REPORT ON SECTION NO. 9578/M IN THE NAME OF J. T. RILEY, AREA - 10 ACRES.

Locality

The lease is situated in the Wilson River district at the head of Riley Creek and between the Huskisson and Wilson Rivers approximately 3 miles north-westerly of the Pieman River at its junction with the Huskisson.

Access

The locality can be reached either by foot track crossing the Pieman and Huskisson Rivers by wire rope cages, the journey occupying about two hours walk from Renison Bell, or by pack track from the latter a distance of about 11 miles. The track is well graded. Material too heavy for packing can be sledged over the track, which crosses the Pieman by a suspension bridge.

Renison Bell the centre of a tin field of that name is a station siding on the Emu Bay Railway connecting the port of Burnie on the north west coast to the town of Zeehan, the commercial centre of the West Coast mining fields.

From Burnie to Renison Bell the distance is 78½ miles and on to Zeehan 9½ miles.

Topography

The locality in which the lease is situated has an elevation of several hundred feet above the Pieman River and contributary streams in the vicinity.

The lease is situated in a shallow basin with gently rising ground to the north east and west, its general level is about 50 feet below the level of the crests of ridges which surround it.

On the southerly portion of the section Riley Creek has its source coursing away in a south westerly direction.

The gently rising bridge to the north which has an east-west direction forms the divide between Riley and Sweeney Creeks, the source of the latter being in the vicinity of the north side of the divide and from thence flows in a northerly direction. The lease and surrounding country is lightly timbered, the undergrowth is also light.

Geology

The country rock consists of greenish coloured serpentine, the bare weathered surfaces of which are exposed on the higher ground to the east of the lease.

On the lease area itself the country rock is completely covered with alluvial ground. This consists of red, loose, loamy soil associated with ironstone rubble. The largest sized pieces of latter would not exceed 1 inch in diameter.

The surface of the serpentine below the alluvial material is very uneven and much decomposed, resulting in a layer of varying thickness of soft clayey material between the superficial covering, and the harder rock below. The depth of the soft decomposed serpentine below the alluvial

varies, on the average about a foot gradually hardening from the surface downwards.

It is a well established fact that the osmiridium found in the alluvial ground has been shed from certain areas in the serpentine, the resultant product of weathering of the latter being the alluvial material found on or in the vicinity which carries the metal. In the vicinity of the lease the occurrence of osmiridium is restricted to a certain defined area, being a comparatively narrow belt extending through the section across the ridge to the north at the head of Sweeney Creek and beyond.

The ground in the vicinity of the latter having been a more or less abundant source of the metal in the earlier days of the field.

Former Workings

Riley Creek area has been a steady contributor of osmiridium for many years past. At present only two or three men are engaged working the available small areas left which is possible for a limited period in the wet season only. On Riley Creek below the lease the whole area of flat ground in the valley has been worked out for a considerable distance. The width of ground here averaged about a chain, the depth was shallow ranging from a few inches to about a foot. Very good returns of metal are said to have been obtained from this area.

Towards the southern portion of the lease the depth of alluvial increases to several feet. Narrow gutters have been worked through the section on the rise from south to north and for a short distance beyond. The average depth of the wash dirt on the lease is about 5 feet. In parts much deeper ground occurs.

The source of the osmiridium found in the alluvial material on the lease, in the valley of Riley Creek and in Sweeney Creek is without doubt in the ridge forming the divide between the streams referred to.

The configuration of the ground embraced in the lease and that immediately to the north has been favourable for the accummulation of alluvial material shed from the ground above. Practically the whole area of the lease is covered with alluvial ground.

On the opposite side of the ridge at the head of Sweeney Creek and below the conditions for the deposition of any considerable quantity of alluvial have not been so good as on the south side.

Higher up the hillside from Sweeney Creek the depth of wash dirt increases.

As above stated comparatively large quantities of osmiridium have been won from Sweeney Creek. Pieces of the metal weighing up to 1dwt. have not infrequently been found.

Very good prospects of the metal can be obtained by dirt washing the alluvial ground on J.T. Riley's lease particularly at the head of the old workings near the northern boundary, that is on the rising ground of the ridge forming the divide. The metal is comparatively coarse and of good quality.

As a source of osmiridium the alluvial ground of

the lease and the area to the north offer good prospects.

The total area that could be considered as payable has been closely defined; roughly it would cover 20 to 30 acres, possibly more.

In the past only the most primitive methods have been used in working the ground, this is due to the absence of a constant water supply.

The successful working of this ground will be directly dependent upon an adequate water supply for sluicing purposes. Riley or Sweeney Creeks cannot be considered as a possible source.

The lease area is situated near the summit of an elevated tract of country surrounded on three sides by low lying streams viz. the Pieman to the north, Huskisson to the east and the Wilson River to the west, the two latter being tributories of the former.

Water storage above the general level of the area does not appear to be a practicable scheme.

The only alternative which suggests itself is to make a full investigation by survey in order to ascertain the position of the nearest point from which a water supply could be made available at or near the lease.

Before any expenditure is undertaken in this direction it would in the first instance be advisable to thoroughly test the ground proposed to be worked.

Boring or sinking in order to accurately define the area should be carried out, the results of this work would give an indication of its value and approximate quantity of payable ground. Against this should be set off the cost of working, expenditure necessary to provide a water supply, including machinery for pumping to supply pressure for hydraulic sluicing.

It cannot be doubted that the ground shows every prospect of yielding a considerable quantity of osmiridium.

If the methods of winning the metal as practised in the past returned anything approaching payable returns to the miner it stands to reason that if properly equipped with necessary plant and a full supply of water to treat the ground in quantity good returns could be assured.

The ground could be very cheaply worked owing to a loose incoherent nature of the wash dirt. The very high specific gravity of the metal would render a high recovery a comparatively simple matter.

The facilities for the disposal of the tailings by gravitation are very favourable.

J. B. Scott
GOVT. MINING ENGINEER.

Zeehan,
9th September, 1926.