

with limestone and gypsum. Its width varies from 6 to 10 feet, and from surface indications it appears to extend over a considerable tract of country. The bed in places is highly mangiferous, and is a typical spathic iron, granular and crystalline in texture, and of a light-gray color. The following analyses will show its character :

| | I. | II. |
|-----------------------------------|-------|-------|
| Sesquioxide of iron, | 20.52 | — |
| Carbonate of iron, | 57.40 | 82.11 |
| Carbonate of manganese, | 8.29 | 4.70 |
| Carbonate of lime, | 4.02 | 2.37 |
| Carbonate of magnesia, | 5.66 | 9.06 |
| Silica, | 2.38 | 1.69 |
| Moisture, | 1.43 | — |
| Sulphur, | none | .10 |
| Phosphorus, | none | none |
| Metallic iron, | 42.07 | 39.64 |

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Indications of spathic ore have been found on Sutherland's River, McLellan's Brook, etc., under similar conditions, and this ore may prove a widespread and important addition to the ores of the county.

Still further east on French River, at a horizon apparently several hundred feet higher, and considered to represent the upper part of the Marine limestone formation, there are several beds of a nodular red hematite, varying in thickness up to 4 feet. These beds have been recognized as extending for several miles. They appear to be the weathered outcrops of carbonate ores, but they have only been examined superficially. Samples taken from the outcrop of a 4-foot bed on French River yielded 35 per cent. of metallic iron.

In the productive coal-measures, clay-ironstones and black-band ore have been noticed at several horizons. It may be questioned if any of the ores hitherto casually exposed in shafts and stone tunnels are present in quantities large enough to warrant the expectation of independent workings, although in some cases they could be worked in connection with the coal-beds. The horizon yielding these ores most abundantly appears to be that embraced between the Albion main seam and the McGregor seam. Old records show several beds included in these strata which contain layers of ironstone up to 3 feet in thickness, and on further examination they may prove of economic value.

The following analyses by the writer will serve to show the quality of some of these ores :