The Petroleum Geology of the Middle Pliocene of the South Caspian Province

Within both the onshore and offshore regions of Azerbaijan the overwhelming majority of oil accumulations have been found in the “Middle” Pliocene Productive Succession. The succession forms three major reservoir zones:

- **Onshore Azerbaijan:** the succession forms the reservoir for numerous developed fields, many of which have lacked the technology and investment necessary for efficient production

- **Offshore Apsheron Trend**: the Middle Pliocene is also the reservoir for a series of largely undeveloped giant oil fields on the Apsheron trend, which stretches between Azerbaijan and Turkmenistan on the opposite coast of the Caspian Sea. These fields are currently the subject of negotiations between the Azerbaijan authorities and western oil companies

- **Western Turkmenistan**: here the succession is highly prospective within numerous large undrilled structures in the deeper-water areas, as well as known onshore fields requiring new technology and investment. In Western Turkmenistan the Middle Pliocene play is known as the Krasnotsvetnaya (Red-Bed) Succession

The Productive/Krasnotsvetnaya Succession is very variable in thickness, but commonly 2000-3000m where it is developed onshore, and even thicker within parts of the offshore basin. It is comprised mainly of alternations of sandstone and claystone, with conglomerate beds (especially around the basin margin) and occasional ash horizons. There appears to be an absence of fully marine fossils, and zonation has been conducted on the basis of bivalves and ostracods, with some foraminifera, especially in the lower parts of the section.

The depositional environments of the Succession have not been thoroughly investigated since Soviet workers undertook little sedimentological work. There are however, large amounts of published lithological and thickness data, and seismic stratigraphic interpretations from offshore. These show that the Succession was primarily deltaic, with associated fluvial and shallow-marine deposits, the whole system being subject to repeated transgressions and regressions.

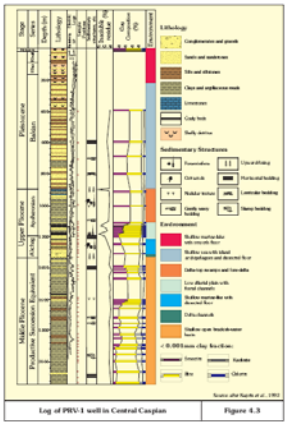
The Petroleum Geology of the Middle Pliocene of the South Caspian Province

Most of the extensive information published on the Middle Pliocene of the South Caspian province and its hydrocarbon resources is only available in the Russian language, and commonly in books and journals that are not readily available in the west. First completed in 1994, this study remains a popular introduction to the petroleum geology of the South Caspian Basin.

Over 50 maps, sections and enclosures illustrate the report, which comprises two main sections:

A) Regional Data Synthesis

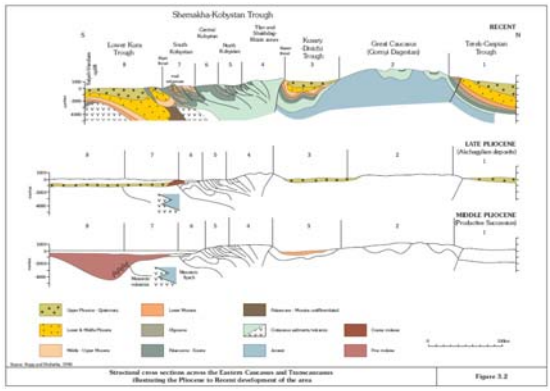
The text (which extends to over 100 pages) includes the following sections:



- South Caspian: Introduction and Infrastructure
- Outline of the Geology and Hydrocarbons of the South Caspian & Surrounding Areas
- Structural Development of the South Caspian Province
- South Caspian: Stratigraphy and Sedimentological Development
- Petroleum Geology of the South Caspian Province

B) Field Database

A detailed database of over 170 fields, broken down into accumulations, is included as a separate section of the report, and includes data on:



- *Reservoir thickness*
- *Sections*
- *Porosity*
- *Permeability*
- *Trap types*
- *Flow rates*
- *Reserves*
- *Field structure maps*

Timing and Cost

First completed in 1994, this study remains a popular introduction to the petroleum geology of the South Caspian Basin. Key sections, illustrations and the Field Database have since been updated.

The report is currently available at a cost of **US $12,500**. For further details on this report, please visit **www.blackbourn.co.uk/reports/south-caspian.html** or contact Dr Graham Blackbourn at:

Blackbourn Geoconsulting
26 East Pier Street, Bo'ness, West Lothian, EH51 9AB, UK
Tel: +44 (0)1506 828110, Fax: +44 (0)1506 829850
www.blackbourn.co.uk, info@blackbourn.co.uk