you to Spectrum News Number 38 (2006) for more details of our association with Tariq Alkhalifah.

GGs-Spectrum on the Road

GGs-Spectrum will be exhibiting and/or presenting papers at the following:

- PESGB African Conference, Cape Town, 11-13 September
- SEG International Symposium, San Antonio, 23-28 September
- AAPG Energy Conference, Athens, 17-20 November
- ASEG 19 International Conference, 18-22 November

GGs-Spectrum News

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