

THE LEASING OF MINERAL
LANDS AT ADAMSFIELD.

Introduction

Applications have been made to the Secretary for Mines for leases of two 40 acre blocks of mineral land at Adamsfield. These are in respect of Dredging claims; one pegged in the name of R.W. Jones, the other in the name of Colin Kennedy. The applications are made for the right to work the bed and banks of Adams River specifically for gold, but doubtlessly for other metals and minerals also, including osmiridium according to the results of actual tests of the alluvial ground the proportional value of osmiridium to gold is as twenty to one, therefore the assumption is justifiable that the main object of search is osmiridium. If the application had been made in respect of osmiridium also, they would have been quite in order, and the granting of the leases would have been at the discretion of the Honourable, the Minister for Mines, subject to the consent of the Governor. An 80 acre mineral lease or a 40 acre dredging claim may be granted for the mining of osmiridium, but it is the policy of the Government to grant leases of osmiridium areas in exceptional cases only, as for instance, in reward for discovery, or to mine serpentine rock or deep alluvial ground in areas abandoned by the miners of shallow deposits. Leases granted for such purposes during recent years have been of small areas, not exceeding 10 acres. In the case under discussion no valid objection could be raised to the granting of dredging claims for gold, if the subsequent operations would not interfere with the prior rights of osmiridium miners. The main question at issue is: can the ground be worked to better advantage by a number of small parties operating independently than by a highly capitalised company?

In the following statement an account is given of the nature of the deposits and the methods to be adopted for their exploitation.

Area, Situation, etc.

The area of each of the dredging claims applied for is 40 acres, measuring 40 chains along the course of Adams River and 5 chains on either side of the centre of that stream. That applied for in the name of Colin Kennedy extends southwards from a line crossing the stream near the base of the waterfall: That in the name of R.W. Jones adjoins it and extends to the south east. These areas lie two to three miles westward of Adamsfield settlement.

The Deposits

At and near the waterfall the Dundas series of sedimentary rocks outcrops at surface. Upstream green Silurian sandstones are exposed and form the platform upon which the alluvial deposits rest. Similar sandstones at Adamsfield are the repositories of some of the richest concentrations of osmiridium. From the waterfall southward the bedrock is exposed at many points over a distance of twenty chains and the deposits of alluvium are shallow. Farther on the wash, dirt or river gravel is deep varying from 14 to 20 feet. The greater part of the osmiridium is found in the bottom layer of the wash. It is generally of pin-head grainsize and of good quality. The deep ground lies behind a bar of hard rock and is at present inaccessible, because of the difficulties of drainage and the removal of the overburden. The same difficulties apply to the working

of the deep ground on the west side of Sandstone Hill.

Methods of Operation

At present the shallow deposits are being worked by ordinary ground sluicing methods with the use of a sluice box or with a tail race or by mining and panning only. These methods can be employed on small sections of the deposits only. Eight miners claims of 50 yards are being worked in this matter from the waterfall southward along the course of the river.

The deep ground can be worked by one or two methods, namely:-

- (1) By means of a hydraulic elevator, or
- (2) By cutting a deep tail race from the waterfall up the river bed through a bar of hard rock against which the alluvial deposits abut.

The hydraulic elevator is not economically possible because water cannot be conducted to the area at a high elevation. The deep tail race method is the more applicable to this case. Moreover, the latter course would provide a drainage channel to the flat country lying between Adams River and Adamsfield camp, thereby bringing another area under the operation of miners claims.

The cost of cutting the drainage channel has been estimated at £1,000. Before undertaking a work of such magnitude the ground should be carefully tested to ascertain its value. To perform this work the scrub should be cut and burnt and the ground tested by drilling, the wash over the whole area.

Summary and Recommendations

The deep pot holes in the ledges of the waterfall rock and the shallow ground above the waterfall can be worked by small parties of miners at a low initial outlay. Eight claims are now held covering that ground. A lease of that area cannot be granted until the claims of the miners have been abandoned.

The deep ground above the rapids can be worked profitably by one method only, namely, by cutting a long deep tail race through hard rock to the bed of the alluvial deposit. This work will entail an expenditure not less than £1,200. A work of such magnitude is beyond the means of the miners, and the performance of that work would be economically unsound unless a large area of ground were made available.

Unless arrangements can be made with the miners who are working the shallow ground between the waterfall and the bar of rock against which the deep ground abuts, Kennedy's application cannot be accepted. The miners are in fear lest their claims be forfeited, and are apprehensive as to the effects of tailing on their properties. Again, they state that if an easement be granted of a drainage channel through their claims, it will prevent the economic workings of their deposits.

As regards Jones' claim, no valid reason can be given against the granting of a lease.

When the drainage channel is cut, all large area, now inaccessible, will be workable under miners rights.

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