

# E&P DAILY NEWS

## 2011 EAGE Conference & Exhibition

# Unlocking Shale Gas in Poland

ION to provide comprehensive view of Poland's subsurface.

Enthusiasm over Poland's shale gas play is building as E&P companies look to replicate the success of the North American unconventional resources. The Energy Information Administration of the U.S. Department of Energy recently released a report estimating Poland's recoverable shale gas resources to be 5.3 trillion cubic meters (TCM), the largest of any European state studied and equal to over 300 years of Poland's annual gas consumption. Realization of these estimates could greatly reduce Poland's reliance on Russian energy to meet its domestic energy requirements and allow it to reduce coal usage in alignment with European Union standards. To determine the true commercial viability of shale gas in Poland, however, E&P companies need a more comprehensive understanding of the regional geology and the potential risk factors associated with shale exploration and production in the region.

To help E&P companies define and manage risk to focus their initial efforts on the most prospective areas, ION Geophysical is undertaking a large, regional seismic program covering nearly all of Poland. Known as PolandSPAN™, this unique program is the result of the collaborative efforts and collective expertise of the Polish Geological Institute - National Research Institute (PGI), Institute of Geophysics - Polish Academy of Sciences (IGF), Institute of Geological Sciences - Polish Academy of Sciences (ING), and ION Geophysical. In July of last year, ION announced it had signed a Memorandum of Understanding with these parties to investigate the feasibility of developing a basin-scale, 2D regional seismic study covering a large portion of Poland. Since then, it has been working with a large group of regional geoscientists to optimally design a program that will provide E&P companies with the most complete understanding of Poland's subsurface. This detailed design phase is now complete, and a formal Geological Works Program has been submitted to the Polish Ministry of Environment for review. Financial underwriting of the program has commenced with interest being expressed by both large international oil companies and independents.

PolandSPAN will consist of four distinct phases and will integrate 10,000 km of newly-acquired high-end seismic data with reprocessed existing seismic data, new magnetotelluric data, and existing gravity, magnetic and well data, to create the most comprehensive and regionally extensive picture of Poland's subsurface to date. Full-study participants will receive shot gathers with geometry merge, PreSTM and PreSDM stacks, velocity models, MT Data, reprocessed infill transects, interpreted faults and horizons in depth, and a regional interpretation report.

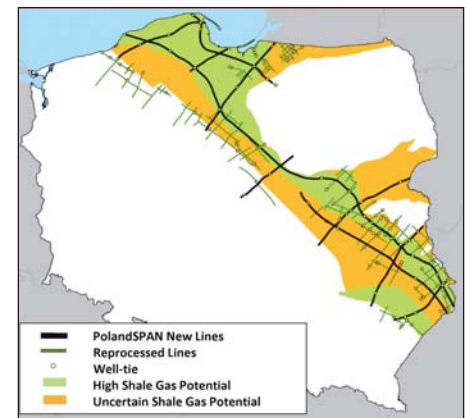
In Phase I, planned for 2011, ION will acquire 2,200 km of new data extending from the Baltic Basin in northern Poland through

the Podlasie Depression and into the Lublin Basin of eastern Poland. The primary focus of Phase I is the Lower Paleozoic shales of the East European Platform, where significant questions still remain about structural control and other factors impacting shale distribution and gas potential.

PolandSPAN Phase 1 is the oil industry's first opportunity to understand the entire Polish shale play in a regional, basin-wide context regardless of existing concession limitations. Farm-in and farm-out opportunities can be fully evaluated and derisked with minimal investment before large financial obligations are made. Well locations can be planned with better insight into regional and deep tectonic controls.

It is also known that current conventional seismic acquisition parameters do not fully image below the Zechstein evaporites leaving many questions about the Silurian and Cambro-Ordovician shale intervals. PolandSPAN is designed to address this deep-imaging issue. To ensure the highest quality data, ION will employ acquisition parameters with effort levels four-times higher than modern standards, including ultra-long offsets, long record lengths, tight station spacing, and high fold. The data will be processed by ION's GX Technology (GXT) Imaging Solutions group using advanced depth-imaging techniques. The regional geologic interpretation report will integrate gravity, magnetic, well log and seismic data, and will provide unique access to the expertise of the Polish Geological Institute, Institute of Geological Sciences and the Institute of Geophysics.

PolandSPAN is cost-effective, as cost-sharing yields a lower price than proprietary seismic for a study of considerably larger scope and value. Flexible pricing and payment terms make it affordable for all players, large or small, with or without concessions. Underwriting is underway, and early participants will receive substantial pricing discounts and prioritization for seismic line acquisition order. For more information on PolandSPAN, visit ION at booth 1155.



**PolandSPAN Phase 1 - Shale Potential (Poprawa, 2009)**