

MININD1905_1

THE PROGRESS OF
THE MINERAL INDUSTRY
OF
TASMANIA

FOR THE QUARTER ENDING 31ST MARCH, 1905.

COMPILED BY

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BY ORDER OF

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MINISTER OF MINES.



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1905.



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Launceston, 27th May, 1905.

The following table shows, as far as can be ascertained, the quantities and values of Metals and Minerals raised during the quarter ending 31st March, 1905, compared with the previous quarter ending 31st December, 1904:—

	During the Quarter ending 31st March, 1905.		During the Quarter ending 30th December, 1904.	
	Quantity.	Value.	Quantity.	Value.
		£		£
* Gold won ozs.	17,696·523	75,170	17,803·404	75,624
Silver Lead Ore raised ... tons	14,940	53,034	14,851	52,265
† Blister Copper produced ..	1981	157,732	2016	149,004
Copper Ore produced ... "	319½	13,865	64	1320
Native Copper produced ..	...	...	212	14,416
Tin Ore produced..... "	741½	61,882	871¾	70,157
Iron Ore produced	1700	700	1900	750
Coal produced	12,372	10,516	12,562	10,678
Flux Ore produced .....	...	...	2180	933
Wolfram Ore produced... "	6¼	480	15½	1147
Bismuth Ore produced... cwt.	...	...	6	15
	...	373,379	...	376,309

* Fine gold, including gold contained in blister copper and silver-lead bullion.

† Value of gold contents deducted.

GOLD.

During the past quarter 11,080½ ozs. of gold were obtained from quartz, 105 1/8 ozs. from alluvial, 1583 ozs. by means of the cyanide

and chlorination processes, 5604 ozs. from blister copper from the Mount Lyell Mining and Railway Company, Limited, and 441 ozs. from the silver-lead bullion from the Tasmanian Smelting Company's works, Zeehan, valued at £75,170.

The following table shows the quantities obtained from the various sources on the different fields during the period under review, together with the totals for the corresponding period of 1904, and the previous quarter ending 31st December, 1904:—

	Gold obtained during the Quarter ending 31st Mar., 1905.							Totals corresponding Quarter, 1904.	Totals for Quarter ending 31st Dec. 1904.
	From Quartz.	Alluvial.	Cyanide & chlorination.	From Blister Copper.	From Silver-lead Bullion.	From Sulphide Ores.	TOTAL.		
	ozs.	ozs.	ozs.	ozs.	ozs.	ozs.	ozs.	ozs.	ozs.
Beaconsfield	7995	21	1024	...	...	...	9040	2902½	4955½
Mathinna ...	3058	...	398	...	...	...	3456	3836	4802
Mt. Victoria	} 27½	...	...	...	...	...	27½	72½	30½
Warrentinna		...	...	...	...	...	...	...	...
Lefroy .....	...	49¼	161	...	...	...	210¼	462	170
Lisle .....	} ...	...	...	...	...	...	...	162	47
Golconda ...		...	...	...	...	...	...	...	...
Mangana ...	...	...	...	...	...	...	...	117	116½
Bell Mount.	...	...	...	...	...	...	...	12	7
Middlesex...	...	...	...	...	...	...	...	...	...
West Coast.	...	35½	...	5604	441	...	6080½	7336	8567½
TOTALS	11,080½	105½	1583	5604	441	...	18,814½	...	...
Totals corresponding Quarter, 1904.....	6169½	243	1196½	5281	940½	1069½	...	14,900½	...
Totals for Quarter ending 31st Dec., 1904.....	8648	172	1400	6261	915	1300¼	...	...	18,696¼

Value £75,170; equal to 17,696·523 ozs. fine gold.

BEACONSFIELD.—The quarter's statistics for this field are as follows:—

	Gold produced, ozs.	Men employed.
Tasmania Mine	9002	662
North Tasmania..	17	4
Other Companies .....	...	13
Prospectors, &c.....	21	16
Total.....	<u>9040</u>	<u>695</u>

Tasmania Mine.—10,973 tons quartz were crushed, and 9002 ozs. gold (fine) obtained (by amalgamation and chlorination), which makes a total of 541,424 tons of quartz crushed, and 607,170 ozs. gold won since the mine first started.

Mr. C. F. Heathcote, A.M.I.C.E., the general manager, reports as follows:—During the last quarter the new steel chimney stack, 180 feet from base, and the steel headgear at Hart's shaft, 105 feet to wheel centres, have been completed. The new pump-engine and compound winding engine, with 14-feet diameter drums, at Hart's shaft, have been started, and are working satisfactorily. Sinking operations at Grubb's shaft have been started, and are being proceeded with as expeditiously as possible. The main shaft pitwork has been altered from 24-inch poles to 20-inch poles, and carried down to 900 feet.

North Tasmania.—The tribute party is shortly to give the work over to the company, who will take control of all operations. It is intended to start work at the 300-foot level, and afterwards open up at the 400-feet.

LEFROY.—The quarter's statistics are as follows:—

	Gold produced, ozs.	Men employed.
New Pinafore	120	16
H. Ping and party	41	6
Prospectors and others	49½	53
Total	210½	75

Mr. J. T. Stubs, manager of the New Pinafore, reports:—Operations at the Pinafore have been confined to shallow prospecting on the Point section, with a view of cutting eastern and western extensions of that reef, but so far without success. Prospecting at the 100-foot level, on the Ellgeetee section, which was under offer to the company, has not been attended with success. Prospecting is now going on by means of shallow shafts and crosscuts on a 20-acre section adjoining the Native Youth reef, with a view of locating the source of alluvial gold recently obtained. Several small veins have been passed through, but none of any value. The gold which is being won in the alluvial workings at Lefroy has undoubtedly been shed from a reef or reefs, and there is every chance of picking them up by the method adopted in prospecting for same. The fact of the south line of reef being some 400 feet ahead of present workings, precludes one from being over-sanguine of success, but if another line of reef is discovered, there is every probability of a good revival in the near future. An effort is being made to induce capitalists to develop the Lefroy deep lead. If no action in this direction results, it would be desirable to employ the diamond drill. Much information has been gained since the last series of bores were put down.

The total quantity of gold won by the New Pinafore Company since its formation is 50,370 ozs., which realised £195,460; out of which, £71,500 have been paid in dividends.

GOLCONDA AND PANAMA.—No returns have been received from this district, but about 8 men have been employed.

MT. VICTORIA.—The Long Struggle employed 4 men, and crushed 20 tons quartz, for 27½ ozs. gold. The supply of water for the battery impeded production.

The battery at the New Mercury Mine was destroyed by fire, and work at the mine has been suspended.

MATHINNA.—The quarter's statistics are as follows:—

	Quartz crushed. tons.	Gold produced. ozs.	Men.
New Golden Gate	5600	2493	} 160
" " " Sand (5576 cubic yds.).....	...	398	
Tasmanian Consols	1360	515½	55
Volunteer	600	42	55
King Edward	21	7½	4
Other mines and claims...	...	...	75
	<u>7581</u>	<u>3456</u>	<u>349</u>

New Golden Gate.—This company has published its half-yearly report to 31st January. During the six months, 10,340 tons of quartz have been crushed, from which 7426 ozs. of retorted gold have been obtained at the battery, valued at £27,344 11s. 10d.; 74 tons of pyrites were also obtained by concentrating tables, containing 472 ozs. of gold, valued at £1836 19s. 1d.; and 14,671 tons of tailings and slimes have been treated by cyanide of potassium, which produced 824 ozs. of gold, valued at £3115 9s. 11d.: making a total revenue of £32,297 0s. 10d.

The cost of raising and crushing quartz, treating concentrates, repairs and renewals to plant, progressive and surface works, and all other expenses incidental to working the mine and managing the company, amount to £14,766 4s. 3d., or £1 8s. 6.73d. per ton of quartz crushed. This does not include cost of stores and labour at cyanide plant, which amounts to £1916 19s. 11d., or 2s. 7.36d. per ton of tailings and slimes treated. The profit for the half-year is shown to be £15,613 16s. 8d. The total quantity of quartz now obtained from the mine is 252,091 tons, which have yielded 215,953 ozs. of gold; an average of 17 dwts. 3.19 grs. per ton, and which has realised £822,321 1s. 6d. The total amount paid in dividends is £355,200, or £11 2s. per share. Mr. Thomas Andrews, mine manager, reports that in maintaining the returns, the reserve of payable stone in the mine has been to some extent reduced.

Volunteer.—The poor battery returns have caused suspension of work at this mine until capital can be obtained for development.

Volunteer Consolidated.—The battery and concentrating plants were completed by the end of the quarter.

UPPER SCAMANDER AND HOGAN'S TRACK.—This field has been neglected by companies for many years, but patient prospecting has been continued all the time on a limited scale, and now some British capital is being introduced. The Queen of the Earth is to be resuscitated. Messrs. Ransom and Carney have for some time carried on operations on that property, developing payable stone for some distance, and also opening up other formations. Now that the property is floated and ground opened up for stoping, a battery is to be erected. The Brilliant reef in the vicinity has been tested, and there is talk of floating this mine also in England. Several abandoned mines exist in this field, which possesses, also, undeveloped reefs of varying gold contents.

MANGANA.—10 men have been engaged in prospecting.

WEST COAST.—*Coronation Mine.*—Mr. Jno. Havill, manager, reports that the south-east drive has been advanced to a total of 231 feet. The face at present is in soft pug, beyond which more settled country is expected to be met with. 4 men employed.

May Gold Mine, Lynchford.—Mr. James Elliott, manager, reports:—65 feet have been risen from the lowest to the second level on payable stone. A contract has been let for constructing 30 chains of tramway to connect with the battery site. 4 men employed.

Macquarie and Woody Hills Mines:—Messrs. Murray Bros. report that, in addition to the water-wheel, an engine, accommodation shed, and 2 quartz bins have been erected. 6 men employed.

Alluvial Mining.—17 men were engaged fossicking, and the gold disposed of locally amounted to 35 ozs. 8 dwts. Some rough gold was found by Henry Thompson and party on south-east Darwin, where they are now prospecting on behalf of a local syndicate. The heaviest specimen found was 3 ozs. The gold is said to be associated with quartz and hematite. Though the exact source of this gold is not known, it has not travelled far, and it must come from the ridge which Mt. Darwin forms at that spot. All that we know of this mountain indicates possibilities of important discoveries. It is the southern continuation of the Farrell and Lyell zone of country, and is endowed with potentialities of wealth, about which few seem to trouble themselves.

Lake Jukes Mine.—Mr. H. S. Muir, manager, reports:—During the quarter prospecting work has been carried on with 7 men, mostly confined to sinking winze from 200-foot level, and otherwise locating the extent of payable rock in its vicinity. The ore chute hereabouts is made up of small veins of bornite with magnetite, copper pyrites and magnetite, and magnetite alone, traversing felsite rock. The width is very variable, running from a couple of inches to many feet. These veins are being exploited mostly for

their gold contents, which in some instances are very high, and give a payable value to a fair width of rock. A 5-head crushing battery, with water-wheel, capable of driving 10 heads, has been shipped from Melbourne, and will be brought to the mine as speedily as the rough nature of the track will permit. It is proposed to roughly select the ore of the mine when breaking, and treat it at the mill, recovering as much of the gold by amalgamation as possible. The copper, and such gold as is not amenable to amalgamation, will be treated for the present over coir matting, and the product sold to the Mt. Lyell Co. It is proposed to send to the mill for treatment an ore giving 6 or 7 per cent. copper, and gold 6 or 7 dwts. per ton, which, it is estimated, will give a reasonable profit, and not unduly tax the mine in its present stage of development.

TIN.

The statistics for this metal for the past quarter are as follows:—

	Ore won.		Men employed.
	tons.	cwts.	
Northern Division.....	1	0	7
North-Eastern Division.....	285	3	560
Eastern Division.....	108	13	281
North-Western Division.....	325	0	245
Western Division.....	21	15	63
Total.....	741	11	1156

NORTH-WESTERN DIVISION.—At and near Waratah the output has been as under:—

	tons.	cwts.	Men employed.
Mount Bischoff	316	0	226
Waratah Alluvial.....	3	15	3
Stanhope.....	3	0	3
Wombat.....	2	5	3
Weir's Surprise & Bischoff Taylor	0	0	10
	325	0	245

NORTH-EASTERN DIVISION—RINGAROOMA DISTRICT:—

	tons. cwts.		Men employed.	
			Europeans.	Chinese.
New Hope Co.....	0	11	2	...
Maurice Claims	0	14	7	...
Dorset Claims.....	0	16	6	...
Tin Pot Creek.....	0	7	4	...
Britannia Creek.....	0	2	2	...
Hope Creek.....	0	1	1	...
Cascade Claims.....	1	16	10	6
Ruby Flat.....	0	5	...	2
Total	4	12	32	8

PIONEER AND GLADSTONE DISTRICT:—

	Tin ore won.		Men employed.	
	tons.	cwts.	Europeans.	Chinese.
Pioneer Mine.....	24	10	90	...
Scotia Mine.....	0	0	4	...
Cybele Mine.....	3	10	6	...
Other Gladstone Claims.....	5	9	21	2
South Mt. Cameron Co.....	1	18	20	...
J. Simpson.....	2	11	5	13
Argus.....	1	8	...	10
Garibaldi.....	1	5	...	31
South Garibaldi.....	7	16	20	...
Pioneer Claims.....	0	6	2	1
Boobyalla.....	0	7	4	...
Wilberforce Pump.....	0	10	3	...
	<u>49</u>	<u>10</u>	<u>175</u>	<u>57</u>

Pioneer Mine.—Mr. Cecil Ryan, manager, reports:—At the end of December dismantling was commenced preparatory to floating the plants to their present position. The removal was successfully carried out, and sluicing resumed on 26th January. Three plants are now working, one 12-inch, one 15-inch, and one 16-inch pump, absorbing a total of 900 horse-power. The two former are operating on the drift, and the 16-inch plant is pumping the tail water out of the old workings. The method of working is now "paddock-ing" on a large scale. The tailings are dumped into the old workings, and the tail water is led back through a shaft and underground tunnel to the suction pipe of the 16-inch plant, which is situate in the working face. This plant is arranged with three discharges, one of which is connected with nozzles in the working faces. Another leads into the head of the tail-race, and supplies extra water to assist the drift through, and through the third all surplus water flows away to the river. This arrangement works very well, and creates independence of dry seasons. At present the water is flowing through all three discharges, and 2000 cubic yards of drift are being pumped and sluiced per day. As soon as the tailings dam in the old workings is high enough for the tail-water to flow away by gravity, the 16-inch plant will come into operation as a sluicing plant. The mine looks as well as ever.

Mr. Ryan, in his half-yearly report to the end of December last, states that to that date 1,127,000 cubic yards of drift had been pumped and sluiced, at a total mine cost of 7.031d. per yard, for a yield of 1212 tons 19 cwts. of stream tin, which is equal to a recovery of 2.41 lbs. of tin ore per cubic yard.

South Mt. Cameron Tin Mining Company.—Mr. H. P. Cecil, manager, reports:—There was only one small clean-up last quarter, viz., 350 hours sluicing 11,049 cubic yards, for 1 ton 18 cwts. tin ore. Since then, sluicing has continued, and from appearances, the impending clean-up should yield a fair quantity, taking into consideration the grade of the material.

West Mt. Cameron.—A Launceston syndicate is taking steps to test the deep ground west of the mount. The ancient course of the Ringarooma seems almost certainly to have lain west of that end of Mt. Cameron, and the lead must have been to some extent enriched by the tributary leads of the Cascade, Main Creek, Weld, O. K. Creek, and Wyniford, though perhaps the greatest enrichment took place at the junctions of these with the main lead. It must be remembered that the enrichment points will become fewer or less important with increasing distances from the granite range, which is the source of all the ore.

MOORINA DISTRICT.—

	Tin ore won.		Men employed.	
	tons.	cwts.	Europeans.	Chinese.
Native Youth Mine.....	4	0	9	...
Moa Tin Mine.....	3	15	7	...
Moorina Tin Mine.....	3	15	7	...
Weld Tin Mine	2	5	7	...
Other Claims	0	6	3	...
	<u>14</u>	<u>1</u>	<u>33</u>	<u>...</u>

DERBY DISTRICT:—

	Tin ore won.		Men employed.		
	tons.	cwts.	Europeans.	Chinese.	
Briseis Tin Mines	138	12	}	135	...
New Brothers' Home, No. 1.....	30	11			
East Briseis .....	...	...		10	...
Briseis Extended .....	...	...		12	...
Cascade River.....	0	2		...	17
Main Creek Claims	2	4		11	...
	<u>171</u>	<u>9</u>		<u>168</u>	<u>17</u>

Briseis Tin Mines.—Mr. Lindesay C. Clarke, general manager, reports:—During the quarter 90,300 cubic yards of overburden were removed, of which 8570 yards were from the New Brothers' Home, No. 1. Considerable shortage of water was experienced. The quantity of drift sluiced from the Briseis leases was 46,300 cubic yards, which gave a return of 138 tons 12 cwts.

New Brothers' Home, No. 1.—Mr. S. Napier Bell, manager, reports that the sluicings were—

In January, 3800 cubic yards of drift and hopperings = 1 ton 16 cwts. tin ore = 1.06 lbs. per cubic yard.

In February, 8900 cubic yards of drift = 12 tons 4 cwts. tin ore = 3.07 lbs. per cubic yard.

In March, 14,200 cubic yards of drift = 16 tons 11 cwts. of tin ore = 2.63 lbs. per cubic yard.

The sluicing of drift from the northern portion of the workings under Briseis Hill has been hindered by the presence of fallen overburden, which renders the opening-up of the drift face tedious.

BRANXHOLM DISTRICT:—

	Tin ore won.		Men employed.	
	tons.	cwts.	Europeans.	Chinese.
Arba Tin Mine.....	40	0	34	...
D. Baker	0	3	2	...
W. Davis.....	0	1	1	...
G. Watt, Arba	0	1	1	...
Sen Sen.....	0	6	...	2
S. Hawkes.....	2	10	3	...
New Ruby Flat.....	...	...	12	...
Fon Hock and Co.....	2	5	...	11
Ah Sing.....	0	5	...	4
	<hr/>	<hr/>	<hr/>	<hr/>
	45	11	53	17
<i>Total North-Eastern Division</i>	<hr/>	<hr/>	<hr/>	<hr/>
	285	3	461	99

NORTHERN DIVISION:—

	Tin ore won.		Men employed.	
	tons.	cwts.	Europeans.	Chinese.
Middlesex Claims.....	1	0	7	...
	<hr/>	<hr/>	<hr/>	<hr/>

EASTERN DIVISION.—The following are the statistics for the quarter:—

	Tin ore obtained.		Men employed.	
	tons.	cwts.	Europeans.	Chinese.
<i>Weldborough Mines.</i>				
Weldborough Tin Mining Co.	3	0	7	...
Weldbrook Tin Mining Co...	1	13	5	...
R. B. Inglis	1	10	...	6
C. Nichols, Emu Claims.....	1	1	2	...
Chinese, Weldborough.....	4	17	...	50
Small Claims.....	12	1	36	...
	<hr/>	<hr/>	<hr/>	<hr/>
Total	24	2	50	56
<i>Lottah and Blue Tier Mines.</i>				
Anchor Mine	29	4	23	...
Australian Mine	1	1	14	...
Other Claims.....	4	3	23	...
Chinese	0	6	...	3
	<hr/>	<hr/>	<hr/>	<hr/>
Total	34	14	60	3
<i>St. Helens Mines.</i>				
Royal Ruby	2	18	8	...
Other claims	5	2	19	...
	<hr/>	<hr/>	<hr/>	<hr/>
Total	8	0	27	...
<i>Avoca Mines.</i>				
Mount Rex	30	1	45	...
South Esk	9	19	10	...
Dalrymple.....	...	...	25	...
Cash and Party	1	14	2	...
Other Claims	0	3	3	...
	<hr/>	<hr/>	<hr/>	<hr/>
Total	41	17	85	...
<i>Total Eastern Division.....</i>	<hr/>	<hr/>	<hr/>	<hr/>
	108	13	222	59

Anchor Mine.—Mr. J. B. Lewis, manager, reports:—All this quarter water has been short, and work was shut down altogether for four weeks. During the stoppage arrangements were made for working the alluvial flat below the battery, of an extent of about 15 acres, and an average depth of about 12 feet. In this, 16 trial holes have been sunk, giving a payable value for the drift. The main difficulty in working is the presence of boulders. A jet elevator has been fixed, as the bulk of the ground is below river-level. So far it promises well. The alterations to plant, new gyratory crusher, &c., are well advanced, the bulk of the stone now quarried going through the new Heclon crusher. The average grade of stone has kept very low (29 tons ore from 17,729 tons crushed), but is now improving slightly, as we get new ground better opened up. On account of shortage of water and few stamps running, the working costs have been higher. Since the end of March good rains have fallen, and the mill was started again early in April.

Mt. Rex Mine.—Mr. Mark Ireland, manager, in his half-yearly report to 31st January, states:—The total cost of mining, crushing, and development per ton of stone treated has been 11s. 4d., made up as follows:—Mining 7s. 3d. per ton; development, 11½d.; general expenses, 4½d.; crushing, 2s. 9½d. Surface prospecting is included in above, and all wages, stores, tools, and freights, are charged. The battery (20 head of stamps) has been running continuously, smoothly and well. The dams have always had plenty of water available, and their capacity is such that no shortage would occur if rain did not fall for six months. It is considered that the company has a fairly good asset in the alluvial ground below the mine, which brings in a certain amount of profit.

WESTERN DIVISION:—

	Tons.	Cwts.	Men employed.
Mayne's Tin Mine	10	0	11
Tasman	1	2	2
Other Claims	10	13	50
	<u>21</u>	<u>15</u>	<u>63</u>

Tasman Tin Mine.—Capt. W. Fisher, manager, reports:—The ground continues very patchy. The erection of an elevator is under consideration.

SILVER.

WEST COAST.—The registered output of silver ores in the Western Division, for the quarter ending 31st March, was as follows:—

	Ore.	Tons.	Value.	Men.
<i>Zeehan Mines :</i>				
Mount Zeehan, Tas.	galena	1470	13,688	194
Zeehan-Montana	"	1004 $\frac{1}{4}$	12,251	200
	tailings	49 $\frac{3}{4}$	15	
Zeehan-Queen	galena	207	1056	35
"	tailings	577	320	
"	stannite.....	21	231	
Zeehan-Western	galena	38 $\frac{1}{2}$	399	42
"	tailings, &c.	485 $\frac{1}{2}$	251	
"	gossan	77	307	
Florence	galena	264 $\frac{1}{2}$	2468	46
Silver King	low grade	583	214	4
Oonah	galena	66	326	20
"	gossan.....	54	126	
"	copper sulphide.....	8	29	
"	stannite.....	26 $\frac{1}{2}$	217	
Nubeena	galena	13	140	8
Silver Queen Extended	"	5 $\frac{1}{2}$	39	13
"	low grade ore	12 $\frac{1}{2}$		
New Mount Zeehan	"	152	108	2
<i>Dundas Mines :</i>				
Hercules	zinc-lead sulphide ...	1035	2165	85
Red Lead	flux ore	252	120	4
Comet	galena.....	253 $\frac{1}{2}$	1433	42
"	gossan.....	690	335	
Ring Valley	fahl ore	81	791	19
West Comet	low grade	2220	1100	18
<i>Rosebery Mines :</i>				
Primrose	zinc-lead sulphide ...	1537	1737	16
<i>Mt. Farrell Mines :</i>				
North Farrell	galena.....	381	3810	75
Murchison River	"	131 $\frac{1}{2}$	910	19
"	zinc-blende.....	30	91	
Tasmanian Smelting Co.	.....	...	...	192
Sundry mines and claims	.....	...	...	216
Total		11,726	44,677	1250

MOUNT ZEEHAN (TASMANIA)—*Spray Mine*.—Mr. T. Vincent, manager, reports:—No. 4 level extended 400 feet, payable, and water under easy control. Making preparations to sink for No. 5 No. 3 level—No. 1 lode, south, 400 feet, face poor. No. 3 lode—not much work done owing to bad air. Winze from upper level down 150 feet, payable. No. 2 shaft, No. 2 level—No. 13 lode, south, 80 feet in pay ore. Mine generally looking well.

Zeehan-Montana.—Mr. J. Craze, manager, reports:—The usual development work has been carried on at No. 1 shaft. Sinking was discontinued for a time owing to breakage at pumping-engine, but has again started. Bottom of shaft is now 74 feet below No. 6 level, or 674 feet below surface. The drive on numbers 4 and 8 lodes, No. 6 level, are being advanced north and south, with occasional bunches of ore showing. Stopping has begun on No. 4 lode, No. 6 level, at No. 2 shaft. The sinking of this shaft has been started, and 90 feet sunk. The bottom is now 90 feet below No. 2 level, or 290 feet from the surface. No. 4, or Clarke's lode, has been driven on south 100 feet, and is payable. A rise is now being put up to connect with surface for ventilation. The usual output is being maintained, and the mine generally is looking very well.

Zeehan-Western.—Mr. Jno. Craze, manager, reports:—The east crosscut, at No. 11, or 800-foot level, is being driven with rock drills. The No. 1 lode, east of shaft, has been cut, and consists of carbonate of iron. It is intended to institute a system of tributing in the old stopes. The plan to be adopted is to let to parties of miners certain stopes, the royalty to be on a sliding scale, in proportion to the value of the ground in the stopes. The company will wind all dirt and ore, and dress, at a price agreed upon. The royalty charged will defray, as far as possible, the cost of pumping. In this way it is hoped to work the stopes more carefully, and permit the miners to share in the profits. So far, no tributors are asked to prospect or explore any lodes, but are confined to stopping ground, which has already been opened up and prepared. Meantime, the company has 20 men driving and crosscutting, exploring the lower levels; and 12 men are employed by this company crosscutting from the east crosscuts of the Zeehan-Western into the Montana property. Eight of these men are driving two crosscuts, and four men are driving south on the Western No. 4 lode, the latter having crossed the boundary and entered the Montana ground.

Zeehan-Queen.—Mr. T. H. Vincent, manager reports:—No. 2 level—crosscut west nearing No. 3 lode. No. 1 level (Clarke's lode)—connections made with surface, making ventilation perfect. Now stopping block 90 feet long, with payable results.

Oonah Mine.—Capt. W. Fisher, manager, reports:—The known stannite above water-level is just about worked out. Further supplies must be obtained from the lower levels, where the lode has been cut at Nos. 3 and 4. The sulphide from the gossan tunnel is now keeping up a regular supply, and looks better than for some time, a block of ground 80 feet by 25 feet being operated on; width of lode, 6 inches. Gossan is being won from the old stopes above No. 1 level in main workings. This is ore that could not be touched in earlier days, but now almost anything can be disposed of to the Tasmanian Smelting Company. Galena is being won from the main tips, where sluicing is carried on as weather permits.

Silver King.—Capt. W. Fisher, manager, reports:—Work has been confined to scraping together low-grade ore on the surface at the South section. At the main workings the tailings are being sold to the Tasmanian Smelting Company. Four men are prospecting on sections 468 and 469. One party (Giles) has cut a small vein of galena.

Florence.—Mr. F. K. Astell, manager, reports:—No. 1 level, south lode—stoping is being carried on with very good results. No. 2 level, south lode—crosscut advanced 70 feet, cut lode and driven on it for 70 feet; not yet under the good metal showing in level above. Currie's lode—No. 2 level, south, advanced 60 feet from crosscut. Lode improving as driven upon. A big block of ground is now ready for stoping, extending to level above, 72 feet; good metal showing from top to bottom as far as driven on. On same course, and 200 feet further south, on surface, a very large lode formation has been discovered, 26 feet wide, and assaying up to 50 ozs. silver per ton. It appears to be a continuation of Currie's lode. On No. 4 level, going north, good seconds and a little firsts are being stoped. Since beginning of year the concentrating plant was started, and is doing good work, the concentrates realising up to £12 per ton net.

DUNDAS AND MT. READ.—*Ring Valley.*—Mr. John Moyle, manager, reports:—No. 2 level is being extended north; total length 592 feet. A pyritic formation, 6 feet wide, occasionally has been disclosed. Veins and bunches of fahl ore occur in it, and prospects are encouraging. No. 1 level—Total length of drive, 1000 feet; lode extremely variable.

Hercules Mine—The directors' report for the half-year ending 31st January, shows that the ore mined and sold during that period comprised 215 tons gossan ore, sold to Tasmanian Smelting Company, assaying 0·465 ozs. gold, 22·86 ozs. silver, 14 per cent lead; 3593 tons sulphide ore sold to Tasmanian Smelting Company, assaying 0·198 ozs. gold, 14·96 ozs. silver, 9·67 per cent. lead; 5160 tons zinc ore exported to Europe, assaying 0·133 ozs. gold, 8·93 ozs. silver, 10 per cent. lead, 39·53 per cent. zinc. The report states that, owing to the high price of spelter, European zinc smelters have been overstocked with supplies of zinc sulphides from all parts of the world, and have consequently raised their smelting charges, making it difficult for the Hercules Company to continue producing 40 per cent. zinc ore at a profit. The old Jupiter mine has recently been acquired by the company. This is not payable at present, but the winze lode is encouraging. Samples from this returned 10·6 per cent. copper, 0·02 oz. gold, 1·68 oz. silver. In the Hercules mine proper, new makes of zinc-lead sulphides have continued to be opened up. There is no lack of quantity, but the low market values make it necessary to take all ore out in bulk. The directors considered that to carry on work at a profit reductions in smelting

charges, railway freights, and wages, would be required. A concession of 2s. per ton was obtained from the Government railways on ore sent from Williamsford to Zeehan. An attempt to carry out a reduction in the wages rate resulted in the men going out on the 1st February, and on the 6th March it was decided to close down the mine. At the half-yearly meeting of shareholders, held on the 31st March, a resolution was passed recommending an early resumption of operations if the mine could be worked at a profit.

Tasmanian Smelting Works.—Mr. P. Kunze, manager, reports:—Ore purchased during the quarter ending 31st March, 6563 tons, containing 1651 tons lead, 211,578 ozs. silver, 320 ozs. gold. Bullion exported, 1377 tons lead, 192,411 ozs. silver, 441 ozs. gold.

Murchison River Mine.—The directors' report for the half-year ending 28th February states that the sales of picked galena and gossan provided more than sufficient money to carry on work at the mine, besides further prospecting it. It is calculated that the 5550 tons of milling ore at grass, and the zinc blende stacked, will yield a fair profit; consequently, a milling plant has been bought from the Onah Company, which will enable the concentrating ore already raised to be turned to profitable account. Mr. J. H. Astell, the mine manager, reports width of ore taken out in the No. 1 adit main level as averaging 7 ft. 6 in; in the intermediate mediate level as 4 feet wide; and in No. 2 adit, south level, from 6½ feet to 17 feet, average 11½ feet. He gives the cost of mining for the half-year as follows:—Wages 3s. 8·9d. per ton of crude ore; stores 6·4d. per ton; assaying and sampling 4·6d. per ton; supervision 9·2d. per ton; total 5s. 5·1d. per ton of crude ore. The cost of dressing saleable ore was 10s. 7·32d. per ton.

NORTH-WESTERN DIVISION:—

	Ore produced, tons.	Men employed.
Magnet Mine	3006	125
Long Tunnel.....	200	30
Washington Hay.....	8	2
Godkin .....	...	6
	<hr/> 3214	<hr/> 163
	<hr/> <hr/>	<hr/> <hr/>

Magnet Mine.—The main shaft is to be sunk a further depth of 70 feet to No. 6 level. The new concentrating mill has been started since the end of the quarter, and is doing good duty. The usual output of 1000 tons ore per month is being maintained.

Godkin's Mine.—Mr. T. H. Jones, manager, reports as follows:—The S.W. drive from the 110-foot level has been continued to 900 feet from main shaft, and is still being driven with the object of cutting a lode formation which outcrops in that direction. Recently the drive has been in limestone breccia, with clay bands interspersed, very likely produced by an extensive fracturing of the

adjoining strata, which may account for the big gap in the limestone formation N.W. of the main shaft. It is expected shortly to get through this disturbed area, and on again entering settled country, the lode should almost immediately be met with. It has been known for some time that a metalliferous zone occurs in the limestone E. and N.E. of the shaft, almost at its contact with the serpentinised igneous rocks of this locality. A drive is now being put in north from the 110-foot level to further explore this silver-bearing belt. A distance of 63 feet has been reached in mineralised limestone. It is thought that the contact will be met with at about 100 feet; if not, a crosscut will be put in. The work done in the past proves that the limestone is widening with depth very rapidly, and a corresponding increase in the size and richness of the ore bodies is anticipated.

COPPER.

Mount Lyell Mine.—Mr. Robt. Sticht, general manager, reports:—The quantities of ore treated, and metal produced, during the quarter ending 31st March, were as follows:—

Ores and metal-bearing fluxes treated:—

	tons.	Dry weight		
		cwts.	qrs.	lbs.
Mt. Lyell Mine ore	72,745	2	2	19
North Lyell Mine ore	26,000	18	0	4
Purchased ores.....	141	14	1	13
Metal-bearing flux from N. Lyell Mine	2033	16	0	7
Copper clay from N. Lyell Mine	27	14	3	15
	<u>100,949</u>	<u>6</u>	<u>0</u>	<u>2</u>

Quantity and value of metal produced—

Bliſter copper, 1981 tons, containing—	£	s.	d.
Copper, 1959 tons, valued at.....	136,722	10	6
Silver, fine, 183,219 ozs., valued at.....	21,009	2	3
Gold, fine, 5604 ozs., valued at	23,817	0	0
	<u>£181,548</u>	<u>12</u>	<u>9</u>

Number of men employed—

At the Company's	Mt. Lyell Mine	305
"	North Lyell Mine	484
"	South Lyell Mine	4
"	Lyell Tharsis Mine.....	14
"	Reduction Works	1009
"	Railway, Mt. Lyell	121
"	North Lyell Railway.....	16
		<u>1953</u>

At the North Lyell the chief extractions are confined to the main stopes, in addition to which serviceable supplies are obtained from the numerous subsidiary ore bodies throughout this property. The main shaft has been deepened 89 feet, and is now down 509 feet, or 409 feet below the lowest adit or water-level. Operations have been resumed in the winze or auxiliary shaft.

Lyell Blocks.—Mr. Robert Ferguson, manager, reports:—The number of feet of driving, rising, sinking, &c., has been 772. Men employed, 284.

Crown Lyell.—Mr. Geo. Young, manager, reports:—The south-west crosscut has been driven 95 feet, total 234 feet, in mineralised schist. At 210 feet, 12 feet were driven south-east on copper pyrites, worth from 2½ per cent. to 3 per cent. copper. Men employed, 10.

Tasman and Crown Lyell Extended.—Mr. Edward Holehan, manager, reports:—A winze has been sunk 42 feet from the No. 2 tunnel on the large sulphide lode. Men employed, 6.

Tasman Comstock.—Prospecting continued on the western slope of Mt. Lyell. Men employed, 2.

Copper Mines of Mt. Lyell West.—Mr. Thos. Griffiths, manager, reports that 25 feet have been driven in the main cross-cut of the Razor-back tunnel. Men employed, 3.

NORTH-WESTERN DIVISION.—*Rutherford Mine.*—15 tons of copper ore, averaging 7·45 per cent. of copper, were raised during the quarter. Want of funds has caused a suspension of operations. 19 men were employed during the quarter.

NORTHERN AND SOUTHERN DIVISION.—*Copper King Mine.*—43 tons of copper were raised, and 6 men employed. Of these, 20 tons, averaging 15 per cent, were shipped to Mt. Lyell, and 23 tons, averaging 24·7 per cent., sent to Sydney.

IRON.

The Tasmanian Iron Company, at the Penguin, raised 1700 tons hematite ore this quarter. Sixteen men were employed.

WOLFRAM.

The production of this mineral has been as follows:—

	tons.	cwts.	Men employed.
Ben Lomond Mine	5	10	8
Middlesex District.....	1	4	3
Total	6	14	11

COAL.

The output this quarter was 12,372 tons, against 12,562 tons the previous quarter.

Colliery.	Tons raised.	Men employed.
Cornwall	5193	70
Mount Nicholas	5717	61
Spreyton (Allison's)	121	4
Illamatha (Bound's)	86	2
Dulverton	147	4
Teasdale's, Dulverton	78	2
Brightburn, Railton.....	30	2
York Plains	250	4
Sandfly	80	2
Mt. Cygnet	500	5
Catamaran	170	5
Total	12,372	161

The Department has had standard analyses made in the Government laboratories of the coal of some of the Tasmanian collieries. The samples were procured through Mr. M. J. Griffin, Inspector of Mines, and assayed by Mr. W. F. Ward, Government Analyst, as follows:—

	Fixed Carbon.	Ash.	Gases, &c.	Sulphur.	Moisture.	
Mt. Nicholas	57·50	9·28	28·40	0·54	4·28	No coherent coke
Cornwall	55·00	9·56	31·02	0·56	3·86	"
York Plains, bottom coal	67·40	16·20	13·00	0·70	2·70	Powdery coke
Ditto	60·70	23·20	14·50	—	1·60	"
York Plains, upper coal	60·20	23·80	14·50	—	1·50	"
Ditto, middle coal	50·40	34·40	11·50	—	3·70	"
Sandfly, top of seam	46·50	28·00	23·40	—	2·10	Crumbly coke
Ditto, 12 in. below preceding ..	53·10	15·60	29·90	—	1·40	Firm, coherent coke
Ditto, below preceding	54·30	17·60	25·40	—	2·70	"
Ditto lower part of seam	56·00	15·10	25·70	0·70	2·50	"

Sandfly Colliery.—Further exploratory work on the No. 3 seam has shown that the coal continues solid and good. The main

tunnel has proved the continuity of a seam of bituminous coal 4 feet thick, above which is another seam of similar coal 5 feet thick, with a distance of 4 or 5 feet between the two. Mr. Wallace, the mining manager, has made a survey of the field, and determined the level course of the coal as N. 21° E., and its dip as 1 in 11, to the N.W. He has satisfied himself that the various outcrops are distinct seams, and not portions of the same seam thrown down by faults. The main heading on No. 3 has been driven into the hill N. 16° W., for 520 feet, and a ventilating tunnel 360 feet, which is being connected with the main tunnel by a cross-drive through coal of unimpaired quality. A good start has been made in laying out the tramway to North-West Bay, and 7 acres of land have been secured there for yards and necessary buildings. The manager speaks well of the anthracite coal of the lower Sandfly measures. He states that it seems capable of standing almost any blast, and will find a special market, with scarcely a competitor, as none of the New South Wales coals are so high in fixed carbon.

Mt. John Seams.—A further working test has been made of the coal with satisfactory results. The introduction of capital is desired for the development of the property.

Mt. Rex Seams.—Two seams of good coal have been found at Mt. Rex, a mile below the tin mine. One is 6 feet and the other 12 feet thick. A tunnel has been driven into the hill for 150 feet on the 12 feet seam, which continues solid to the face. About $\frac{1}{2}$ mile further west what appears to be the same seam crops out on the flat, and has been proved by a shaft. It is intended to prove the extension of this seam, and then to take measures for starting a colliery. The outlet would be Hanleth Station, on the Conara-Fingal Line, with which a tramway, some 7 or 8 miles in length, would connect the mine. The strata are the upper measures of Tasmania, the same as those on the flanks of Mt. Nicholas. The laboratory analyses show that the coal yields a firm coke. Analyses of coal from the tunnel have been made by Mr. W. F. Ward, Government Analyst, and Mr. J. D. Millen, F.G.S., Mt. Bischoff Smelting Works, with the following results:—

	Fixed Carbon.	Gases, &c.	Ash.	Sulphur.	Moisture.	
W. F. Ward.....	54.50	35.00	8.50	0.80	1.20	Firm coke
Ditto	55.00	28.20	15.10	—	1.70	"
J. D. Millen.....	52.90	38.20	8.90	—	—	Good and firm coke

An important feature in these analyses is the coking property of the coal. If this is maintained in larger tests, a very satisfactory fact will have been established. The discovery of this powerful seam

at Mt. Rex is interesting, outside the question of its own economic value, for it indicates the possibility of the extension of coal-bearing strata still nearer to Conara.

CONCLUSION.

The output of mineral has amounted to nearly the same tonnage as in the preceding quarter. The production of tin ore, however, was 130 tons short, owing mainly to the dry weather, and consequent deficient water supply. The values totalled £373,379, as against £376,309 for the quarter ending 31st December last. The value of mineral raised per man engaged in the industry remains the same, viz., £60 per man per quarter. It is noteworthy that the utilisation of low-grade ores by the Zeehan smelters is assuming larger proportions, and this must powerfully influence the industry on the West Coast. A strong impetus to tin-mining at Heemskirk is being given by the introduction of British capital into the Federation property. What with the rich ore on the Spray line, and the recent establishment at the Western mine of the fact that the deposition of galena on the Zeehan field does extend to a considerable depth, the outlook in the western part of the island is inspiring. In the east and north-east, too, increased activity prevails on the tin-fields, which are attracting outside capital to a considerable extent, at present.

The following return shows the average number of men employed in or about the mines during the quarter ending the 31st March, 1905:—

District.	European.	Chinese.	Total.
Northern and Southern	838	2	840
North-Eastern	465	99	564
Eastern	720	59	799
North-Western	427	...	427
Western	3609	...	3609
Total	6059	160	6219

Value of the mineral output per man employed, £60 Os. 9¼d.

The dividends paid during the quarter were:—

	£	s.	d.	£	s.	d.
From Copper Mines—						
Mount Lyell Mining and Railway Company.....				Nil		
From Gold Mines:—						
New Golden Gate G.M. Co., N.L. ....	...			1600	0	0
From Tin Mines:—						
Mt. Bischoff T.M. Co., Registered ...	13,500	0	0			
Pioneer T.M. Co., Ltd.	3375	0	0			
Garibaldi T.M. Co., N.L.	310	0	0			
Wilberforce Pump Co., No. 1, N.L.	50	0	0			
				<u>17,235</u>	0	0
From Silver Mines:—						
Mt. Zeehan (Tasmania) Silver-lead Mines, Ltd.	7276	0	0			
West Comet Pros. Syndicate, N.L.	64	0	0			
				<u>7340</u>	0	0
Total .....	...			<u><u>£26,175</u></u>	0	0