TRANS. 745 A,B,C.

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BORING CAMPAIGN AT AMBER HILL - GLADSTONE

This boring campaign was undertaken by arrangement with those concernad in Mineral Lease 11484/M - 53 acres - J.T. Shields lessee, between 4th May and 5th November, 1937.

The boring plant used was the Mines Department's "Victoria" drill of the calyx type.

Fifty three (53) holes were bored having a total depth of 3155 feet 4 inches, and an average depth of 59 feet.

The position of the boreholes and other details are shown on the accompanying plan.

The ground was sampled in lengths of 7 feet 4 inches, which in a five inch diameter hole represents a volume of one cubic foot. All samples were concentrated by panning at the drill, and all concentrates obtained were forwarded to the Mines Department Laboratory for weighing and assaying for tin.

The results were calculated by the staff of the Geological Survey and the tin contents of each sample and each hole determined.

RESULTS

The complete results where calculated are given in Table No. 2 attached to the end of this report.

The average results of each hole are given in Table 1 below:-

TABLE NO. 1

Number of bore	Depth Of hole	Depth To rock bottom	Nature of bottom	Average value of ground in oz. of tin oxide per cub. yard.
1	74'	73'	Granite	16.79
2	92'	80'3"	"	2.09
3	63'	56'9"	"	Trace
4	66'	63'10"	"	6.60
5	56'	48'3"	Soft Granite	Trace
6	39'	29'6"	Granite	Trace
7	45'	32'	Soft Granite	Trace
8	49'	36'	Soft Granite	Trace
9	70'	63'6"	Soft Granite	Trace
10	60'	45'	Granite	Trace
11	61'	56'3"	Soft Granite	0.66
12	62'	53'3"	Soft Granite	0.43
13	55'	49'9"	Soft Granite	Trace
14	60'	55'10"	" "	0.38
15	69'	65'6"	" "	Trace
16	59'	52'4"	" "	0.51
17	56'	52'6"	" "	7.21
18	60'	48'	Granite	Trace
19	62'	54'6"	Granite	0.30
20	78'	72'7"	Soft Granite	6.78
21	61'	55'	" "	Trace
22	59'	54'4"	" "	19.25
23	100'	95'9"	" "	Trace
24	78'	73'3"	" "	3.32

TABLE NO. 1 (cont.)

Number of Bore	Depth Of hole	Depth To rock bottom	Nature of bottom	Average value of ground in oz. of tin oxide per cu.yd.
25	78'	62'6"	Soft Granite	Trace
26	82'	75'6"	" "	0.32
27	90'	81'2"	" "	0.59
28	70'	61'	" "	Trace
29	50'	41'6"	" "	Trace
30	42'	38'4"	" "	32.32
31	39'	33'7"	" "	7.33
32	31'4"	31'	" "	0.77
33	22'	19'3"	" "	10.62
34	36'3"	33"	Granite	5.08
35	55'	48'7'	Soft Granite	8.53
36	65'	62'2"	" "	54.60
37	77'	73'10"	" "	19.35
38	71'	62'6"	" "	Trace
39	63'	52'2"	" "	0.45
40	71'	69'2"	" "	10.90
41	36'	28'	" "	Trace
42	58'	44.6"	" "	Trace
43	65'	63'	" "	Trace
44	55'.	48'3"	" "	Trace
45	27'	20'9"	" "	Trace
46	73'	68'4"	" "	Trace
47	70'	67'4"	" "	Trace
48	40'	36'4"	" "	0.51
49	24'	19'	" "	0.44
50	18'	12!3"	" "	Trace
51	69'	64'6"	" "	Trace
52	73'	70'3"	" "	Trace
53	71'	67'	" "	Trace

Material Passed Through:

The material passed through in the bores consisted of varying thicknesses of drift and clay or pug, several thin layers of which are cemented. In addition, a layer of wash occurs at the bottom of the deposit along a narrow north-west trending belt, about the centre of the property.

Value of the Deposit:

As revealed by the boring, the values of the material taken as a whole are low. The deposit is tin bearing throughout, but apart from the belt where wash is present the average values of the bores are seldom more than a trace of tin. Within the comparatively small area in which the wash has been proved to occur, viz. bores Nos. 22, 30 to 37, 49, 48, 2, 1, 4, 20, 19 and 40, the values with few exceptions range from over $\frac{1}{4}$ lb. to over 3 lb. per cubic yard.

The north-western extension of this run for some unaccountable reason was not followed up by drilling. This should be completed as it is to the north-west of bores No.22, 30 and 31 that a continuation of the good values is to be expected.

Distribution of the Values:

As is usual in alluvial deposits, the best values are distributed in the bottom layers of the deposit. This is particularly marked where wash is present.

CONCLUSIONS:

The boring campaign has proved that the deposit is generally tin bearing. Although the values of the area are too low to be worked as a whole, a small area (shown in colours on plan) in the centre of the lease carries tin concentrations sufficiently great to enable it to be economically exploited.

Extensions of this area are to be looked for at the north western end of the belt.

F. BLAKE
ACTING GOVERNMENT GEOLOGIST.

Mines Department,
HOBART.

3rd December, 1937.

TABLE NO. 2

	Number of Sample	Sectional Depth in ft. & inches	Amount of tin oxide in oz. per cu. yd. (70% Sn)
NO.1 BORE:			
	1	0 - 7'4"	0.12
	2	7'4" - 14'8"	0.10
	3	14'8" - 22'	0.11
	4	22' - 29'4"	0.52
	5	29'4" - 36'8"	0.33
	6	36'8" - 44'	0.25
	7	44' - 51'4"	0.48
	8	51'4" - 58'8"	0.64
	9	58'8" - 66'	10.98
	10	66' - 73'	160.85
NO. 2 BORE:			
	1	0 - 7'4"	0.16
	2	7'4" - 14'8"	0.09
	3	14'8" - 22'	0.06
	4	22' - 29'4"	0.14
	5	29'4" - 36'8"	0.18
	6	36'8" - 44'	0.25
	7	44' - 51'4"	0.41
	8	51'4" - 58'8"	1.06
	9	58'8" - 66'	1.75
	10	66' - 73'4"	8.21
	11	73'4" - 80'3"	11.37
NO. 4 BORE:			
	1	0 - 7'4"	0.11
	2	7'4" - 14'8"	0.11
	3	14'8" - 22'	0.20
	6	36'8" - 44'	0.15
	7	44' - 51'4"	0.11
	8	51'4" - 58'8"	2.05
	9	58'8" - 63'10"	80.48
NO. 11 BORE:	8	51'4" - 56'3"	7.92
NO. 12 BORE:	8	51'4" - 53'3"	13.28
NO. 14 BORE:	8	51'4" - 55'10"	4.91
NO. 16 BORE:			
	7	44' - 51'4"	0.727
	8	51'4" - 52'4"	23.980
NO. 17 BORE:			
	7	44' - 51'4"	1.85
	8	51'4" - 52'6"	350.24

	Number of Sample	Sectional Depth in feet & inches	Amount of tin oxide in oz. per cu. yd. (70% Sn)
NO. 19 BORE:			
	6	36'8" - 44'	0.25
	7	44' - 51'4"	0.97
	8	51'4" - 54'6"	2.71
NO. 20 BORE:			
	7	44' - 51'4"	2.14
	8	51'4" - 58'8"	1.46
	9	58'8" - 66'	14.63
	10	66' - 72'7"	55.25
NO. 22 BORE:			
	4	22' - 29'4"	0.84
	5	29'4" - 36'8"	0.86
	6	36'8" - 44'	1.18
	7	44' - 51'4"	51.50
	8	51'4" - 54'4"	243.47
NO. 24 BORE:	10	66' - 73'3"	33.20
NO. 26 BORE:	11	73'4" - 75'6"	11.88
NO. 27 BORE:	10	70'2" - 81'2"	3.975
NO. 30 BORE:			
	4	22' - 33'6"	0.06
	5	33'6" - 38'4"	254.13
NO. 31 BORE:	5	29'4" - 33'7"	57.89
NO. 32 BORE:			
	4	22' - 29'4"	0.53
	5	29'4" - 31'4"	10.12
NO. 33 BORE:	5	14'8" - 19'3"	44.64
NO. 34 BORE:			
	3	14'8" - 22'	7.62
	4	22' - 29'4"	15.24
NO. 35 BORE:			
	3	14'8" - 22'	0.67
	4	22' - 29'4"	0.66
	5	29'4"-40'10"	1.78
	6	40'10"- 48'7"	49.62
NO. 36 BORE:			
	6	40'10"- 52'2"	0.99
	7	52'2" - 62'2"	338.30

TABLE NO. 2 (cont.)

	Number of Sample	Sectional Depth in feet & inches	Amount of tin oxide in oz. per cu. yd. (70% Sn)
NO. 37 BORE:			
	7	52'4" - 63'10"	25.65
	8	63'10" - 73'10"	113.32
NO. 39 BORE:			
	7	44' - 51'4"	2.80
		51'4" - 52'2"	3.84
NO. 40 BORE:			
	9	58'8" - 69'2"	71.76
NO. 48 BORE:			
	5	29'4" - 36'4"	2.70
NO. 49 BORE:			
	2	7'4" - 14'8"	0.18
	3	14'8" - 19'0"	1.91