



Highlights

- One oil and gas discovery was reported at Skiddaw in exploration permit WA-255-P R1 in the Carnarvon Basin off Western Australia.
- Overall level of exploration drilling in the first half of 2003 (48 wells) is above the low level of 42 wells drilled in the same period last year. *Offshore* exploration drilling activity in the June quarter (14 wells) is the highest since 2000 (15 wells drilled) and the first half year level in 2003 (36 wells drilled) is the highest level of offshore exploration drilling since 1998 (39 wells drilled). *Onshore* exploration drilling activity in the June quarter (3 wells drilled) is the lowest for any quarter level of drilling for over 25 years. The first half year level at 12 wells drilled is the lowest level of onshore drilling for 25 years.
- 2D offshore seismic survey acquisition improved over the March quarter of 2003 but is significantly down in the first half year of 2003 on levels of acquisition achieved in previous years. 3D seismic acquisition in the June quarter is more than double that acquired in the March quarter and may at year's end exceed the low levels acquired in 2002.
- Offshore development completions occurred in at Legendre North (one well) and Stag (one well), both in the Carnarvon Basin; at Flounder (2 wells) in the Gippsland Basin and at Bayu Undan (2 wells) in the Bonaparte Basin. Onshore development completions occurred in at Big Lake, Caladan, Cowralli, Dorodillo, Moomba and Pelican all in the Cooper/Eromanga Basin; at Moonie in the Surat Basin of Queensland and at Myall Creek in the Bowen/Surat Basin of Queensland.

Offshore exploration wells drilled during the June quarter 2003 (14) is six more than in June quarter 2002 and six less than in the previous quarter. Drilling was carried out in the Browse (1), Carnarvon (11), and Great Australian Bight (2) Basins.

One well was drilling ahead at the end of June in the Carnarvon Basin.

Onshore exploration wells drilled during the June quarter 2003 (3) is less than half the seven wells in the corresponding period last year and only a third of the nine wells drilled in the first quarter of 2003. These wells were drilled in the Cooper/Eromanga, Maryborough and Perth Basins (1 each).

One well was drilling ahead at the end of the quarter in Cooper/Eromanga Basin.

Development drilling (Tables 1–3 & Figure 1) activity for the second quarter of 2003 (21) is up by four on the previous quarter (17) and down by ten on the thirty-one of the same period last year.

Offshore, the number of development wells drilled during the June quarter of 2003 (6) is two less than the previous quarter's eight wells and four less than in the June quarter of 2002. Completions undertaken were in the Bonaparte, Carnarvon, Gippsland Basins (1 each).

Onshore, the fifteen development wells drilled in the second quarter is six more than the nine wells of the previous quarter, and is six less than the twenty-one wells of the corresponding quarter of 2002. One well was drilled in the Bowen/Surat basin, twelve in the Cooper/Eromanga Basin and two were drilled in the Surat Basin. One well was drilling ahead in the Cooper/Eromanga Basin at the end of the quarter.

Drilling activity

Exploration drilling (Tables 1–3 & Figure 1) for June 2003 (17 wells) is 2 more than drilled during the same period in 2002 (15) wells but is only just over half the wells drilled 1st quarter 2003.

Figure 1. Wells and metres drilled, 1993-2003

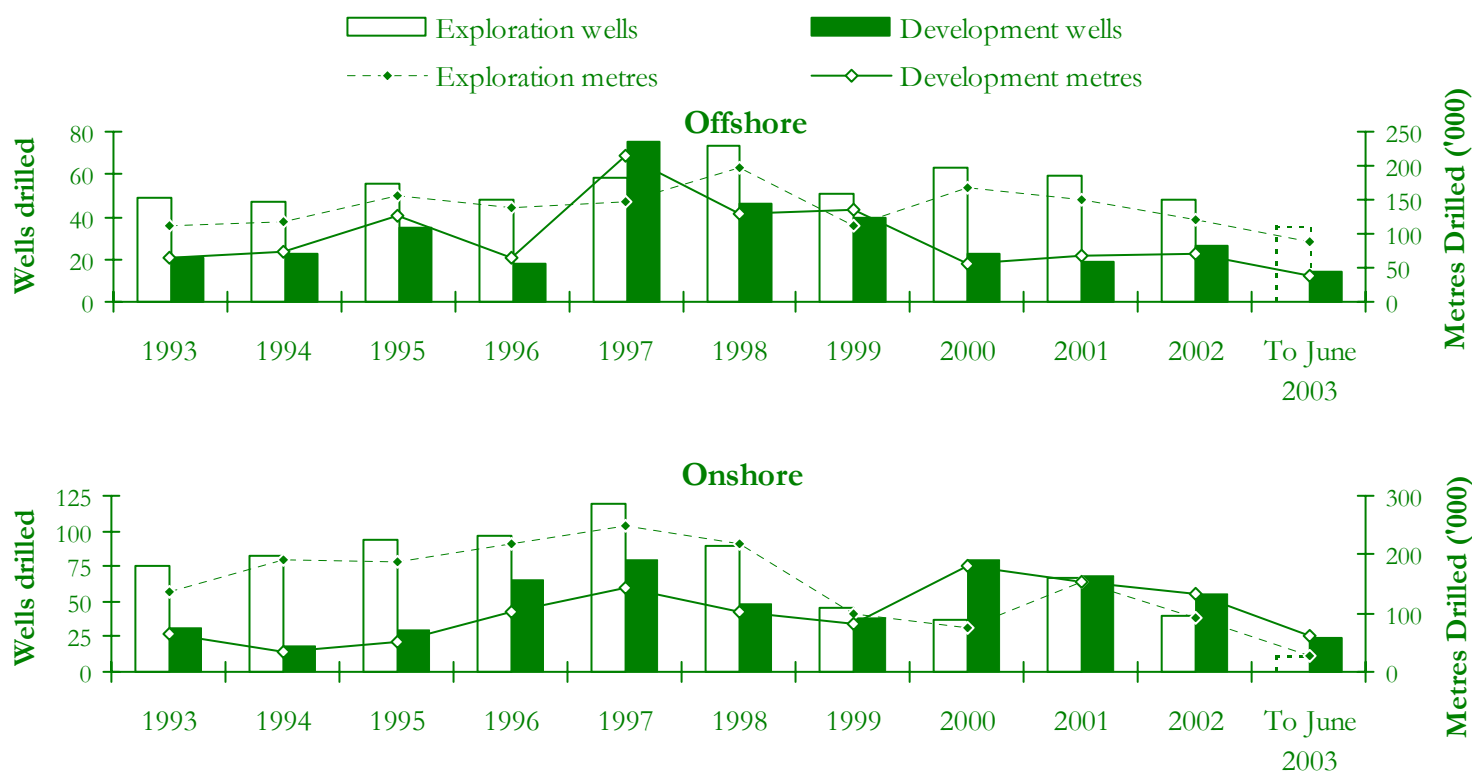


Table 1. Quarterly wells* and metres drilled 2000 to 2003

| 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-00 | 7 | 14 357 | 16 [†] | 40 715 [†] | 14 | 35 856 [†] | 2 [†] | 4 645 [†] | 23 [†] | 55 072 [†] | 16 [†] | 40 501 [†] | 39 | 95 573 [†] |
| Jun-00 | 7 | 12 235 | 15 | 37 947 | 19 | 38 801 | 8 | 17 056 | 22 | 50 182 | 27 | 55 857 | 49 | 106 039 |
| Sep-00 | 9 | 21 457 | 20 | 52 906 | 24 | 54 596 [†] | 4 | 9 618 | 29 | 74 363 | 28 | 64 214 [†] | 57 | 138 577 [†] |
| Dec-00 | 14 | 28 400 [†] | 12 | 37 308 | 22 | 51 202 | 9 | 24 854 [†] | 26 | 65 708 [†] | 31 | 76 056 [†] | 57 | 141 764 [†] |
| Total 2000 | 37 | 76 449[†] | 63[†] | 168 876[†] | 79 | 180 455[†] | 23[†] | 56 173[†] | 100[†] | 245 325[†] | 102[†] | 236 628[†] | 202 | 481 953[†] |
| Mar-01 | 16 [†] | 33 975 [†] | 19 | 48 938 | 23 [†] | 55 232 [†] | 0 | 0 | 35 [†] | 82 913 [†] | 23 [†] | 55 232 [†] | 58 | 138 145 [†] |
| 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 | 7 [†] | 21 175 | 25 | 59 542 | 23 [†] | 57 718 | 48 [†] | 117 260 |
| Dec-01 | 21 | 49 280 | 18 | 44 465 [†] | 12 [†] | 20 291 [†] | 4 [†] | 9 792 [†] | 39 | 93 745 [†] | 16 [†] | 30 083 [†] | 55 [†] | 123 828 [†] |
| Total 2001 | 67[†] | 153 825[†] | 59 | 149 801[†] | 68[†] | 152 959[†] | 19[†] | 67 067[†] | 126[†] | 303 626[†] | 87 | 220 026[†] | 213[†] | 523 652[†] |
| Mar-02 | 11 | 23 164 | 16 [†] | 38 668 [†] | 18 | 45 639 | 4 [†] | 10 460 [†] | 27 [†] | 61 832 [†] | 22 [†] | 56 099 [†] | 49 | 117 931 [†] |
| 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[†] | 26 | 70 834[†] | 88[†] | 212 305[†] | 82[†] | 203 320[†] | 170 | 415 625[†] |
| Mar-03 | 9 | 18 600 [†] | 22 [†] | 48 268 [†] | 9 [†] | 23 160 [†] | 8 | 20 462 | 31 [†] | 66 868 [†] | 17 [†] | 43 622 [†] | 48 [†] | 110 490 [†] |
| Jun-03 | 3 | 8 475 | 14 | 39 797 | 15 | 37 653 | 6 | 18 916 | 17 | 48 272 | 21 | 56 569 | 38 | 104 841 |

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

Table 2. Onshore and offshore wells and metres drilled, June 2003*

| 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 | 2 | 4 815 | – | – | 3 | 5 753 | – | – | 5 | 10 568 | – | – | 5 | 10 568 |
| NSW | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Vic | – | – | – | – | – | – | 2 | 5 791 | – | – | 2 | 5 791 | 2 | 5 791 |
| Tas | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| SA | – | – | 2 | 6 560 | 12 | 31 900 | – | – | 12 | 31 900 | 2 | 6 560 | 14 | 38 460 |
| WA | 1 | 3 660 | 12 | 33 237 | – | – | 2 | 4 808 | 1 | 3 660 | 14 | 38 045 | 15 | 41 705 |
| NT | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| JPDA** | – | – | – | – | – | – | 2 | 8 317 | – | – | 2 | 8 317 | 2 | 8 317 |
| Total | 3 | 8 475 | 14 | 39 797 | 15 | 37 653 | 6 | 18 916 | 18 | 46 128 | 20 | 58 713 | 38 | 104 841 |

*Wells that reached total depth during the quarter.

Table 3. Onshore and offshore drilling status at 30 June 2003

| 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 | 2 | – | – | – | – | – | 2 | – | – | – | – | 3 | – | – | 1 | – | – | – | 2 | – | – | – | – | – |
| NSW | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Vic | – | – | – | – | – | – | – | – | – | – | – | 2 | – | – | 1 | – | – | – | 1 | – | – | – | – | – |
| Tas | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| SA | 2 | 1 | – | – | – | – | 2 | – | – | – | – | 12 | 1 | – | 1 | 11 | – | – | – | – | – | – | – | – |
| WA | 13 | 1 | 1 | – | – | – | 8 | 2 | 1 | 2 | – | 2 | – | – | 1 | – | – | – | 1 | – | – | – | – | – |
| NT ⁴ | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| JPDA | – | – | – | – | – | – | – | – | – | – | – | 2 | 2 | – | 1 | – | – | – | 1 | – | – | – | – | – |
| Total Qtr | 17 | 2 | 1 | – | – | – | 12 | 2 | 1 | 2 | – | 21 | 3 | – | 5 | 11 | – | – | 5 | – | – | – | – | – |
| 2002 | 88 | 3 | 2 | 14 | 22 | 2 | 32 | 12 | 3 | 3 | – | 82 | 7 | – | 34 | 41 | 3 | – | 4 | – | – | – | – | – |
| 2001 | 126 | 5 | 1 | 8 | 41 | – | 60 | 10 | 6 | 1 | – | 87 | 1 | – | 27 | 55 | – | – | 3 | – | 2 | – | – | – |
| Previous quarter | 31 | 3 | 1 | – | 2 | – | 19 | 6 | 4 | – | – | 17 | 5 | – | 9 | 8 | – | – | – | – | – | – | – | – |

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 at the end of March 2003.

Table 4. Discoveries*, 1 January to 30 June 2003 (in order of discovery)

| Operator | Field | Nature of discovery | Basin | State | Permit | Operator | Field | Nature of discovery | Basin | State | Permit |
|-----------------|------------------|---------------------|-----------|-------|-------------|----------------|---------|---------------------|-------|-------|--------|
| Offshore | | | | | | Onshore | | | | | |
| Apache | Dawn† | Gas | Carnarvon | WA | TL/1 | Arc | Eremia† | Oil | Perth | WA | L 1 R1 |
| Esso | Scallop† | Gas | Gippsland | Vic | Vic/RL2 | | | | | | |
| BHPBilliton | Stybarrow† | Oil | Carnarvon | WA | WA-255-P | | | | | | |
| Tap | Cyrano† | Oil & Gas | Carnarvon | WA | EP 364 | | | | | | |
| Tap | Crackling South† | Oil | Carnarvon | WA | EP 341 | | | | | | |
| BHPBilliton | Skiddaw† | Oil & Gas | Carnarvon | WA | WA-255-P R1 | | | | | | |

*Subject to revision. † Inferred from logs only

Seismic survey activity

Offshore, 2D seismic surveys recorded 4 737 line km during the June quarter of 2003 (Table 5 & Figure 2). This is an increase on the 3 578 km shot in the previous quarter and almost the same as the 4 645 km carried out during the same period in 2002.

3D seismic surveys were carried out over 3 658 km², which is a significant increase to the 1 500 km² carried out in the previous quarter and for the same period in 2002.

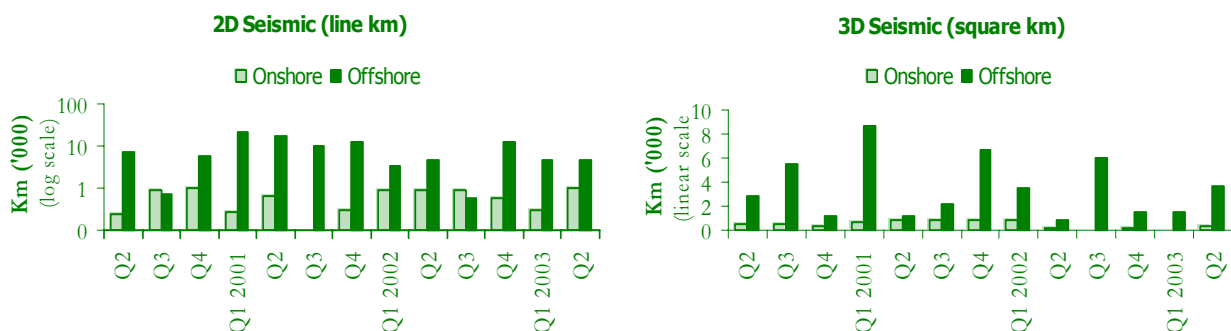
Onshore, 364 line kilometres were acquired in 2D seismic surveys during the June quarter of 2003. This is a small increase on the 305 km of the previous quarter and lower than the 939 km of the June quarter of 2002. There were no 3D seismic surveys carried out onshore which follows the trend over the last few quarters.

Table 5. Seismic survey activity

| State | 2002 | | | | March Quarter 2003 | | | | June Quarter 2003 | | | |
|------------------|------------------|--------------------|---------------|--------------------|--------------------|--------------------|--------------|--------------------|-------------------|--------------------|--------------|--------------------|
| | 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 | 1 688 | 838 | -- | -- | 130 | -- | -- | -- | 80 | -- | 23 | -- |
| NSW | 311 | -- | -- | -- | 175 | -- | -- | -- | -- | -- | -- | -- |
| Vic | 562 | -- | 3 286 | 3885 | -- | -- | -- | 1 500 | 284 | -- | -- | -- |
| Tas | -- | -- | 1 142 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SA | 826 | 342 | -- | 300 | -- | -- | -- | -- | -- | -- | -- | -- |
| WA | -- | 57 | 14 867 | 2 110 | -- | -- | 3 578 | -- | -- | -- | 4 036 | 3 658 |
| NT | -- | -- | 6 485 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JPDA* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 678 | -- |
| Sub-total | 3 387 | 1 237 | 25 780 | 6 295 | 305 | -- | 3 578 | 1 500 | 364 | -- | 4 737 | 3 658 |
| Grand | <i>Line km</i> | | 29 167 | | 3 883 | | 5 101 | | | | | |
| Total | <i>Square km</i> | | 7 532 | | 1 500 | | 3658 | | | | | |

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

Figure 2. Seismic survey activity Quarter 2, 2000 to Quarter 2, 2003



Rig activity

The total number of active rigs during the June 2003 quarter was thirty-four, which is a decrease on the number active in the June 2002 quarter (51). Rig activity during the quarter didn't vary much with 13, 11 and 10 rigs active respectively.

Offshore, the number of active rigs remained steady at 5, 6 and 6 respectively each month and inactive rigs between 0 and 5 during the quarter.

Development drilling occurred in the Carnarvon, Bonaparte and Gippsland Basins. Exploration drilling was carried out in the Carnarvon, Browse and the Great Australian Bight Basins.

The only active rigs drilling ahead at the end of the quarter were in the Carnarvon and Bonaparte Basins.

Onshore, the number of active rigs varied between 0 and 5, which is lower than in the same period last year (1-7). During the second quarter of 2003, development drilling occurred in the Cooper/Eromanga, Bowen/Surat and Surat Basins.

Exploration drilling was carried out in the Maryborough, Cooper/Eromanga, and Perth Basins. Two rigs were involved with drilling ahead in the Cooper/Eromanga Basin at the end of the quarter.

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 2002. 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, 1990-2002

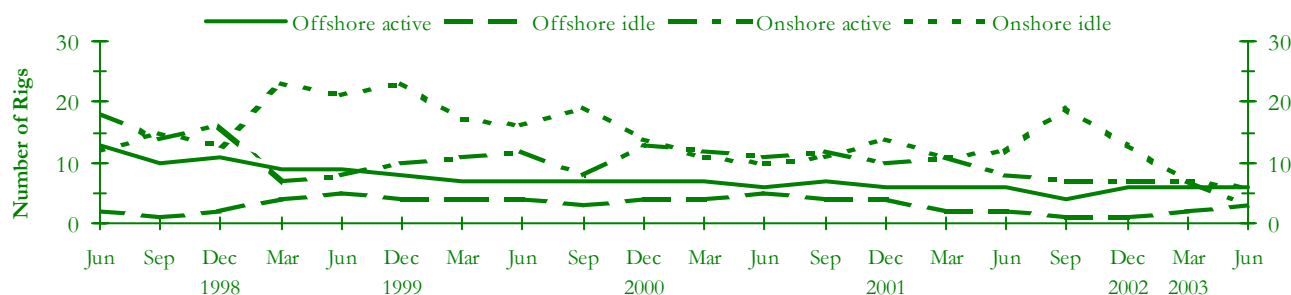
| Year | Success Rate | | |
|------|--------------|----------|----------|
| | Onshore | Offshore | Combined |
| 1990 | 1:2.8 | 1:4.2 | 1:3.3 |
| 1991 | 1:2.4 | 1:8.0 | 1:3.1 |
| 1992 | 1:3.3 | 1:4.7 | 1:3.7 |
| 1993 | 1:2.6 | 1:3.3 | 1:2.8 |
| 1994 | 1:1.8 | 1:3.3 | 1:2.1 |
| 1995 | 1:2.5 | 1:3.8 | 1:2.8 |
| 1996 | 1:2.8 | 1:2.7 | 1:2.8 |
| 1997 | 1:1.9 | 1:4.6 | 1:2.3 |
| 1998 | 1:2.1 | 1:4.1 | 1:2.7 |
| 1999 | 1:2.5 | 1:3.5 | 1:3.0 |
| 2000 | 1:3.1 | 1:2.2 | 1:2.4 |
| 2001 | 1:1.8 | 1:3.6 | 1:2.4 |
| 2002 | 1:1.5 | 1:3.0 | 1:2.1 |

Table 6. Drilling rig activity, April 2002 to June 2003

| | Active | | | | Idle | | | | Availability | | | | | |
|--------|---------|---|----------|------------|---------|---|----------|---|--------------|-------|----------|-------|---------|-----|
| | Onshore | | Offshore | | Onshore | | Offshore | | Onshore | | Offshore | | | |
| | S | M | D | (all deep) | Total | S | M | D | (all deep) | Total | %Active | Total | %Active | |
| Apr | 0 | 2 | 10 | 7 | 19 | 0 | 6 | 4 | 2 | 12 | 22 | 55 | 9 | 78 |
| May | 0 | 2 | 9 | 7 | 18 | 0 | 6 | 5 | 2 | 13 | 22 | 50 | 9 | 78 |
| Jun | 0 | 0 | 8 | 6 | 14 | 0 | 7 | 5 | 2 | 14 | 20 | 40 | 8 | 75 |
| Jul | 0 | 2 | 6 | 3 | 11 | 1 | 7 | 6 | 2 | 16 | 22 | 36 | 5 | 60 |
| Aug | 0 | 1 | 5 | 3 | 9 | 1 | 8 | 8 | 1 | 18 | 23 | 26 | 4 | 75 |
| Sep | 0 | 1 | 6 | 4 | 11 | 2 | 9 | 8 | 1 | 20 | 26 | 27 | 5 | 80 |
| Oct | 0 | 2 | 6 | 3 | 11 | 2 | 7 | 6 | 1 | 16 | 23 | 35 | 4 | 75 |
| Nov | 2 | 2 | 5 | 5 | 14 | 0 | 6 | 5 | 0 | 11 | 20 | 45 | 5 | 100 |
| Dec | 0 | 1 | 6 | 6 | 13 | 2 | 5 | 6 | 1 | 14 | 20 | 35 | 7 | 86 |
| Jan-03 | 1 | 3 | 5 | 6 | 15 | 2 | 1 | 5 | 1 | 9 | 17 | 53 | 7 | 86 |
| Feb | 2 | 2 | 6 | 6 | 16 | 2 | 2 | 6 | 1 | 11 | 20 | 50 | 7 | 86 |
| Mar | 1 | 2 | 7 | 6 | 16 | 3 | 2 | 7 | 2 | 14 | 22 | 45 | 8 | 75 |
| Apr | 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 |

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

Figure 3. Drilling rig activity, June 1998-June 2003



This publication includes the following: preliminary statistics for wells and metres drilled, seismic survey line & square kilometres recorded and rig activity, to the end of June 2003. 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 Petrie: Eugene.Petrie@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'.