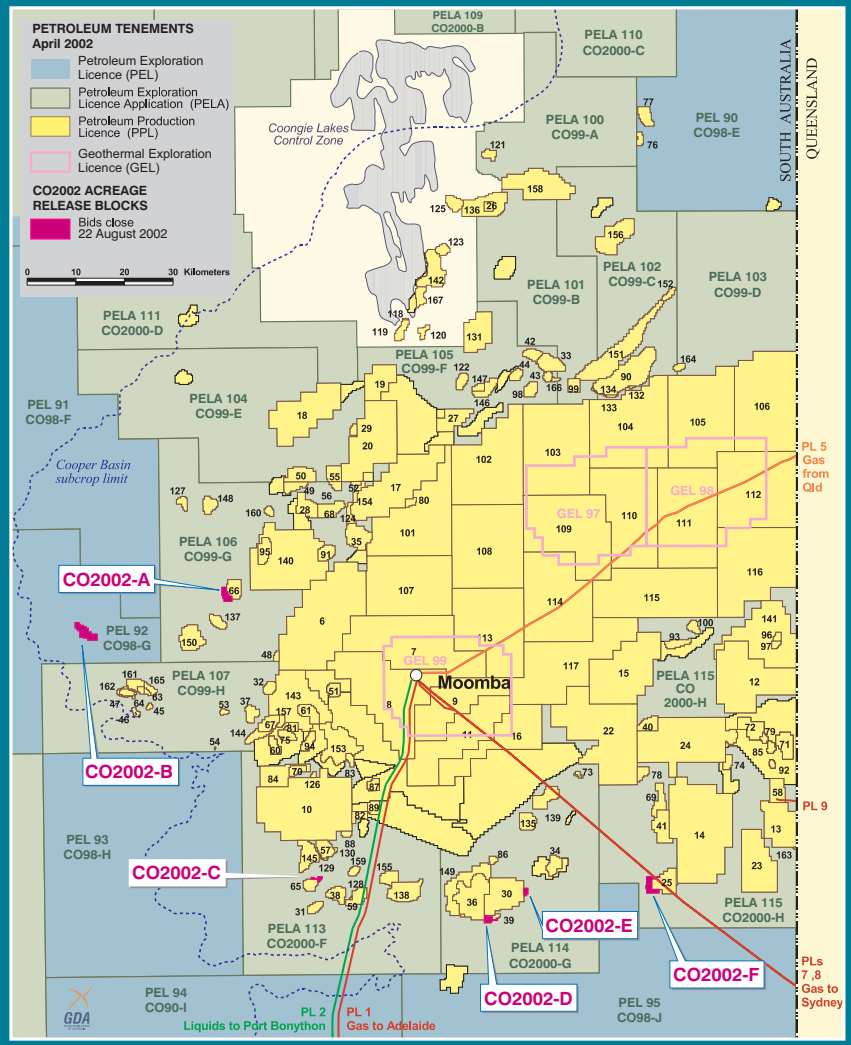

Cooper Basin petroleum tenements, April 2002

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Edited and designed by PIRSA Publishing Services (201344)
(Photos 043360, 043783, 038700, 043769, 047192, 047368, 043357, 043793, 047358, 043351)

THE OFFER

- A new Petroleum Exploration Licence (PEL) in the Cooper Basin, SA is being offered by the South Australian Government on the basis of work program bidding. This PEL comprises six small sub-blocks.
- Five blocks are adjacent to existing oil and gas fields, and a number contain known prospects.
- Previous exploration data and reports are readily available from PIRSA, including:
  - well completion reports
  - seismic shot points
  - surveys and archive stack data (SEGY format)
  - digital well logs
  - structure maps
  - company prospectivity reports.
- Areas are subject to native title negotiation.
- A free acreage release CD_ROM is available.

COOPER BASIN

- The Cooper Basin is a Permo-Carboniferous to Triassic intracratonic basin located 800 km north of Adelaide. It is overlain by the prospective Eromanga Basin. The Cooper and Eromanga Basins collectively contain up to 3700 m of predominantly fluvial, glaciofluvial, lacustrine and deltaic sediments with some marine sediments. Targets are 1200 to 3700 m deep.
- The basins represent Australia's largest onshore oil and gas province, with in excess of 1350 wells drilled and over 81 000 line km of 2D and 5800 km^2 of 3D seismic recorded.

Proven hydrocarbon province

- Cooper Basin gas supplies markets in Adelaide, Sydney, Brisbane and Melbourne.
- Cooper Basin oil and gas liquids are exported via facilities at Port Bonython and supply local and overseas markets via Port Stanvac.

BIDS CLOSE 4.00 p.m.
Thursday 22 August 2002
Australian Central Standard Time

COOPER BASIN ACREAGE RELEASE

BLOCKS CO2002-A to F

April 2002
South Australia

PRIMARY INDUSTRIES AND RESOURCES SA
MINERALS & ENERGY RESOURCES
Government of South Australia

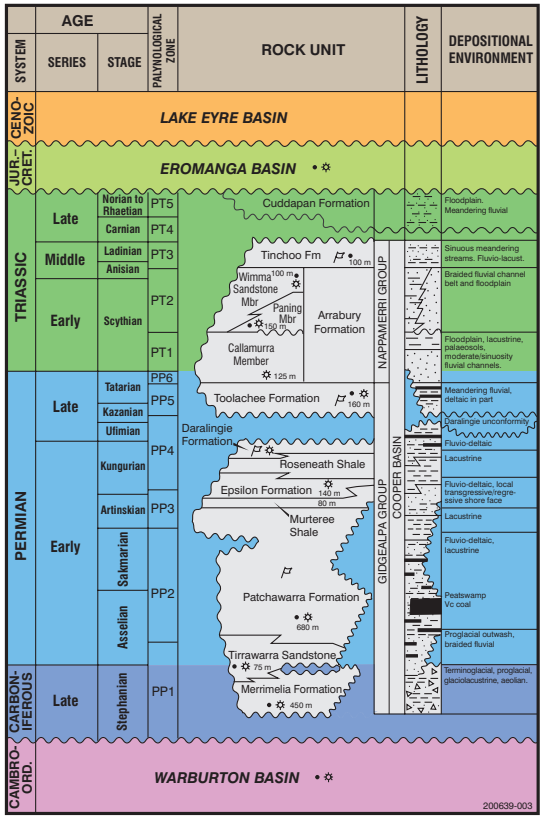
COOPER BASIN ACREAGE RELEASE

EXECUTIVE SUMMARY

A single Petroleum Exploration Licence Application (PELA) comprised of six sub-blocks is being offered in Australia's largest onshore oil and gas province (Cooper Basin) on the basis of work program bidding. The total area of the PELA is 21.6 km^2 (5342 acres). The sub-blocks (CO2002-A to F) making up this PELA range in size from 1 to 7.8 km^2 (250–1940 acres). Bidding closes at 4.00 pm on Thursday 22 August 2002, and the winning bid for the PEL will be announced by mid-September.

Four of the sub-blocks lie on the flanks of, or adjacent to, producing fields — CO2002-A (Jack Lake gas field); C (Kujani gas field); E (Limestone Creek oil field); and F (Narcoonowie oil field). Block CO2002-B includes a well with oil shows (Lycium 1), and Block CO2002-D lies to the west of the Nungeroo 1oil discovery well which produced 20 860 kL (131 180 bbl) of oil between May 1986 and April 2000. A prospect is defined by seismic in Block CO2002-D.

Cooper Basin gas supplies markets in the cities of Adelaide, Sydney, Brisbane and Melbourne via an extensive pipeline network. The Cooper Basin Liquids Project (1980–84) was initiated to market the newly discovered oil and existing gas liquids. A liquids pipeline links Moomba to a processing plant and storage and export loading facilities at Port Bonython.The remaining reserves estimated by Santos are provided in Table 1.



Geological summary, Cooper Basin, SA

Table 1 Cooper Basin reserve summary, 1.1.2001 (after Santos).

Commodity	Reserve
Sales gas	2155 PJ
Ethane	274 PJ
LPG	7.6 x 10^6 kL (48.2 mmbbl)
Condensate	4.89 10^6 kL (30.8 mmbbl)
Oil	4.14 x 10^6 kL (26.1 mmbbl)

Opening up the Cooper Basin has attracted national and international interest. A phased acreage release of 27 blocks commenced around February 1999 when all of the exploration tenements held by the Santos joint venture since 1954 expired without right of renewal. Total committed expenditure over the next five years is $166 million, with a minimum of 117 exploration wells to be drilled.

Native title negotiations for Round 1 (CO98) applicants concluded successfully in October 2001 when an historic agreement, involving unprecedented cooperation between native title claimants and petroleum explorers, was signed in Adelaide. This will allow $45 million worth of new investment in petroleum exploration over 11 new exploration licences.

This agreement is an Australian first and will form precedents for future native title negotiations, not only in the Cooper Basin and South Australia, but throughout Australia. These cover not only the exploration phase, but also provide for development of any discoveries should exploration be successful.

A future Cooper Basin acreage release is awaiting a decision on blocks to be made available in the Coongie Lakes area. This will be made following completion of a consultative process on issues relating to access to this environmentally important area.

PETROLEUM GEOLOGY

The intracratonic Cooper Basin comprises Late Carboniferous to Triassic non-marine sediments. It lies unconformably over early Palaeozoic sediments of the Warburton Basin and is overlain disconformably by the Jurassic to Cretaceous Eromanga Basin. Major troughs in the region contain up to 2500 m (8200 ft) of Cooper Basin sediments, overlain by as much as 1300 m (4300 ft) of Eromanga Basin sediments.

The Late Carboniferous to Late Permian formations consist of basal glaciofluvial clastics and proglacial outwash deposits, overlain by thick peat swamp, floodplain, lacustrine and high-sinuosity fluvial facies. Uplift and erosion at the end of the Early Permian resulted in a depositional break and Late Permian to Early Triassic fluvial and floodplain facies were deposited on the unconformity surface. Deposition in the region was terminated at the end of the Early Triassic with slight but widespread deformation, regional tilt and erosion.

Permian coal measures and shales are the principal hydrocarbon source rocks in the region. The main gas reservoirs are multi-zone fluvial sandstones with poor to good reservoir characteristics, primarily within the Patchawarra and Toolachee Formations. Shoreface and delta distributary sands of the Epsilon and Daralingie Formations are also important reservoirs. Oil is produced principally from the Tirrawarra Sandstone, which is also a tight gas reservoir in the Nappamerri Trough. Towards the margin of the basin, oil is also produced from the Patchawarra Formation and from fluvial channel sands in the Merrimelia Formation in Malgoona Field. Although the Arrabury Formation is conventionally regarded as a regional seal, it nevertheless contains economic oil and gas reservoirs in some areas and is a leaky seal in others.

The overlying Eromanga Basin can be divided into three sequences — lower non-marine, marine and upper non-marine. Exploration is concentrated on the productive lower non-marine sequence, which consists of basal high-sinuosity fluvial and floodplain deposits, overlain by extensive and thick low-sinuosity fluvial sandstones. Two intervening floodplain and lacustrine units occur within this sand package, which is overlain by extensive lacustrine and shoreface facies, deposited in a large lake which extended throughout the Cooper Basin region. This lower non-marine sequence is overlain by Early Cretaceous marine shales which form a regional seal, and Late Cretaceous non-marine deposits which are of secondary interest to petroleum exploration in the area.

Both Cooper and Eromanga mature source rocks have actively contributed to oil accumulations in the Eromanga Basin. Each oil accumulation needs to be considered on its merits with respect to the extent of 'mixing' from Permian and Mesozoic sources. In the Eromanga Basin, the principal reservoirs are good to excellent reservoir quality Hutton and Namur Sandstones. Oil is also reservoired in fair to excellent quality sandstones in the Poolowanna and Birkhead Formations, McKinlay Member and Murta Formation. The Cadna-owie Formation (Wyandra Sandstone Member) forms a significant oil reservoir in Queensland, however economic hydrocarbons have yet to be discovered in this unit within South Australia.

Where the regional seal is thin or absent, multiple oil and gas pools are stacked in coaxial Permian to Mesozoic anticlines with four-way dip closure or drapes over pre-existing highs and may occur from as low as the Patchawarra Formation to as high as the Murta Formation. The potential remains high for discoveries in stratigraphic and sub-unconformity traps, especially where the Permian sediments are truncated by the overlying Eromanga Basin succession.

INFRASTRUCTURE

A total of 5238 km of pipeline have been laid to gas markets in South Australia, New South Wales and Victoria and to the liquids load out facility at Port Bonython. Gas from individual wells passes via field gathering systems (flowlines) to satellite stations which separate gas, free water and condensate. Evaporation ponds are used for water disposal. The essentially water-free gas and condensate pass to the Moomba treatment plant through trunklines. Approximately 1010 km of trunklines and 1135 km of flowlines have been laid to date in the region. Crude oil is transported by either pipeline or truck to the Moomba plant which has been designed to process 25.4 x 10^6 m^3 (902 mmcf) of raw gas and 6000 kL (42 000 bbl) of condensate and crude oil per day. Nine oil and 11 gas satellites are currently in operation.

Condensate, LPG, crude and some ethane are transported as a 'cocktail' via a pipeline to Port Bonython where they are separated and marketed. Another destination for crude oil and condensate is the refinery at Port Stanvac, which supplies petroleum products, mainly for the South Australian market.

BIDDING AND AWARD PROCESS

Winning bidders will be selected on the basis of the total five-year work program bid. The work program needs be completed within the overall area of the PEL, but flexibility will be provided to complete the program anywhere within the tenement, which is split into six sub-blocks. The work program must include a statement of exploratory operations the applicant proposes to carry out in the first five-year licence term. It is expected that at least one petroleum exploration well would be included in the program.

Bids will be assessed taking account of the criteria listed below. It is important to note that the timing of well drilling and seismic acquisition will be taken into account. The most important criteria for assessment of CO2002 work programs are:

- The number of exploration wells to be drilled, their timing and anticipated targets (Eromanga, Cooper and Warburton Basins).
- The extent to which proposed wells are supported by seismic data.
- The number of years the applicant is prepared to guarantee the program.
- Adequacy of financial resources and technical expertise available to the applicant.
- The applicant's past performance in fulfilling work program commitments elsewhere in Australia.

Secondary criteria that may be taken into account are:

- The amount and nature of seismic surveying to be carried out and its timing.
- Other data acquisition and seismic reprocessing to be carried out.

In addition to the above criteria, where bids are similar, the benefits of the introduction of new explorers into the area (including intention with regard to establishing an office in South Australia) may be taken into account. In the case of cascading bids (i.e. multiple or hybrid bids by one applicant or joint venture), only the highest bid will be considered.

The Minister will announce the winning bidder, together with details of the work program. The PEL cannot be granted until the Right to Negotiate process has been concluded with any native title parties. Because of the small size of the offer, it may be necessary to access adjoining areas to conduct seismic operations to effectively identify structures in the offer area. The Right to Negotiate process will include facilitation of appropriate access to adjacent areas reasonably necessary to conduct such operations.

For more detailed information on applications and the relevant pro forma please refer to the PIRSA web site (www.petroleum.pir.sa.gov.au) or the CD_ROM.