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PRELIMINARY REPORT ON COAL ON LAWRENNY ESTATE

Langloh Coal Area

The coal bearing area in the vicinity of the Langloh Mine is practically confined to the area at present held under lease (Mineral leases 283P/M, and 292P/M to 297P/M inclusive and 323P/M). Detailed boundaries of the coal and small potential extensions to these leases will be given in the full report. The coal bearing area is bounded southwards by the outcrop as a result of the dip and eastwards by its contact with the dolerite intrusion which has a shelving upper surface which cuts off progressively higher horizons towards the north, and so limits the coal in this direction also. To the north-west the coal area ends against a dyke of dolerite. Beyond this are thick Miocene lacustrine sediments. The most feasible explanation of this relationship seems to be that a Lower Miocene north-east trending fault lets down the Triassic rocks to the north-west, and that the depression so formed became a lake in which a thickness of about 1,000 feet of Tertiary clays and ferruginous sands accumulated. If this explanation is correct, coal bearing strata might be expected to underlie these lacustrine beds.

Potential Coal Area near Ouse

An area of about six square miles along the Ouse River stretching from Ouse township northwards for about three miles, and extending for about a mile on either side of the Ouse River is potentially coal bearing. Of this about a square mile lies on the Lawrenny Estate. To the north-east and south-west the area is limited by large faults belonging to the Derwent faultsystem, both throwing down several hundred feet to the south-west. To the north-west the area is limited by outcrop rising as a result of dip, and is further complicated by a dolerite intrusion. To the south-east the potentially coal bearing sediments dip beneath extensive dolerite sills. The sediments dip gently towards the south-east and are not expected to be closely faulted although some faults trending north-west are probable. These are likely to be sufficiently large to divide the area up for mining purposes into two or three separate fields.

In view of the extent of dolerite about it is possible that trouble may be caused by this rock, so that occurrence of coal cannot be reckoned on until proved by test drilling.

The area concerned is all of comparatively subdued topography and access presents no difficulty. A road traverses the area on each side of the Ouse River and field vehicles can be taken to most parts of the area in dry weather.

This potential coal area is strategically located. It adjoins the Ouse district bauxite deposits, and is crossed by the main hydro-electric transmission line, and is adjacent to the Lyell Highway and the surveyed extension of the Derwent Valley Railway which was proposed many years ago.

A suitable place to commence preliminary drilling operations would be along the hydro-electric transmission line at points midway between the following towers, but offset 50 yards north-eastwards at right angles to the line of the towers -

Drill Hole No.	Midway between Towers.

See overleaf -

Drill Hole No.	Midway between Towers.
1	132 & 133
2	131 & 132
3	130 & 131
4	129 & 130
5	134 & 135
6	136 & 137

It should be pointed out that there are two distinct transmission lines running side by side in this area and that the above tower numbers refer to the new transmission line, which is the more south-westerly of the two, and can be identified by the fact that it carries only one three phase circuit, whereas the other line carries two three phase circuits.

This preliminary programme is designed to prove the occurrence and quality of coal in the area. If successful it would need to be followed by systematic drilling on say a five chain grid to prove the underground behaviour of the coal. This is considered necessary because of the possibility of undetected faults large enough to interfere with mining. Because of the possibility, this systematic drilling should be completed before the sites of mine openings are determined, because otherwise there is risk of establishing the workings on a fault slice of limited extent.

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