TABLE II.—FUEL-CONSUMPTION, LINE B 3.

Miles.	500-, 700-, 1,000-train Traffic.				340-, 477-, 681-train Traffic.	
	Grade, Per Cent.	Speed.	Resistance, One Train.	Mile-pounds = R.M.	Resistance, One Train.	Mile-pounds = R.M.
0·025	2·27	12	21,350	534	30,150	754
0·200	3·33	10	30,150	6,030	42,700	8,540
0·210	3·03	12	27,650	5,810	39,100	8,210
0·187	0·50	12	6,620	1,275	9,350	1,750
0·106	1·91	12	18,350	1,945	25,600	2,715
0·194	1·91	12	18,350	3,560	25,600	4,970
0·003	3·33	10	30,150	90·5	42,700	128
0·518	3·33	10	30,150	15,625	42,700	22,130
1·107	3·03	12	27,650	30,600	39,100	43,300
0·200	1·64	12	16,100	3,220	22,750	4,550
0·062	3·33	10	30,150	1,870	42,700	2,570
0·689	3·03	12	27,650	19,050	39,100	26,950
0·249	2·88	12	26,450	6,590	37,350	9,300
0·542	3·33	10	30,150	16,350	42,700	23,150
3·740	3·03	12	27,650	103,500	39,100	146,200
0·239	2·88	12	26,450	6,320	37,350	8,930
(2·985)	0·33	8·5–12	*5,200	15,530	*7,350	21,930
	Total R.M., Otira to summit ...			237,899·5	...	336,077
0·187	Summit level	12	2,450	458	3,460	647
(0.187)	Summit level	12	1,365	255·5	1,935	362
	R.M. both ways on summit level			713·5	...	1,009
0·200	Level	12	1,365	273	1,935	387
0·700	2·50	12	12,965	9,070	18,400	12,880
0·274	2·27	12	11,865	3,250	16,880	4,620
0·025	1·97	12	10,515	263	14,900	373
0·612	1·67	12	9,115	5,575	12,920	7,910
0·025	1·14	12	6,645	166	9,450	236
	R.M., Bealey to summit ...			18,597	...	26,406
10·294	(Total length of line.)					
Total R.M. uphill				(256,496)	...	(362,483)
Equivalent R.M. downhill (10 per cent.)				25,650	...	36,248
Total equivalent R.M., one round trip ...				282,859	...	399,740
Cost of fuel = R.M. ÷ 215,384·6 = £1·312 per round trip.					Cost of fuel = R.M. ÷ 215,384·6 = £1·855 per round trip.	

* Resistance due to curvature.

NOTE.—The steepest equivalent grade is 3·49 per cent., which at eight miles and a half per hour gives resistance 31,450. The tractive power is 31,550 for the light trains, and correspondingly greater for the heavier trains and locomotives.