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CRA EXPLORATION PTY.LIMITED.

MICROFILMED

GEOPHYSICAL SURVEYS - TASMANIA

Author: E. McCarthy

Date: 3rd September, 1958.

ENCLOSURES

4x MAPS.

- 1. Area covered by airborne Magnetometer Survey.*
- 2. Map showing progress of Explorations Activities
N.W. Tas.*
- 3. Sketch plan illustrating extent of Tertiary basins
+ progress of drilling*
- 4. E.M. Survey coverage to May 31 1957 + area
nominated for helicopters-borne E.M. Survey.*

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 Geophysical surveys both airborne and ground, have been conducted in N. W. Tasmania, and in the Ringarooma River area. Surveys carried out to date include -

(1) N.W. Tasmania - (a) Airborne Magnetometer.

The whole of area covered by S.P.L.302 and S.P.L.311, as shown on the accompanying plan (No. T449) were flown with airborne magnetometer at a nominal height of 500 feet above ground level, and at one half mile separation. In all a total of 8,225 line miles were flown. The results were presented as contours on sheets at a scale of 40 chains equals one inch. The contours have been reduced to 80 chains to one inch scale and have been produced as overlays on geological maps at that scale.

(b) Airborne (helicopter) Electromagnetometer. Selected areas within S.P.L.302 were covered with helicopter-borne electromagnetic equipment as shown on Plan T100. It was intended that much more of the area would have been covered by this method, but coverage was restricted by practical limitations of the equipment and method. A total of 506 line miles were flown. A number of anomalies were recorded. Most of the better class anomalies have been inspected on the ground, most of those examined were due to carbonaceous rocks. Over three anomalies, namely at West Cuni, Patterson Hill and Sterling Valley ground S.P. work was undertaken.

(c) Ground geophysics was conducted in the following areas.

- c.1. A short magnetometer survey was made at the R.T.A.E. iron ore deposit, south of main ore deposit at Savage River.
- c.2. Constock. Ground electromagnetic and magnetometer surveys have been made.
- c.3. Lake Dora. Ground electromagnetic, magnetic, S.P., and gravity surveys have been made in this area.
- c.4. Sedgwick. Ground electromagnetic, magnetic and gravity surveys have been made on the south western slopes of Mt. Sedgwick.
- c.5. Howard-Tyndal ranges. Ground electromagnetic with a small amount of gravity work has been conducted in this area.
- c.6. Goosnack-Red Hills. Ground electromagnetic magnetic and gravity surveys have been conducted in this area. A drill site has been chosen to test an anomaly recorded here.

Localities where ground geophysics have been undertaken are outlined on the attached plan No. T.357.

(II) N.E. Tasmania.

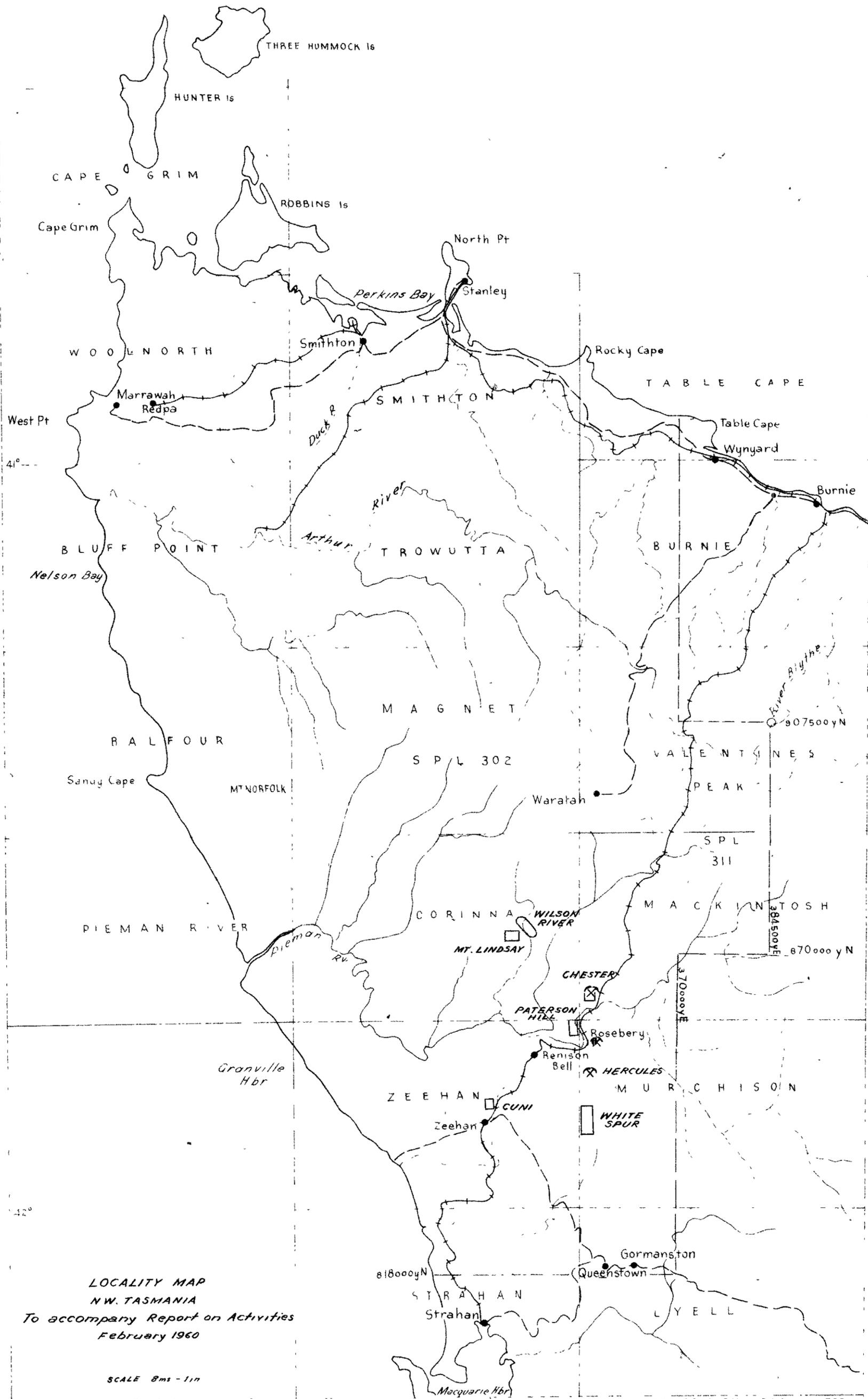
Ringarooma River Area.

- (a) An airborne magnetometer survey was made over S.P.L.323 in the Ringarooma River area as shown on Plan No.T.402. The survey was made from a nominal height of 300 feet above ground level with flight line spacing of one fifth mile. In all a total of 1,353 flight line miles were flown.
- (b) Ground refraction seismic survey was carried out by B.M.R. personnel on three lines laid out by R.T.A.E. officers. Positions of the seismic lines are shown on the attached map. (T402.)

E. McCarthy
Senior Geophysicist

3rd Sept. 1953.

S.B.Dickinson (2)
R.D.Matheson (1)
E.McCarthy (1)
8D/20A (1)
8D/25A (1)



LOCALITY MAP
 N.W. TASMANIA
 To accompany Report on Activities
 February 1960

SCALE 8ms - 1in

5 cm

RIO AUSTRALIAN EXPLORATION PTY LIMITED
 T 449

**AREA COVERED BY AIRBORNE
 MAGNETOMETER SURVEY**

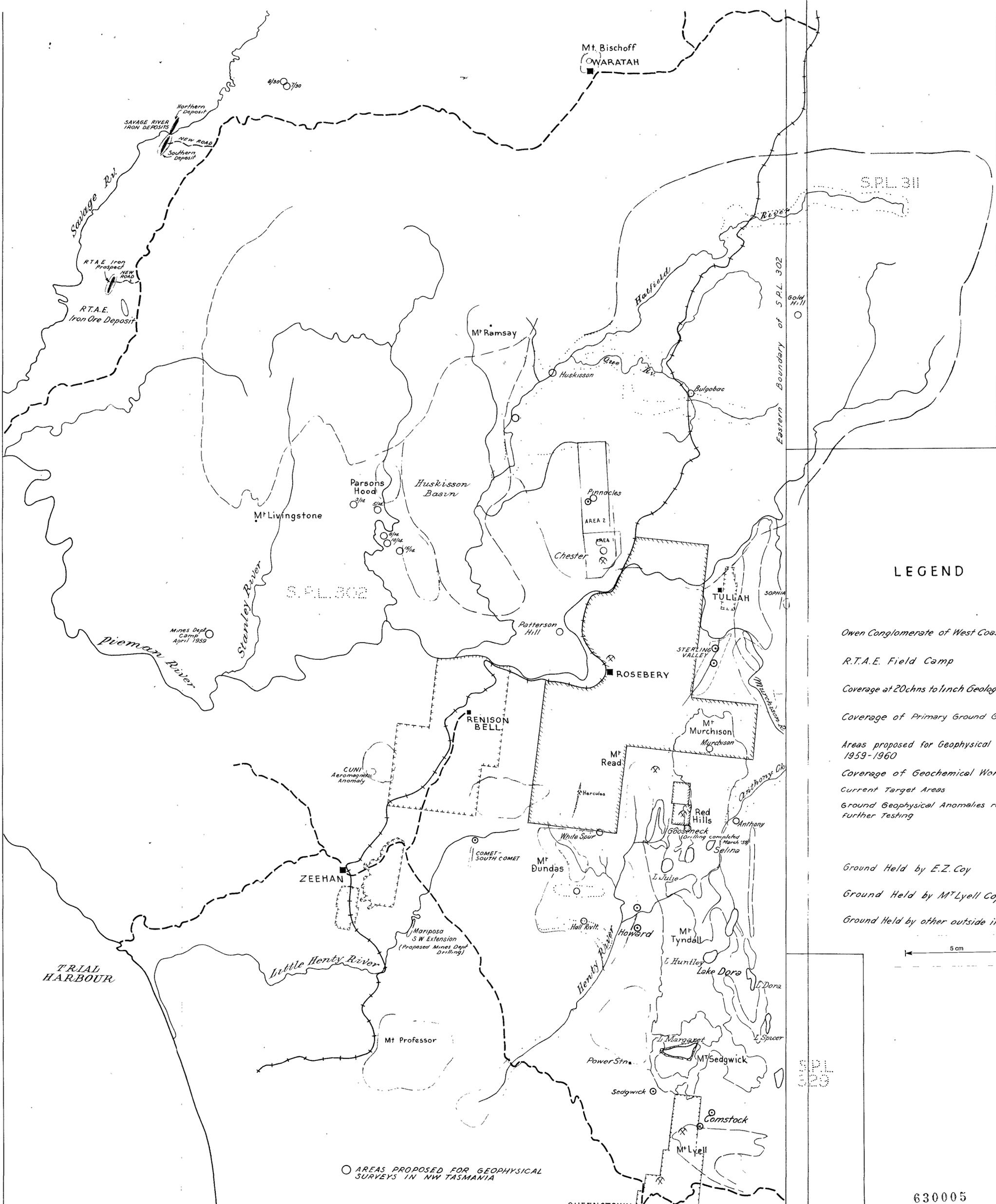
Scale 8 miles to 1 inch PRP/7/100 Plan No T449

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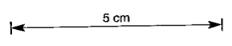
83-1916



LEGEND

- Owen Conglomerate of West Coast Range*
- R.T.A.E. Field Camp*
- Coverage at 20 chns to 1 inch Geological Mapping*
- Coverage of Primary Ground Geophysics.*
- Areas proposed for Geophysical Surveys. 1959-1960*
- Coverage of Geochemical Work*
- Current Target Areas*
- Ground Geophysical Anomalies requiring further Testing*

- Ground Held by E.Z. Coy*
- Ground Held by MT Lyell Coy.*
- Ground Held by other outside interests*



○ AREAS PROPOSED FOR GEOPHYSICAL SURVEYS IN NW TASMANIA

630005 004

PLAN N° T357

RIO TINTO AUSTRALIAN EXPLORATION PTY. LIMITED

MAP SHOWING PROGRESS OF EXPLORATION ACTIVITIES N.W. TASMANIA

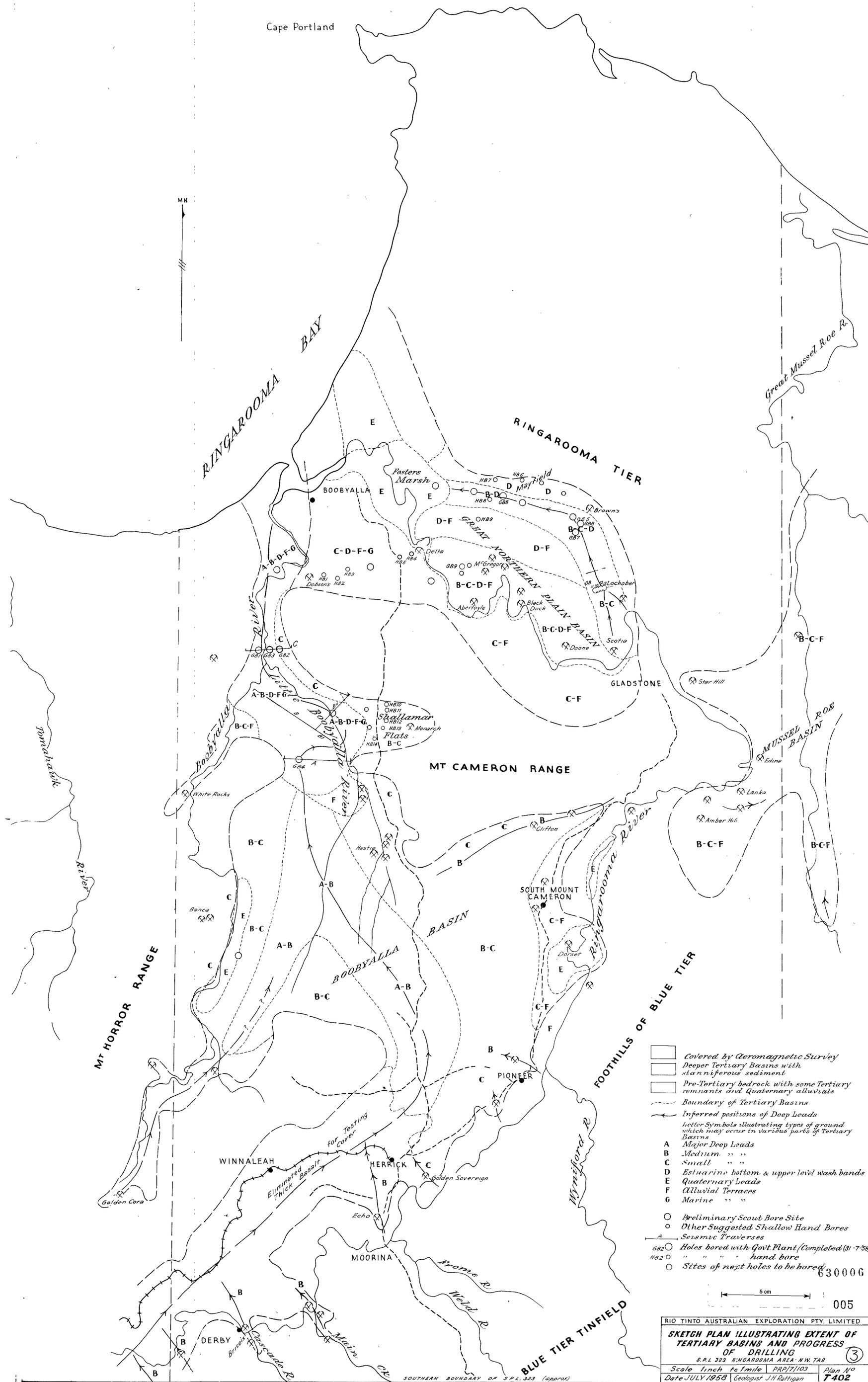
Date	Scale 2 Miles to 1 inch	Authority PRP/77/00	Plan N° T357
Draftsman ATN			

Plan N° T357

33-1916

Cape Portland

MN



- Covered by Aeromagnetic Survey
- Deeper Tertiary Basins with stanniferous sediment
- Pre-Tertiary bedrock with some Tertiary remnants and Quaternary alluvials
- Boundary of Tertiary Basins
- Inferred positions of Deep Leads
- Letter Symbols illustrating types of ground which may occur in various parts of Tertiary Basins
- A Major Deep Leads
- B Medium " "
- C Small " "
- D Estuarine bottom & upper level wash bands
- E Quaternary Leads
- F Alluvial Terraces
- G Marine " "
- Preliminary Scout Bore Site
- Other Suggested Shallow Hand Bores
- Seismic Traverses
- GB2 Holes bored with Govt Plant (Completed (31-7-58)
- HB2 " " " hand bore
- Sites of next holes to be bored

5 cm

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SKETCH PLAN ILLUSTRATING EXTENT OF TERTIARY BASINS AND PROGRESS OF DRILLING

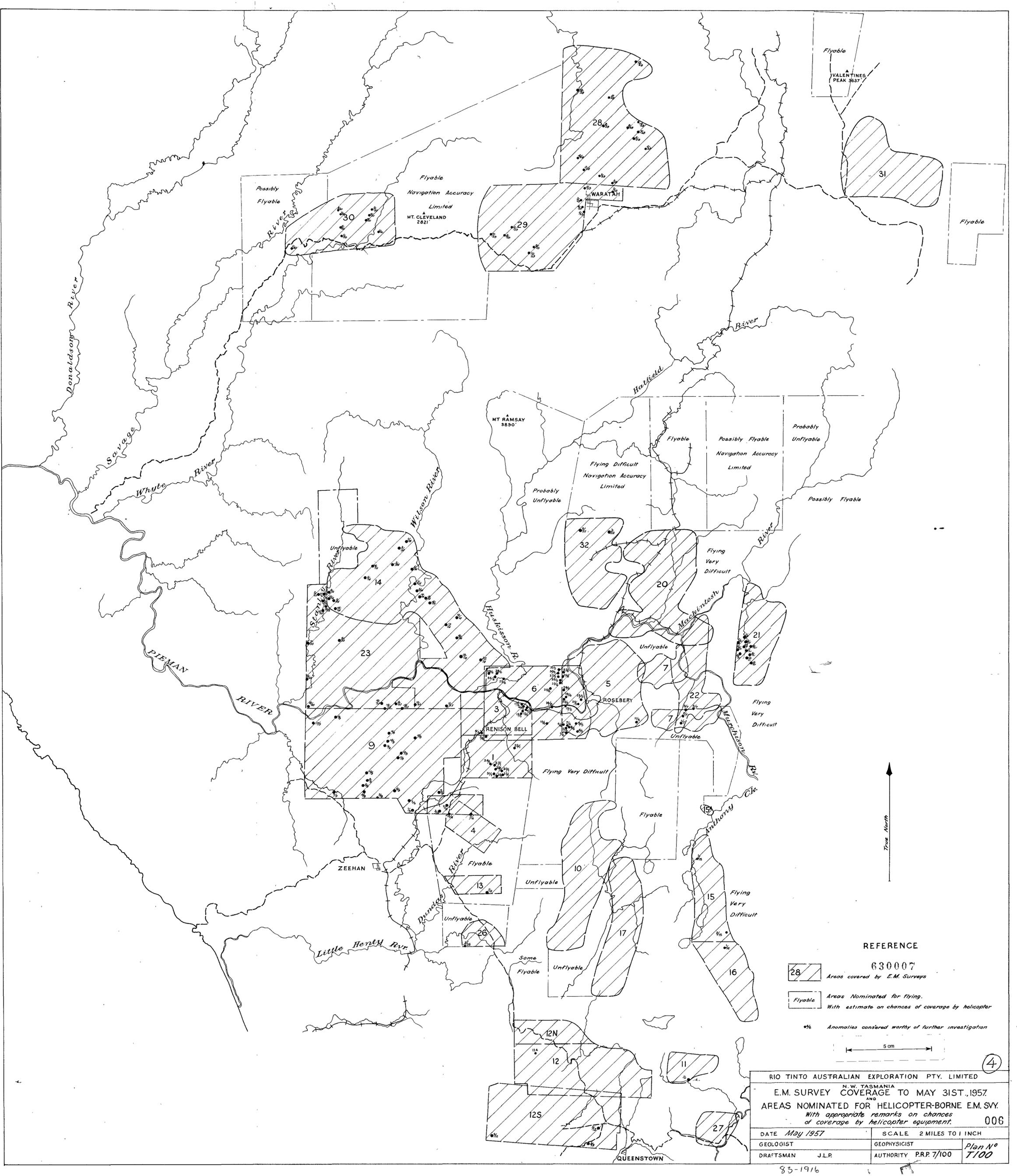
S.P.L. 323 RINGAROOMA AREA - NW. TAB (3)

Scale 1 inch to 1 mile PRP/7/103 Plan No 7402

Date JULY 1958 Geologist J.H. Rattigan

SOUTHERN BOUNDARY OF S.P.L. 323 (220000)

63-1916



REFERENCE

630007

-  Areas covered by E.M. Surveys
-  Areas Nominated for Flying.
With estimate on chances of coverage by helicopter
-  Anomalies considered worthy of further investigation



RIO TINTO AUSTRALIAN EXPLORATION PTY. LIMITED		
N. W. TASMANIA		
E.M. SURVEY COVERAGE TO MAY 31ST, 1957		
AND		
AREAS NOMINATED FOR HELICOPTER-BORNE E.M. SVY.		
With appropriate remarks on chances of coverage by helicopter equipment.		
DATE <i>May 1957</i>	SCALE 2 MILES TO 1 INCH	006
GEOLOGIST	GEOPHYSICIST	Plan No
DRAFTSMAN J.L.P.	AUTHORITY P.R.P. 7/100	T/100