

MININDI 9071

THE PROGRESS OF
THE MINERAL INDUSTRY
OF
TASMANIA

FOR THE QUARTER ENDING 31st MARCH, 1907.

COMPILED BY

W. H. TWELVETREES,

GOVERNMENT GEOLOGIST.

BY ORDER OF

THE HONOURABLE D. C. URQUHART.

MINISTER FOR MINES.



Tasmania:

JOHN VAIL, GOVERNMENT PRINTER, HOBART.

1907



PROGRESS OF THE
MINERAL INDUSTRY OF TASMANIA

FOR THE QUARTER ENDING 31st MARCH, 1907.

Launceston, 28th May, 1907.

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, 1907, as compared with the previous quarter ending 31st December, 1906:—

	During the Quarter ending 31st Mar., 1907.		During the Quarter ending 31st Dec., 1906.	
	Quantity.	Value.	Quantity.	Value.
* Gold won ozs.	16,100·847	£ 68,302	13,023·436	£ 55,320
Silver-lead Ore produced tons	22,573	134,856	20,703½	119,886
† Blister Copper produced ..	1920	241,669	1919	218,999
Copper Ore and Copper produced..... .. "	463	14,110	441¾	20,496
Tin Ore produced..... .. "	886½	114,684	1283½	173,197
Iron Ore raised..... .. "	1000	350	...	...
Coal raised..... .. "	10,949	9307	14,342	12,191
Wolfram Ore produced... .. "	3	368	6	480
Bismuth Ore produced... .. "	10	15	...	...
		583,751	...	600,569

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

† Value of gold contents deducted.

GOLD.

During the past quarter 7301 $\frac{3}{4}$ ozs. of gold were obtained from quartz, 88 $\frac{3}{4}$ ozs. from alluvial, 2634 $\frac{3}{4}$ ozs. by means of the cyanide and chlorination processes, 4888 ozs. from blister copper from the Mount Lyell Mining and Railway Company, Limited, and 1262 ozs. from the silver-lead bullion from the Tasmanian Smelting Company's works, Zeehan, valued at £68,392.

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 1906, and the previous quarter ending 31st December, 1906:—

	Gold obtained during the Quarter ending 31st March, 1907.						Totals corresponding Quarter, 1906.	Totals for Quarter ending 31st Dec., 1906.
	From Q artz.	Alluvial.	Cyanide & chlorination.	From Blister Copper.	From Silver-lead Bullion.	TOTAL.		
	ozs.	ozs.	ozs.	ozs.	ozs.	ozs.	ozs.	
Beaconsfield	6512	29 $\frac{1}{4}$	2546 $\frac{3}{4}$	...	...	9148	11,943
Mathinna ...	703 $\frac{1}{2}$	..	...	...	...	703 $\frac{1}{2}$	930
Mt. Victoria	86 $\frac{1}{4}$	15 $\frac{1}{2}$	...	...	...	101 $\frac{1}{2}$...	
Warrentinna								85 $\frac{3}{4}$
Mt. Cameron	...	...	88	...	...	88	112
Lefroy								90
Lisle .....	...	28	...	...	...	28	12
Golconda ...								89
Mangana ...	...	...	...	...	...	...	...
Bell Mount.	...	...	...	...	...	...	...
King Island	...	...	...	...	...	...	1 $\frac{1}{2}$
West Coast.	...	16	...	4888	1262	6106	5968 $\frac{1}{4}$	
TOTALS	7301$\frac{3}{4}$	88$\frac{3}{4}$	2634$\frac{3}{4}$	4888	1262	16, 175$\frac{1}{4}$...	
Totals corresponding Quarter, 1906.....	9935 $\frac{1}{2}$	206	2899 $\frac{1}{2}$	5893	889	...	19,823	
Totals for Quarter ending 31st Dec., 1906.....	4634 $\frac{3}{4}$	1059 $\frac{1}{2}$	1558 $\frac{1}{2}$	5227	698	...	13,177 $\frac{3}{4}$	

Value £68,392; equal to 16,100·847 ozs. fine gold.

BEACONSFIELD.—The quarter's statistics for the district are as follows:—

	Gold produced. ozs.	Men employed.
Tasmania Mine	8136	631
North Tasmania.....	16½	3
Tasmanian Tailings Syndicate...	870	16
Prospectors and others.....	65½	31
Total.....	<u>9088</u>	<u>681</u>

Tasmania Mine.—Eighteen thousand and forty-four tons quartz crushed, and 8136 ozs. gold obtained (by amalgamation and chlorination), which makes a total of 643,546 tons quartz crushed and 670,893 ozs. gold obtained since the mine was first started.

Mr. C. F. Heathcote, A.M.I.C.E., the general manager, reports:— During the past quarter the sinking of the Grubb shaft has been continued, the total depth being now 1109 feet. The sinking of Hart shaft has also been continued, total depth now being 1147 feet.

Extensive protection works are being carried out at Blyth's Creek. These, when completed, will consist of 3500 feet of fluming 28 feet high, giving a further waterway above the level of the fluming 40 feet wide.

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

	Gold produced.		Men employed.	
	ozs.	Europeans.	Chinese.	
New Pinafore	88	15	—	
Prospectors and others.....	—	39	2	
Totals.....	<u>88</u>	<u>54</u>	<u>2</u>	

LISLE, GOLCONDA, &C.—Twenty-five ozs. of gold have been won from the Lisle field, and 3 ozs. from Golconda. Twenty-one men have been employed in these fields.

SOUTH MOUNT CAMERON.—Fifteen and a half ounces of gold have been produced from the tin at the South Mount Cameron Mine during the quarter.

MOUNT VICTORIA.—Twelve men were engaged in these mines, winning 86½ ozs. of gold from 76 tons quartz crushed and sand treated.

MATHINNA.—

	Quartz crushed. tons.	Gold produced. ozs.	Men employed.
New Golden Gate	480	686	42
City of Hobart.....	25	17½	6
Tas. Consols.....	—	—	63
Others	—	—	21
Prospectors etc.....	—	—	60
Totals.....	<u>505</u>	<u>703½</u>	<u>192</u>

New Golden Gate.—The directors state in their 38th half-yearly report that during the six months ending 31st January 1299 tons of quartz have been crushed and 1135 ozs. of retorted gold have been obtained at the battery, valued at £4418 10s. 1d. Eight tons of pyrites were also obtained by concentrating tables, containing 141 ozs. of gold, valued at £564 4s. 6d.; and 1600 tons of tailings and slimes have been treated by cyanide of potassium, which produced 111 ozs. of gold, valued at £338 8s. 9d., which, together with interest on fixed deposits (£40), made a total revenue of £5361 3s. 4d.

The cost of raising and crushing quartz, treating concentrates, tailings, and slimes, repairs and renewals to plant, progressive and surface works, and all other expenses incidental to working the mine and managing the company, amounts to £5566 2s. 2d., being £204 18s. 10d. in excess of revenue obtained.

The total quantity of quartz now obtained from the mine is 269,516 tons, which has yielded 225,029 ozs. of gold, an average of 16 dwts. 16.77 grs. per ton, and which has realised £855,759 18s. 8d. The total amount paid in dividends is £355,200, or £11 2s. per share; and the total amount paid for Dividend Tax is £16,638 10s.

Woody Hills and Macquarie Mines.—Messrs. Murray Bros. report that their work has been of an exploratory character, with three men.

King River P.A., Lynch's Creek.—The local representative, Mr. Proctor, states that work is about to be resumed on this property, and that a main shaft will be sunk 200 feet, to further test the claim.

Alluvial.—Only 16 ozs. have been accounted for by the bank and storekeepers, but it is scarcely probable that this represents the total quantity won during the period under review. Seventeen men are known to be engaged in this calling.

PORT CYGNET AND PETCHEY'S BAY.—Attention has been paid again to deposits of gold in this district. The alkaline porphyries have intruded into the Permo-Carboniferous strata here, and the quartz and altered rock at the junction between the two carry gold at various points. Some of this has been shed into the creeks and flats, and a good deal has been recovered at different times. As far as is known about 3000 ozs. have been won altogether.

The Petchey's Bay Gold Mining Syndicate has lately bored the shores of the Huon River, at Wheatley's and Kube's bays. Coarse gold was obtained from the former, and very heavy gold has been got from Riseley's Creek. The syndicate intends thoroughly testing

these bays and the bay at Lymington before starting with a dredge. A certain quantity of gold is sure to be present, but those interested in the venture should assure themselves that there is scope enough for a dredge before making a commencement.

At Mt. Mary, near Port Cygnet, a working party has sunk a shaft 73 feet, and driven 6 feet on a siliceous formation at the bottom, not far from the porphyry junction. Samples from the face have been assayed in the Government Laboratory by the Analyst, Mr. W. F. Ward, but only a trace of gold was detected in them. On the other hand, a small piece of reddish contact rock from the trench at surface, which showed specks of gold, assayed 3 ozs. 4 dwts. gold and 2 dwts. 12 grs. silver per ton.

On Mt. Livingstone a shaft has been sunk about 60 feet on porphyry banded with quartz, carrying small quantities of galena, blende, and arsenopyrite, but amplex taken from the heap and selected from the most likely-looking stone yielded only a minute trace of gold. None of the reef matter in these occurrences round Port Cygnet has ever been found to contain gold in payable quantity. The quartz appears to be a contact development, and swells and disappears alternately. The brecciated line of country along the contact has undoubtedly shed the gold which has been won from the alluvium. The latter has been derived from the slow waste of the hills, and as it does not carry gold in large quantities, it may be assumed that the reefs or formations exposed are not rich. The occurrences of gold may be looked upon as irregular, and likely to be payable only when some unusually rich shoot is struck. The chance of finding these pay-shoots may be regarded as a matter of prospectors' luck. The most that a geological examination of the ground can do is to point out the lines along which search may be most usefully made.

TIN.

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

	Ore won.		Men employed.	
	tons.	cwts.	Europeans.	Chinese.
Northern and Southern Division	—	5	1	—
North-Eastern Division.....	578	18	937	95
Eastern Division.....	117	—	292	42
Western Division.....	15	10	71	—
North-Western Division.....	174	18	346	—
Totals.....	886	11	1647	137

THE MINERAL INDUSTRY

NORTH-WESTERN DIVISION.

The output has been as under:—

	tons.	cwts.	Men employed.
Mount Bischoff	170	0	263
Mt. Bischoff Extended	—	—	34
Weir's Bischoff Surprise	2	0	15
Stanhope Alluvial	1	14	7
Waratah Alluvial.....	1	4	7
Others.....	—	—	20
Totals.....	174	18	346

NORTH-EASTERN DIVISION.

RINGAROOMA DISTRICT.—

	Tin ore won.		Men employed.	
	tons.	cwts.	Europeans.	Chinese.
Tin-pot Creek Mines.....	18	3	27	...
Tin-pot Creek Claims .....	...	16	5	...
Cascade River.....	2	18	20	4
Black Creek.....	2	0	10	...
Dorset River	1	10	8	...
Dunne's Creek.....	1	1	8	...
Britannia Creek.....	0	9	5	...
Hope Creek	0	12	2	...
Bell's Hill .....	...	...	17	...
Ruby Plat.....	0	1	...	1
Totals	27	10	102	5

PIONEER AND GLADSTONE DISTRICTS.—

	Tin ore won.		Men employed.	
	tons.	cwts.	Europeans.	Chinese.
Pioneer Tin Mines	39	15	90	...
Argus	15	10	15	...
White Rock	12	11	14	..
South Mt. Cameron	8	0	40	...
Ringarooma Dredge	8	13	25	...
Gladstone	9	6	17	...
Cybele Tin Mines	7	16	125	...
Aberfoyle .....	...	...	63	...
Musfel Roe .....	...	...	23	...
Purdue Tin .....	...	...	40	...
Miners' Claims.....	6	13	49	6
Yee Gee	5	3	...	18
Hee Sing	3	10	...	13
Others	5	13	...	23
Totals	122	10	501	60

Pioneer Mine.—Mr. Cecil G. Ryan, general manager, reports:— On the 6th February 10 inches of rain fell in six hours, and the bywash from the lagoon would not carry this quantity of water, which broke over into the workings and filled them up. These have been emptied since the close of the quarter. The bywash has been cut down and enlarged. A deep cutting from the river has been brought up, and the creeks confined to their original channels round the lagoon by a high earth embankment, protecting the workings from further floods. The new plant has almost been finished, (a plant for working the bottom bench of ground), and will also be fitted with a nozzle to utilise the drainage from the tailings paddock, as at present we have to pump at the expense of the drift which the water would otherwise treat. Ground is being prepared for a large dam-site up the Frome River, preparatory to making a start on it. Boring operations are still in progress on the company's leases, and have proved the area of payable ore marked out for working to be very much greater than was originally supposed.

	Tin ore won.		Men employed.	
	Tons	cwts.	Europeans.	Chinese.
Mount Horror Claims	5	7	9	...

DERBY DISTRICT.—

	Tin ore won.		Men employed.	
	tons.	cwts.	Europeans.	Chinese.
Briseis Tin Mines.....	260	5	117	...
New Brothers' Home, No. 1.....	96	3	31	...
Briseis Extended	19	10	32	...
Other Derby Claims	3	10	32	...
Chinese Claims	0	18	...	18
Total.....	380	6	212	18

BRANXHOLM DISTRICT.—

	Tin ore won.		Men employed.	
	tons.	cwts.	Europeans.	Chinese.
Arba Tin Mine.....	17	0	45	...
New Ruby Flat	12	10	14	...
South Arba	1	10	4	...
Other Branxholm Claims.....	...	16	6	...
Chinese Claims.....	2	1	...	12
Total	33	17	69	12

MOORINA DISTRICT.—

	Tin ore won.		Men employed.	
	tons.	cwts.	Europeans.	Chinese.
Native Youth	4	1	10	...
Weld Tin	3	12	12	...
Abbotsford	0	7	9	...
Moorina T.M.....	0	14	6	...
Other Moorina Claims	0	14	7	...
Total.....	9	8	44	...
<i>Total for North-Eastern Division</i>	<i>578</i>	<i>18</i>	<i>937</i>	<i>95</i>

EASTERN DIVISION.

	Tin ore won.		Men employed.	
	tons.	cwts.	Europeans.	Chinese.
<i>Weldborough Mines.</i>				
Weldbrook Tin Mine.....	5	10	20	...
Weldborough .....	...	...	6	...
Fancy Creek.....	5	14	12	...
Cambria	1	4	6	...
Symons & Party	1	1	3	...
C. Dickenson	0	11	2	...
P. Eyres	0	4	2	...
Chinese (Weldborough).....	5	12	...	38
Other Claims	4	5	17	...
Total	24	1	68	38
<i>Lottah and Blue Tier Mines.</i>				
Anchor Tin Mine.....	54	5	119	...
" From Alluvial..	4	10	...	...
Chinese. Blue Tier	0	6	...	3
Other Claims	3	16	17	...
Total	62	17	136	3
<i>St. Helens Mines.</i>				
J. C. Macmichael & Co.	2	7	10	...
Royal Ruby	1	10	6	...
Thureau's Deep Lead.....	1	10	4	...
J. McAuliffe	1	1	3	...
C. Miller	1	9	6	...
Others	1	19	10	1
Total	9	16	39	1

Arcoa Mines.

Storey's Creek Co.	9	0	21	...
Mount Rex	4	2	6	...
Gipp's Creek.....	4	15	6	...
South Esk	1	7	4	...
Others.....	1	2	12	...
Total	20	6	49	...
<i>Total for Eastern Division</i>	<u>117</u>	<u>0</u>	<u>292</u>	<u>42</u>

Anchor Tin Mine.—Mr. James B. Lewis, general manager, reports:—For the quarter ending 31st March, 1907, we have crushed 36,774 tons of ore, for a return of 54½ tons of black tin, and employed on the average 119 men. No tin has been cleaned up from the alluvial, as the floods of 6th February carried away all alluvial plant, and buried the tin that was ready for streaming. We are now working the upper portion of drift, but have not yet succeeded in getting lower level going again. Owing to the floods of 6th February and 4th March, a good many days were lost, as they carried away intakes to races, caused heavy slips, and did other damage. Consequently, not as much as usual has been crushed for the quarter.

WESTERN DIVISION.

	Tin ore won. tons. cwts.	Men employed.
Heemskirk Claims.....	3 17	17
Renison Bell Co.....	0 10	6
Mayne's Tin	4 0	6
North East Dundas Tributes	5 17	25
Tasman Tin Mine.....	0 16	3
Section 1501.....	0 10	14
Total.....	<u>15 10</u>	<u>71</u>

Tasman Tin Mine.—Capt. W. Fisher, manager, reports:—Work is confined to what is known as the St. Dizier property, where three men are continuously ground-sluicing, by which means it is hoped to find the lode from which this tin has been shed. The Tasman Flat is still held under option by a Melbourne syndicate.

SILVER.

WEST COAST.—The registered output of silver ores in the Western Division for the quarter ending 31st March is given below:—

	Ore.	Tons.	Value. £	Men
<i>Zeehan Mines:</i>				
Mount Zeehan, Tas.	galena	1784	23,361	233
Zeehan-Montana	„	1082½	18,994	261
Zeehan-Western	galena &c	404½	4964	114
Zeehan-Queen	„	71	685	17
Silver Queen Extended	galena, &c.....	59½	685	14
Oonah	„ & pyrites....	447	2333	86
Florence	galena	139	2431	42
New Mt. Zeehan	„	60	382	7
Austral Valley	— .....	...	...	22
Sylvester	gossan	70	264	4
Balstrup's section	galena	35	592	12
Queensberry	„	70	687	8
Section 1914-M. (Fox)	gossan.....	25	7	2
Section 1816-M. (Watts)	galena	57	677	5
Section 1846-M. (Vincent),	„	35	488	4
T.L.E. sections	„	34½	487	12
Central Balstrup	„	½	5	2
South Comstock	„ and zinc.....	179	1851	18
<i>Dundas Mines:</i>				
Comet	galena, &c	2071½	2876	60
West Comet	fluxing ore	3550	1611	40
Hercules	zinc-lead	5571	24,699	82
Ring Valley	fahl ore	80	1596	16
Jupiter	zinc-lead	550	2923	8
Red Lead	— .....	...	...	2
<i>Rosebery Mines:</i>				
Tasmanian Copper	zinc-lead.....	3248	11,812	32
<i>Mt. Farrell Mines:</i>				
North Mt. Farrell	galena.....	816	8976	150
Mt. Farrell	„	54	1478	23
Murchison River	„	394	5907	55
Mackintosh	„	10½	100	5
<i>Sundries:</i>				
Tasmanian Smelting Co.	.....	...	...	320
Prospectors and others.....	.....	...	...	145
	Total	20,898	120,871	1801

Mount Zeehan (Tasmania).—Mr. H. Vincent, acting-manager, reports:—Spray Mine: Driving No. 3 lode south and No. 1 lode north, No. 3 level; result not remunerative. Stopping over No. 5 level; results highly payable. No. 5 level; south drive, poor. New shaft: Have proved payable chute of ore for 250 feet in length. Good progress made in erecting new plant. No. 2 shaft: Obtaining usual quantities of ore.

Zeehan-Montana.—Mr. J. Craze, manager, reports:—Active exploratory work is being carried out at Nos. 5, 6, 7, and 8 levels. The lodes where the drives are at present being driven are poor, but the ends are not yet up to the productive points, and some time must elapse before any good make of ore can be anticipated. At No. 3 shaft (late Silver Crown) the workings are being operated on a system of tribute. A chute of ore has been proved to be more or less continuous for a length of 280 feet. The present bottom level is 40 feet. The ore is mixed with zinc-blende, and only fit for concentrating. Its silver value is practically 1 ounce to the unit of lead. Preparations are being made to unwater the old shaft.

Zeehan-Western.—Mr. J. Craze, manager, reports:—During the quarter three drives and one winze have been in continuous operation by the company. The drives have been on small lodes or veins, which are being stoped on a system of tribute. The alterations to the pumps have been completed by removing the duplex 12-inch plungers from No. 3 to No. 5 level, and this has had a good effect on the speed of pumps. Preparations are now almost complete for the resumption of sinking of shaft to the 1000-foot level. Stopping is also being carried on at the 800-foot level on the short ore-chute found on the main lode with fair results, the revenue from ore raised about paying cost of operations.

Silver Queen Extended.—Mr. Chas. Stevens, mine manager, reports:—Developmental work continued, and 301 feet driven, sunk, stoped, and risen during the quarter.

Oonah.—Capt. W. Fisher, manager, reports:—The optionees have unwatered the mine and opened up the stannite lode at Nos. 3 and 4 levels, with varied success. Bruce is getting his mine opened up, and has sent away 200 tons pyrites.

Florence.—Mr. F. K. Astell, manager, reports:—Stopping has been carried out on McKay's lode, with payable results. The crosscut from Astell's lode towards Flaherty's lode has been driven a distance of 190 feet. Another 50 feet will bring it under the lode in the level above. The last 90 feet have passed through lode formation of carbonate of iron with bunches of galena.

DUNDAS MINES.—*Ring Valley.*—Mr. John Moyle, manager, reports:—Work was mainly confined to No. 1 level. In the winze sunk 60 feet at a point 900 feet from the entrance the lode was highly payable for nearly all the depth sunk, but at the bottom the lode material changed to pyrites. Driving is now in progress south from bottom of winze, and prospects are fairly encouraging.

Hercules Mine.—Sulphide and gossan ore consignments have been made to the Tasmanian Smelting Company, and a contract entered into with Messrs. Beer, Sondheimer, & Co., of Frankfurt, for a regular despatch of zinc-blende at a minimum rate of 300 tons per month for four years. The directors, in their half-yearly report, state that since resuming work at the mine the faces have

shown improvement almost everywhere, not only in value but also in quantity.

Tasmanian Smelting Company.—Mr. T. Kapp, manager, reports:—Ore smelted during the three months, 12,102 tons, containing 2379 tons lead, 353,402 ozs. silver, 1178 ozs. gold. Exported 2326 tons bullion, containing 341,839 ozs. silver and 1262 ozs. gold.

Application has been made by the Zeehan-Western Company for Government aid in sinking the main shaft an additional 200 feet, making the total depth 1000 feet. There can be no doubt that continuous sinking must be persevered in by the various Zeehan companies if the foundations of success in this field are to be securely laid. The numerous rock fractures which are now being worked for their economic contents at comparatively insignificant depths must be followed down, as there is reason to believe that they will improve into more important fissures in the zone below where they began to split. In the Zeehan-Western Mine the lode-channel at 800 feet has widened out to its original dimensions, having existed only as a track from 350 feet downwards. This is a promising feature, for the lode was payable in the upper levels while it maintained its normal width.

MT. FARRELL MINES.—*Mt. Farrell.*—Mr. J. H. Astell, manager, reports:—The main eastern crosscut, 300-foot level, south workings is in 240 feet from the main drive. Have just passed through 18 inches of highly payable ore, the firsts assaying 148 ozs. silver and 70 per cent. lead. Expect to cut the main ore-body in another 30 feet of driving. The lode in north workings, 150-foot level, is opening up very satisfactorily.

NORTH-WESTERN DIVISION.

Magnet Mine.—One thousand six hundred and forty-six tons of silver-lead ore were raised and consigned during the quarter, consisting of 1361 tons of gossan ore and 285 tons galena. The gross value of consignments was £13,452; and the number of men employed, 176.

The lode at the No. 7 level has been shown to be close upon 40 feet in width, and carrying a fair proportion of firsts throughout. It is being driven upon north and south. During the quarter the company declared its seventh dividend of £2000.

Long Tunnel Mine.—Ten tons of galena were raised during the quarter, value £124. Six men employed.

Arthur River Silver Mine.—This claim adjoins the Silver Cliff property, and the small party which has prospected it, having met with ore yielding satisfactory assays, is endeavouring to float it into a company.

Confidence Mine.—A slight improvement has taken place in the face, ore showing for about 2 feet up from floor of drive.

Washington Hay.—Another adit has been started down near the river, with improved prospects, and arrangements are being made to dress the ore that is being broken.

Victorian Magnet.—The bottom level is being continued towards the north workings in unsettled country.

South Heazlewood.—An adit is being driven in hard country for the old, Heazlewood line of lode.

NORTHERN AND SOUTHERN DIVISION.

Devon Mine.—During the quarter 22 tons of galena were raised, value £409. Six men employed.

This mine is situated south of the V.D.L. Co.'s track, in the Middlesex District, on the Dove River, at the bottom of a stupendous gorge 1600 feet below the level of the surrounding country. The lode carries from 4 to 12 inches of galena, and the working results have shown 80 ozs. silver and 2 dwts. gold per ton of 60 per cent. ore shipped. The net realisation amount to the Devon Mining Company has been £18 12s. per ton. It is a north and south lode, in quartz or granite porphyry rock, near the junction of the latter with granite. The underground workings comprise two levels on the course of the lode and a 70-foot shaft, from the bottom of which the lode has been intersected. The ore is consigned by pack and team to Devonport. The difficulties under which work is carried on at this mine are considerable, owing to its remoteness, state of roads, and its situation in the precipitous ravine. Operations are being conducted under the direction of Mr. H. Conder, of Launceston, managing director of the company. A lot of dead work has been rendered necessary by the mine having been idle for a long time prior to November last year. The shaft, however, has now been unwatered, and a start made to drive on the lode from the bottom, and it is expected that this drive will eventually ease the water in the winze from No. 2 level, 100 feet further south, where 8 inches of ore are reported.

COPPER.

Mt. Lyell Mine.—Mr. Robert Sticht, general manager, reports:—The ores and metal-bearing fluxes treated during the quarter ending 31st December were as follows:—

	Dry weight.			
	tons.	cwts.	qrs.	lbs.
Mt. Lyell Mine ore.....	69,287	11	2	27
North Lyell Mine ore.....	31,846	4	2	24
Purchased ore.....	405	4	2	22
By-products from Crotty.....	8	12	2	21
Metal-bearing fluxes:				
North Lyell Mine.....	565	0	3	6
South Tharsis Mine.....	25	15	0	25
Lyell Tharsis Mine.....	906	11	2	6
Total.....	103,045	1	1	19

Quantity and value of metal produced :—

	£	s.	d.
B blister Copper, 1920 tons, containing—			
Copper, 1898 tons, valued at	218,744	10	0
Silver, fine, 174,939 ozs., valued at.....	22,924	6	0
Gold, fine, 4888 ozs., valued at	20,774	0	0
Total.....	£262,442	16	0

Number of men employed :—

At the Company's	Mt. Lyell Mine	439
" "	North Lyell Mine.....	417
" "	Lyell Tharsis Mine.....	29
" "	Royal Tharsis Mine	2
" "	Reduction Works.....	994
" "	Mt. Lyell Railway	140
" "	North Lyell Railway	19
Total		2040

Inspector Curtain reports :—

Mt. Lyell Company's Mines.—Iron Blow.—Here, in addition to the usual extraction, which now includes three benches below No. 4 level, greater quantities of overburden have been removed, and the southern or No. 2 section of the top or surface bench brought within 21 feet of completing the connection with No. 0 bench, which when finished will have reached the assumed permanent batter line, and at the same time relieve the side and top pressure that is showing in the intermediate benches. On the footwall of the ore-body a second connection is being made from No. 5, which will facilitate operations in these deeper workings.

At the *North Lyell Mine* the main and auxiliary shafts have been connected at the 850-foot level, and this provides good ventilation as well as establishing a continuation of the ore-body, upon which stoping has been commenced. Below this level sinking has been started in both shafts, so as to keep development well ahead of extraction.

At the *Lyell Tharsis Mine* the profitable ore from the older workings so nears exhaustion that in future these works will be included under those of the North Mine.

Royal and South Tharsis.—Beyond cutting out the plat and bins at the 90-foot level, no work has been done during this term.

Reduction Works.—In addition to the usual number of furnaces in blast another is being added to the No. 2 plant, of increased capacity, for (it is stated) experimental purposes, while adjoining a 7-pot sintering plant also nears completion.

Mt. Lyell Blocks Mine.—Mr. Robt. Ferguson, manager, reports that 750 feet have been driven, 530 feet crosscut, 406 feet risen, and 93 feet sunk, producing 14,680 tons clay, which yielded 121

tons fine copper, value £10,000. Two hundred and forty men employed.

Mt. Lyell Consols.—Mr. Hy. Hoyle, manager, reports that the principal work has been sinking the main shaft 70 feet, and erecting a concentrating mill. Twenty-five men employed.

Tasman and Crown Lyell Extended.—Mr. Edwd. Carter, manager, reports:—Prospecting was continued at the 100-foot intermediate from the rise. The crosscut was driven 100 feet south through 50 feet of a copper lode, 20 feet of which carried fair-grade bornite. An incline drive from No. 3 level has been driven 16 feet, and cut similar grade ore that will give 244 feet of backs. Nine men employed.

Section 1977.—Mr. Wm. Hyne reports:—Prospecting has shown surface veins of copper ore extending over a width of 200 feet, two samples from which gave the following return:—No. 1, 7 tons 7 cwt., returned 4.66 per cent. copper, worth £4 9s. 8d. per ton; and No. 2, 3 tons, returned 5.13 per cent. copper, worth £4 18s. 11d. per ton. Three men employed.

Mt. Lyell Extended.—Mr. Wm. Madden reports:—A prospecting shaft has recently been sunk 24 feet in clay, carrying favourable prospects of native copper from the surface. Two men employed.

Crown Lyell.—Mr. Wm. Madden reports:—Work was resumed on the 8th February on the western slope of Lyell; since then 100 feet have been driven through mineralised schist. Four men employed.

Hyde's Section at Mt. Jukes.—Mr. Ferguson reports that a track has been cleared for 3 miles from Jeffrey's sawmill site, between Crotty and Darwin, to the property. At the mine 45 feet have been driven in schist country, containing favourable indications of copper. Seven men employed.

The above are the only companies which have supplied returns and are in active operation, but attention is being turned to both the Jukes-Darwin and Sedgewick districts, where ground has been applied for, by the Taylour Syndicate in the former, and prospecting started in the latter by Messrs. Heaton, Motton, and Traynor. Prospecting work in these ranges merits every encouragement. In the long line from Darwin to Farrell it is next to certain that sooner or later ore deposits of first-class magnitude will be disclosed, if prospecting is persevered in.

DUNDAS DISTRICT.—

	Tons.	£	Men.
Ring River Mine	143	1184	6
Hercules Mine	183	831	—
Copper Knob, Williamford	16	95	5
	<hr/>	<hr/>	<hr/>
	342	2110	11
	<hr/>	<hr/>	<hr/>

NORTHERN AND SOUTHERN DIVISION.

Burnie Copper Mines.—A crosscut has been driven from bottom of shaft at 150 feet below the surface, and since the close of the quarter has intersected the lode.

WOLFRAM.

The output of wolfram ore during the quarter was as follows:—

	tons.	cwts.	Men employed.
Ben Lomond, Tungsten Mine	2	0	7
All Nations Mine	1	0	2
	<u>3</u>	<u>0</u>	<u>9</u>

The above is valued at £368.

The All Nations Wolfram Mine has a lode which has been opened upon by a deep open-cut along its course for about 12 chains. It varies from 6 inches to a foot or two, averaging perhaps 9 inches, and has been broken out to a depth of from 8 to 10 feet. The present owners have extracted the smalls from the loose parts of the lode, and obtained 8 tons of wolfram ore by sluicing, which has ranged from 66 per cent. to 72 per cent. tungstic acid. The idea of the owners is to get capital into the property, which comprises four mineral sections, and thoroughly prove it. The mine is about 12 miles from Wilmot township.

ANTIMONY.

At Hall's Creek, near Lynchford, Messrs. Thomas and Berry report having driven 136 feet across a black decomposed pug formation, similar to that in which the nodules of loose stibnite were found near the surface, but without any results of importance.

Samples of the rich surface ore have been received from Inspector Curtain, and an assay made of some of this by Mr. F. B. Jackson, of the Mt. Bischoff Smelting Works, gave the following results:—

Gold	Nil
Silver	Trace
Lead	1·05%
Copper	Nil
Arsenic	0·02%
Antimony	66·57%

COAL.

The output this quarter was 10,949 tons, against 14,342 tons the previous quarter. The raisings at the respective collieries were as follows:—

Colliery.	Tons raised.	Men employed.
Mourt Nicholas Colliery	4464	69
Cornwall "	4569	59
Spreyton "	416	6
York Plains "	135	3
Mount Cygnet "	260	2
Sandfly "	1105	50
Total	10,949	189

IRON.

The Blythe Iron Mines, Limited, has raised 1000 tons of hematite from the Blythe lode for export to New South Wales.

GEOLOGICAL AND MINERALOGICAL.

Zeehan Stannite.—The stannite lodes of the Oonah Mine have always been of interest, apart from their economic value, owing to the light which they throw upon the genesis of the silver-lead lodes of the Zeehan field generally. Not only stannite, but also wolfram and bismuthinite, occur in them, an association which points unmistakably to derivation from underlying granite. The high percentage of silver, 50 to 100 ozs. per ton, in this ore is remarkable. Otherwise the composition agrees with the typical stannite (or "bell metal ore") of Cornwall as far as the main constituents are concerned. The general tin content is 9 or 10 per cent. The highest percentage of this metal obtained in Messrs. Conder and Coates' laboratory in Launceston has been 17 per cent. Mr. J. H. Levings, of Zeehan, has recently made a complete analysis of a piece of apparently pure and homogenous stannite from the Oonah Mine, and he has kindly given permission to use his figures in this connection. They are as follows:—

Silver	0·298 = 97·3 ozs. per ton
Tin	23·57 as sulphide
"	0·64 as oxide
Copper	26·77
Iron	12·11
Bismuth	2·27
Antimony	0·505
Arsenic	Trace
Zinc	0·475
Sulphur	32·10
Silica	1·40
Oxygen	0·14
	100·278

Mr. Levings states: "All Zeehan stannites contain tin as oxide; sometimes reaching 15 per cent. of total tin. Antimony is not an essential of Zeehan stannite; mostly it is absent. From bulk samples I have got a trace of it, and 0.5 per cent. arsenic, the latter, perhaps, from arsenical pyrites."

Tasmanian Diabase Rock.—This rock, which in the form of trapp, sill, or laccolite, is so general as an intrusive in the Permo-Carboniferous and Mesozoic strata of the island, is readily recognizable by the eye alone. It varies in texture, however, and sometimes is more siliceous in aspect than usual. An analysis of the siliceous variety from North-West Bay, near Hobart, has recently been made by Dr. Pohl, in Professor Dittrich's laboratory, in Germany, and is published in a paper by Dr. Paul, of Sydney, in *Tschermak's Min. u. Petr. Mitteilungen* (Vienna, 1906).

Dr. Paul enumerates the constituent minerals as labradorite felspar, pyroxene, amphibole, orthoclase felspar, and quartz (intergrown), with accessory ilmenite, apatite, and pyrite. The variety is referred by him to the Kongadiabase or quartz diabase occurring in Scandinavia. The analysis is as follows:—

SiO ₂	56.74
TiO ₂	1.26
Al ₂ O ₃	15.46
Fe ₂ O ₃	3.08
FeO	7.58
MnO	trace
MgO	2.54
CaO	7.64
Na ₂ O	3.08
K ₂ O	1.59
H ₂ O	1.28
P ₂ O ₅	0.15

100.40

Specific gravity, 2.906

CONCLUSION.

The value of the mineral output this quarter was £583,751, as compared with £600,569 the previous quarter. Increases have taken place in the quantities of gold, silver-lead, copper, and iron ore. On the other hand, there was a decrease of 397 tons in tin and 3 tons in wolfram. The decrease in the tin ore output is largely attributable to phenomenal rains, which flooded several of the mines. Otherwise the position of the mining industry generally is healthy, and the outlook highly satisfactory.

In order to be able to distribute useful and comprehensive information in connection with the various mining properties throughout the State, mining and legal managers are requested to forward to the Government Geologist, Launceston, progress reports, prospectuses, and half-yearly reports of companies or other enterprises.

The following return shows the average number of men employed in or about the mines during the quarter ending the 31st March, 1907:—

District.	European.	Chinese.	Total.
Northern and Southern	902	2	904
North-Eastern	949	95	1044
Eastern	619	42	661
North-Western	532	...	532
Western	4238	...	4238
Total	7240	139	7379

Value of mineral output per man employed:—£79 2s. 2½d.

Dividends paid by Mining Companies during the quarter ending 31st March, 1907:—

	£	s.	d.	£	s.	d.
From Copper Mines.....		Nil				
From Gold Mines		Nil				
From Tin Mines:—						
Bischoff T.M. Co., Registered.....	9000	0	0			
Pioneer T.M. Co., Ltd.	11,475	0	0			
New Brothers' Home No. 1 T.M. Co., N.L.	3000	0	0			
Briseis Tin Mines, Ltd.....	45,000	0	0			
New Ruby Flat T.M. Co., N.L.....	600	0	0			
				69,075	0	0
From Silver Mines:—						
Mt. Zeehan (Tas.) S L. Mines, Lim.	19,836	0	0			
Zeehan-Montana Mine, Ltd.	8000	0	0			
Comet Pros. Syn., N.L.	126	0	0			
Magnet Silver Mining Co., N.L.	2000	0	0			
North Mt. Farrell Mining Co., N.L.	2622	0	0			
				32,584	0	0
Total .....	...			£101,659	0	0