PRELIMINARY REPORT

ON

THE DORSET DREDGE PROJECT

TASMANIA

FOR

WANEX MINING PTY. LTD.

L.R.BASTER

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1. INTRODUCTION

The Dorset Project is an undertaking which has involved the testing of alluvial tin areas in North Eastern Tasmania to determine whether it is feasible to bring the Dorset dredge back into operation at an acceptable margin of profit.

An evaluation of the project was initiated by Wanex Mining Pty.Ltd. based on the favourable reports of Messrs. P.B.Nye, D.Purcell, and Douglas McKenna and Partners. Basic detail concerning the dredge, mining areas, location, titles, and other information is contained in the reports submitted by the above authors.

The aim of the drilling programme being carried out by Wanex has been to determine whether capital funds which would be needed to shift the dredge over approximately 2 miles to the Portland leases could be recouped from dredging operations on these leases. In addition, the assignment has called for the delineation of a payable dredging path across the Portland leases to reach an area known as Foster's Marsh where drilling by the Tasmanian Mines Department has indicated a substantial reserve of low grade tin-bearing material which may be further tested by drilling to establish whether a payable dredging operation could be developed.

2. SUMMARY

Before any real attempt can be made to determine whether a profitable operation can be developed over say a period of 5 years it will be necessary to carry out check drilling and obtain detailed information on the following aspects:-

(1) An evaluation of check-hole drilling so that ore reserves can be classed as proven and a dredging path can be precisely marked out to obtain maximum profitability.

At present an ore reserve of 1,750,000 cubic yards of dredging material is indicated on a general dredging path around old workings on the Portland leases.

(2) The cost of recommissioning the dredge and facilities. This would entail an inspection and the submission of a report by a mechanical engineer conversant with bucket dredges.

(3) The cost of shifting the dredge and locking it up to the level of the Great Plain at the site chosen near the mine office. In order for the programme to be economically feasible a plan would have to be produced to demonstrate that the dredge could lock itself up with minimum cost and time factors.

(4) The cost of Power and Water.

The capital requirement in the first year of operation would not be less than $360,000, almost half of which would form vendors considerations.

3. STAGE 1 DRILLING PROGRAMME

The stage 1 drilling programme commenced on the 10th July,1972, with one 6" churn drill operating. A second drill was started on 2nd October,1972, and to date 4,082 feet of drilling has been completed in 124 bore holes.

Holes were located on a grid at 400 ft. spacings as shown in Appendix 1 and one centre hole was drilled in each square of the grid where mineralisation was indicated. On plan, the area drilled was then divided by lines diagonal to the grid to form separate areas of influence for each hole to which the results of each hole was deemed to apply.

Drill hole casing was driven ahead of the drill bit in 5 ft. intervals and in the first instance only 1 cubic ft. of the sludge recovered from each 5 ft. interval was used in calculations with the idea of applying a "core ratio" factor to the grade as calculated. Due to the varying nature of the material encountered in the holes it was found impractical to use the "core ratio" method and final grades were determined by using the "pine factor" method, i.e. assuming that the mineral contained in the sludge from each 5 ft. interval was representative of 1 cubic foot of material insitu.

A cradle was used to produce a low grade concentrate from the sludge samples and this was then panned to produce a high grade concentrate for weighing, grade calculation, and finally assay.

Early in the programme, samples were panned down to about a 5% concentrate to avoid losses of fine cassiterite, but after some investigation into the effect of determining a recovery figure for the dredge it was decided to pan the samples down to a high grade concentrate and neglect losses both from the cradle and panning and assume that the grade calculated from the high grade panned concentrate would be the grade that the dredge would recover. This had been the operating practise in the past by the Storey's Creek Company and it is understood that the actual recovery grade was usually a little higher than the grade indicated from the bore hole calculations.

Grades Iron estimated Sn percentages in panned concentrates have been checked by assay from the Launceston Mines Department and the necessary adjustments made to arrive at a more accurate determination. However, as it takes some time before assay results become available, it has been found necessary to use estimated values in some cases for the ore reserve evaluation in this report.

Also, the bore hole results obtained to date have been used in the following ore reserve assessment, but check holes should be drilled to confirm the areas of influence before the ore can be classed as fully proven.

At present both drills are operating and instructions have been given to drill check holes pending a final decision by Anex Mining Pty.Ltd. on the results of the stage 1 programme.

4. STATEMENT OF MINERAL RESERVES

In the preliminary evaluation of an ore reserve for this exercise, it has been necessary to include sub-economic material in order to establish a practical dredging path around the old mine workings. The possibilities and economics of dredging right through to the old workings may be studied at a later date.

In one or two instances it may be necessary to dredge for short distances through zones of very weak mineralisation. These zones have not been considered here due to a lack of bore-hole information in the particular areao. Some areas of indicated payable material have been omitted from the evaluation due to isolation, or the indication of surrounuing almost barren material.

The evaluation of the reserves is calculated by multiplying the area of influence of bore-hole results as shown in appendix 1 by the mineable depth. This evaluation is as follows:

1. TAYLORS - CANARY ROY AREA

Hole No.	Area Squ.yds.	Depth yards	Volume Cu.yds.	Grade lbs.70% Sn per cu.yd.	Volume by Grade
W67	8,900	7.6	67,600	.47	31,800
W53	"	11.0	97,900	.27	26,400
W78	"	12.3	109,500	.16	17,500
			275,000	.28	75,700

Note: The above material is not included in the ore reserve because of weakness of surrounding mineralisation and discontinuity. Further drilling is required to confirm the areas of bore hole influence.

W88	8,900	10.3	91,700	.28	25,700
W80	"	12.3	109,500	.42	46,000
W86	"	5.0	44,500	.22	9,800
W81	"	12.3	109,500	.50	54,700
W84	"	14.0	124,600	.19	23,700
W82	"	5.0	44,500	.47	20,900
			524,300	.34	180,800

2. BELTZ AREA

W41	8,900	5.0	44,500	.12	5,340
W39	8,900	8.6	76,500	.29	22,155
W58	2,000	5.0	10,000	.03	300
W38	4,500	5.0	22,500	.12	2,700
W17	6,900	6.6	45,400	.39	17,706
W60	1,500	5.0	7,500	.10	750
W15	8,900	6.6	68,700	.29	19,923
W16	2,000	5.0	10,000	.18	1,800
W13	6,900	5.0	34,500	.69	23,805
W12	1,500	5.0	7,500	.11	825

2. BELTZ AREA Cont'd.

Hole No.	Area Squ.yds.	Depth yards	Volume cu.yds.	Grade lbs.70% Sn per cu.yd.	Volume by Grade
W3 ✓	2,000	5.0	10,000	.10	1,000
W2 ✓	6,000	5.0	30,000	.22	6,600
W8 ✓	5,000	5.0	15,000	.08	1,200
W1 ✓	8,900	7.0	62,300	.60	5,738
W20 ✓	1,500	5.0	7,500	.10	750
W22	7,000	5.0	35,000	.25	8,750
			486,900	.24	117,372

3. MACGREGOR AREA

W37	3,000	6.6	19,800	.26	5,148
W35	6,000	5.0	30,000	.10	3,000
W113	7,000	5.0	35,000	.13	4,550
W112	8,900	5.0	44,500	.14	6,230
W111	8,900	14.0	124,600	.44	54,824
W110	4,400	5.0	22,000	.10	2,200
W109	8,900	12.6	112,100	.32	35,872
W31	8,900	19.0	169,100	.88	148,808
W132	8,900	20.3	180,700	.37	66,859
W133	5,000	5.0	25,000	.10	2,500
			762,800	.43	329,991

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ESTIMATE OF ORE RESERVE IN MACGREGOR AREA AFTER CHECK DRILLING TO 5TH DECEMBER, 1972.

	Hole No.	Area Squ.Yds.	Depth Yds.	Volume Cu.Yds.	Grade lbs. per cu.yd.	Volume x Grade
	W22	4,400	5	22,000	.25	5,500
	C138	4,400	8.3	36,500	.34	15,410
	W30	1,500	5	7,500	.02	150
	W33	5,000	5	15,000	.14	2,100
	C139	4,000	10	40,000	.20	8,000
	W37	5,000	6.6	19,800	.26	5,150
	W32	2,200	5	11,000	.08	880
	C140	3,000	5	15,000	.03	450
	W35	4,400	5	22,000	.07	1,540
	C142	4,400	22	109,800	.28	50,180
	W113	4,400	5	22,000	.13	2,860
	C158	4,400	6.6	29,000	.20	5,800
	W111	4,400	14	61,600	.44	27,100
? 162	C161	4,400	13	57,200	.39	22,300
	W109	4,400	12.6	55,400	.34	18,730
	C157	1,000	5	5,000	.12	6000
	W112	4,400	5	22,000	.14	3,080
	C155	4,400	12.3	55,100	.36	19,840
	W34	4,400	5	22,000	.11	2,420
W31	W88 X	4,400	19	85,600	.83 ✓	73,570
	C143	4,400	13.3	58,500	1.14	66,690
	W127	4,400	5	22,000	.15	3,300
	C152	4,400	5	22,000	.17	3,740
	W130	4,400	5	22,000	.12	2,640
	C137	2,200	5	11,000	.08	880
	W132	4,400	20.3	89,300	.37	33,040
	C146	4,400	5	82,000	.06	1,320
	W147	4,400	16.6	81,800	.25	18,800
				1,038,100		376,070

1 million cu.yds. at average grade of 0.36 lbs 70% Sn.

X W88 = 9000N 10200E (Taylors)
+ goes ~~[illegible]~~ ~~or~~ 0.31

W88 [illegible] Read W31