Old Mines in Limestone

South Oceana

Preliminary Statement

(1) Location.

The South Oceana outcrop is situated 30 chains south-east of the Oceana main shaft, right alongside the old Oceana Tram.

(2) History.

The history of the South Oceana is clouded in mystery. Neither Mines Department records nor the Zeehan & Dundas Herald even make mention of it. The only record of any kind is contained in the German Plan of Zeehan Workings secured from the E.Z. Coy and copied early this year. That plan shows a branch-adit and three small prospect shafts labelled 'South Oceana'. The date of that plan is 1900.

The work must therefore have been carried out before 1900 and later than 1892 when the Oceana tram was completed, since a short ramp exists up to the tram. It would seem to have been later than 1893 as Montgomery does not mention it in his report of that year in which the Pyramid further down the hill is dealt with. It seems most probable therefore that the work coincided with the revival of mining at the Oceana during the period 1896-1899.

It is quite clear that nothing has been done since the 1900 plan was prepared.

(3) Geology

The limestone outcrop in which the ore deposit occurs is not more than 100 feet wide. Southwards this limestone runs out to a point. Northwards the outcrop widens and becomes Block 20, which although mostly covered with glacio-fluviatile deposits is shown by the crosscutting South Oceana Creek to have a width of the usual order of magnitude.

The geological structure accounting for this behaviour of the limestone has yet to be worked out.

The ore occurrences are spread over a width of at least 50 feet and consist of good lead-zinc ore. The 1900 plan depicts three closely-spaced runs of galena with a length of 350 feet.

(4) Extent of Information

As previously stated, information is practically nil. It will be necessary to acquire it by cleaning out and opening up the old workings.

(5) Work Contemplated

The immediate task is thus clearly to clean out, drain, and open up the old shallow workings. There is obvious scope to extend these to penetrate exposed faces of high-grade ore. Then systematic sampling will follow.

In addition the deciphering of the geological structure will be embraced by the general scheme of geological mapping and field checking of Professor Carey's aerial photograph interpretations.

(i) Town Group

The five lodes crossing Main Street are within a width of about 300 feet.

(ii) Austral Valley Group.

At the Maxim there are at least 4 lodes in a width of 550 feet

At Watts there are 7 lodes in a width of 1000 feet.

It is, moreover, not at all certain that all the lodes have been discovered, much less recorded and plotted. The only source of information is Waller who admits that he had only cursorily examined the area, which at that time was still covered with heavy forest. It is now open country.

(b) Proved length and Width.

(i) Town Group

Nothing proved as to length. A recent exposure of one of the lodes in Main Street in bridge renovations showed 2 feet of solid galena. The width of the lode in Fowler Street is 4 to 5 feet.

(ii) Austral Valley Group.

Maxim Main lode: Length 400 ft; width 4 ft (?)
Glock's West lode: Length 170 ft; width (?)
Waters lode: Length 150 ft; width (?)
Glocks East lode: Length 240 ft; width 14" (?)
Watts No 1 lode: Length 500 ft; width (?)
Watts No 2 lode: Length 600 ft; width 5 ft (?)
Watts Nos 3 & 4 lodes: Length 800 ft; width (?)
Watts No 5 lode: Length 350 ft; width (?)
Watts Nos 6 & 7 lodes: Length 250 ft; width (?)

Information as to the width is indefinite. The Maxim Main lode is described by Waller as "a very strong formation". Watts No 2 lode he describes as "highly payable". It may be tentatively assumed that the general order of magnitude is that which characterises the oxidised lodes in general i.e. ranging from 1 to 5 feet.

© Orientation.

The 4 Maxim lodes and Watts Nos 1+2 lodes strike 330°. Watts Nos 3+5 lodes strike 337°. Watt's No 6 lode strikes 10° whilst Nos 4+7 strike 40°.

No information is on record as to the dip. A cursory examination of the old workings seems to indicate an approach to vertical. But more careful examination is called for and there is some scope for study in the abandoned workings visible from the surface.

(6) The Ore.

(a) Character of lode Material

Essentially siderite-galena aggregates filling fractures.

(b) Constituent Minerals

Galena with accessory sphalerite. Siderite dominates the gangue.

© Ore Shoots.

No information is available as to any definition of ore-shoots. The mapping of the Tear Faults will be preliminary to the locating of those portions of the lodes wherein ore-shoots can be expected.

(7) Mine Workings.

(a) Adits

There are no adits, the country being flat.

(b) Shafts.

There are two Main shafts — Maxim and Watt's These are not more than 100 feet deep. In addition there are numerous other shafts down to about 40 or 50 feet.

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These would total about 3000 feet on the eleven lodes so far worked.

(8) Discussion of Possibilities

Attention is drawn to these groups of lodes because they contain at shallow levels a quantity of lead-silver ore. What they may contain at deeper levels is uncertain and will only be determined by future study and exploration.

On the available evidence, however, there is adequate justification to hold the areas involved. The Austral Valley Groups have never had the advantage of adequate power pumping and milling and have been totally neglected for 40 years. The Town Group has been unavailable for mining because of Government resumption and private ownership of the surface land rights.

Of the Town Group the lode in Fowler Street can now be secured under the "Mining on Private Property" section of the Mining Act. The lodes crossing Main Street, however, could only become available for mining after the appropriate arrangements have been made per media of the Tasmanian Government. This is bound up with the outcome of diamond-drilling in the limestone in Blocks 1 & 2. It will ultimately resolve itself into a consideration of 'profit on available ore' versus 'compensation payments'. That calculation is not possible at present but as a precautionary measure it would be wise to secure the ground. All the five lodes are known to carry galena at the surface. Past experience at Zeehan has shown that in such lodes there is easily obtainable galena down to at least 50 feet.

The location of the lodes can be conveniently determined by shallow diamond-drill holes.

What the lodes contain below say 50 feet can be tested by diamond-drill holes laid out with due regard to the Tea Fault. This applies to both the Town Group and the Austral Valley Groups.

(9) Recommendations

(a) Peg the areas necessary to cover both the Town and Rustral Valley Groups.

(b) Incorporate the study of the lodes with the detailed Geological-Structural survey already contemplated but as yet only in its early preliminaries.

(c) Search all old records for information in detailed elaboration of that indicated in this report. This will involve search of the early volumes of the Zeehan & Dundas Herald and intensified delving into the archives of the Mines Department.

(d) Postpone diamond-drilling until the above work has been accomplished

(e) In the meantime hold the ground — in case.

C. Sophus Hills
17th February 1947.