

sions of which have not, so far as I know, been fully made out, but which have afforded many tons of good ore. The whole thickness of the limestone holding manganese is estimated at about 300 feet.

The minerals associated with pyrolusite at Teny Cape are iron ore (brown hematite, I believe), barytes, and calcite. The first of these is occasionally found at the line of junction of the ore and rock, which, as before mentioned, is sometimes red. The barytes is of pure-white colour, is often disseminated in varying quantity through the pyrolusite, and is probably constantly present in all but the pure crystals of the species. The calcite is also occasionally imbedded, in transparent crystals, but more often exists as an incrustation; it sometimes forms specimens of great beauty, when it lies in opaque snow-white mammillary masses of finely-crystalline structure, or in piles of nail-head crystals, half an inch or an inch across, of grey or snow-white colour, on black lustrous masses of well-crystallized pyrolusite.

The pyrolusite found at Walton is sometimes attached to brown hematite in a reddish limestone resembling that at Teny Cape.

The forms of the mineral are various. It is generally highly crystalline. The masses at Teny Cape are sometimes of a grey black and consist of closely-packed fine long fibres, sometimes are made up of bunches of stellated short crystals, and often of distinct and lustrous jet-black crystals with perfect terminations: all these varieties yield readily to the knife. The Pictou ore (found at a distance of about seventy miles) is coarsely fibrous. The greater part of that from Walton is in soft, black, lustrous, short crystals; one specimen, however, has been met with almost crypto-crystalline in structure and of bluish-grey colour, closely resembling the ore from Saxony. A very similar specimen from Amherst, Cumberland Co., forty miles from Walton, gave on analysis in the air-dry state,

Water	0.61
Binoxide of manganese	97.04
Gangue and loss	2.35
	<hr/> 100.00

The insoluble matter (gangue) was brownish white, and most probably consisted of barytes.

I have no doubt that specimens of the greatest possible purity could be selected at Teny Cape. I have examined a good many samples of dressed ores, and have commonly found from 80 to 93 per cent. binoxide; a specimen obtained at a depth of 50