In autumn 2013 the first gas production from the Breagh Field heralded the coming of age of the Dinantian (Early Carboniferous) play on the northern margins of the Southern Gas Basin. This threw down the gauntlet for explorers to chase this new play into open acreage within this mature and infrastructure-rich basin. In 2013 a dense 2D seismic programme was acquired to define the Dinantian play fairway that extends over a large swath of open acreage with yet-to-find potential that dwarfs that of the Carboniferous and Permian plays to the south. For the first time both intra-Carboniferous and pre-Permian unconformity potential can be mapped with confidence, energising this acreage to be the site for fierce competition in the imminent 28th UKCS Licence Round in Q1 2014.
New Data Reveals Potential

NEIL HODGSON, RICHARD WRIGLEY and KARNYEZ ROQUEZID

The northern parts of Quad 42 and 43 in the UKCS Southern North Sea have received limited exploration data to date. New data in 2013 from the north east and the Crogan and Breagh fields images the geology clearly and has allowed promising structures to be mapped.

Linthwaite Fracture Zone, Southwestern North Sea, UKCS

New Play Fairway

The first well into the Breagh field (42/11-2), drilled by Hillston Energy in 1997, encountered just null in 36 sections. Following 20m of pay in a 120m column and testing at non-commercial rates (3 MMcfg/d). Subsequent appraisal resulted in 26 MMcfg of pay from a 36m interval in the 42/11-3, with 34% of pay encountered in 120m, and without damaging the formation they tested this at commercial flow rates (11 MMcfg/d). Subsequent appraisal resulted up to 26 MMcfg of flow rates from a 120m interval with 23% of pay encountered in 120m, and without damaging the formation they tested this at commercial flow rates (17 MMcfg/d). Subsequent appraisal resulted up to 26 MMcfg of flow rates from a 120m interval with 23% of pay encountered in 120m, and without damaging the formation they tested this at commercial flow rates (17 MMcfg/d).

Early Carboniferous Play

Reservoir play-fairway mapping can now identify where SF (and in place PSF) lies at the base Permian unconformity as the new seismic images the intra-Carboniferous reflectors for the first time with confidence. The Breagh field play fairway can now be mapped and where SF is defined by wells in the south of Quad 42 and 43 which encounter 20m of pay in 120m and testing at non-commercial rates (3 MMcfg/d). Subsequent appraisal resulted up to 26 MMcfg of flow rates from a 120m interval with 23% of pay encountered in 120m, and without damaging the formation they tested this at commercial flow rates (17 MMcfg/d). Subsequent appraisal resulted up to 26 MMcfg of flow rates from a 120m interval with 23% of pay encountered in 120m, and without damaging the formation they tested this at commercial flow rates (17 MMcfg/d). Subsequent appraisal resulted up to 26 MMcfg of flow rates from a 120m interval with 23% of pay encountered in 120m, and without damaging the formation they tested this at commercial flow rates (17 MMcfg/d).

Regional depth mapping of the base Permian indicates that the low-risk common risk segment of the SF/FSF play fairway extends in a band spreading north-east from Breagh-Crosgan-Crosgan area, which stands out as a good channel extending north-east from Breagh-Crosgan into open acreage.

Sole Pit Basin

Sandstone play fairway in the UKCS Southern North Sea, the northern parts of Quad 42 and 43 in 2013. The field is defined by wells in the south of Quad 42 and 43 which encounter 20m of pay in 120m and testing at non-commercial rates (3 MMcfg/d). Subsequent appraisal resulted up to 26 MMcfg of flow rates from a 120m interval with 23% of pay encountered in 120m, and without damaging the formation they tested this at commercial flow rates (17 MMcfg/d).

Further details will appear in the HGS and PESGB bulletins and on their websites, www.hgs.org and www.pesgb.org.uk. The program will be finalised by the end of April. Currently, vendors are being sought to be proactive Senior Chair and anyone interested should contact the Technical Committee as soon as possible.

Details of sponsorship opportunities and display lists are available from the HGS office. To become a sponsor or inquire about exhibit space, contact sales@hgs.org.