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MEMORANDUM

REPORT ON PORTION OF THE GLADSTONE TIN FIELD

The area dealt with in this report is situated in the immediate vicinity of the township of Gladstone in the north-east of Tasmania. It is bounded on the north, east and partly on the south by the large bend of the Ringarooma River, which almost encircles Gladstone. Mount Cameron rises on its western flank and the northern, eastern, and southern foothills of the mountain are included.

Tin mining has been carried out at many points within the area and large open cut workings have been made by mines such as The Echo, The Vulcan, and The Native Lass. Extensive workings have been made in Ah Gow, Mt. Cameron and Fly-by-Night Creeks. In the vicinity of the Gladstone cemetery reserve workings by Walsh are extensive and have been opened to depths of over 20 feet. South and east from these workings, in the vicinity of the Anson Bay Road crossing of the river further work has been done. The comparatively steep bank of the river south from here has been untouched until the Perdue workings are reached near the long syphon. The Perdue workings extend from the Ringarooma River in a north and westerly direction across the Gladstone road, leaving a comparatively small area in a north-westerly direction between their northern boundary and the southern limits of the Compere workings. The Compere workings extend northerly to within a quarter mile of the Pioneer road and westerly for some 200 yards. To the north of the Pioneer road and a little towards Gladstone the southern extension of the Fly-by-Night workings occur.

The workings just described cover an appreciable area of the whole district but to endeavour to estimate their area would necessitate the expenditure of considerable time. It is anticipated that this work will be facilitated in the near future by the provision of aerial photographs of the district and, until then, no estimate will be attempted. It can be stated that there are considerable areas, as yet unworked, which are potential sources of tin-ore. Some of the larger areas of unworked ground should be tested by boring, but in many cases, the grade of ore available is known.

In support of this contention, six parties, representing eleven men, were operating in the area. The working parties and sites of operations are as follows:-

E. Moore working at Perdue Workings.

C. Hortin and P. Hortin) working at East branch of Mt. Cameron Creek.

J.A. Moore working at Main Mt. Cameron Creek.

F. Woods and M. Terry) working at Ah Gow Creek.

V. Moore, L. Moore and E. Fenton) Working at Sextus Creek.

H. Standage and B. Groves) working near Cemetery Reserve.

With the exception of the last named party, all the operators were operating with winter or storm water. Standage and Groves were being supplied with water from the Mount Cameron Water Race.

A short description of each of the workings is as follows:

Mr. E. Moore is operating on a small area of country in the vicinity of the Perdue workings. The ground being treated seldom exceeds a depth of four feet but it is deepening as the old workings are approached. Work is rendered difficult by the occurrence of a fairly hard cemented band which, at present, is left as bottom. Water is drawn from a small dam in Cook creek and yields only a light operating pressure. Operations are possible only during the wet season.

Messrs. P. & C. Hortin are working on a 10 acre lease, No. 75M/42, situated on the eastern branch of Mount Cameron Creek. Water is drawn from a dam situated at a higher level in the same Creek and operations are possible only during the period of wet weather.

The ground is high grade in tin ore and, from prospects seen, is estimated to be not less than 2 lb. per cubic yard. Production from this area was stated by Mr. P. Hortin to be valued at £1,700 from operations extending over the winters of a period of six years, during which the longest and shortest working periods in any year were 17 and 12 weeks respectively.

Mr. J.A. Moore's workings are situated in the main Mt. Cameron Creek about a quarter mile above the syphon on the Government Race. He is working high grade ground varying in depth to 10 feet. Operations here have not been of long duration and figures relative to production are not available. Estimates by prospect dish indicate a grade of 2 lb. per cubic yard.

Mr. Moore draws his water from a well constructed dam in the upper reaches of Mt. Cameron Creek.

Messrs. F. Woods and M. Terry were ground sluicing surface soils and a little wash on the western side of Ah Gow creek - immediately to the west of the deep workings in that creek. Water was crudely diverted from Alhambra Creek to a race which filled a small dam above the workings. The dam was capable of storing from four to six hours supply. Repairs to the dam in Alhambra Creek could be cheaply effected to yield a much greater supply.

Messrs. V. Moore, L. Moore and E. Fenton are operating at the head of Sextus Creek on, in the vicinity of lease No. 70M/42 and appear to be treating wash from the southern extension of the lead worked by H.C. Lawry on the eastern branch of Dryden Creek. Their water right is based on Deep Creek and, at the time of this inspection was not yielding any appreciable pressure at the working face. A higher level race is available but will give only an additional 20 feet pressure.

The ground is high grade in tin ore and varies to 10 feet in depth. Deeper ground, stated to be of a profitable grade still remains to be treated in the old workings on Dryden Creek where depths range to 25 feet.

Messrs. H. Standage and B. Groves were treating shallow ground adjacent to the Gladstone Cemetery reserve and declared their intention of later operating in deeper ground towards the Ringarooma River. The present operations are confined to the treatment of soils and wash seldom exceeding two feet in depth. Water is drawn from the Mt. Cameron Water Race and is conveyed to the workings by pipe over a distance of 54 chains.

The original miners of the Gladstone Tin Field depended entirely on storm waters for their water supply. Dams were constructed to conserve supplies and ensure greater continuity of operation. With the construction of the Mount Cameron Water race the problem of water supply was solved for those miners on the south bank of the Ringarooma but, for those miners operating on the area at present under review, the storm waters were still the source of water supply. It was during this period and prior to the extension of the race that most of the mining operations of this section of the field were carried out. It is, therefore, understood that production was continuous only during the period of high rainfall. In some instances, in an endeavour to conserve water, dams were built. That some of these were not insignificant is shown by the cubic capacities of the Echo and Native Lass dams which held respectively 382,000 and 6,181,000 cubic feet. These dams were not of sufficient size to ensure continuous operation and in 1926, (See Scott's report) an extension of the Mt. Cameron Water Race was surveyed and, in 1928? constructed with the primary object of maintaining continuous operation of the mines by using night water from the race to replace water withdrawn from the dams during the daytime. There are no official records to show whether or not production was maintained but Mr. J. Watts, during this investigation, stated that he had maintained profitable production from this locality during the four years that the branch race was operating. The race and dams are at present in a state of disrepair.

Full use has not been made of the natural facilities of the district for the storage of water. Several small dams have been built in creeks flowing in a general northerly direction from the slopes of Mt. Cameron but some of these have been allowed to fall into disrepair. The dams that remain are not large enough to ensure continuous working. On the eastern end of the mountain, operators draw water from the section of the Mt. Cameron Water Race which supplies the township. It is possible that further storage could be effected by the use of what is referred to locally as the Valley Water Scheme. Water rights Nos. 2934 and 2935, situated in Sapphire and Campbell Creeks respectively and covering a total of 51 acres may on investigation be found to be adaptable to the needs of a fairly large area on the southern side of the mountain.

Monazite

Monazite occurs freely in association with the tin ore in parts of the Gladstone district, particularly in the vicinity of Ah Gow or Chinaman's workings on the head of Ah Gow Creek. It was reported that in the margins of the workings the proportion of monazite in the concentrates became so heavy that economic mining for Tin was not possible because of the difficulty in cleaning the concentrates for market.

A sample of the monazite was obtained from these workings and forwarded to the Chief Chemist for analysis. The sample was taken under working conditions and should indicate the relationship between the quantity of tin ore and monazite available in that particular area.

A large area of tailings, accumulated from the workings in Ah Gow Creek, and situated in the public sludge channel in the lower reaches of the Fly-by-Night Creek shows an appreciable amount of monazite. The actual grade has not yet been determined.

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