



Highlights

A total of ten discoveries were reported:

Offshore at Monet (oil), Eskdale (oil & gas), Stickle (oil) and Harrison (oil) all in the Carnarvon Basin off Western Australia.

Onshore at Galilee (gas), Millswood (gas), Derrilyn (oil), all in the Cooper/Eromanga Basin of South Australia and at Xyris (gas) and Apium (gas) in the Perth Basin of Western Australia.

Overall level of exploration drilling in the first six months of 2004 (66 wells) is the highest since 1998. **Offshore** drilling activity (24 wells drilled in the first six months) is at generally low levels and the same as in 2002. **Onshore** drilling activity (42 wells drilled) is the highest for a number of years with most of the drilling undertaken in the Cooper/Eromanga Basin.

2D **onshore** seismic survey activity in the June quarter was about the same level as in the March quarter with the most activity occurring in New South Wales. There was no reported **offshore** 2D activity. **Offshore** 3D activity increased with all the activity in offshore Western Australia.

Development completions **offshore** were undertaken at Marlin and Mackerel in the Gippsland Basin, Exeter, Legendre North, Mutineer, South Plato, and Monet in the Carnarvon Basin and at Bayu Undan in the JPDA area of the Bonaparte Basin.

Development completions **onshore** occurred at Jingemia in the Perth Basin of Western Australia, Palm Valley in the Amadeus Basin of the Northern Territory and at Coonatie, Raven, Strzeleckie, Kidman North, Merrimelia, Moolion and Nephrite South all in the Cooper/Eromanga Basin of South Australia.

Drilling activity

Exploration drilling (Tables 1–3 & Figure 1) for the June quarter 2004 39 wells were drilled, 22 more than drilled during the same period in 2003 and 12 wells more than the 27 wells drilled in the previous quarter of 2004.

Offshore exploration wells drilled during the June quarter 2004 (17) is ten more than the seven drilled in the March quarter 2004 and three more than in the June quarter of 2003. Drilling was carried out in the Carnarvon (16) and Gippsland (1) Basins.

Onshore exploration wells drilled during the June quarter 2004 (22) is two more than the twenty wells of the March quarter 2004 and 19 more than the 3 wells of the June quarter last year. Drilling was carried out in the Cooper/Eromanga (13), Bowen/Surat (3), Perth (3), Otway (2) and Gippsland (1) Basins.

Development drilling (Tables 1–3 & Figure 1) activity for the June quarter of 2004 of 21 wells was 6 more than the previous quarter (15) and is the same as the June quarter 2003 (21).

Offshore, the number of development wells drilled during the June quarter 2004 (10) is 3 more than the previous quarter. These wells were drilled in the Bonaparte (1), Carnarvon (6) and Gippsland (3) Basins

Onshore, development wells drilled in the June quarter 2004 (11) is 3 more than the previous quarter (8). This is 4 less than the 15 drilled in the corresponding period of 2003. These wells were drilled in the Cooper/Eromanga Basin (9), Perth Basin (1) and in the Amadeus Basin (1).

Figure 1. Wells and metres drilled, 1993-2004

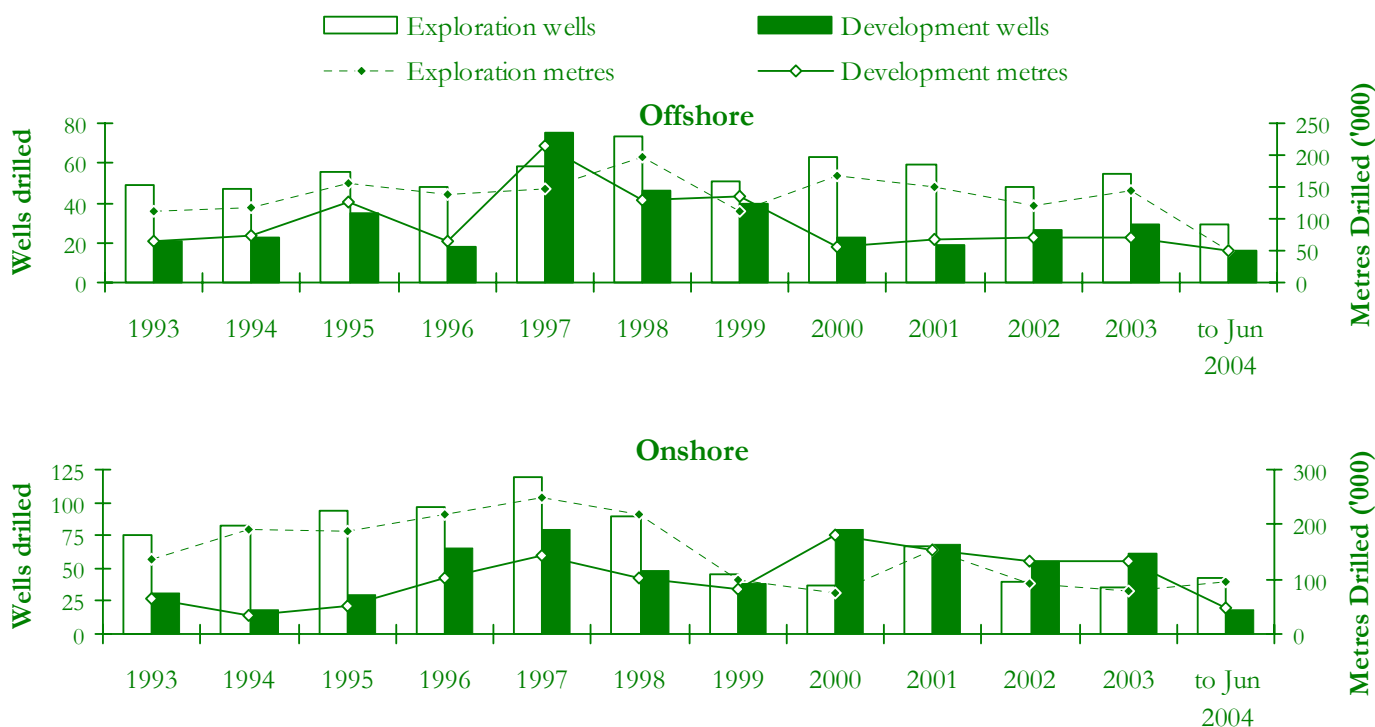


Table 1. Quarterly wells* and metres drilled 2001 to June 2004

Quarter Ended	Exploration				Development				Exploration		Development		Total	
	Onshore		Offshore		Onshore		Offshore		Total		Total		Total	
	Wells	Metres	Wells	Metres	Wells	Metres	Wells	Metres	Wells	Metres	Wells	Metres	Wells	Metres
Mar-01	17	38 159	19	48 938	23	55 232	0	0	36	87 097	23	55 232	59	142 329
Jun-01	15	36 212	12	31 218	17	40 893	8	36 100	27	67 430	25	76 993	52	144 423
Sep-01	15	34 358	10	25 184	16	36 543	8	21 175	25	59 542	24	57 718	49	117 260
Dec-01	21	49 280	18	44 465	12	20 291	4	9 932	39	93 745	16	30 283	55	124 028
Total 2001	68	158 009	59	149 805	68	152 959	20	67 207	127	307 814	88	220 226	215	528 040
Mar-02	11	23 164	16	38 668	18	45 639	5	15 771	27	61 832	23	61 410	50	123 242
Jun-02	7	17 099	8	17 921	21	47 860	10	27 989	15	35 020	31	75 849	46	110 869
Sep-02	10	22 673	9	25 023	6	15 539	7	19 198	19	47 696	13	34 737	32	82 433
Dec-02	12	29 102	15	38 655	11	23 448	5	13 188	27	67 757	16	36 636	43	104 393
Total 2002	40	92 038	48	120 267	56	132 486	27	76 146	88	212 305	83	208 632	171	420 937
Mar-03	9	18 600	21	46 773	9	23 160	8	20 462	30	65 373	17	43 622	47	108 995
Jun-03	3	8 475	14	39 797	15	37 653	6	18 916	17	48 272	21	56 569	38	104 841
Sep-03	7	13 552	11	31 885	22	44 381	6	12 953	18	45 437	28	57 334	46	102 771
Dec-03	17	36 970	9	26 249	15	27 221	9	19 978	26	63 219	24	47 199	50	110 418
Total 2003	36	77 597	55	144 704	61	132 415	29	72 309	91	222 301	90	204 724	181	427 025
Mar-04	20	49 106	7	14 483	8	22 276	7	21 985	27	63 589	15	44 261	42	107 850
Jun-04	22	47 951	17	36 541	11	24 579	10	27 278	39	84 492	21	51 857	60	136 349

*Wells that reached total depth during the quarter. †Revised.

Table 2. Onshore and offshore wells and metres drilled, June quarter 2004*

State	Exploration				Development				Onshore		Offshore		Total	
	Onshore		Offshore		Onshore		Offshore		Total		Total		Total	
	Wells	Metres	Wells	Metres	Wells	Metres	Wells	Metres	Wells	Metres	Wells	Metres	Wells	Metres
Qld	3	8 197	0	0	0	0	0	0	3	8 197	0	0	3	8 197
Vic	3	4 079	1	1 539	0	0	3	7 245	3	4 079	4	8 784	7	12 863
SA	13	26 799	0	0	9	21 287	0	0	22	48 086	0	0	22	48 086
WA	3	8 876	16	35 002	1	2 522	6	16 775	4	11 398	22	51 777	26	63 175
NT	0	0	0	0	1	770	0	0	1	770	0	0	1	770
JPDA**	0	0	0	0	0	0	1	3 258	0	0	1	3 258	1	3 258
Total	22	47 951	17	36 541	11	24 579	10	27 278	33	72 530	27	63 819	60	136 349

*Wells that reached total depth during the quarter.

Table 3. Onshore and offshore drilling status at 30 June 2004

State	Exploration wells											Development wells												
	Completed or C&S						Abandoned or secured					Completed or C&S						Abandoned or secured						
	D ¹	DA	Sus ²	Oil	Gas	O&G	Dry	Oil	Gas	O&G	Un	D ¹	DA	Sus	Oil	Gas	O&G	Ser ³	Dry	Oil	Gas	O&G	Un	
Qld	3	-	2	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vic	4	-	1	-	-	-	2	1	-	-	-	3	-	-	-	-	3	-	-	-	-	-	-	-
Tas	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SA	13	2	5	1	-	-	6	-	1	-	-	9	1	9	-	-	-	-	-	-	-	-	-	-
WA	19	-	3	1	1	-	8	5	-	1	-	7	2	2	2	-	-	-	2	1	-	-	-	-
NT	-	1	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1	-	-	-	-	-
JPDA	-	-	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-
Total Qtr	39	4	11	2	1	-	17	6	1	1	-	21	3	12	2	-	3	-	3	1	-	-	-	-
2003	94	4	11	6	9	-	62	6	10	-	-	90	4	48	16	4	1	-	19	2	-	-	-	-
2002	88	3	20	6	9	1	39	7	3	1	-	84	7	34	20	13	2	-	14	1	-	-	-	-
Previous quarter	27	6	5	1	3	1	16	-	-	1	-	15	-	2	3	6	-	-	4	-	-	-	-	-

C&S, cased and suspended; D, drilled; DA, drilling ahead; Sus, suspended; O&G, oil and gas; Un, unspecified; Ser, service well; JPDA: Joint Petroleum Development Area.

¹ Excludes wells drilling ahead or suspended. ² Indicates drilling has temporarily stopped before reaching final depth. ³ Classification applicable only to development wells.

⁴ Includes Territory of Ashmore and Cartier Islands.

Discoveries

Table 4 lists details of the reported discoveries of oil and gas during the Quarter ended 30 June 2004.

Table 4. Discoveries*, 1 April to 30 June 2004 (in order of discovery)

Operator	Field	Nature of discovery	Basin	State	Permit	Operator	Field	Nature of discovery	Basin	State	Permit
Offshore						Onshore					
Apache	Monet	Oil	Carnarvon	WA	TL 1	ARC energy	Xyris	Gas	Perth	WA	L 1
BHP Billiton	Eskdale	Oil &	Carnarvon	WA	WA 255	Stuart Pet.	Galilee	Gas	Cooper/Eromanga	SA	PEL 90
BHP Billiton	Stickle	Oil	Carnarvon	WA	WA 12	Santos	Millswood	Gas	Cooper/Eromanga	SA	PPL 143
BHP Billiton	Harrison	Oil	Carnarvon	WA	WA 12	Santos	Derrilyn	Oil	Cooper/Eromanga	SA	PPL 113
						Stuart Pet.	Harpoono	Oil	Cooper/Eromanga	SA	PEL 113
						Arc Energy	Apium	Gas	Perth	WA	L 1

*Subject to revision. † Inferred from logs only

Seismic survey activity

Offshore, there were no 2D seismic surveys recorded during the June quarter of 2004 (Table 5 & Figure 2). This has continued the decrease from the December quarter 2003 level of 6636 line kms. For the previous June quarter 2003 there was 4740 line kms recorded. 3D seismic surveys recorded 2 832 km² in the June quarter 2004 which is 754 km² more than recorded in the previous quarter and 828 km² less than in the same period in 2003. The surveys were undertaken in the Carnarvon Basin.

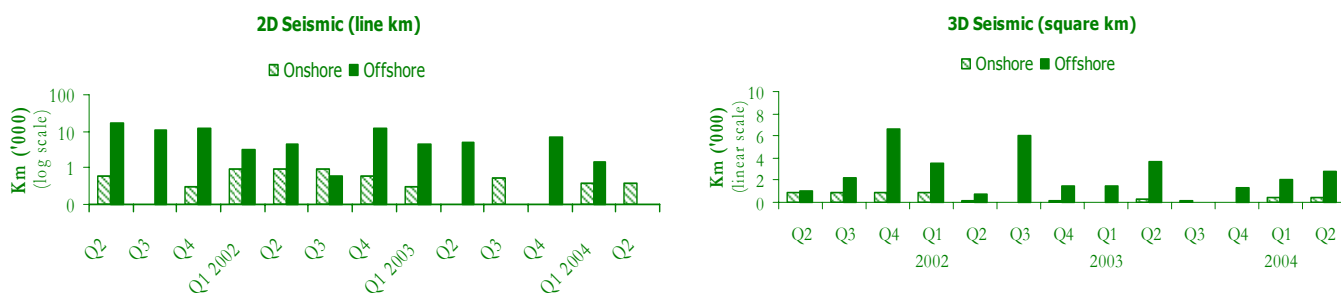
Onshore, a total of 566 km of 2D seismic were acquired during the June quarter 2004. This is 171 km more than in the previous quarter. These surveys were undertaken in the Cooper Basin of South Australia, and in the Gunnedah and Darling Basins of New South Wales. 3D seismic surveys were undertaken over 393 km² which is 18% less than the 481 km² in the previous quarter. These surveys were carried out in the Cooper Basin.

Table 5. Seismic survey activity

State	2003				March Quarter 2004				June Quarter 2004			
	Onshore		Offshore		Onshore		Offshore		Onshore		Offshore	
	2D	3D km ²	2D	3D km ²	2D	3D km ²	2D	3D km ²	2D	3D km ²	2D	3D km ²
Qld	210	509	23	-	25	429	-	-	-	393	-	-
NSW	175	-	-	-	-	-	1500	-	432	-	-	-
Vic	284	-	954	1709	-	-	-	-	-	-	-	-
Tas	-	-	1 336	-	-	-	-	-	-	-	-	-
SA	702	-	507	-	370	52	-	-	134	-	-	-
WA	-	-	18594	6204	-	-	-	2078	-	-	-	2832
NT	-	-	-	-	-	-	-	-	-	-	-	-
JPDA*	-	-	678	-	-	-	-	-	-	-	-	-
Sub-total	1 371	509	22092	7913	395	481	1500	2078	566	393	-	2832
Grand	<i>Line km</i>		23463		1895		566					
Total	<i>Square km</i>		8422		2559		3225					

*JPDA: Joint Petroleum Development Area. Line: approx. Line km for 3D surveys † Revised.

Figure 2. Seismic survey activity Quarter 2, 2001 to Quarter 2, 2004



Rig activity

The number of active rigs during June 2004 was fifteen, five more than June 2003 (10). Rig activity during the quarter ranged from 15 to 17, with 15 rigs active at the end of the quarter.

Offshore, the number of available rigs in the quarter ended June 2004 remained steady at eight for each month, with the number of active rigs at six, seven and seven. Active rigs were drilling in the Bonaparte, Carnarvon and Gippsland Basins.

Onshore, the number of active rigs for the quarter ended June 2004 varied between eight and ten, which is greater than the same period last year (4-8). The total number of inactive rigs ranged from nine to ten.

Success rates

The success rates shown in Table 7 are based on the number of petroleum discoveries and new-field wildcat wells drilled in Australia onshore and offshore from 1990 to 2003. No assumptions have been made about whether a 'discovery' has proved or will prove to be commercial. Geoscience Australia defines a discovery as a well from which a measurable amount of oil or gas has been recovered and also includes those discoveries inferred from well logs.

Table 7. Success rates, 1990-2003

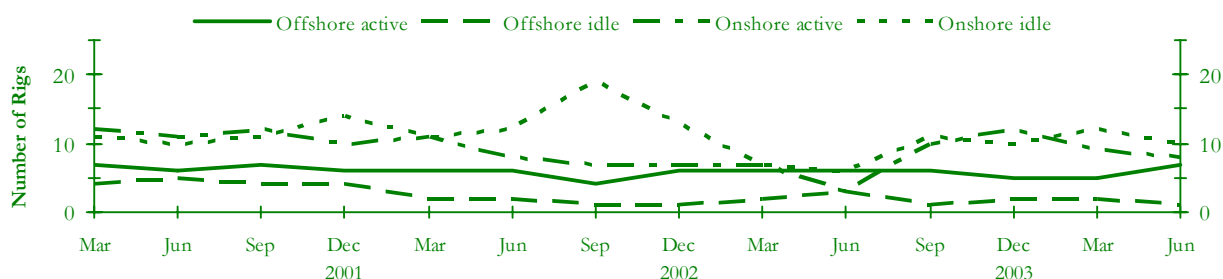
Year	Success Rate		
	Onshore	Offshore	Combined
1990	1:2.7	1:5.2	1:3.5
1991	1:2.7	1:5.1	1:3.2
1992	1:3.4	1:4.3	1:3.7
1993	1:3.4	1:3.5	1:3.4
1994	1:1.9	1:4.0	1:2.3
1995	1:2.8	1:4.7	1:3.4
1996	1:2.8	1:3.5	1:3.1
1997	1:2.1	1:4.6	1:2.6
1998	1:2.2	1:4.9	1:3.0
1999	1:4.0	1:4.0	1:4.0
2000	1:3.3	1:2.9	1:3.0
2001	1:1.9	1:4.0	1:2.6
2002	1:1.5	1:2.8	1:2.2
2003	1:3.5	1:7.1	1:5.2

Table 6. Drilling rig activity, April 2003 to June 2004

	Active					Idle					Availability			
	Onshore			Offshore	Total	Onshore			Offshore	Total	Onshore		Offshore	
	S	M	D	(all deep)		S	M	D	(all deep)		Total	%Active	Total	%Active
Apr-03	0	3	5	5	13	6	2	6	4	18	22	36	9	56
May	0	1	4	6	11	4	2	5	3	14	16	31	9	67
Jun	0	1	3	6	10	3	2	6	3	14	15	27	9	67
Jul	0	1	5	5	11	4	2	7	4	17	19	32	9	56
Aug	0	1	6	5	12	5	3	7	3	18	22	32	8	63
Sep	0	2	8	6	16	3	3	5	1	12	21	48	7	86
Oct	0	2	7	5	14	3	2	6	3	14	20	45	8	63
Nov	0	2	9	5	16	3	2	4	2	11	20	55	7	71
Dec	0	2	10	5	17	3	4	3	2	12	22	55	7	71
Jan-04	0	1	10	5	16	3	5	2	3	13	21	52	8	63
Feb	0	1	7	5	13	3	5	5	3	16	21	38	8	63
Mar	0	1	8	5	14	3	5	5	1	14	22	41	6	83
Apr	0	1	8	6	15	3	3	4	2	12	19	47	8	75
May	0	1	9	7	17	3	3	3	1	10	19	53	8	88
Jun	0	1	7	7	15	3	3	4	1	11	18	44	8	88

S, shallow (<1525 m); M, medium (1525-2750 m); D, deep (>2750 m).

Figure 3. Drilling rig activity, Mar 2001-Jun 2004



This publication includes preliminary statistics for wells and metres drilled, seismic survey line & square kilometres recorded and rig activity, to the end of June 2004. The data from which these statistics are derived have been compiled by Geoscience Australia from various sources, including the petroleum exploration industry and State and Northern Territory departments of mines.

Queries concerning these statistics should be directed to Eugene Petric: Eugene.Petric@ga.gov.au; Ph. (02) 6249 9270 or Fax (02) 6249 9962.

This document is available on the Internet at <http://www.ga.gov.au/oceans/> and look under 'Petroleum Industry Statistics'.