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TECHNICAL REPORT

MICROFILMED
FICHE No. 013525

E.L. 28/76 - DERBY, TASMANIA

REPORT FOR THE SIX MONTH PERIOD ENDING
22nd DECEMBER, 1979

95-37105

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DATE: 11th February, 1980

DISTRIBUTION: Department of Mines, Hobart, Tasmania
 Mr. G.L. Morris, Sandy Bay, Tasmania
Kibuka Mines Pty. Limited, Pioneer, Tasmania
 Kibuka Mines Pty. Limited, Sydney, N.S.W.

PROJECT: D 134 Derby, E.L. 28/76

1 : 250,000 SHEET INDEX NO.: SK 55-4

OPEN FILE

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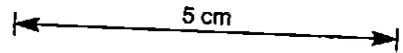
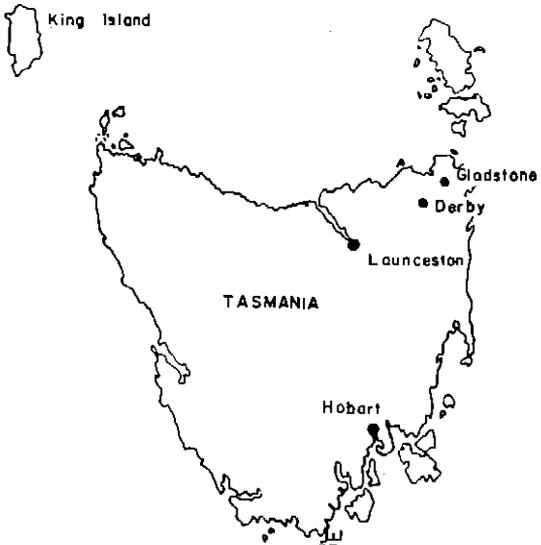
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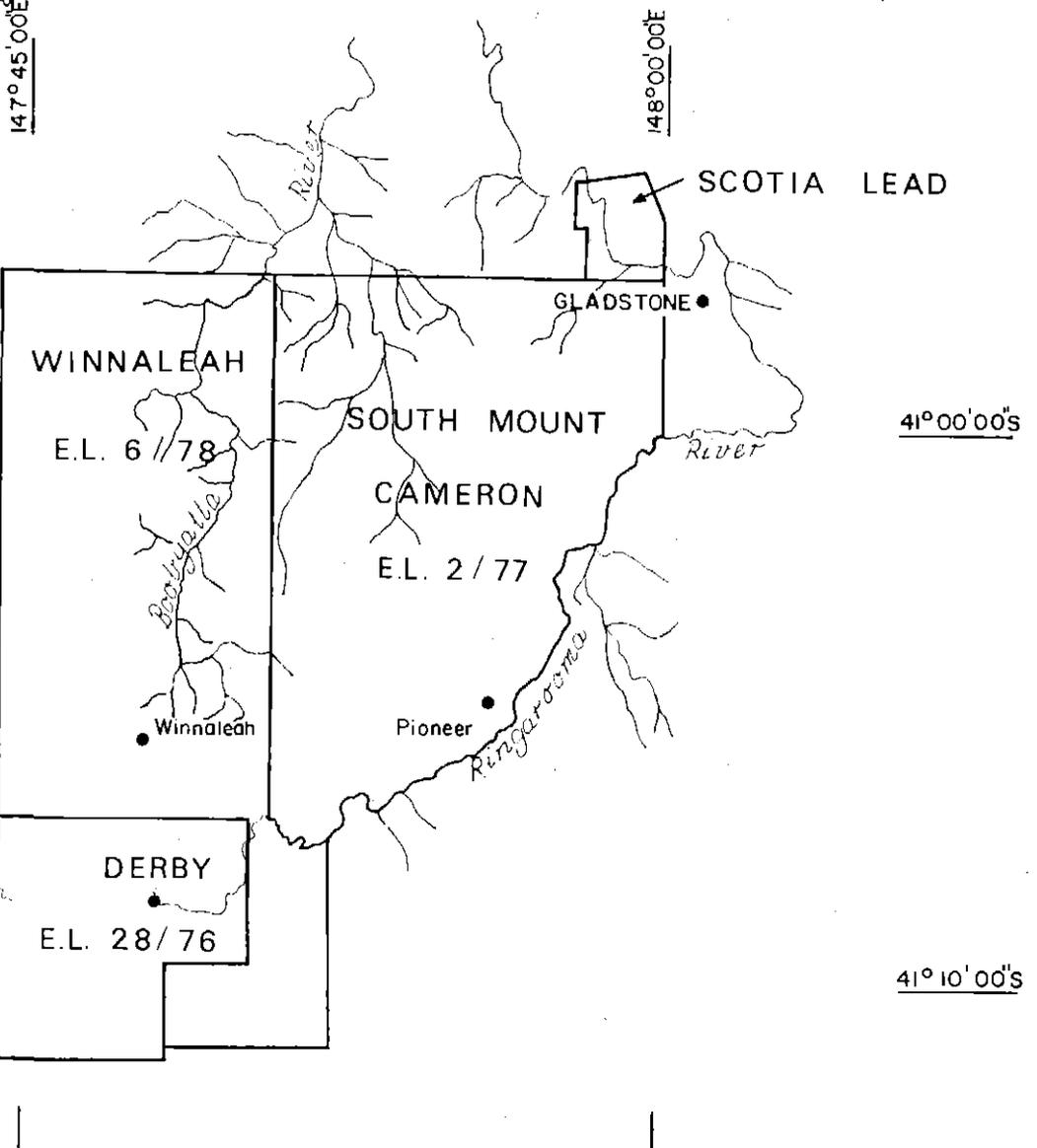
TITLE

This report details exploration activities conducted on E.L. 28/76 during the six monthly period from 22nd June, 1979 to 22nd December, 1979.

E.L. 28/76 covering 46 km² was granted for an initial term to 22nd June, 1977 and has been renewed for successive six monthly periods since then. The Licence surrounds the town of Derby in North-East Tasmania. The location of E.L. 28/76 and other Exploration Licences held by this Company is shown in Figure 1.



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AMDEX MINING LIMITED
 NORTH - EASTERN TASMANIA LOCATION MAP
 SHOWING CURRENT E.L.'S

INTRODUCTION

This Licence area can be broadly divided into three physiographic regions.

Region 1 - River flats of the Ringarooma River and major tributaries. Most of this area is covered by mining leases. The largest area not secured by leases consists of river flats and terraces in the Valley-Longbridge-Fraser Flats district.

Region 2 - Granite uplands in the south. This area lacks potential for cassiterite-bearing sediments. The area has previously been examined by Amdex geologists who reported little worthy of future investigation.

Region 3 - Northern and western parts of the Licence area. This area is wholly cleared with a partly dissected plateau topography. There is a possibility that deeply buried stanniferous placer deposits may exist in this region; however, this possibility has not yet been investigated. Earlier work including a review of the regional geology has been discussed by McDonald (1978). McDonald's report proposed exploration activity which has partially been carried out during the last six monthly period within Region 1.

CURRENT INVESTIGATIONSFraser Flats

During November 1979 a Goldfields 55 cable tool percussion drill rig operated by Mines Department personnel was used to drill two holes in the centre of Fraser Flats. The location of these holes is shown on Figure 2. Details of this drilling are summarised in Table 1.

Sampling procedure was the same as employed for deep drilling at Pioneer. The method used to calculate grades is described in McDonald (1979).

Both holes were difficult to drill. The use of a chisel bit was necessitated by the occurrence of flat cobbles derived from Mathinna metasediments forming a bed up to six metres thick. Wash ranging in size from 10 mm to 80 mm continued to be encountered down to slate basement.

The detailed analysis of cassiterite content in hole D.P. 2 clearly shows decreasing cassiterite grades with depth. There is no concentration of cassiterite in any of these holes.

Gold was detected during panning of the surface samples from D.P. 2. Samples from both bores were subsequently assayed for gold and the results are presented in Table 2. The near surface gold occurrence is thought to be associated with terrace deposits formed by the present drainage network.

TABLE 2

Bore Hole Assay Results

	Interval (m)	Rec. Vol. (l)	Dry Wt. Conc. (g)	Av. Assay ppm Au	g Au/m ³
DP 1	0 - 6	65	67	44	0.0446
DP 2	0 - 2	18	74	8	0.033
	2 - 4	16	71	12	0.053
Riverside (South Mount Cameron)					0.069

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The gold concentration is thus similar to deposits proximal to the Ringarooma River where flake gold has been recovered from cassiterite concentrates for many years.

There is no evidence of any occurrence of tailings from upstream mines such as the Valley and Arbour Mine in these drill holes.

D.P. 1 and D.P. 2 were positioned in an attempt to locate the deepest part of the Ringarooma lead. Figure 2 shows the basement reduced levels of several drill holes. Recent Mines Department drilling west of Longbridge can be used to calculate a probable reduced level of the deepest part of the Ringarooma lead in that area, this figure is of the order of 100 metres. D.P. 1 with a basement level of 101 metres suggests that this drill hole is close to the centre of the lead. The basement reduced level of D.P. 2 (115 metres) indicates that a westward margin to the lead has probably been intersected.

Data compiled to date indicates that the cassiterite potential of the Fraser Flats area is not good. Further drilling here with the objective of delineating stanniferous placer mineralisation would not appear to be warranted. The occurrence of gold in the two holes completed is interesting although the concentration is very low. It is very difficult to assess the significance of the gold occurrence in view of the limited number of relatively small samples. In due course a comparison will be made between the gold concentration at Fraser Flats and that found in drill holes at the Riverside workings near South Mount Cameron. Recent production at Riverside has revealed 1.8 ounces of gold for every tonne of cassiterite produced. Cable tool percussion drilling will be completed at Riverside early in 1980 and once results are available it is

anticipated that a more realistic assessment can be made of the Fraser Flats gold occurrence.

The Valley Lead

Reduced basement levels for an outer margin of drilling ahead of the Valley Lead have been plotted on Figure 2. These levels depict a widening of the lead in the region of 544000 North 564800 East. This may possibly represent a partial convergence of the Valley Lead with the Ringarooma lead.

FUTURE INVESTIGATIONS

A number of tasks remain to be completed in the next six monthly period.

Mr. L. Spears of Telita recalls that high grade tin was intersected by drilling about 544570 metres North, 565500 metres East (Figure 2) which located a 'run' of cassiterite. Mr. J. Melville of Derby will be contacted in the near future for more information on this old drilling.

Data relating to four holes drilled by the Mines Department in April-May-June of 1931 in the vicinity of the Valley Lead has been obtained. Grades and the actual location of the holes have not yet been determined and will require further investigation. The depth to basement for three of these holes suggests a location closer to the Ringarooma River than any previously recorded drilling.

Further prospecting for surface gold is recommended in Fraser Flats area. Collection of large samples will be necessary. It is envisaged that the presence of large areas of freehold land thereabouts may pose problems for both access and implementation of programme.

Earlier plans to prospect the old workings flooded in the Valley Region and those closer to the Ringarooma River in the Valley Lead are still regarded as being of questionable value. The highest grade for any of the deep holes plotted to the north-west of the Valley Mine on Figure 2 is only $80 \text{ g SnO}_2/\text{m}^3$. It is apparent that there is a rapid depletion of cassiterite grades with distance from source at this locality.

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Prospects of payable holes to the north-west of the drilled ground are therefore considered remote.

A Fleming

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Kibuka Mines Pty. Ltd.

11th February, 1980

REFERENCES

McDonald, L., 1978. Exploration Licence 28/76, Derby - Report for the six month period 22nd June, 1978 to 21st December, 1978.

McDonald, L., 1979. Exploration Licence 2/77, South Mount Cameron - Report for the six month period ending 8th March, 1979.

APPENDIX I

Percussion Drill Log
Derby - Hole D.P. 1

AMDEX MINING LIMITED - PERCUSSION DRILL LOG

45000mN 65000mE 150 m 101m

AREA: FRASER FLATS HOLE NO.: D.P. 1 COLLAR COORDINATES: SURFACE R.L.: BASEMENT R.L.:

Date 28/10/79 Driller: M. Kerrison Assistant: J. Groves Sample Washer: S. Moore Geologist: R. Munro Cutting shoe diameter: 16.02cm
 9/11/79 Theoretical Volume: 0.040 m³ B. Shean Casing diameter: 15.24cm

Section Metres		Sample No.	Recovered Volume %	Corrected Volume m ³	Weight (gms) Concentrate	Concentrate Assay % Sn	Value over Interval		Description of Sample
From	To						SnO ₂ kg/m	SnO ₂ lbs/yard	
0	2	7401	0.43	0.032					Top soil, coarse & fine sand, shingle wash, ilmenite.
2	4	7402	0.64	0.032					Coarse & fine sand, shingle wash, pyrite, ilmenite, blackjack, zirc
4	6	7403	0.55	0.032					Coarse & fine sand, shingle wash, pyrite, blackjack, zircon.
6	8	7404	0.68	0.032					Coarse & fine sand, large drift, yellow clay, ilmenite.
8	10	7405	0.47	0.032					Coarse & fine sand, large drift, white clay, ilmenite, blackjack.
10	12	7406	0.75	0.032					As above, no blackjack.
12	14	7407	0.84*	0.032	14 grouped samples				Coarse & fine sand, ilmenite.
14	16	7408	0.80*	0.032	67.63	11.7	25	0.043	As above, with monazite.
16	18	7409	0.98*	0.032					Coarse & fine sand, small wash, white clay, ilmenite, pyrite, blackjack.
18	20	7410	0.89*	0.032					Coarse & fine sand, white clay, ilmenite, blackjack.
20	22	7411	0.78*	0.032					Coarse & fine sand, small wash, ilmenite, blackjack.
22	24	7412	0.92*	0.032					Coarse & fine sand, small wash, white clay, ilmenite, pyrite.

Drillers reported basement at 49.0 m. Overall value from surface to 49 m. 20 kg SnO₂/m³
 Interval of tin bearing wash m. 0.034 lbs SnO₂/yd³
 (cassiterite 70% Sn)

AMDEX MINING LIMITED - PERCUSSION DRILL LOG

AREA : HOLE NO. : COLLAR COORDINATES : SURFACE R.L. : BASEMENT R.L. :

Date: Driller: Assistant: Sample Washer: Geologist: Cutting shoe diameter: Theoretical Volume: m³ Casing diameter:

Section	Metres	Sample No.	Recovered Volume %	Corrected Volume m ³	Weight (gms) Concentrate	Concentrate Assay % Sn	Value over Interval		Description of Sample	
							SnO ₂ kg/m	SnO ₂ lbs/yd ³		
From	To		X100	80% Rad. F.						
24	26	7413	0.91*	0.032)				Coarse & fine sand, small wash, white clay, ilmenite.	
26	28	7414	0.90*	0.032)				Coarse & fine sand, small wash, white clay, probable trace of tin, ilmenite.	
28	30	7415	0.97*	0.032)				As above.	
30	32	7416	0.48	0.032)				Coarse & fine sand, large wash, white clay, probable trace of tin, ilmenite.	
32	34	7417	0.63	0.032)				As above.	
34	36	7418	1.04	0.033)				Coarse & fine sand, medium wash, ilmenite.	
36	38	7419	0.95	0.032)	9 grouped samples			Coarse & fine sand, medium wash, white clay, ilmenite.	
38	40	7420	0.58*	0.032)	46.44	6.76	16	0.026	As above, with larger wash.
40	42	7421	0.71*	0.032)					Coarse & fine sand, medium wash, white sandy clay, ilmenite, pyrite.
42	44	7422	0.97*	0.032)					As above, no pyrite.
44	46	7423	0.78*	0.032)					Coarse & fine sand, large wash, ilmenite.
46	48	7424	0.78*	0.032)	6.09	0.90	2	0.004	As above.
48	49	7425	0.69	0.022)	15.90	0.56	6	0.010	Coarse & fine sand, medium wash, slate, ilmenite, pyrite.
49	50	7426	0.21	0.016)	12.96	0.16	2	0.003	Slate, pyrite.

Drillers reported basement at 49 m. Overall value from surface to 49 m. 20 kg SnO₂/m³

Interval of tin bearing wash m. 0.034 lbs SnO₂/yd³

* Denotes sample settled by removing all suspended silt and clay prior to (cassiterite - 70% Sn)



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DERBY, TAS. E.L. 28/76

DRILL HOLE LOCATION MAP
VALLEY LAGOON - FRASER FLATS

CONTOUR INTERVAL 5m

- LEGEND**
- 130 - Approximate margins of the Valley Lead Basement RL 130 m
 - EP 1 115 - Amdex Percussion Sample Hole - 1979 Basement RL in metres
 - BH 18 150 96 - Mines Department Percussion Sample Hole Basement RL in metres
 - 137 3 - Basement Reduced Levels of some of Senors' Bore - pre 1920
 - Approximate Location of the Ringarooma Lead

