

United Kingdom Oil and Gas Fields
Commemorative Millennium Volume

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United Kingdom Oil and Gas Fields Commemorative Millennium Volume

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Foreword

It was interesting to review the articles in this volume having also been involved in its predecessor volume ten years ago. Some industry trends have followed an expected path but some have not.

The developed fields are more numerous and are smaller, as predicted by a conventional creaming curve. The first volume documented 64 oil and gas fields, which had been found and developed during the first 25 years of life of the UK North Sea. They had an average reserve size in excess of 300 mmboc. The current volume describes approximately double that number, including at least 40 new fields developed in the next ten-year period. These new fields have a reduced average reserve size of approximately 100 MMBOE. More unexpectedly, the average period from discovery to production (approximately 12 years) and the average number of appraisal wells (3), are essentially unchanged. Some developments now happen very rapidly but the statistics for the last ten years are affected by the inclusion of the first heavy oil and HP-HT gas condensate developments. It seems that we are not always getting a quicker payback on exploration investment.

It is clear however that the industry has made considerable progress in terms of developing smaller and more challenging fields. In addition to the reduction in average field size noted above, the minimum developed field size has also reduced, from 7–10 MMBOE to 2–4 MMBOE. Our industry is also routinely developing fields with more and more problematical reservoir and fluid characteristics.

The various methods by which these challenges are met are documented within the volume. The day of the new, big, central, processing platforms seem to be over. Recurring themes include:

- Unmanned or not-normally manned, minimum facility platforms.
- High angle/horizontal, long reach wells.
- Sub-sea completion technology.
- Extended well test and FPSO technology.
- Mechanical stimulation of low permeability reservoirs.
- Improved seismic definition.

All of these techniques are being combined to increase well productivity and recovery for less cost and at less risk. They provide evidence of an innovative and successful industry. It is hoped that this volume will help to inspire the next phase of innovation and success in the UK North Sea.

I. L. Abbots
Den Haag
April 2001

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