

UR 1941/27-30

27

DEPARTMENT OF MINES,
HOBART.

8th September, 1941

MEMORANDUM

Herewith report on Drilling Operations in connection with the recommendations of the Imperial Geophysical Experimental Survey.

As you are particularly interested in sites that were recommended but not drilled, I have to state that one site at Copper-Nickel and ~~ten~~ at Renison Bell, were not drilled. It would appear that the hole at Copper-Nickel was not considered to be warranted. The ten sites at Renison Bell are included in the attached list and shown on the plan attached to the report.

P.B. NYE
GOVERNMENT GEOLOGIST

The Director of Mines.

28

REPORT ON DRILLING OPERATIONS AT ZEEHAN, COPPER-
NICKEL AND RENSION BELL IN CONNECTION WITH THE RECOMMENDATIONS
OF THE IMPERIAL GEOPHYSICAL EXPERIMENTAL SURVEY.

Herewith preliminary notes on the recommendations made by the Imperial Geophysical Experimental Survey on the West Coast, any drilling carried out in accordance with them and any not carried out.

Zeehan: Silver King line. The equipotential method gave no anomaly. The spontaneous polarisation method gave one negative centre which was tested by a trench and found to be due to graphitic shale.

Copper Nickel: The equipotential method gave three anomalous indications, the most important of which was at the northern end of the field. The potential ratio and high frequency methods gave similar results.

Near the Dundas Cuni South shaft, a trench was recommended between Beacons (1) and (2) and another at Beacon (2). An inclined drill hole was also suggested if the trenches revealed favourable indications. The first trench was dug to a depth of 6 feet and revealed a mineralised formation 2 feet wide with a vein of pyrite 1 inch wide in it. The second trench was dug to 6 feet and exposed the footwall of a definite oxidised formation 4 feet wide. Water hindered further exploration. The drill hole was not put down, apparently because the results in the trenches did not warrant the drilling. However, three drill holes were put down to the east to test the ore-body that had been previously worked.

In the northern part of the field, a trench was recommended at Beacon 3. At a depth of 5 feet, a gossan body 4 to 5 feet in width was exposed and a pit was sunk to expose the sulphide.

At Beacons 4 and 5, trenching and drilling were recommended. At Beacon 4, a trench 6 feet deep cut a lode formation 3 feet wide and a pit 8 feet deep exposed bunches of sulphides in the gossan. At Beacon 5, a trench 5 feet deep exposed a sulphide lode 1 to 2 feet in width.

Two drill holes were recommended - one at Beacon 5 and one between Beacons 4 and 5. The Department drilled three holes, two of which were generally in agreement with those recommended and the third to cut the lode below Beacon 4. Mines Department No. 2 hole intersected a 3-foot lode below Beacon 4 and at a depth of 72 feet. Mines Department No. 3 hole was sited to cut the lode below Beacon 5, but did not intersect any ore. Mines Department No. 4 hole cut a 3 feet lode at a depth of 140 feet below a point midway between Beacons 4 and 5.

All the drilling has, therefore, been done except a suggested drill hole (at 1800 N on the base-line and dipping 45° on a bearing of 250°) between Beacons 1 and 2. None of the drill holes of Gold Mines of Australia (1940) tested this ground. The reason the hole was not drilled in 1930 is probably because the exposures in the trenches were not considered to warrant the hole.

Renison Bell: The survey resulted in the delineation of favourable zones (Spheres of definite indications by two or more methods) and areas (less definite indications by one method but always confirmed by other methods). Six areas and zones (with sub-areas and sub-zones) were indicated. Of these, three zones and areas were regarded as of primary importance and it was recommended that these should be tested first. Two areas of secondary importance and three other localities of interest were also indicated.

To test these results, the survey recommended 14 bore-holes ranging in depth from 10 to 100 feet.

Of the 14 sites, only four were drilled by the Department in 1932. The sites drilled were 7, 19, 20 and 21. No. 21 revealed a pyritic body but the tin content was little more than a trace. Nos. 7, 19 and 20 revealed indurated pyritic slate and quartzite, but there is no information as to their tin contents.

The attached list includes the ten sites not drilled. The sites are shown on the attached plan.

P.B. NYE
GOVERNMENT GEOLOGIST.

Mines Department,
8th September, 1941.

ZONES, OR AREA	SITUATION OF PROPOSED HOLE	NATURE OF HOLE	REMARKS
Zone 1	At Beacon Z.1.1	Vertical	-
" 1	" " Z.1.2	"	To be drilled only if there is sufficient encouragement from results at 1. To test possible existence of a body beneath Luck's workings.
" 11	" " 11.3	"	
" 111A	" " Z.111.A.6	"	-
" 111B	50 feet south-west of Beacon Z.111.B.9	"	To test any extension between zone 111.B and zone 111.A.
Area 111.D.	Point between Beacons A.111D.10 and A.111.D.11 and 50 feet from former	"	-
Zone V.	At Beacon Z.V.15	"	-
"	" " Z.V.16	"	-
" V1	" " Z.V1.A.17	"	This site is close to an existing hole (35A), but should be sunk to enable information to be obtained.
	" Beacon Z.V1.A.18	"	-