(No. 5.)

TASMANIA

REPORT

OF THE

SECRETARY FOR MINES

FOR

YEAR ENDING 31ST DECEMBER

1935

WITH REPORTS OF THE ACTING GOVERNMENT GEOLOGIST, CHEMIST AND ASSAYER, CHIEF INSPECTOR OF MINES, CHIEF INSPECTOR OF EXPLOSIVES, INSPECTORS OF MINES, AND THE MOUNT CAMERON WATER-RACE BOARD

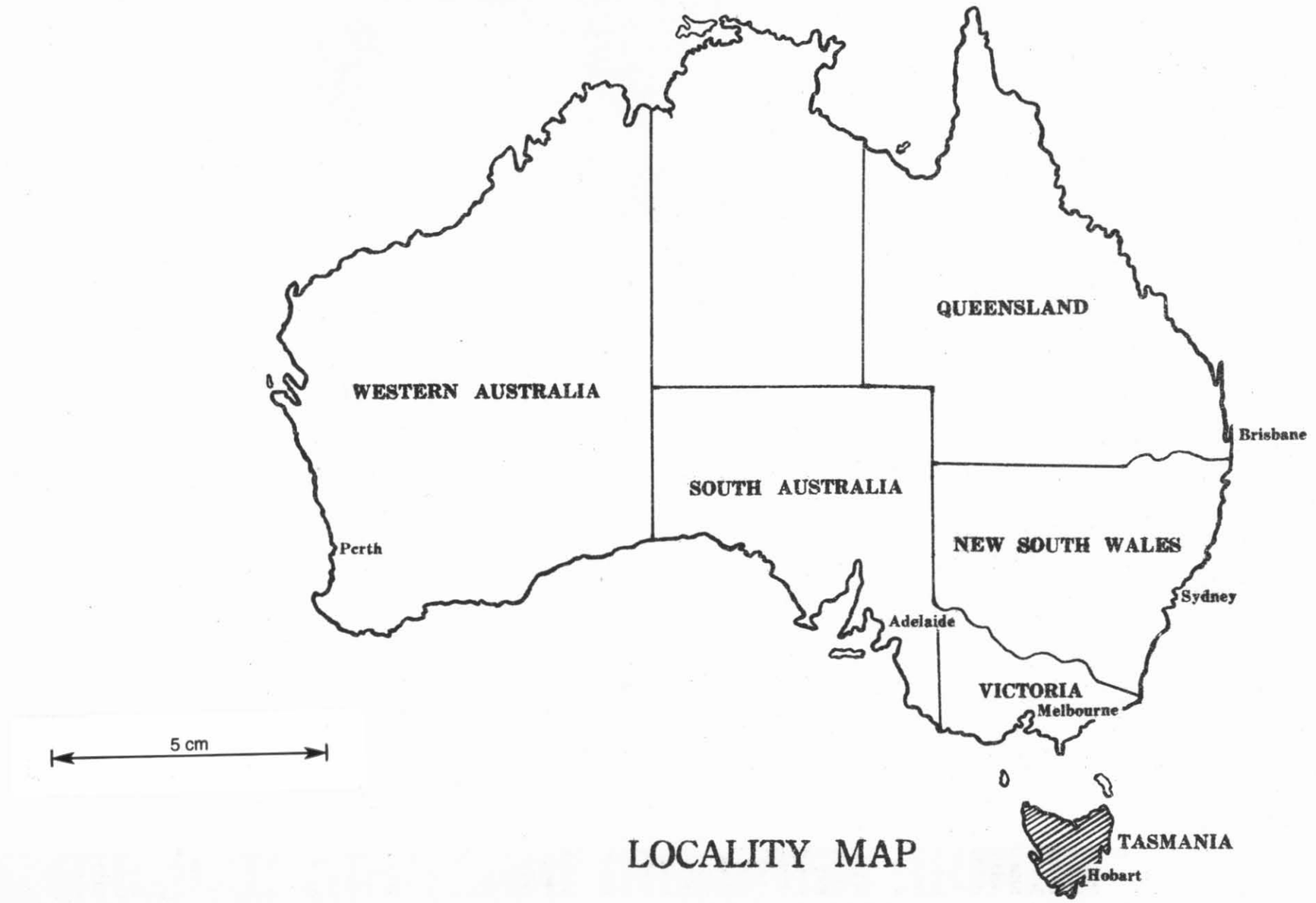
Presented to both Houses of Parliament by His Excellency's Command

TASMANIA:
WALTER E. SHIMMINS, GOVERNMENT PRINTER, HOBART

80390

TABLE OF CONTENTS.

Annual Report of Secretary for Mines 5
Mount Cameron Water-race 6
Red Granite 6
Aid to Mining 6
Metallurgical Investigations 7
Production of Asphalt 7
Zeehan Field 7
Diamond-drilling 7
Calyx Drill, Mount Michael 7
Calyx Drill, Gladstone District 8
Hand Drill, Cape Barren Island 8
Quantity and Value of Minerals 8
Asbestos 8
Barytes 8
Bismuth 9
Carbide 9
Cement 9
Coal 9
Copper 10
Gold 10
Iron Pyrites 10
Lead 11
Limestone 11
Nickel 11
Ochre 11
Osmiridium 11
Scheelite 12
Shale Oil 12
Shale 12
Silver 13
Tin 13
Talc 13
Wolfram 13
Zinc 13
Value of Metals and Minerals Raised since 1880 14
Annual Value of Mineral Products for each Year from 1880 14
Dividends Paid 14
Land Applied for: Total Area 14
Number and Area of Leases and Licences Issued 15
Leases and Licences in Force 15
Mining Companies Registered 15
Miners Employed 15
Total Revenue 15
Persons Employed, Average Number 15
Net Revenue: Comparative Statement 16
Number and Area of Leases, 1922-1935 17
Average Annual Prices of Minerals 18
Drafting Branch 19
Staff Changes 19
Report of Acting Government Geologist 20
Report of Government Chemist and Assayer 21
Report of Chief Inspector of Mines 21
Accident Statistics 22-23
Report of the Chief Inspector of Explosives 24
Reports of Inspectors of Mines 24
Report of the Mount Cameron Water-race Board 34



LOCALITY MAP

TASMANIA

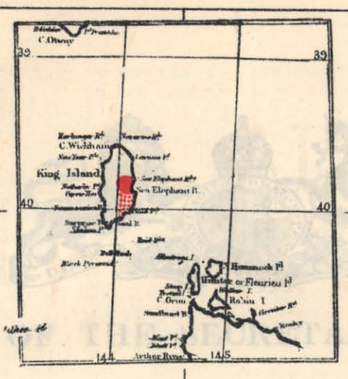
Showing the Position of

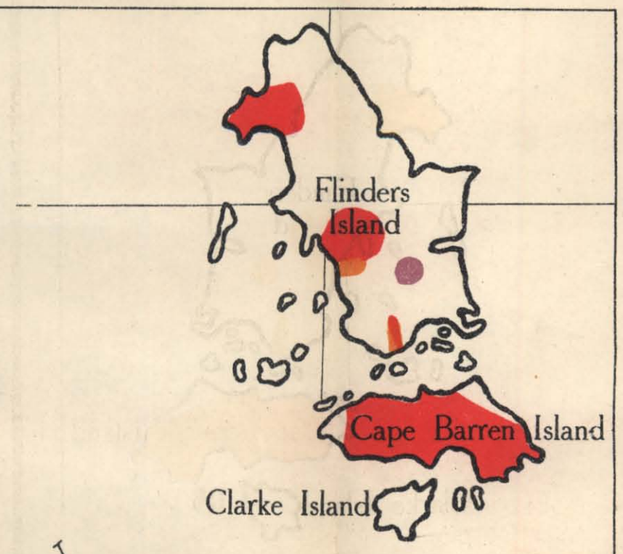
MINERAL BEARING AREAS
RAILWAY COMMUNICATION AND
HYDRO-ELECTRIC POWER LINES

5 cm

SCALE OF MILES
5 0 5 10 15 20 25 30

RAILWAYS
POWER LINES





Hunter Islands
Robbins Island
Stanley
Rocky Cape
Table Cape
Marrawah
Wynyard
Burnie
Devonport
Beaconsfield
Latrobe
Arthur River
Balfour
Sandy Cape
Waratah
Magnet
Donaldson R.
Savage R.
Pieman River
Wanta R.
Tuskison R.
Mackintosh R.
Blythe River
Leven River
Wilmot River
Forth R.
Don River
Mersey R.
Moina
Dove River
Tullah
Rosebery
Williamsford
Zeehan
Dundas
Henty R.
Queenstown
Lake St Clair
Macquarie Harbour
King River
Cape Sorell
Point Hibbs
Franklin River
Gordon River
Denison River
Florentine River
Styx River
Derwent River
Nive R.
TARRALEAH
Dee River
Ouse R.
Clyde River
Shannon R.
WAYATINAH
Lake Echo
Great Lake
Arthur Lakes
Lake Sorell
Lake Crescent
Macquarie River
Meander River
South Esk River
North Esk River
Launceston
Tamar River
Lefroy
Lisle
Gladstone
Pioneer
Derby
Branxholm
Lottah
George's Bay
Ringarooma R.
Mathinna
St Marys
Seymour
Ayoca
Swansea
Oyster Bay
Freycinet's Peninsula
Schouten Island
Cape Portland
Spring Bay
Maria Island
Hobart
Margate
Huon River
Storm Bay
Bruni Island
Tasman's Peninsula
Cape Raoul
Cape Pillar
Port Davey
S.W. Cape
Cox Bight
Recherche Bay
S.E. Cape

LEGEND

GOLD
TIN
COAL
COPPER
SILVER LEAD AND ZINC LEAD
OIL SHALE
NICKEL
OSMIRIDIUM
LIMESTONE
DOLOMITE
RED GRANITE
TUNGSTEN
IRON

PAINT, GLASS, POTTERY AND CERAMIC MATERIALS NOT SHOWN

145 146 147 148
40 41 42 43

Walter E. Shimmins, Government Printer, Tasmania.

REPORT OF THE SECRETARY FOR MINES.

Department of Mines,
Hobart, 12th March, 1936.

SIR,

I HAVE the honour to present my report on the Mining Industry of the State for the year ended 31st December, 1935.

APPENDICES.

The following reports, with locality map, and mineral map, and statistical records, are appended:—

Acting-Government Geologist.
Chemist and Assayer.
Chief Inspector of Mines.
Chief Inspector of Explosives and Inflammable Liquids.
District Inspectors of Mines.
Mount Cameron Water-Race Board.
Mineral map of the State, including railway communication and hydro-electric power lines.

GENERAL STATEMENT.

The value of minerals and mineral products obtained during the year is estimated at £1,387,511, being an increase of £350,160, over that of the preceding year.

The production of copper from the Mt. Lyell Mines was chiefly responsible for the enhanced value in output, amounting to £464,007, an increase of £196,665. Operations at these mines accounted for the production of 13,036 tons of copper, 7030 oz. of gold, 132,857 oz. of silver, of an approximate value of £541,520. The quantity of copper produced is the highest since the inception of the Company. In addition, 25,555 tons of iron pyrite concentrates were recovered as a by-product, and shipped to the mainland for the manufacture of sulphuric acid.

The value of tin raised is next in importance to copper, reaching a total of £258,919, being £39,673 above that of the previous year.

More activity has been shown in connection with the development of tin mining than with other deposits. A considerable amount of capital has been brought to the State, in addition to that locally raised, for the development and equipment of properties. Comprehensive schemes for general constructional and preparatory work, water conservation, and installation of machinery for large scale operations have been in progress. Some time must elapse, however, before the productive stage will be reached. There has been a corresponding revival by small syndicates and parties of miners in opening up claims. In this connection, the provisions of the Aid to Mining Act (Federal and State) have been largely availed of, and they proved to be of great benefit to small operators in affording them the opportunity of procuring plant, provision for water supplies, and other necessary facilities, thus ensuring continuity of productive operations to an extent which otherwise could not have been attained. Although the output of tin has been considerably augmented thereby, the full benefit of the assistance afforded will be reflected, under normal conditions, to a greater degree in the ensuing years.

The extension of the State's hydro-electric power to the north-eastern districts will lead to an expansion of mining which hitherto could not be attempted there. The lack of a continuous supply of power has always proved to be a retarding factor to any progressive scheme of work contemplated. As a rule, several months of productive work are lost each year, at the most favourable season, on mines depending upon the local rainfall for power. When the latter is available from the Hydro-Electric Commission next year, water now used locally for power purposes can be conserved for other indispensable uses on the mines, thereby ensuring continuous work throughout the year.

The statistical tables indicate a fairly substantial increase in the production of gold. This, however, is due almost entirely to the larger scale operations at the Mt. Lyell Copper Mines. The total quantity produced amounted to 8342 oz., valued at £59,255, being £20,325 above that of last year. The increase amounted to 2720 oz. Of this only 340 oz. were obtained from other fields.

A good deal of attention has been given to the gold-bearing areas of the State, particularly to deep alluvial ground in the Pieman River district on the West Coast. A number of syndicates have taken up large areas for the purpose of testing by boring &c., which work is still in progress.

A discovery of alluvial gold was made by a prospector (R. Warne, of Hobart), in August last, in a small creek on the western foothills of Algonkian Mountain, in the uninhabited south-western part of the State. The locality is situated about 22 miles from the Hobart-Queenstown road, at a point near King William Saddle, 113 miles from the former. The remote situation of the field, difficulty of access (the only means being a foot-track), severe climatic conditions, together with heavy cost of transport of supplies, made it unattractive to any but experienced bushmen prepared to endure extreme hardships.

The field proved to be of limited extent when examined by the Acting-Government Geologist (Mr. F. Blake) shortly after the discovery was made. An average of about 30 men have been working the deposits, which vary from 3 to 16 feet in depth. The gold is, as a rule, in fairly coarse fragments, pieces up to 35 dwts. having been found. The rock formations are of Pre-Cambrian age, and consist of quartzite, schist, dolomite, and breccia conglomerate.

In order to encourage gold production from reef mining on some of the old fields, the Department procured two light three-head stamper batteries to enable prospectors to bulk test reef formations, as well as to realise on the contained gold. The facilities thus provided have not been availed of to the extent anticipated, but to a limited degree have been instrumental in promoting gold mining by private enterprise.

Lead production decreased slightly. This, however, was offset by the improved market. The quantity raised was 1488 tons, being less by 19 tons than in the previous year. The estimated value was £21,390, equal to an increase of £5673.

An improvement is recorded in the output of silver, both in quantity and value, the total amounting to 323,901 oz., of an estimated value of £42,323, equal to an increase of 39,214 oz. and in value of £15,196.

Cement production reached a total of 61,298 tons, valued at £214,542, exceeding that of last year, by 16,249 tons and £56,871. A slight reduction was made in the quantity of carbide manufactured, being less by 1157 tons and in value £23,150.

Shipment of limestone at Devonport, from Melrose Quarries, by the Broken Hill Proprietary Company to Newcastle Steel Works, increased to 254,438 tons, exceeding that of last year by 68,357 tons.

An indication of the improved industrial conditions is shown in the quantity of coal consumed, which amounted to 123,741 tons, being the highest since 1931.

Wolfram ore (tungstic acid) obtained from mines in Avoca district, in association with tin oxide, is an important item in the list of minerals produced. In the year 1932 production was suspended, pending the recovery of the market to a remunerative level. Since then the total quantity raised is 530 tons of an estimated value of £64,021. Last year's production was 232 tons, valued at £29,345, which is the highest recorded.

Osmiridium mining has decreased to an output of 235 oz., the lowest for 18 years, the total value being £2103, against 487 oz., and £4622 in the preceding year.

The decline is due to the depletion of known deposits of alluvial ground suitable for the working miner to handle and the comparatively low market price for the metal. Arrangements are being made by a party of miners at Adamsfield to instal a small crushing unit to deal with the osmiridium-bearing rock (bronzitite) formations occurring in the district. If their efforts are successful it will ensure a steady output of the metal for an indefinite period.

A marked improvement in the progress of the industry occurred during the year, the value of mineral and mineral products raised being the highest since the year 1929. The number of men employed increased to 5409, being 566 more than in the previous year. Detailed information concerning mining operations on the various fields is contained in the accompanying reports of the inspectors of mines.

MT. CAMERON WATER-RACE.

Miners in the Gladstone district have been favoured with an unfailing supply of water throughout the year from the Mt. Cameron Water-race. The source of supply is the Mussel Roe River. The race, with its branches, exceeds 30 miles in length. The main portion thereof is designed to carry 50 sluice-heads of water (one sluice-head is equal to a flow of 24 cubic feet per minute).

RED GRANITE.

The red granite quarries at Cole's Bay have produced limited quantities of dimension stone, chiefly for building purposes on the mainland. Unfortunately, the scale on which operations are conducted is inadequate to supply the demand which exists for this valuable building material. The quantities available are practically inexhaustible. The natural facilities for quarrying and shipment of the stone are most favourable.

AID TO MINING.

Owing to an increased amount of financial assistance being made available under the provisions of the Aid to Mining (Federal Grant) Trust Fund, the Aid to Mining Act, 1927 (State), and the Unemployment Relief Act, a greater measure of assistance has been accorded to applicants than hitherto has been practicable. In consequence thereof, many of the small claim-holders have been able to procure plant, and generally carry out necessary preliminary operations prior to entering the productive stage. Under the Federal Grant, portion of the fund was made available for roads and tracks. This provision has been of material assistance in facilitating transport on bush roads and tracks to inaccessible districts.

Sustenance allowance for prospecting was granted to 65 respective parties for various periods up to 16 weeks. A total of 115 men availed themselves of this assistance. No discoveries of importance were recorded.

In developmental and productive operations, ninety-three claim-holders, tributers, &c., were granted financial assistance. A total of 304 men were thus kept in employment.

THE AID TO MINING ACT, 1927.

Receipts.

	£	s.	d.
Royalty paid by tributers	34	12	11
Repayment of loan	87	10	0
Interest on loan	12	2	0
Hire of plant	14	2	0
Purchase of plant	11	0	0
Refund of premium	1	13	9
	£161	0	8

Ore Sales.

	£	s.	d.
Amount received from ore sales	438	4	7
Which was distributed as follows:—			
Royalty paid to State £34 12 11			
Paid to tributers 403 11 8			
	438	4	7

Expenditure.

	£	s.	d.
Sustenance allowance to prospectors	158	0	0
Assistance to individuals and companies	1,293	12	1
Drilling at Dulverton	155	19	10
Drilling at Musk Vale	47	2	0
Drilling at Lefroy	213	19	3
Comstock Tunnel Scheme	217	15	2
Printing	15	12	11
Insurance	3	7	6
Travelling expenses	12	4	0
Miscellaneous	0	4	9
	£2,117	17	6

The Unemployed Relief Act.

(23 Geo. V. No. 4.)

Sustenance allowance to prospectors	£252	0	0			
Assistance to individuals and companies	322	18	6			
				574	18	6
Loan to Farrell Mining Co. Ltd.				855	2	7
Commonwealth Grant—						
Tasmanite Shale Oil Co. (subsidy)				108	8	10
Total				£3,656	7	5

THE AID TO MINING (FEDERAL GRANT) TRUST FUND.

Expenditure.

	£	s.	d.
Prospecting	805	9	0
Batteries	674	5	9
Advances	8,398	11	4
Plants and operation thereof	4,308	9	8
Metallurgical investigations	361	0	3
Roads and tracks	3,751	17	7
Total	£18,299	13	7

Receipts.

Batteries	40	13	6
Advances	300	4	9
Metallurgical investigations	0	7	11
Total	£341	6	2

METALLURGICAL INVESTIGATIONS.

In order that practical tests of ores, &c., can be carried out in conjunction with the Department's laboratory, arrangements are in hand to instal an experimental flotation unit at Launceston. It is expected that this plant will be completed early in the current year. It will be used initially for experimental work in the flotation of oil shale (Tasmanite) from the Mersey Valley deposits, near Latrobe.

PRODUCTION OF ASPHALT.

During the year a technical officer has been engaged in research work in connection with the utilisation of these deposits for road-surfacing purposes. The results, so far achieved, are encouraging. In the ensuing year experiments will be conducted on a practical basis in order to produce sufficient quantity of the material for actual tests on roads, and thereby obtain data to determine its value for road-making, as well as the estimated cost of production on a large scale.

ZEEHAN FIELD.

In August last the Department initiated a scheme of developmental work on the Zeehan field, designed to resuscitate production of silver-lead ore, attention being given to the extension of the Comstock tunnel, which serves to drain an extensive area of country in which deposits of ore have been worked from the surface. Owing to heavy pumping costs, they could not be profitably exploited. Three men are employed at this work, which is proceeding.

In the North Zeehan area four men have been employed in surface prospecting. Outcrops of lodes carrying high-grade galena have been located. Developmental work by shafts and surface excavations have been continued, with encouraging prospects. Considerably more work than was accomplished at the end of the term to which this report relates will be necessary to form an estimate of its prospective value.

DRILLING.

DIAMOND-DRILLING.

The Department's drill was in commission throughout the year, being engaged in boring on the Lefroy goldfield to test gold-bearing reef formations at deeper levels than the former workings reached.

Three bores were put down along the Chum line of reef to an aggregate depth of 3494 feet In each bore the reef was intersected at the estimated depth. The results are appended herewith:—

No.	Depth.	Values.	Bottomed on—
	ft.	ft. ft.	
1	1167	825 - 840 — Traces	Schist and Slate
		831 - 833 — 1 dwt. 1 gr. gold per ton	
2	1260	459 - 461 — Au. trace; Ag. 3 dwt. 13 gr. per ton	Sandstone
		588 - 598 — Trace	
		1091 - 1096.5 — Trace	
3	1067	897 - 900 — Trace	

CALYX DRILL.

Mt. Michael Mine, Blue Tier.

Some boring work was carried out on the tin granite deposits in Blue Tier district, the object being to prove if the ground worked by the Mt. Michael Company some years ago extended laterally at or near the surface. The results, which

are appended, were not encouraging. The work was, therefore, discontinued:—

No.	Depth.	Tin.	Best Values.		
	ft.	Per Cent.	ft.	ft.	Per Cent.
1.....	45	Trace			
2.....	40	Nil			
3.....	77·5	·15	10	20	·37
4.....	60	·12	50	60	·19
5.....	36	·02	20	30	·04
6.....	57	Nil			
7.....	27	Nil			

Gladstone District.

The Calyx drill was transferred from Blue Tier to Gladstone, where boring on alluvial tin deposits was commenced in August. Up to the end of the year twenty-two bores were put down. The overlying drift, as well as the tin-bearing portion, is derived from granitic rock formations.

The following are detailed results of bores:—

No.	Depth.	Value—Tin.	Bottomed on—	Best Values.					
		Oz. per C. Yd., 70% Conc.		Depth.					Oz. per C. Yd., of 70% Conc.
	ft.	*Scotia*	*Area*	ft.	in.	ft.	in.		
1...	70	10·24	Slate	58	0	66	3	—	77·6
2...	68	1·80	,,	58	8	65	10	—	14·6
3...	45	Trace	,,						
4...	65	0·64	,,	51	4	58	8	—	3·54
5...	70	4·40	,,	58	8	64	6	—	20·00
6...	73	10·24	,,	58	8	66	0	—	66·19
7...	74	0·93	,,	51	4	58	8	—	3·74
8...	70	3·11	,,	58	8	63	3	—	35·2
9...	75	3·201	,,	66	0	69	3	—	46·20
10...	70	2 957	,,	66	0	67	8	—	48·45
11...	60	1·58	,,	51	4	54	2	—	22·30
		Section	7298M						
1...	75	Trace	Slate						
2...	65	,,	,,						
3...	80	·203	,,	73	4	74	3	—	7·98
4...	79	Trace	,,						
5...	92	,,	,,						
6...	84·5	3·17	,,	73	4	80	3	—	32·44
7...	110	2·6	,,	102	8	105	6	—	47·21
8...	110	3·365	,,	102	8	106	7	—	72·05
9...	89	·33	,,	80	8	86	6	—	2·97
10...	63	Trace	,,						
11...	108	6·286	,,	102	8	104	7	—139·86	

Cape Barren Island.

Some hand-boring for water was carried out at Cape Barren Island in the vicinity of the half-caste reservation. Eighteen bores were put down, ranging in depth from 12 to 50 feet, the total depth bored aggregating 531·5 feet. The bores were put down in drift material, in which, in the majority of cases, water was located, the extent of which was not proved. Samples have been submitted for analyses.

Some boring work was carried out on alluvial deposits for tin. In all 75 holes were put down, ranging in depth from 9 to 78 feet. The results indicated that they contain little more than a trace of tin.

QUANTITY AND VALUE OF MINERALS.

RETURN showing the Quantity and Value of Minerals produced in the State of Tasmania during the Year 1935.

Mineral.		Quantity.	Value.
			£
Bismuth.....	tons	0·328	146
Coal	,,	123,714	86,204
Carbide	,,	5467	115,350
Cement	,,	61,298	214,542
Copper	,,	13,036	464,007
Gold	oz. f.	8342·68	59,255
Lead	tons	1488	21,390
Limestone	,,	254,438	68,357
Osmiridium	oz.	235	2103
Pyrites.....	tons	25,555	25,555
Silver.....	oz. f.	323,901	42,323
Shale	tons	30	15
Tin.....	,,	1131	258,919
Wolfram	,,	232	29,345
Total		...	£1,387,511

The Electrolytic Zinc Company of Australasia Limited recovered 67,666 tons of zinc, valued at £1,244,840, and 218·6008 tons of cadmium, valued at £48,980, from other than Tasmanian ores, and employed an average of 830 men.

ASBESTOS.

RETURN showing the Quantity and Value of Asbestos produced from 1889 *to* 1920-35 *inclusive.*

Year.	Quantity.	Value.
	Tons.	£
1899.....	200	363
1900.....	128	113
1901.....	46·5	45
1902-1915	—	—
1916...	15	30
1917.....	271	271
1918.....	2854	5008
1919.....	51	1275
1920-1935	—	—
Total.....	3565·5	£7105

BARYTES.

RETURN showing the Quantity and Value of Barytes produced during the Years 1916 *to* 1935 *inclusive.*

Year.	Quantity.	Value.
	Tons.	£
1916.....	83	359
1917.....	52	234
1918.....	217	977
1919.....	399	1160
1920.....	1048	4163
1921-1924	—	—
1925.....	3·5	16
1926-1928	—	—
1929.....	9·5	24
1930-1932..	—	—
1933.....	5	15
1934-1935	—	—
Total.....	1817	£6948

BISMUTH.

RETURN showing the Quantity and Value of Bismuth produced from 1904 *to* 1935 *inclusive.*

Year.	Quantity.	Value.
	Tons.	£
1904	·3	15
1905	3·5	800
1906	·3	24
1907	·175	27
1908	3·75	462
1909	2·9	980
1910	10·70	4249
1911	14·395	5758
1912	7·59	2646
1913	5·08	1627
1914	5·619	1666
1915	5·5	1203
1916	3·51	1059
1917	4·212	895
1918	4·608	1038
1919	1·77	573
1920	·10	9
1921	·05	21
1922	—	—
1923	—	—
1924	—	—
1925	—	—
1926	—	—
1927	—	—
1928	—	—
1929	—	—
1930	·97	475
1931	1·75	1015
1932	1·02	541
1933	1·32	705
1934	—	—
1935	·328	146
Total	79·447	£25,934

CARBIDE.

The Australian Commonwealth Carbide Company Limited continued operations, and produced 5467 tons of carbide, valued at £115,350.

The quantity of limestone quarried for the year amounted to 18,796 tons. The works at Electrona employed 126 men, the limestone quarries at Ida Bay and transportation services gave employment to 30 men, and, in addition, men were engaged by contract in supplying case timber.

RETURN showing the Quantity and Value of Carbide produced during the Years 1922 *to* 1935.

Year.	Quantity.	Value.
	Tons.	£
1922	4512	135,509
1923	3236	64,720
1924	3305	65,660
1925	2934	60,047
1926	3420	68,400
1927	2072	34,896
1928	3829	68,877
1929	3434	53,841
1930	3297	51,437
1931	3903	67,298
1932	4049	59,495
1933	4553	91,077
1934	6924	138,500
1935	5467	115,350
Total	54,935	£1,075,107

CEMENT.

(Works at Railton.)

RETURN showing the Quantity and Value of Cement produced during the Years 1924, 1925, 1926, 1927, 1928, 1929, 1930, 1931, 1932, 1933, 1934, *and* 1935.

Year.	Quantity.	Value.
	Tons.	£
1924	21,026	105,130
1925	32,574	162,870
1926	33,611	166,447
1927	38,690	176,779
1928	44,799	189,380
1929	41,798	175,613
1930	37,412	115,520
1931	27,508	96,340
1932	32,231	106,809
1933	36,121	126,424
1934	45,049	157,671
1935	61,298	214,542
Total	452,117	£1,793,525

COAL.

RETURN showing the Quantity and Value of Coal raised from 1880 *to* 1935.

Year.	Quantity.	Value.
	Tons.	£
1880 to 1903 inclusive	767,261·5	659,010
1904	61,109	51,942
1905	51,993	44,194
1906	52,895·75	44,962
1907	58,891	50,057
1908	61,067·75	51,907
1909	66,161·75	56,237
1910	82,445	48,609
1911	57,067	26,214
1912	53,560	24,568
1913	55,043	25,367
1914	60,794	27,853
1915	64,536·25	30,418
1916	55,575	27,736
1917	63,412	38,673
1918	60,163	37,676
1919	66,253	47,004
1920	75,429	64,005
1921	66,476	63,446
1922	69,238	61,016
1923	80,718	70,797
1924	75,988	66,555
1925	81,698	70,424
1926	102,358	90,401
1927	112,056	99,802
1928	128,500	106,558
1929	130,291	105,877
1930	138,716	110,253
1931	123,828	98,004
1932	111,853	86,733
1933	116,573	85,848
1934	113,633	81,262
1935	123,714	86,204
Total	3,389,297	£2,639,612

COPPER.

The production for the year was 13,036 tons, valued at £464,007.

RETURN showing the Quantity and Value of Copper in Blister Copper and Copper Ore during the Years 1919 to 1935 inclusive.

Year.	In Blister Copper.		In Copper Ore.		Total	
	Q'ty.	Value.	Q'ty.	Value.	Q'ty.	Value.
	Tons.	£	Tons.	£	Tons.	£
1919...	5014	503,977	13	984	5027	504,961
1920...	4791	528,177	·75	60	4791·75	528,237
1921...	6171	462,876	9·843	287	6180·843	463,163
1922...	5616	391,535	—	—	5616	391,535
1923...	6063	435,282	1·7	131	6064·7	435,413
1924...	6698	457,386	—	—	6698	457,386
1925...	6539	436,661	—	—	6539	436,661
1926...	6915	454,854	—	—	6915	454,854
1927...	5811	362,988	—	—	5811	362,988
1928..	6421	444,802	—	—	6421	444,802
1929...	8689	740,985	—	—	8689	740,985
1930...	9940	620,578	—	—	9940	620,578
1931...	9833·1	416,309	—	—	9833·1	416,309
1932...	10,995	399,646	3·2	116	10,998·2	399,762
1933...	10,734	395,109	5	177	10,739	395,286
1934...	8202	267,116	6·5	216	8208·5	267,332
1935...	13,036	464,007	—	—	13,036	464,007
Total	123,468·1	7,782,288	39·993	1971	131,508·09	7,784,259

The Mount Lyell Mining and Railway Company Limited: Return for the Calendar Year 1935.

Ore and metal-bearing material smelted:—

Source of Material.	Tons (Dry).
Ore:—From the Company's North Lyell Mine	9,554
Concentrates:—From the Company's North Lyell Mine, Lyell Comstock Mine, Royal Tharsis Mine, and Crown Lyell Mine ore	50,136
Total	59,690
Limestone delivered to works (tons)	4,140
Silica delivered at works	6,012
Pyritic concentrate shipped from Regatta Point (tons), approximate value, £26,394)	26,394

Blister copper produced:—13,136 tons, containing:

Copper (tons)	13,036	Approximate value £541,520.
Silver (ozs.)	132,857	
Gold ozs.)	7,030	

Average number of men employed—

Mining Department—At the Company's North Lyell Mine	399	
Ditto, Lyell Comstock Mine	215	
Ditto, Royal Tharsis Mine	162	
Ditto, Crown Lyell Mine	115	
Ditto, Lyell Tharsis	6	
Ditto, West Lyell	83	
Miscellaneous	133	
		1,113
Reduction Works Department (including Lake Margaret)		533
Railway Department—Mount Lyell Railway		112
Total		1,758

Copper produced from the inception of the Company to the 31st December, 1935, 290,058 tons.

Silver produced from the inception of the Company to the 31st December, 1935, 14,821,263 oz. (fine).

Gold produced from the inception of the Company to the 31st December, 1935, 423,650 oz. (fine).

Dividends paid during the year, £38,750.

Dividends paid from the inception of the Company to the 31st December, 1935, £5,329,069.

GOLD.

The quantity won was 8342·68 oz. fine, valued at £59,255, as compared with 5622·26 oz., valued at £38,930, for 1934.

RETURN showing the Quantity and Value of Gold won from 1880 *to* 1935.

Year.	Quantity.	Value.
	Oz.	£
1880 to 1903 inclusive	1,265,836·95	4,905,706
1904	65,921	280,015
1905	73,540·5	312,380
1906	60,023·4	254,963
1907	65,354·25	277,607
1908	57,085·1	242,482
1909	44,777·366	190,201
1910	37,048·053	157,370
1911	31,100·873	132,108
1912	37,973·252	161,300
1913	33,400·457	141,876
1914	26,243·453	111,475
1915	18,547·338	78,784
1916	15,790·096	67,072
1917	14,496·464	61,577
1918	10,528·930	44,724
1919	7,686·470	32,650
1920	6,246·192	29,796
1921	5,340·094	28,395
1922	3,431·486	15,998
1923	3,684·124	16,639
1924	4,625·600	21,563
1925	3,523·870	15,041
1926	4,222·748	17,936
1927	4860·7	20,646
1928	3603·43	15,306
1929	5596·88	23,772
1930	4466·61	18,976
1931	4759·59	22,118
1932	5937·17	34,943
1933	6672·74	41,783
1934	5622·26	38,930
1935	8342·68	59,255
Total	1,946,290·096	£7,873,387

IRON PYRITES.

The quantity won was 25,555 tons, valued at £25,555.

RETURN showing the Quantity and Value of Iron Pyrites produced during the Years 1915 *to* 1935.

Year.	Quantity.	Value.
	Tons.	£
1915	12,835·59	8945
1916	14,005·084	13,597
1917	7,685·549	7137
1918	5,105·600	4667
1919	3,456·95	4288
1920	4,440	7346
1921	606·5	2579
1922	8,276	18,620
1923	11,882	26,737
1924	—	—
1925	—	—
1926	—	—
1927	—	—
1928	—	—
1929	—	—
1930	—	—
1931	506·7	253
1932	274	150
1933	1498	1498
1934	12,030	12,030
1935	25,555	25,555
Total	108,156·973	£133,402

LEAD.

The output was 1488 tons, valued at £21,390, as compared with 1507 tons, valued at £16,723, for 1934.

RETURN showing the Quantity and Value of Lead included in Silver-Lead during the Years 1919 *to* 1935.

Year.	Quantity.	Value.
	Tons.	£
1919	2357·142	64,403
1920	3855·639	142,268
1921	1434·794	32,241
1922	4925·880	118,257
1923	4784·057	127,542
1924	4559·110	154,881
1925	5525·99	197,452
1926	5892·58	183,167
1927	5583·12	135,403
1928	4786·78	101,616
1929	5983	138,793
1930	4237·84	77,590
1931	2189·47	29,024
1932	2694·06	32,637
1933	2644	30,987
1934	1507	16,723
1935	1488	21,390
Total	64,448·462	£1,604,374

LIMESTONE.

The quantity won for the year was 254,438 tons, valued at £68,357.

RETURN showing the Quantity and Value of Limestone produced during the Years 1923 *to* 1935.

Year.	Quantity.	Value.
	Tons.	£
1923	100,113	122,428
1924	146,140	146,140
1925	124,670	124,670
1926	153,707	153,219
1927	169,522	167,373
1928	98,654	79,050
1929	68,176	66,597
1930	100,251	94,977
1931	55,268	49,490
1932	90,335	18,725
1933	110,347	33,048
1934	174,757	44,877
1935	254,438	68,357
Total	1,646,378	£1,168,951

NICKEL.

RETURN showing the Quantity and Value of Nickel produced from 1927 *to* 1935 *inclusive.*

Year.	Quantity.	Value.
	Tons.	£
1927	86·2	14,656
1928	10	1697
1929	85·44	14,765
1930	11·76	1999
1931	0·2	45
1932	0·55	136
1933	8·65	1948
1934	—	—
1935	—	—
Total	308·64	£53,247

OCHRE.

RETURN showing the Quantity and Value of Ochre produced during the Years 1918 *to* 1935 *inclusive.*

Year.	Quantity.	Value.
	Tons.	£
1918	100	200
1919	—	—
1920	—	—
1921	14	56
1922	—	—
1923	—	—
1924	20	50
1925	—	—
1926	38	69
1927–1935	—	—
Total	172	£375

OSMIRIDIUM.

The quantity of metal won during the year was 235 oz., valued at £2103, as compared with 487·7 oz., valued at £4622, for 1934.

RETURN showing the Quantity and Value of Osmiridium produced during the Years 1910 *to* 1935 *inclusive.*

Year.	Quantity.	Value.
	Oz.	£
1910	120	530
1911	271·88	1888
1912	778·77	5742
1913	1261·65	12,016
1914	1018·83	10,076
1915	247·048	1581
1916	222·150	1899
1917	332·079	4898
1918	1606·743	44,833
1919	1669·715	39,614
1920	2009·196	77,114
1921	1750·655	42,935
1922	1173·924	35,512
1923	673·423	19,642
1924	364·805	10,617
1925	3365·543	103,570
1926	3172·5	61,908
1927	632·687	7456
1928	1627·186	42,458
1929	1360	30,624
1930	952·7	16,235
1931	1279·54	18,028
1932	784·95	9075
1933	548	4843
1934	487·7	4622
1935	235	2103
Total	27,946·674	£609,819

The following table gives particulars of osmiridium won from Adamsfield since its discovery up to 31st December, 1935:—

Period.	Quantity.			Value		
Quarter ending—	Oz.	dwt.	gr.	£	s.	d.
30th June, 1925	9	1	12	281	8	11
30th September, 1925	625	19	9	20,144	10	11
31st December, 1925	2238	5	9	68,757	1	4
31st March, 1926	992	13	7	23,339	0	1
30th June, 1926	633	12	20	12,202	18	4
30th September, 1926	862	18	16	8475	8	11
31st December, 1926	555	6	6	5539	1	3
31st March, 1927	203	9	11½	1909	5	7
30th June, 1927	142	3	9	1706	0	6
30th September, 1927	93	16	6	1132	1	6
31st December, 1927	113	10	8	1362	0	0
31st March, 1928	442	8	9	10,509	18	2
30th June, 1928	261	19	7	6529	9	1
30th September, 1928	551	16	2	15,350	18	0
31st December, 1928	293	5	0	7840	11	4
31st March, 1929	168	9	8	4147	6	4
30th June, 1929	262	7	16	5683	4	7
30th September, 1929	292	2	23	7905	14	9
31st December, 1929	313	2	17	6208	3	0
31st March, 1930	186	9	17	3278	17	0
30th June, 1930	67	6	11	1300	12	1
30th September, 1930	126	16	9½	1898	4	10
31st December, 1930	347	12	17	4302	11	5
31st March, 1931	240	19	14	4008	2	4
30th June, 1931	251	9	6	3104	14	9
30th September, 1931	251	10	15	3428	14	6
31st December, 1931	354	12	3	4741	11	10
31st March, 1932	250	5	21	3372	19	9
30th June, 1932	136	12	19	1504	8	9
30th September, 1932	80	19	3	869	2	8
31st December, 1932	123	7	18	1038	2	1
31st March, 1933	161	0	0	1368	0	0
30th June, 1933	162	0	0	1458	0	0
30th September, 1933	153	0	0	1364	0	0
31st December, 1933	60	0	0	540	0	0
31st March, 1934	148	5	0	1408	0	0
30th June, 1934	107	15	0	969	0	0
30th September, 1934	71	14	0	645	0	0
31st December, 1934	160	0	0	1600	0	0
31st March, 1935	40	0	0	350	0	0
30th June, 1935	12	0	0	108	0	0
30th September, 1935	127	9	10	1147	4	7
31st December, 1935	55	0	0	49	0	0
Total	12,732	13	23	£253,324	9	2

SCHEELITE.

RETURN showing the Quantity and Value of Scheelite produced during the Years 1917 *to* 1935 *inclusive.*

Year.	Quantity.	Value.
	Tons.	£
1917	69	12,130
1918	216	39,252
1919	198·98	43,181
1920	105·09	17,905
1921–1935	—	—
Total	589·07	£112,468

SHALE OIL.

Tasmanite Shale Oil Company.—The plant was operated by the syndicate till the end of January, 1935.

SHALE.

The output was 30 tons, valued at £15.

RETURN showing the Quantity and Value of Shale produced during the Years 1910 *to* 1935.

Year.	Quantity.	Value.
	Tons.	£
1910	364	214
1911	500	250
1912	—	—
1913	130	130
1914	75	75
1915	—	—
1916	1286	1286
1917	—	—
1918	—	—
1919	600	900
1920	140	172
1921	868	1506
1922	40	100
1923	1101	1094
1924	1576	1526
1925	820	559
1926	2127	1475
1927	3150	2050
1928	2595	1297
1929	4299	2982
1930	5428	3490
1931	1402	600
1932	1097	1074
1933	3401	1483
1934	3276	1630
1935	30	15
Total	34,305	£23,908

RETURN showing the Quantity of Oil distilled from Shale.

Year.	Name of Company.	Gallons.
1910	Tasmanian Shale and Oil Company	4800
1915	Railton-Latrobe Shale Oil Co. N.L.	24,000
1927–1928	Australian Shale Oil Corporation	65,000
1929	Goliath Portland Cement Company	2200
1930	Goliath Portland Cement Company	20,101
	Tasmanite Shale Oil Company Ltd.	35,000
1931	Tasmanite Shale Oil Company Ltd.	31,915
1932	Tasmanite Shale Oil Company Ltd.	79,236
1933	Tasmanite Shale Oil Company Ltd.	56,958
1934	Tasmanite Shale Oil Company Ltd.	37,905
1935	Tasmanite Shale Oil Company Ltd.	—
	Total	357,115

SILVER.

The output was 323,901 oz. (fine), valued at £42,323, as compared with 284,687 oz., valued at £27,127, for 1934.

RETURN showing the Quantity and Value of Silver contained in Silver-lead and Blister Copper during the Years 1919 to 1935.

Year	In Silver-Lead.		In Blister Copper.		Total.	
	Quantity.	Value	Quantity.	Value.	Quantity.	Value.
	Oz.	£	Oz.	£	Oz.	£
1919	296,719·27	71,831	228,624	53,733	525,343·27	125,564
1920	453,411	118,898	169,948	47,869	623,359	166,767
1921	165,637	27,181	183,021	30,395	348,658	57,576
1922	674,886	104,926	119,699	18,511	794,585	123,437
1923	516,073·61	73,742	122,528	17,597	638,601·61	91,339
1924	494,782	75,598	147,376	22,439	642,158	97,837
1925	597,012·67	86,283	133,181	19,226	730,193·67	105,509
1926	632,066	80,597	134,587	17,394	766,653	97,991
1927	640,575	75,135	101,207	11,889	741,782	87,024
1928	564,156	66,386	105,270	12,515	669,426	78,901
1929	714,930	78,252	149,424	16,308	864,354	94,560
1930	528,641	41,485	182,978	14,583	711,619	56,068
1931	242,950	16,104	148,782	9650	391,732	25,754
1932	301,854	24,399	161,634	12,905	463,488	37,304
1933	361,768	29,394	127,562	10,414	489,330	39,808
1934	194,747	18,401	89,940	8726	284,687	27,127
1935	191,044	24,780	132,857	17,543	323,901	42,323
T't'l	571,252·55	1,013,191	2,438,418	341,698	10,009,870·56	1,354,889

TIN.

The output was 1131 tons, valued at £258,919, as compared with 952·49 tons, valued at £219,246, for 1934.

RETURN showing the Quantity and Value of Tin exported from Tasmania from 1880 to 1904 (compiled from Customs Returns only), Tin Ore produced during the Years 1905 to 1918 inclusive, and Metallic Tin produced during the Years 1919 to 1935.

Year.	Quantity.	Value.
	Tons.	£
1880 to 1904 inclusive	76,708·4	7,167,564
1905	3891·5	362,670
1906	4472·75	557,266
1907	4342·75	501,681
1908	4520·8	421,580
1909	4511·2	418,165
1910	3701·01	399,393
1911	3953·05	513,500
1912	3713·825	543,103
1913	4010·41	531,983
1914	2572·713	259,300
1915	2599·234	292,306
1916	2854·636	350,852
1917	2637·337	427,917
1918	2256·203	488,798
1919	1580·22*	395,794
1920	1310·411*	369,362
1921	790·395*	130,257
1922	679·440*	112,407
1923	1160·390*	236,955
1924	1108·450*	275,014
1925	1129·662*	297,515
1926	1096·16*	322,526
1927	1105·74*	317,593
1928	1140·14*	258,676
1929	640·36*	130,014
1930	511·77*	69,592
1931	588·83*	70,634
1932	793·92*	109,767
1933	957*	190,041
1934	952·49*	219,246
1935	1131*	258,919
Total	142,422·216	£17,000,390

* Metallic Tin.

TALC.

RETURN showing Quantity and Value of Talc produced during the Years 1928 to 1935 inclusive.

Year.	Quantity.	Value.
	Tons.	£
1928	32	96
1929	23	45
1930	13·35	53
1931	15	58
1932	5	17
1933	8·75	22
1934	5·5	16
1935	—	—
Total	102·6	307

WOLFRAM.

RETURN showing the Quantity and Value of Wolfram produced during the Years 1899 to 1935 inclusive.

Year.	Quantity.	Value.
	Tons.	£
1899 to 1903 inclusive	57·25	2157
1904	15·5	1147
1905	32·25	2371
1906	19·75	1465
1907	40·75	4411
1908	4·5	338
1909	28·35	2494
1910	67·35	7280
1911	69·96	7769
1912	66·49	6601
1913	68·07	7040
1914	46·873	4327
1915	94·685	11,115
1916	106·265	16,910
1917	172·190	28,714
1918	155·362	27,239
1919	120·907	26,613
1920	70·89	13,626
1921	10·34	676
1922	19·26	1024
1923	96·86	6150
1924	54	2785
1925	174·170	14,658
1926	83·15	5265
1927	148·57	9886
1928	176·15	12,094
1929	151·86	18,358
1930	112·6	12,216
1931	0·29	16
1932	—	—
1933	104	7,301
1934	194·19	27,375
1935	232	29,345
Total	2794·742	£318,766

ZINC.

No zinc was produced from Tasmanian ores during the year.

RETURN showing the Quantity and Value of Zinc produced during the Years 1919 to 1935 inclusive.

Year.	Quantity.	Value.
	Tons.	£
1919	285	13,110
1920	9·3	334
1921–1923	—	—
1924	2748·75	90,485
1925	3112·69	110,691
1926	5377·75	183,362
1927	6326·2	181,242
1928	7112	188,691
1929	6997	185,964
1930	943	19,322
1931–1935	—	—
Total	32,911·69	£973,201

Electrolytic Zinc Company of Australia Ltd.—Return for the calendar year 1935:—

	Tons.
Production of slab zinc	67,666
Production of metallic cadmium	218·6008

The above is from ores other than Tasmanian.

The average number of men employed at Risdon was 830.

West Coast Division.—There was no productive work done on the West Coast properties during the year.

The average number of men employed was:—

Surface	36
Underground	38
Total	74

VALUE OF METALS AND MINERALS RAISED.

RETURN showing Value of Metals and Minerals Raised in Tasmania from 1880 *to* 1935 *inclusive.*

Mineral or Metal.	Value.
	£
Asbestos	7105
Barytes	6948
Bismuth	25,934
Cadmium	20,914
Carbide	1,075,107
Cement	1,793,525
Coal	2,639,612
Copper (Blister) to 1918 (now shown under Silver and Copper)	13,778,527
Copper Matte	133,734
Copper Ore to 1918 (now under Copper)	577,873
Copper (from 1919)	7,784,269
Gold	7,873,317
Ilmenite	1256
Iron Ore	25,701
Iron Pyrites	133,402
Lead (from 1919)	1,604,374
Limestone	1,168,951
Nickel	35,246
Ochre	375
Osmiridium	609,819
Scheelite	112,468
Shale	23,908
Silver-Lead to 1918 (now shown as Silver and Lead)	6,429,291
Silver	1,354,889
Talc	307
Tin	17,000,390
Wolfram	318,766
Zinc	973,201
Unenumerated prior to 1894	31,988
Total	£65,541,269

STATISTICS OF PRODUCTION.

RETURN showing the Annual Value of Mineral Products for the State of Tasmania from 1880 *to* 1935.

Year.	Value.	Year.	Value.
	£		£
1880	554,031	1910	1,432,193
1881	602,723	1911	1,349,497
1882	556,306	1912	1,493,502
1883	560,873	1913	1,415,700
1884	468,302	1914	1,007,038
1885	518,885	1915	1,225,575
1886	489,966	1916	1,521,050
1887	593,256	1917	1,582,322
1888	616,733	1918	1,597,694
1889	504,718	1919	1,301,090
1890	444,210	1920	1,421,104
1891	528,388	1921	822,851
1892	526,909	1922	1,013,415
1893	627,909	1923	1,219,456
1894	732,764	1924	1,496,804
1895	575,692	1925	1,700,861
1896	662,058	1926	1,808,847
1897	1,006,140	1927	1,621,027
1898	1,071,084	1928	1,593,828
1899	1,660,622	1929	1,790,653
1900	1,888,695	1930	1,270,114
1901	1,763,896	1931	894,986
1902	1,378,406	1932	897,168
1903	1,354,044	1933	1,053,373
1904	1,379,204	1934	1,037,351
1905	1,729,129	1935	1,387,511
1906	2,257,147	Unenumerated	
1907	2,277,159	prior to 1894	31,988
1908	1,650,027		
1909	1,574,995	Total	£65,541,269

STATISTICS OF MINING COMPANIES.

RETURN showing the Amounts Paid in Dividends by Mining Companies during the Year ending 31*st December,* 1935.

Mines.	Dividends.
	£
Copper	...
Gold	...
Tin	19,326
Silver	...
Coal	3256
Total	£22,582

RETURN showing the Total Area of Land and Number of Sluiceheads of Water Applied for during the Year ending 31*st December,* 1935.

Mineral.	Number.	Sluiceheads.	Area.
			Acres.
Antimony	1	...	10
Bismuth	...	...	...
Barytes	2	...	90
Coal	3	...	205
Dolomite	...	...	...
Granite	..	...	...
Gold	53	...	1636
Iron	2	...	110
Minerals	7	...	159
Phosphate Rock	...	...	...
Scheelite	...	...	...
Shale	...	...	...
Silver	2	...	60
Stone	1	...	25
Tin	151	...	3440
Machinery Sites and Mining Easements	9	...	42
Water-rights and Dam Sites	100	578	53
Licences to search for Coal	1	...	1000
Total	332	578	6830

CTION.

Mineral Products 880 to 1935.

	Value.
	£
.....	1,432,193
.....	1,349,497
.....	1,493,502
. ...	1,415,700
.....	1,007,038
.....	1,225,575
... ...	1,521,050
.....	1,582,322
...	1,597,694
.....	1,301,090
.....	1,421,104
.....	822,851
.....	1,013,415
. ...	1,219,456
.....	1,496,804
.....	1,700,861
.....	1,808,847
.....	1,621,027
.....	1,593,828
.....	1,790,653
.....	1,270,114
...	894,986
.....	897,168
. .....	1,053,373
.....	1,037,351
.....	1,387,511
ated 1894	31,988
l.....	£65,541,269

OMPANIES.

in Dividends by Year ending 31st

Dividends.

£
...
...
19,326
...
3256
£22,582

Land and Number er during the Year

uiceheads.	Area.
	Acres.
...	10
...	...
...	90
...	205
...	...
...	...
...	1636
...	110
...	159
...	...
...	...
...	...
...	60
...	25
...	3440
...	42
578	53
...	1000
578	6830

RETURN showing Total Number and Area of Leases and Licences Issued during the Year ending 31st December, 1935.

Mineral.	Leases.	Sluiceheads.	Area.
			Acres.
Bismuth	1	...	40
Copper	...	...	...
Copper, Nickel	...	...	...
Coal.....	4	...	1396
Gold	34	...	668
Osmiridium	1	...	10
Minerals.....	4	...	134
Scheelite	...	...	...
Silver-Lead.....	...	...	...
Stone	1	...	25
Tin.....	114	...	2580
Wolfram	3	...	49
Water-rights and Dam Sites	64	330	177
Licences to Search for Coal and Oil	...	...	...
Mining Easements and Machinery Sites	11	...	59
Total.....	237	330	5138

RETURN showing the Total Number of Leases and Licences in Force on 31st December, 1935.

Mineral.	Number.	Number of Sluiceheads.	Area.
			Acres.
Asbestos.....	2	...	81
Barytes	...	...	...
Bismuth	1	...	40
Coal.....	29	...	6094
Clay	2	...	7
Copper-Nickel	1	...	157
Dolomite	1	...	129
Granite	4	...	78
Gold	162	...	3190
Gravel	1	...	40
Iron.....	1	...	5
Limestone	4	...	240
Molybdenum	...	...	...
Minerals	60	...	6017
Marble	1	...	10
Osmiridium	2	...	20
Scheelite	2	...	271
Shale	3	...	117
Silver	7	...	307
Stone	3	...	49
Tin	422	...	12,716
Wolfram.....	1	...	59
Mining Easements	107	...	629
Licences to Search.....	2	...	4200
Water Licences.....	447	1835	2092
Total.....	1265	1835	36,548

RETURN showing the Mining Companies Registered during the Year ending 31st December, 1935.

Number of Companies.	Capital.
5	£128,200

In addition to the above, 4 Agents for Foreign Companies and 1 Syndicate under Part VA. of the Mining Companies Amendment Act, 4 Geo. V. No. 44, were registered.

RETURN showing the Average Number of Miners Employed during the Year ending 31st December, 1935.

Division.	Number.
Northern and Southern	1283
North-Eastern	654
Eastern	768
North-Western	608
Western	2096
	5409

RETURN showing the Total Amount of Rents, Fees, &c., Received by the Mines Department during the Year ending 31st December, 1935.

Head of Revenue.	Amount.		
	£	s.	d.
Rent of Auriferous and Mineral Lands.....	7955	5	4
Fees, Auriferous and Mineral Lands	1190	1	5
Survey Fees	1942	1	2
Fees under the Explosives and Inflammable Liquids Act	1403	3	3
Total	£12,490	11	2

RETURN showing the Average Number of Persons Engaged in Mining during the Years 1880 to 1935.

Year.	Number.	Year.	Number.
1880.....	1653	1908.....	6466
1881.....	3156	1909.....	6054
1882.....	4098	1910.....	5770
1883.....	3818	1911.....	5247
1884.....	2972	1912.....	5566
1885.....	2783	1913.....	6107
1886.....	2681	1914.....	4741
1887.....	3361	1915.....	3908
1888.....	2989	1916.....	3864
1889.....	3141	1917.....	4050
1890.....	2868	1918.....	4278
1891.....	3219	1919.....	4413
1892.....	3295	1920.....	5364
1893.....	3403	1921.....	4011
1894.....	3433	1922.....	3835
1895.....	4062	1923.....	4785
1896.....	4350	1924.....	5264
1897.....	4510	1925.....	5110
1898.....	6052	1926.....	5309
1899.....	6622	1927.....	5044
1900.....	7023	1928.....	5170
1901.....	6923	1929.....	4986
1902.....	5934	1930.....	4606
1903.....	6017	1931.....	4391
1904.....	6194	1932.....	4605
1905.....	6581	1933.....	4510
1906.....	7005	1934.....	4843
1907.....	7516	1935.....	5409

Comparative Statement of Revenue from Mines, being Rents, Fees, Storage of Explosives, &c. (exclusive of Survey Fees), Paid to the Treasury for the Years ending 30th June, from 1882 to 1903, and for Six Months ending 31st December, 1903, and for the Years ending 31st December, 1904 to 1935 inclusive.

Year.	Amount.			Year.	Amount.		
	£	s.	d.		£	s.	d.
1882	23,077	1	9	1909	22,804	1	5
1883	15,439	14	5	1910	22,221	18	0
1884	6981	11	10	1911	20,556	15	10
1885	11,070	5	7	1912	17,639	19	11
1886	12,523	10	4	1913	19,410	17	8
1887	14,611	11	5	1914	14,087	0	6
1888	23,502	8	4	1915	17,679	3	6
1889	17,254	9	0	1916	14,678	19	10
1890	26,955	4	9	1917	14,669	7	2
1891	37,829	16	5	1918	17,833	14	9
1892	17,568	18	4	1919	15,388	7	7
1893	16,971	9	2	1920	16,767	11	6
1894	16,732	7	7	1921	11,248	14	11
1895	15,323	1	9	1922	14,184	7	3
1896	20,901	13	2	1923	13,224	11	9
1897	25,631	0	3	1924	14,678	13	11
1898	33,661	13	9	1925	14,229	8	7
1899	24,696	10	5	1926	15,163	15	7
1900	28,380	11	10	1927	16,887	9	9
1901	21,569	5	2	1928	14,313	12	0
1902	19,471	0	1	1929	14,665	10	7
1903	17,776	14	3	1930	11,166	7	2
1903, 1 July to 31 Dec.	14,758	17	1	1931	11,520	1	10
1904, Jan. to Dec.	16,631	8	2	1932	10,097	18	6
1905	20,208	17	0	1933	9459	6	9
1906	24,136	12	5	1934	11,166	2	11
1907	24,794	7	7	1935	10,548	10	0
1908	20,311	3	0				

The above Statement does not include Stamp Duties upon Transfer of Leases and Tax payable upon Dividends, from which sources large sums are derived.

RETURN showing the Number and Area of Leases Held under the Mining Act in force on 31*st December,* 1922 *to* 1935, *inclusive.*

Nature of Lease.	In force on 31st Dec., 1922.		In force on 31st Dec., 1923.		In force on 31st Dec., 1924.		In force on 31st Dec., 1925.		In force on 31st Dec., 1926.		In force on 31st Dec., 1927.		In force on 31st Dec., 1928.		In force on 31st Dec., 1929.		In force on 31st Dec., 1930.		In force on 31st Dec., 1931.		In force on 31st Dec., 1932.		In force on 31st Dec., 1933.		In force on 31st Dec., 1934.		In force on 31st Dec., 1935.	
	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.
For Minerals, Silver, Tin, &c.	716	Acres. 26,459	614	Acres. 21,880	460	Acres. 23,308	532	Acres. 23,588	541	Acres. 22,129	642	Acres. 25,604	728	Acres. 28,103	652	Acres. 27,052	418	Acres. 18,321	379	Acres. 17,101	284	Acres. 13,320	326	Acres. 16,734	444	Acres. 18,716	500	Acres. 19,802
For Coal, Slate, Shale, &c.	73	16,809	66	16,053	27	8901	35	9922	49	13,136	39	11,077	52	15,407	36	11,022	32	9960	25	7223	32	6104	39	7495	51	8439	47	6635
For Gold Dredging Claims	127	2424	108	1687	91	1829	70	1340	42	870	38	749	40	830	36	746	40	830	57	999	77	1987	128	3879	167	3987	162	3190
	36	399	33	369	20	289	20	195	42	363	41	502	52	626	60	756	30	353	—	—	—	—	—	—	—	—	—	—
Mining Easements	87	607	81	606	77	592	77	570	68	494	77	484	77	475	55	409	73	504	77	434	48	316	79	475	94	578	107	629
Machinery Sites	31	123	30	124	26	115	27	112	25	150	21	110	29	169	25	171	18	117	20	209	18	120	17	119				
Licences to search for Coal or Oil	73	137,692	36	34,761	21	38,528	19	14,130	8	10,669	4	5090	7	7200	9	10,844	3	1080	1	800	1	320	2	796	2	3670	2	4200
Water-rights, Mineral and Gold	493	3002 & 1814 sluice-heads	435	2147 & 1612 sluice-heads	338	1990 & 1520 sluice-heads	371	2167 & 1604 sluice-heads	360	2190 & 1591 sluice-heads	394	2246 & 1748 sluice-heads	371	1552 & 1581 sluice-heads	486	2359 & 2053 sluice-heads	364	2095 & 1558 sluice-heads	388	2078 & 1546 sluice-heads	391	2448 & 1473 sluice-heads	400	1905 & 1650 sluice-heads	403	2015 & 1760 sluice-heads	447	2092 & 1835 sluice-heads

TABLE showing the Average Annual Prices for Minerals During Recent Years.

	Average for **1923.**	Average for **1924.**	Average for **1925.**	Average for **1926.**	Average for **1927.**	Average for **1928.**	Average for **1929.**	Average for **1930.**	Average for **1931.**	Average for **1932.**	Average for **1933.**	Average for **1934.**	Average for **1935.**
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Copper—Standard, spot: per ton	66 7 4	63 4 3	61 9 7	58 0 8	59 5 8	72 2 10	75 19 7	54 3 7	38 7 9	31 14 7	32 11 4	30 6 4	31 18 1
Lead—Soft Foreign: per ton	25 19 4	33 13 11	35 17 3	31 2 2	21 9 6	22 13 6	23 4 11	18 3 1	13 0 7	12 0 9	11 16 1	11 1 0	14 5 8
Spelter: per ton	32 18 4	33 12 0	36 5 0	34 2 8	26 6 1	25 14 9	24 15 1	16 16 9	12 9 0	13 13 10	15 14 11	13 15 6	14 0 0
Tin—Standard, spot: per ton	191 7 5	248 17 4	261 1 8	291 3 0	254 17 7	216 6 6	263 18 10	141 19 1	118 9 1	135 18 10	194 13 4	230 7 5	225 14 6
Silver—Standard, spot: per oz.	s. d. 2 8·37	s. d. 2 9·97	s. d. 2 8	s. d. 2 4·2	s. d. 2 2·38	s. d. 2 2·15	s. d. 2 0·57	s. d. 1 5·66	s. d. 1 2·593	s. d. 1 5·842	s. d. 1 6·144	s. d. 1 9·208	s. d. 1 9·951
	£ s. d.			£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Osmiridium: per oz.	27 10 4	...	...	11 13 4	21 16 5	25 9 0	22 18 1	17 0 9	14 7 9	11 11 0	8 16 9	9 11 2	9 0 0
Wolfram: per ton	65 0 0	...	...	70 0 0	61 10 0	104 5 0	144 5 0	105 0 0	64 0 0	62 16 0	81 2 6	94 0 0	175 0 0
Nickle: per ton	...	...	...	...	...	...	171 0 0	170 0 0	183 15 0	234 7 6	235 0 0	225 0 0	200 0 0

MINES DRAFTING BRANCH.

The number of working plans in use and which are all kept up to date is 209, as compared with 208 in 1934.

Instructions issued to surveyors	280
Diagrams received from surveyors	177
Diagrams drawn on leases	512
Consolidated and other diagrams drawn	38
Lithographs entered to date	179
Various tracings prepared	26
Tracings for Launceston	261
Manuscripts entered to date	26
New manuscript plans drawn	1
Geological colour work (eight printings)	3
Underground surveys examined	24

STAFF.

The Government Geologist (Mr. P. B. Nye, M.Sc., B.M.E.) was granted an extension of special leave for one year from 21st September, 1935, to continue his duties as chief executive officer of an aerial survey being conducted jointly by the Commonwealth, Western Australian, and Queensland Governments in Northern Australia.

Mr. T. D. Hughes was appointed draftsman to the Geological Survey from 12th March, 1935.

Mr. J. I. Murtagh was appointed Junior Clerk as from 25th May, 1935.

Mr. A. F. S. Anderson was appointed temporary inspector of mines on 27th May, 1935, to assist the Acting Chief Inspector of Mines (Mr. W. H. Williams) during the absence of the Chief Inspector of Mines (Mr. J. O. Hudson) on long-service leave. He resigned on 22nd November, 1935, to accept a position with the Commonwealth Government.

Mr. F. N. Stops, P.M., was appointed Warden of Mines, in February, 1935, for the North and North-Eastern and Eastern Districts; *vice* Mr. E. L. Hall (retired).

Mr. J. O. Hudson (Chief Inspector of Mines) was granted six months furlough as from the 27th April, 1935, and was absent from the State until the end of the year. During his absence Mr. W. H. Williams, Inspector of Mines, Launceston, was appointed Acting Chief Inspector of Mines.

Mr. Wilfred Hutchins, P.M., was appointed Warden of Mines, in May, 1935, for the Western District.

CONCLUSION.

I desire to express my appreciation of the loyal and efficient help rendered by all officers of the Department, including the Mining Drafting Branch, and to the Wardens and registrars of mines of the respective districts.

I have the honour to be,

Sir,

Your obedient Servant,

J. B. SCOTT,

Secretary for Mines.

APPENDIX I.

REPORT OF ACTING GOVERNMENT GEOLOGIST FOR YEAR 1935.

The Acting Government Geologist (Mr. F. BLAKE) reports:—

Field Instructions.

The following list includes the field trips, surveys, examinations, &c., made in connection with mineral deposits, mines, &c., which were carried out during the year and the officers by whom they were conducted:—

(1) Mt. Michael Mine, Blue Tier, by F. Blake.
(2) Upper Huon River (Arthur Range area), by F. Blake.
(3) Numerous visits to Lefroy in connection with selection of bore sites, inspections, &c., by Q. J. Henderson.
(4) Furneaux Group of Islands, by F. Blake.
(5) Meredith Range District, by Q. J. Henderson.
(6) Blue Tier, by Q. J. Henderson.
(7) Cole Bay Granite Quarries, by F. Blake.
(8) Proposed track, Que River to Gold Hill, by Q. J. Henderson.
(9) Aid to Mining Inspections at Mathinna, by Q. J. Henderson.
(10) Examination of mineral deposits at King Island, by F. Blake.
(11) Inspection of Trafalgar Leases, &c., Upper Scamander River, by Q. J. Henderson.
(12) Mt. Rex Tin Mine, by Q. J. Henderson.
(13) Jane River Goldfield, by F. Blake.
(14) Mill Sampling at Magnet Mine, by Q. J. Henderson.
(15) Examination of Tin Areas at Cox Bight, by F. Blake.

Reports.

In connection with the above and other examinations the following reports were prepared:—

(1) Stratigraphy and Structure of the Lower Palæozoic Rocks of Tasmania, by P. B. Nye.
(2) Balfour and Interview River Tin Deposits, by Q. J. Henderson.
(3) Review of Gold Mining Industry of Tasmania for Quarter ending 31st December, 1934, by F. Blake.
(4) Notes on Zeehan Mining Field, by Q. J. Henderson.
(5) Underground Water at Reservation, Cape Barren Island, by F. Blake.
(6) Barrier Creek Quartz Sulphide Lodes, King Island, by F. Blake.
(7) Arsenic Resources of Tasmania, by Q. J. Henderson.
(8) Notes on Trafalgar Leases, Upper Scamander, by Q. J. Henderson.
(9) Mt. Rex Tin Mine, Avoca, by Q. J. Henderson.
(10) Geology of Country about Craycroft Track, from Glen Huon to Frankland Range, by F. Blake.
(11) Jane River Goldfield, by F. Blake.
(12) Drilling Returns for 1934, by Q. J. Henderson.
(13) Meredith Range District, by Q. J. Henderson.
(14) Furneaux Group of Islands, by F. Blake.
(15) Alluvial Cinnabar at Jane River District, by F. Blake.
(16) Boring for Underground Water at the Reservation, Cape Barren Island, by F. Blake.

Publications.

The following reports, together with accompanying geological maps and plans, were published and issued during the year:—

Bulletin No. 42, Lefroy and Back Creek Goldfields.
Bulletin No. 43, Mathinna and Tower Hill Goldfields.

The report dealing with the Furneaux Group of Islands was completed in bulletin form, and awaits publication, but some drafting work on the plans has yet to be completed.

Staff.

The Government Geologist, Mr. P. B. Nye, was granted a further 12 months' leave of absence to enable him to continue his duties as Executive Officer to the Northern Geophysical and Aerial Survey of Australia.

During his absence I have continued to act in his stead, and Mr. Q. J. Henderson has carried out the duties of Field Geologist.

On 12th March Mr. T. D. Hughes was appointed as Draftsman to the Geological Survey. Besides drafting he has attended to duties in connection with the library, rock sectioning, bore records, mineral and rock collections, &c.

Track-Cutting and Prospecting.

During the early part of the year the Geological Survey staff supervised a scheme of track-cutting and prospecting in conjunction with geological reconnaissance in different parts of the State. The areas selected were Meredith Range district, and an area in south-western Tasmania (from Glen Huon to Frankland Range). The party from the latter area was afterwards moved to Mainwaring River district, where gold was located in small quantities in numerous creeks. One creek proved payable, and approximately 20 oz. of gold was recovered from gravels in the stream bed.

At Meredith Range alluvial tin was found in a number of places, but in no case was it proved to be workable.

Routine and Other Duties.

The usual duties of interviewing visitors, answering correspondence, &c., were carried out. These were mainly concerned with identification of specimens, furnishing of information about mineral deposits, mines, publications, &c., in connection with the mining industry of the State.

Other duties included—

(1) Attendance at meetings of Mine Manager's Board.
(2) Preparation of collections of specimens for schools and other institutions.
(3) Reports and recommendations in connection with aid to mining, prospecting, &c.
(4) Attention and additions to departmental library.
(5) Weighing of, and certifying to, parcels of osmiridium being shipped overseas.
(6) Preparation of plans, sections, maps, &c., to accompany reports.
(7) Preparation of rock sections for microscopical examination.
(8) Attention and additions to departmental collections.
(9) Selection of sites for drilling.

In conclusion, I desire to place on record my appreciation of the excellent work carried out by the officers of the Geological Branch, and the capable and energetic manner in which such work was performed.

Appendix II.

REPORT OF THE CHEMIST AND ASSAYER.

The Government Chemist and Assayer (Mr. W. St. C. Manson), Launceston, reports:—

I have the honour to submit my annual report for the year 1935:—

During the year the following elements were determined:—Gold, silver, tin, lead, aluminium, arsenic, antimony, beryllium, barium, calcium, chlorine, chromium, iron, magnesium, molybdenum, nickel, osmiridium, phosphorus, platinum, potassium, sodium, sulphur, titanium, tungsten, zinc, and zirconium; also analyses of clays, cement, rocks, minerals, alloys, coal, shale, water, &c.

The number of determinations amounted to approximately 6000. Departmental samples increased considerably, receiving 897 in comparison with 352 for 1934.

Tasmanite Shale.

Flotation research was continued during the year, and resulted in satisfactory concentration of the oil-producing organic matter. Sufficient information was obtained from this work to commence operations of pilot plant scale, and produced sufficient concentrates for bitumen conversion tests.

Samples of mudstone overlying the shale deposits were obtained and utilised to obtain data in relation to the composition of kerogen-free material.

Tenders have been accepted for the manufacture of a pilot plant, installation of which will commence in January, 1936.

Sufficient shale has been mined, crushed, and supplied for pilot plant operation.

An additional ball mill and flotation machine have been purchased during the year.

General.

A good deal of routine work was attended to, and information regarding methods of treatment, &c., supplied to inquirers.

In conclusion, I wish to place on record my appreciation of the services rendered by the Laboratory staff.

Appendix III.

REPORT OF THE CHIEF INSPECTOR OF MINES.

The Chief Inspector of Mines (Mr. J. O. Hudson), Hobart, reports:—

I beg to submit my annual report for the year 1935, in connection with the administration of the Mines and Works Regulation Act, 1915:—

The tables attached show—

(1) Fatal accidents and injuries received in or about mines, works, and quarries in Tasmania.
(2) The rate per 1000 of fatalities and injuries in the different divisions and the number of persons employed.
(3) The average price of metals from the year 1922 to 1935.

The average number of persons employed for the year was 5409, being an increase of 566 compared with the year 1934.

Accidents.

The total number of accidents reported during the year was 142, being an increase of 34 compared with the year 1934. The 142 accidents caused injury to 142 persons. In the Northern and Southern Divisions there was an increase of six accidents, in the North-Eastern Division an increase of two accidents, in the Eastern Division an increase of one accident, in the North-Western Division an increase of one accident, and in the Western Division an increase of 24 accidents, compared with the year 1934.

The increase of accidents again appears to be due to the number of inexperienced men being employed in the industry.

There was only one fatal accident during the year, causing the death of one person, being a decrease of three compared with the year 1934.

The non-fatal accidents were 141, causing injury to 141 persons, being an increase of 36 compared with the previous year.

The rate per 1000 persons employed who were killed and injured was 26·252, compared with 22·506 for the previous year. The rate per 1000 persons employed who were fatally injured was 0·184, compared with 0·826 for the year 1934. The percentage for the year is a record for this State.

The rate per 1000 persons employed who received injury necessitating absence from work for more than 14 days was 26·067, compared with 21·680 for the previous year.

The one fatal accident was caused as follows:—The injured man was one of a party of labourers employed in an open cut. The day previous to the accident the face was fired and cleaned down. On the following day the machine miners and the 10 labourers continued cleaning down the loose ground until they were satisfied that it was safe to shovel on the bench. About 4.10 p.m., as the men were preparing to discontinue work, a stone about 16 lb. weight fell from the face of the cut, striking the deceased on the head, causing fatal injury. The jury returned a verdict of accidental death.

Of the 141 serious accidents, 76 occurred underground and 65 on the surface; six occurred at sluicing mines, nine at works, and three at quarries. It is pleasing to note the absence of any accidents at coal mines. The injuries in 25 cases were fractures; the remaining 117 cases caused injury, which necessitated absence from work.

Prosecutions.

There were four prosecutions for failing to comply with the provisions of the Act, viz.:—

(1) A trucker was charged with unseemly and riotous conduct underground. A fine of £10, and costs, was inflicted, but the penalty was suspended on his entering into a bond of good behaviour for six months.
(2) A miner, for unseemly and riotous conduct on the surface of a mine, was fined £1, and costs.
(3) A miner, for unseemly and riotous conduct on the surface of a mine, was fined 10s., and costs.
(4) A miner, for unseemly and riotous conduct on the surface, was fined 10s., and costs.

Operations—Southern District.

The Electrolytic Zinc Company operated continuously during the year. The additional unit to the plant was placed in operation. At the end of the year preparations were being made to recommence operations at Rosebery.

The company produced 67,666 tons of slab zinc, valued at £1,244,840, and 218·6008 tons of metallic cadmium, valued at £48,980. The average number of men employed was 830. The company did not treat any ore produced in Tasmania.

Catamaran Coal Mine operated continuously during the year, producing 9000 tons of coal, valued at £6680, and employed on an average 40 men. The old workings have been pumped out, and coal is being worked between the two dip tunnels.

A small output of coal is being mined in the Sandfly area.

The Australian Commonwealth Carbide Company operated continuously during the year, and produced 5467 tons, valued at £115,350; and sold 18,796 tons of limestone, valued at £11,394. The average number of men employed was 30.

Adamsfield.—The price of osmiridium remained low, averaging about £9 per oz. The number of men decreased, and averaged about 40 for the year. The lode deposits were operated erratically during the year. The reported output was 234 oz.

Quarries.—The bluestone quarries worked fairly continuously during the year, and one discontinued operations.

In conclusion, I again desire to express my appreciation of the energetic manner in which inspectors have carried out their duties.

TABLE showing Rate per Thousand Killed and Injured in different Divisions for the Year 1935.

Division.	Average Number of Men Employed.	Number of Accidents.	Number of Persons		Total Number Killed & Injured.	Average per 1000 Killed and Injured.	Average per 1000	
			Killed.	Injured.			Killed.	Injured.
Northern and Southern	1283	8	...	8	8	6·235	...	6·235
North-Eastern	654	4	...	4	4	6·116	...	6·116
Eastern	768	7	...	7	7	9·114	...	9·114
North-Western	608	15	...	15	15	24·654	...	24·654
Western	2096	108	1	107	108	51·526	0·477	51·049
Total	5409	142	1	141	142	26·252	0·184	26·067

ANALYSIS of Statistics of Accidents for Western Division.

Division.	Number of Miners Employed.	Number of Accidents.	Number of Persons		Total Number Killed & Injured.	Average per 1000 Killed and Injured.	Average per 1000	
			Killed.	Injured.			Killed.	Injured.
Mount Lyell	1778	105	1	104	105	59·055	0·563	58·492
Zeehan, &c.	318	3	...	3	3	9·434	...	9·434
Total	2096	108	1	107	108	51·526	0·184	51·049

COMPARATIV

Period.		
1 July,	1892,	to 30 June
„	1893	„
„	1894	„
„	1895	„
„	1896	„
„	1897	„
„	1898	„
„	1899	„
„	1900	„
„	1901	„
„	1902	„
„	1903,	to 31 Dec.,
1 Jan.,	1904	„
„	1905	„
„	1906	„
„	1907	„
„	1908	„
„	1909	„
„	1910	„
„	1911	„
„	1912	„
„	1913	„
„	1914	„
„	1915	„
„	1916	„
„	1917	„
„	1918	„
„	1919	„
„	1920	„
„	1921	„
„	1922	„
„	1923	„
„	1924	„
„	1925	„
„	1926	„
„	1927	„
„	1928	„
„	1929	„
„	1930	„
„	1931	„
„	1932	„
„	1933	„
„	1934	„
„	1935	„

COMPARATIVE Table of Statistics of Accidents in and about the Mines of Tasmania from 1st July, 1892, ,to 31st December, 1935.

Period.	Number of Miners Employed.	Number of Accidents.	Number of Persons		Total Killed and Injured.	Average per 1000 Killed and Injured.	Average per 1000.	
			Killed.	Injured.			Killed.	Injured.
1 July, 1892, to 30 June 1893	3295	28	4	25	29	8·8001	1·214	7·586
„ 1893 „ 1894	3403	25	7	20	27	7·934	2·057	5·877
„ 1894 „ 1895	3789	26	4	24	28	7·390	1·058	6·332
„ 1895 „ 1896	4160	22	7	16	23	5·529	1·682	3·847
„ 1896 „ 1897	4303	36	7	31	38	8·831	1·627	7·204
„ 1897 „ 1898	5530	36	13	33	46	8·318	2·351	5·967
„ 1898 „ 1899	6180	35	9	34	43	6·957	1·456	5·501
„ 1899 „ 1900	6834	19	7	16	23	3·365	1·024	2·341
„ 1900 „ 1901	7017	29	8	23	31	4·417	1·140	3·278
„ 1901 „ 1902	6438	38	7	35	42	6·524	1·088	5·437
„ 1902 „ 1903	6484	44	6	43	49	7·557	0·925	6·632
„ 1903, to 31 Dec., 1903	5604	27	8	20	28	4·977	1·428	3·569
1 Jan., 1904 „ 1904	6192	73	9	65	74	11·951	1·454	10·497
„ 1905 „ 1905	6586	34	7	30	37	5·618	1·063	4·555
„ 1906 „ 1906	7004	65	4	61	65	9·280	0·571	8·709
„ 1907 „ 1907	7516	68	6	64	70	9·314	0·798	8·515
„ 1908 „ 1908	6464	60	6	58	64	9·900	0·928	8·972
„ 1909 „ 1909	6054	54	6	49	55	9·085	0·991	8·093
„ 1910 „ 1910	5770	63	8	57	65	11·265	1·386	9·878
„ 1911 „ 1911	5247	80	4	77	81	15·437	0·762	14·675
„ 1912 „ 1912	5566	60	53*	53	106	19·044	9·522	9·522
„ 1913 „ 1913	6106	64	6	60	66	10·809	0·982	9·826
„ 1914 „ 1914	4741	69	9	62	71	14·977	1·896	13·081
„ 1915 „ 1915	3908	71	6	67	73	18·679	1·535	17·144
„ 1916 „ 1916	3864	53	2	51	53	13·716	0·517	13·198
„ 1917 „ 1917	4050	50	2	48	50	12·345	0·493	11·852
„ 1918 „ 1918	4279	50	5	45	50	11·684	1·168	10·516
„ 1919 „ 1919	4413	58	1	57	58	13·143	0·226	12·917
„ 1920 „ 1920	5364	52	2	50	52	9·694	0·372	9·322
„ 1921 „ 1921	4011	40	3	37	40	9·972	0·748	9·224
„ 1922 „ 1922	3835	31	4	27	31	8·083	1·043	7·040
„ 1923 „ 1923	4785	64	2	63	65	13·584	0·417	13·166
„ 1924 „ 1924	5264	72	1	73	74	14·057	0·189	13·867
„ 1925 „ 1925	5110	62	2	61	63	12·328	0·391	11·937
„ 1926 „ 1926	5309	54	5	52	57	10·736	0·941	9·794
„ 1927 „ 1927	5044	70	5	65	70	13·877	0·991	12·886
„ 1928 „ 1928	5170	47	1	46	47	9·090	0·193	8·897
„ 1929 „ 1929	4986	59	17	55	72	14·440	3·409	11·031
„ 1930 „ 1930	4606	55	4	52	56	12·158	0·868	11·289
„ 1931 „ 1931	4391	38	8	35	43	9·792	1·821	7·970
„ 1932 „ 1932	4605	71	4	67	71	15·418	0·868	14·549
„ 1933 „ 1933	4510	77	7	71	78	17·295	1·552	15·742
„ 1934 „ 1934	4843	108	4	105	109	22·506	0·826	21·680
„ 1935 „ 1935	5409	142	1	141	142	26·252	0·184	26·067

* Mount Lyell disaster.

APPENDIX IV.

REPORT OF THE CHIEF INSPECTOR OF EXPLOSIVES AND INFLAMMABLE LIQUIDS.

The Chief Inspector of Explosives (Mr. J. O. HUDSON) reports as follows:—

Explosives.

I have the honour to submit my report on the administration of the Explosives Act, 1916, and the Inflammable Liquids Act, 1929, for the year 1935.

The imports of explosives for the year were as follows:—

	lb.
Monobel	202,550
Gelignite	778,500
Ligdyn	78,950
Blasting gelatine	200
Gelatine dynamite	2,000
Powder	28,174
Detonators	844,550

The quality of the explosives imported was very satisfactory. The introduction of an explosive with a low freezing-point has proved very satisfactory, and has greatly removed the risk in using explosives in a frozen or partially frozen condition. The imports show a very large increase, and can be attributed to a revival in mining and public works.

Accidents.

Five accidents occurred during the year, as follows:—

(1) A miner was boring in a boulder underground and the drill bored into explosives left from a cut-out hole. The quantity, apparently, was small, as only minor injuries were sustained.

(2) During sessional firing of 140 pops in a quarry, the injured man failed to hear and respond to the firing warning, and was struck by flying fragments of stone, receiving abrasions to face and hand, and injury to eye.

(3) A mullock pass which was hung up was fired. A stone which ricochetted off the gallery timber struck a man: injury—contused right arm.

(4) The spent carbide from lamps had been erroneously placed in a metal receptacle used for waste food. A man went to the receptacle, to obtain waste paper, when a flame from his lamp caused an explosion, which resulted in burns to his arm. A separate container was provided for spent carbide.

(5) A miner was using an empty carbide drum for boiling water without it first having been cleaned. The flame from his lamp caused an explosion, which resulted in burns to his face and chest.

Revenue.

The following licences were issued, and fees paid in connection with them, for the year 1935:—

Explosives Act, 1916 (1st January to 31st December, 1935).

	No.	£	s.	d.
Magazine licence	63	60	10	0
Permits to sell explosives	274	68	0	0
Permits to import explosives	12	24	0	0
Permits to convey explosives	54	13	7	6
Permits to sell fireworks only	101	12	12	6
		£178	10	0

Inflammable Liquids Act, 1929 (1st July, 1934, to 30th June, 1935).

	No.	£	s.	d.
Licences for store	492	798	5	0
Registration of premises	273	71	5	0
Permits to unload ships	38	39	18	0
Permits to import	7	1	15	0
Increased quantities	44	29	15	0
Transfer fees	12	3	0	0
Amendment to licences	55	13	15	0
Inspection of ships	9	47	5	0
		£1,004	18	0
Magazine rents		291	11	3
		1,296	9	3

In conclusion, I desire to express my appreciation to the Police Department for the very valuable assistance which it has rendered.

APPENDIX V.

REPORTS OF INSPECTORS OF MINES.

Inspector H. A. VAUDEAU, Upper Burnie, reports:—

I have the honour to submit my annual report for the year 1935 in connection with the work of inspection and administration of the various Acts delegated to this office, and a *resumé* in connection with the mines, works, and quarries in this district.

The average number of men engaged during the first quarter ending the 31st March was 735, and for the period ending 31st December there were 1018, indicating greatly increased activity. Early in the year Zeehan District was included in that under my jurisdiction. The average for the quarter ending 30th June was 899, being an increase of over 100 during the last term. There were 18 accidents registered (men who lost 14 working days from work or longer). There were no fatal accidents. Fourteen accidents occurred on the surface and four underground.

A quarryman, while engaged with others igniting fuses in a quarry on a dull wet evening, did not heed the warning given by the man in charge to leave the face before completing, and was hit by a flying stone from one of the holes first lighted. A mate (Roy Best) went to his assistance, otherwise it might have ended seriously for him. Best was recommended for reward to the Royal Humane Society, which he has since received. The man received injury to his face, right hand, and slight injury to the right eye. He was absent from work for 26 days.

At another quarry a man was struck on the head by a piece of rock which came from face above. He was in a serious condition for some time, and lost some months from work as the result thereof.

I commented on, and recorded strongly in connection with, the want of "batter" on this face on several occasions. This occurrence brought the matter to a head. The whole question was gone into with the officers of the company. Conditions have now been improved.

Another accident occurred which may be worth noticing as a warning to others. A person took portion of a carbide drum to bail water underground without thoroughly cleaning it, a carbide lamp being in use. Evidently some carbide remained in the drum, for almost as soon as it was

put into the water there was an explosion, the gas igniting and causing burns to the face, arms, and chest. The person lost 17 days from work.

Other accidents were such as are common to the industry, which, if safety first methods were practised, would probably have been avoided.

Ventilation.—At one metal mine conditions were not satisfactory, and a start was made to establish connections between three levels, which, it was considered, might improve matters. This had not been completed at the end of the year. It was found necessary to complain regarding conditions at four coal mines, the ventilation at which, when the wind was blowing from the north or east, was not satisfactory. Better conditions were apparent at the end of the term in one case, a connection being made to an air-shaft. Two others have since sunk air-shafts, one other not yet being much improved.

At times conditions could be greatly improved if more consideration was given to the question of location of air-shafts and to bratticing of roadways, as well as the judicious use of doorways and stoppings. As the ventilation, apart from the adverse direction of wind, is satisfactory, the men do not endeavour to improve conditions at all times, as required by the Act. Only a few men are working on wages, most being in the party working the pits.

Explosives.—Consignments from the mainland have received the necessary attention whilst being unloaded and conveyed to destination. No complaints have been made regarding quality, the quality of high-explosive fuse, &c., being satisfactory. Several new magazines have been built. Storage conditions, on the whole, are reasonably safe.

Machinery, Ropes, and Appliances.—In a few cases slight irregularities were noticed, and when commented on were rectified.

Roadways.—Conditions of these in some coal mines were deplorable, and men were given to understand they must be remedied. A big improvement was made, but there is still room for more of it.

Workers' (Occupational Diseases) Relief Fund Act.—No claims have been made to this office for compensation. A considerable amount of office work is involved, due to the increased activity in mines and works.

General.—Owing to my district being enlarged to include the whole of the Zeehan and Heemskirk districts, and the extra amount of aid to mining work there, it has been impossible to give the time and attention as previously to the provisions of the Mines and Works Regulation Act. It has been impossible to give as much time as was really necessary to see that the provisions of the Inflammable Liquids Act were carried out. A flying trip of inspection was taken into an outlying area, and conditions were found anything but satisfactory. The assistance of the Police Department was obtained, which attended to matters as desired.

I would like to express my appreciation of the help rendered by managers and others in charge of the various mines, works, and quarries, and the men engaged thereon, also to the Police and to the Municipal Council Commissioners of Zeehan, who have materially assisted me in the performance of my duties.

Operations and Production.

Tin.

Mt Bischoff Tin Mine, Waratah.—During the period, 18,329 tons of crude ore was crushed and 8824 tons of slimes retreated, making a total of 27,153 tons for a recovery of 323·7 tons of tin concentrates, containing 218·15 tons of metallic tin; and 36,200 cubic yards were sluiced for 45·6 tons of tin oxide, containing 29·5 tons of tin. Total value of product, as given by the company, was £59,519. The average number of men employed was 176, being less by 12 than the previous year.

A good deal of developmental work was carried out by the tributors, resulting in a greater tonnage of tin being won from the underground workings than in previous years.

The heavy flood in 1934 did considerable damage at the North Valley Hydraulic workings (O. J. Walsh and party). It hindered sluicing operations for some time. A good deal of poor ground had to be got rid of when work was resumed. During the latter part of the year good work was done. Results have been very satisfactory. Three formations have been exposed in these workings, one being pyritic; it did not, however, contain tin. The other two are oxidised material, the upper portions of which carried tin in highly payable proportion. These deposits are well worthy of being tested at depth.

C. Gray and Party.—Some trenching work was carried out across a surface formation with poor results. I considered that the formation was worthy of further investigation at depth. Two cross-cuts were subsequently put out to the east from their respective levels, exposing the lode in each. It has been opened up for over 150 feet in length, and values are very encouraging. The efforts of this party have been very successful. Another lode has been located to the west of the workings, and is worthy of attention. They possess their own concentrating mill and calcining plant.

Yard and Party.—This party is provided with a plant to deal with material as mined. They have carried out a considerable amount of developmental work during the year, with satisfactory results. A drive was continued from the cross-cut at the western end of the Queen workings on the course of the lode 116 feet, making a total of 162 feet. Developmental work has opened up a block of payable ore for stoping. Good ore has also been driven on and stoped along the No. 5 level at the North Valley workings to the north, and the south end has been cleaned out and repaired. They are now working ore from here which was abandoned many years ago. The lenses are short, but the lode is from 4 to 6 feet in width, assaying about 2 per cent. tin. From appearances it should improve as risen on. Fifteen men are at work here.

Thompson's Lode: Tribute.—An air-compressing plant was installed and the necessary rock-drills obtained. Driving of the bottom tunnel has been continued. Connection was made to workings above, and good ore is now being won. The ground is extremely hard, but much better progress can now be made. The south-easterly portion of the lode appears to have the best prospects.

Wheal Workings.—Two parties have been working here; the lode is small and irregular. Rich tin ore occurs in bunches, and has given payable returns to tributors.

Cross Lode.—An air-compressing and pumping plant was put in by Schell and party. A winze has been sunk 50 feet below the Stanhope level, and the level driven 150 feet. The lode is small, and values irregular but payable.

Flat Make.—Two to three parties have been working on this formation near the brown face workings, and though some what small, has given payable results.

Narcarrow and party put in an air-compressing and pumping plant, and carried out extensive operations. Values proved to be low and work was consequently discontinued.

Keyser's Lode.—An intermediate level, 20 feet above the level of the main tunnel was driven 82 feet under the brown face workings. The lode was small, but assays are reported to be good. Some good ore has been mined in the upper workings by Stevens and party.

Parties known as Bell's, Phillips', Whiteway's and others, have continued working on a greisen formation. It is badly faulted, but is subject to enrichments. The prospects are favourable.

East and Party.—This party has been working with payable results over the old Stanhope workings.

Several other parties are working in various parts of the mine and on the surface with payable returns, others having no success. A considerable tonnage has been broken from the surface and a good deal of it "broken down" with water before sending it to the treatment plant. Some fair to good patches have been unearthed, but on the whole the values are low.

The company investigated a considerable area of country in the vicinity of the Harmon and Wilson rivers; tracks were cut, and prospecting by sinking was carried out. Gold, tin, and osmiridium were found, but not in payable quantities. The project was subsequently abandoned. The company has since acquired the old Mt. Cleveland Tin Mine leases and adjacent areas at Whyte River, Luina, and cross-cuts are being driven to intersect lodes worked by the former company. Some trenching work has been carried out with the object of picking up the continuation of the lodes. Prospects on the north side appear to be most favourable. The tin in the alluvial is of a different character on that side of the hill to that in Deep Creek, which has been shed from the ore-bodies on that side; systematic prospecting on the northerly side appears to be warranted.

Customs Ore.—The company has crushed the ore raised by H. Stanley and party and C. Dunstan and party, who are working portions of the old Mt. Bischoff Extended Tin Mine, known locally as the "West," and for other local parties, which is of great assistance to them, not having crushing facilities of their own.

H. Stanley and Party, Waratah.—The men have been working in and about the old workings in the upper levels

of the old Mt. Bischoff Extended Tin Mine, and have won ore from which 10 tons of concentrates were produced, containing 7 tons of metallic tin, valued at £1728. An average of nine men were employed.

C. Dunstan and Party, Waratah.—This party has worked in another part of the mine, thus giving employment to an average of 11 men. Ore produced yielded 13 tons of tin concentrates, containing 9·5 tons of tin, valued at £2164·5. Payable grade ore has been won from these old workings, which promise to contribute further quantities.

G.P.S. Syndicate, Waratah.—This syndicate is working portion of the old Mt. Bischoff Extended Company's workings. The dam and part of the race was washed away towards the end of 1934, but it was subsequently renewed. Operations were continued over the old No. 6 level for some time. Attention was also given to treatment of old tailings and detrital material. A total of 3·5 tons of tin oxide was produced, containing 2·5 tons of tin, valued at £581. On the average, five men were employed.

Dewhurst and Party, Waratah.—This party erected a small treatment plant to deal with some of the old Mt. Bischoff Extended Tin Mine tailings, and 1·35 ton of tin oxide was recovered, containing ·9 ton of tin, valued at £211·3. Average number of men employed, 2½.

R. Housego and Lane, working on the Waratah River, retreating Mt. Bischoff Tin Mine tailings for about nine months, obtained 2·2 tons of tin oxide, containing 1·5 ton of tin, valued at £352·6. Average of two men employed.

E. Watson, Waratah, produced ·35 ton of tin oxide, containing ·2 ton of tin, valued at £53·4. J. E. Pearce produced ·8 ton of tin ore, containing ·5 ton of tin, valued at £116 9s., from the same source.

W. Prouse, Waratah, working at Tin Stone Creek for half the year, obtained from alluvial ground ·2 ton of tin oxide, containing ·13 ton of tin, valued at £30.

Parsons Hood Track.—Several persons have been working off and on out in this area with varying results. Two tons of tin oxide is the reported yield, containing 1·2 ton of tin, valued at £285. Values, on the whole, are only fair, and the ground is shallow.

Wombat, S.P.A. Creek and 6-Mile (Waratah-Corinna-road).—In this vicinity a few men have obtained by ground sluicing 1·4 ton of tin oxide, containing ·9 ton of tin, valued at £213.

Lunia.—A few men have occasionally been prospecting and ground-sluicing some alluvial ground, and obtained ·5 ton of tin-oxide, containing ·3 ton of tin, valued at £66.

Mt. Ramsay.—R. Laughlin and party put in a hydraulic sluicing plant, and treated 2500 cubic yards for a year's work, obtaining ·7 ton of tin oxide, containing ·5 ton of metallic tin, valued at £116. Two men were employed.

Balfour Area.—Returns have reached this office from five men, who obtained 3 tons of tin oxide, containing 2 tons of tin, valued at £552.

Housetop and Kara Area.—Returns to hand from two parties who have won ·3 ton of tin, selling it for £77. Clark and party have been prospecting in the locality for some time, trenching, sinking, and tunnelling to try and locate the source of the alluvial tin, but as far as is known have not done so. Encouraging indications exist in the locality.

Renison Bell Area.—The Renison Associated Tin Mines No Liability acquired the Renison Bell Mine concentrating mill, together with water-rights and dams, the object being to work the property in conjunction with the Dreadnought and the Boulder Mines.

The hydro-electric power plant, water-race, and mill were overhauled and put into operation towards the end of November.

The Dreadnought lower-level tunnel has been connected to the Government tramline connected to the mill. An aerial ropeway is used for conveyance of ore being drawn from this locality. A connection has also been made with the south face on the Dreadnought section by a gravitation self-acting tramway to the Government tramline.

Ore is being drawn from these places, and values are reported to be well up to expectations. At the latter part of the term 577 tons of slimes from the slime dam were retreated and 4 tons of concentrates were recovered, containing 2 tons of metallic tin, valued at £529. Ten men were employed.

It is generally considered that the oxidised portions of the ore-bodies are about exhausted, but I do not think this is correct. There appear to be prospects of locating ore on the Dreadnought Mine by driving westerly from the former open-cut workings.

Three tributors have been ground-sluicing on the Boulder section, and have produced 2·8 tons of tin oxide, containing 1·5 ton of tin, valued at £349.

J. Hetherington, Renison Bell, has been working occasionally on the old Central Mine sluicing, and produced ·3 ton of tin oxide, containing ·18 ton of tin, valued at £41·3.

Federal Tin Mine, Dunn's, Renison Bell.—No work has been carried out on these two properties during the year, apart from taking a few samples for testing purposes.

Montana Tin Mine, Renison Bell.—During the first quarter, R. Maskel and party sent away ·5 ton of tin oxide, recovered from the dam workings, containing ·3 ton of tin, valued at £65, three men being at work. They disposed of their property to Messrs. Leggo & Co., of Melbourne.

G. Cox, M.R. Claim, Renison Bell, by ground-sluicing, obtained ·9 ton of tin oxide, containing ·6 ton of tin, valued at £147·5.

Kemp's Tin Mine, Renison Bell.—A small hydraulic sluicing plant was put in here before the ground was properly tested, and turned out a failure. One ton of tin oxide was obtained, containing ·7 ton of tin, valued at £159, four men being employed.

J. Pepper's Five Acres, Pine Hill, Renison Bell.—By ground-sluicing detrital on the slope of hillside, ·5 ton of tin oxide, containing ·4 ton of tin, valued at £82, was obtained.

Penzance Tin Mine, Renison Bell.—One man working occasionally, ground-sluicing, won ·5 ton of tin oxide from detrital, containing ·4 ton of tin, valued at £83.

Pine Hill Tin Mine Renison Bell.—The syndicate continued the crosscut for a few feet with Government assistance; the ground being hard, the men made a very poor showing, and did not get out far enough to cut the lode. A little trenching in another place was carried out. Work was discontinued. This line of country and that on the Penzance adjoining is worthy of attention.

X Gorge and River Area—W. Hill (Miner's Right Claim): Old Williamsford Tin Mine.—Work was continued for a few months here by two men, returning ·8 ton of tin oxide, containing ·5 ton of tin, valued at £115.

The values cut out as expected in the lode-formation when it hit the slide. Attention was then given to some detrital material below the outcrop of the lode-channel, but was not payable, and the area was abandoned. Some prospecting work was carried out to the north by another party, but no ore has been treated or sold.

X River Tin Mine.—E. Williams has been working for part of the term on this property, crushing his dirt with a one-head stamp, and obtained ·6 ton of concentrates, containing ·4 ton of tin, valued at £76.

J. Copping, X River, carried out some trenching and discovered two large lode-formations, but they were too poor for him to work. He continued work on a lode on the edge of the river, crushing the material with a one-head stamp, and obtained ·2 ton of tin, containing ·1 ton of tin, valued at £24.

A. J. Salmon's Tin Mine, X Gorge, working occasionally recovered ·6 tons of tin oxide, containing ·3 ton of tin, valued at £78. There are possibilities in this area with development.

South Heemskirk Area—Federation Tin Mines Ltd.—Work was resumed in January. The electric power-station was reconditioned, and piping and fluming were overhauled and repaired, also transmission-line. Aerial ropeway was reconditioned. At the concentrating mill alterations consisted of removing tables from one floor and installing a 7-feet by 36-inch Hardinge conical ball mill, re-erecting tables, also erecting a new Symons short head-crusher and five new tables. For mining work an electrically driven air-compressor and 4000 feet of piping and rock-drills were installed. The following work was carried out on the mine: 636 feet of driving, 135 feet of rises and winzes, 33 feet of prospecting shafts, and 1680 feet of trenching. In addition to this, all the adits on the property were made accessible. Prospecting operations are reported to have disclosed payable tin on new lode known as the "cross lode." Two bismuth formations, 3 feet wide, giving values up to 6 per cent., were encountered in prospecting shaft. The mill was put into commission towards the end of the year, and 3892 tons were crushed for five tons of tin concentrates, containing 3 tons of metallic tin, valued at £745. For the quarter ended 31st December, 65 men were employed on the surface and 16 underground.

J. G. Geason obtained ·09 tons of tin oxide, containing ·05 tons of tin, valued at £11.

A. Fairfield won ·24 tons of tin oxide, containing ·13 ton of tin, valued at £30.

H. Reid won ·16 ton of tin oxide, containing ·08 ton of tin, valued at £20.

A little prospecting work was carried out for short intervals by two other prospectors.

North Heemskirk Area—Cook and Payne.—The cutting of a head-race was put in hand and was not completed at the end of the year. They had the use of Kemp's water, and by hydraulic sluicing obtained 3·8 tons of tin oxide, containing 2·5 tons of tin, valued at £586. An average of four men were working.

Ten other men have been prospecting and treating alluvial ground, working intermittently, and won 2·8 tons of tin oxide, containing 1·6 ton of tin, valued at £375.

At Dundas, W. J. Hodge, working on the Razorback Mine, by open-cut mining, and crushing with five head of stamps and grinding-pan, produced during the half-year ending 30th September, 3·7 tons of concentrates, containing 2·26 tons of tin, valued at £512. An average of six men were at work.

Five-Mile, North Dundas Area.—Three men, working intermittently, obtained ·16 ton of tin oxide, containing ·09 ton of tin, valued at £21·6.

Crimson Creek, Dunkley's Tram.—A. Newman obtained ·6 ton of tin oxide by ground-sluicing, containing ·3 ton of tin, valued at £61. A. Brown obtained ·09 ton of tin oxide, containing ·06 ton of tin, valued at £15.

Lappa Tin Mine, Sea Elephant, King Island.—Further developmental work was carried out with satisfactory results by optionees. They employed, during the last three quarters, six, eight, and twelve men respectively. A company has been formed, and it is intended to sink two main shafts about ¼-mile apart. While this work is being carried out a pilot plant is to be erected to test the lodes. In addition to this several parties of prospectors were engaged investigating the district for tin, but, as far as is known, did not locate anything of a payable nature.

Silver-Lead-Zinc Ores.

Farrell Mining Company, Tullah.—During the twelve months 7743 tons of milling ore were mined, which, on treatment, yielded 1626 tons of concentrates, containing 1144 tons of lead and 137,066 oz. of silver; 83 tons of first-class ore were also produced, containing 57 tons of lead and 7327 oz. of silver—total value, £35,887. An average of 72½ men were employed—32 on the surface and 40 underground. The main shaft was sunk 178 feet. Sinking was resumed from No. 2 level 165 feet below the surface. At 265 feet the No. 3 level was opened up, and while this level was being worked the next sink was commenced, and at the end of the year the shaft was 78 feet below No. 3 level. No. 4 level is to be opened up at 365 feet. At the 100-feet level a crosscut was driven east for a distance of 100 feet; nothing payable was intersected.

No. 2 Level, 165 Feet.—The drive south was extended 184 feet. The lode was payable for 65 feet, the remaining distance driven proving it to be small and unpayable; the total distance from the main crosscut being 304 feet.

No. 3 Level, 265 feet.—The drive south was advanced 279 feet from the shaft. The first 60 feet were poor; good ore was struck here, and for a length of 219 feet proved payable, although patchy. Stoping above on this shoot of ore is in progress. A drive north of the shaft was advanced 123 feet. The lode here was not payable for the greater part driven, but was definitely better in the bottom of the drive.

Rises.—A rise was lifted from No. 2 level to the 100-feet level, and also from the No. 3 to the No. 2 level. A winze was sunk 40 feet below No. 2 level, and an intermediate level driven north and south over a length of 100 feet, so that the output of ore could be maintained while the No. 3 level was being opened up.

Stoping.—The block of ground above No. 2 level was stoped out to No. 1 level and stoping continued above the intermediate drive, and the leading stope was also taken over the No. 3 level drive as it was advanced. The formation worked at No. 3 level has proved payable over a length of 200 feet, and, although very erratic, averaged, approximately, 2 feet 6 inches of payable seconds, from which a little first-class ore was hand-picked.

Prospecting.—A little work has been carried out to the north of the workings, but nothing of value was disclosed.

Electrolytic Zinc Company of Australia Limited, Rosebery, Williamsford, and Zeehan.—Men employed during the various quarters were as follows:—48, 50, 69, 178. On the surface, 32, 34, 40, and 102; underground, 16, 16, 29, and 76—respectively. For the period under review, work in the mines was confined to development work, and a total of 2040 feet was performed, comprising 886 feet in the Rosebery and 1154 feet in the Hercules Mines respectively.

Rosebery Mine, No. 8 Level.—The north drive was continued and advanced 616 feet. At No. 6 level, the north drive was restarted and advanced 264 feet. During the progress of this work 1206 tons of ore were produced for future treatment.

Hercules Mine.—Development comprised 547 feet of driving, 274 feet of cross-cutting, and 333 feet of raising. At No. 6 level, work comprising driving and cross-cutting was carried out on the "G" lode-channel, and a rise was subsequently started to connect with the No. 5 level, and intersected ore at a vertical height of 70 feet above the level. At No. 5 level, further work was carried out on the "JK" lode, and a west crosscut put out from this lode. North and south drives were opened on this lode, and a rise over the south drive was connected with the No. 4 level. A total of 846 tons were extracted during the progress of this work. Towards the close of the period a start was made to recondition the mill and plant generally, with a view of resumption of operations early in the new year.

Magnet Silver Mine, Magnet.—The Magnet Prospecting Syndicate carried on operations until the middle of October. It mined and milled 2570 tons of ore, from which was sold concentrates containing 37,388 oz. of silver and 218·5 tons of lead, valued at £7917·4, an average of 40 men being employed. Recoverable value of ore broken was 8·5 per cent. lead and 14·55 oz. of silver per ton. The average value for the previous year was 8 per cent. lead and 13 oz. of silver per ton of ore recovered.

A new syndicate was formed, known as the New Magnet Prospecting Syndicate, which took over the mine, producing 672·5 tons, from which was obtained 64·5 tons of concentrates, containing 5327·5 oz. of silver and 34·485 tons of lead, valued at £1281, 32 men being employed. The ore handled was of a much lower grade, only averaging a recovery of 5 per cent. lead and 7·92 oz. of silver to the ton. Assistance was granted by the Government to carry out a programme of developmental work, which, if completed, would have placed the mine in a different position, but, owing to breakdown in plant and other factors, very little of the work was carried out. The position was very acute when the new syndicate took over, and to try to keep the mill working very low-grade ore was dealt with.

Zeehan Area: G. Bell and Pilkington, Part of Crown Mine.—From narrow stope work and jigging the ore obtained was 10 tons of concentrates, containing 1080·5 oz. of silver and 7·27 tons of lead, valued at £222. An adit was also driven into the hillside above the old shaft workings over 100 feet, disclosing the tops of two lode-formations, one carrying slugs of galena, but not payable. It is considered that possibilities are good in this area, but it does not appear as if the values come up to the surface, which was the case in the adjoining mine, the Western. Very little ore came nearer than 40 feet of the surface there.

J. McDermott, Part of Old Crown Mine to the North.—Mr. McDermott extended the top tunnel another 40 feet to try and pick up another shoot of ore similar to the one previously worked, but did not meet with success. G. Heywood treated his tailing dump and obtained 2 tons of concentrates, 118 oz. of silver, and 1·14 tons of lead, valued at £32·4.

M. and S. Clark took out some lode left above the bottom level in a rise, and obtained 1 ton of galena, containing 107 oz. of silver and 1·2 ton of lead, valued at £34·5.

Big Ben (Five Acres, Mineral Lease, North Zeehan).—P. Jones cleaned up some second-class ore and obtained ·4 tons, containing 97 oz. of silver and 1·08 ton of lead, valued at £30.

C. Bell and party, North Zeehan, obtained 13·9 tons of prill ore and concentrates, containing 1157·8 oz. of silver and 9·14 tons of lead, valued at £301. This party, assisted by the Government, erected a large water-wheel, cut head and tail races, erected fluming, cut over shaft, put in new pump, and resumed sinking on 18 inches of good ore, showing in the bottom of shaft when work was stopped to put in plant. On resuming sinking the good ore gave way to lower grade ore as shaft went down to 10 feet, and then, owing to the dry weather setting in, had to cease operations, there not being sufficient water to operate the water-wheel. Good ore is showing along the floor of the No. 1 tunnel, and when water is available this can be obtained.

N. V. Menzie, M.R.C.—1·02545 ton of galena were obtained, containing 83·7 oz. of silver and ·6 ton of lead, valued at £20·4.

North Swansea Mine, Swansea (J. J. Hill).—From a small prospecting shaft 11·8 tons of galena was won, containing 823·9 oz. of silver and 8·2 tons of lead, valued at £243. There are encouraging possibilities in this area, and now that there is a road within a short distance of the workings there should be no delay in reaching the productive stage.

Silver Beauty Mine, Comstock (J. Dunkley, Sen.).—An adit was driven in a westerly direction and cut the top of three formations showing zinc blende and slugs of galena, but not payable. It has since been decided to extend the 100-feet level from the main shaft further west to cut these formations from there; this work is now being carried out.

A. Denehey and Son, North Swansea.—These men carried out some prospecting work, but were not successful in locating anything payable.

Spray Mine, Zeehan.—An adit was started on this property with the intention of getting to "G" lode, prospecting the intervening country. A band of pug was struck in the foot of the approach and continued for some distance, and made work slow and difficult for a time, but better progress was being made at the close of the term. The prospects here appear to be favourable.

J. Cornish carried out some prospecting work to the south-west. He obtained gossan which, on assaying, gave from traces to over 500 oz. to the ton. It being patchy, no ore was sold.

West of Nike Mine.—Trenching and some drifting was carried out here, and four gossan formations were exposed, from 2 feet 6 inches to 12 feet wide; but values were very disappointing, and did not improve for the few feet driven on.

F. W. Thomas (No. 2 Argent Mine).—In a tunnel some kindly looking slugs of galena were found in a soft pug formation, and it was decided to test them by sinking. A water-wheel and pump were put in, and a winze sunk and crosscut driven. The formation was struck at 40 feet. It was over 6 feet in width, but poor where intersected. On turning northerly good metal was struck. A sample gave 83·3 per cent. lead and 91·06 oz. of silver to the ton. Dry weather set in, and there was not sufficient water available to work the wheel to drain the workings. Work has been confined to raising the bank of dam and building ore-shed. The prospects here look decidedly encouraging.

Comstock Tunnel Extension, Comstock.—The old main adit was cleaned out and repaired where necessary, and tramline relaid in different portions where required, air-pipes put in (connecting to an old rise leading to the surface some 90 feet above), and a start made to extend the adit with the intention of picking up formations worked overhead from the surface. The total distance at the end of the year was 1909 feet, but up till then nothing of a payable nature had been intersected in the 116 feet driven. There were three men employed. It is hoped that payable ore will be met with in this adit, as very good ore was showing in the workings above.

Big Ben Area Prospecting Work, North Zeehan.—Four men were engaged, and over 1000 feet of trenching has been done over an area of about a mile in length, from the west of C. Bell and party's workings to the old May Queen shaft. Plenty of cappings of lode-formations were struck from 12 inches to 10 feet wide, but in most instances only splashes of mineral were discovered. On rising ground to the south of the old May Queen, two formations were cut in a 4-feet trench, and clean ore from them gave 67 per cent. of lead and 151·2 oz. of silver to the ton. A deeper trench was brought in exposing the capping for some 30 feet in length, but the good ore only came up like the top of a camel's back. Cuts were put in in a northerly and southerly direction to see if these formations could be located there, with the object of showing that the area was worthy of being tested at depth. To the north a promising formation was found, carrying good ore in the lower portion of cut, at about water-level. A prospecting shaft was started on the most eastern lode, and some good ore showed in patches as sinking proceeded. Samples of the picked ore gave results as follows:—68·9 per cent. lead and 170·5 oz. silver, and 70 per cent. lead and 218·3 oz. silver to the ton. The work done to date gives one the impression that it is necessary to get deeper; that the area is well worthy of being tested at a depth. There are excellent possibilities in the locality here and near the position where the new main shaft was started on the Big Ben Mine, but plant is required to get down.

No. 6 Argent Mine, Zeehan.—An adit was cleaned out and a crosscut driven 60 feet in what is known as the unproductive slate in Zeehan district, and only the track of a formation was intersected. It was hoped that the favourable country underneath would rise up into the crosscut, but so far it has not done so. In the flat to the south there are several lode-channels exposed, and it was thought that if these could be found by this crosscut and showed any values that it might encourage investors to again equip the old No. 6 Argent shaft and unwater the mine. This crosscut is worthy of being continued for the above purpose.

Dundas Area.—A. Griffiths and party took up the old South Comet Mine and cleaned out the lower adit. They also put the old sledge-track from the Comet mill to the mine in order, erected a small crusher and jig, and broke out a parcel of ore just before the close of the year. It contained 329·7 oz. of silver and 4·36184 tons of lead, valued at £118·6. Prospects of this property are encouraging.

Five-Mile, North Dundas-Road (E. Bailey).—A deep trench was brought in to get drainage, and a parcel of galena was obtained. The ground is very low-lying, in a swamp. The formation appears to be very patchy, but 2·5 tons were obtained and sold. It contained 137·16 oz. of silver and 1·7 ton of lead, valued at £48.

King Island, Vicinity of Naracoopa.—Some work was carried out by the Barrier Prospecting Association, four men being employed to test a large zinc-lead formation there.

Wolfram-Tin-Bismuth Ores.

J. Godwin and Party, working on the old Shepherd and Murphy Mine, Moina, produced and sold 12·5 tons of ore, containing ·43 ton of bismuth, 2·8 tons of wolfram, and 4·6 tons of tin, for a return of £1052·32, three men being employed.

In ground-sluicing up the Bismuth Creek a nice lode was exposed, carrying the three metals. There is now a ready market for this material.

Wolfram.

Lawkemlaw Wolfram Mine, Moina.—Some 5·2 tons of concentrates were produced and sold, containing 3·6 tons of wolfram, for which £633 was received. Most of the ore was obtained by tributors.

Some driving was done in the old Reilly-Lawson Tunnel to get under some good ore mined by surface cut, but the objective had not been reached at the end of the term.

G. Sutherland and Party, working for a short time, won 1·055 ton, containing ·7 ton of WO_3, valued at £141·6.

Mt. Stormont Mine, Moina and King Island Scheelite Grassy, King Island.—No work was carried out on the properties.

Limestone and Lime.

Broken Hill Proprietary Limited, Melrose, *via* Devonport, shipped 229,356 tons of limestone to Newcastle, valued at £52,954. Average number of men employed at the quarry works out at 113. The total output for the year was 72,711 tons greater than in the previous year.

Two other lime works produced and sold 679·45 tons, valued at £1206·6. Average number of men engaged works out at 4.

Cement.

Goliath Portland Cement Company, Railton.—There was a considerable improvement in the trade during the year, resulting in the plant being operated almost continuously. The company extended its storage capacity to give extra accommodation for both raw material and finished cement, and extensions were also made to railway sidings to deal with the increased volume of traffic. A slurry drying plant unit has been ordered from Europe, and this will be installed in a few months' time, with the object of increasing the kiln capacity and effecting a reduction in manufacturing costs; 61,298 tons of cement were produced, valued, at the works, at £214,542. The average number of men employed works out at 108. The output was 16,249 tons greater than in 1934.

Shale.

Thirty tons were broken from the underground workings of the Tasmanite Shale Oil Company's property at Latrobe, and sent to the Mines Department Laboratory at Launceston for testing purposes.

Coal.

Illamatha Colliery, Spreyton.—An output of 1668 tons, valued, at the mine, at £975·95, was produced by eight men.

Aberdeen Colliery, Spreyton.—The output was 2353 tons, valued, at the mine-bins, at £1,470·625. An average of nine men were employed.

Tarleton Colliery, Tarleton.—Some 1276 tons were mined and sold, valued, at mine-bin, at £813·75. An average of five men were employed.

Southern Star Colliery, Tarleton.—Working occasionally, two men produced 279 tons, valued, at the bin, at £179·6.

Dulverton Colliery, New Bed.—A total of 1430·25 tons was produced and sold to the Cement Works, valued, at the mine-bin, at £952·27. Average number at work, five men.

Star Colliery, New Bed.—A total of 519·2 tons was produced, valued at £337·48; a start was made to drive new main entry, extending same 180 feet. Average number employed, four men.

Esk Bank Colliery, New Bed.—Production for three quarters amounted to 469·61 tons, valued, at the mine bins, at £436·6. Four men were employed. Two of these men started to drive new tunnel known as the Brickyard, and, at 112 feet, struck the coal, and obtained 80·25 tons, valued at £72·45.

The Black Beauty Colliery, New Bed.—A total of 653·5 tons were broken and sold to the Cement Company at the mine-bins for £539·28. Three men were employed. A contract was let to three men to sink air-shaft.

The Hard-to-get Colliery, New Bed.—It is well named. The men spent a good deal of time driving in on to the coal, and when it was struck it was badly faulted and plenty of rolls. They sold 202·4 tons for £153. Two men were employed.

The Lucky Hit Colliery, New Bed.—This colliery broke and despatched to the Cement Works 792·65 tons, valued, at the mine-bins, at £718·9. Four men were employed.

Three different parties have also been boring and testing for coal to see if they could get a payable area to open up and send supplies to the local cement works.

Gold.

Middleton Creek Gold Mine, Corinna.—Messrs. C. T. Crabtree and party continued operations while water was available; 5500 cubic yards were handled with a small hydraulic sluicing-plant and 73·01 oz. of gold obtained, which realised £612·75. During the various quarters there was an average number of men employed as follows:—5, 9, 11, 10.

When the head-race was cleaned out and repaired to Hunter's Creek, it was found that the water-supply was not sufficient to keep the plant working continuously, and it was decided to continue the cleaning-out and repairing of the old Corinna Gold Mining Company's water-race to Timbs Creek. It was found a much greater undertaking than at first thought. It was nearing completion at the end of the term. Other properties in the locality are receiving attention. Several applications have been made for special prospecting areas under licence.

Smith Creek (Below Long Plain).—A couple of men have been working (and others at odd times) in and around this locality, and have obtained 24·4 oz. of gold, which gave 22·36749 oz. fine, and sold it for £188·50249.

Calder, Takone, and the Arthur River.—Around these places men have been working occasionally, and have obtained 5·5 oz. gold fine, valued at £34.

Narrawa Creek Gold Mine, Moina (H. Higgs).—His dam and water-race were partly destroyed by flood in 1934; he had to repair them before sluicing could be resumed. While sluicing off the detritus he exposed two formations. Bulk samples sent to the Department's laboratory at Launceston gave the following:—Formation 8 feet wide, 4 dwt. 4 gr. of gold and 19 gr. of silver to the ton; formation 5 feet wide gave 6 dwt. 13 gr. of gold and 6 dwt. of silver to the ton. A picked piece gave 12 dwt. of gold and 5 dwt. 18 gr. of silver to the ton. Assisted by the Government, he put in a small crushing-plant, and for some time has been working these formations. He obtained 95·5 oz., containing 66·6 oz. fine, and sold same for £586. The gold is very fine, and contains a high proportion of silver. There appear to be good possibilities in this locality, but a larger plant is required to deal with increased quantities.

Bell Diggings, Moina.—A. Packett sluiced some 168 cubic yards for a return of 1·25 oz., valued at £9.

Vicinity Doctor's Rocks, Somerset.—During the last nine months two men have been working continuously when the tides are low, and obtaining some gold and a little osmiridium. All that has been reported to this office is 17·9 oz., valued at £127 9s. There is a lot of surmising as to the source of this gold: it is probably from an alluvial lead in the vicinity, which could be easily proved by drilling. The portion out to sea has been, and probably is being, broken up and washed in by the heavy seas that break in this locality during easterly gales. Pieces of gold up to 7 dwt. have been found when the tide is low.

Oliver's Hill, Vicinity of Cethana.—A little prospecting work has been carried out here, but as far as is known only ·75 oz. were sold for £5·3.

At the old Koonya Mine, Rosebery, ·25 oz. was obtained from gossan and sold for £1·75.

From near Crimson Creek and the Hutchinson River reports have reached this office that 2·10 oz., valued at £22·6, were obtained.

Dasher River, Minnow River, Around Kimberley, and Out From Latrobe.—Some prospecting work has been carried out at odd times at these places. Out back from Latrobe it was reported obtaining 1·56 oz., containing 1.43 oz. fine, valued at £11·44.

McAvoy Prospecting Claim, Dove River.—The testing of a large arsenical pyritic formation was continued for about a month with four men, and was found to be too poor, so work was discontinued.

Great Caledonian Gold Mine, Five-Mile Rise, Middlesex.—A little work was carried out by the company in the early part of the term; later the mine was taken over by J. Godwin on tribute, who unwatered the shaft to the 50-feet level and sampled it. Some driving and cross-cutting at that level was carried out.

The Golden Mount Prospecting Syndicate had two men out prospecting, assisted by the Government. Three other men, also assisted by the Government, were out in the Surrey Hills district, and another party of two from the Que River and Ramsay area.

Inspector J. F. SHAW (Queenstown) reports:—

I submit the following report for the year ended 31st December, 1935, in connection with the work of inspection, and the administration of the Mines and Works Regulation Act, 1915, the Explosives Act, 1916, and the Inflammable Liquids Act, 1929, for the Western Inspection Division.

Since April last the work in this division has been confined to the Queenstown and Strahan districts, and this report refers to these districts only.

Men Employed.—The average number of men employed in the industry was 1778. Of this number, the Mount Lyell Company employed 1758, compared with 1469 for the previous year, when work had to be suspended on two occasions owing to shortage of water for power. The remainder were engaged individually in fossicking and prospecting, the work being intermittent. There were no interruptions in power-supply from the Lake Margaret power-station, where the rainfall for the year was 154·09 inches, compared with 108·8 inches for 1934, and an average over 22 years of 145·23 inches. The rainfall in Queenstown was 103·64 inches.

Accidents.—The number of accidents causing absence from work for 14 days or more was 105. This total is 26 above that of the previous year. Surface accidents totalled 25 and underground 80. There was one fatal accident (on the surface). All the accidents occurred on the mines and works of the Mount Lyell Company. The increase can be accounted for by the large number of new employees, the majority of whom were inexperienced. The last five months of the year showed a big falling-off compared with the first seven months.

Explosives.—The landing of explosives at Regatta Point and transfer to the main magazine at Queenstown were supervised, the quantity handled being:—

	lbs.
Ardeer gelignite (No. 2)	225,000
Quarry monobel	125,050
Polar gelignite....	950
Detonators	390,000

For the Zeehan district, 20,000 detonators were also landed at Regatta Point.

A recommendation was made in connection with one application for a magazine licence.

A report was furnished on the behaviour in use and storage of polar gelignite.

Inflammable Liquids.—Matters in connection with the handling and storage of inflammable liquids were attended to.

The Workers (Occupational Diseases) Relief Fund Act.—Medical certificates for 519 new employees as "free from disease" were collected and forwarded to the Board. Applications for examination were made through this office by 23 old employees, of whom—

15 were certified as not suffering.
4 were certified as partially incapacitated.
4 were certified as incapacitated.

Certificates for these were forwarded to the Board. Appeals against the decision of the certifying medical officer by two employees were received and forwarded to the Board. Several other employees applied but did not attend for medical examination.

Aid to Mining.—Recommendations were made in connection with several applications for financial assistance.

The Mount Lyell Company's Mines and Works.

Close inspection of the various operations of the Mount Lyell Company was carried out, and I take this opportunity of recording my appreciation of the help received from responsible officials of the company in discussing and adopting improved means for improving working conditions and decreasing the risk of accidents.

Mining.—Except for the usual holidays, productive work was continued without interruption throughout the year, the output of ore from the mines being 586,749 tons, which is the largest recorded. A notable feature has been the increasing quantity of ore being mined by open-cut methods at the West Lyell Mine, the increase being shown by the tonnages broken during the four quarters of the year:—

	Underground Tons.
1st quarter	9,567
2nd quarter	15,748
3rd quarter	28,908
4th quarter	43,633

Underground mining was suspended during May, the output since then being all mined by open-cut methods. On the No. 1 ore-body, a 1-cubic yard electric shovel was put into commission in October, and by the end of the year a similar shovel was moved here from the Crown quarry. These load the ore into motor-lorries, which transport it by road to the Royal Tharsis main transfer pass. In this it gravitates to the tunnel level and is conveyed to the mill by electric trains. On the No. 2 ore-body the ore is being mined on two benches. It is dragged by scraper hoists into passes leading to No. 1 level drive, from which it is conveyed by horse-drawn rakes to the Royal Tharsis main transfer pass, to join the other West Lyell ore. Indications are that the underground mining on the Royal Tharsis and Crown Lyell mines will be gradually discarded, as ore of a similar grade can be more cheaply mined by open-cutting on the West Lyell and Prince Lyell ore occurrences. Test hole-drilling and sampling, following geophysical prospecting, of these ore-bodies is being continued. At the Comstock Mine the development of the ore-formation on No. 7 level was continued, and an area, similar in size and value to the level above, has been opened up. The sinking of the main shaft below No. 7 level was begun, and at the end of the year the bottom was approaching 100 feet below No. 7 level. The development of the West Lyell ore-body has resulted in a substantial addition to ore reserves, the total proved in all mines being now estimated at over 7½ million tons, with an assay value of—copper 2·05 per cent, silver 0·17 oz., and gold 0·02 oz. per ton.

Reduction Works.—The main additions to the mill plant consisted of a new centrifugal blower for supplying air to flotation boxes, a nest of "Fagergren" mechanically operated flotation boxes, and a 35-feet diameter de-sliming vat. The production of pyritic concentrates was further developed, the amount shipped being 26,394 tons, compared with the previous year's total of 12,032 tons. This material contains about 49 per cent. sulphur, and is shipped to Melbourne and utilised in the manufacture of sulphuric acid. For the smelting plant a new centrifugal blower to supply air for the blast furnace was installed. Improvements have been made in details connected with the cyclone dust collector, resulting in a decreased amount of dust escaping while being drawn off.

A notable work completed was the reconditioning of the main smelter stack. The brickwork of this had gradually developed several vertical cracks, which had reached a stage where there was a danger of the whole structure collapsing. A contract was let and the work of repairing was begun in October. After the weakest of the top brickwork had been removed the whole of the stack was encased by vertical iron straps, supported at intervals by iron hoops. After tightening the hoops the cracks were filled and the brickwork pointed. The stack is now in good order, and should not need any major attention for many years.

Mine Hygiene.—In the Royal Tharsis mine the series of ventilation rises from No. 7 level to the surface was completed, and at the surface a fan was installed and in operation before the end of the year. Ventilation doors on the various levels give control of the air current. At the West Lyell open-cut workings an improved water-supply has been provided, and all rock drills equipped for wet boring. The suppression of dust in open-cut work is receiving constant attention. During the year improved ambulance facilities for the conveyance of injured men, consisting of a vehicle for use in the North Lyell tunnel and a motor ambulance for road use, were provided. Boxes of bandages for minor injuries were installed at points underground, and placed in charge of tally clerks. Improvements were made to the ventilation of the refinery basement.

Quarries.—The Mount Lyell Company's quarry at Hall's Creek supplied 4140 tons of limestone for use in the reduction works. Owing to the decreasing amount of siliceous ore, suitable for use as a flux, in smelting being obtained from the North Lyell Mine, the quarrying of silica was started near the Penghana-road, and 61012 tons of this material were delivered at the smelter for use as a flux.

The Crown Lyell quarry supplied mullock, as required, for stope-filling in the North Lyell and Crown Lyell mines.

At the Comstock Mine the mullock quarry at No. 4 level supplied mullock for the lower stopes.

General.—Pumping of wet mill tailings for stope filling has been continued in the Royal Tharsis Mine, and has also been extended to parts of the North Lyell, with satisfactory results.

A third transmission-line, doubling the previous capacity, was erected between the Lake Margaret power-station and the substation at the works. Mechanical equipment in the machine shops has been added to, to cope with the increased amount of maintenance work. As sintering of concentrates is no longer necessary the sintering plant has been dismantled.

General Production.

	1934.	1935.
Copper (tons)	8,208	13,036
Pyritic concentrates (tons)	12,032	25,555
Gold (oz.)	4,756	7,107
Silver (oz.)	98,439	132,857
Limestone (tons)	3,162	4,140
Silica (tons)	—	6,012

The improvement is due to increased output by the Mount Lyell Co. as a result of the policy of expansion in output and continuity of operations throughout the year.

General Mining Operations.

Gold.—Production by the Mount Lyell Company was 7030 oz. fine. Other production was 77·6 oz. fine. This includes 16½ oz. from Jane River, the remainder being sold in small lots by fossickers, who got it from various creeks in the Queenstown district, mainly Lynch Creek, Specimen Creek, Conglomerate Creek, and Linda Creek.

J. Herighty took up a 20-acre lease and water-right at the old Princess Mine near Lynchford, but only preliminary trenching has so far been done.

C. Costain, in December, started cleaning out an old tunnel at the Woody Hill Mine, near Rinadeena and the Strahan-road, with a view to testing the continuation of the reef beyond and below the old stopes.

A few other prospectors have been working intermittently, but no finds of value have been reported.

Copper.—The total output of 13,036 tons was produced by the Mount Lyell Company.

Silver.—An output of 132,857 oz. was produced by the Mount Lyell Company.

No other production was reported from the district.

Prosecutions.

During the year legal proceedings were conducted against four defendants for breaches of the Mines and Works Regulation Act, and in each case a conviction was recorded and fine inflicted.

Inspector W. H. WILLIAMS, Launceston, reports:—

I have the honour to furnish the following report upon the work of inspection and administration of the provisions of the Mines and Works Regulation Act, the Explosives Act, and the Inflammable Liquids Act, within the Launceston Inspection Division, for the year ended on the 31st December, 1935:—

The average number of persons engaged in mining and metallurgical operations was 1536, as against 1337 for the previous year, the increase being due to additional productive operations and the inception of constructional works for an expansion of mining activities.

Eleven accidents were registered under the provisions of the Mines and Works Regulation Act. There were no fatalities and three accidents of a trivial nature, occurred underground, whilst eight were associated with surface operations. In consideration of the increased complement of men, the nature and extent of operations, and vagaries of mining hazards, the small number of miscellaneous accidents reflects creditably upon the general conduct of operations.

Matters pertaining to health and sanitation, the preservation of reasonably safe operating conditions, and the maintenance of machinery and appliances to conform with the requirements of the Mines and Works Regulation Act were afforded due consideration, and, as occasion demanded, measures were instituted to correct observed disabilities.

The quality of the nitro-compounds, detonators, and safety-fuse occasioned no concern, and only in isolated instances was it necessary to condemn small quantities of nitro-compounds, owing to deterioration due to irregularities of local storage.

An expansion of storage requirements and the maintenance of existing units for the handling and keeping of inflammable liquids commanded considerable attention, but these matters were controlled with reasonable certitude and no untoward incident was encountered.

Mining Operations and Production.

Coal.

Certain industrial factors operated to produce more activity in coal mining, and the total output advanced from 97,121·4 tons to 103,898 tons, valued at £71,997·9

The Cornwall Colliery benefited by the increased trade to the extent of 4403 tons, the total output being 56,817 tons, valued at £37,009. The major production was from the No. 3 tunnel workings, where the seam maintained its usual width and quality, and in progression with the advancing districts the main haulage system was extended to facilitate underground transportation. Investigational operations, on the lower seam, were continued to the preconceived stage and then suspended. Activities at this colliery gave employment to an average of 98 men.

The Mount Nicholas Colliery produced 26,631 tons, valued at £20,239, and employed 79 men. Troubled seam conditions continued to hamper the regular advancement of places, and latterly attention was directed to the possibilities of the 4 feet 9 inch seam, 108 feet below the present workings, with encouragingly productive prospects.

The Jubilee Company employed 43 men, and marketed 14,574 tons of coal, valued at £10,103. Production was confined to the eastern area, and drainage difficulties were overcome by the installation of an adequate pumping plant.

Production was less active at the Fingal Coal Mine, the output receding to 1175 tons, valued at £587·5.

Despite the troubled seam conditions persisting at the Stanhope Colliery, production was advanced to 3649 tons, valued at £2781·5, and no marketing difficulties were experienced.

Fifty-six tons of coal, valued at £43·5, was produced from the old Cardiff Colliery, but operations were not persisted with.

Four men were constantly employed at the York Plains Coal Mine, and improved trade for this class of coal resulted in an output of 996 tons, valued at £1234.

Gold.

The estimated production of fine gold was 741 oz., valued at £5257, and, although this represented an increase of only 59·25 oz. when compared with the output for previous year, and despite the absence of developments of moment, appreciable interest continued to be directed to the possibilities of a resumption of productive operations in previously abandoned mines and areas, in the exploitation of auriferous occurrences that were not of previous economic importance, and in the search for new lodes and alluvials.

Operations, by miscellaneous parties, in the Lisle basin were less active, and the production of alluvial gold was represented by 49·7 fine oz., valued at £354.

Sluicing operations were resumed by a party of tributors at the Cradle Creek Mine, and the alluvial gold recovered returned 22 fine oz., valued at £156.

Operations by the Greta Hydraulic Sluicing Company were economically disastrous, and terminated in a suspension of mining and a sale of the plant. On the result of an investigational survey of an extensive tract of alluvial ground between Greta and Lisle, considerable expense was incurred in the construction of a head water-race and in the installation of an elaborate plant, but the recorded recovery from the sluicing of 11,000 cubic yards of ground was only 12 oz., estimated to contain 11 oz. fine gold, valued at £78·5, with a later addition of 1·7 oz., valued at £12.

The installation of a State battery at Legunia incited a revival of interest in the New River reefing series.

Trial parcels of quartz were crushed for a recovery of 21·35 oz. of gold, computed to contain 19·57 oz. of fine gold, valued at £138. Three separate parties were, latterly, engaged driving adits and sinking a shaft to further develop the reefs from which the trial parcels of quartz were obtained.

Productive mining was not active at Alberton, but consequent upon the acquisition of the Mercury and Ringarooma groups by financial interests recently concerned in exploratory operations at the Long Struggle Mine, it is anticipated that definite activities to further explore the productive possibilities of the reefing series, will materialise in the near future.

Matthews and party persisted with small-scale operations on the Mount Victoria leases, and one parcel of quartz was crushed for a recovery of 2·25 oz. of gold. containing 2 fine oz., valued at £14·6.

Consequent upon the provision of a State battery at Warrentinna, production was resumed at the Renown Gold Mine, and 73 tons of quartz was crushed for a reported return of 27·4 oz. of fine gold, valued at £193, but operations were not attended with reef developments of moment.

Some attention was given to the reefing series between Alberton and Mathinna, principally at the Una and Hinemoa workings, but there are no new developments to be recorded in connection with these operations, although W. J. Beck has reported encouraging prospects at the old Una Mine.

Exploratory operations were continued by Messrs. Brock Brothers on quartz veins and lode formations, but lode mining was not active in the Mathinna area. One small parcel of quartz was crushed for a return of 4·3 oz. of fine gold, valued at £30·9. Cyanidation of tailings was continued at the Golden Gate Mine, and 3340 tons were treated for a return of 87·7 oz. of fine gold, valued at £624. Latterly, a commencement was made with the sinking of a three-compartment shaft on a defined reef channelling westerly from the Gate series.

Miscellaneous parties, operating on the gold-alluvials in the Mathinna-Mangana areas, accounted for 19·6 oz. of fine gold, valued at £139, but there are no developments of moment to be recorded.

At Rodman's prospecting claim, in the Mangana area, a prospect shaft was sunk on a cross quartz-vein, carrying encouraging values, and it is intended to continue with operations to test the persistence of values in the cross and main series at the 50-feet level. Brannan and party were engaged reopening the haulage tunnel at the old Mangana Reefs Mine, but there is nothing of moment to be recorded in connection with this project.

At Lefroy, the Wallis Company was engaged sinking the main shaft and driving and crosscutting at the 100-feet level to explore the depth possibilities of the small reef and a parallel formation concerned in operations in the upper levels, but the prospects were not encouraging, and the project was abandoned. Latterly attention was given to prospecting the eastern continuation of the Land O'Cakes line of lode.

Operations by the Lefroy Mines were confined to crushing material from the old Pinafore dumps; and 845 tons was crushed for 82·9 oz., which contained 75 oz. fine gold, valued at £530

Small-scale mining was intermittently pursued by Harris and party at the Perpetual P.A., and 18 tons of quartz returned 4.4 oz. of fine gold, valued at £31.

Sinking and driving were pursued on the reef discovered by A. W. McDonald at Back Creek, and a trial parcel of quartz has been forwarded to the mainland for treatment to finally determine the economic importance of this discovery.

The estimated production of alluvial gold by miscellaneous parties in the Lefroy-Back Creek areas was 35 oz., containing 32·1 oz. of fine gold, valued at £181. These operations gave employment to an average of 13 persons, but there are no noteworthy developments to be recorded.

Operations on the alluvials at Brandy Creek and along Cabbage Tree Hill in the Beaconsfield area, were not appreciably active, accounting for 13·83 oz. of fine gold, valued at £97.

Mining at the Golden Horseshoe Mine was confined to sinking a main shaft to 60 feet, driving easterly along the reef-channelling, and stoping above that level. The reef continued to be small, irregular, and troubled by

the faulting series; and 150 tons of quartz, formation, and detritals were crushed for a recovery of 126 oz, containing 98 oz. of fine gold, valued at £698·7.

Gold recovered by the G.L.K. Gold Mines Pty. Ltd. from the investigational cyanidation of the mineralised tailings at Blyth's Creek was estimated to contain 58 fine oz., valued at £416.

The Austin Friars Pty. Ltd. proceeded with the installation of flotation and other units for the treatment of the complex slimes at the old battery site of the Tasmania Gold Mine, and the plant is to be commissioned early in the New Year.

Sinking, crosscutting, and driving were pursued by the Beaconsfield Gold Mines to test the prospective and productive possibilities of the Olive Branch lode, but prospects were not encouraging and operations were temporarily suspended.

The balance of the recorded output of gold accrued from miscellaneous operations on the auriferous alluvials and from tin-oxides recovered from the sluicing of tin-alluvials in the areas geologically correlated with the denudation of the auriferous series.

Tin.

The recorded output of metallic tin was 829·6 tons, as against 653 tons for the previous year. The average quarterly quotation declined from £230·37 to £228·22 per ton, and, on the basis of average prices the value of the production was £189,889·3, or £39,612·6 in excess of the output for last year.

The increased production is a reliable reflex of the progress accruing in tin mining activities, both in regard to lode and alluvial occurrences, but more so in connection with the former, as instanced by results attending productive operations at the Aberfoyle, Anchor, and Storey's Creek mines. With the maintenance of production at these mines, the resumption of sluicing by the Endurance Company, the progressive completion of constructional works for a rehabilitation of productive operations at the Briseis Mine, the inception of constructional works for the exploitation of the extensive aplite-greisen formation at Mount Paris, and the maintenance of normal production at other mines, a further increase in the output from the stanniferous occurrences may be anticipated.

Storey's Creek Mine.—Favoured with an economic price for wolfram ores, the value of the wolfram marketed exceeded that derived from the sale of a lesser tonnage output of tin-oxide, but the production of both concentrates exceeded that for the previous year. Lode developments responded encouragingly to the opening up of No. 4 level, and stoping was actively pursued between that and No. 3 levels. The characteristics of the ore occurrences and the concentration of the economic minerals definitely augurs the unexplored persistence of values below No. 4 level. A total of 10,262 tons of ore was mined and milled for an output of 87 tons of tin concentrate, containing 58·17 tons of metallic tin, valued at £13,251·6 and 200·14 tons of wolfram, valued at £25,140. Operations gave employment to an average of 85 men.

Aberfoyle Tin No Liability.—Consequent upon the gradual depletion of the major veins in the developed area above No. 1 level, developmental operations and stoping were vigorously prosecuted on the 26, 40, and 50 feet veins of the ore-vein system on No. 2 level, which responded well to the immediate and future productive requirements. Results have justified the progressive policy of this company, and preparations are now being made for driving a low-level adit to prospect and develop the ore zone 172 feet below No. 2 level. The distance to be driven is approximately 3000 feet, and the adit will cross the alignment of surface formations situate easterly from the lateral alignment of the present ore-vein system.

A total of 14,487 tons of ore was mined and milled for a recovery of 303·5 tons of tin concentrate, 343·5 tons of "seconds," and 27·5 tons of wolfram concentrate. As customarily, the finished products were stocked for sale at the best available prices, and sales effected were 324·63 tons of tin concentrate, containing 221 tons of metallic tin, valued at £50,860, and 24·5 tons of wolfram, valued at £3033·5. The total production and the sale of finished products were a progressive advance on those of the previous year, and operations gave employment to an average of 89 men.

Brookstead Tin Mines (P. D. Beard Pty. Ltd.).—Mobile units, for augmenting sluicing facilities at Kent's Creek and Bailey's Marsh, were assembled and commissioned, and resulted in a material increase in the output of tin oxides, which advanced to 22·7 tons, containing 16·4 tons of metallic tin, valued at £3773. Latterly, systematic exploration of the lode system, at Main Creek, was commenced, and is to be continued. Winzing and shafting are revealing a persistence of widths and values of the Main and Christoe lodes below the depths attained by early operations, and the present operators are sanguine in regard to the future establishment of lode mining.

Mount Rex Mine.—The old workings were reopened and, consequent upon the installation of suitable winding, compressor, and drilling units, the occurrences of complex stanniferous ore were systematically explored, but the prospects were not regarded as of economic importance and the project was abandoned.

Miscellaneous parties operated on the shallow alluvials at Storey's Creek, Avoca, and Royal George, and accounted for an output of 8 tons of tin oxide, estimated to contain 5·6 tons of metallic tin, valued at £1271.

Siamese Tin Syndicate.—Augmented activities by this syndicate resulted in an additional production of tin and an increase in the number of men employed; 393,300 cubic yards of ground were sluiced for a recovery of 121·8 tons of tin oxide, containing 86·76 tons of metallic tin, valued at £19,796. Operations gave employment to 74 men.

Sluicing was continued by the tribute party at the George's Bay Tin Mine, and several areas of relatively shallow ground, aggregating 47,000 cubic yards, were treated, for an output of 10·44 tons of oxides, containing 7·5 tons of metallic tin, valued at £1712·5.

Small areas of alluvial ground were sluiced at the Hunt Mine for a recovery of 7·15 tons of concentrate, estimated to contain 5·2 tons of metallic tin, valued at £1193·5

There were no developments of moment in connection with activities by miscellaneous parties, operating on shallow drifts and terrace ground, in the St. Helens district. An average of 44 persons was occupied in this direction, and 24·6 tons of tin oxide were produced for a return of 17·2 tons of metallic tin, valued at £3922·4.

Anchor Tin Syndicate.—Opencutting and milling the tin-granites at the old Anchor Mine were pursued with economic results that justified the installation of additional milling and concentrating units, and the increased activities resulted in a larger output and the employment of 28 men. A total of 18,121 tons of ore was quarried and milled for a recovery of 100·7 tons of concentrate, containing 71·43 tons of metallic tin, valued at £16,294.

An investigational survey was continued into the economic posisbilities of establishing large-scale mining on the stanniferous granites at the Blue Tier, but no development of moment ensued.

Operations were continued on the leader country at the Laffer Tin Mine, and the reported production, from the treatment of 16,740 cubic yards of material, was 3·75 tons of tin oxide, containing 2·6 tons of metallic tin, valued at £588·6.

Bryce and party recovered 3·3 tons of oxides from the sluicing of tin-alluvials at the Niagara Mine, and the metallic content was estimated at 2·3 tons of tin, valued at £624.

The J.B.L. Syndicate continued to operate on the shallow alluvials of the Weld flats at Moorina, and sluiced 6174 cubic yards of ground for an estimated recovery of 5·2 tons of concentrate, computed to contain 3·5 tons of metallic tin, valued at £791.

Miscellaneous parties operating on the shallow alluvials and granitic formations in the Lottah-Weldborough-Moorina areas accounted for an output of 67 tons of tin oxide, which was estimated to contain 46·9 tons of metallic tin, valued at £10,712, and the importance of these operations is instanced by the fact that an average of 91 men were afforded employment.

Waugh Tin Mine.—Operations were continued on the deep bouldery drifts along the Wyniford River, and 14,000 cubic yards of ground were sluiced for an output of 2·1 tons of tin oxide, containing 1·5 tons of metallic tin, valued at £346·8.

Rajah Tin Mine.—Thirty men were employed by the Rajah Company, and the bouldery drifts along the Wyniford River were more actively sluiced, for an output of 33·6 tons of concentrate, containing 24·2 tons of metallic tin, valued at £5509·4.

Hydro difficulties obstructed active operations on the tin drifts at the old Poverty Point workings, but, with the inception of facilities for the provision of an adequate supply of water it is anticipated that more active sluicing will be pursued. A total of 8000 cubic yards of drifts

were treated for a production of 3 tons of concentrate, estimated to contain 2·19 tons of metallic tin, valued at £495·8.

A total of 14,000 cubic yards of ground were sluiced by Ponting and party at the Eastern Leads Mine, and 6·5 tons of tin oxide were recovered for a return of 4·6 tons of metallic tin, valued at £1074. A small quantity of alluvial gold was separated from the concentrate, and this was estimated to contain 3 oz. of fine gold, valued at £21.

Endurance Tin Mining Company.—Consequent upon the installation of electrically operated pumping units and reticulation services, sluicing was commenced on the extensive area of terrace ground, and productive operations were restored to a semblance of former activities. Operations gave employment to 48 persons, and, inclusive of a small quantity of concentrate from the treatment of residue at Pioneer, 61·3 tons of tin oxide was recovered, for a return of 44·5 tons of metallic tin, valued at £10,194. Alluvial gold extracted from the concentrate returned 49·3 oz. of fine gold, valued at £348.8.

Stevens and party continued with the mechanically controlled nozzling and elevation of the terrace drifts at the Clifton Extended, and sluiced 9300 cubic yards of ground for an output of 8 tons of concentrate, containing 5·7 tons of metallic tin, valued at £1302.

Johnson and party persisted with the hydraulicking of relatively deep drifts, overlying the soft granites on Simpson's estate, and, from the treatment of 15,568 cubic yards of material, recovered 3·8 tons of tin oxide, which returned 2·7 tons of metallic tin, valued at £617·8.

A total of 8·4 tons of oxide was produced by Lawry and party from the sluicing of shallow ground at the Star Hill Mine, and the concentrate contained 6 tons of metallic tin, valued at £1406.

The Mount Cameron Race continued to function as an important factor in mining activities at Gladstone. An average of 26 persons were engaged, on a royalty scale, in sluicing the tin-alluvials on areas served by the race, and these operations resulted in a production of 39 tons of tin oxide, estimated to contain 28·5 tons of metallic tin, valued at £6498·5.

Operations by a tribute party on the alluvials at the Monarch Mine gave employment to five men, and resulted in an output of 8·3 tons of concentrate, containing 6 tons of metallic tin, valued at £1384.

A total of 1·16 ton of tin oxide, containing ·8 ton of metallic tin, valued at £189·7, was recovered from the sluicing of 2900 cubic yards of shallow ground at the New Mussel Roe Tin Mine.

The result of productive activities at the Delta Tin Mine was not encouraging, and operations were suspended. Four tons of concentrate was recovered from an early sluicing campaign, and was estimated to contain 2·9 tons of metallic tin, valued at £658.

Several small parties and individual operators continued to be engaged in productive mining on relatively shallow ground in the Pioneer-South Mount Cameron-Gladstone areas. These operations afforded employment to 54 men, and accounted for an output of 56·6 tons of tin oxide, computed to contain 39·6 tons of metallic tin, valued at £9094·4.

Comprehensive boring was carried out by the Austral Malay Tin Mining Company at Pioneer and Boobyalla, and by the Moonbah Tin Mines at Boobyalla, but no development of moment accrued therefrom.

Briseis Consolidated.—Activities by this company were more concerned with the inception and completion of developmental and constructional works for a rehabilitation of large-scale productive operations than with production from sections of the lease removed from the major project. The river-diversion works were completed; a tunnel was driven in the upper zone of drifts to a fixed site for servicing the removal of the overburden; prospect tunnels were driven westerly from the old workings; appreciable progress was made with the cleaning out of the old workings below the river level; and the construction of the rock-fill dam on the Cascade River was advanced to the final stages—but material progress has yet to be made in preliminary works before production will result from the major scheme of operations. Productive sluicing was principally confined to the cemented drifts at the old No. 1 mine, and resulted in an output of 24·8 tons of tin oxide, containing 17·8 tons of metallic tin, valued at £4045·6.

Lone Brother Tin Mine.—Sluicing was continued on the upper bench of the high face of basalt-mantled drifts at this mine, for an output of 6·5 tons of tin oxide, containing 3·7 tons of meallic tin, valued at £849·7.

Miscellaneous parties continued to operate on shallow alluvials and granitic formations along the Ringarooma River, Main Creek, and the Cascade River, and accounted for an output of 23·5 tons of tin concentrate, estimated to contain 16·47 tons of metallic tin, valued at £3773·4. These operations gave employment to an average of 33 men.

Miscellaneous parties, aggregating 30 men, were occupied in the sluicing of shallow alluvials and granitic formations in the Branxholm area, and produced 21·5 tons of tin oxide, containing 15 tons of metallic tin, valued at £3452; but there are no developments of moment to be recorded.

Arba Tin Mine.—Tribute parties continued with the sluicing of areas of virgin ground and tailings accumulated along the Branxholm Creek from early mining operations. An estimated quantity of 44,250 cubic yards of ground was treated for a recovery of 27·5 tons of tin concentrate, which contained 19·34 tons of metallic tin, valued at £4422.

Ormuz Mine.—A party of seven men was engaged sluicing the deep sections of drifts left by an earlier advancement of the high face flanking the Arba workings, and produced 5·13 tons of tin oxide, containing 3·5 tons of metallic tin, valued at £784.

Ruby Flat Mines.—Productive operations on the shallow alluvials and altered granites were less active at the Ruby Flat Mine. Six men were employed, and 29,750 cubic yards of ground were sluiced for an output of 17·4 tons of concentrate, which returned 12·8 tons of metallic tin, valued at £1946·5.

Productive operations on the leader formation at the Mount Ruby Mine were hampered by an impoverished supply of head-water and lack of facilities for milling the stanniferous quartz-greisens, which are refractory to normal hydraulicking. A total of 2·2 tons of tin oxide was recovered from the treatment of 4000 cubic yards of ground, and the produce contained 1·6 ton of metallic tin, valued at £358.

Small-scale sluicing was intermittently pursued at Baker's Discovery, for an output of 1·2 ton of concentrate, containing ·8 ton of metallic tin, valued at £194·5.

Mount Paris Tin Mines Limited.—The introduction of capital for the exploitation of the extensive occurrence of stanniferous aplites and greisens, at Mount Paris, was definitely realised, and constructional work, necessary for the application of the dual process of sluicing and milling, has been well advanced. Head-water, for sluicing and general requirements, is to be brought in by innovated race works from the Cascade River, where a reinforced concrete dam is being constructed at the Morning Star flat. A pilot mill is being installed at the mine for the treatment of material unyielding to normal hydraulicking. Productive operations should commence in the new year.

Miscellaneous parties, averaging 20 men, continued with shallow ground sluicing in the Ringarooma area, and accounted for an output of 4·3 tons of tin oxide, estimated to contain 3 tons of metallic tin, valued at £681·8. The favourable metal price influenced a continuance of activities by small parties in the Star of Peace area, where 17 men were afforded employment in the production of 9·3 tons of tin concentrate, containing 6·5 tons of metallic tin, valued at £1494·25.

The Pera Flat alluvials were extensively prospected by boring and pitting on behalf of mainland interests, and, although encouraging values were reported, no development ensued, and operations were temporarily suspended.

Strait Islands.—Productive operations were more active on the Strait Islands, where mining was principally concerned with the stanniferous alluvials in the Mount Munro and Rook River areas on Cape Barren Island, but production continued to be retarded by a paucity of head-water for sluicing purposes. A tribute party of six men was engaged at the Lode Hill Extended Mine, and 15·4 tons of tin oxide were recovered for a return of 11 tons of metallic tin, valued at £2506·3. Miscellaneous parties, averaging eight men, accounted for an output of 4·13 tons of concentrate, containing 2·9 tons of metallic tin, valued at £674·5.

Wolfram.

Wolfram producers were favoured with an economic price for the mineral, and no difficulty was experienced in marketing the high-grade concentrate produced at the Storey's Creek and Aberfoyle mines, which accounted for 224·6 tons, valued at £28,173·6. Operations at these mines have been reviewed under "Tin."

Appendix VI.

REPORT OF MOUNT CAMERON WATER-RACE BOARD FOR THE YEAR ENDED 31st DECEMBER, 1935.

Sir,

We have the honour to submit our report for the year ended 31st December, 1935.

Main Race.

The main race, apart from weed growth, has been maintained in an efficient state. As intimated in last year's report, preparations were being made at the end of the term to clean it out early in the new year (1936), the section requiring attention being from the Little Mussel Roe River to No. 2 syphon. The section from the cement syphon to No. 1 dam, which had been disused for many years, was put in order in consequence of the renewal of No. 6 syphon.

Syphons and Flumes.

The Little Mussel Roe (No. 1) and No. 2 syphon are in a good state of repair. The Ringarooma (No. 3) requires frequent attention to the wooden portion, which has now reached a stage of almost complete decay, it being held together only by the numerous bands around it. The trestling supports and the steel portion are in fair condition. Some parts of the latter may require attention during the year at small cost. No. 4 (Cybele syphon) is in good condition. No. 5 (Fly-by-Night) has not been used for several months past. One pipe, owing to corrosion, will need some attention before being used again. The Mount Cameron syphon is no longer serviceable, owing to decay of the wooden portion. A renewal of the latter would be necessary before it could be again used. The cement (No. 7) is in an efficient state, requiring no attention since the time of its construction in 1927.

No. 6 Syphon.

This syphon, 44½ chains in length, was renewed early in the year. It is 15 inches in diameter, constructed of 16-gauge galvanised iron, the cost being £660. Its construction, together with cleaning the race leading to it, incurred a total expenditure of £750 1s. 2d. Since being put into use, it has been the means of maintaining a limited but regular output of tin by four parties, aggregating in all 10 men.

Dams.

The several dams in use have not required attention, and generally are in a good state of repair. A small reserve dam was constructed at No. 6 syphon site to conserve water therefrom to ensure a regular supply to users. The embankment, which is 4 chains in length, is 6 feet high at the deepest point.

General.

The Working Account for the year shows a slight increase from last year. The revenue received is slightly in excess of the total, being £1489 11s. 7d. Receipts for the year exceed expenditure by £443 0s. 4d.

A general statement, together with detailed statistics in connection with the control of the race, is submitted herewith.

We have the honour to be,

Sir,

Your obedient servants,

J. B. SCOTT, Chairman of the Board.
CECIL C. RYAN,
GEORGE S. MALLINSON, } Members.

The Hon. the Minister for Mines, Hobart.

Statement for the Year ended 31st December, 1935.

Rainfall.

The registered rainfall for the year was as follows:—

Great Mussel Roe	40 inches 12 points
Little Mussel Roe	39 inches 89 points

Revenue.

The revenue for the year amounted to £1489 11s. 7d., being an increase of £49 14s. 6d. on the previous year.

Disbursements.

The expenditure for the year amounted to £1026 11s. 3d., being an increase of £120 8s. 10d. on the previous year.

Statistics.

The statistics for the year are as follows:—

Average number of claims supplied per week	12
Greatest number supplied in any one week	14

Total number of heads supplied under—

Fixed or cash scale	251 7/12
Royalty or credit scale	3,320
Total	3,571 7/12

Tin ore raised—

	Tons.	cwt.	qr.	lb.
Under royalty scale	42	2	3	17
Under fixed scale	7	18	0	24
	50	1	0	13

Average number of men employed per week 25

Receipts.	£	s.	d.
Water sold under fixed scale	112	1	4
Water sold under royalty scale	1,377	0	3
Sale of boards	0	10	0
	£1,489	11	7

Expenditure.	£	s.	d.
Salaries and wages	760	15	2
Travelling expenses	10	0	0
Insurance	8	1	4
Stationery and printing	12	1	2
Stores	34	7	2
Freight and cartage	9	17	6
Repairs to race	40	13	11
Repairs and painting manager's residence	47	11	6
New Scotia dam	101	2	0
Miscellaneous	2	1	6
	£1,026	11	3

Construction Work (Special Provision).

Restoration of No. 6 syphon and cleaning of race in connection therewith	£750	1	2

WALTER E. SHIMMINS,
GOVERNMENT PRINTER, TASMANIA.