Quarterly Report



December 2010 quarter

Company

Carnarvon is an oil and gas exploration and production company with onshore and offshore interests in South East Asia and Australasia.

Reserves (net to CVN)

	At 31 Dec. 09
Proved (1P)	6.4 mmbbls
Proved & Probable (2P)	24.5 mmbbls
Proved, Probable & Possible (3P)	57.0 mmbbls

ASX: CVN

Capital

	O 5.15.15.1	
	At 31 Dec. 10	At 30 Sept. 10
Share price	\$0.475	\$0.435
Market capitalisation	\$326m	\$299m
Net cash / (debt)	\$28.8m	\$22.1m

Production (net to CVN)

	31 Dec. 10 Qtr	30 Sept. 10 Qtr
Net average bopd	2,645	2,658
Average sale price	A\$72.74	A\$72.36
Net sales revenue	A\$17.7m	A\$17.7m



L20/50 Thailand - Exploration drilling

- ✓ Carnarvon, as operator of the L20/50 Concession in Thailand will drill up to three exploration wells
- ✓ The first well will commence ("spud") on 29 January 2011
- Each well will take around three weeks to complete
- ✓ The Concession is on trend with the 200 million barrel Sirikit Oil Field located ~50km to the north west of the L20/50 Concession
- The three key prospects will test different geological play types and if successful are likely to lead to a 3D seismic program and follow up appraisal drilling
- Prospective resource estimates are in the order of 20 to 40 mmbbls per prospect for an aggregate 90 mmbbl total, some 45 mmbbls net to Carnarvon

Photo of Asia Drilling Pte Ltd's AD-1 drilling rig that will be used to drill the L20/50 Concession wells in Thailand

HIGHLIGHTS

- ✓ Contingent resources net to CVN of 10.3 mmbbls at 2C confidence levels were announced on 3 November 2010 following two production area applications being lodged with the DMF covering the WBEXT and L33-1 & L33-2 discoveries
- ✓ Production for the quarter of 243,366 bbls, net to CVN, was in line with the previous quarter
- ✓ The L33-1 & L33-2 production area was approved during the quarter and those wells put on-line under a 90 day test pending the approval of a production EIA.
- ✓ The WBEXT production area application was submitted to the DMF during the quarter and is anticipated to be approved before the end of February. There are three WBEXT wells shut-in, with total capacity of around 1,700 bopd net to CVN, awaiting approval of the application.
- ✓ Exploration drilling in the L20/50 Concession in Thailand will commence on 29 January 2011, targeting around 90mmbbls (45 mmbbls net to CVN) from multiple prospects
- ✓ 3D and 2D seismic data acquisition programmes in the Phoenix blocks in Western Australia commenced in the December 2010 quarter. Despite delays caused by adverse weather in the region, the programme is well advanced and is expected to be completed in February 2011.
- ✓ 2D seismic data acquisition in the Rangkas PSC in Indonesia also commenced in the December 2010 quarter and is expected to be completed in early 2011 after which processing and interpretation work will commence

Abbreviations

API American Petroleum Institute gravity measure

A\$ Australian dollars

Bopd Barrels of oil per day

Bbls Barrels of oil

CVN Carnarvon Petroleum Limited

DMF Department of Mineral Fuels Thailand

Km Kilometres

Km² Square kilometres

m MillionsQtr Quarter

TVD True vertical depth

Tcf Trillion cubic feet (gas)

2D Two dimension seismic data

3D Three dimensional seismic data



PRODUCTION & REVENUE IN THAILAND (IN L44/43 & L33/43 CONCESSIONS)

(Carnarvon 40% and non-operator)

Carnarvon's share of oil produced and sold during the December 2010 quarter was 243,366 bbls at an average 2,645 bopd net to Carnarvon. Revenue generated from the sale of this oil was A\$17.7m, with an average price of A\$72.74 per barrel being realised.

Oil sales and revenues net to Carnarvon for the past two quarters were as follows:

	Dec 10 Quarter	Sept 10 Quarter	Qrtly % Changes	Comments
Net sales revenue - (A\$000)	17,706	17, 697	0%	Production rate and oil price relatively stable
Net sales volumes - (bbls)	243,366	244, 577	0%	Steady quarter on quarter production
Average sale price achieved - (A\$/bbl)	72.74	72.36	0%	
Net average daily volume - (bopd)	2,645	2,658	0%	

For the first half of the 2011 financial year, Carnarvon sold 487,943 bbls of oil.

Production during the December 2010 quarter was impacted by the timing and quantum of production from new wells, natural field decline, wells being shut in during production test periods and wells being shut-in pending approval of production licenses.

A production license covering the L33-1 and L33-2 discoveries was granted in November 2010 and the Joint Venture is presently waiting for the final environmental approval for production. The wells were originally drilled using an exploration EIA which limits the number of wells from each site to just one. The approval of a production EIA will allow for further development from multiple wells. The production EIA is anticipated to be granted before the end of January 2011. Meanwhile, production and sale of oil from these wells commenced on 20 November 2010 under a 90-day production test. The L33-1 well is currently producing around 600 bopd the L33-2 well has and sidetracked to test the WBV2 volcanic. The L33-1 and L33-2 oil fields discovered during the September 2010 guarter represent the first discovery of hydrocarbons at commercial rates in Concession L33/43.

The production license application for the WBEXT field was submitted to the DMF on 22 November 2010 and approval has historically been received 90 days from the date of submission. In the meantime individual wells within the WBEXT Field are produced on discrete 90 day production test licences, following which they are shut in until approval of the production licence.

PRODUCTION & REVENUE IN THAILAND (IN L44/43 & L33/43 CONCESSIONS)

As a consequence of the Joint Venture awaiting the issue of the production license, the following wells are currently shut-in:

- WBEXT-1 shut-in 2 November was testing at 3,500 bopd from the volcanic reservoir
- WBEXT-1A shut-in 30 November was testing around 500 bopd, down from previous 5,300 bopd
- WBExt-1B shut-in 22 December was testing from the sandstone reservoir at 300 bopd

Near term production increases are anticipated upon the granting of the WBEXT production license from the above wells and from continous drilling and testing elsewhere within the L33/43 and L44/43 exploration permits (see outlook below).



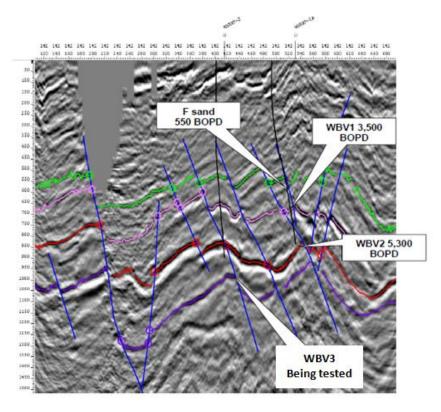
Location of Carnarvon Permits onshore Thailand

(Carnarvon 40% and non-operator)

Wells drilled and / or completed during quarter:

Well	Permit	Status
WBEXT-2, deepening and sidetracks	L44/43	Sub commercial oil flow (500 bbls total) from WBV2 volcanic reservoir
WBEXT-2A and sidetrack	L44/43	WBV3 volcanic reservoir was tight at two subsurface locations
WBEXT-1C	L44/43	Initially tested from WBV1 volcanic reservoir at 3,500 bopd
WBEXT-3	L44/43	WBV1 volcanic reservoir was tight, currently considering options to produce from the sandstone reservoir
WBEXT-4	L44/43	Sandstone reservoir discovery tested 40 bopd

During the December 2010 quarter nine individual boreholes were drilled and completed as outlined below. The majority of these boreholes were in the three different volcanic zones in the Wichian Buri region, designated WBV1, WBV 2 and WBV3 as demonstrated below.



During the quarter an additional drilling rig (namely the EMAS drilling rig) was utilised on the WBEXT-1D well to accelerate testing of the sandstone potential around the Wichian Buri Extension oil field. Consequently a greater number of boreholes were completed this quarter compared to previous quarters and the Joint Venture is assessing the merits of utilising additional rig capacity in the future.

The WBEXT-2 well was targeting the WBV2 volcanic at a location approximately 1.8 km northwest of the WBEXT-1A well. The WBV2 volcanic was successfully tested at WBEXT-1A at rates up to 5,300 bopd. The WBEXT-2 well encountered the top of the WBV2 target volcanic zone at a TVD of 971 metres, approximately 52 metres high to the top of the WBV2 volcanic zone encountered at the WBEXT-1A well. The WBEXT-2 well flowed natural gas at a rate of approximately 1.6 million cubic feet per day.

The well was deepened (**WBExt-2 Deepen**) to a depth of 1,062 metres TVD in an attempt to target a potential oil leg below the natural gas and also to determine the thickness of the volcanic zone at this location. In total, approximately 52 metres true vertical thickness of volcanic section was drilled with oil shows from 1,008 to 1,024 metres TVD (to the base of the volcanic). As no mud losses (an indicator of permeability) were observed while drilling the deepened section, the well was immediately side tracked with no further testing of the original hole.

The first sidetrack (WBEXT-2ST1) encountered the target volcanic zone low and resulted in the immediate drilling of a second sidetrack (WBEXT-2ST2) that encountered the top of the WBV2 at a depth of 1,007 metres TVD (approximately 36 metres low to WBEXT-2 and 16 metres high to WBEXT-1A) and penetrated approximately 15 metres true vertical thickness of potential volcanic reservoir with oil shows and drilling fluid losses of approximately 90 barrels per hour. The well also encountered 50 metres of good oil shows and highly elevated mud gas readings while drilling a shale interval directly overlying the WBV2 volcanic.

The bottom 16 metres of the shale interval and the 15 metre WBV2 volcanic were completed open hole to commingle during testing. Testing of the WBEXT-2ST2 well resulted in a brief flow of approximately 500 barrels of oil and 1,500 barrels of water. Subsequently the well was shut-in with no further fluid influx into the well bore. The test results from this well are currently being investigated as to an explanation for the sudden drop of fluid level and bottom hole pressure with the possibility that the WBV2 volcanic zones at WBEXT-1 well and WBEXT-2 well may not be part of the same hydrocarbon pool.

The WBEXT-2A exploration well, drilled from the same surface pad as the WBEXT-2 well, was targeting the WBV3 volcanic reservoir section. The WBV3 volcanic target is interpreted on 3D seismic to be present approximately 180 metres below the WBV2 volcanic zone. The well encountered the primary WBV3 objective at 1,072 metres TVD and reached 1,121 metres TVD after drilling 49 metres TVD of WBV3 volcanic. No drilling fluid losses were observed while drilling the WBV3 objective and subsequent testing confirmed the WBV3 at this location to be tight when no fluid was recovered.

The well was subsequently sidetracked as **WBEXT-2AST1** to test the unproven WBV3 volcanic at a more favourable subsurface location in close proximity to a large fault. The target WBV3 volcanic was encountered at a depth of 1,510 metres TVD and the drilling terminated after penetrating the top 10 metres of volcanic with minor drilling fluid losses of 15-20 barrels per hour and oil shows. Despite the apparent permeability inferred from the minor drilling fluid losses, the zone quickly pumped off on test indicating the zone was also tight.

The WBEXT-1C well was the fourth well to be drilled from the WBEXT-1 drill pad and targeted the WBV1 volcanic approximately 200 metres north and approximately 40 metres up dip from the WBEXT-1 discovery well. The WBEXT-1C well is currently producing during a 90-day production test from the WBV1 volcanic reservoir. Initially the well tested at rates up to 3,500 bopd gross (1,400 bopd net) however after producing a total of 160,000 bbls of oil (64,000 bbls net) a water cut was observed and currently the well is producing at a significantly lower rate.

The WBEXT-3 well was drilled from a surface location approximately two kilometres northeast of the WBEXT-1 surface location and was targeting various volcanic and sandstone intervals equivalent to those found to be hydrocarbon-bearing in wells drilled from the WBEXT-1 drilling pad in the fault compartment immediately adjacent to the west. The WBV1 volcanic was encountered at a depth of 800 metres TVD and total drilling fluid losses around this depth were observed. Testing resulted in no flow (tight reservoir) and subsequent post drill and test analysis suggests the permeable loss zone was a fault encountered just above the volcanic interval that is behind casing. A shallow sandstone interval at 460 metres TVD that exhibited good oil shows while drilling was interpreted on wireline logs as 8 metres of potential net pay. This is being considered as a candidate for development potential.

The WBEXT-4 well was drilled from a surface pad approximately one km north of the WBEXT-1 surface pad and 300 metres south of the L33/L44 concession boundary. At approximately 414 metres TVD the well encountered very good oil and gas shows within a sandstone approximately 14 metres thick. The decision was made to stop drilling and test the zone that resulted in an initial rate of 40 bopd of 22 API degree oil and a water cut of approximately 12%, mainly load fluid. Subsequently, the fluid rate dropped and the well has been shut-in for observation to allow the fluid level to rise. It is suspected that the low API degree, waxy crude at this shallow depth (low temperature) is highly viscous under reservoir conditions resulting in the low fluid influx.

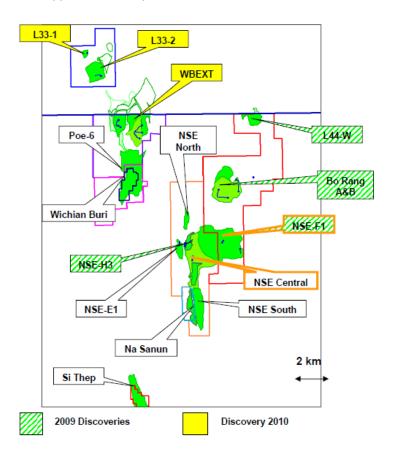
Wells drilled and/or completed subsequent to quarter end:

Well	Permit	Status
WBEXT-1D	L44/43	Testing of potential multiple sandstone zones has commenced
WBEXT-4A and sidetracks	L44/43	WBV3 volcanic reservoir was tight, currently testing sandstone potential
L33-2ST1 and sidetracks	L33/43	Currently drilling

The WBEXT-1D well was drilled due east of the WBEXT-1 well pad with the primary objective of testing the multiple oil-bearing sandstones encountered in the WBEXT-1B well at a subsurface location approximately 400 metres to the south. Drilling was terminated at a depth of 700 metres TVD after encountering good to excellent oil shows over 12 separate sandstone intervals between 421 and 700 metres. Drilling fluid losses of 250 barrels in one sandstone interval indicate high permeability. Wire line log data was only achieved over the interval of 583 to 596 metres due to unstable wellbore conditions in this highly deviated well. Testing has commenced in one of the interpreted sandstone reservoir horizons.

WBEXT-4A and subsequent sidetrack WBEXT-4AST1 were drilled targeting the as yet unproven WBV3 volcanic. The wells encountered the volcanic section with no oil shows or drilling fluid losses observed (likely low permeability) while drilling. Subsequent wire line logging confirmed the zone to be tight. Testing of one of the interpreted sandstone reservoirs has commenced.

The L33-2ST1 appraisal well has commenced drilling and is targeting the WBV1 volcanic at a subsurface location that is 682 metres north east and 40 metres up structure from the WBV1 volcanic at L33-2. The target region is in an area that is currently defined as prospective resources in Gaffney Cline and Associates' recent third party resource report that was part of the L33 production license application. After initially encountering the WBV1 volcanic in a zone interpreted to be tight, the well has been sidetracked a second time and the L33-2ST2 well is currently drilling. Due to the lack of a production EIA as detailed previously in this report, only two sites have been constructed in the L33-1 & 2 area and each site is only approved for a single surface well, requiring the original L33-2 well to be shut-in and sidetracked to appraise further potential in this area.



Summary of oil and gas fields in blocks L33/43 and L44/43

EXPLORATION IN THAILAND

(a) L20/50 Concession – Thailand (Carnarvon Petroleum 50% and Operator, Sun Resources 50%)

During the December 2010 quarter Carnarvon secured all required approvals to commence drilling operations, finalised the relevant key service contracts and commenced preparing the road and drilling pad infrastructures. Heavy seasonal rains initially delayed the commencement of these site works, but since gaining access to the sites, work has proceeded as planned. The first well is scheduled to commence on 29 January 2011.

The first well site, Tapao Kaew, is complete and operations have also been timed to allow the drilling up to three wells back to back.

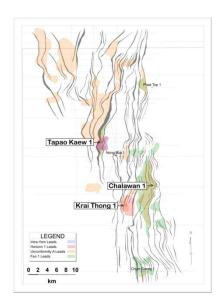
The second well site, Krai Thong, is nearing completion and will be ready by the end of January, well ahead of earliest release of rig from Tapao Kaew.

The third well site, Chalawan, will be ready by mid to late February and a decision on whether to drill this third well will depend on results from the first two wells.

Locations	Permit	Well Type
Tapao Kaew-1	L20/50	Buttress play exploration well – targeting mean recoverable of 21 MMbbls.
Krai Thong-1	L20/50	Fan play exploration well – targeting mean recoverable of 37 MMbbls.
Chalawan-1	L20/50	Flank play exploration well – targeting mean recoverable of 32 MMbbls.

Drilling operations are anticipated to take around three weeks per well, with a further three to six days allowed to move the rig between wells.

If logging results show sufficient encouragement, testing operations will commence after the mobilization of appropriate equipment, expected around one month following the completion of the first successful well.



Summary of prospects in block L20/50

EXPLORATION IN THAILAND

(b) L52/50 & L53/50 Concession Applications - Thailand (Carnaryon Petroleum 50%, Pearl Energy 50% and Operator)

The L52 and L53 Concession Applications were granted in February of 2010 and the first year work program, consisting primarily of studies, has been completed. While both permits are lightly explored the potential is significant being on trend and in a similar basin to an offshore field that flowed up to 10,000 bopd from a single Nang Nuan well.

The work to date, including detailed surface geological mapping and studies of surface oil seeps, has given the Joint Venture confidence in undertaking further exploration.

The combined area of these blocks is large at 6,950 km² and hence an extensive 2D seismic acquisition program is being planned, well in excess of commitments to the DMF.

The Joint Venture has agreed to pre-planning work in order to acquire 500 km of 2D seismic data across the two blocks to better delineate the hydrocarbon bearing potential of the sedimentary basin and also to investigate the numerous leads already identified.

The acquisition of this seismic data is likely to commence mid-2011.

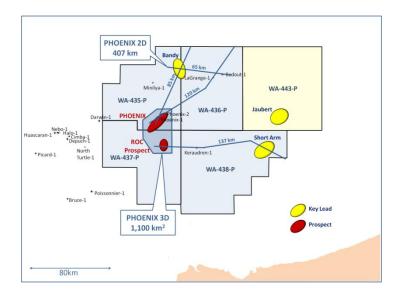
EXPLORATION IN AUSTRALIA

(a) WA-435-P, WA-436-P, WA-437-P and WA-438-P – Australia Offshore NW Shelf (Carnarvon Petroleum 50%, Finder Exploration 50% and Operator)

On 9 December 2010 operations commenced for the acquisition of 1,100 km² of new, multi-client 3D seismic data over the area highlighted below. The 3D seismic data are being acquired specifically to assist in the appraisal of the Phoenix gas field in WA-435-P and to target other identified gas prospects and leads in WA-435-P and the adjacent WA-437-P permit. Acquisition of the 3D seismic survey is expected to be complete in early 2011.

Following the 3D seismic programme, 407 km of 2D multi-client seismic data also will be acquired, providing important well ties and new data over key leads in the area.

Once the seismic data have been acquired, processed and interpreted, Carnarvon and its joint venture partner (Finder Exploration) plan to commence a process of farming out an interest in the permits. This farm-out is intended to enable the drilling of wells to assist in the next stage of appraisal and development of the Phoenix gas discovery.



Phoenix 3D and 2D seismic survey areas

(b) WA-443-P- Australia Offshore NW Shelf (Carnaryon Petroleum 100% and Operator)

No previous drilling has taken place in the WA-443-P block. A large Middle Triassic prospect has been interpreted which is a faulted anticlinal closure. The structural form and size of the prospect are comparable to the adjacent Phoenix group of potentially large gas accumulations. Carnarvon secured this new permit with a firm programme over three years to reprocess and interpret 1,400 km of 2D seismic. Geological and geophysical studies will also be carried out in conjunction with similar work in the Phoenix permits.

(c) WA-399-P - Australia Offshore NW Shelf

(Carnarvon Petroleum 13%, Apache Energy Limited 60% and Operator, Jacka Resources 15% and Rialto Energy 12%)

The Joint Venture is scheduled to commence the 3D seismic survey around the middle of February 2011. This timing is due to environmental approval restrictions that do not allow the programme to commence prior to 15 February 2011. Subject to operational variables, such as the impact of weather, the programme is expected to be complete by late February 2011.

The 3D seismic data acquisition will exceed the existing minimum exploration commitment obligation under the exploration permit's terms and will enable the Joint Venture to further de-risk a number of existing prospects that have already been mapped within the permit.

EXPLORATION IN NEW ZEALAND

(Carnarvon Petroleum 10%, AWE 60% and Operator, ROC 20% and Kea Petroleum 10%)

The Joint Venture is currently assessing the results of the Tuatara-1 well drilled in the September 2010 quarter before determining whether and if so the form in which further exploration activities will be undertaken.

EXPLORATION IN INDONESIA

Rangkas PSC - Onshore Indonesia

(Carnarvon Petroleum 25%, Tap Oil 24%, Lundin Petroleum 51% and Operator)

The Rangkas Block covers an area of 3,977 km² and is located onshore west Java, southwest of Jakarta. Previous exploration seismic and drilling in the block, along with the presence of surface oil seeps, indicates the presence of an active petroleum system.

During the December 2010 quarter the Joint Venture commenced its planned acquisition of nearly 500 km of 2D seismic data. This programme is anticipated to be complete in early 2011.

These seismic data will enhance the 1,000 km of existing reprocessed 2D seismic data to refine geophysical mapping of some 11 significant leads. Seismic interpretation will also compliment a number of reservoir and basin modelling studies undertaken recently.

CORPORATE

Cash Balance

Carnarvon's consolidated cash at the December 2010 quarter end was A\$28.8m, compared to A\$22.1m at the end of the previous quarter. These balances include cash held as security in relation to bank guarantees and minimum cash holding requirements by Thailand authorities. As at 31 December 2010 cash held as security in relation to bank guarantees and minimum cash holding requirements by Thailand authorities was \$1.3m.

The increase in cash during the quarter was due to steady production and oil prices in Thailand. Exploration expenditure in the quarter was primarily for site works and long lead items for the L20/50 wells in Thailand together with minor outlays for CVN's Australian and Indonesian seismic activities.

Cash in the March 2011 quarter is expected to be lower than the 31 December 2010 balance as a consequence of drilling operations commencing on the L20/50 Concession in Thailand and the completion of the Phoenix and Rangkas seismic programmes.

(a) L44/43 & L33/43 Concessions - Thailand

During the March 2011 quarter the Joint Venture plans to drill six to eight wells from among the following locations:

Locations	Permit	Well Type
NSE Central	L44/43	Appraisal of volcanic below main producing reservoir
WBExt Sandstone	L44/43	1-2 wells – Appraisal of WBExt-1B (tested 550 bopd from sandstone)
Si Thep Sandstone	L44/43	Exploration prospect in the downthrown fault block from Si Thep
Na Sanun Volcanic	L44/43	Deeper volcanic below main producing volcanic in Na Sanun oil field
Na Sanun West	L44.43	Sandstone and volcanic exploration
NSE-F1 Area	L44/43	Horizontal appraisal well NSE-F5
NSE-G1 Area	L44/43	Deep volcanic exploration and appraisal
NSE North	L44/43	Exploration and appraisal of shallow volcanic

^{*} Final well numbers, locations and order of drilling are subject to ongoing Joint Venture discussion and Thai Department of Mineral Fuels approvals.

The Elite Drilling Rig (E-01), used for the bulk of the work in the December 2010 quarter, will continue drilling through the March 2011 quarter and the remainder of the 2011 calendar year. The rig is working efficiently and is under long term contract.

The near term focus will be further appraisal and development of reserves in and around the main Na Sanun East (NSE) oil field until such time the WBEXT production area application is approved and the L33-1 & 2 production EIA has been granted.

While the granting of the WBEXT production area is still within the timeframes as prescribed under Thailand Government legislation, previous applications have been approved in a more timely manner, such as the L33-1 & 2 production area application. The delay in granting this particular application is primarily due to ongoing discussions between the DMF and the Operator, Pan Orient Energy, on the size of the area to be approved. Currently it is anticipated the production area application will be approved before the end of February. As detailed previously, until such time as the application is approved several wells are currently shut-in.

Due to the delay in WBEXT production licence being issued and the lack of drilling success from the last few wells, Carnarvon is expecting production to average around 4,750 bopd gross (1,900 bopd net) for the March 2011 quarter. This level of production is lower than occurred in the December 2010 and September 2010 quarters but with continuous drilling and wells anticipated to be brought back on-line at the end of the March 2011 quarter, production is expected to improve in the June 2011 quarter.

OUTLOOK

(b) L20/50 Concession - Thailand

In the March 2011 quarter Carnarvon, as operator, will be drilling up to three exploration wells targeting an aggregate 90 mmbbls (45 mmbbls net to CVN). These are three exciting prospects on trend with an existing material oil field at Sirikit.

(c) WA-435-P, WA-436-P, WA-437-P and WA-438-P - Australia Offshore NW Shelf

During the March 2011 quarter it is expected the Joint Venture will have completed acquisition of some 1,100km2 of 3D and 407 km of 2D seismic data over the two gas bearing wells and the surrounding acreage. The Joint Venture will then oversee the processing and interpretation of these new seismic data before seeking a partner to drill a number of wells to test this potential multi tcf gas field. At this stage the farm out process is anticipated to commence in the second half of 2011.