

The coal of the third seam to be noticed as worked at the Gowrie Colliery is black with a grayish tinge. On fresh surfaces the lustre is bright and pitchy, with very fine laminae of jet-like coal, and a good deal of mineral charcoal on the deposition planes. This coal sometimes exhibits four cleavage planes, sometimes holding films of calc spar. Coal tolerably compact, with nearly black powder and little visible pyrites. This description answers for it throughout the district, except that at the Reserve and Bridgeport mines it is more pitchy and lustrous.

The following analyses will serve to show the composition of this coal at the Collieries operated on it from Cow Bay to Sydney Harbor :

	Gowrie.	Caledonia.	Reserve.	Lingan.
Moisture.....	.50	.92	.52	.75
Vol. Comb. Matter, slow Coking.	28.13	28.62	34.21	34.61
“ “ “ fast “	31.41	30.31	37.60	37.26
Fixed Carbon, slow Coking	66.01	64.02	59.73	61.39
“ “ fast “	62.73	62.33	56.34	58.74
Ash.....	5.36	6.43	5.54	3.25
Sulphur.....	2.71	1.10	1.25	1.35
Specific Gravity.....	1.31	1.33	1.28	1.29

The ashes of this coal vary in color from light to deep red.

The gas values of this seam vary from 8,900 to 9,500 cubic feet of gas, of from 13 to 15 candle power, and a good Coke is left.

The following ultimate analysis of the coal from the Reserve mine, made at the Royal School of mines, will prove of interest :

Carbon.....	77.41
Hydrogen.....	5.47
Nitrogen. }	9.30
Oxygen. }	
Sulphur.....	2.47
Water.....	1.00
Ash.....	4.35

The following analysis of the coke from this mine is from a report of Mr. E. D. Peters, on practical tests made by him in experimental smeltings of Coxheath copper ore, and it may be re-