

STATISTICAL BULLETIN

MINERAL EXPLORATION

No. 5 1968-69



COMMONWEALTH BUREAU OF CENSUS AND STATISTICS
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COMMONWEALTH BUREAU OF CENSUS AND STATISTICS
CANBERRA, AUSTRALIA

MINERAL EXPLORATION

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INTRODUCTION

This bulletin contains annual statistics of exploration for minerals in Australia. Part 1 sets out statistics of exploration for minerals other than petroleum, which are derived from the annual Mineral Exploration Census (Excluding Petroleum Exploration), carried out by this Bureau in association with State Mines Departments. Part 2 shows information relating to petroleum exploration, collected by the Bureau of Mineral Resources, Geology and Geophysics.

Period Covered

2. For 1968 and earlier years the annual Mineral Exploration Census (Excluding Petroleum Exploration) related to years ended 31 December. As from 1968-69, the reporting period for this census has been changed to a year ended 30 June, to conform with a similar change in the annual Mining Census. A double line is drawn between columns for 1968 and 1968-69 to indicate this break in continuity of the series. It should be noted that data for the six months ended 31 December 1968 are included in both the 1968 and 1968-69 figures in these tables.

3. Petroleum exploration data continue to relate to years ended 31 December. The latest year for which petroleum exploration data are shown is the calendar year ending in the latest year for which non-petroleum mineral exploration data are available. Hence the tables shown in Part 2 repeat information which was shown in the previous issue of this bulletin.

Scope

4. It should be noted that the scope of the data for mineral exploration (other than for petroleum) set out in Part 1 differs in some respects from that for petroleum exploration shown in Part 2. For further details see the explanatory notes on scope at the beginning of each Part.

Rounding

5. Any discrepancies between totals and sums of components in tables are due to rounding.

Symbols used

6. .. nil or less than half the unit shown

n.a. not available.

PART 1. - MINERAL EXPLORATION (OTHER THAN FOR PETROLEUM)EXPLANATORY NOTESScope and coverage

The Mineral Exploration Census (Excluding Petroleum Exploration) is conducted by the Bureau in association with State Mines Departments. Each company or organisation engaged in exploration is required to complete a separate census return in respect of its exploration activities in each State.

2. Exploration consists of the search for, and/or appraisal of new ore occurrences and known deposits of minerals (including extensions to deposits being worked) by geological, geophysical, geochemical and other methods (including drilling). Exploration for water is excluded. The construction of shafts and adits is included if primarily for exploration purposes. Excluded are mine development activities (which include the construction of drives, shafts, winzes, etc.) in underground mines and the preparation of quarrying sites for open-cut extraction (including overburden removal) carried out primarily for the purpose of commencing or extending mining and quarrying operations. Mine development activities (including mines under development) are included in the scope of the annual Census of Mining and Quarrying, the results of which are published in the annual bulletin "Mining and Quarrying" (Reference No. 10.20).

3. The data obtained in the Mineral Exploration Census are divided into the following categories:

- (i) Private exploration on production leases. Relates to exploration carried out on the production lease by privately operated mines currently producing or under development for production of minerals. This also includes particulars of exploration within their production leases by business undertakings operated by State government authorities. Mines included in this section of the Mineral Exploration Census are practically the same as those in the annual Census of Mining and Quarrying (see the statistical bulletin "Mining and Quarrying, No. 17, 1968" (Reference No. 10.20) for further details) with the exception of a limited number of itinerant prospectors and small mines for which information was not collected.
- (ii) Private exploration on other licensed areas. Relates to exploration carried out on areas covered by exploration licences, authorities to enter, authorities to prospect, and similar licences and authorities issued by State governments for exploration for minerals.
- (iii) Other private exploration. Relates to exploration for minerals which is not directly connected with areas under lease, licence, etc., including general surveys, aerial surveys, report writing, map preparation and other off-site activities not directly attributable to particular lease or licence areas.
- (iv) Exploration by Government. Relates to exploration for minerals carried out by -
 - (a) Commonwealth Government (Bureau of Mineral Resources, Geology and Geophysics, and Joint Coal Board), and
 - (b) State Mines Departments.

4. Prior to 1968 the scope of the Census was limited to private exploration on lease or licence areas held for production and exploration purposes, and all Government exploration. As from 1968, the scope of private exploration has been broadened to take in general exploration survey work (including aerial surveys, report writing, map preparation, etc.) and other exploration activity not attributable to particular lease or licence areas. Details of this type of private exploration activity are shown separately as "other private exploration".

Classification of private exploration by size of expenditure

5. Included in this bulletin for the first time are classifications of private exploration by size of expenditure. These classifications are set out in Tables 9 and 10. For the purpose of these tables the total exploration activities of a company or organisation are regarded as a single enterprise irrespective of the number of States in which it operated, the number of returns which it completed or the number of types of activity in which it engaged.

Definitions

6. Core drilling. Diamond drilling or any kind of drilling in which drill cores are taken.

Non-core drilling. Alluvial, percussion and other drilling in which drill cores are not taken.

Shaft. Vertical or sloping access to underground mineral deposit.

Winze. Internal shaft in mine, usually connecting two levels in plane of lode.

Adit. Horizontal or inclined access to underground mineral deposit, usually from a hillside.

Drive. A tunnel or level in (or parallel to and near) a mineral deposit.

PART 1. - MINERAL EXPLORATION (OTHER THAN FOR PETROLEUM)TABLE 1. - PRIVATE AND GOVERNMENT EXPLORATION : EXPENDITURE (a)AUSTRALIA

(\$'000)

	1965	1966	1967	1968	1968-69 (b)
<u>Private exploration -</u>					
On production leases -					
On drilling	4,823	5,733	6,198	5,733	6,715
Other (c)	3,566	3,708	3,128	1,913	3,463
<u>Total</u>	8,389	9,441	9,326	7,645	10,178
On other licensed areas -					
On drilling	4,579	7,277	8,178	13,190	17,658
Other (c)	9,392	11,397	17,318	29,856	41,663
<u>Total</u>	13,971	18,674	25,496	43,046	59,321
Other private exploration (d)	n.a.	n.a.	n.a.	1,772	3,063
<u>Total private exploration -</u>					
On drilling	9,402	13,010	14,376	18,922	24,373
Other (c)	12,958	15,105	20,446	(e)33,541	(e)48,189
<u>TOTAL</u>	22,360	28,115	34,822	(e)52,463	(e)72,562
<u>Government exploration -</u>					
State governments -					
On drilling	1,036	932	1,058	1,477	1,726
Other (c)	660	717	711	852	1,213
<u>Total</u>	1,697	1,649	1,768	2,329	2,939
Commonwealth government -					
On drilling	72	52	57	48	97
Other (c)	1,452	1,871	2,746	3,481	3,494
<u>Total</u>	1,525	1,923	2,803	3,529	3,591
<u>Total government exploration -</u>					
On drilling	1,109	984	1,114	1,525	1,823
Other (c)	2,113	2,588	3,457	4,333	4,707
<u>TOTAL</u>	3,223	3,572	4,571	5,858	6,530
<u>TOTAL EXPENDITURE -</u>					
On drilling	10,511	13,994	15,490	20,448	26,196
Other (c)	15,071	17,693	23,903	37,873	52,896
<u>GRAND TOTAL</u>	25,582	31,687	39,393	58,321	79,092

(a) Expenditure whether charged as working expenses or capitalised. (b) Year ended 30 June : see Introduction, page 3, paragraph 2. (c) Includes geological, etc., adits, shafts, etc. (d) Not attributable to particular lease or licence areas. (e) Includes "other private exploration", not collected prior to 1968 : see Explanatory Notes, page 6, paragraph 4.

PART 1. - MINERAL EXPLORATION (OTHER THAN FOR PETROLEUM)TABLE 2. - PRIVATE AND GOVERNMENT EXPLORATION : EMPLOYMENT (a)AUSTRALIA

('000 man-weeks)

	1965	1966	1967	1968	1968-69(b)
<u>Private exploration -</u>					
On production leases -					
By professional persons (c)	10.0	10.7	9.0	6.5	7.2
By non-professional persons	29.0	27.8	23.8	25.6	24.2
<u>Total</u>	39.0	38.4	32.9	32.1	29.6
On other licensed areas -					
By professional persons (c)	18.5	22.8	26.9	29.3	31.8
By non-professional persons	26.2	46.9	52.9	71.5	90.3
<u>Total</u>	44.7	69.8	79.8	100.8	125.6
Other private exploration (d) -					
By professional persons (c)	n.a.	n.a.	n.a.	2.3	3.5
By non-professional persons	n.a.	n.a.	n.a.	4.4	5.2
<u>Total</u>	n.a.	n.a.	n.a.	6.7	8.7
<u>Total private exploration -</u>					
By professional persons (c)	28.5	33.5	35.9	(e) 38.1	(e) 45.5
By non-professional persons	55.1	74.7	76.7	(e) 101.5	(e) 118.4
<u>TOTAL</u>	83.6	108.2	112.6	(e) 139.6	(e) 163.9
<u>Government exploration -</u>					
State governments -					
By professional persons (c)	7.2	5.6	4.5	6.4	7.0
By non-professional persons	8.6	9.4	11.4	7.2	10.0
<u>Total</u>	15.8	15.0	15.9	13.7	17.0
Commonwealth government -					
By professional persons (c)	3.9	5.0	6.3	5.3	5.1
By non-professional persons	4.3	6.1	7.9	6.5	6.6
<u>Total</u>	8.2	11.1	14.2	11.9	11.7
<u>Total Government exploration -</u>					
By professional persons (c)	11.2	10.6	10.8	11.8	12.1
By non-professional persons	12.9	15.5	19.3	13.7	16.7
<u>TOTAL</u>	24.1	26.1	30.1	25.5	28.8
<u>TOTAL MAN-WEEKS WORKED -</u>					
By professional persons (c)	39.7	44.0	46.7	49.9	57.6
By non-professional persons	68.0	90.3	96.0	115.2	135.0
<u>GRAND TOTAL</u>	107.7	134.3	142.7	165.1	192.6

(a) The operator and his staff only; excludes contractors and their employees.

(b) Year ended 30 June : see Introduction, page 3, paragraph 2. (c) Geologists, geophysicists, engineers, etc., engaged in exploration work. (d) Not attributable to particular lease or licence areas. (e) Includes "other private exploration", not collected prior to 1968 : see Explanatory Notes, page 6, paragraph 4.

PART 1. - MINERAL EXPLORATION (OTHER THAN FOR PETROLEUM)TABLE 3. - PRIVATE AND GOVERNMENT EXPLORATION: FOOTAGE DRILLED, SUNK OR DRIVEN (a)AUSTRALIA

('000 feet)

	1965	1966	1967	1968	1968-69(b)
<u>Private exploration -</u>					
On production leases -					
Drilled -					
Core	653	734	812	671	825
Non-core	547	815	1,012	744	738
<u>Total drilled</u>	1,200	1,549	1,823	1,415	1,563
Sunk or driven	59	51	20	25	97
On other licensed areas -					
Drilled -					
Core	309	733	697	1,129	1,583
Non-core	837	1,538	2,049	2,607	3,076
<u>Total drilled</u>	1,145	2,272	2,746	3,736	4,658
Sunk or driven	9	8	10	98	113
<u>Total private exploration -</u>					
Drilled -					
Core	962	1,467	1,509	1,799	2,408
Non-core	1,384	2,353	3,061	3,352	3,814
<u>Total drilled</u>	2,345	3,820	4,570	5,151	6,222
Sunk or driven	68	59	30	122	210
<u>Government exploration -</u>					
State governments -					
Drilled -					
Core	169	172	212	189	212
Non-core	16	21	78	93	102
<u>Total drilled</u>	185	193	290	282	314
Commonwealth government -					
Drilled, core	7	5	6	15	21
<u>Total Government exploration -</u>					
Drilled -					
Core	177	178	219	204	233
Non-core	16	22	78	93	102
<u>Total drilled</u>	194	200	296	297	335
<u>TOTAL FOOTAGE -</u>					
Drilled -					
Core	1,139	1,645	1,727	2,003	2,641
Non-core	1,400	2,375	3,138	3,445	3,916
<u>Total drilled</u>	2,539	4,020	4,866	5,448	6,557
Sunk or driven	68	59	30	122	210

- (a) "Sunk or driven" relates to shafts, winzes, etc. sunk and drives, adits, etc. driven.
 (b) Year ended 30 June: see Introduction, page 3, paragraph 2.

PART 1. - MINERAL EXPLORATION (OTHER THAN FOR PETROLEUM)TABLE 4. - PRIVATE EXPLORATION: EXPENDITURE ON DRILLING AND OTHER EXPENDITURE (a).1968-69

(\$'000)

	Expenditure		
	On drilling	Other (b)	Total
<u>ON PRODUCTION LEASES</u>			
<u>(including State government business undertakings)</u>			
New South Wales	864	269	1,132
Victoria	173	436	609
Queensland	2,377	696	3,073
South Australia	144	164	308
Western Australia	2,184	1,120	3,305
Tasmania	453	270	723
Northern Territory	521	507	1,028
<u>Total</u>	6,715	3,463	10,178
<u>ON OTHER LICENSED AREAS</u>			
New South Wales	2,365	3,233	5,598
Victoria	372	581	953
Queensland	4,094	10,427	14,520
South Australia	816	1,740	2,556
Western Australia	8,279	22,034	30,314
Tasmania	473	1,205	1,677
Northern Territory	1,259	2,443	3,703
<u>Total</u>	17,658	41,663	59,321
<u>OTHER EXPLORATION (c)</u>			
New South Wales	..	541	541
Victoria	..	38	38
Queensland	..	425	425
South Australia	..	97	97
Western Australia	..	1,794	1,794
Tasmania	..	8	8
Northern Territory	..	160	160
<u>Total</u>	..	3,063	3,063
<u>TOTAL PRIVATE EXPLORATION</u>			
New South Wales	3,229	4,043	7,272
Victoria	545	1,055	1,600
Queensland	6,470	11,548	18,018
South Australia	960	2,001	2,961
Western Australia	10,464	24,948	35,412
Tasmania	925	1,483	2,408
Northern Territory	1,780	3,111	4,891
<u>Total</u>	24,373	48,189	72,562

(a) Expenditure whether charged as working expenses or capitalised. (b) Includes geological, etc., adits, shafts, etc. (c) Not attributable to particular lease or licence areas.

TABLE 5. - PRIVATE EXPLORATION : EXPENDITURE (a) BY TYPE, 1968-69
(\$'000)

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	Australia
SALARIES AND WAGES PAID (b)								
On production leases	424	267	773	58	703	206	201	2,632
On other licensed areas	1,308	137	2,730	706	5,398	433	756	11,467
Other exploration (c)	193	17	120	33	444	5	54	866
<u>Total</u>	1,926	421	3,623	797	6,545	643	1,010	14,965
MATERIALS AND STORES USED								
On production leases	185	36	306	8	567	202	79	1,385
On other licensed areas	425	38	1,345	289	2,822	143	382	5,444
Other exploration (c)	61	1	29	24	475	1	31	622
<u>Total</u>	672	76	1,680	321	3,864	346	492	7,450
EXPENDITURE ON FIXED ASSETS (for exploration purposes)								
On production leases	20	31	77	79	421	44	47	717
On other licensed areas	230	47	2,062	196	3,065	97	162	5,860
Other exploration (c)	14	6	16	10	158	..	26	230
<u>Total</u>	265	83	2,155	285	3,644	142	235	6,808

(a) Expenditure whether charged as working expenses or capitalised. (b) Salaries and wages and travelling and subsistence allowances paid to employees engaged in exploration. (c) Not attributable to particular lease or licence areas.

TABLE 5. - PRIVATE EXPLORATION : EXPENDITURE (a) BY TYPE, 1968-69 - continued

(\$'000)

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	Australia
PAYMENTS TO CONTRACTORS (b)								
On production leases	319	180	1,621	118	1,435	218	623	4,515
On other licensed areas	2,251	458	4,920	879	12,065	708	1,659	22,961
Other exploration (c)	25	2	49	14	141	..	14	245
<u>Total</u>	2,596	640	6,590	1,010	13,661	926	2,296	27,721
OTHER EXPENDITURE (d)								
On production leases	184	95	296	46	178	53	77	929
On other licensed areas	1,382	273	3,463	486	6,944	296	744	13,589
Other exploration (c)	248	12	211	16	576	2	36	1,100
<u>Total</u>	1,814	380	3,970	548	7,697	351	858	15,618
TOTAL PRIVATE EXPLORATION								
On production leases	1,132	609	3,073	308	3,305	723	1,028	10,178
On other licensed areas	5,598	953	14,520	2,556	30,314	1,677	3,703	59,321
Other exploration (c)	541	38	425	97	1,794	8	160	3,063
<u>Total</u>	7,272	1,600	18,018	2,961	35,412	2,408	4,891	72,562

(a) Expenditure whether charged as working expenses or capitalised. (b) Amounts paid to drilling contractors, geological consultants, technical advisers, etc. for exploration services. (c) Not attributable to particular lease or licence areas. (d) Other exploration expenses such as office expenses attributable to exploration, map preparation, aerial surveys and fees paid to Governments for exploration leases and licences, etc. and any off-site activities associated with mineral exploration. Excludes payments other than to Governments for the purchase of exploration leases, licences, etc.

PART 1. - MINERAL EXPLORATION (OTHER THAN FOR PETROLEUM)

TABLE 6. - PRIVATE EXPLORATION; EXPENDITURE (a) BY TYPE, AUSTRALIA, 1968 AND 1968-69(b)
(\$'000)

	1968	1968-69 (c)
SALARIES AND WAGES PAID (d)		
On production leases	2,452	2,632
On other licensed areas	9,557	11,467
Other exploration (e)	747	866
<u>Total</u>	12,757	14,965
MATERIALS AND STORES USED		
On production leases	1,310	1,385
On other licensed areas	4,416	5,444
Other exploration (e)	153	622
<u>Total</u>	5,879	7,450
EXPENDITURE ON FIXED ASSETS (for exploration purposes)		
On production leases	385	717
On other licensed areas	5,023	5,860
Other exploration (e)	150	230
<u>Total</u>	5,558	6,808
PAYMENTS TO CONTRACTORS (f)		
On production leases	2,770	4,515
On other licensed areas	15,535	22,961
Other exploration (e)	201	245
<u>Total</u>	18,506	27,721
OTHER EXPENDITURE (g)		
On production leases	728	929
On other licensed areas	8,515	15,589
Other exploration (e)	521	1,100
<u>Total</u>	9,764	15,618
TOTAL PRIVATE EXPLORATION		
On production leases	7,645	10,178
On other licensed areas	43,046	59,321
Other exploration (e)	1,772	3,063
<u>Total</u>	52,463	72,562

(a) Expenditure whether charged as working expenses or capitalised. (b) A dissection of total expenditure by type was not collected prior to 1968. (c) Year ended 30 June: see Introduction, page 3, paragraph 2. (d) Salaries and wages and travelling and subsistence allowance paid to employees engaged in exploration. (e) Not attributable to particular lease or licence areas. (f) Amounts paid to drilling contractors, geological consultants, technical advisers, etc. for exploration services. (g) Other exploration expenses such as office expenses attributable to exploration, map preparation, aerial surveys and fees paid to Governments for exploration leases and licences, etc. and any off-site activities associated with mineral exploration. Excludes payments other than to Governments for the purchase of exploration leases, licences, etc.

PART 1. - MINERAL EXPLORATION (OTHER THAN FOR PETROLEUM)TABLE 7. - PRIVATE EXPLORATION: EMPLOYMENT (a) 1968-69

('000 man-weeks)

	Professional persons (b)	Non-professional persons	Total
<u>ON PRODUCTION LEASES</u> (including State government business undertakings)			
New South Wales	0.8	4.3	5.2
Victoria	1.6	1.8	3.4
Queensland	1.3	6.6	7.9
South Australia	0.2	0.3	0.5
Western Australia	1.6	5.2	6.8
Tasmania	1.0	1.8	2.8
Northern Territory	0.7	2.3	3.0
<u>Total</u>	7.2	22.3	29.6

ON OTHER LICENSED AREAS

New South Wales	4.1	15.1	19.2
Victoria	0.8	1.9	2.7
Queensland	8.2	19.3	27.5
South Australia	2.6	5.9	8.5
Western Australia	15.2	40.6	55.8
Tasmania	1.3	3.3	4.5
Northern Territory	2.6	4.8	7.4
<u>Total</u>	34.8	90.8	125.6

OTHER EXPLORATION (c)

New South Wales	1.0	0.9	1.8
Victoria	0.2	..	0.2
Queensland	0.5	0.6	1.0
South Australia	0.1	0.1	0.2
Western Australia	1.5	3.4	4.9
Tasmania	..	..	..
Northern Territory	0.2	0.2	0.4
<u>Total</u>	3.5	5.2	8.7

TOTAL PRIVATE EXPLORATION

New South Wales	5.9	20.2	26.1
Victoria	2.6	3.7	6.3
Queensland	10.0	26.5	36.5
South Australia	2.9	6.3	9.2
Western Australia	18.3	49.3	67.5
Tasmania	2.3	5.0	7.4
Northern Territory	3.5	7.3	10.8
<u>Total</u>	45.5	118.4	163.9

- (a) The operator and his staff only; excludes contractors and their employees.
 (b) Geologists, geophysicists, engineers, etc., engaged in exploration work.
 (c) Not attributable to particular lease or licence areas.

PART 1. - MINERAL EXPLORATION (OTHER THAN FOR PETROLEUM)**TABLE 8. - PRIVATE EXPLORATION : FOOTAGE DRILLED, SUNK OR DRIVEN (a) 1968-69**
('000 feet)

	Drilled			Sunk or driven
	Core	Non-core	Total	
ON PRODUCTION LEASES (including State government business undertakings)				
New South Wales	187	63	250	..
Victoria	38	18	56	3
Queensland	256	292	548	..
South Australia	10	20	30	..
Western Australia	228	307	535	86
Tasmania	74	1	75	2
Northern Territory	34	36	70	8
<u>Total</u>	825	738	1,563	97
ON OTHER LICENSED AREAS				
New South Wales	284	601	884	11
Victoria	33	49	82	2
Queensland	324	967	1,292	34
South Australia	21	193	214	6
Western Australia	771	1,065	1,836	38
Tasmania	54	29	83	17
Northern Territory	96	173	269	6
<u>Total</u>	1,583	3,076	4,658	113
TOTAL PRIVATE EXPLORATION				
New South Wales	470	664	1,134	12
Victoria	71	67	137	4
Queensland	580	1,260	1,839	34
South Australia	30	213	244	6
Western Australia	999	1,372	2,371	122
Tasmania	128	30	158	19
Northern Territory	129	209	338	14
<u>Total</u>	2,408	3,814	6,222	210

(a) "Sunk or driven" relates to shafts, winzes, etc., sunk and drives, adits, etc., driven.

PART 1. - MINERAL EXPLORATION (OTHER THAN FOR PETROLEUM)

TABLE 9.- PRIVATE EXPLORATION : ENTERPRISES AND EXPENDITURE CLASSIFIED BY SIZE
OF EXPENDITURE, AUSTRALIA, 1968-69

Size of total expenditure of enterprises (a) on mineral exploration	Enterprises (a)		Total expenditure	
	No.	%	\$'000	%
\$25,000 and under	224	51.1	1,520	2.1
\$25,001 to \$50,000	40	9.1	1,444	2.0
\$50,001 to \$100,000	56	12.8	4,190	5.8
\$100,001 to \$250,000	47	10.7	7,751	10.7
\$250,001 to \$500,000	37	8.5	12,794	17.6
\$500,001 to \$1,000,000	18	4.1	12,955	17.9
Over \$1,000,000	16	3.7	31,907	44.0
Total	438	100.0	72,562	100.0

(a) For definition of "enterprises", see Explanatory Notes, page 6, paragraph 5.

TABLE 10. PRIVATE EXPLORATION : EXPENDITURE CLASSIFIED BY SIZE OF EXPENDITURE,
AND TYPE OF ACTIVITY, AUSTRALIA, 1968-69

Size of total expenditure of enterprises (a) on mineral exploration	Expenditure							
	On production leases		On other licensed areas		Other exploration(b)		Total exploration	
	\$'000	%	\$'000	%	\$'000	%	\$'000	%
\$25,000 and under	237	0.3	1,162	1.6	121	0.2	1,520	2.1
\$25,001 to \$50,000	325	0.5	1,061	1.5	58	0.1	1,444	2.0
\$50,001 to \$100,000	871	1.2	3,133	4.3	186	0.3	4,190	5.8
\$100,001 to \$250,000	1,203	1.7	6,133	8.5	415	0.6	7,751	10.7
\$250,001 to \$500,000	2,218	3.1	9,478	13.1	1,099	1.5	12,794	17.6
\$500,001 to \$1,000,000	616	0.9	11,878	16.4	461	0.6	12,955	17.9
Over \$1,000,000	4,708	6.5	26,476	36.5	723	1.0	31,907	44.0
Total	10,178	14.0	59,321	81.8	3,063	4.2	72,562	100.0

(a) For definition of "enterprises", see Explanatory Notes, page 6, paragraph 5.

(b) Not attributable to particular lease or licence areas.

PART 2. - PETROLEUM EXPLORATIONEXPLANATORY NOTES

The statistics contained in this Part have been collected and compiled by the Bureau of Mineral Resources, Geology and Geophysics, Canberra. Statistical and other information relating to petroleum exploration is published by the Bureau of Mineral Resources in The Petroleum Newsletter (issued quarterly), The Australian Mineral Industry - Annual Review and Expenditures on Petroleum Exploration and Development to 21 December 1965 (B.M.R. Record No. 1966/205).

Scope

2. Petroleum exploration consists of the search for and/or appraisal of deposits of crude petroleum and/or gas by geological, geophysical, geochemical and other means, including drilling. Included in the expenditure are the costs of drilling exploratory oil and/or gas wells and the testing of such wells. Also included are the costs of access roads, site construction, permits, licences and similar fees, relevant office buildings and furniture, transportation equipment, storage facilities, plant and equipment, review work; all of which are undertaken primarily for purposes of exploration for deposits of petroleum or natural gas. The cost of drilling developmental oil and/or gas wells and expenditure on production facilities and pipelines, and production costs, etc. are excluded from statistics shown in this Part.

3. It should be noted that the scope of the data in this Part differs in some respects from the scope of the data in Part 1 of the bulletin. The differences are mainly in definition of terms and range of data collected and there is not, therefore, complete comparability between the two series.

PART 2. - PETROLEUM EXPLORATION

(Source : Compiled from data published by the Bureau of Mineral Resources, Geology and Geophysics)

TABLE 11. - EXPENDITURE BY PRIVATE ENTERPRISE AND BY GOVERNMENTS

(3'000)

	1965	1966	1967	1968
<u>PRIVATE EXPENDITURE (a)</u>				
New South Wales	4,273	2,430	1,800	1,600
Victoria	4,404	7,647	18,284	22,343
Queensland	18,700	15,864	6,884	6,811
South Australia	5,508	4,829	7,315	4,668
Western Australia	16,732	18,621	15,488	26,145
Tasmania	936	1,863	2,893	1,495
Northern Territory	7,403	7,731	8,634	7,670
<u>Australia</u>	57,956	58,986	61,297	70,731
<u>GOVERNMENT EXPENDITURE</u>				
Commonwealth (b)	3,824	3,649	4,508	4,756
State Mines Departments	711	767	466	783
<u>Australia</u>	4,535	4,416	4,974	5,539
<u>TOTAL EXPENDITURE</u>				
<u>Australia</u>	62,491	63,402	66,271	76,270

(a) Includes expenditure financed by payments under the Petroleum Search Subsidy Act 1959-1969. (b) Includes minor expenditure in Papua and New Guinea. Excludes payments under the Petroleum Search Subsidy Act 1959-1969.

TABLE 12. - PRIVATE EXPENDITURE (a). 1968

(3'000)

State or Territory	Geological	Geophysical	Drilling	Other	Total
New South Wales	100	487	917	96	1,600
Victoria	23	924	20,124	1,272	22,343
Queensland	248	1,279	4,525	759	6,811
South Australia	94	1,321	2,625	628	4,668
Western Australia	449	6,027	17,462	2,207	26,145
Tasmania	4	736	383	372	1,495
Northern Territory	229	2,944	4,057	440	7,670
<u>Australia</u>	1,147	13,718	50,092	5,774	70,731

(a) Includes expenditure financed by payments under the Petroleum Search Subsidy Act 1959-1969.

PART 2. - PETROLEUM EXPLORATION

(Source : Compiled from data published by the Bureau of Mineral Resources, Geology and Geophysics)

TABLE 13. - SOURCES OF FUNDS
(\$'000)

	1965	1966	1967	1968
PRIVATE SOURCES (a)				
Utilised in -				
New South Wales	3,640	1,706	1,284	1,126
Victoria	3,796	7,007	17,557	20,403
Queensland	14,883	13,670	5,116	5,392
South Australia	4,559	4,059	6,257	3,261
Western Australia	14,245	15,267	12,047	22,118
Tasmania	829	1,293	2,424	998
Northern Territory	6,246	6,367	6,978	6,222
<u>Australia</u>	48,197	49,369	51,662	59,519
GOVERNMENT SOURCES				
<u>Payments under Petroleum Search Subsidy Act</u> <u>1959-1969 -</u>				
Utilised in -				
New South Wales	633	724	516	474
Victoria	609	640	727	1,940
Queensland	3,818	2,194	1,767	1,419
South Australia	949	769	1,058	1,407
Western Australia	2,487	3,355	3,441	4,027
Tasmania	107	570	469	497
Northern Territory	1,157	1,365	1,657	1,448
<u>Total subsidy payments, Australia</u>	9,759	9,617	9,635	11,212
Utilised for -				
Geophysical	5,311	4,910	4,512	3,590
Drilling	4,448	4,707	5,123	7,622
<u>Other Government sources -</u>				
Commonwealth (a)	3,824	3,649	4,508	4,756
State Mines Departments	711	767	466	783
Total other Government sources, Australia	4,535	4,416	4,974	5,539
<u>Total Government sources, Australia</u>	14,294	14,033	14,609	16,751
TOTAL FUNDS, PRIVATE AND GOVERNMENT				
Australia	62,491	63,402	66,271	76,270

(a) Excludes payments under the Petroleum Search Subsidy Act 1959-1969.

PART 2. - PETROLEUM EXPLORATION

(Source : Compiled from data published by the Bureau of Mineral Resources, Geology and Geophysics)

TABLE 14. - SUMMARY OF WELLS AND FOOTAGE DRILLED, 1965 TO 1968 (a)

		1965	1966	1967	1968
Wells drilled (b)	No.	208	134	274	225
Average total depth of wells drilled	ft	5,401	6,155	5,573	6,135
Wells completed as potential oil producers	No.	25	12	174	64
Wells completed as potential gas producers	No.	20	14	13	22
Wells drilled or drilling over 10,000 ft	No.	16	19	11	15
<u>Footage drilled -</u>					
Completed wells	ft	1,057,325	687,041	986,079	959,067
Uncompleted holes (c)	ft	83,849	68,781	53,862	59,889
<u>Total footage drilled</u>	ft	1,141,174	755,822	1,039,941	1,018,956

(a) With the exception of "average total depth of wells drilled" for 1967 and 1968, these data include particulars for developmental wells. (b) Number of holes which reached total depth during the year. (c) Wells suspended or drilling at 31 December of the year shown.

TABLE 15. - SUMMARY OF WELLS AND FOOTAGE DRILLED, 1968 (a)

		N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	Australia
Wells drilled (b)	No.	6	23	51	15	127	2	1	225
Average total depth of wells drilled	ft	4,765	8,626	5,501	6,167	5,832	7,166	12,843	6,135
Wells completed as potential oil producers	No.	..	5	6	..	53	..	..	64
Wells completed as potential gas producers	No.	..	9	6	6	1	..	..	22
Wells drilled or drilling over 10,000 ft	No.	1	5	1	1	5	1	1	15
<u>Footage drilled -</u>									
Completed wells	ft	19,197	162,946	252,013	99,527	406,189	14,332	4,863	959,067
Uncompleted holes(c)	ft	2,941	5,698	..	..	30,811	..	20,439	59,889
<u>Total footage drilled</u>	ft	22,138	168,644	252,013	99,527	437,000	14,332	25,302	1,018,956

(a) With the exception of "average total depth of wells drilled", these data include particulars for developmental wells. (b) Number of holes which reached total depth during the year. (c) Wells suspended or drilling at 31 December.

J. P. O'NEILL

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NOTE. Inquiries concerning these statistics may be made in Canberra by telephoning 490211 Extension 391 or, in each State capital, by telephoning the office of the Bureau of Census and Statistics.