

grits, showing in places many preserved sections of top grits, which lie all but on edge. From careful prospecting those preserved patches do not appear to hold much coal cropping to surface, only with one exception under face of fault 12 is found—

									Ft. in.
Coal	...	...	...	...	...	...	...	...	1 0
Blaze	...	...	...	...	...	...	...	...	2 0
									<hr/> 3 0

dip, E. 12°; the measures around this having appearance of disturbance. In traversing down left-hand branch Fly Creek, which gorges with wall perpendicular 60, 80, and 100 feet, I got several good sections, showing in places top measures disturbed, but failed to trace any coal, which still leaves a doubt here also as to its existence, which, if it does exist here, is beyond my limited explorations. In the traversing of Whirlwind Creek and Waimangaroa good sections are obtained, but in all showing similar to those in Fly Creek.

*Low Levels B and C (Frederick).*—To the eastward of break 9 the measures are broken through by a slate belt, composed of small spires and hillocks holding slate on surface, extending from near face of break east down to near Cypress Creek, and north till gaining peg 10 of Happy Valley traverse line, extending south past L. 62 till reaching peg 11, Waimangaroa traverse, near face of break 9.

Along the face of break and out east on to slate I have prospected diligently, but have not been successful in tracing crops of any coal. On the eastern slopes of those slate spires facing Happy Valley small pieces of grits and coal are traceable, till reaching bed of Happy Valley, where slates appear to dip under, and measures again make. A small basin of coal is here struck showing crops as under:—

								Ft.	in.
Section No. 26.	{	Fine Grits	...	...	...	...	...	12	0
		Soft Sandstone	...	...	...	...	...	2	0
		Blaze	...	...	...	...	...	1	0
		Coal	...	...	...	...	...	12	0
		Shale Blaze	...	...	...	...	...	2	0
								<hr/>	
								29	0

Dip W. 10°, resting upon soft white sandstone.

Section No. 34.	{	Coal	...	...	...	...	...	...	3 feet shown.

In this section no particulars could be obtained.

Section No. 30.	{	Coal	...	...	...	...	...	...	12 feet.

Dip W. 12°, resting upon shale. No further section here could be obtained.

Section No. 42.	{	Coal	...	...	...	...	...	...	3 feet, top seam.

Dip S. to S.W. 10°, resting upon soft sandstone.

								Ft.	in.
Section No. 42½.	{	Soft Sandstone	...	...	...	...	...	2	0
		Blaze	...	...	...	...	...	2	0
		Coal, top seam	...	...	...	...	...	3	0
								<hr/>	
								7	0

Dip S. 12°, resting upon soft sandstone.

This coal is of excellent quality, being in itself much harder than that seen on upper height Mount Frederick. From the general appearance of the measures around they bear that of being thrown, together with the dip of slate spires on the west being east, the dip of coals west, and crops east towards and up Mount William ridge, I would be of opinion that this coal has slipped or been thrown from the ridge. The valley is crossed by a cross bar of slate to south, near pegs 4 and 3, throwing south end of coal area with a southerly dip.

*High Level B (Frederick).*—This height, as may be here observed from the upper height, summit of Mount Frederick, which holds an area breasted on the east by high level fault, and on the west by sea fault. On the face of these faults numerous sections of coal are obtained on the four sides of the area, while one section in the centre has also been obtained (No. 109), all holding coal of considerable thickness. I have therefore, as may be observed, marked this area as holding such, for most part throughout its entire extent. The sections found in same show thus:—

								Ft.	in.
Section No. 35.	Western face.	{	Surface, fine Quartz Grist	...	...	...	...	8	0
			Soft Sandstone, with shaly partings	...	...	...	...	10	0
			Blaze	...	...	...	...	4	0
			Coal	...	...	...	...	18	0
			Shale Blaze...	...	...	...	...	6	0
			Soft grey Stone	...	...	...	...	10	0
								<hr/>	
								56	0

Dip E. 10°, resting upon hard grits.