



## **ESSENTIAL PETROLEUM RESOURCES LIMITED QUARTERLY EXPLORATION REPORT FOR THE THREE MONTH PERIOD ENDED 30 JUNE 2005**

### **Highlights**

- Growing interest in PEP 151, VIC/P46 and VIC/P50 farmin offers
- Cowrie oil play in PEL 27 to be drilled end September
- Pritchard in PEP 151 to test three separate formations
- Pritchard now scheduled for January 2006
- Regional mapping of PEP 151 and VIC/P46 high-grades prospects in these permits

### **Summary**

During the June quarter Essential Petroleum concentrated its efforts on farming out interests in VIC/P46, VIC/P50 and PEP151. The Company has offered interests in these permits on promoted terms, either as a complete package or individually, and is pleased to report that the response has been very encouraging.

Essential Petroleum has had confirmation from Beach Petroleum, as operator of PEL 27, that the oil prospect Cowrie will be drilled in the second half of September. Essential Petroleum has a high expectation of making a discovery of as much as four million barrels should the well encounter hydrocarbons.

Last quarter, the Company reported that the PEP 151 prospect, Pritchard could be expected to be drilled in September. As Pritchard 1 is now planned to be drilled to a depth of 3200m to test three prospective horizons, a larger rig than initially planned is required. It is now anticipated that the well will be drilled in early 2006 when a large rig capable of drilling to such depths is likely to be available.

During the quarter the Company commenced a detailed regional seismic mapping project incorporating all modern seismic acquired by EPR and reprocessed older vintage data. The results have been extremely encouraging, with the superior seismic definition allowing the Company to build a sand deposition and distribution model from Late Cretaceous through to middle Tertiary, from onshore to offshore. The model supports our view and recent findings elsewhere in the basin that sand quality and thickness generally improves down dip and on the flanks of the regional structural closures.

Preliminary results of a palynology study being undertaken jointly with a potential farminee are of great interest and are consistent with the Company's deposition models for PEP 151 and VIC/P46.

These findings will have specific and positive implications for the reservoir quality at Pritchard in PEP 151 and Fermat/Normanby in VIC/P46.

During the quarter no commercial hydrocarbons were discovered or acquired by the Company.

### **PEP 151            100%            Onshore Otway Basin Victoria**

Interpretation of the Nelson 2D/3D seismic survey and all other available seismic data over the Portland Trough has been undertaken and has been integrated with the 2002, 2004 and reprocessed data of VIC/P46. The detailed regional interpretation has developed sand distribution models from the Late Cretaceous to the middle Tertiary. The models predict a sandier Waarre Formation and support the plan to drill Pritchard to a depth of 3200m.



The Pritchard Prospect provides a very attractive test of the Late Cretaceous section in the Portland Trough. The prospect is mapped at the top of a reflector package interpreted to be reservoir-seal combinations within the Belfast Mudstone. The trap is a fault independent closure that predates the main tertiary hydrocarbon generation phase. In addition, an apparent flat spot associated with a deeper interpreted Flaxman Formation may be a direct hydrocarbon indicator.

The Pritchard Prospect has a potential mapped median volume of 10 million barrels of recoverable oil or 17 billion cubic feet of recoverable gas at the interpreted intra-Belfast horizon. A smaller fault dependent closure mapped on the Pebble Point horizon provides a secondary target with a potential mapped volume of 4 million barrels of recoverable oil.

Planning for the Pritchard 1 well continues. With a revised planned depth of 3200m plans are underway for Essential Petroleum to secure a slot in a program using a large rig. The well is likely to commence in January 2006. Production Consent via an Indigenous Land Use Agreement with the Gunditjmarra People has been finalised and the documents are currently undergoing the signing and registration process.

The geochemical study of the permit utilising WL Gore technology has been completed. The results of the study are encouraging and support our prediction of a hydrocarbon accumulation at Pritchard with indications that the hydrocarbon type will be oil.

**PEP 150      50%              Onshore Otway Basin Victoria**

No further technical work has been undertaken in the permit.

**PEP 152      84.41%              Onshore Otway Basin Victoria**

Planned abandonment and conversion of the Port Fairy 1 well to a waterbore has been delayed due to waterbore rig availability. (Note: This was incorrectly reported as complete in the previous quarterly report).

**PEP 159      100%              Onshore Otway Basin Victoria**

No further technical work has been undertaken in the permit.

**PEL 72      50%              Onshore Otway Basin South Australia**

A study aimed at improving seismic imaging within the permit has commenced. The study is necessary as it is not possible to select a drilling location with the current data quality. The study is expected to take six to nine months.

**PEL 27      20%              Onshore Otway Basin South Australia**

Based on the latest information from Beach Petroleum Limited, the operator of PEL 27, the exploration well Cowrie 1 is expected to spud on 30 September 2005.

The Cowrie prospect is located within PEL 27 and lies on the northwest flank of the Penola Trough, northwest and updip of the Katnook, Haselgrove and Ladbroke Grove gas fields. PEL 27 is ideally positioned to trap hydrocarbons migrating out of the trough as demonstrated by the recovery of oil in Sawpit 1 and the flow of oil to the surface at Killanoola DW 1. Both wells were drilled within PEL 27 and are on trend with Cowrie.



Cowrie is approximately five kilometres to the west of the Killanoola discovery and has the potential to hold in excess of four million barrels of recoverable oil.

Cowrie 1 will be the fourth well drilled in an Origin Energy led multi-well program currently expected to begin in late July or early August in the onshore Otway Basin.

**VIC/P46      57.5%      Offshore Otway Basin**

The OEP04 2D marine seismic survey, comprising of 390 line kilometres within VIC/P46, was completed on 26 November 2004. The data has been processed, together with a further reprocessing of 239 line kilometres of vintage seismic, with final data received during May 2005.

Recent seismic interpretation of this data has significantly high graded the Kepler/Bernoulli trend and the previously identified shelf margin targets, some of which straddle Essential's 100% owned permit VIC/P50 to the south of VIC/P46. Superior definition of the deeper Late Cretaceous section has enabled further definition of likely sand distributions over these features thereby lowering their perceived risk.

Preliminary results of a palynology study being undertaken jointly with a potential farminee are of great interest and are consistent with the Company's new deposition models for PEP 151 and VIC/P46.

**VIC/P50      100%      Offshore Otway Basin**

Interpretation of the OEP04 2D seismic data and reprocessed vintage has commenced. The remapping is expected to better delineate the very promising deep water Upper Cretaceous rotated fault block leads, Curie and Curie North as well as the continental slope plays, Descartes and Henty and their underlying Late Cretaceous tilted fault block plays.

**ESSENTIAL PETROLEUM RESOURCES LTD**  
**PERMIT EXPENDITURE SUMMARY FOR THE QUARTER ENDED 30 JUNE 2005\***

Permit Number	Essential Petroleum Interest	Seismic Survey Expenditure	Geological & Geophysical Studies	Environment, Native Title & Permit Maint.	Drilling Expenditure	Total
PEP 151	100.00%	\$ 700.00	\$ 88,642.00	\$ 22,911.00	\$ -	\$ 112,253.00
PEP 150	50.00%	\$ -	\$ -	\$ -	\$ -	\$ -
PEP 152	84.41%	\$ -	\$ -	\$ -	(\$ 30.00)	(\$ 30.00)
PEP 159	100.00%	\$ -	\$ 115.00	\$ -	\$ 987.00	\$ 1,102.00
PEL 72	50.00%	\$ -	\$ -	\$ -	\$ -	\$ -
VIC/P46	67.50%	(\$ 56,881.00)	(\$ 911.00)	\$ 30,321.00	\$ -	(\$ 27,471.00)
VIC/P50	100.00%	(\$ 31,892.00)	\$ 9,583.00	\$ -	\$ -	(\$ 22,309.00)
PEL27		\$ -	\$ -	\$ -	\$ -	\$ -
		(\$ 88,073.00)	\$ 97,429.00	\$ 53,232.00	\$ 957.00	\$ 63,545.00

\* This statement has been prepared based on accrual accounting principles

*John Remfry, Managing Director, Essential Petroleum Resources Limited has prepared this Quarterly Exploration Report.*

# Appendix 5B

## Mining exploration entity quarterly report

Name of entity:

Essential Petroleum Resources Limited

ACN or ARBN

089 956 150

Quarter ended ("current  
quarter")

June 30, 2005

### Consolidated statement of cash flows

Cash flows related to operating activities	Current quarter \$A'000	Year to date ( 12 months) \$A'000
1.1 Receipts from product sales and related debtors	3	390
1.2 Payments for		
[a] exploration and evaluation	(69)	(2,690)
[b] development		
[c] production		
[d] administration	(200)	(1,318)
1.3 Dividends received		
1.4 Interest and other items of a similar nature received	58	220
1.5 Interest and other costs of finance paid		
1.6 Income taxes paid		
1.7 Other (provide details if material)		
<b>Net Operating Cash Flows</b>	<b>(208)</b>	<b>(3,398)</b>
<b>Cash flows related to investing activities</b>		
1.8 Payment for purchases of:		
[a] prospects	-	-
[b] equity investments	-	-
[c] other fixed assets	(2)	(5)
1.9 Proceeds from sale of:		
[a] prospects	-	-
[b] equity investments	-	-
[c] other fixed assets	-	-
1.10 Loans to other entities		
1.11 Loans repaid by other entities		
1.12 Other (provide details if material)		
<b>Net Investing Cash Flows</b>	<b>(2)</b>	<b>(5)</b>
1.13 Total operating and investing cash flows (carried forward)	<b>(210)</b>	<b>(3,403)</b>

**Appendix 5B**

**Mining exploration entity quarterly report**

1.13	Total operating and investing cash flows (brought forward)	(210)	(3,403)
<b>Cash flows related to financing activities</b>			
1.14	Proceeds from issues of shares, options, etc.	-	-
1.15	Proceeds from sale of forfeited shares	-	-
1.16	Proceeds from borrowings	-	-
1.17	Repayment of borrowings	-	-
1.18	Dividends paid	-	-
1.19	Other (payment in relation to capital raising)	-	-
<b>Net financing cash flows</b>		-	-
<b>Net increase (decrease) in cash held</b>		(210)	(3,403)
1.20	Cash at beginning of quarter/year to date	3,383	6,576
1.21	Exchange rate adjustments to item 1.20	-	-
1.22	<b>Cash at end of quarter</b>	3,173	3,173

**Payments to directors of the entity and associates of the directors**

**Payments to related entities of the entity and associates of the related entities**

		Current quarter \$A'000
1.23	Aggregate amount of payments to the parties included in item 1.2	71
1.24	Aggregate amount of loans to the parties included in item 1.10	-

1.25 Explanation necessary for an understanding of the transactions

**Non-cash financing and investing activities**

2.1 Details of financing and investing transactions which have had a material effect on consolidated assets and liabilities but did not involve cash flows

2.2 Details of outlays made by other entities to establish or increase their share in projects in which the reporting entity has an interest.

**Financing facilities available**

	Amount available \$A'000	Amount used \$A'000
3.1 Loan facilities		
3.2 Credit standby arrangements		

**Estimated cash outflows for next quarter**

	\$A'000
4.1 Exploration and evaluation	250
4.2 Development	-
<b>Total</b>	<b>250</b>

**Reconciliation of cash**

Reconciliation of cash at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts is as follows:

	Current quarter \$A'000	Previous quarter \$A'000
5.1 Cash on hand and at bank	22	89
5.2 Deposits at call	3,151	3,294
5.3 Bank overdraft	-	-
5.4 Other (provide details)	-	-
<b>Total: cash at end of quarter</b> (item 1.22)	<b>3,173</b>	<b>3,383</b>

**Changes in interests in mining tenements**

	Tenement reference	Nature of interest (note (2))	Interest at beginning of quarter	Interest at end of quarter
6.1		Interests in mining tenements relinquished, reduced or lapsed		
6.2		Interests in mining tenements acquired or increased		

## Issued and quoted securities at end of current quarter

Description includes rate of interest and any redemption or conversion rights together with prices and dates.

	Total number	Number quoted	Issue price per security (see note 3) (cents)	Amount paid up per security (see note 3) (cents)
<b>7.1 Preference securities (description)</b>				
<b>7.2 Changes during quarter:</b>				
(a) Increases through issues				
(b) Decreases through returns of capital, buy-backs, redemptions				
<b>7.3 Ordinary securities</b>	157,200,656	157,200,656		
<b>7.4 Changes during quarter:</b>				
(a) Increases through issues				
(b) Decreases through returns of capital, buy-backs, redemptions				
<b>7.5 Convertible debt securities (description)</b>				
<b>7.6 Changes during quarter:</b>				
(a) Increases through issues				
(b) Decreases through returns of capital, buy-backs, redemptions				
<b>7.7 Options (description and conversion factor)</b>			<i>Exercise price</i>	<i>Expiry date</i>
Employee Options	40,000	-	\$0.25	30/06/2005
Unlisted Options	100,000	-	\$0.25	30/06/2005
<b>7.8 Issued during quarter</b>				
- Employee Options				
- Unlisted Options				
<b>7.9 Exercised during quarter</b>				
<b>7.10 Expired during quarter</b>				
<b>7.11 Debentures (total only)</b>				
<b>7.12 Unsecured notes (totals only)</b>				

## Compliance Statement

- 1 This statement has been prepared under accounting policies which comply with accounting standards as defined in the Corporations Act, 2001 or other standards acceptable to ASX (see note 4).
- 2 This statement does/does not (*delete one*) give a true and fair view of the matters disclosed.

Sign  
here:



Date: 27 July 2005

\_\_\_\_\_  
(Company secretary)

Print Name:

### Notes

- 1 The quarterly report provides a basis for informing the market how the entity's activities have been financed for the past quarter and the effect on its cash position. An entity wanting to disclose additional information is encouraged to do so, in a note or notes attached to this report.

- 2 The "Nature of interest" (items 6.1 and 6.2) includes options in respect of interests in mining tenements acquired, exercised or lapsed during the reporting period. If the entity is involved in a joint venture agreement and there are conditions precedent which will change its percentage interest in a mining tenement, it should disclose the change of percentage interest and conditions precedent in the list required for items 6.1 and 6.2.

- 3 **Issued and quoted securities:** The issue price and amount paid up is not required in items 7.1 and 7.3 for fully paid securities.

- 4 The definitions in, and provisions of, *AASB 1022: Accounting for Extractive Industries* and *AASB 1026: Statement of Cash Flows* apply to this report.

- 5 **Accounting Standards** ASX will accept, for example, the use of International Accounting Standards for foreign entities. If the standards used do not address a topic, the Australian standard on that topic (if any) must be complied with.