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As operator for

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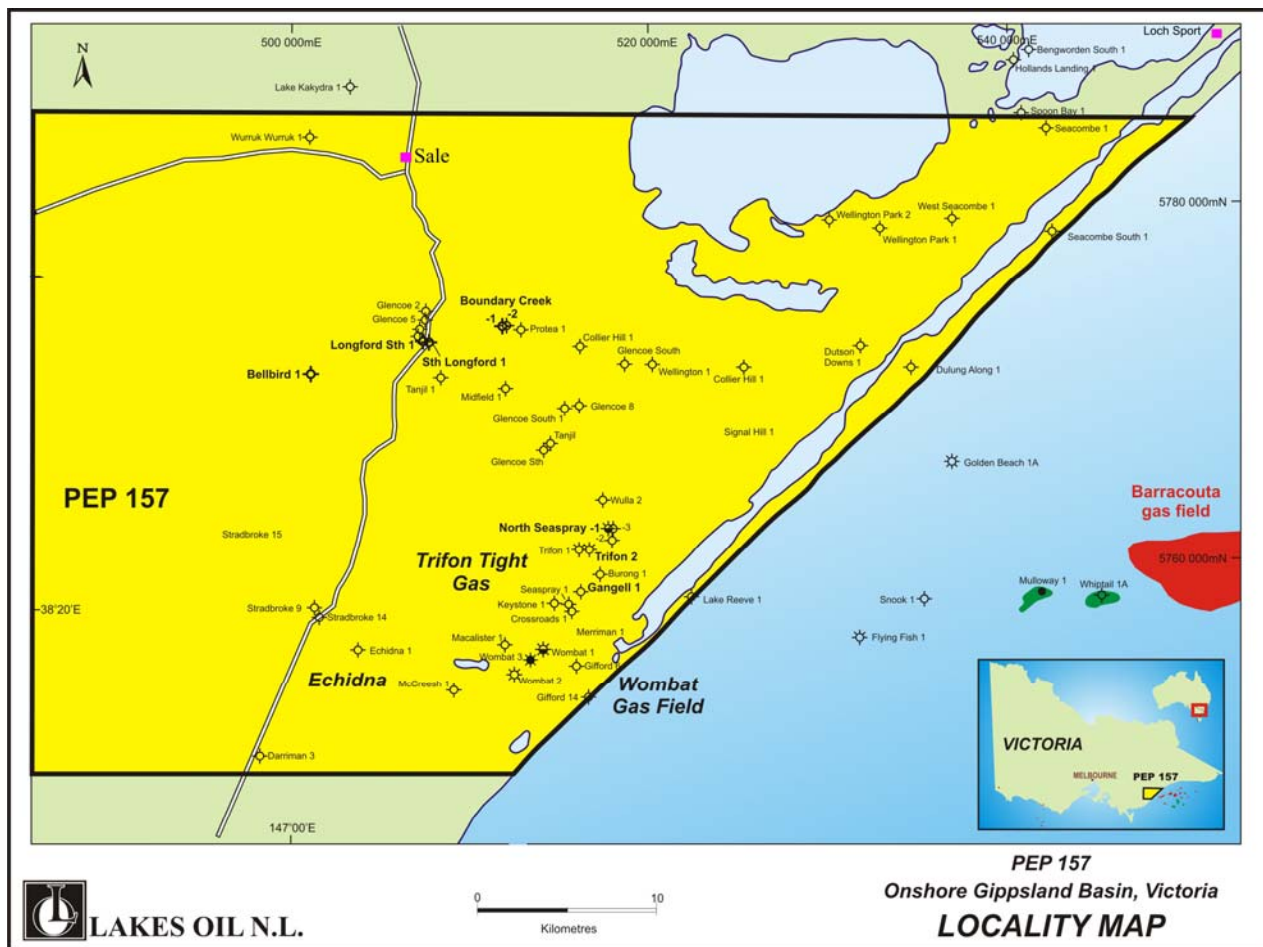
permit holder

**PEP 157
ONSHORE GIPPSLAND BASIN**

FINAL REPORT

17 August 2000 to 28 August 2006

May 2007



PEP 157 SUMMARY

Petroleum exploration permit 157 (formerly PEP 157) is located over the onshore Gippsland Basin, in eastern Victoria. PEP157 is a renewal of Petroleum Exploration Permit No. 137 (PEP 137) under the Petroleum Act 1998.

PEP 157 was awarded for a period of five years. The fifth and final year of exploration activity has been completed in compliance with the conditions of the award and the details of this activity have already been submitted. The permit expired on 16 August 2006 with all work program and expenditure commitments exceeded.

EXPLORATION ACTIVITY

In the 1950's and 1960's petroleum exploration in the onshore Gippsland Basin was directed towards plays in the Latrobe and Strzelecki Groups. The main explorers were Woodside Oil and Arco Ltd who left the area after drilling about 18 wells without any major success. These included important wells drilled in PEL 157 that penetrated into the Strzelecki Group, such as Wellington Park 1 and Rosedale 1.

The Early Cretaceous Strzelecki Group is the least understood petroleum system in the onshore Gippsland Basin with few wells seriously testing the formation until recently.

Some success was achieved in drilling conventional plays in the Golden Beach Subgroup with discoveries in North Seaspray 1 which flowed gas on test up to 100,000 scfd.

In PEL 157, some thirty wells have been drilled to date. Of these, Lakes Oil has drilled twelve wells, which includes eight gas discovery wells and one oil discovery well. These wells have been drilled between 2000 and 2006.

GEOLOGY – GIPPSLAND BASIN SETTING

The Gippsland Basin is a late Jurassic to Cainozoic basin occupying approximately 46,000 square kilometres of the south-eastern margin of the Australian continent. The basin is flanked on the north, west and south-west by Palaeozoic rocks and confined between the structural uplifts of the Victorian Highlands in the north and the Bassian Rise in the south. The eastern margin of the basin is open to the Tasman Sea. The Gippsland Basin is an east-west trending half graben feature with 70% of its area beneath Bass Strait and 30% onshore.

The Early Cretaceous Strzelecki Group is the least understood petroleum system in the onshore Gippsland Basin with few wells drilled into the formation until recently. To date, no well has penetrated the entire thickness of the Strzelecki Group. Aeromagnetic interpretation suggests that basement depths may be between 3,000 and 5,000 metres in the onshore Gippsland Basin and considerably deeper offshore in the deeper parts of the basin.

In the onshore area, late Cretaceous movements were accompanied with volcanism in the western margin of the basin. Several phases of positive structural inversion occurred in the Gippsland Basin from mid-Oligocene to the present time, creating the major hydrocarbon bearing structures seen in the offshore region. Additional structuring occurred during the late Miocene, which resulted in inversion of existing features and the creation of anticlinal structures.

In the onshore Gippsland Basin, Strzelecki gas has been identified based on the attributes of tight gas well performance. In particular, the Wombat field illustrates the complexity and variability found in tight gas plays in other parts of the world. Pay identification presents an ongoing challenge in the Strzelecki Group reservoirs.

GEOPHYSICS

The 2D seismic coverage across PEP 157 is fairly sparse, dating back to the 1960's. Later coverage in the 1990's tied together the main wells drilled including the Wombat, Trifon, and Gangell traps, which were mapped as structures at Top Strzelecki unconformity level. The most consistent interpreted event in these surveys is the top Latrobe unconformity. No seismic was acquired in this permit period. Extensive seismic reprocessing was conducted on existing seismic throughout the life of the permit, with the development of regional maps extending from the western edge of the permit through to Lake Wellington in the east. This was followed by more accurate mapping of the Trifon/Gangell and Wombat fields.

GEOCHEMISTRY AND FLUIDS

In PEP 157, significant gas and oil have only been recorded from wells that have been drilled into the Strzelecki Group in the onshore Gippsland Basin. Geochemical analysis indicates that both oil and gas can be generated from Strzelecki sediments in this permit. The gas in the Strzelecki Group is considered to be tight gas generated in situ.

The gas is sweet gas with 96% methane in most instances and lacks any carbon dioxide content.

Oil has been recovered in Wombat 2 and Wombat 3 in the Strzelecki Group and has been analysed. The Wombat 3 oil is 39.6° API gravity.

SEALS AND RESERVOIRS

Two main seal types are known to be present:

- 1) A thick weathered zone is usually present at the top Strzelecki unconformity that forms an effective regional seal to the underlying units of the Strzelecki Group. This seal is present in most of Lakes' wells drilled to date in the permit. In places, basalts or younger Tertiary strata overlie this unconformity providing an additional sealing component;
- 2) Intra-formational shale's throughout the formation form effective seals within stacked reservoir packages in the Strzelecki Group.

The Strzelecki reservoirs are commonly clay-dominated, feldspathic sandstones with variable, but generally low permeabilities. Reservoir units are not confined to particular sections of the formation and have been found in all wells drilled to date by Lakes Oil.

Natural fracturing is a common feature throughout the Strzelecki and may contribute to production, especially after hydraulic fracture stimulation.

Most of the Strzelecki reservoirs will require hydraulic fracture stimulation in order to produce gas or oil commercially.

DRILLING

Petro Tech Pty Ltd has fulfilled and exceeded all its work commitment obligations and expenditure requirements during the permit period. Twelve exploration wells were drilled in the permit, including eight gas discovery wells, one oil discovery well. In addition several fracture stimulation and production testing programs in the Wombat and Trifon gas discovery wells were completed. Evaluation of the results from these tests is ongoing.

Summary of Discovery Wells

North Seaspray 3 gas discovery - June 2000

Gas Discovery

Deepened with under balanced, horizontal coiled tubing

Fracture stimulated

Trifon 1 gas discovery - December 2000

Gas Discovery

Drill stem tested

Gangell 1 gas discovery - January 2001

Gas Discovery

Drill stem tested

Wombat 1 gas and condensate discovery - December 2003

Gas Discovery

Fracture stimulated

Production Testing

Wombat 2 gas and condensate discovery - April 2004

Gas discovery, oil discovery

Fracture stimulated

Production tested

Trifon 2 gas discovery - May 2004

Gas Discovery

Under balanced, coiled tubing drilling of a horizontal lateral

Fracture stimulated

Wombat 3 gas and oil discovery - October 2004

Gas discovery

Fracture Stimulated

Production tested

Boundary Creek 2 gas discovery - November 2005

Gas Discovery

To be fracture stimulated; computer modelling suggests that this is an exciting tight gas discovery.

WORK COMMITMENTS, PROGRAMS AND ACHIEVEMENTS

Historical Program PEP 137

Application for PEP 137 (the earlier permit number for PEP 157) was submitted to the DPI on January 24, 1997 and was granted to Roma Petroleum Company Pty Ltd on June 17, 1997 for 2 years. This operatorship passed to Petro Tech Pty Ltd on March 30, 1999 with an assignment agreement executed between the companies and subsequent DNRE approval and registration. It was subsequently extended to 16 June 2000.

The original approved program of exploration follows:

Year one: Geological and Geophysical Studies	estimated expenditure: \$ 50,000
Year two: One well	estimated expenditure: \$750,000

Work Commitment PEP 157

The subject of this report is Exploration Permit 155 with a 5 year work program. It was granted to Petro Tech for a 5 year term from 17 August 2000.

This work program was as follows:

Year one	Drill one well	estimated expenditure: \$700,000
Year two	Geological and geophysical studies	estimated expenditure: \$ 60,000
Year three	25 km seismic survey	estimated expenditure: \$150,000
Year four	Geological and geophysical studies	estimated expenditure: \$ 60,000
Year five	Drill one well	estimated expenditure: \$700,000

Variations to the Permit conditions were:

- On 29 August 2000 Permit 157 the department allowed variation to the work programme by substituting a well in place of the 25 km seismic survey for year three.
- On 17 February 2004 Permit 157 was allowed to suspend the work program conditions for a period of six months from 17 February until 16 August 2004. In addition the term of the permit is extended to expire on 17 February 2006.
- On 17 February 2005 Permit 157 was allowed to suspend the work program conditions for a period of six months from 17 February until 16 August 2005. In addition the term of the permit is extended to expire on 18 February 2006.
- On 17 February 2006 Permit 157 was allowed to suspend the work program conditions for a period of six months from 17 February until 16 August 2006. In addition the term of the permit is extended to expire on 16 August 2006.

This permit was renewed as Exploration Permit 157 with a 5 year work program from 17 August 2000. The Field Activity exceeded the Permit requirements over the Permit term.

Work Commitment Table PEP 157

Permit Year	Calendar Date	Activity Commitment	Estimated Expenditure	Field Activity	Field Expenditure
Year one	Aug 2000 – Aug 2001	Drill one well	\$700,000	Drill North Seaspray 3 Drill Gangell 1 Drill Trifon 1	\$4,320,000
Year two	Aug 2001 – Aug 2002	G&G studies	\$60,000	Drill Boundary Creek 1 Drill Deadman Hill 1 G&G studies	\$920,000
Year three	Aug 2002 – Aug 2003	25 km Seismic	\$150,000	Drill Protea 1 Drill Wombat 1 Drill Wombat 2 Fracturing program	\$5,600,000
Year four	Aug 2003 – Feb 2005	Geological and Geophysical Studies	\$60,000	Drill Wombat 3 Drill Trifon 2 Deepen N'th Seaspray 3 G&G studies Fracturing Program	\$12,980,000
Year five	Feb 17, 2005 – Feb 2006 Feb 2006 - Aug 16 2006	Drill one well	\$700,000	Boundary Creek 2 Fracturing studies G&G studies Feasibility studies	\$7,350,000
Summary	Aug 2000 – Aug 2006	Two wells, Seismic and G&G	\$4,100,000	12 Well programs Fracturing, G&G, Frac Studies	\$31,170,000

RESULTS:

The following reports have been submitted to Department of Primary Industries:

All well completion reports for wells drilled in PEP 157 are already lodged with DPI and are therefore not included here. The following submitted reports are used to summarize the permit activity:

1. PEP 157 Onshore Gippsland Basin – 6month period – 17 February – 16 Aug 2006 covering G&G, other activity and expenditure. Seismic re-mapping, drilling planning for Steele 1 and review of the Pre-Feasibility Study from HDCS were completed. Working with a large Chinese delegation on negotiations for joint ventures in our Victorian permit areas. The Retention Lease application for PEP 157 acreage was submitted. Gas sampling and flow testing were completed in the field. Expenditure for the period: \$1,215,270
2. PEP 157 Onshore Gippsland Basin – 9month period – 16 February – 31 December 2005 covering G&G, other activity and expenditure. Large scale re-mapping of all modern seismic data was continued in the permit year. Drilling of Echidna High 1, Boundary Creek 2 was completed. Hydraulic Fracturing programs on North Seaspray 3, Trifon 2 and Wombat 3 were completed and under evaluation. Expenditure for the period: \$7,117,100

3. PEP 157 Onshore Gippsland Basin – 9month period – 31 March – 31 December 2004 covering G&G, Drilling and expenditure. G&G planning for Echidna High 1 and re-mapping of seismic data was performed. Drilling of Wombat 2, Trifon 2, and deepening of North Seaspray3 and Trifon 2 were executed. Hydraulic fracturing, the first in Victoria, was completed on Wombat 1, Wombat 2 and Trifon 2. Expenditure for the period: \$10,630,720
4. PEP 157 Onshore Gippsland Basin – 12month period – 17 June 2003 – 16 June 2004 covering G&G, Drilling and expenditure. G&G remapping of seismic and preparation for Wombat 3 and Echidna High 1. Drilling was completed on Wombat 1, Wombat 2 and Trifon 2 Stage 1 and the North Seaspray 3 well was recompleted to allow coiled tubing lateral drilling late in 2004. Expenditure for the period: \$ 5,596,060
5. PEP 157 Onshore Gippsland Basin – 6 month period – ending 31 December 2003 covering G&G, Drilling and expenditure. G&G continued processing seismic in the USA. Drilling : submitted programs for Wombat 1, Trifon 1 and Echidna 1. Drilling of Wombat 1 commenced. Expenditure for the period: \$1,613,843
6. PEP 157 Onshore Gippsland Basin – 12 month period – ending December 2002 covering G&G, Drilling and expenditure. G&G reprocessing of seismic and initiation of fracture stimulation programming. Drilling of Deadman Hill 1 and Protea 1 completed. Expenditure for the period: \$ 850, 712
7. PEP 157 Onshore Gippsland Basin – 12 month period – ending June 2001 covering G&G, Drilling and expenditure. G&G studies of palynology and core analysis were completed as well as reprocessing of seismic lines. Drilling included North Seaspray 3, Trifon 1 and Gangell 1. Three Longford stratigraphic core holes were completed. Expenditure for the 2000 – 2001 permit year: \$4,315,358

CONCLUSION OF PROGRAM

Petro Tech Pty Ltd applied for a Grant of Petroleum Retention Lease 2 on 24 April 2006. This Retention was granted as PRL 2 on March 1, 2007. The PRL-2 covers a portion of the original Permit 157.