

## Octanex N.L.

ABN 61 005 632 315 Level 21 500 Collins Street Melbourne Victoria 3000 Australia

Tel: +61 (0)3 8610 4703 Fax: +61 (0)3 8610 4799 Email: admin@octanex.com.au Website: www.octanex.com.au

# GRANT OF RETENTION LEASE WA-54-R GREATER CORNEA FIELDS

Octanex N.L. (ASX Code: OXX) (Company) is pleased to announce that the Operator, Cornea Resources Pty Ltd, has advised the Company that the Cornea Joint Venture has been granted a Retention Lease over the six graticular blocks that contain the Cornea oil and gas accumulations (refer to the attached "Report to Participants"). The Retention Lease, titled WA-54-R, has been granted by the Commonwealth – Western Australia Offshore Petroleum Joint Authority for an initial 5-year term commencing on 6 May 2014 – see the Figure 1 Cornea Retention Lease Location Map.

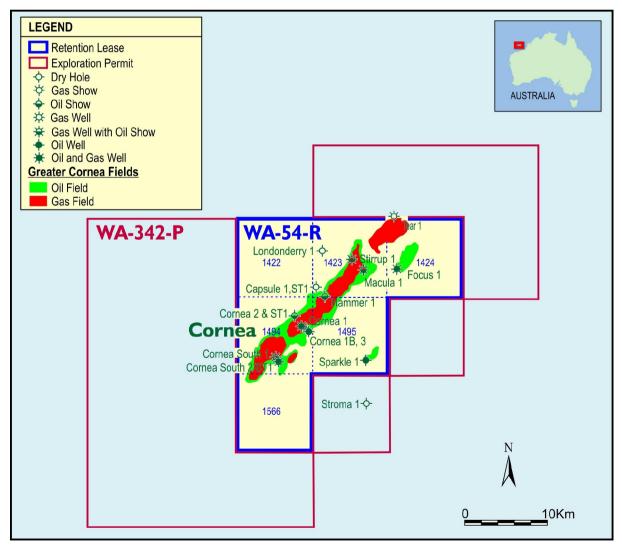


Figure 1: Cornea Retention Lease and WA-342-P Location Map

## **Background to the Retention Lease**

The WA-54-R Retention Lease is located in the Caswell Sub-basin of the Browse Basin, offshore from Western Australia, and covers an area of approximately 497 km². Prior to it being granted, the area of WA-54-R formed a part of the WA-342-P Petroleum Exploration Permit - see the Figure 1 WA-342-P Location Map.

WA-54-R and WA-342-P are held by the Cornea Joint Venture (**Joint Venture**). The Octanex Group holds an aggregate 18.75% participating interest in both the Lease and the Permit and the Joint Venture participants and their individual interests are listed at the end of this release.

The Cornea oil and gas accumulations are constituted by the Cornea South and Cornea Central Oil Fields and the Cornea North (**Tear**) Gas Field (collectively the **Cornea Field**) and the Focus and Sparkle Oil Fields (all collectively the **Greater Cornea Fields**) (Figure 1).

#### Work Programme designed to achieve early commercial production

The Joint Venture is of the belief that, from a resource size and oil price perspectives, the Greater Cornea Fields are an economic value opportunity. The path to early development is to therefore overcome, as quickly as possible, the technical challenges to unlocking that value. To that end, the work programme to be carried out during the first 4 years of WA-54-R calls for extensive engineering and complementary studies to be completed in relation to the Greater Cornea Fields. Those studies focus on:

- reservoir characteristics;
- potential production performance;
- · well design and related drilling challenges;
- investigation of the available and relevant technology, hardware and infrastructure;
- an assessment of environmental impacts; and
- identification of the economic risks.

In the main, the studies are a lead up to the first and fundamentally important operational activity of drilling a production test well in Year 4. The production test will be followed in Year 5 by a review of the outcomes from that well.

The design and required technologies for drilling and producing from what will likely be a horizontal test well are complex. The studies have therefore been structured to overcome the technical challenges faced by the Joint Venture in bringing the Greater Cornea Fields into early commercial production. The oil and gas volumes in the Greater Cornea Fields are such that demonstrating threshold production flow rates make the economics immediately attractive and provide a reasonable expectation of commercial development.

#### **Development scenario**

MILIO BEN IBUOSIBO IO-

In order to assess commercial feasibility, preliminary economic analysis of a full development of the Greater Cornea Fields was undertaken and formed an important aspect of compiling the Retention Lease application. The actual development programme would be subject to optimisation analysis (number of platforms, wells and related production facilities). However, for the purposes of undertaking a preliminary economic analysis, a full development of the southern portion of the Cornea South and Central Oil Fields was chosen for that analysis.

A self-sufficient solution, based on 32 producing wells around 3 hubs, was the subject of the economic analysis – see the schematic diagram at Figure 2. The Cornea South Oil Field was chosen for the preliminary stage of the economic analysis due to its smaller gas cap. The results of the preliminary analysis indicated a commercial development of the Cornea South Oil Field could reasonably be expected to result in the subsequent development of the Cornea Central Oil Field as the next development step.

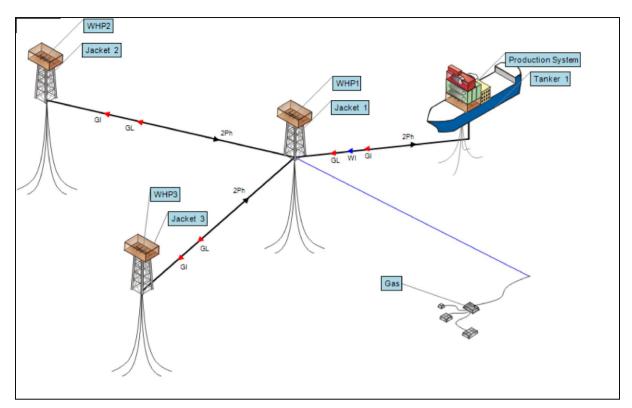


Figure 2: Greater Cornea Fields Preliminary Conceptual Development Schematic

## **The Cornea Joint Venture**

The Cornea Joint Venture consists of the following participants and their interests.

Cornea Resources Pty Ltd	13.100% and Operator
Octanex Group	18.750%
Cornea Oil & Gas Pty Ltd	17.000%
Enegex NL (ASX Code: ENX)	14.875%
Cornea Petroleum Pty Ltd	14.875%
Moby Oil & Gas Limited	7.500%
Coldron Pty Ltd	7.500%
Auralandia Pty Ltd	6.400%

## On behalf of the Board

Mul

J.G. Tuohy Company Secretary

8 May 2014



# **CORNEA RESOURCES Pty Ltd**

ABN 30 138 323 163

Level 21 500 Collins Street

Fax: +61 (0)3 8610 4799 Melbourne VIC 3000 Australia Email: info@albersgroup.com

Tel·

+61 (0)3 8610 4703



# **Report to Participants**

# **Grant of Cornea Retention Lease – On the Pathway to Development**

I am pleased to provide this report and advice on behalf of Cornea Resources Pty Ltd as Operator of WA-342-P and the newly granted WA-54-R to the Cornea Participants. The Commonwealth – West Australia Offshore Petroleum Joint Authority has now granted Petroleum Retention Lease WA-54-R (Cornea Retention Lease) with respect to the Cornea oil and gas accumulation to the Cornea Joint Venture Participants, an important step on our pathway to the ultimate development of the oil potential of this resource.

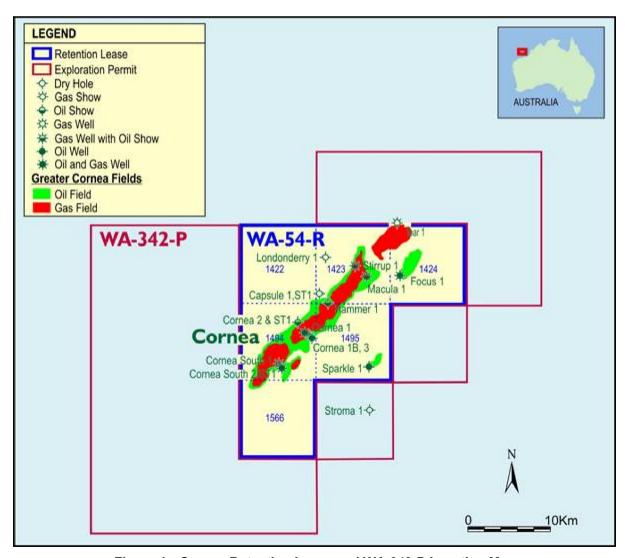


Figure 1: Cornea Retention Lease and WA-342-P Location Map

The Cornea Retention Lease provides the Participants with an initial 5 year period in which to progress the assessment and feasibility of a major staged development of the Cornea Oil Field ("Cornea"). The terms have been designed, on a step by step basis, to accommodate development challenges and to provide a progressive de-risking of those challenges.

Table 1 presents the probabilistically derived In-place and Contingent Oil Resources for the Cornea Central and South Oil Fields, with no development risk having been applied in deriving these volumes.

Middle Albian B & C Sands	Low Estimate (P90)	Best Estimate (P50)	High Estimate (P10)	Units
Total Oil In-place	298.0	411.7	567.2	mmbbl
Recovery Factor	2	7	25	%
Contingent Oil Resources	7.9	28.8	101.9	mmbbl

Table 1: In-place and Contingent Oil Resources for Cornea Central and South Fields

As can be seen from Table 1, Cornea is a significant prize to strive for, as it represents one of the largest undeveloped oil resources in Australia, with a P50 estimate of 411 million barrels in place. But it faces a presently low assessed recovery factor, which is a function of the technical challenges that the successful development faces. The terms of the Retention Lease reflect the need to progressively and methodically deal with each of those challenges.

Cornea presents a unique set of circumstances. While significant hydrocarbons have been discovered, with oil and gas samples obtained and resources identified, productivity of the reservoirs has not been proven, despite a large number of exploration and appraisal wells being drilled into the accumulation. The quantum of contingent resources in Cornea is such that it can reasonably be expected to be economic, so long as production flow rates can be achieved.

There are two significant barriers that must be overcome for Cornea to become commercially viable:

- i. Technical challenges presented by reservoir characteristics require the deployment of new technology completions in order to unlock oil production; and
- ii. Assessment of the productivity of the wells and the recovery factors that can be achieved.

Sufficient reservoir quality, both in terms of permeability and continuity, will be crucial to the delivery of commercial oil rates. The nature of the reservoir dictates that the use of horizontal well completions will be necessary.

A program to test the completion design and the long-term production behaviour of the wells and reservoirs is considered to be the only means by which the Cornea field will be proven to be capable of becoming commercially viable.

Oil price is significantly less critical to the development of Cornea than it generally is to the development of many hydrocarbon accumulations. The assessed in place volumes for Cornea offer a reasonable expectation that a commercial development can be achieved, even at oil prices significantly lower than current oil prices, if the technical risks and challenges can be overcome and threshold production flow rates achieved. Economic analysis demonstrates that producibility has the most significant impact on the economic feasibility of a development of Cornea.

Credible production tests that incorporate emerging control technologies are needed and will act as a 'proof of concept' for well placement, damage control and completion technology. Such credible production tests will also greatly assist in determining whether wells can deliver the required threshold volumes on which a commercially viable development can be justified. Such a production test program relies on the successful completion of engineering studies over the next four years to address the technical challenges presented by Cornea and to determine key design parameters.

The Cornea JV has proposed to carry out a suitable series of engineering study programs incorporated in the Cornea Retention Lease work program to address the key technical challenges to production and barriers to commercialisation. Subject to the results of these study programs, the Cornea JV proposes to implement a production test program in the fourth year of the initial 5-year term of the Retention Lease. This sequential approach is necessary in order to address the productivity uncertainties and ultimately to prepare for full development.

Optimisation of field recoveries is fundamental to the successful development and economic feasibility of Cornea. Innovations and advances in drilling techniques, in production and in development processes and procedures are expected to be the enabling factors in achieving adequate field recoveries.

It is anticipated that, in coming years, remote controllable hardware for gas inflow control will become available and would allow Cornea to achieve higher recoveries than those that could be expected to be achieved today. Technologies for enabling remote controllable interventions and preventing gas cusping into horizontal wells are in research and under development, including both the valves themselves and the surveillance/telemetry to detect and potentially seal off well segments where breakthrough has occurred.

Innovations and improvements in drilling techniques and in production and development processes are expected progressively over the next 5 years and will be incorporated in the production well test to be implemented by the Cornea JV.

If these technical challenges can be overcome and sufficient production flow rates demonstrated, the economics are immediately attractive with a reasonable expectation of long-term commercial development. A successful production test program would unlock a very sizeable oil resource, currently stranded due to the technical challenges to production, and full development of the Cornea Field could be expected to follow with wider applications for other undeveloped Australian fields with similar problematic reservoir characteristics.

E.G. Albers
Chairman
Cornea Resources Pty Ltd
Operator
Cornea Joint Venture

-OL PELSONAI USE ONI