APPENDIX TO REPORTS ON THE PICTOU COAL FIELD.

The theoretical evaporative power resulting from the second analysis above given is large; it should render the coal a good steam coal, if the pyrites were removed.

COAL AND OIL-COAL FROM THE STELLAR SEAM.

On page 70 of the Geological Report, it is stated that the Stellar coal stellar out-coal seam of the Acadia mines has the following section :---

	Ft.	In.	
Good coal	1	4	Section.
Stellar oil-coal	1	10	
Bituminous shale	1	10	
	_		
	5	0	

These three divisions of the seam are quite separate and distinct in Divisions of stellar seam. character. The substances from each were examined some time since by Prof. How, who first described the peculiar substance forming the middle bench, to which, from a likeness in some of its qualities to the so called oil-coals, torbanite and albertite, he has given the name of stellarite, from its throwing off sparks or stars of fire when lighted. From the three benches Prof. How obtained the following results :---*

		now.		Analyses.
	Coal.	Stellarite.	Shale.	
Volatile matters	33.58	66.56	30.65	
Fixed carbon	62.09	25.23	10.88	
Ash	4.33	8.21	58.47	
	100.00	100.00	100.00	
Moisture		.23		
Specific gravity		1.103		

Coal. The coal appears to be merely an ordinary fat caking-coal, with _{Coal bench}. an unusually small percentage of ash for this region, but the bench being thin, the value of the seam depends principally on the two lower divisions, stellarite, and oil-shale.

Stellarite. This peculiar substance was first known and worked at these Stellarite benchmines by the former owner, the late Mr. J. D. B. Frazer, of Pictou. It appears to be an earthy bitumen, or, to quote Dr. Dawson, "a fossil swamp-muck or mud," † which he has elsewhere the shown, is the character of the earthy bitumens and highly bituminous shales of the coal formation generally.

† Acadian Geology, p. 339.

 \ddagger See Dawson, " On the conditions of accumulation of coal." Journal Geol. Soc. xxii. p. 95 ct seq.

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Second bench. 23.30 70.00 6.70 100.00 76.70 1.301

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^{*} How, Mineralogy of Nova Scotia, p. 24.