

1948
NEW ZEALAND

STATE COAL-MINES

(REPORT ON THE WORKING OF) FOR THE YEAR ENDED 31st MARCH, 1948

Prepared in Accordance with the Requirements of Section 184 of the Coal-mines Act, 1925

REPORT

BY THE HON. A. McLAGAN, MINISTER OF MINES

MR. SPEAKER,—

I have the honour to present to Parliament the Balance-sheet, Statement of Accounts, and reports on the operations of the State Coal-mines for the year ended 31st March, 1948.

The Kamo Colliery was taken over as a State coal-mine on 5th January, 1948. The ex-employees of the Waro Colliery, at Hikurangi, which ceased operations during 1947, were found employment in the mine, in which the main work so far has been directed towards the provision of an improved haulage system, reconstruction work which had been neglected by the former owners, and further development. The acquisition by the State of the ownership of unworked coal will enable a planned drilling programme to be carried out, and with a proper assessment of the available coal resources it is proposed to plan the mine workings to attain a greatly increased production and to develop a modern system of underground haulage, possibly using belt conveyors on main roadways.

In the Waikato field, operations proceeded steadily at the Wilton Mine. Plant ordered for the partial mechanization of this mine is not yet all to hand, difficulties in obtaining electric motors and steel being the main reason for the delay.

At Benneydale, the development of the Mangapehi Mine to the dip was continued in excellent coal. Considerable repair work has proved necessary owing to the heaving floor conditions encountered, and pillar-extraction has proved risky owing to the high incidence of spontaneous combustion. Operation of late months has been confined to development work, with a resultant lower output.

A slight increase in output was obtained at the Tatu Mine, near Ohura, underground conditions being unchanged.

In the Buller field, the production of coal from combined underground and opencast areas at Stockton showed a substantial rise. The original mine, known as Fly Creek, continued mainly on pillar extraction and the installation of a water sluicing system in the East Area. The new mine, named Webb in honour of the former Minister of Mines (Hon. P. C. Webb), is developing in good coal. Orders have been placed for plant and equipment for the complete mechanization of this colliery.

To replace the present haulage system, which has been in operation at the Stockton mines since 1908, an order has been placed for a bi-cable aerial 9,125 yards in length and capable of transporting 250 tons per hour. The aerial, which has its terminal

loading-point in the vicinity of the E Hill Opencast, will also pick up the coal from the Webb and Fly Creek Mines at intermediate loading-points and discharge into the bins at Ngakawau. Provided no unforeseen difficulties arise, the aerial should be erected and in operation in January, 1951.

The coal-mining undertakings of the Westport Coal Co., Ltd., were acquired by the State, but were not formally operated as State coal-mines until the 1st April, 1948. However, from the date of the agreement between the company and the State the undertakings were carried on with the co-operation of the former directors of the company. I wish to accord my appreciation of the very fine measure of co-operation and assistance given to the Mines Department by the directors and staff of this company during this period.

At Denniston a vigorous drilling programme on the Plateau Area was carried out and a decision reached to open up a new mine at this site. Further exploration work is still required at the Cook's Lease Area. The existing mine at Whareatea continued pillar-extraction, and tenders are being called for a new stone drive to the coal-seam to enable coal-extraction to be carried out more economically and to attain the maximum recovery of the available coal. It is proposed to transport all coal won from this mine, and also from the projected new mine at the Plateau Area, by aerial ropeway to the Denniston bins.

The other mine operated by the company—namely, Millerton—continued normally on pillar-extraction.

In the Reefton field, the operations in the Burke's Creek Mine were mainly development and reconstruction. At Garvey Creek difficult mining conditions were encountered in the vertical seam workings, but steady progress has been maintained and an improvement in production of this good-quality bituminous coal may be expected from both underground and opencast operations.

All of the principal mines in the Grey district are now owned by the State.

The Liverpool Colliery continued with pillar-extraction and development, with a shortage of experienced miners for manning all possible coal places. Boring in neighbouring areas has just been completed, finally proving the existence of adequate coal reserves to warrant the opening-up of a new colliery, which will be proceeded with as rapidly as plant and man-power permit.

There is nothing outstanding to report in respect of the Strongman Mine, where good-quality coal is being won in very faulted country. The complex conditions underground make it difficult to plan ahead development and haulage systems.

At Dobson, output was maintained from development work in the West Side; whilst at Wallsend, work was confined solely to pillar-extraction.

There is nothing of special importance to report in respect of the Blackball Mine, where development proceeded with satisfactory results on the whole. Underground mining conditions were unchanged.

At Roa, the Paparoa Mine operations were continued mainly on pillar-extraction.

In the Ohai field, the Mossbank Mine completed development and commenced pillar-extraction, with good results. A new stone drive to the coal-seam, which is now completed, will improve the haulage system and make possible the recovery of an additional 150,000 tons of good coal.

The Black Diamond Mine ceased as an underground mining proposition and a contract for winning the coal by opencast methods was entered into.

In the Wairaki Block, pillar-extraction will be completed shortly in the old No. 1 Mine. Development and solid work was carried out in the No. 3 Mine, where mining is now being carried out below the Star Mine workings.

Pillar-extraction only was the source of coal production in the Star Mine, although drilling operations in unworked portions of the property proved large quantities of additional coal to be available.

Development was persisted with in the Birchwood Mine pending the outcome of drilling operations, which are essential before a future policy can be formulated.

OUTPUTS

A comparative statement of outputs for the last two financial years is shown hereunder:—

Mine.	Output, 1947-48.		Output, 1946-47.		Percentage Increase in Gross Output.	Percentage Increase in Net Output.
	Gross.	Net.	Gross.	Net.		
	Tons.	Tons.	Tons.	Tons.		
Mossbank.. ..	27,679	25,915	25,468	24,398	+8.68	+6.22
Black Diamond Opencast*	15,055	14,832	..	..	..	..
Wairaki	63,817	60,949	68,800	65,274	-7.24	-6.63
Star†	38,082	37,166	..	..	..	..
Birchwood‡	6,192	5,895	..	..	..	..
Ohai Opencast§ .. ..	..	..	49,475	49,475	..	..
Liverpool	85,055	80,740	100,077	95,380	-15.01	-15.35
Strongman	96,250	93,670	99,329	96,680	-3.10	-3.11
Blackball	57,540	55,585	60,037	58,356	-4.16	-4.75
Wallsend	50,269	47,133	47,075	44,664	+6.78	+5.53
Dobson	64,125	61,778	59,380	57,806	+7.99	+6.87
Paparoa|| .. ..	24,887	24,154	..	..	..	..
Burke's Creek	19,921	18,539	14,454	13,575	+37.82	+36.57
Garvey Creek¶	6,886	6,858	..	..	..	..
Wangaloa Opencast	42,304	42,304	32,023	32,023	+32.11	+32.11
Stockton Mine and Opencast	264,561	258,757	237,460	231,690	+11.41	+11.68
Mangapehi	53,181	50,808	53,940	51,549	-4.41	-4.44
Tatu	35,466	33,621	34,377	32,375	+3.17	+3.85
Waitewhena Opencast	44,427	44,427	21,630	21,630	+105.40	+105.40
Kemp's Opencast	58,717	58,695	55,246	55,246	+6.28	+6.24
Kimihia Opencast	69,695	69,695	42,762	42,762	+62.98	+62.98
Glen Afton Opencast**	5,686	5,686	15,803	15,803	..	..
Wilton	81,730	78,094	79,937	75,154	+2.24	+3.91
Kamo††	9,783	9,783	..	..	..	..
Totals	1,221,308	1,185,084	1,097,273	1,063,840	..	..

* Mine acquired on 9th April, 1947. † Mine acquired on 2nd May, 1947. ‡ Mine acquired on 28th November, 1947. § All coal extracted prior to 31st March, 1947. ¶ Mine acquired on 25th April, 1947. ¶ Mine commenced operations on 1st April, 1947. ** Mine ceased operations on 26th May, 1947. †† Mine acquired on 5th January, 1948.

SALES

The following table shows the total sales of coal from the State mines as compared with the previous year and the average f.o.r. price realized by each mine exclusive of subsidy:—

Mine.	Total Sales, 1947-48.	Total Sales, 1946-47.	Percentage Variation.	Average Price F.O.R. Realized.	
	Tons.	Tons.		s.	d.
Mossbank	25,880	24,363	+6·23	22	9·37
Black Diamond Opencast ..	14,827	..	..	18	5·32
Wairaki	60,871	65,169	-6·60	22	8·09
Star	37,126	..	..	24	3·62
Birchwood	5,883	..	..	24	9·52
Ohai Opencast .. ..	..	44,153	..	..	..
Liverpool Mine	81,984	99,403	-17·52	20	4·31
Strongman	92,660	96,681	-4·16	25	5·84
Blackball	54,449	58,714	-7·26	18	3·53
Wallsend	47,003	44,618	+5·35	24	4·04
Dobson	61,794	57,127	+8·17	24	11·69
Paparoa	23,693	..	..	24	2·56
Burke's Creek	18,301	13,503	+35·53	27	6·12
Garvey Creek	6,668	..	..	26	7·49
Wangaloa Opencast	42,304	32,023	+32·11	19	2·68
Stockton Mine and Opencast ..	259,629	230,419	+12·68	21	10·35
Mangapehi	50,812	51,381	-1·11	20	1·34
Tatu	34,153	32,476	+5·16	23	6·07
Waitewhena Opencast	44,427	21,630	+105·40	24	10·94
Kemp's Opencast	58,695	55,246	+6·24	20	10·30
Kimihia Opencast	69,694	42,762	+62·98	22	11·21
Glen Afton Opencast	5,686	15,803	..	25	8·04
Wilton	77,971	75,039	+3·91	21	0·55
Kamo	9,863	..	..	24	5·02
Totals.. ..	1,184,373	1,060,510	..	..	..

The difference between the output shown in the previous table and sales is accounted for by (1) coal used on works, (2) waste, (3) free issues, and, (4) opening and closing stocks.

OUTPUT PER MAN EMPLOYED

The following table shows (a) the output per calendar year per man employed underground and (b) the output per calendar year per man employed (underground and surface) :—

Mine.	1947.		1946.		1945.		1944.		1943.		1942.		1941.		1940.		1939.	
	Under-ground.	Total.	Under-ground.	Total.	Under-ground.	Total.	Under-ground.	Total.	Under-ground.	Total.	Under-ground.	Total.	Under-ground.	Total.	Under-ground.	Total.	Under-ground.	Total.
Mossbank	724	554	724	592	719	544	727	546	695	521	616	441	523	316	720	538	567	714
Wairaki	936	669	960	686	866	624	1,019	746	955	669	1,309	804	800	561	867	539	714	404
Star	900	653	1,012	620	841	634	1,024	637	1,016	715	946	719	713	539	650	579	431	404
Birchwood	678	456	748	561	749	571	537	407	709	545	772	579	750	573	668	523	547	431
Liverpool	412	293	441	336	468	352	498	371	583	440	672	504	715	521	528	410	612	459
Stronachan	535	390	564	403	538	394	545	393	627	451	711	463	694	475	579	390	281*	192
Blackball	379	312	421	351	538	416	509	391	585	394	585	419	772	326	350	179	84*	53
Wallsend	353	299	357	282	415	329	346	290	422	332	478	369	466	356	414	326	500	394
Dalson	553	287	316	257	333	271	382	318	418	349	453	540	443	517	423	463	390	390
Widdowson	482	371	570	410	676	491	800	503	988	620	878	532	607	440	718	503	720	560
Paparoa	496	344	371	274	..	..	750	531	565	442	624	456	655	476	528	392	773	560
Burke's Creek	239	189	764	509	655	451	731	438	633	418	782	520	812	547	852	576	811	552
Stockton	724	484	553	434	533	428	683	524	714	550	722	534	622	442	587	339*	809	359
Mangapehi	509	397	553	434	533	428	683	524	714	550	722	534	622	442	587	339*	809	359
Tutu	563	339	505	311	508	311	481	303	482	306	596	364	341	199	458	276	..	..
Wilton	492	363	537	398	639	456	669	478	658	471	606	459	834	613	789	608	686	539
Kamo	484	394	520	426	619	508	680	458	686	558	615	497	704	540	590	467	678	481
Mine.	1938.		1937.		1936.		1935.		1934.		1933.		1932.		1931.		1930.	
	Under-ground.	Total.	Under-ground.	Total.	Under-ground.	Total.	Under-ground.	Total.	Under-ground.	Total.	Under-ground.	Total.	Under-ground.	Total.	Under-ground.	Total.	Under-ground.	Total.
Mossbank	674	525	543	412	721	463	764	562	702	520	656	410	261	298	631	454	564	420
Wairaki	783	536	694	490	851	601	722	532	864	610	700	467	417	239	560	406	456	286
Star	352	246	530	426	521	396	543	379	514	376	576	440	517	388	560	406	456	286
Liverpool	501	425	560	417	536	396	556	408	407	304	388	289	392	290	481	348	352	397
Stronachan	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Blackball	565	314	609	437	478	328	713	444	476	346	634	444	932	607	451	259	392	319
Wallsend	406	304	527	436	506	442	575	430	446	345	520	389	426	333	450	340	501	389
Dalson	481	388	481	388	543	426	428	358	431	408	531	348	348	251	450	377	450	377
Paparoa	632	464	680	523	763	528	801	588	801	588	1,031	708	1,092	658	857	1,048	782	804
Burke's Creek	1,144	735	867	585	704	540	574	402	569	416	415	338	311	235	384	288	501	295
Stockton	828	557	895	575	714	460	631	388	587	356	606	371	558	362	548	351	771	491
Mangapehi	739	554	719	620	1,135	883	530	441	40	11	..	..	..	..	..	..	..	..
Tutu	..	..	..	..	595	468	753	580	742	554	488	395	903	613	461	373	359	227
Wilton	678	549	656	526	709	515	560	395	331	214	..	..	..	..	..	..	..	..
Kamo	438	322	532	387	700	515	560	395	331	214	..	..	..	..	..	..	..	..

* Mine worked portion of year only.
 † Separate output returns for Burke's Creek not available for 1945.
 NOTE.—Some of the high outputs per man employed prior to 1944 are due to slack being raised from dump and credited to output.

SCREENING OF COAL

The following table shows the percentage of coal sold as unscreened and the results obtained from the screening of the balance of the output :—

Mine.	Percentage Sold as Unscreened.	Percentages of Screened and Small Obtained from Coal Screened.			
		Screened.		Small	
Mossbank .. .. .	..	67·08		32·92	
Black Diamond Opencast	6·41	79·72		20·28	
Wairaki Mine .. .. .	..	68·46		31·54	
Star .. .. .	..	76·05		23·95	
Birchwood .. .. .	..	71·24		28·76	
Liverpool Mine	100·00	..		..
Strongman	11·16	84·02		15·98	
Blackball	8·79	30·16		69·84	
Wallsend	3·84	73·93		26·07	
Dobson	7·73	81·13		18·87	
Paparoa	70·45	63·54		36·46	
Burke's Creek .. .. .	..	52·17		47·83*	
Garvey Creek .. .. .	..	13·47		86·53*	
Wangaloa Opencast .. .. .	..	71·32		28·68	
Waitewhena Opencast	4·37	36·30		63·70	
Kemp's Opencast	3·27	37·10		62·90	
Stockton Mine and Opencast	37·37	62·07		37·93	
Kimihia Opencast .. .. .	..	56·88		43·12	
Glen Afton Opencast .. .. .	..	94·86		5·14	
Kamo	100·00	..		..
		Percentage of House, Domestic, Kitchen, and Slack (North Island Grading).			
		House.	Domestic.	Kitchen.	Slack.
Wilton	2·64	..	53·54	..	46·46
Mangapehi .. .. .	..	12·12	..	31·77	56·11
Tatu	4·42	..	54·68	..	45·32

* Includes unscreened nuts.

ACCIDENT INSURANCE

It is very pleasing to report a decrease in the number of accidents during the year. The number of accidents for the year was 1,158, as compared with 1,225 for the previous year, notwithstanding that 17 mines were operated during the year.

The Accident Insurance Working Account showed a surplus of £38,588 14s. 3d. on the year's working, as compared with £24,576 5s. 1d. for the previous year. The Accident Insurance Reserve Account now stands at £118,302 2s. 8d.

The cost of claims percentage on wages paid amounted to £2 5s., as compared with £2 17s. 9d. for the previous year, the average cost of each claim being £24 0s. 3d. compared with £24 10s. 7d. during the 1946-47 financial year.

The DISTRICT MANAGER, State Coal-mines, Ohai, to the UNDER-SECRETARY, Mines Department, Wellington.

SIR,—

28th May, 1948.

I have the honour to submit my report on the workings of the Mossbank, Black Diamond, Wairaki, Star, and Birchwood State Mines for the year 1st April, 1947, to the 31st March, 1948.

MOSSBANK COLLIERY

Coal-winning.—The gross output for the year was 27,679 tons 9 cwt. 3 qr., an increase of 2,211 tons 4 cwt. 1 qr. when compared with the figures for the previous year. After allowing for waste (614 tons 13 cwt.) and the quantity used on works (1,149 tons 9 cwt. 3 qr.), there remained for disposal 25,915 tons 7 cwt.

The following statement shows details of coal disposed of during the year:—

					Tons	cwt.	qr.
1st April, 1947—							
Stocks in yard	..	..	..	..	..	..	..
Add net output for year	..	..	..	..	25,915	7	0
31st March, 1948—							
Less stocks in yard	..	..	..	..	..	..	..
Total disposed of	..	..	..	..	25,915	7	0

Disposals

					Tons	cwt.	qr.
Railed	..	..	..	..	25,637	7	0
Local and mine sales	..	..	..	..	3	0	0
Workman and free issues	..	..	..	..	275	0	0
					25,915	7	0

The gross output from the colliery since taken over by the State on 2nd October, 1944, totals 89,094 tons 13 cwt. 3 qr.

Days worked.—The Mossbank Colliery worked 234 days out of a possible 241 ordinary working-days. In addition, the colliery worked 3 statutory holidays, making the total days worked 237. The difference between the days worked and the possible number of ordinary working-days is accounted for as follows: 1 day, Easter Tuesday, 1948; 4 days, funerals of ex-members of Miners' Union; 2 days, erection of fire stoppings.

During the past two years no days have been lost on account of disputes.

Employees.—In connection with coal-winning, the average number of persons engaged in or about the mine was 44 men and 2 boys, made up as follows—Underground: Coal-hewers, 15; deputies, shiftmen, and truckers 20. Surface: 9 men and 2 boys.

Daily Output.—The average daily output was 116 tons 16 cwt. and the coal-hewers' average daily output was 8 tons 14 cwt., as compared with 100 tons 9 cwt. and 7 tons 15 cwt. respectively for the previous year.

Deficiencies.—No payments were made under the minimum-wage clause.

Coal-hewers' Average Daily Earnings.—The coal-hewers' average daily earnings (gross) were £3 4s. 9d., and after deducting stores (explosives) their net return was £3 0s. 7d., an increase of 5s. 3d. per day when compared with the previous year.

Accidents.—Only a few minor accidents occurred during the year under review.

Stone-dusting.—This work was done regularly throughout the year.

Underground Workings.—Development work was completed early in the year and the output has since been produced from pillar-extraction in the south-west part of the mine.

As a result of a reorganization of working methods, a line of pillar-extraction has been established which enables the pillars to be extracted from the dip upwards and the goaf filled with water as the workings retreat.

During the year two underground fires occurred, the areas affected in both cases being effectively sealed with stoppings and subsequently flooded.

A new access and haulage drive being driven from the workings to the surface on the line of the main coal dip advanced 504 ft. on an average gradient of 1 in $3\frac{1}{2}$. This drive when completed will release approximately 150,000 tons of coal which underlies the present drives. The recoverable coal made available by the new drive ensures an additional life of at least four years at the mine.

Further improvements were carried out in the new return airway and a stairway fitted with a handrail installed to provide an alternative means of travelling to and from the workings.

The coal was of good quality with an average thickness of 16 ft.

Plant.—All plant operated satisfactorily and repairs and maintenance were efficiently attended to by the engineering staff.

BLACK DIAMOND COLLIERY

The assets of the Black Diamond Coal Co., Ltd., Nightcaps, were purchased by the Crown early in April, 1947, the date of entering into possession being 9th April, 1947.

Underground mining was continued until 18th April, from which date preparations for opencasting were commenced.

The gross output for the remainder of the year from 9th April, 1947, was 15,054 tons 10 cwt. (underground, 488 tons 8 cwt.; opencast, 14,566 tons 2 cwt.). After allowing for waste and the quantity used on works (222 tons 13 cwt.), there remained for disposal a net output of 14,831 tons 17 cwt.

The following statement shows details of coal disposed of during the year:—

				Tons cwt. qr.	
9th April, 1947—					
Opening stocks	..	..	..	..	..
Add net output for year	..	..	..	14,831	17 0
31st March, 1948—					
Less stock in yard	..	..	..	..	..
Total disposed of				14,831	17 0

Disposals

				Tons cwt. qr.	
Railed	..	..	..	14,163	15 0
Local and mine sales	..	..	..	645	2 0
Workmen and free issues	..	..	..	23	0 0
				14,831	17 0

Employees.—The average number of men employed at the opencast was 20.

Days worked.—The underground workings were continued for only eight days after the purchase by the Department.

The opencast worked on 84 days out of a possible 229 ordinary working-days. In addition, the colliery worked on 11 Saturdays and 2 statutory holidays, making the total days worked 97. The difference between the days worked and the number of ordinary working-days is accounted for as follows: 26 days, preparing and assembling plant, &c.; 20 days, alterations to screens and construction of road to the screening plant; 7 days, wet weather; 1 day, fall of overburden; 1 day, Easter Tuesday, 1948; 90 days, stripping only, no coal available.

Workings.—Coal-production from the opencast was commenced on 22nd May, 1947, but continued for only three days, during which unscreened coal was produced. Owing to the necessity for screening, production was stopped until the necessary roading and screen alterations could be completed. On 1st July loading operations were resumed and continued until 25th September, when production again temporarily ceased due to the need for further stripping. A further small section of the seam was operated successfully from 8th December until 27th January. During February and March stripping was concentrated on, and at the end of the year approximately 50,000 tons had been made ready for coal-production during the forthcoming winter months.

From the commencement of operations, 208,395 cubic yards of overburden have been stripped and removed to the spoil dump.

The coal has been of good quality throughout with a high percentage of screening.

Plant.—The mine trucks and rails withdrawn from the underground workings have been transferred to other collieries in the district. The main haulage winch was dismantled, overhauled, and re-erected at Wairaki No. 3 Mine. The screening plant has been electrified during the year.

The following plant units were operated part-time in stripping and coal-winning operations at the opencast: two Diesel shovels of $\frac{3}{4}$ cubic yard and $\frac{3}{8}$ cubic yard capacity respectively; one R.B. 37 drag-line of $1\frac{1}{2}$ cubic yards bucket capacity; six tractors and bulldozers (models D8, two; TD18, two; HD14, one; and TD14, one; two carryalls of 8 cubic yards and 12 cubic yards capacity respectively; two tournapulls of 12 cubic yards capacity (these were operated during the final two months only); four 3-ton trucks.

All plant was maintained in good order and condition throughout the year.

WAIRAKI COLLIERY

Coal-winning.—The gross output for the year was 63,817 tons 1 cwt. 1 qr., a decrease of 4,982 tons 17 cwt. when compared with the previous year. After allowing for waste (225 tons 1 cwt. 1 qr.) and the quantity used on works (2,643 tons 7 cwt.), there remained for disposal a net output of 60,948 tons 13 cwt.

The following statement shows details of coal disposed of during the year:—

					Tons	cwt.	qr.
1st April, 1947—							
Stocks in yard	..	..	..	..
Add net output for year	..	..	..	..	60,948	13	0
31st March, 1948—							
Less stock in yard	..	..	..	..
Total disposed of	..	..	..	..	60,948	13	0

Disposals

					Tons	cwt.	qr.
Railed	..	..	..	..	58,703	10	0
Local and mine sales	..	..	..	..	1,729	0	0
Workmen and free issues	..	..	..	..	516	3	0
					60,948	13	0

The gross output from the colliery since taken over by the State on 27th January, 1945, totals 213,878 tons 6 cwt. 2 qr.

Days worked.—The Wairaki Colliery worked 232 days out of a possible 241 ordinary working-days. In addition, the colliery worked 3 statutory holidays, making the total days worked 235. The difference between the days worked and the possible number of ordinary working-days is accounted for as follows: 2 days, Easter Tuesday, 1947–48; 4 days, funerals of ex-members of the Miners' Union; 2 days, disputes *re* trucking; 1 day, long stopwork meeting to discuss union matters.

Employees.—In connection with coal-winning, the average number of persons employed in and about the mine was 94 men and 5 boys, made up as follows—Underground: Coal-hewers, 36; deputies, shiftmen, and truckers, 33. Surface: 25 men and 5 boys.

Daily Output.—The average daily output was 271 tons 11 cwt. and the coal-hewers average daily output was 8 tons 6 cwt., as compared with 268 tons 15 cwt. and 8 tons 5 cwt. respectively for the previous year.

Deficiencies.—Six payments aggregating £12 17s. 4d. were made to coal-hewers under the minimum-wage clause.

Coal-hewers' Average Daily Earnings.—The coal-hewers' average daily earnings (gross) were £3 4s. 10d., and after deducting stores (explosives) their net return was £2 18s. 11d., a similar return per day when compared with the previous year.

Accidents.—One serious accident and several minor accidents occurred during the year under review.

Serious Accidents.—On 16th May, 1947, a trucker received lacerations to the thumb and index finger, left hand, requiring partial amputation. The injury was sustained when assisting to right a derailed box.

Stone-dusting.—This work was done regularly throughout the year.

Underground Workings.—No. 1 Mine: Pillar-extraction was carried out from No. 1 Section and from the eastern boundary of the workings towards the Main Dip.

In No. 1 Section the average thickness of the coal was 10 ft. and in the upper workings 8 ft. Extraction has been completed in the Dip and Crosscut Sections.

No. 3 Mine: Development and solid workings only were driven in this mine.

No. 5 Section: This Section has been advanced 2 chains to a point almost beneath the Birchwood tramway.

No. 6 Section: Three levels have been advanced 6 chains in an easterly direction. A downthrow fault limits the distance the places can go to the rise in this section. Average thickness of the seam is 28 ft.

No. 8 Section: The coal from this Section is now brought out to No. 6 Lay-by and the coal from No. 10 Section is brought out to No. 8 Lay-by through a short stone drive through the fault. This haulage road has been extended a distance of 7 chains in an easterly direction, eliminating No. 10 Section. Average thickness of coal is 26 ft.

No. 9 Section: Three places were driven 2½ chains in a westerly direction on top of the dirty bottom coal. The coal above the dirt bands is of excellent quality.

The three rise headings were driven 6 chains, where they encountered the fault on the low side of No. 10 Section.

A dip was started from a point 1 chain to the east of the bottom of No. 9 Dip and has been driven 1½ chains on a bearing parallel to the main dip. A slight flattening of the measures is apparent here.

Development work is being continued.

Fire Stoppings.—All fire stoppings were maintained in good order, and temporary stoppings were erected along the line of goaf on the east side of the dip to prevent heatings while pillar-extraction is continued up the dip.

Dangerous Heatings.—A heating occurred in the goaf in No. 1 Mine to the dip of the working-places. This was sealed off by the erection of eight permanent stoppings.

Plant.—The winch from the Black Diamond Mine was installed at the No. 3 Mine and is working satisfactorily.

STAR COLLIERY

The Star Colliery was purchased by the State from the Star Coal Co., Ltd., the State entering into possession on 2nd May, 1947.

Coal-winning.—The gross output from 2nd May to the end of the year was 38,081 tons 10 cwt. 2 qr. After allowing for waste (380 tons 8 cwt.) and the quantity used on works (535 tons 5 cwt. 2 qr.), there remained for disposal 37,165 tons 17 cwt.

The following statement shows details of coal disposed of during the year:—

					Tons	cwt.	qr.
2nd May, 1947—							
Stocks in yard	..	..	..	..	..	..	..
Add net output for year	..	..	..	..	37,165	17	0
31st March, 1948—							
Less stock in yard	..	..	..	..	..	..	..
Total disposed of	..	..	..	..	37,165	17	0

Disposals

					Tons	cwt.	qr.
Railed	..	..	..	..	36,844	17	0
Local and mine sales	..	..	..	..	..	..	..
Workmen and free issues	..	..	..	..	321	0	0
						37,165	17 0

Days worked.—The Star Colliery worked 210½ days out of a possible 221 ordinary working-days. In addition, the colliery worked 3 statutory holidays, making the total days worked 213½. The difference between the days worked and the possible number of ordinary working-days is accounted for as follows: 1 day, Easter Tuesday, 1948; 1½ days, mechanical breakdowns; 4 days, funerals of ex-members of Miners' Union; 1 day, unfavourable weather; 2 days, disputes (1 *re* truckers, 1 *re* regulation of boxes); 1 day, Christmas pay Friday.

Employees.—In connection with coal-winning, the average number of persons engaged in and about the mine was 57 men, made up as follows—Underground: Coal-hewers, 23; deputies, shiftmen, and truckers 21. Surface: 13 men. No boys were in regular employment at this mine.

Daily Output.—The average daily output was 178 tons 7 cwt. and the coal-hewers' average daily output was 8 tons 8 cwt.

Deficiencies.—No payments were made under the minimum-wage clause.

Coal-hewers' Average Daily Earnings.—The coal-hewers' average daily earnings (gross) were £3 1s. 10d., and after deducting stores (explosives) their net return was £2 17s. 2d.

Accidents.—On 9th January a driller was electrocuted when the derrick of the drill fouled a power line. Apart from this, there were no serious accidents.

Stone-dusting.—This work was done regularly throughout the year.

Underground Workings.—No development work is being done, the workings now having been driven to faults in the dip and on both the east and west sides of the mine.

Pillar-extraction is the only source of output, and is being carried out in Nos. 1 East, 2 East, and 3 East levels, also in the Birchwood area being worked in the south east corner of the mine.

The pillars and head coal are yielding good results with a high-percentage extraction, excepting where, in parts, thick bottom coal has to be contended with.

So far there has been no occurrence of spontaneous combustion usually experienced in other mines in this district.

A slope dip has been driven in stone from a point on the Main Dip to No. 3 Level for the purpose of shortening the haulage.

Buildings.—During the year additions and renovations of the bathhouse were commenced, and this work was proceeding satisfactorily at the end of the year.

Plant.—All plant operated satisfactorily and repairs and maintenance were efficiently attended to by the engineering staff.

BIRCHWOOD COLLIERY

The Birchwood Colliery was purchased by the State from the Birchwood Coal Co., Ltd., the State entering into possession on 28th November, 1947.

Coal-winning.—The gross output from 28th November, 1947, to the end of the year was 6,192 tons 1 cwt. 1 qr. After allowing for waste (185 tons 2 cwt. 1 qr.) and the quantity used on works (111 tons 17 cwt.), there remained for disposal 5,895 tons 2 cwt.

The following statement shows details of coal disposed of during the year:—

28th November, 1947—				Tons cwt. qr.	
Stocks in yard	..	..	..	..	..
Add net output for year	..	..	..	5,895	2 0
31st March, 1948—					
Less stock in yard	..	..	..	..	..
Total disposed of				5,895	2 0

Disposals

				Tons	cwt.	qr.
Railed	..	..	..	5,820	2	0
Local and mine sales	..	..	..	6	0	0
Workmen and free issues	..	..	..	69	0	0
				5,895	2	0

Days worked.—The Birchwood Colliery worked 70 days out of a possible 73 ordinary working-days. In addition, the colliery worked 3 statutory holidays, making the total days worked 73. The difference between the days worked and the possible number of ordinary working-days is accounted for as follows: 1 day, Easter Tuesday, 1948; 1 day, breakdown on rope-road; 1 day, Christmas pay Friday.

Employees.—In connection with coal-winning, the average number of persons engaged in and about the mine was 54 men and 1 boy, made up as follows—Underground: Coal-hewers, 19; deputies, shiftmen, and truckers, 20. Surface: 15 men and 1 boy.

Daily Output.—The average daily output was 84 tons 16 cwt. and the coal-hewers' average daily output was 5 tons 4 cwt. (NOTE.—These figures are based on coal-production only, and do not include stone dumped ex the mine, of which there was a total quantity of 894 tons 19 cwt., or 15 cwt. per hewer shift.)

Deficiencies.—No payments were made to coal-hewers under the minimum-wage clause.

Coal-hewers' Average Daily Earnings.—The coal-hewers' average daily earnings (gross) were £3 12s. 4d., and after deducting stores (explosives) their net return was £3 4s. 10d.

Accidents.—Only a few minor accidents occurred during the period under review.

Stone-dusting.—This work was done regularly throughout the year.

Underground Workings.—Development is being carried on at every point which indicates possibility of extension of the mine.

No. 3 Dip is being driven north-west in the top part of a split seam. The sandstone between the top and bottom portions varies in thickness from 4 in. to 4 ft. 6 in.

The coal is of good quality and dips 1 in 6 towards the western boundary of the lease, with 7 ft. in the top split and 6 ft. in bottom split.

No. 4 Dip is being driven south-west, also in the top portion of the split, at a grade of 1 in 8.

A pair of levels are developing eastwards in 23 ft. of good-quality coal. These levels are being driven towards the old Ohai syndicate's workings.

Pillar-extraction in the Main Dip, and No. 1 West Dip sections is completed and the output now depends entirely on solid working.

Boring.—Boring to prove the extent of the seams was commenced 8 chains south of the area at present being developed. One hole had been completed at the end of the year.

Plant.—A 50 h.p. electric winch underground has been turned around to eliminate auxiliary haulages in the No. 1 West dip.

All plant operated satisfactorily and repairs and maintenance were efficiently attended to by the engineering staff.

I have, &c.,

J. McARTHUR, District Manager.

The SUPERINTENDENT, State Coal-mines, Greymouth, to the UNDER-SECRETARY, Mines Department, Wellington.

SIR,—

14th June, 1948.

I have the honour to submit my annual report on the workings of the Liverpool, Strongman, Blackball, Wallsend, Dobson, and Paparoa State Coal-mines for the year ended 31st March, 1948.

LIVERPOOL COLLIERY

Coal-winning.—The gross output for the year was 85,055 tons 9 cwt., a decrease of 15,021 tons 8 cwt. when compared with the figures for the previous year. After allowing for waste (1,145 tons 9 cwt.) and the quantity used on works (3,170 tons), there remained for disposal a net output of 80,740 tons.

Taking into account the stocks at the beginning and end of the year, the following statement shows details of the coal disposed of during the year:—

1st April, 1947—		Tons	cwt.	qr.	Tons	cwt.	qr.
Stock in bin and yard	.. ..	875	12	2			
Stock on wharf	.. ..	88	18	2			
					964	11	0
Add net output for year	.. ..	80,740	0	0			
Add surplus stocks	.. ..	2,040	9	1			
					82,780	9	1
					83,745	0	1
31st March, 1948—							
Less stock in bin and yard	.. ..	811	4	0			
Less stock on wharf	.. ..	147	1	0			
					958	5	0
Total disposed of	.. ..				82,786	15	1

Disposals

	Tons	cwt.	qr.
Shipped	43,668	4	1
Railed to Canterbury, &c. ..	33,175	19	1
Railway sales	895	5	2
Local and mine sales	4,186	8	2
Sales to workmen and free issues ..	860	17	3
	82,786	15	1

The gross output from the colliery since its inception totals 4,354,111 tons 17 cwt.

Days Worked.—The colliery worked 226 days out of a possible 241 ordinary working-days. In addition, the colliery worked 3 substituted statutory holidays, making the total days worked 229. The difference between the ordinary days worked, 226, and the possible number of working-days is accounted for as follows: 1 day, rope boy sent home; 6 days, heating in mine; 1 day, Strongman double place dispute; 1 day, smash in bins tunnel; 1 day, funeral late Hon. J. O'Brien; 3 days, death and funeral of workman; 1 day, miners did not work; 1 day, slip on railway-line.

Employees.—In connection with coal-winning, the average number of persons employed in and about the mine was 277 men and 14 boys, made up as follows—Underground: Coal-hewers, 64; deputies, shiftmen, and truckers, 158. Surface: 55 men and 14 boys.

Coal-hewers' Average Daily Earnings.—The coal-hewers' average daily earnings (gross) were £3 6s. 2d., and after deducting stores (explosives) their net return was £3 3s. 8d., an increase of 4s. 2d. per day when compared with the previous period.

Daily Output.—The average daily output was 371 tons 8 cwt. and the coal-hewers' average daily output was 6 tons 5 cwt., as compared with 420 tons 10 cwt. and 6 tons 2 cwt. respectively for the previous year. The total number of hewer shifts for the year was 13,596.

Deficiencies.—There were no payments made under the minimum-wage clause during the year.

Accidents.—On 10th March a horse-driver dropped dead whilst proceeding to the foot of the hoist. Apart from this case, there were no serious accidents during the year.

Stone-dusting.—Work under this heading was continued during the year. The number of samples taken from the Liverpool Colliery and analysed was 508. In addition, 145 samples from co-operative mines and 187 samples of coal from other State coal-mines were also analysed.

Underground Workings.—Morgan Seam: After driving $2\frac{1}{2}$ chains through faulted country in a westerly direction, a seam of coal 12 ft. thick was struck. Driving in the coal was continued for a distance of 3 chains when the coal cut out again and prospecting operations were temporarily suspended.

Morgan West Dip: Twin dips have been driven for a distance of 14 chains in a south-westerly direction. At this point the gradient increased from 1 in 4 to 1 in 2 and the coal thinned to 3 ft., and finally cut out when prospecting operations were commenced. Work in the dips has been suspended for approximately four months. A pair of drives were started in an easterly direction in the foot of the dip in coal 14 ft. thick.

West Level, Morgan East Dip: A pair of levels have been developed and are standing in coal approximately 20 ft. to 25 ft. in thickness. To the rise, a pair of headings are also standing in coal of the same thickness. This panel will be worked when labour is available.

Rise Workings, Morgan Dip East Level: A pair of headings have been driven in a north-westerly direction in coal 6 ft. thick.

Main Level from Bottom of Stone Drive (Hadcroft's Drive): Twin headings are being driven in a north-westerly direction in coal 6 ft. in thickness.

Extended Morgan Dip East: All places in this section are standing in coal 20 ft. to 25 ft. in thickness until labour is available.

Rise Workings, East Level, Morgan Dip: Two headings are being driven in a north-easterly direction in coal 6 ft. in thickness. The main Morgan East Dip has been advanced a total distance of 16 chains to the south from the foot of Hadcroft's stone drive. The coal is 8 ft. in thickness and the gradient has increased from 1 in 7 to 1 in $2\frac{1}{2}$.

Pillar-extraction, Morgan Seam (Morgan East and West Rise Sections): Twelve pairs of miners extracting pillars from these sections, the coal being approximately 20 ft. in thickness.

Morgan East Dip, No. 1 Panel: Seven pairs of miners extracting pillars. In the north-west portion of the panel the coal on the east side has thinned to approximately 6 ft.

Anderson Dip Section: Four pairs of colliers splitting and extracting pillars in coal approximately 9 ft. in thickness; gradient, 1 in $2\frac{1}{2}$.

Kennedy's Level: Twin headings are approaching a fault in coal approximately 8 ft. in thickness. The fault has been struck in the bottom level.

Kimbell West Dip: Two pairs of miners splitting and extracting pillars in coal 15 ft. in thickness.

Kimbell West Crosscut: Three pairs of miners forming and splitting pillars in coal 5 ft. in thickness; gradient, 1 in 1.

Kimbell West Level: This section, which has been sealed on account of fire for a number of years, has been reopened; approximately 6 acres of coal is standing in pillars, and pillar-extraction has commenced.

STRONGMAN COLLIERY

Coal-winning.—The gross output for the year was 96,250 tons 4 cwt., a decrease of 3,079 tons 5 cwt. when compared with the figures for the previous year. After allowing for waste (2,078 tons 4 cwt.) and the quantity used on works (502 tons), there remained for disposal a net output of 93,670 tons.

Taking into account the stocks at the beginning and end of the year, the following statement shows details of the coal disposed of during the year:—

1st April, 1947—		Tons cwt. qr.		Tons cwt. qr.	
Stock in bin and yard ..	..	..	..
Stock on wharf ..	..	226	18 1	226	18 1
Add net output for year ..	..	93,670	0 0		
Add surplus stocks ..	..	837	14 3		
				94,507	14 3
				94,734	13 0
31st March, 1948—					
Less stock in bin and yard ..	..	534	10 0		
Less stock on wharf ..	..	838	9 1		
				1,372	19 1
Total disposed of ..	..	..	..	93,361	13 3

Disposals

		Tons cwt. qr.	
Shipped .. ..	..	62,868	16 3
Railed to Canterbury, &c. ..	..	14,635	3 1
Railway sales .. ..	..	3,791	4 2
Local and mine sales .. ..	..	8,278	12 2
Sales to workmen and free issues ..	..	3,787	16 3
			93,361 13 3

The gross output from the colliery since its inception totals 813,439 tons 7 cwt.

Days Worked.—The colliery worked 233 days out of a possible 241 ordinary working-days. In addition, the colliery worked 3 substituted statutory holidays, making the total days worked 236. The difference between the ordinary days worked, 233, and the possible number of working-days is accounted for as follows: 1 day, double place dispute; 1 day, power failure; 1 day, dispute *re* trucking contract; 1 day, funeral late Hon. J. O'Brien; 1 day, fan motor breakdown; 3 days, dispute between Miners' and Deputies' Unions.

Employees.—In connection with coal-winning, the average number of persons employed in and about the mine was 238 men and 5 boys, made up as follows—Underground: Coal-hewers, 69; deputies, shiftmen, and truckers, 110. Surface: 59 men and 5 boys.

Coal-hewers' Average Daily Earnings.—The coal-hewers' average daily earnings (gross) were £3 14s., and after deducting stores (explosives) their net return was £3 10s. 1d., an increase of 11s. 10d. per day when compared with the previous period.

Daily Output.—The average daily output was 407 tons 17 cwt. and the coal-hewers' average daily output was 6 tons 13 cwt., as compared with 422 tons 14 cwt. and 6 tons 18 cwt. respectively for the previous year. The total number of hewer shifts for the year was 14,512.

Deficiencies.—There were no payments made under the minimum-wage clause during the year.

Accidents.—One serious accident occurred in the Strongman Colliery. On 30th June, 1947, a trucker was caught between two full trucks in the No. 2 South Section, sustaining a fractured pelvis and a fracture of the right fibula.

Stone-dusting.—Work under this heading was continued during the year. The total number of samples taken from the Strongman Colliery and analysed was 403.

Underground Workings.—No. 2 North Section: During the year, development of the No. 2 Panel, approximately $2\frac{1}{2}$ acres, was completed, and the section is now ready to be sealed off.

No. 3 Panel: Approximately three-quarters of the development has been completed and the top coal extracted. Five pairs of miners engaged in this section and the quality of the coal is excellent. In the Main Heading Section, development has been temporarily stopped, but was restarted towards the end of the year. Two pairs of miners are engaged. An unexpected upthrow fault was met, the displacement being approximately 30 ft. It is expected that this fault will cross all the main headings. The throw of the fault has increased the grade and made development work difficult.

No. 3 North Section: As the top seam appears to be missing over portion of the No. 3 North Section, pillar-extraction will soon be commenced. A small amount of development work remains to complete this section. A barrier, approximately 3 chains, will be left between No. 3 North and No. 4 North Sections. Seven pairs of miners are engaged in this section. Places are dipping steeply and the haulage of coal presents some difficulties. Top coal has been extracted from all the places. Approximately twelve months' development work remains for the present number of colliers.

Main East Heading: During the year the two headings on either side of the main headings have been driven across the fault and connections made by means of a cross-cut in advance of the main heading.

South Sections: Development towards the Bob Fault has continued with four pairs of colliers. The fault has altered slightly in direction, giving a larger area of coal than was anticipated. Pillar-extraction has been continued throughout the year with three pairs of miners in No. 1 South Dip. The roof conditions make pillar-extraction difficult. The percentage of extraction is good, considering the unfavourable conditions. Electric power has been brought to the top of the No. 1 South Dip, and underground arrangements have been completed for the installation of an electric winch when it comes to hand.

Bottom Seam No. 2 Dip: Development work with four pairs of miners in good coal has been continued in the Rise Panel Section. To date, there have been no indications of the intrusion of the stony bands which have been expected. There are indications that the faults on either side are converging, and the section may be further reduced to three main headings.

Slant Dip: Five pairs of miners continuing development work. Three of the levels have now reached the Bob Fault. A barrier of coal, 1 chain thick, has been left between this section and the rise panel. The companion dip to the main Slant Dip, and two levels, are ready to breakaway.

Haulage: During the Christmas holidays a gravity endless-rope haulage was installed in the No. 2 North Section, and a main-and-tail haulage system was installed in the No. 3 Panel delivering the coal direct to the new rope-road. An electric centrifugal pump has been installed in the main sump, replacing the compressed-air unit.

BLACKBALL COLLIERY

Coal-winning.—The gross output for the year was 57,540 tons 5 cwt., a decrease of 2,496 tons 10 cwt. when compared with the figures for the previous year. After allowing for waste (1,579 tons) and the quantity used on works (376 tons), there remained for disposal a net output of 55,585 tons 5 cwt.

Taking into account the stocks at the beginning and end of the year, the following statement shows details of the coal disposed of during the year :—

1st April, 1947—		Tons cwt. qr.	Tons cwt. qr.
Stock in bin and yard	.. ..	1,194 18 0	
Stock on wharf	.. ..	7 1 0	
		<hr/>	1,201 19 0
Add net output for year	.. ..		55,585 5 0
			<hr/>
			56,787 4 0
31st March, 1948—			
Less stock in bin and yard	.. ..	1,432 17 0	
Less stock on wharf	.. ..	..
		<hr/>	1,432 17 0
Total disposed of	.. ..		55,354 7 0

Disposals

	Tons cwt. qr.
Shipped	20,675 0 0
Railed to Canterbury, &c. ..	19,254 7 0
Railway sales	10,268 13 0
Local and mine sales	3,918 17 0
Sales to workmen and free issues ..	1,237 10 0
	<hr/>
	55,354 7 0

The gross output from the colliery since it was taken over by State Coal-mines on 5th July, 1941, totals 342,343 tons 17 cwt.

Days worked.—The colliery worked $228\frac{5}{16}$ days out of a possible 241 ordinary working-days. In addition, the colliery worked 3 substituted statutory holidays, making the total number of days worked $231\frac{5}{16}$. The difference between the ordinary days worked, $228\frac{5}{16}$, and the possible number of working-days is accounted for as follows : 2 days, union meeting ; $7\frac{1}{2}$ days, dispute *re* dip yardage ; 1 day, funeral of late Hon. J. O'Brien ; 2 days, death and funeral of workman ; $\frac{1}{8}$ day, parliamentary by-election ; $\frac{1}{16}$ day, local-body election.

Employees.—In connection with coal-winning, the average number of persons employed in and about the mine was 170 men and 3 boys, made up as follows—Underground : coal-hewers, 51 ; deputies, shiftmen, and truckers 91. Surface : 28 men and 3 boys.

Coal-hewers' Average Daily Earnings.—The coal-hewers' average daily earnings (gross) were £3 per day, and after deducting stores (explosives) their net return was £2 16s. 2d., an increase of 8s. 8d. per day when compared with the previous period.

Daily Output.—The average daily output was 248 tons 15 cwt. and the coal-hewers' average daily output was 5 tons 18 cwt. 3 qr., as compared with 232 tons 14 cwt. and 5 tons 14 cwt. 1 qr. respectively for the previous year. The total number of hewer shifts for the year was 9,691.

Deficiencies.—The total amount paid under the minimum-wage clause was £152 3d. 4d.

Accidents.—In addition to numerous accidents of a minor nature, 3 serious accidents, 1 of which proved fatal, occurred at the Blackball colliery. On 10th January, 1948, an apprentice electrician was fatally electrocuted whilst engaged in effecting repairs to a winch. On 12th September, 1947, an electrician suffered a sudden spontaneous pneumothorax whilst working over heated bitumen. On 5th November, 1947, a miner was struck by a fall of coal and suffered a fracture of the left leg.

Underground Workings.—During the Christmas holiday period a 70 h.p. endless-rope haulage was installed in place of the existing main-and-tail. This is now working efficiently.

Main Dip : Twin connections driven northerly were made from the Sump Section to the Main Dip through thin coal a distance of 4 chains. At this point the seam thickened and the Main Dip and parallel airway were extended a further $3\frac{1}{2}$ chains in good coal. The seam is at present 12 ft. thick. Preparations are in hand to install an endless rope to the dip.

Sump Section : The dip has been developed for a further 5 chains in good coal. Little development has been possible to the south side, due to the seam dipping sharply in that direction. The coal is 15 ft. to 18 ft. thick. From the Sump Dip another dip has been driven to the south in the direction of No. 2 Borehole. This has progressed a distance of 4 chains. The dip is now 20 ft. beyond the borehole and the coal is 10 ft. thick and of good quality.

No. 2 South : Development was carried forward for a distance of $3\frac{1}{2}$ chains. For a distance of $1\frac{1}{2}$ chains the coal was 12 ft. to 14 ft. thick and of fair quality. At this point, however, the seam thinned out to 3 ft., when development was stopped. Connections were made by twin roads from Dunn's Dip to the No. 2 South a distance of $5\frac{1}{2}$ chains. The seam has thinned to 5 ft. 6 in.

Dunn's Dip : The dip rose sharply for 1 chain and then the coal thinned to 6 ft. The seam then dipped over, and development has stopped until a pump becomes available. The coal is of fair quality.

During the year, in the lower South Level, a heavy fall with an inrush of water occurred. This required the use of two pumps to cope with the inflow. A drain to the old sump was cut through stone for a distance of $1\frac{1}{2}$ chains. This eliminated the use of one pump.

WALLSEND COLLIERY

Coal-winning.—The gross output for the year was 50,268 tons 18 cwt. 1 qr., an increase of 3,193 tons 14 cwt. when compared with the figures for the previous year. After allowing for waste (1,376 tons) and the quantity used on works (1,760 tons), there remained for disposal a net output of 47,132 tons 18 cwt. 1 qr.

Taking into account the stocks at the beginning and end of the year, the following statement shows details of the coal disposed of during the year :—

1st April, 1947—			Tons cwt. qr.			Tons cwt. qr.		
Stock in bin and yard	..	..	376	4	1			
Stock on wharf	..	..	..		
						376	4	1
Add net output for year	..	..	47,132	18	1			
Add surplus stocks	..	..	314	14	2			
						47,447	12	3
31st March, 1948—						47,823	17	0
Less stock in bin and yard	..	..	82	6	1			
Less stock on wharf	..	..	207	4	0			
						289	10	1
Total disposed of	..	..	..			47,534	6	3
			<i>Disposals</i> Tons cwt. qr.					
Shipped	..	..	22,218	13	0			
Railed to Canterbury, &c.	..	..	10,064	0	0			
Railway sales	..	..	12,269	8	0			
Local and mine sales	..	..	2,752	15	3			
Sales to workmen and free issues	..	..	229	10	0			
						47,534	6	3

The gross output from the colliery since it was taken over by State Coal-mines on 22nd February, 1943, totals 266,952 tons 17 cwt. 3 qr.

Days Worked.—The colliery worked $210\frac{7}{8}$ days out of a possible 241 ordinary working-days. In addition, the colliery worked $2\frac{1}{2}$ substituted statutory holidays, making the total days worked 213 $\frac{3}{8}$. The difference between the ordinary days worked, $210\frac{7}{8}$, and the possible number of working-days is accounted for as follows: $13\frac{3}{8}$ days, monthly union meetings, &c.; 1 day, union dispute *re* beer boycott; 8 days, gas accumulations; 1 day, gas accumulation due to breakdown of booster fan; 1 day, union decision not to work due to presence of gas; 1 day, fan stoppage due to power failure; 1 day, burnt-out fan motor; $\frac{3}{4}$ day, breakdown in haulage system; 1 day, funeral of late Hon. J. O'Brien; $\frac{1}{8}$ day, local-body election day; $\frac{1}{4}$ day, parliamentary by-election day; $1\frac{5}{8}$ days, union decision to commence seven-hour shift.

Employees.—In connection with coal-winning, the average number of persons employed in and about the mine was 150 men and 6 boys, made up as follows—Underground: Coal-hewers, 42; deputies, shiftmen, and truckers, 84. Surface: 24 men and 6 boys.

Coal-hewers' Average Daily Earnings.—The coal-hewers' average daily earnings (gross) were £3 3s. 9d., and after deducting stores (explosives) their net return was £3 1s. 1d., an increase of 3s. 7d. per day when compared with the previous period.

Daily Output.—The average daily output was 235 tons 11 cwt. 3 qr. and the coal hewers' average daily output was 6 tons 11 cwt. 2 qr., as compared with 198 tons 8 cwt. 2 qr. and 6 tons 16 cwt. 3 qr. respectively for the previous year. The total number of hewer shifts for the year was 7,647 $\frac{5}{8}$.

Deficiencies.—There were no payments made under the minimum-wage clause during the year.

Accidents.—In addition to numerous accidents of a minor nature, 3 serious accidents occurred at the Wallsend Colliery. On 22nd May, 1947, a trucker had his left wrist fractured when his forearm was caught between a box and a prop. On 29th August, 1947, a miner was struck by a fall of coal and suffered a puncture wound of the back and a fracture of the transverse process of the vertebrae. On 29th January, 1948, a trucker had two joints of the middle and ring fingers partially amputated when his left hand was caught between the top of a derailed box and the roof.

Underground Workings.—No. 1 Dip Section: All development has been completed in this section and splitting of pillars is now in operation; seven pairs of miners employed.

No. 2 Dip: This section has been dewatered to a point approximately opposite the Machine Dip, and the Main Dip has been developed for a further distance of 3 chains. Brushing and retimbering of the Machine Dip has been carried on with three pairs of miners in the section.

No. 1 Slant Dip: In this section, five pairs of miners are engaged splitting pillars. Roof conditions are very poor in this section. The undercast in this section has been enlarged to increase the quantity of air in circulation from 12,000 cubic feet to 17,000 cubic feet per minute.

No. 2 Slant Dip: In this section, three pairs of miners are splitting pillars.

Extension Section: In this section, splitting of pillars is being carried out by five pairs of miners. A large amount of brushing is required to keep the roadways open, as the seam is low, and this subsequently has the affect of reducing the output from this section. The new rise and return airway has been completed and the ventilation system adjusted to meet the new conditions.

No. 2 Dip Section: An endless-rope winch driven by a 30 h.p. motor has been installed at the top of No. 2 Dip for the haulage of coal.

Poppet Heads: During the Christmas holidays the main pulley wheel on the road side of the poppet heads was repaired.

DOBSON COLLIERY

Coal-winning.—The gross output for the year was 64,124 tons 15 cwt. 2 qr., an increase of 4,744 tons 18 cwt. 2 qr. when compared with the figures for the previous year. After allowing for waste (2,118 tons 5 cwt. 3 qr.) and the quantity used on works (228 tons 4 cwt.), there remained for disposal a net output of 61,778 tons 5 cwt. 3 qr.

Taking into account the stocks at the beginning and end of the year, the following statement shows details of the coal disposed of during the year:—

1st April, 1947—			Tons	cwt.	qr.	Tons	cwt.	qr.
Stock in bin and yard	..	..	1,769	7	2			
Stock on wharf	..	..	..		
Add net output for year			..			1,769	7	2
						61,778	5	3
						63,547	13	1
31st March, 1948—								
Less stock in bin and yard	..	..	1,286	9	0			
Less stock on wharf	..	..	45	2	0			
						1,331	11	0
Total disposed of			..			62,216	2	1
<i>Disposals</i>								
						Tons	cwt.	qr.
Shipped	..	..	..			35,441	7	2
Railed to Canterbury, &c.	..	..	..			19,409	12	0
Railway sales	..	..	..			4,115	19	3
Local and mine sales	..	..	..			1,254	7	0
Sales to workmen and free issues	..	..	..			1,994	16	0
						62,216	2	1

The gross output from the colliery since it was taken over by State Coal-mines on 22nd February, 1943, totals 308,149 tons 13 cwt.

Days Worked.—The colliery worked 229 $\frac{3}{4}$ days out of a possible 241 ordinary working-days. In addition, the colliery worked 2 $\frac{3}{4}$ substituted statutory holidays, making the total days worked 231 $\frac{3}{4}$. The difference between the ordinary days worked, 229 $\frac{3}{4}$, and the possible number of working-days is accounted for as follows: 4 $\frac{5}{8}$ days, union meetings; 2 $\frac{1}{4}$ days, power failures; 1 day, dispute *re* loss of air drill; 1 day, funeral of late Hon. J. O'Brien; 1 day, dispute *re* beer boycott; 1 day, replacing of fan motor and belt; $\frac{1}{4}$ day, Westland parliamentary by-election; $\frac{1}{4}$ day, Brunner Centenary Celebrations; $\frac{1}{8}$ day, local-body-election day; $\frac{1}{8}$ day, union decision to commence seven-hour shifts.

Employees.—In connection with coal-winning, the average number of persons employed in and about the mine was 201 men and 6 boys, made up as follows—Underground: Coal-hewers, 53; deputies, shiftmen, and truckers, 114. Surface: 34 men and 6 boys.

Coal-hewers' Average Daily Earnings.—The coal-hewers' average daily earnings (gross) were £3 4s. 5d., and after deducting stores (explosives) their net return was £3 1s. 5d., an increase of 4s. 11d. per day when compared with the previous period.

Daily Output.—The average daily output was 276 tons 14 cwt. and the coal-hewers' average daily output was 6 tons 1 cwt., as compared with 246 tons 12 cwt. 3 qr. and 6 tons 4 cwt. 2 qr. respectively for the previous year. The total number of hewer shifts for the year was 10,606 $\frac{3}{4}$.

Deficiencies.—The total amount paid under the minimum-wage clause was £41 19s. 8d.

Accidents.—In addition to numerous accidents of a minor nature, three serious accidents occurred at the Dobson Colliery. On 1st August, 1947, a shiftman was struck by a pipe-line which was forced apart at the joint by a fall of stone, and suffered a fracture of the skull. On 27th August, 1947, a pair of miners were struck by a fall of stone; one suffered a fracture of the right leg and the other a fracture of the right clavicle. On 11th February, 1948, a trucker was caught between a moving box and a prop and suffered a fracture of the T12 vertebrae.

Underground Workings.—For the year, coal-winning operations at this colliery consisted of the development of the main dips on the west side, no work being carried out east of the No. 2 East Dip. The main dips are now running level, and provision has been made to extend and terminate the main endless-rope road at the point where the grade changes from dip to level.

On the west side a succession of steep faults has been met with, one of which has been gradually increasing as it tends southwards and has now approximately 20 ft. downthrow where it crosses the Main No. 2 Dip. Work has been continued behind this fault in the No. 5 West, where a good section of coal is being developed.

East of the Main Dips the grade is very steep, approximately 1 in 1, and it is necessary to change the direction of the dips to ease the grade. One such dip has been started, and there appears to be no reason to doubt that a good section of coal will be developed in this area. Development of this steep section has been held up while an improvement in the ventilation system is being carried out.

Improvements to the ventilation system during the year included the widening of the main intake to the fan, with the provision of concrete steps over the whole distance. The installation of a 200 h.p. motor has increased the capacity of the fan by some 30,000 cubic feet of air per minute. The main airways are being cleared of all falls, and concrete stoppings repaired and others built. This will increase the supply of air to the bottom of the dips to allow further development. Extra air-driven rotary drills are being supplied to the miners and all coal is now being drilled by these power drills. Every working-face has been provided with a water spray to keep down the dust.

A new electrically driven water-pump has been installed at the first station down the dip, and the electrical installation will be further advanced down the dip as machinery comes to hand.

PAPAROA COLLIERY

Coal-winning.—This colliery was taken over by the State Coal-mines on 25th April, 1947, and the gross output from that date to 31st March, 1948, was 24,887 tons 4 cwt. After allowing for waste (510 tons 5 cwt.) and the quantity used on works (223 tons), there remained for disposal a net output of 24,153 tons 19 cwt.

Taking into account the stocks at the date of taking over and end of the year, the following statement shows details of the coal disposed of during the period:—

25th April, 1947—			Tons cwt. qr.	Tons cwt. qr.
Stock in bin and yard .. ..	..	..	651 9 0	
Stock on wharf .. ..	..	..	..
				651 9 0
Add net output for period .. ..	..	..	24,153 19 0	
Add surplus stocks .. ..	..	..	6 13 0	
				24,160 12 0
				24,812 1 0
31st March, 1948—				
Less stock in bin and yard .. ..	..	..	687 3 0	
Less stock on wharf .. ..	..	..	..
				687 3 0
Total disposed of .. ..	..	..	..	24,124 18 0
<i>Disposals</i>				
			Tons cwt. qr.	
Shipped .. ..	..	..	8,050 18 0	
Railed to Canterbury, &c. .. ..	..	..	8,026 1 0	
Railway sales .. ..	..	..	4,839 8 0	
Local and mine sales .. ..	..	..	3,010 10 0	
Sales to workmen and free issues .. ..	..	..	198 1 0	
				24,124 18 0

Days worked.—During the period 25th April, 1947, to 31st March, 1948, the colliery worked $206\frac{1}{4}$ days out of a possible 225 ordinary working-days. In addition, the colliery worked 3 substituted statutory holidays, making the total days worked $209\frac{1}{4}$. The difference between the ordinary days worked, $206\frac{1}{4}$, and the possible number of working-days is accounted for as follows: $1\frac{3}{4}$ days, union meetings; 5 days, six-hour shifts on pay-days; $3\frac{1}{2}$ days, fan stoppages; 2 days, six-hour shifts on extra-wet days; 2 days, disputes; 1 day, road conditions preventing bus transport; $\frac{1}{2}$ day, fall in mine; $1\frac{1}{4}$ days, power failures; 1 day, funeral of late Hon. J. O'Brien; $\frac{1}{4}$ day, local-body elections; $\frac{1}{4}$ day, parliamentary by-election; $\frac{1}{4}$ day, six-hour shift—mine wet.

Employees.—In connection with coal-winning, the average number of persons employed in and about the mine was 77 men and 2 boys, made up as follows—Underground: Coal-hewers, 16; deputies, shiftmen, and truckers 46. Surface: 15 men and 2 boys.

Coal-hewers' Average Daily Earnings.—The coal-hewers' average daily earnings (gross) were £3 2s. 9d., and after deducting stores (explosives) their net return was £3 0s. 11d.

Daily Output.—The average daily output was 118 tons 18 cwt. 2 qr. and the coal-hewers' average daily output was 9 tons 9 cwt. 2 qr. The total number of hewer shifts for the period was 2,625 $\frac{3}{8}$.

Deficiencies.—There were no payments made under the minimum-wage clause during the period.

Accidents.—There were no serious accidents reported during the period.

Underground Workings.—West Mine, No. 2 Seam: Four pairs of miners are employed in this mine and the output was derived from splitting pillars and cleaning out an old roadway. This roadway will be used to recover pillars which had been left on the rise side of the old water level. A few stumps were extracted adjacent to the main fault. The only work done in the solid was 5 or 6 chains of driving to form part of a new airway.

A new Diesel was installed at Soldiers to drive the fan for this mine. The old Diesel has been left as a standby.

Aerial Mine, No. 1 Seam: There are four pairs of miners in this mine. The output has been won from pillar splitting and extraction. The Main Dip was dewatered after a two-stage rotary pump had been installed. This dip has been cleared and retimbered, and levels are being driven right and left by means of splitting pillars. The work here will be all recovery until further electrical equipment is installed.

An effort is being made to get through a faulted area in the Rise Section. There is an area beyond this fault line of approximately 40 to 45 acres—overlying this area is the old West No. 2 Seam, which is standing on pillars of first-grade coal. A rise heading was driven to the surface near this area and a 5 ft. fan installed. This made a big improvement to the ventilation of this mine.

Preparatory work is being carried out on a new winch house at the Aerial Head. Surface: The weigh-cabin and ambulance-room at Middle Flat have been rebuilt. The interior of the ambulance room has yet to be completed.

Redecking of both viaducts has almost been completed.

Repairs have been carried out to the bins gantry and timber-yard gantry.

I have, &c.,

C. J. STRONGMAN, Superintendent.

The DISTRICT MANAGER, State Coal-mines, Reefton, to the UNDER-SECRETARY,
Mines Department, Wellington.

SIR,—

28th April, 1948.

I have the honour to submit my annual report on the workings of the Burke's Creek and Garvey Creek State Coal-mines for the year ended 31st March, 1948.

BURKE'S CREEK COLLIERY

Coal-winning.—The gross output for the year was 19,921 tons, compared with 14,453 tons 10 cwt. for the ten months ended 31st March, 1947. After allowing for loss on measurement and waste (1,001 tons 10 cwt.) and the quantity used on works (380 tons), there remained for disposal a net output of 18,539 tons 10 cwt.

Taking into account the stocks at the beginning and end of the year, the following statement shows details of the coal disposed of during the year:—

1st April, 1947—			Tons cwt. qr.	Tons cwt. qr.
Stock in bin and yard	..	..	81 0 0	
Stock on dump	..	..	40 0 0	
				121 0 0
Add net output for year	..	..		18,539 10 0
				18,660 10 0
31st March, 1948—				
Less stock on hand	..	..	247 3 2	
Less stock on dump	..	..	40 0 0	
				287 3 2
Total disposed of	..	..	..	18,373 6 2

Disposals

			Tons cwt. qr.	
Shipped	..	..	80 7 0	
Railed to Canterbury, &c.	..	..	15,835 0 1	
Railway sales	..	..	22 7 1	
Local and mine sales	..	..	2,067 2 0	
Sales to workmen and free issues	..	..	368 10 0	
				18,373 6 2

The gross output of the colliery since its acquisition by the State on 3rd June, 1946, totals 34,374 tons 10 cwt.

Days worked.—The colliery worked 241 days out of a possible 241 ordinary working-days. In addition, the colliery worked 3 substituted statutory holidays, making the total days worked 244.

Employees.—In connection with coal-winning, the average number of persons employed in and about the mine was 69 men and 3 boys, made up as follows—Underground: Coal-hewers, 12; deputies, shiftmen, and truckers, 41. Surface: 16 men and 3 boys.

Coal-hewers' Average Daily Earnings.—The coal-hewers' average daily earnings (gross) were £2 19s. 11d. per day, and after deducting stores (explosives) their net return was £2 17s. 3d., an increase of 12s. 11d. per day when compared with the previous period.

Daily output.—The average daily output was 81 tons 12 cwt. and the coal-hewers' average daily output was 6 tons 13 cwt., as compared with 66 tons 3 cwt. and 5 tons 6 cwt. respectively for the previous period. The total number of hewer shifts for the year was 2,992.

Deficiencies.—There were no payments made under the minimum-wage clause during the year.

Accidents.—One serious accident occurred at this colliery. On 16th May, 1947, a trucker sustained severe facial injuries when his head was caught between the top of a box and the roof.

Stone-dusting.—This work was carried out regularly in the dry portions of the mine.

Underground Workings.—The output for the period was obtained from pillar-extraction in the Slant Dip Section, from the development of the two bottom levels to the north-east towards the Bayne Area, and the extension of the Main Dip haulage to the north-west.

North-east Levels.—The development levels from the Friction Winch Dip have been driven to the north-east in good coal, 12 ft. thick, for a distance of 8 chains past the line of continuation of the Main Dip.

Main Dip: Owing to folding and increased grade, the development of the Main Dip was deferred for many years by the previous owners. During the period under review the bottom level from the Friction Winch Dip was connected to the Main Dip bottom by a rise driven on line with the Main Dip. This connection is at a grade of 26 degrees and 450 ft. long, of which 130 ft. is in the stone over the seam. The Main Dip haulage is to be extended to the bottom level at an early date.

Dip Extension: A development heading 2 chains west of the line of the Main Dip has been sunk 6 chains on the full dip of the seam. The coal in some portions is soft and generally cannot be classed as of the best quality. From levels off this dip a rise will be driven as an extension of the Main Haulage Dip. Sinking will be proceeded with until sufficient rise coal is available for the development of rise panels from pairs of levels driven from each side of the Main Dip.

Reconditioning: The reconditioning of the Main Dip haulage to the main horse level is now completed. Widening and repairs to the main return were deferred owing to shortage of labour and plant. Labour is now more plentiful and it is proposed to start this job as soon as plant on order comes to hand.

Pumps: A new high-head pumping unit of 250 gallons per minute capacity for installation at a sump being constructed below the bottom level is on order. One small sinking pump of the bulldozer type was purchased and installed for dip-sinking.

Labour.—Following the completion early in the year of a miners' hostel in Reefton to accommodate 52 men and the arrival in February of 20 men from overseas, the labour position has shown a marked improvement.

Buildings.—Two Army ration stores ex Blenheim have been erected in Reefton as a district office and main garage respectively, and one at the Burke's Creek Mine as a district store.

Bathhouse.—The contractors for the new bathhouse are making satisfactory progress. The building is completed and the installation of the fittings and internal finishing is well in hand.

Screening Plant.—Washing of fines from the slack and the transport of slack by water was discontinued and a short scraper conveyor installed for the conveying of slack from the screens to the railway wagons.

Mine Railway.—Reconditioning of the mine railway is being carried out by the permanent-way staff of the New Zealand Railways. Surveys for the extension of this railway to the mine are completed, but the earthwork and formation of the track cannot be started until mechanical equipment becomes available.

Locomotive.—In July the colliery locomotive had to be taken off the road owing to serious mechanical defects. Pending the purchase of another, it has been replaced by a locomotive hired from the New Zealand Railways.

GARVEY CREEK COLLIERY

Coal-winning.—Production from this mine commenced on 1st April, 1947. The gross production for the year was 6,886 tons. After allowing for the quantity used on works (28 tons), there remained for disposal a net output of 6,858 tons.

Taking into account stocks at the beginning and end of the year, the following statement shows details of the coal disposed of during the year :—

1st April, 1947—				Tons	cwt.	qr.
Stock in bin and yard ..	..	..	..	6,858	0	0
Add net output for year ..	..	..	..
31st March, 1948—						
Less stock in bin and yard ..	..	..	..	39	0	1
Total disposed of ..	..	..	..	6,818	19	3

Disposals

	Tons	cwt.	qr.
Shipped	1,003	8	2
Railed to Canterbury, &c. ..	5,348	11	0
Railway sales		6	14 0
Local and mine sales	420	6	1
Sales to workmen and free issues ..	40	0	0
			6,818 19 3

The gross output from the colliery since its inception totals 6,886 tons.

Days worked.—The colliery worked 239 days out of a possible 241 ordinary working-days. In addition, the colliery worked 3 substituted statutory holidays, making the total days worked 242. The difference between the ordinary days worked, 239, and the possible number of working-days is accounted for as follows: 1 day, funeral of J. Banks, Esq.; 1 day, funeral late Hon. J. O'Brien.

Employees.—In connection with coal-winning, the average number of persons employed in and about the mine was 29 men, made up as follows—Underground: Coal-hewers, 11; deputies, shiftmen, and truckers, 11. Surface: 7 men.

Coal-hewers' Average Daily Earnings.—The coal has been won by contract since 1st July, 1947, and from that date the coal-hewers' average daily earnings have been £3 0s. 1d., and after deducting stores (explosives) their net return was £2 17s. 6d. per day.

Daily Output.—The average daily output was 28 tons 9 cwt. Since going on contract the coal-hewers' average daily output was 7 tons 12 cwt. The total number of hewer shifts for the period on contract was 1,312.

Deficiencies.—There were no payments made under the minimum-wage clause during the year.

Accidents.—No serious accidents were reported at the Garvey Creek Colliery during the year.

Stone-dusting.—This work was carried out regularly in the dry portions of the mine.

Development.—Three prospecting levels 60 ft. apart vertically are being driven to the north-west and south-east respectively to prove the quality, thickness, and continuity of the coal-seam.

North-west Side : Over the mine entrance the seam is 50 ft. from hanging wall to foot wall with two stone bands totalling 2 ft. 4 in. in thickness. The coal is hard and of excellent quality. At a distance of $4\frac{1}{2}$ chains from the outcrop the bottom level, and subsequently the levels above, encountered a zone in which numerous stone bands in the seam made mining extremely difficult. These bands are not regular, and occur in the form of lenses and/or bands running with or across the seam without regularity. Prospecting was continued in this zone in both stone and coal until at approximately $6\frac{1}{2}$ chains from the portal the bands thinned and cut out. The three drives on this side of the mine are now in good coal. This zone of stone bands, proved by underground prospecting, ties in with a similar belt on the outcrop situated more or less vertically above the drives. However, in no portion of the exposed outcrop has the seam been reduced to an unworkable thickness. These lower prospecting levels are now $9\frac{1}{2}$ chains from the outcrop and will be continued to the Morrison Creek outcrops 30 chains from Garvey Creek.

Preparatory to the finalizing of the method of extraction, either vertical rises or inclines at 45 degrees are risen between levels for ventilation and the conveyance of coal to the haulage level. Crosscuts from wall to wall are driven when required to prove the thickness of the seam and thickness and locality of stone bands, &c.

South-east Side : On this side the seam is 55 ft. from wall to wall, with a stone parting 8 ft. to 10 ft. in thickness approximately in the centre of the seam.

Two levels, one along each wall, were commenced on this side, but at $4\frac{1}{2}$ chains the hanging-wall level was stopped owing to the convergence of the walls.

The foot-wall level was continued to $5\frac{1}{2}$ chains, at which point it was stopped owing to the continued convergence of the walls reducing the thickness of the seam to less than 1 ft.

A drive put in 66 ft. above did not encounter the pinch until the face had passed No. 1 drive, and apparently the pinching of the seam is inclined to the horizontal at approximately 30 degrees back from the outcrop.

Recent prospecting has located sharp reverse folding, followed by faulting, ahead of these works, and consequently it is not anticipated the mine on this side of Garvey Creek will be extensive. Driving will be continued to prove the location of the faulting underground and the extent of the seam in this direction.

Quality of Coal.—Although the quality of the coal won is excellent, the hardness varies considerably and at times the proportion of small coal produced is considerable.

Power.—The development of the mine is seriously handicapped by a shortage of material and labour holding up the construction of a power line (seven miles in length) from the Power Board's terminus at Black's Point to the mine.

Diesel-driven compressors are being used in the meantime for the provision of power underground and small petrol-driven units for surface fans, &c.

It is not anticipated the output from underground mining in this seam will be large until pillar-extraction or its equivalent is started. The seam is vertical, thick (50 ft. plus in places), and friable, and, in addition, has comparatively weak walls, so the normal methods of mining employed in New Zealand will not be suitable. It is proposed to extract as large a tonnage as possible by opencasting and follow this method by "top slicing" and/or hydraulic stowage. In the latter case, the overburden broken out when opencasting may be utilized for filling.

Mine Buildings.—Coal Storage: Bins of a capacity for 140 tons of coal have been completed, and the installation of short conveyors between the screens and the new bins is in hand.

Mine Bathhouse and Office: A bathhouse for the accommodation of 30 men, and a mine office, were erected during the period.

WANGALOA OPENCAST

The Wangaloa Opencast is operated on behalf of the State Coal-mines by the Public Works Department.

Operation of the opencast has been continued steadily throughout the year, and with the plant available it has been possible to complete a large amount of stripping in advance of immediate requirements. The position at the end of the year was that six month's supply of coal was stripped ready for hewing and a further six months' supply was nearly uncovered.

To date 82,914 tons 12 cwt. of coal have been produced from the opencast since production commenced in October, 1945. The 1947-48 output amounted to 42,304 tons 4 cwt., or 10,281 tons 4 cwt. in excess of that of the previous year.

Total excavation to date has amounted to 300,503 cubic yards, of which amount 140,605 cubic yards was removed during the year under review. A pleasing feature of the stripping operations is that considerable progress has been made with removal of overburden in the swamp area that had previously given so much trouble.

Investigations are well advanced on the provision of access roading to the newly bored Pivot Creek area.

I have, &c.,

R. T. H. DALE, District Manager.

The DISTRICT MANAGER, State Coal-mines, Ngakawau, to the UNDER-SECRETARY,
Mines Department, Wellington.

Sir,—

17th June, 1948.

I have the honour to submit my report on the workings of the Stockton State Mines for the year ended 31st March, 1948.

Output.—The gross output for the year from the Fly Creek and Webb Mines and E Hill opencast was 264,560 tons 16 cwt. 2 qr., an increase of 27,100 tons 12 cwt 2 qr. when compared with the previous year. Gross outputs of the individual mines were as follows :—

						Tons	cwt.	qr.
Fly Creek	..	..	..	..	..	30,830	15	0
Webb Mine	..	..	..	..	..	73,685	13	2
E Hill Opencast	..	..	..	..	..	160,044	8	0
						264,560	16	2

After allowing for waste (541 tons 16 cwt. 2 qr.) and coal used on works (5,262 tons), there remained for disposal a net output of 258,757 tons.

Taking into account the stocks at the beginning of the year, the following statement shows details of the coal disposed of during the year:—

1st April, 1947—				Tons	cwt.	qr.	Tons	cwt.	qr.
Stock on wharf	..	..	..	1,067	10	0			
Stock in bins and yard	..	..	..	1,792	7	1			
							2,859	17	1
Add surplus stock taken on charge	..	..	..	..	..	..	3,640	0	0
Add net output for year	..	..	..	..	..	..	258,757	0	0
							265,256	17	1
31st March, 1948—									
Less stock in bins and yard	..	..	..	2,512	14	0			
Less stock on wharf	..	..	..	1,975	19	0			
							4,488	13	0
Total disposed of	..	..	..	..	..	..	260,768	4	1

Disposals

				Tons	cwt.	qr.			
Shipped	..	..	..	171,298	19	0			
Railed	..	..	..	15,661	9	0			
Railway sales	..	..	..	61,092	7	0			
Local and mine sales	..	..	..	11,384	16	1			
Workmen and free issues	..	..	..	1,330	13	0			
							260,768	4	1

The gross output of the collieries since being taken over by the State on 1st July, 1944, totals 826,196 tons 0 cwt. 1 qr.

Days worked.—Fly Creek Colliery worked $237\frac{3}{4}$ days out of a possible 241 days. In addition, the colliery worked 11 back Saturdays and 3 substituted holidays, making the total days worked $251\frac{3}{4}$ days. The difference between the ordinary days worked, $237\frac{3}{4}$, and the possible number of working-days is accounted for as follows: Disputes, 1 day; fall in Ngakawau Tunnel, 2 days; and 2 hours local-body elections.

Webb Colliery worked $237\frac{3}{4}$ days out of a possible 241 days. In addition, the colliery worked 11 back Saturdays and 3 substituted holidays, making the total days worked $251\frac{3}{4}$ days. The difference between the ordinary days worked, $237\frac{3}{4}$, and the possible number of working-days is accounted for as follows: Disputes, 1 day; fall in Ngakawau Tunnel, 2 days; and 2 hours local-body elections.

E Hill Opencast worked $237\frac{3}{4}$ days out of a possible 241 days. In addition, the colliery worked 11 back Saturdays and 3 substituted holidays, making the total days worked $251\frac{3}{4}$. The difference between the ordinary days worked, $237\frac{3}{4}$, and the possible number of working-days is accounted for as follows: Disputes, 1 day; fall in Ngakawau Tunnel, 2 days; and 2 hours local-body elections.

Employees.—In connection with coal-winning, the average number of persons employed in and about the mines was 318 men and 17 boys, made up as follows :—

Underground—

Fly Creek—

Coal-miners	22
Deputies, shiftmen, and truckers	33

Webb Mine—

Coal-hewers	38
Deputies, shiftmen, and truckers	62

Surface—

“ E ” Hill Opencast—

Machine operators and truck-drivers	34
Haulage, banking, screening, and loading, &c.—	
Men	129
Boys	17

Coal-hewers' Average Daily Earnings.—Fly Creek Colliery : The coal-hewers' average daily earnings (gross) were £3 7s. 2d. ; and after deducting stores (explosives) their net return was £3 4s., an increase of 2s. per day when compared with the previous period.

Webb Colliery : The coal-hewers' average daily earnings (gross) were £3 18s. 9d., and after deducting stores (explosives) their net return was £3 13s. 2d., an increase of 8s. 7d. per day when compared with the previous period.

Daily Outputs.—Fly Creek Colliery : The average daily output was 122 tons 9 cwt. 1 qr. and the coal-hewers' average daily output was 6 tons 13 cwt. 2 qr., as compared with 164 tons 13 cwt. 2 qr. and 7 tons 7 cwt. 2 qr. respectively for the previous year. The total number of hewer shifts was 4,613.

Webb Colliery : The average daily output was 292 tons 14 cwt. and the coal-hewers' average daily output was 9 tons 14 cwt. 1 qr., as compared with 245 tons 11 cwt. and 8 tons 9 cwt. 2 qr. respectively for the previous year. The total number of hewer shifts worked was 7,587.

E Hill Opencast : The average daily output was 635 tons 14 cwt. 2 qr., as compared with 570 tons 5 cwt. 2 qr. for the previous year.

Accidents.—There were 130 accidents during the year, none being of a serious nature.

Development.—Fly Creek Mine : Operations were confined mainly to pillar-extraction in the South Section, where very wet conditions were met with. A road has been driven eastwards into McCabe's Jig pillar area from which it is hoped to recover a fairly large number of pillars of excellent coal under much drier conditions than exist generally throughout the south area.

Preparations have been made to introduce a hydro scheme of coal recovery in the East area. Storage bins are being built inside the mine about 6 chains north of the old East lay-bys. The water adit has been driven. Work is about to commence to opencast about 12,000 tons of excellent coal from an adjacent escarpment.

In the Old Mine, extraction continued in No. 4 and No. 5 sections. An excellent grade of coal is won under very wet conditions.

Webb Mine.—This mine is now developing very satisfactorily. The main headings have advanced a total distance of 45 chains from the mine entrance. The shape of the area so far penetrated precluded a convenient arrangement of working-places ; for a distance of 18 chains no lateral development has been possible. However, a broad face 24 chains wide all to the rise in thick coal can now be opened up. Development has been completed in No. 1 Panel and extraction commenced. Development is also completed in No. 2 and No. 3 panels ; very little extraction will be possible in No. 2 Panel and none at all in No. 3 Panel owing to heavy water-laden swamp overhead.

In the Old Mine pillar-extraction has continued.

E Hill Opencast: Opencast extraction from E Hill is almost completed, with about 70,000 tons of coal under much thicker overburden yet to be won. Until suitable plant arrives to deal with the heavier overburden, work on this area has been suspended.

Operations have started on another opencast area adjacent to and south-west of Webb Mine; this is a peninsular-shaped area yielding a good grade of coal. Regular outputs have been maintained from the opencast throughout the year.

Prospecting.—Surface work has been completed over an area of approximately 2,500 acres and drilling is being carried out by two drills. Reconnaissance and preliminary survey work have been carried out over another area of over 3,000 acres. The operations have revealed a high tonnage of good-quality coal nearly all of which is suitable for opencasting. One fairly large area has been proved to contain a high percentage of ash, but the quality of the coal in all other respects is excellent.

Extensive repairs and renewals were made on the loco track during the year. Over one mile of track was relaid with new rails, sleepers, and centre rail.

Extensive alterations and repairs have been almost completed on the main bin at Ngakawau.

I have, &c.,

T. H. McGHIE, District Manager.

The DISTRICT MANAGER, State Coal-mines, Benneydale, to the UNDER-SECRETARY, Mines Department, Wellington.

SIR,—

21st June, 1948.

I have the honour to submit my report on the working of the Mangapehi and Tatu Mines and the Waitewhena Opencast for the year ended 31st March, 1948.

MANGAPEHI COLLIERY

Output.—The gross output for the year was 53,181 tons 1 cwt., a decrease of 759 tons 11 cwt. when compared with the figures for the previous year. After allowing for waste (1,528 tons 1 cwt.) and the quantity used on works (845 tons), there remained for disposal a net output of 50,808 tons.

Taking into account the stocks at the beginning and end of the year, the following statement shows details of the coal disposed of during the year:—

		Tons cwt. qr.	Tons cwt. qr.
1st April, 1947—			
Stock in bins and yard ..	..	139 17 0	
Add net output for year ..	..	50,808 0 0	
		<hr/>	50,947 17 0
31st March, 1948—			
Less stock in bins and yard ..	..	..	78 14 0
Total disposed of ..	..	..	<hr/>50,869 3 0

Disposals

			Tons cwt. qr.
Local and mine sales ..	..	..	1,288 19 0
Railed .. ..	..	..	48,926 15 0
Sales to workmen and free issues ..	..	..	653 9 0
			<hr/> 50,869 3 0

The gross output since the colliery was taken over by the State Coal-mines is 403,019 tons 3 cwt.

Days worked.—The colliery worked on 227 days out of a possible of 241. In addition, colliery worked on 3 statutory holidays, making the total days worked 230. The difference between the ordinary days worked and the possible number of working-days is accounted for as follows: Union meetings, $4\frac{13}{16}$ days; cavit, 1 day; strike, 1 day; mechanical breakdown, $\frac{1}{4}$ day; gas (CO) in mine, $\frac{11}{16}$ days; election day, $\frac{1}{4}$ day; fire in mine, 2 days; relaying rails, 4 days.

Employees.—In connection with coal-winning, there were employed in and about the mine an average of 127 men and 2 boys, made up as follows—Underground: Coal-hewers, 30; deputies, shiftmen, and truckers, 72. Surface: 25 men and 2 boys.

Daily Earnings.—The coal-hewers' average daily earnings were (gross) £3 13s. 7d., and after deducting stores (explosives) their net return was £3 11s. 1d., an increase of 15s. 1d. per day when compared with the previous year.

Daily Output.—The average daily output was 231 tons 4 cwt. and the average per coal-hewer was 8 tons 11 cwt., as compared with 219 tons 4 cwt. and 8 tons 2 cwt. for the previous year. The total hewer shifts worked was 6,220.

Deficiencies.—No amounts were paid under the minimum-wage clause during the year.

Accidents.—During the year there were no accidents of a serious nature. The number of minor accidents reported was 53.

Underground Workings.—Development during this period has been confined to a slant dip off No. 2 East level, which has been advanced 5 chains in excellent coal.

The majority of the production for the year has come from pillar-extraction in the No. 2 East "A" panel and from the No. 1 East "C" panel, and the work in these two panels is now almost complete.

Pillar-extraction work has proved to be a very costly proposition at this colliery because of spontaneous combustion in the goaf, and also because of heaving roadways, which require continuous brushing to maintain sufficient size for haulage and ventilation.

A new endless-rope road has been installed along No. 2 East level, which will be the main haulage from this section of the mine, and the extension of this level will be resumed as soon as miners become available from the pillaring sections.

During the year a number of fires were dealt with, but one serious fire in the main return airway made it obvious that all loose coal must be cleared from the airways, and accordingly an extensive clearing-up programme is being carried out to attain this end.

The mine now has its own Mine Rescue Station with full equipment, and there are fifteen fully trained men now at the mine.

Township.—The painting of twenty houses has been completed, and the painting of a further thirty houses has been commenced.

One two-roomed hut has been built, and the building of two four-roomed baches has been partially completed.

Recreation-ground.—The croquet-lawn has been completed and was opened for play during the season.

The tennis-courts have been top-dressed and sealed, and are now in use.

TATU COLLIERY

Coal-winning.—The gross output for the year was 35,165 tons 10 cwt., an increase of 1,088 tons 5 cwt. when compared with the figures of the previous year. After allowing for waste (1,654 tons 9 cwt.) and the quantity of coal used on works (189 tons 13 cwt.), there remained for disposal a net output of 33,621 tons 8 cwt.

Taking into account the stocks at the beginning and end of the year, the following statement shows details of coal disposed of during the year :—

1st April, 1947—			Tons cwt. qr.	Tons cwt. qr.
Stock in bins	..	..	77 0 0	
Add net output	..	..	33,621 8 0	
Add surplus stock taken on charge			561 11 0	
				34,259 19 0
31st March, 1948—				
Less stock in bins	..	..	49 3 0	
Total disposed of	..	..		34,210 16 0
<i>Disposals</i>			Tons cwt. qr.	
Railed	..	..	32,466 6 0	
Mine sales	..	..	1,080 18 0	
Workmen	..	..	605 7 0	
Free	..	..	58 5 0	
				34,210 16 0

The gross output from the colliery since inception amounts to 210,053 tons 14 cwt.

Days worked.—The colliery worked 220 days $4\frac{1}{2}$ hours out of a possible 241 ordinary working-days. In addition, the mine worked the 3 substituted days for Christmas Day, Boxing Day, and New Year's Day, making the total days worked 223 days $4\frac{1}{2}$ hours. The difference between the ordinary days worked (220 days $4\frac{1}{2}$ hours) and the possible number of working-days is accounted for as follows : 9 days $\frac{3}{4}$ hour, disputes ; 1 day 4 hours, boiler trouble ; 4 hours, bus breakdown ; 1 day, mine flooded ; 4 hours search for workmen lost in bush ; $1\frac{1}{2}$ hours, fall of stone in mine ; 2 days, miners absent ; 4 days $4\frac{3}{4}$ hours, union meetings ; $\frac{1}{2}$ hour local-body elections ; 1 day, funeral of employee.

Employees.—In connection with coal-winning, the average number of men employed in and about the mine was 89 men and 3 boys, made up as follows—Underground : Hewers, 19 ; deputies, shiftmen, and truckers, 30 ; others, 8. Surface : 32 men and 3 boys. Total, 92.

Coal-hewers' Daily Average Earnings.—The coal-hewers' daily earnings were, gross, £4 0s. 3d. ; after deducting stores (explosives) their net return was £3 13s. 9d.

Daily Output.—The average daily output was 158 tons 13 cwt., and the average daily output per coal-hewer was 9 tons 7 cwt., compared with 148 tons 14 cwt. and 8 tons 17 cwt. respectively for the previous year. The total hewer shifts worked for the year were 3,833 $\frac{1}{2}$.

Deficiencies.—Nil.

Accidents.—During the year there were 39 minor accidents, most being bruises, lacerations, or strain, and there were several cases of crushed fingers.

Workings.—During the year a new travelling road has been driven down to the pump in the No. 1 West and through the No. 2 West sections which joins the return airway from the South Section.

Ripping of the roof in the main return airway has been carried out and the roof supported with arched rail sets. The floor has been graded out along this section of roadway so as to avoid flooding and consequent restriction of the ventilation.

Development in the South area has been continued, where two panels have been formed and a third panel is in process of formation. No. 2 Panel is being developed with a view to immediate extraction so as to minimize losses due to floor heave. Development of the first line of pillars, the dimensions of which are approximately $2\frac{1}{2}$ by 1 chain, has been completed, and the pillars are now being extracted.

Meantime the driving of the other headings is being continued, and it is expected that the second line of pillars will be ready for extraction by the time the first one is finished.

The old South heading where the roof stone and floor heave had practically blocked the roadway for a distance of 10 chains has been cleaned up and retimbered. The road has now been connected up with a main layby in the South Section and is now being used as the main haulage road. This is a decided improvement on the old haulage system.

Two headings have been driven at right angles off the main haulage road at a position suitable for use as auxiliary haulage roads when the Egmont Fault has been pierced by a stone drive and upcast shaft. The position of the seam on the down-throw side of this fault has been measured by test boreholes and is approximately 20 ft.

A main sump has been made at the bottom of the main haulage dip capable of holding approximately two days' drainage for the mine. This water is now pumped to the surface by a two-stage centrifugal pump driven by a 30 h.p. motor.

In the Barrier Section, some progress has been made on the splits through the old No. 2 Dip pillars. The intention is to use this section as a main sump when the old layby is reached.

On the main haulage road where the Egmont Fault was cut, considerable difficulty has been caused by excess roof and side pressure, which has displaced the timber and forced the bar legs into the soft floor. Encouraging results are now being obtained by the use of 70 lb. steel rails as "sills" sunk into the floor at right angles to the drive and joggled with angle iron on each end.

Conditions generally in other parts of the mine are fairly good; the amount of shift-work required, however, due to floor heave is abnormal.

Approximately 20 tons of stone dust has been used during the year.

WAITEWHENA OPENCAST

Coal-winning.—The net output for the year was 44,426 tons 12 cwt. 2 qr., an increase of 22,797 tons 1 cwt. when compared with the previous year.

The following statement shows details of coal disposed of during the year:—

1st April, 1947—				Tons cwt. qr.	
Stock on hand	..	..	..	..	..
Add net output for year	..	..	..	44,426	12 2
Less stock on hand, 31st March, 1948	..	..	..	..	..
Total disposed of				44,426	12 2

The net output of the colliery since its inception amounts to 108,138 tons 15 cwt. 3 qr.

The year's output has been won from No. 2 Area, and coal stripped but not extracted at 31st March, 1948, was 16,000 tons, with a further 80,000 tons of coal to be stripped to complete the No. 2 Area.

Daily outputs have been consistent throughout the year with only three partial working-days lost.

I have, &c.,

T. YOUNG, District Manager.

The SUPERINTENDENT, Waikato Controlled Mines, to the UNDER-SECRETARY,
Mines Department, Wellington.

15th April, 1948.

SIR,—

Enclosed please find summary of the operations at the Kemp's, Kimihia, and Glen Afton opencast mines for the year ended 31st March, 1948.

KEMP'S OPENCAST (GLEN MASSEY)

Coal-production has been maintained at this mine during the current year and shows a slight increase on the previous year, being 58,717 tons, making a total production from this mine of 158,935 tons. The work of recovering the coal from these thin areas of coal has been carried out very efficiently, despite the difficult circumstances prevailing.

The total overburden removed at this mine now totals 1,988,090 cubic yards. This does not indicate the correct ratio of overburden to coal contents, as there is at present a large tonnage of coal cleared of overburden and awaiting mining.

The new roadway to the Wilton No. 3 Extended Mine has also been completed by the opencast-mine operators. The workshops have been materially extended during the year, and additional boring carried out. The area of recoverable coal is now clearly defined.

The latter stages of boring operations were somewhat disappointing.

KIMIHIA OPENCAST

Operations at this mine have proceeded in a satisfactory manner and very good progress has been made.

In the No. 1 Section the northern area was worked out and a considerable quantity of overburden has been removed from the southern area, with the result that a large quantity of coal has been laid bare ready for mining. During the year the work of constructing a stop-bank across a portion of the lake was completed for all practical purposes, and I should mention that this work necessitated what was probably the largest assembly of earth-moving plant that has been applied at any one time in New Zealand.

A total of 988,400 cubic yards of earth material has now been removed at this mine and the total output of coal up to March this year is 136,293 tons.

Earth removed during the year was 325,850 cubic yards and coal won during the year was 69,695 tons. The most modern methods of earth removal (with procurable plant) have been applied at this mine, including the use of a 5-yard drag-line and shovel, Athey wagons, and tournapulls.

The extended area of the lake which it is proposed to mine has been drained by means of a 12 in. Pulsometer pump, and it is hoped to have a considerable quantity of earth removed from the bed of this portion of the lake during the ensuing year.

The construction of seven workmen's cottages has been proceeded with, and these are now nearing completion; other general living-conditions have been improved. It can be said that the difficult task of recovering the coal from the bed of this lake has been accomplished in a highly satisfactory manner and is proving that the project was a sound one, despite all its attendant difficulties.

GLEN AFTON OPENCAST

The coal remaining in this mine at the beginning of the year was mined, after which the spoil banks and batters were trimmed and planted with several thousand exotic trees to stabilize the ground. The output for the year was 5,685 tons 15 cwt. and the total coal removed from the mine during its lifetime was 54,088 tons 19 cwt. 2 qr.

I have, &c.,

JOB. HUGHES, Superintendent Waikato Controlled Mines.

The MANAGER, Wilton State Colliery, Ngaruawahia, to the UNDER-SECRETARY, Mines Department, Wellington.

12th April, 1948.

SIR,—

I have the honour to submit my annual report on the working of the above colliery for the year ended 31st March, 1948.

Coal-winning.—The gross output for the year was 81,730 tons 6 cwt., an increase of 1,793 tons 2 cwt. when compared with the figures of the previous year. After allowing for waste (2,826 tons 12 cwt.) and coal used on works (810 tons 3 cwt.), there remained for disposal a net output of 78,093 tons 11 cwt.

Taking into account the stocks at the beginning and end of the year, the following statement shows details of the coal disposed of during the year:—

1st April, 1947—		Tons	cwt.	qr.	Tons	cwt.	qr.
Stock in railway wagons	..	14	0	0			
Add net output for year	..	78,093	11	0			
					78,107	11	0
31st March, 1948—							
Less stock in railway wagons	..	..			..
Total disposed of	..	..			78,107	11	0

Disposals

		Tons	cwt.	qr.			
Railed	..	42,606	6	0			
Railway sales	..	34,341	11	0			
Local and mine sales	..	..			
Sales to workmen and free issues..	..	1,159	14	0			
					78,107	11	0

The gross output for the colliery since its acquisition by the Government on 20th October, 1944, totals 283,955 tons 2 cwt.

Days worked.—The colliery worked 227 $\frac{1}{4}$ days out of a possible 241 days. The difference between the days worked and possible working-days is accounted for as follows: 2 days, strike at Pukemiro; 1 $\frac{1}{4}$ days, fan defect; $\frac{1}{4}$ day, football; $\frac{1}{4}$ day, broken wheel; 2 days, death of workman; 1 day, funeral of old local resident; $\frac{1}{4}$ day, power failure; $\frac{1}{2}$ day, dispute *re* boxes; 6 $\frac{1}{4}$ days, stop-work meetings.

Employees.—In connection with coal-winning, the average number of persons employed in and about the mine was 184 men and 4 boys, made up as follows—Underground: coal-hewers, 64; shiftmen and truckers, 64. Surface: 56 men and 4 boys.

Coal-hewers' Average Daily Earnings.—The average daily earnings of the coal-hewers' after deducting explosives were £2 17s. 5d., which shows an increase of 6s. 6d. when compared with the previous year.

Daily Output.—The average daily output of the mine was 339 tons 13 cwt. and the hewers' average daily output was 12 tons 0 cwt. 1 qr., as compared with 323 tons 12 cwt. and 9 tons 19 cwt. 3 qr. respectively for the previous year. The number of hewers shifts worked was 6,804, as compared with 8,001 $\frac{1}{4}$ for the previous year.

Deficiencies.—The total amount paid under the minimum-wage clause was £4 13s. 1d.

Accidents.—During the year the number of accidents occurring which necessitated absence from work for more than three days was 162, a reduction of 28 on the previous year.

Underground Workings.—The output was obtained from pillar-extraction in No. 2 Mine, A and B panels in No. 3 Mine, and development work in the No. 3 Extended Mine. The west side of the latter mine proved disappointing, as the coal thinned down to about 2 ft. thick with stone intrusions. Due to these conditions, all development except No. 4 West Section is now confined to the east of the main haulage road, resulting in an unbalanced mine.

Development.—No. 2 West: Development is completed and the section is ready for pillar-extraction.

No. 3 West: Development completed.

No. 4 West: These headings were driven 16 chains before encountering this coal, whence two headings were driven southwards to enable proved coal to be worked along the Te Puroa Road boundary. These slant headings will hole into a gully eroded below the horizon of the seam, and a filling 5 chains long and 20 ft. deep must be provided before the haulage road can be extended and the coal worked along the boundary. At a later stage it may be possible to work some of the outcrop coal by opencast methods, and this proposal will be investigated at the proper time.

No. 2 East: A little further work on the north side of the section will complete development in this panel, and pillar-extraction has already commenced on the south side. Coal-cutters and coal-drills are being operated in this section.

No. 3 East has presented difficulties during the year because of the faulted nature of the country. After crossing a downthrow fault of 70 ft. displacement in the main heading, further faulting was encountered to the north, while two further upthrow displacements of 8 ft. and 3 ft. respectively were crossed in the heading. Coal cutters and drills are also operated in this section.

No. 4 East is now developed and pillar-extraction can be commenced.

Stone-dusting.—Dusting of the main haulage roadways was carried out at regular intervals during the year, in addition to the daily dusting of the working places. During the year 61 samples of dust were taken and analysed.

Dangerous Occurrences.—There were no dangerous occurrences during the past year.

Stoppings.—These were erected where required right throughout the mine as development proceeded.

Plant.—An additional electric coal-drill was put into operation during the year, with excellent result. The main fan was installed on the north side of No. 2 East Section and an endless haulage in No. 4 West Section. The No. 3 Mine fan was transferred from its original position to the south end of No. 3 Mine, thereby increasing the volume of air, also the efficiency of the fan. Ninety new mine skips were put into use during the year.

Private Railway-line.—Maintenance work was carried out during the year to the line and railway bridges. The cost of maintenance is exceedingly high. Prospective increases in railway charges will tend to make haulage costs from the mine to Ngauawahia excessive.

Bus Service.—Three buses operated by a contractor provide an efficient transport service for the workmen. The recent extension of the road beyond the bathhouse to the No. 3 Extended Mine has proved of benefit to the operation of the mine, enabling the men to be conveyed much closer to their work. As more men are employed and the service extended, the provision of an additional bus is being considered.

Housing and Mine Buildings.—These were maintained in good order during the year. Several housing loans were granted to enable employees to build their own homes. The Manager's residence was completed and occupied in December.

Mechanization.—Two electric coal-cutters are now operated with two electric coal-drills. We are awaiting delivery of the two scraper loaders from Australia, also one coal-cutter with hole-boring attachments from England. Delivery of a further coal-cutter is delayed because of the difficulty in procuring electric motors.

When plant deliveries are projected beyond a certain point, the orderly planning of workings becomes extremely difficult, due to altered conditions between the times of ordering and delivery.

Future Development and Boring.—During the year a number of bore-holes have been put down ahead of, also to the west of, No. 3 Extended Mine. The holes to the west proved disappointing. However, good results were obtained from the boreholes going towards the Te Puroa Road. Approximately 8 ft. of good coal being obtained in four boreholes out of five bored. Boring is going on at the present time in an area between old No. 1 Mine and No. 2 Mine present workings with satisfactory results. This, of course, will be an opencast proposition with the possibility of yielding between 40,000 tons and 60,000 tons of good-quality coal. However, an accurate estimate can only be given when the boreholes have been completed, which should be in the very near future. The output from this will be necessary to replace No. 2 Mine, which is rapidly drawing to a close. With a view to future development of coal-winning in this district, an area to the west and north-west of the old Waipa Collieries Mine is to be mapped with the intention of having it bored and proved at some future date.

General.—The prospects for the future working of this mine are good for many years.

I have, &c.,

JOHN PENMAN, Manager.

The DISTRICT MANAGER, State Coal-mines, Kamo, to the UNDER-SECRETARY,
Mines Department, Wellington.

SIR,—

9th July, 1948.

I have the honour to submit my report on the workings of the Kamo State Mine for the period from 5th January, 1948, when this mine was acquired by the State, to the 31st March, 1948.

Coal-winning.—The gross output for the period was 9,783 tons 5 cwt. After allowing for the quantity used on works (12 cwt. 3qr.), there remained for disposal a net output of 9,782 tons 12 cwt. 1 qr.

Taking into account the stocks at the beginning and end of the period, the following statement shows details of the coal disposed of during the period :—

5th January, 1948—					Tons cwt. qr.	
Stock in yard ..	..	..	..	..	..	..
Add net output for the period ..	..	..	..	..	9,782	12 1
Add surplus stocks ..	..	..	..	..	112	17 0
					9,895	9 1
31st March, 1948—						
Stock in yard ..	..	..	..	..	19	10 2
Total disposed of ..	..	..	..	..	9,875	18 3

Disposals

					Tons cwt. qr.	
Railed ..	..	..	..	..	8,763	10 0
Local sales ..	..	..	..	..	932	13 1
Sales to workmen and free issues ..	..	..	..	..	179	15 2
					9,875	18 3

The gross output of the mine since its acquisition by the State totals 9,783 tons 5 cwt.

Days worked.—The colliery worked 57 days out of a possible 58 ordinary working-days. In addition, the colliery worked 3 substituted statutory holidays, making the total days worked 60. The difference between the ordinary days worked, 57, and the possible number of working-days is accounted for as follows: 1 day, idle on anniversary day of province.

Employees.—In connection with coal-winning, the average number of persons employed in and about the mine was 141 men, made up as follows—Underground: Coal-hewers, 32; deputies, shiftmen, and truckers, 88. Surface: 21 men.

Coal-hewers' Average Daily Earnings.—The coal-hewers' average daily earnings (gross) were £2 15s. 8d., and after deducting stores (explosives) their net return was £2 9s. 2d.

Daily Output.—The average daily output was 163 tons 1 cwt. and the coal-hewers' average daily output was 5 tons 6 cwt. The total number of hewer shifts for the period was 1,844.

Deficiencies.—There were no payments under the minimum wage clause during the period.

Accidents.—There were numerous accidents of a minor nature during the period, but no accidents of a serious or fatal nature.

Underground.—All coal is being won from development work from the Slant Dip and East Dip sections.

Slant Dip: This Dip was driven a distance of 57 chains from the bottom of the main haulage road and was stopped in inferior coal 3 ft. thick. Two dips were started in a south-easterly direction from a point 43 chains from the top of the Slant Dip. These dips have been developed to a distance of 22 chains, and ten places are being worked to the rise off these dips in the top seam. The coal is of good quality 8 ft. to 9 ft. thick.

East Dip: The Main Dip has been driven to a distance of 28 chains from the top and was stopped in troubled ground. There are eight places being developed in a north-easterly direction from near the bottom of this dip in the bottom seam coal 8 ft. thick. The workings in the section are hard to maintain, as the floor of the seam is a fairly soft fireclay and is responsible for a large amount of brushing work to maintain height. The work in this direction is approaching a small downthrow fault, the displacement being 15 ft. to 20 ft. vertical.

The ex-employees of the Hikurangi Mine commenced work at Kamo on 12th January, and are being employed principally on reconstruction work.

No. 6 Drive: This drive is being continued by two men on one shift and has been completed for a distance of 300 ft.

I have, &c.,

J. HADCROFT, District Manager.

COLLIERY REVENUE ACCOUNTS FOR THE YEAR ENDED 31st MARCH, 1948

	Kamo (a).		Wilton.		Mangapehi.		Tatu.		Mosshank.		Wairaki.		Star (b).		Birchwood (c).		Stockton.	
	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£
SALES ACCOUNTS																		
Sales of coal, f.o.r., c. and f., and f.o.b. . .	12,051		115,151	51,250	40,127	29,482	40,127	29,482	70,840	70,840	70,840	45,111	45,111	7,853	7,853	52,475	52,475	
Subsidy*	4,939		36,500	43,400	39,042	7,640	39,042	7,640	16,652	16,652	16,652	10,443	10,443	1,995	1,995	27,290	27,290	
Less—	16,990		151,651	94,659	79,169	37,131	79,169	37,131	86,892	86,892	86,892	55,554	55,554	9,848	9,848	79,765	79,765	
N.Z.R. haulage	38		30,802	108					1,292	1,292	1,292			557	557	4,863	4,863	
Wharfage																1,001	1,001	
Marine freight																13,669	13,669	
Coal sales net f.o.r.	16,952		120,849	94,551	79,169	37,131	79,169	37,131	85,600	85,600	85,600	55,554	55,554	9,201	9,201	60,232	60,232	
WORKING ACCOUNTS																		
Stocks on hand, 1st April, 1947	44		18	98	61		61					12	12	40	40	983	983	
Wages	17,728		93,393	67,003	52,259	26,699	52,259	26,699	56,740	56,740	56,740	30,959	30,959	9,886	9,886	42,916	42,916	
Materials used	2,160		13,021	6,202	8,580	2,425	8,580	2,425	7,967	7,967	7,967	3,276	3,276	1,809	1,809	6,808	6,808	
Royalty	1,499		1,523			566		566	1,886	1,886	1,886	1,562	1,562	235	235	706	706	
Haulage			1,163	7,495		953		953	2,225	2,225	2,225	1,624	1,624					
Ball and bus fares	282		4,247	734	2,029	804	2,029	804	986	986	986	1,177	1,177	333	333	1,345	1,345	
Electric power purchased	1,024		4,247	1,512	2,424	588	2,424	588	1,226	1,226	1,226	616	616	571	571	2,063	2,063	
Repairs and maintenance	654		7,487	1,492	554	71	554	71	1,164	1,164	1,164	98	98	22	22	183	183	
Coal-miners' Relief Fund	41		7,209	130	90	137	90	137	334	334	334	130	130	25	25	118	118	
Rescue station levy	1,046		305	197	2,867	1,531	2,867	1,531	3,073	3,073	3,073	1,877	1,877	624	624	2,524	2,524	
Workers' compensation premium			5,570	3,699												163	163	
Coal purchases	23,478		127,861	88,562	68,894	33,774	68,894	33,774	73,401	73,401	73,401	41,321	41,321	13,545	13,545	58,300	58,300	
Less stocks on hand, 31st March, 1948	24			103	41		41									1,037	1,037	
Cost of coal sold	23,454		127,861	88,459	68,853	33,774	68,853	33,774	73,401	73,401	73,401	41,321	41,321	13,545	13,545	57,272	57,272	
Gross profit				6,092	10,316	3,557	10,316	3,557	12,239	12,239	12,239	14,233	14,233			2,960	2,960	
Gross loss	6,502		7,012													4,264		
PROFIT AND LOSS ACCOUNTS																		
Rents																		
Insurance	26		171	406	156	21	156	21				23	23			32	32	
General expenses	453		422	878	271	79	271	79	75	75	75	29	29	10	10	67	67	
Travelling-expenses	7		26	54	102	32	102	32	49	49	49	16	16	3	3	19	19	
Printing and stationery	14		90	72	50	37	50	37	85	85	85	52	52	13	13	34	34	
Audit fees			28	23	9	14	9	14	32	32	32	4	4			7	7	
Salaries	666		1,865	1,700	749	898	749	898	1,996	1,996	1,996	1,303	1,303	206	206	1,203	1,203	
Depreciation	1,098		8,800	7,514	10,306	1,450	10,306	1,450	2,697	2,697	2,697	2,292	2,292	605	605	1,523	1,523	
Postages and telegrams	46		229	134	197	150	197	150	358	358	358	206	206	42	42	133	133	
Superannuation Fund subsidy			20	13	9	7	9	7	16	16	16	10	10	2	2	8	8	
Rates and grants in lieu of rates	81		438	200	458	2	458	2	68	68	68			27	27	151	151	
Commission			3,318															
Less rent received	2,391		15,407	10,994	12,307	2,690	12,307	2,690	5,757	5,757	5,757	4,036	4,036	939	939	3,107	3,107	
	108		531	4,902	1,991	31	1,991	31	570	570	570			6	6	207	207	
Net profit (transferred to General Profit and Loss Account)	2,283		14,876	6,092	10,316	2,659	10,316	2,659	7,072	7,072	7,072	4,036	4,036	933	933	2,960	2,960	
Net loss	8,785		21,888			698		698				10,197	10,197			5,187		

(a) From 5th January, 1948.

(b) From 2nd May, 1947.

(c) From 28th November, 1947.

(For asterisk footnote, see page 43.)

	Webb.	Burke's Creek.	Liverpool.	Strongman.	Blackball.	Dobson.	Wallsend.	Paparoa (a).
SALES ACCOUNTS								
Sales of coal, f.o.r., c. and f., and f.o.b.	£ 125,538	£ 25,389	£ 131,318	£ 190,546	£ 74,761	£ 117,900	£ 82,576	£ 37,701
Subsidy*	51,766	18,120	124,102	42,239	79,874	85,710	60,458	25,162
Less—	177,304	43,509	255,420	232,785	148,635	203,610	143,034	65,863
N.Z.R. haulage	11,634	110	9,731	12,208	4,693	6,167	3,811	2,163
Wharfage	2,393	3	1,893	2,712	826	1,484	846	307
Special rate	..	..	..	731	221	411	85	85
Marine freight	32,862	76	36,049	57,134	18,809	32,865	20,519	6,622
Coal sales net f.o.r.	46,879	189	48,185	72,785	24,549	40,927	25,411	9,177
Coal sales net f.o.r.	130,425	43,320	207,235	160,000	124,086	162,683	117,623	56,686
WORKING ACCOUNTS								
Stocks on hand, 1st April, 1947	1,420	102	822	1,688	813	2,272	562	1,149
Wages	81,292	26,748	154,846	120,496	86,283	113,246	77,743	36,106
Materials used	17,973	6,078	21,862	23,377	17,505	16,812	9,065	9,582
Royalty	2,120	..	..	..	..	3,189	2,017	766
Rail and bus fares	2,523	508	996	4,094	120	794	391	101
Electric power purchased	..	983	3,848	4,305	3,362	5,612	5,411	694
Repairs and maintenance	5,871	2,072	7,563	10,880	7,264	7,167	6,527	2,628
Coal-miners' Relief Fund	199	46	219	245	133	162	124	65
Rescue station levy	281	63	352	339	218	242	187	76
Workers' compensation premium	4,685	1,707	8,572	7,170	5,046	6,495	4,416	2,092
Cartage and haulage	9,200	389	..	..	..	..	..	..
Road maintenance	669	..	25	61	..	15	..	..
Coal purchases	126,223	38,696	199,105	172,605	120,746	156,006	106,445	53,259
Less stocks on hand, 31st March, 1948	2,571	263	2,185	2,777	1,554	2,167	1,305	1,015
Cost of coal sold	123,662	38,433	196,920	169,828	119,192	153,839	105,140	52,244
Gross profit	6,763	4,887	10,315	9,828	4,894	8,844	12,483	4,442
Gross loss	..	..	..	..	..	..	..	..
PROFIT AND LOSS ACCOUNTS								
Rents	..	76	..	27	..	..	..	..
Insurance	77	22	166	120	132	134	108	107
General expenses	165	147	785	380	373	693	205	139
Travelling-expenses	49	68	33	31	61	54	20	8
Printing and stationery	81	45	186	180	97	111	91	18
Audit fees	18	5	37	42	25	27	22	15
Salaries	2,865	979	3,076	3,164	2,389	2,266	2,250	1,367
Depreciation	3,787	3,333	6,630	8,483	3,031	5,388	9,663	2,737
Postages and telegrams	296	207	282	301	143	169	133	103
Superannuation Fund subsidy	18	5	21	24	14	16	11	8
Rates and grants in lieu of rates	400	..	210	204	312	727	582	159
Less rents received	7,256	4,887	11,436	12,966	6,577	9,565	13,085	4,661
Net profit (transferred to General)	493	..	1,121	..	1,683	721	602	219
Net loss { Profit and Loss Account }	6,763	4,887	10,315	12,966	4,894	8,844	12,483	4,442
	..	..	..	23,794	..	..	..	..

(a) From 25th April, 1947.

OPENCAST MINES REVENUE ACCOUNTS FOR THE YEAR ENDED 31ST MARCH, 1948

	Glen Afton (a).	Kemp's.	Kimihia No. 1.	Waitehena.	Stockton.	Black Diamond (b).	Wangaloa.
	£	£	£	£	£	£	£
SALES ACCOUNTS							
Sales of coal, f.o.r., c. and f., and f.o.b.	7,412	61,125	79,919	55,266	271,448	14,712	40,662
Subsidy*	1,357	13,649	16,262	10,366	37,279	3,356	9,841
Less—							
N.Z.R. haulage	.. ..	.. ..	.. ..	.. ..	25,218	984	.. ..
Wharfage .. ..	.. ..	.. ..	.. ..	.. ..	5,198	.. ..	.. ..
Marine freight .. ..	.. ..	.. ..	.. ..	.. ..	70,547	.. ..	.. ..
Coal sales, net f.o.r.	8,739	74,774	96,181	65,632	308,727	18,068	50,503
WORKING ACCOUNTS							
Stocks on hand, 1st April, 1947	.. ..	.. ..	.. ..	.. ..	207,764	17,084	50,503
Stripping overhead	9,052	66,942	73,349	36,082	3,442	8,467	8,345
Excavation and cartage	425	26,928	38,058	38,058	82,641	4,349	20,808
Road access and maintenance	518	3,266	548	6,349	443	.. ..	946
Royalty .. ..	.. ..	1,473	.. ..	.. ..	7,934	.. ..	217
Coal-miners' Relief Fund	12	156	184	119	425	37	109
Coal-miners' levy	44	226	273	.. ..	619	63	.. ..
Rescue station	1,043	582	320	.. ..	4,307	.. ..	143
Boring, &c. .. ..	.. ..	.. ..	.. ..	.. ..	71,100	336	.. ..
Bus fares .. ..	.. ..	3,602	3,309	573	667	1,642	86
Haulage .. ..	.. ..	459	169	855	1,014	94	264
Sundry coal-winning expenses	236	367	435	278	.. ..	.. ..	.. ..
Restoration of surface .. ..	.. ..	.. ..	.. ..	.. ..	14,988	.. ..	30,618
Less stocks on hand, 31st March, 1948	11,365	103,951	78,587	82,314	172,592	14,988	30,618
Cost of coal sold .. ..	.. ..	.. ..	78,587	.. ..	5,173	.. ..	.. ..
Gross profits	11,365	103,951	17,594	82,314	167,419	14,988	30,618
Gross loss	2,626	29,177	.. ..	16,082	40,345	2,096	19,885
PROFIT AND LOSS ACCOUNTS							
Rents	1	.. ..	9	29	.. ..	.. ..	.. ..
Insurance .. ..	.. ..	.. ..	20	.. ..	163	102	.. ..
General expenses	8	53	53	46	364	53	14
Printing and stationery	3	36	43	27	172	15	26
Audit fees .. ..	.. ..	17	17	10	36	4	11
Salaries	40	599	683	539	2,428	233	318
Depreciation	1,090	12,515	2,420	2,078	6,013	917	2,646
Postages and telegrams .. ..	.. ..	55	65	68	638	69	48
Superannuation Fund subsidy	2	13	17	10	40	6	11
Travelling expenses	16	72	82	22	98	4	13
Rates .. ..	.. ..	.. ..	.. ..	.. ..	1,189	.. ..	.. ..
Less rent received	1,166	13,358	3,409	2,829	11,146	1,403	3,087
Net profit transferred to General Profit and Loss	.. ..	325	.. ..	.. ..	1,077	427	11
Net loss {	.. ..	13,033	14,185	2,829	10,069	976	3,078
Account	3,792	42,210	.. ..	19,511	30,276	1,120	16,809

(a) Ceased 26th May, 1947.
 (b) From 6th April, 1947.
 (For asterisk footnote, see page 43.)

* Statement showing total subsidy included in Colliery and Opencast Mines Revenue Accounts.

	Kamo.	Wilton.	Mangapehi.	Tutu.	Mossbank.	Wairaki.	Star.	Birchwood.	Stockton.
	£	£	£	£	£	£	£	£	£
Ordinary tonnage subsidy	4,939	36,500	21,728	17,200	7,649	16,652	10,443	1,995	15,084
Special subsidy .. ..	..	..	21,672	21,842	..	..	..	..	12,206
Subsidy as per Sales Account	4,939	36,500	43,400	39,042	7,649	16,652	10,443	1,995	27,290
Amount recovered in respect of Saturdays, holidays, and miners' tools and credited to wages and materials used	953	2,018	2,634	1,985	923	2,372	1,458	722	2,476
Total subsidy	5,892	38,518	46,034	41,027	8,572	19,024	11,901	2,717	29,766

	Webb.	Burke's Creek.	Liverpool.	Strongman.	Blackball.	Dobson.	Wallsend.	Paparoa.	Total for Underground Mines.
	£	£	£	£	£	£	£	£	£
Ordinary tonnage subsidy	33,913	10,314	39,756	42,239	27,170	35,170	23,407	13,090	357,249
Special subsidy	17,853	7,806	84,346	..	46,704	50,540	37,051	15,072	315,092
Subsidy as per Sales Account	51,766	18,120	124,102	42,239	73,874	85,710	60,458	28,162	672,341
Amount recovered in respect of Saturdays, holidays, and miners' tools and credited to wages and materials used	2,742	1,351	3,022	3,771	3,820	2,020	2,715	1,455	36,437
Total subsidy	54,508	19,471	127,124	46,010	77,694	87,730	63,173	29,617	708,778

	Ellen Afton.	Kemp's.	Kimihia.	Waitevheua.	Stockton.	Black Diamond.	Wangaloa.	Total for Opencast.	Grand Totals.
	£	£	£	£	£	£	£	£	£
Ordinary tonnage subsidy as per Sales Account	1,327	13,649	16,262	10,366	37,279	3,356	9,841	92,080	449,329 315,092 48,725
Special subsidy	220	3,156	..	209	7,988	255	460	12,288	
Amount recovered in respect of Saturdays, holidays, and miners' tools and credited to wages and materials used .. ..	..	..	..	..	..	..	..	..
Total subsidy	1,547	16,805	16,262	10,575	45,267	3,611	10,301	104,368	813,146

MACDONALD COLLIERY PROFIT AND LOSS ACCOUNT FOR THE YEAR ENDED
31ST MARCH, 1948

<i>Dr.</i>	£	<i>Cr.</i>	£
Depreciation	763	Rents	200
Net profit : To General Profit and Loss Account	3,619	Royalties	4,182
	<u>£4,382</u>		<u>£4,382</u>

DEPOT TRADING AND PROFIT AND LOSS ACCOUNTS FOR THE YEAR ENDED 31ST MARCH, 1948

	Auckland.	Wellington.	Christchurch.
	£ £	£ £	£ £
TRADING ACCOUNTS			
Sales of coal	615,922	630,071	220,275
Sales of coke, wood, &c. .. ..	..	18,104	3,848
	<u>615,922</u>	648,175	224,123
Stocks on hand, 1st April, 1947 .. ..	..	1,048	3,183
Purchases of coal	582,586	513,551	192,602
Purchases of coke, wood, &c. .. ..	..	14,849	3,044
Wharfage and freights	1,258	5,656	177
Haulage to depot	19,636	89,734	12,087
Wages : Discharging .. ..	..	86	566
	<u>603,480</u>	624,924	211,659
Less stocks on hand, 31st March, 1948 .. ..	..	2,969	5,338
Cost of coal sold	<u>603,480</u>	621,955	206,321
Gross profit	12,442	26,220	17,802
PROFIT AND LOSS ACCOUNTS			
Advertising	41	41	41
Wages : Yard .. ..	..	1,874	2,689
Salaries	994	3,411	2,264
Rents	190	694	139
Travelling-expenses	49	5	19
Repairs and maintenance .. ..	..	178	959
Postages and telegrams	236	162	173
Printing and stationery	29	159	157
Insurance .. ..	..	28	8
Cartage .. ..	..	4,822	2,351
Sacks .. ..	..	516	535
General expenses	63	703	335
Audit fees	24	80	23
Superannuation Fund subsidy	5	7	18
Reserve for bad debts .. ..	..	..	..
Rates	12	33	..
Depreciation .. ..	..	419	636
	<u>1,643</u>	13,132	10,347
Net profit : To General Profit and Loss Account	10,799	13,088	7,455

WANGANUI DEPOT, PROFIT AND LOSS ACCOUNT FOR THE YEAR ENDED 31ST MARCH, 1948

<i>Dr.</i>	£	<i>Cr.</i>	£
Depreciation	29	Rents	102
Insurance, &c.	6		
Net profit : To General Profit and Loss Account	67		
	<u>£102</u>		<u>£102</u>

GENERAL PROFIT AND LOSS ACCOUNT

<i>Dr.</i>	£	<i>Cr.</i>	£
Net loss, 1947-48—		Net profit, 1947-48—	
Kamo Colliery ..	8,785	Mossbank Colliery ..	698
Wilton Colliery ..	21,888	Wairaki Colliery ..	7,072
Strongman Colliery ..	22,794	Star Colliery ..	10,197
Birchwood Colliery ..	5,187	Kimihia Opencast No. 1 ..	14,185
Glen Afton Opencast ..	3,792	Stockton Opencast ..	30,276
Kemp's Opencast ..	42,210	Black Diamond ..	1,120
Waitewhena Opencast ..	19,511	Wangaloa Opencast ..	16,809
	124,167	Ohai Opencast (Royalty) ..	222
Mangapehi Colliery ..	21,672	Auckland Depot ..	10,799
Tatu Colliery ..	21,842	Wellington Depot ..	13,988
Stockton Colliery ..	12,206	Christchurch Depot ..	7,455
Webb Colliery ..	17,853	Wanganui Depot ..	67
Burke's Creek Colliery ..	7,806	McDonald Colliery ..	3,619
Liverpool Colliery ..	84,346		115,607
Blackball Colliery ..	46,704		
Dobson Colliery ..	50,540	Net recoveries—	
WallSEND Colliery ..	37,051	Seddonville Colliery ..	33
Paparoa Colliery ..	15,072	Royalties ..	3,899
		Interest receivable ..	3,682
Less special subsidy to meet losses on uneconomic mines ..	315,092		
	315,092	Net revenue from hire of plant, buildings, &c. ..	7,614
Interest on loan capital ..	104,418		3,338
Less remission under section 3 Finance Act, 1943 (3) ..	104,418		
Net profit carried down ..	2,392		
	£126,559		£126,559

PROFIT AND LOSS APPROPRIATION ACCOUNT

<i>Dr.</i>	£	<i>Cr.</i>	£
Loans Redemption Accounts ..	49,004	Net profit for year 1947-48 ..	2,392
		Transfer from General Reserve ..	46,612
	£49,004		£49,004

BALANCE-SHEET AS AT 31ST MARCH, 1948

<i>Liabilities</i>		£	<i>Assets</i>		£	£
Liability to Consolidated Fund under section 6, National Development Loans Act, 1941		3,448,147	Collieries—			
Deposits on contracts		4,039	Machinery, plant, &c. ..		539,249	
Debt Redemption Reserve to be applied for redemption of capital		49,004	Development and Property Accounts ..		676,837	
Sundry creditors		479,062	Buildings at mines ..		151,599	
Reserves—			Cottages at mines ..		204,724	
General Reserve		£ 113,688	Plantations at mines ..		19	
Accident Insurance Reserve ..		118,302				
Bad Debts Reserve		1,633				
Restoration Opencast Areas Reserve ..		2,452				
			Less provisionally written off ..		1,572,428	1,571,057
		236,075			1,371	888,395
			Purchase of Westport Coal Co., Ltd.			
			Opencast mining—			
			Purchase-price		66,633	
			Development, preliminary expenses, &c. ..		31,316	
			Plant, machinery, &c. ..		21,372	
			Buildings and accommodation ..		50,790	
			Railway, sidings, &c. ..		20,878	
						190,989
			Blackball sawmill: Plant, buildings, &c. ..		..	1,757
			Plant, equipment, &c., on hire ..		96,664	
			Less provisionally written off ..		10	
						96,654
			Depots: Property Accounts ..		13,420	
			Less provisionally written off ..		1	
						13,419
			Head Office furniture, &c. ..		..	769
			Purchase of land .. ..		..	2,246
			Briquetting: Preliminary expenses ..		..	743
			Prospecting on State coal reserve ..		..	35,757
						2,801,786
			Shares .. ..		..	168
			Stores on hand—			
			Collieries		287,368	
			Spares for mechanical equipment ..		9,854	
						297,222
			Less provisionally written off ..		..	485
						296,737

Coal stocks (bins, wharf, and afloat)—		
Collieries	15,347	
Opencasts	5,173	
Coal purchased	351	20,871
Stocks and stores on hand at depots	11,190	
Less provisionally written off	2,272	8,918
Housing advances to workmen	77,626	
Interest accrued and due	930	
Miscellaneous advances .. ..	..	78,556
Sundry debtors	707,277	25,751
Less provisionally written off	50	
Cash in Receiver-General's Deposit Account ..	..	707,227
Cash in Public Account	217,564	4,039
Imprests outstanding	5,706	
Cash in Loans Redemption Account .. ..	..	223,270
		49,004
		<u>£4,216,327</u>

State Coal-mines Office, Wellington, C. I.

H. H. GIBSON, Accountant.

A. McLAGAN, Minister of Mines.

I hereby certify that the attached Revenue and Profit and Loss Accounts of Collieries, Opencasts, and Depots and General Profit and Loss Account and Balance-sheet have been duly examined and compared with the relative books and documents submitted for audit, and correctly state the position as disclosed thereby.—J. P. RUTHERFORD, Controller and Auditor-General.

STATEMENT OF PROPERTY ACCOUNTS AS AT 31ST MARCH, 1948

Underground Mines

	Kamo.	Wilton.	Mac-Donald.	Manga- pehi.	Tatu.	Stockton.	Webb.
	£	£	£	£	£	£	£
Development and Property Accounts	70,914	30,771	35,942	44,822	41,108	104,561	1,237
Machinery, plant, &c.	23,121	39,971	..	30,027	33,540	71,638	9,846
Buildings at mine	3,142	6,452	..	20,611	6,968	25,816	3,646
Cottages at mine	7,834	14,112	..	79,013	37,011	7,144	219
Plantations at mine .. ..	..	..	..	..	..	..	..
	105,011	91,306	35,942	174,473	118,627	209,159	14,948

	Burke's Creek.	Garvey Creek.	Liverpool.	Strong- man.	Blackball.	Dobson.	Wallsend.
	£	£	£	£	£	£	£
Development and Property Accounts	27,244	16,703	31,858	117,914	5,285	31,103	20,856
Machinery, plant, &c.	16,793	1,272	49,650	63,557	34,341	45,184	51,544
Buildings at mine	4,230	810	3,412	31,802	5,152	11,150	10,316
Cottages at mine	1,137	..	16,295	..	3,113	7,898	9,321
Plantations at mine .. ..	..	..	19	..	..	..	..
	49,404	18,785	101,234	213,273	47,891	95,335	92,037

	Paparoa.	Mossbank.	Wairaki.	Star.	Birch- wood.	Morley.	Totals.
	£	£	£	£	£	£	£
Development and Property Accounts	17,021	6,618	8,954	29,662	4,325	29,939	676,837
Machinery, plant, &c.	18,569	7,224	19,122	8,553	15,297	..	539,249
Buildings at mine	7,849	992	3,761	3,479	2,011	..	151,599
Cottages at mine	4,830	1,140	11,934	1,816	1,907	..	204,724
Plantations at mine .. ..	..	..	..	..	..	..	19
	48,269	15,974	43,771	43,510	23,540	29,939	1,572,428

Opencast Mines

	Glen Afton.	Kemp's	Kimihia.	Waite- whena.	Stock- ton.	Ohai.	Wan- galoa.	Black Diamond	Totals.
	£	£	£	£	£	£	£	£	£
Purchase-price	15	..	4,210	39,813	..	..	12,410	10,185	66,633
Development, preliminary expenses, &c. .. ..	..	4,256	9,284	12,330	..	..	4,382	1,064	31,316
Plant .. ..	..	..	..	4,456	763	3,036	..	13,117	21,372
Railway, sidings, &c. .. ..	..	569	15,836	4,473	..	..	..	..	20,878
Buildings and accom- modation .. ..	..	9,959	7,342	3,727	11,232	1,077	4,699	12,754	50,790
	15	14,784	36,672	64,799	11,995	4,113	21,491	37,120	190,989

TABLE SHOWING THE POSITION OF THE STATE COAL-MINES ACCOUNT FROM INCEPTION TO THE 31ST MARCH, 1948

Name of Works.	Total Capital Expenditure.	Total Amount of Depreciation written off.	Assets as per Balance- sheet, 31st March, 1948.	Net Profits.	Net Losses.	Liabilities as per Balance- sheet, 31st March, 1948.
UNDERGROUND MINES	£	£	£	£	£	£
Kamo	106,109					
Less sales, transfers, &c. ..	..				
	106,109	1,098	105,011	..	8,785	..
Wilton	121,565					
Less sales, transfers, &c. ..	1,105					
	120,460	29,154	91,306	..	34,358	..
McDonald	93,595					
Less sales, transfers, &c. ..	1,281					
	92,314	56,372*	35,942	2,414	..	..
Mangapehi	215,829					
Less sales, transfers, &c. ..	6,669					
	209,160	34,746	174,414	..	3,286	..
Tatu	168,657					
Less sales, transfers, &c. ..	17,639					
	151,018	32,391	118,627	..	29,869	..
Stockton	245,343					
Less sales, transfers, &c. ..	9,457					
	235,886	27,003	208,883	..	1,232	..
Webb	20,490					
Less sales, transfers, &c. ..	2,152					
	18,338	3,425	14,913	..	5,015	..
Burke's Creek	69,315					
Less sales, transfers, &c. ..	13,491					
	55,824	6,420	49,404	..	2,701	..
Garvey Creek	18,785					
Less sales, transfers, &c. ..	..				
	18,785	..	18,785	..	..	..
Liverpool	444,839					
Less sales, transfers, &c. ..	28,594					
	416,245	315,079	101,166	..	30,987	..
Strongman	321,149					
Less sales, transfers, &c. ..	42,899					
	278,250	65,028	213,222	..	16,453	..
Blackball	75,013					
Less sales, transfers, &c. ..	9,232					
	65,781	17,937	47,844	..	62,945	..

* Includes interest (£30,286) capitalized from date of purchase to date lease was granted, now written off.

TABLE SHOWING THE POSITION OF THE STATE COAL-MINES ACCOUNT FROM INCEPTION TO THE 31ST MARCH, 1948—*continued*

Name of Works.	Total Capital Expenditure.	Total Amount of Depreciation written off.	Assets as per Balance-sheet, 31st March, 1948.	Net Profits.	Net Losses.	Liabilities as per Balance-sheet, 31st March, 1948.
	£	£	£	£	£	£
Dobson	127,851					
Less sales, transfers, &c. ..	11,752					
	116,099	21,556	94,543	..	34,654	..
Wallsend	129,223					
Less sales, transfers, &c. ..	3,612					
	125,611	33,612	91,999	..	29,507	..
Paparoa	51,006					
Less sales, transfers, &c. ..	..				
	51,006	2,737	48,269	..	..	..
Mossbank	40,101					
Less sales, transfers, &c. ..	19,381					
	20,720	4,746	15,974	2,068	..	..
Waitaki	53,648					
Less sales, transfers, &c. ..	2,541					
	51,107	7,341	43,766	28,955	..	..
Star	45,881					
Less sales, transfers, &c. ..	79					
	45,802	2,292	43,510	10,197	..	..
Birchwood	24,144					
Less sales, transfers, &c. ..	..				
	24,144	604	23,540	..	5,187	..
Moriey	29,939					
Less sales, transfers, &c. ..	..				
	29,939	..	29,939	..	..	..
Purchase of Millerton and Denniston Mines	888,395	..	888,395	..	..	..
OPENCAST MINES						
Glen Afton	14,513	14,498	15	..	23,755	..
Kemp's	48,753	33,969	14,784	..	85,675	..
Kimihia	46,153	9,481	36,672	60,877	..	..
Waitewhena	74,939	10,140	64,799	..	12,852	..
Stockton	13,797	1,802	11,995	109,346	..	..
Ohai	23,272	19,159	4,113	36,679	..	..
Wangaloa	28,923	7,432	21,491	27,908	..	..
Bechive .. .. .	..	..	..	..	413	..
Black Diamond	38,037	917	37,120	1,120	..	..
DEPOTS						
Wellington	26,336					
Less sales, transfers, &c. ..	1,813					
	24,523	18,209	6,314	78,529	..	..

TABLE SHOWING THE POSITION OF THE STATE COAL-MINES ACCOUNT FROM INCEPTION
TO THE 31ST MARCH, 1948—*continued*

Name of Works.	Total Capital Expenditure.	Total Amount of Depreciation written off.	Assets as per Balance- sheet, 31st March, 1948.	Net Profits.	Net Losses.	Liabilities as per Balance- sheet, 31st March, 1948.
	£	£	£	£	£	£
Christchurch	23,572					
Less sales, transfers, &c. ..	1,259					
	22,313	15,764	6,549	38,470	..	..
Wanganui	4,372					
Less sales, transfers, &c. ..	413					
	3,959	3,409	550	..	2,073	..
Auckland	6	..	6	23,709	..	..
MISCELLANEOUS						
Briquetting: Preliminary ex- penses	743	..	743	..	..	..
Prospecting on State coal reserve	58,385					
Less transfers, sales, &c. ..	21,712					
	36,673	916	35,757	..	..	..
Plant, buildings, &c., on hire	142,529					
Less transfers, sales, &c. ..	13,024					
	129,505	32,851	96,654	13,284	..	..
Seddonville Colliery	38,243					
Less transfers, sales, &c. ..	549					
	37,694	37,694	..	..	36,574	..
Blackball Sawmill	1,757	..	1,757	..	..	..
Head Office furniture, &c. ..	769	..	769	..	..	..
Purchase of land	2,246	..	2,246	..	..	..
Royalties from 1st April, 1928	..	..	..	88,968	..	..
Taxation .. ..	..	..	..	..	51,929	..
Interest on investments .. ..	..	..	..	11,278	..	..
COMPLETED WORKS						
Point Elizabeth Colliery	98,210					
Less sales and loss by fire	2,291					
	95,919	95,919	..	147,583	..	..
James Colliery	74,495					
Less sales, transfers, &c. ..	6,250					
	68,245	68,245	..	2,970	..	..
Dunedin Depot	2,023					
Less sales of plant	641					
	1,382	1,382	..	..	4,248	..
Briquette Works	16,135					
Less sales of plant	2,066					
	14,069	14,069	..	..	22,661	..
Charming Creek: Prospecting	5,957	5,957	..	..	5,545	..

TABLE SHOWING THE POSITION OF THE STATE COAL-MINES ACCOUNT FROM INCEPTION TO THE 31ST MARCH, 1948—*continued*

Name of Works.	Total Capital Expenditure.	Total Amount of Depreciation written off.	Assets as per Balance-sheet, 31st March, 1948.	Net Profits.	Net Losses.	Liabilities as per Balance-sheet, 31st March, 1948.
	£	£	£	£	£	£
Hulks Property	4,034					
Less sales	1,949					
	2,085	2,085	..	1,787	..	..
Office furniture	190	..	..	..	..	..
Less sales	17					
	173	173	..	..	173	..
Discounts .. ..	..	..	..	13	..	..
Cash lost (highway robbery)	..	..	..	..	89	..
Transfer to Accident Insurance Reserve	..	..	..	..	2,960	..
Refund, Mines Department ..	..	..	..	..	5,000	..
Runanga water-supply .. ..	..	..	..	..	5,000	..
Stores sales .. ..	..	..	..	463	..	..
Grand total	4,079,266	..	..	..	..	..
Less losses, sales, transfers	221,868	..	..	..	..	..
	3,857,398	1,055,612	2,801,786	..	..	..
Total profit and loss .. ..	..	..	..	686,618	523,926	..
Balance : Profit over losses	..	..	..	..	162,692	..
				686,618	686,618	..
Capital expenditure brought forward	..	..	2,801,786	..	..	..
Shares .. ..	..	..	168	..	..	..
Stocks on hand, less provisionally written off	..	..	326,526	..	..	..
Sinking Fund investment .. ..	..	..	49,004	..	..	..
Sundry debtors .. ..	..	..	707,227	..	..	..
Cash in Public Account .. ..	..	..	223,270	..	..	..
Cash in Receiver-General's Deposit Account	..	..	4,039	..	..	..
Housing advances to workmen and accrued interest	..	..	78,556	..	..	..
Miscellaneous advances .. ..	..	..	25,751	..	..	..
Loan Account .. ..	..	..	..	..	..	3,448,147
Bad Debts Reserve .. ..	..	..	..	..	..	1,633
Sinking Fund .. ..	..	..	..	49,004	..	49,004
General Reserve .. ..	..	..	..	113,688	..	113,688
Deposits on contracts .. ..	..	..	..	..	..	4,039
Accident Insurance Reserve	..	..	..	..	..	118,302
Restoration Opencast Areas Reserve	..	..	..	..	..	2,452
Sundry creditors .. ..	..	..	..	..	..	479,062
	..	..	4,216,327	162,692	..	4,216,327

Approximate Cost of Paper:—Preparation, not given; printing (703 copies), £140.

By Authority: E. V. PAUL, Government Printer, Wellington.—1948.

Price 1s. 3d.]

