

YTTRIUM CORPORATION PTY. LTD.

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OPEN FILE

91-3221

EL 60/87 21 JAN 1990	
Action Officer	Initials
LETTER	
17-1-'91	
REFERS	

EXPLORATION LICENCE 60/87 - CAPE BARREN

RELINQUISHMENT & FINAL REPORT

OPEN FILE

RECEIVED

91-3221.

K.C. MORRISON

January 1991

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TENEMENT INFORMATION

EL 60/87 is a 39 km² tenement on the east coast of Cape Barren Island (Figure 1, Plan 1).

The licence is owned 100% by Yttrium Corporation Pty. Ltd.

EXPLORATION PHILOSOPHY & OBJECTIVES

EL 60/87 covers an extensive belt of Cainozoic unconsolidated marine and aeolian sands on the east coast of Cape Barren Island. The objective of the exploration programme was to test for economic concentrations of placer Ti, Zr, Y, Sn, Au and rare earth mineralisation, predicted to be sourced from the Cape Barren granites and Mathinna Beds.

SUMMARY OF WORK COMPLETED IN YEAR 1

Year 1 scout prospecting established the widespread presence of heavy minerals in several coastal sand facies extending the full length of the EL. Grades ranged from 0.1 - 6% in bulk samples, and up to 40% in hand picked samples. Preliminary inspection showed the suite consisted of ilmenite, garnet, spinel, biotite, topaz, rutile, zircon, cassiterite and gold. The zircon and rutile assays were sufficiently encouraging to warrant more work.

Visible gold was returned in four samples from various sand facies along a five kilometre stretch of coast (Cromer, 1989).

SUMMARY OF WORK COMPLETED IN YEAR 2

During Year 2, heavy mineral point count results were received from twenty selected concentrates submitted to the Tasmanian Department of Mines for identification. This work was a continuation of Year 1 reconnaissance. This work show that ilmenite and leucoxene are the most abundant ore minerals present and that total Ti and Zr minerals average 55% of the heavy fraction.

Most of the year's work comprised a hand augering/bailing and sand sampling programme along a four kilometre stretch of coast in the middle third of the EL. This area returned visible gold in several samples from the Year 1 work. Follow-up laboratory work has included heavy mineral assays with particular reference to gold (Cromer, 1990).

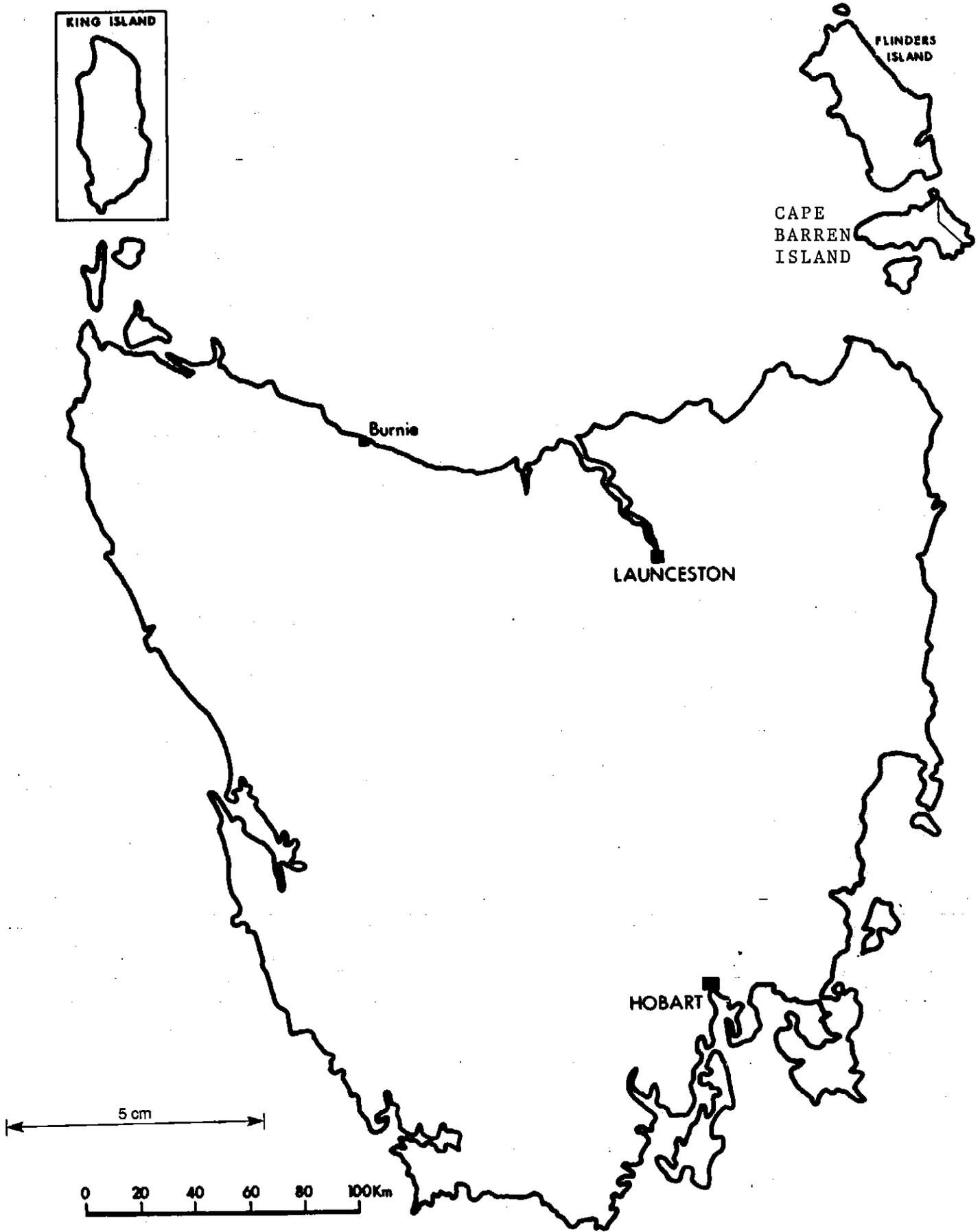


Figure 1. Location Map, EL 60/87 - Cape Barren

SUMMARY OF WORK COMPLETED IN YEAR 3

No new exploration commenced in Year 3. Outstanding XRF data from Year 2 composite samples was received (Appendix 1). The XRF work confirms the presence of trace amounts of cassiterite and monazite throughout the prospect. Insufficient comparison between XRF and petrographic point counting has been made to be conclusive but the ^{un}outweighted mean zircon and titanium mineral counts determined by XRF are substantially less than the point count grades delivered in the original grab samples.

CONCLUSIONS

1. The widespread occurrence of ilmenite, leucoxene, zircon and rutile plus trace amounts of monazite and cassiterite was confirmed, but the grade average 0.5%, with low value minerals being the most abundant.
2. Encouraging gold values were encountered over a 2km stretch of coast and further work is required to determine reserves.
3. It is likely that any proposal to bulk sample or mine coastal sands in the near future would meet strong opposition from some factions of the State Government and the Tasmanian public. This perception is a disincentive to exploration expenditure on a probable small placer gold target.

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REFERENCES

CROMER, W.C., 1989. Exploration Licence 60/87 - Cape Barren,
Annual Report : Year 1.

CROMER, W.C., 1990. Exploration Licence 60/87 - Cape Barren,
Annual Report : Year 2.

APPENDIX 1

XRF RESULTS ON COMPOSITE HEAVY MINERAL CONCENTRATE SPLITS FROM
YEAR 2 DRILLING

DEPARTMENT OF MINES

404009



TASMANIA

Launceston Office:

Chemical and Metallurgical
Laboratory,
287 Wellington Street,
LAUNCESTON 7249

Enquiries: W. Cromer (Yttrium Corp)
Phone: K. Morrison P/L
Your ref.: Palfreymans Arcade
Our file: 340 Elizabeth Street
Hobart

22.1.90

Reg. Nos 896496-501

Dear Sir,

Please find below results of samples submitted to this laboratory, and stated to be from the Cape Barren Is. area.

<u>Reg. No</u>	<u>Description</u>	<u>Fe%</u>	<u>Zr%</u>	<u>Y%</u>	<u>Sn%</u>	<u>Ce%</u>	<u>Ti%</u>
	<u>Composite</u>						
896496	Line A	10.9	2.3	0.05	0.18	0.09	8.8
497	Line B	11.3	1.8	0.04	0.12	0.10	8.2
498	Line C	6.7	1.2	0.03	0.08	0.10	5.5
499	Line D	7.8	1.1	0.02	0.05	0.06	5.3
500	Line E	7.7	1.1	0.02	0.07	0.06	4.7
501	Line F	8.6	1.1	0.03	0.11	0.06	4.9

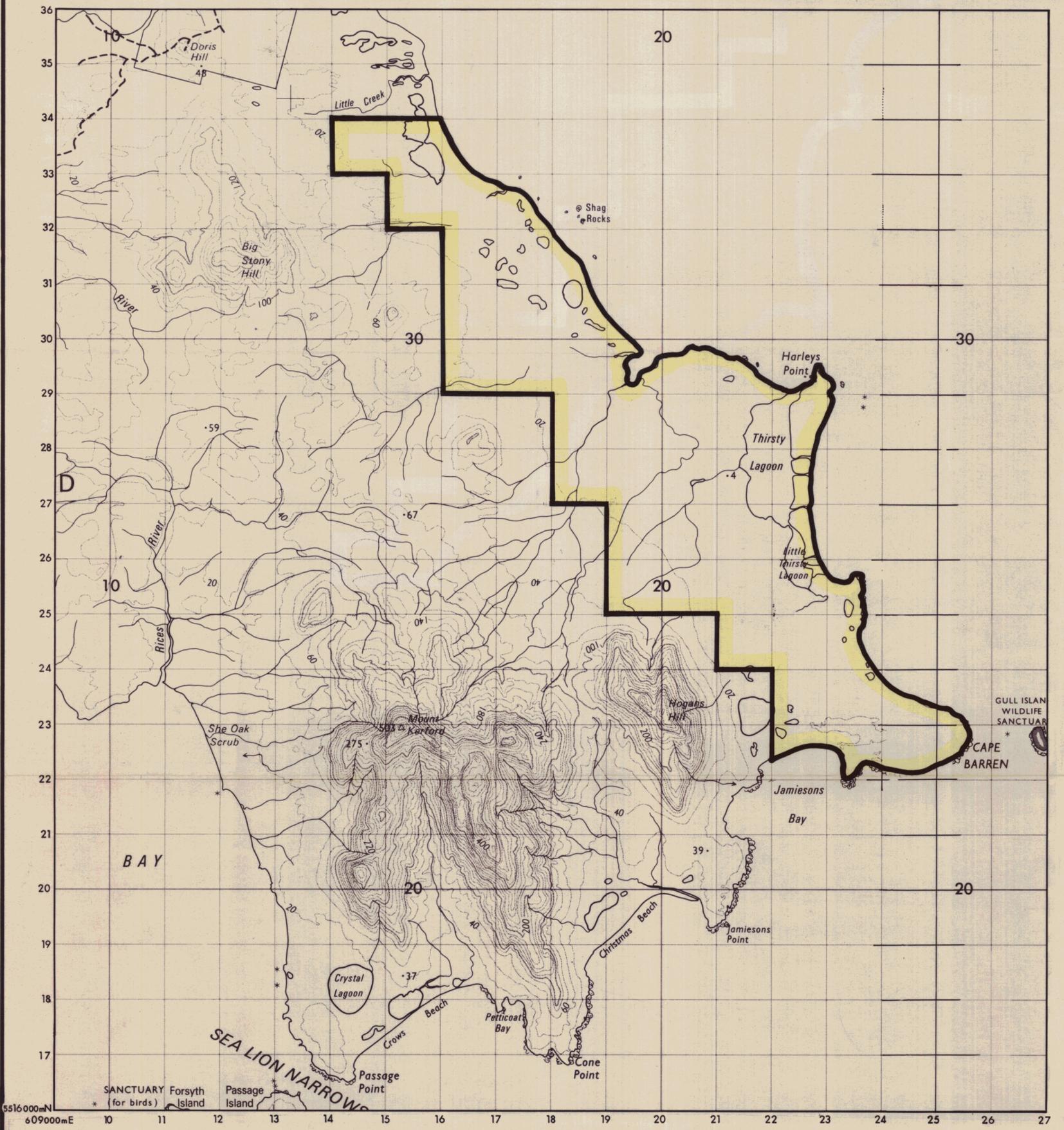
Analyses by *J.M. Bilal*

Yours faithfully,

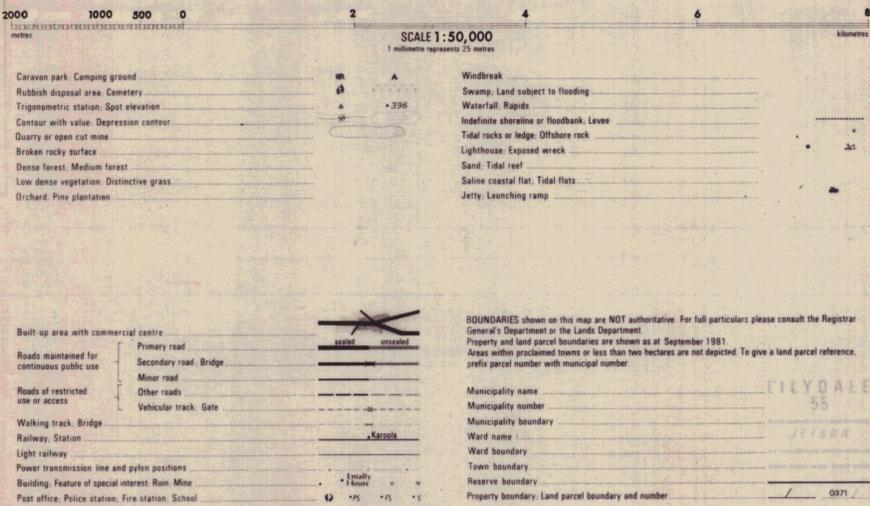
(D. Zani)

Chief Chemist & Metallurgist

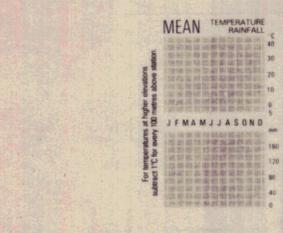
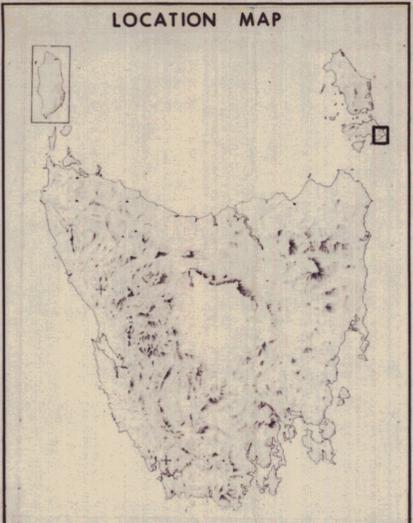
Fee	6 Pellets	\$30.00
	36 Determinations	72.00
		<hr/>
		\$102.00



LEGEND



PROJECTION: Universal Transverse Mercator (UTM)
HORIZONTAL DATUM: Australian Geodetic Datum 1966
VERTICAL DATUM: Australian Height Datum (Tasmania) excepting offshore islands whose datum is mean sea level
GRID: 1000 metre intervals of the Universal Transverse Mercator Grid, Zone 55 (Australian Map Grid, Australian National Spheroid). Grid values are shown in full at the south west corner of the map. **CONTOUR INTERVAL:** 10 metres with 50 metre index contours.
WORLD GEODETIC SYSTEM 1972: To convert co-ordinates from this system to Australian Geodetic Datum 1966, increase the value of latitudes by 5.3" and decrease the value of longitudes by 4.2". To obtain heights decrease satellite heights by 3 metres.
MAGNETIC VARIATION: True, Grid and Magnetic North are shown diagrammatically for the centre of this map. Magnetic North is correct for 1981 and moves easterly about 0.1" every three years.



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YTRIUM CORPORATION PTY LTD	
EL 60/87 - CAPE BARREN	
COMPILED	JMT
DRAWN	JMT
DATE	JAN. 1989
SCALE	1 : 50,000
FIGURE	PLAN 1