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**RIO TINTO AUSTRALIAN EXPLORATION PTY. LIMITED**  
**MELBOURNE, AUSTRALIA**

**PROJECT:— PRP/7/100**

**REPORT No.:— Misc/1957**

PROGRAMME AND BUDGET FOR

PRELIMINARY DIAMOND DRILLING R.T.A.E. MAGNETIC ANOMALY

SAVAGE RIVER AREA, NORTHWEST TASMANIA

by  
R.S. MATHESON

57-169

Savage River Area, Pre-Diamond Drilling,  
R.T.A. Magnetic Anomaly  
by  
R.S. Matheson  
15/7/57.

**FILE REFERENCE:— 8 D/20F**

**MAP REFERENCE:—**

AMG REFERENCE POINTS ADDED

**DATE:— 15th July, 1957.**

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PROGRAMME AND BUDGET FOR PRELIMINARY DIAMOND DRILLING  
R.T.A.E. MAGNETIC ANOMALY, SAVAGE RIVER AREA  
NORTHWEST TASMANIA

466002

by  
R.S. Matheson

MICROFILMED

GENERAL

The preliminary investigations of this anomaly which were carried out by Geologists B.J. Drew and W. Atkinson under the supervision of R.S. Matheson have now been completed. Details of the work done are given in Geologist B.J. Drew's monthly report for June. The purpose of this report is solely to lay down a programme and budget for preliminary test diamond drilling of the deposit.

In the R.T.A.E. area there appear to be several lenses of iron ore (magnetite) scattered in a northwesterly direction over a length of about 2½ miles. These deposits are similar to the Rio Tinto iron deposits situated about 6 miles to the north, and are regarded as magmatic segregations in gabbro-amphibolite and its schistose equivalents.

The R.T.A.E. area is much more easy of access than the Rio Tinto deposits and consequently test drilling operations could be carried out here more cheaply. From investigations to date there is little doubt that there are large reserves in the iron deposits in the district and test drilling operations are needed chiefly to obtain a proper appreciation of the quality of the iron ore. It is thought that this test drilling can best be done in the first instance at the R.T.A.E. anomaly and the main north lens could be drilled.

Plans and sections illustrating the location, the geology of the area, preliminary geophysical work and the diamond drilling programme are attached hereto.

DIAMOND DRILLING PROGRAMME

It is considered test drilling should be concentrated on the main north lens in the first instance and with this work in view a longitudinal traverse line and three cross traverse lines have been cut.

The cross traverse lines are situated at 10,064'N, 10,692'N, and 11,303'N.

A good preliminary test of the deposit can be obtained by drilling the three holes listed below which are designed to intersect the deposit about 400 feet below its central axis.

D.D.H. No.	Location	Bearing	Depression	Bore depth
1	On traverse line AA <sup>1</sup> - 360ft. E. of centre line.	West on traverse line	45°	900 ft.
2	On traverse line BB <sup>1</sup> - 345ft. E. of centre line	West on traverse line	45°	550 ft.
3	On traverse line CC <sup>1</sup> - 384ft. E. of centre line.	West on traverse line	45°	700 ft.
		Total Drilling :		2150 ft.

The heavy timber in the drilling area would make it a difficult and costly job to prepare a heliport, but a track could be put into the area from the Corinna road and facilitate drilling operations. The track would have to follow the higher ground and the distance from the Corinna road to the base point at 10,000 N and 10,000 E would be only about  $1\frac{1}{2}$  miles. A local contractor has given an estimate of £2,350 to prepare this track and also bulldoze a camp site area. Some additional bulldozing would be required along the centre and cross lines to allow access for the drill and to prepare drill sites and it is estimated that probably another £200 would cover this work.

An adequate water supply for drilling should be available locally.

A contract for diamond drilling should be let on the following basis :-

- 1) Contract for at least 2,150 feet of drilling.
- 2) Holes are not to fall below AX size and hence they will probably have to commence drilling at NX size. Good core recovery is expected.
- 3) Contractors will be responsible for delivery of their equipment to the site and later removal therefrom.
- 4) R.T.A.E. will be responsible for putting in access road and supplying equipment for water supply. They will also be responsible for supply of camp equipment, core boxes, clearing of lines and drilling sites, geological logging and sampling of the core and keeping a line of communication with Waratah for perishable stores, mail and drill bits, etc.
- 5) The drilling contractors are responsible for the installation of the water supply equipment and for its operation. They are also responsible for their own food and arrangements for their meals.

R.T.A.E. personnel required for the work will consist of one geologist and two field assistants. Based on the rate of 100 feet per week drilling operations will take 22 weeks (6 months say). This could be speeded up by working two shifts on the drill or by using two machines but the extent of the contract rather precludes the use of two machines.

If the Tasmanian Mines Department were prepared to allow the drilling of the R.T.A.E. deposit instead of the Rio Tinto deposit we could probably expect them to carry out the assay work in Launceston at their expense, otherwise this will be a charge to be borne by R.T.A.E.

Quotes of diamond drilling rates are still awaited but £4 per foot has been used for the purposes of estimates.

#### ESTIMATE OF COSTS

##### A. Operating Costs

(1) <u>Salaries and Wages</u>	<u>£A/month</u>	<u>£A/6 months</u>
1 Geologist @ £1200 p.a.	100	600
2 Field Assts. @ £90 per month	180	1080
Total	<u>£280</u>	<u>£1680</u>

(ii) <u>General Operating Costs</u>	<u>£A/month</u>	<u>£A/6 months</u>
Field Allowance at £20 per month - 1 Geologist	20	120
Field Allowance at 7/- per day for 2 field assistants	19	114
Transport Costs - 1 vehicle @ 500 miles per month	25	150
Total : £ 64		£ 384
(iii) <u>Road Work, etc.</u>		
1½ miles of road work		£2350
Bulldozing drill sites, etc.		200
Total :		£2550
(iv) <u>Diamond Drilling</u>		
2,150 feet of diamond drilling at approx. £4 per foot		£8600
(v) <u>Preliminary Line Cutting</u>		
2 field assistants @ £90 p.m. for 2 months		360
Field allowance @ 7/- per day - 2 field assistants for 2 months		40
Total :		£400 say
(vi) <u>Sundry Expenditure</u>		
Rail fares and rail freight equipment and samples		£250
Assay charges say 250 samples @ £2		500
Costs of supervision		250
Total :		£1000
B. <u>Capital Expenditure</u>		
2,700 ft. of piping (say)		350
1 Pump	}	
1 Engine		650
1 Reservoir Tank		
Core Boxes		250
Additional Camp Equipment		50
Contingencies		200
Total :		£1500
GRAND TOTAL		£16,114

In the event of the Tasmanian Mines Department agreeing to drilling in the R.T.A.E. area, then the following items would be treated as an overhead by R.T.A.E. and not charged to the project.

Salaries and Wages	£1,680
General Operating Costs	384
Sundry Expenditure	500
Capital Expenditure	1,500
	<hr/>
Total :	£A4,064
	<hr/>

Drilling costs then chargeable against the £15,000 allowed by the Tasmanian Mines Department could then be amended to a total of £A12,050.

R.S. Matheson  
Exploration Manager

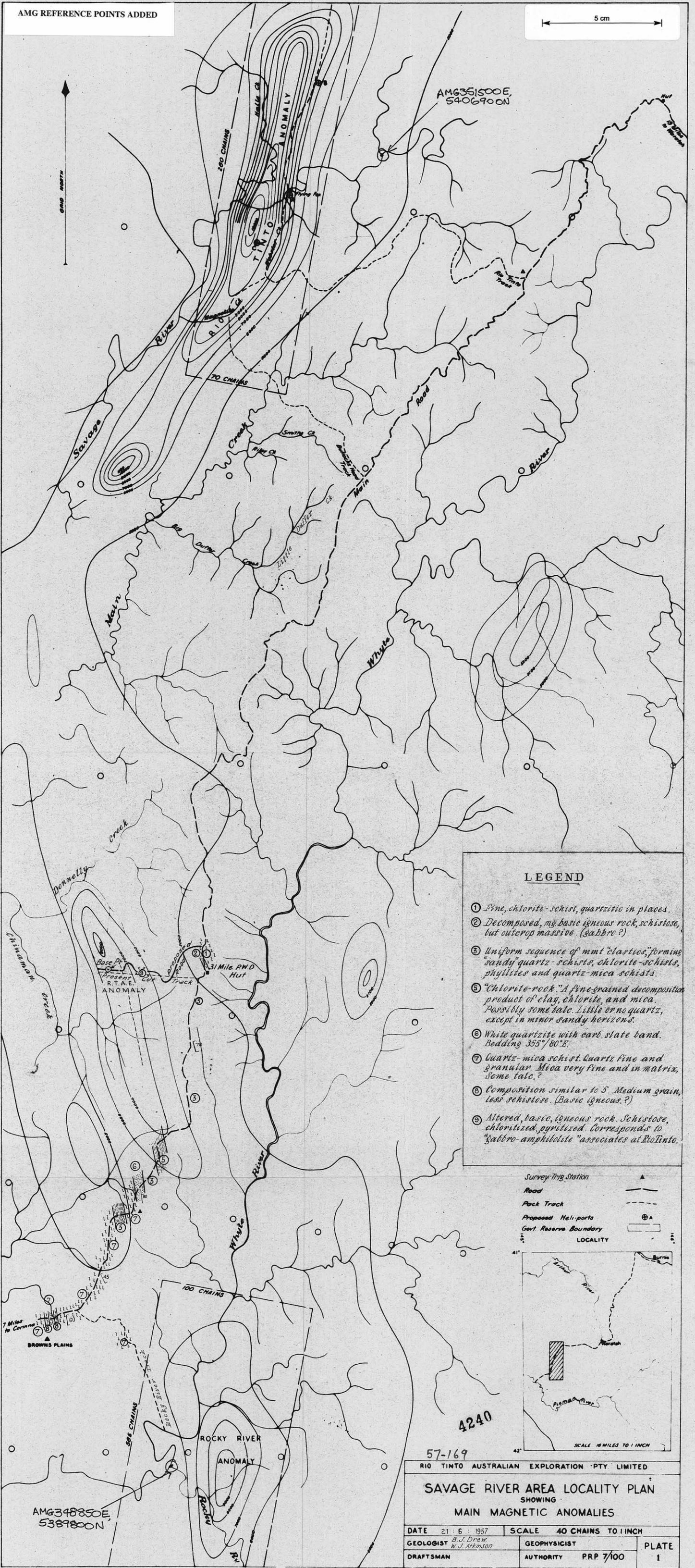
10th July, 1957

Accompanying Maps.

- Plate-1 Main Magnetic Anomalies
- 2 Main Deposit RTAE Anomaly
- 3 Profiles of Magnetic Vertical Intensity
- 4 ✓ ✓ ✓ ✓ ✓

AMG REFERENCE POINTS ADDED

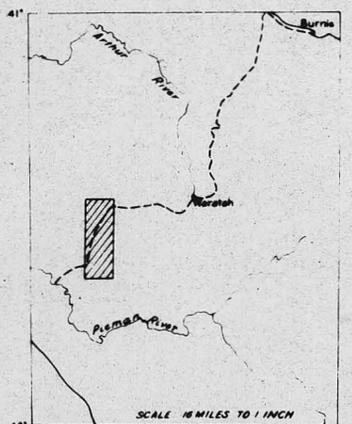
5 cm



**LEGEND**

- ① Fine, chlorite-schist, quartzitic in places.
- ② Decomposed, mg basic igneous rock, schistose, but outcrop massive. (Sabbro?)
- ③ Uniform sequence of mnt "clastics," forming "sandy" quartz-schists, chlorite-schists, phyllites and quartz-mica schists.
- ④ "Chlorite-rock." A fine-grained decomposition product of clay, chlorite, and mica. Possibly some talc. Little or no quartz, except in minor sandy horizons.
- ⑤ White quartzite with carb slate band. Bedding 355°/80°E.
- ⑥ Quartz-mica schist. Quartz fine and granular. Mica very fine and in matrix. Some talc?
- ⑦ Composition similar to 5. Medium grain, less schistose. (Basic igneous?)
- ⑧ Altered, basic, igneous rock. Schistose, chloritized, pyritized. Corresponds to "Sabbro-amphibolite" associates at Rio Tinto.

- Survey Trig Station
- Road
- Pack Track
- Proposed Heliports
- Govt Reserve Boundary
- LOCALITY



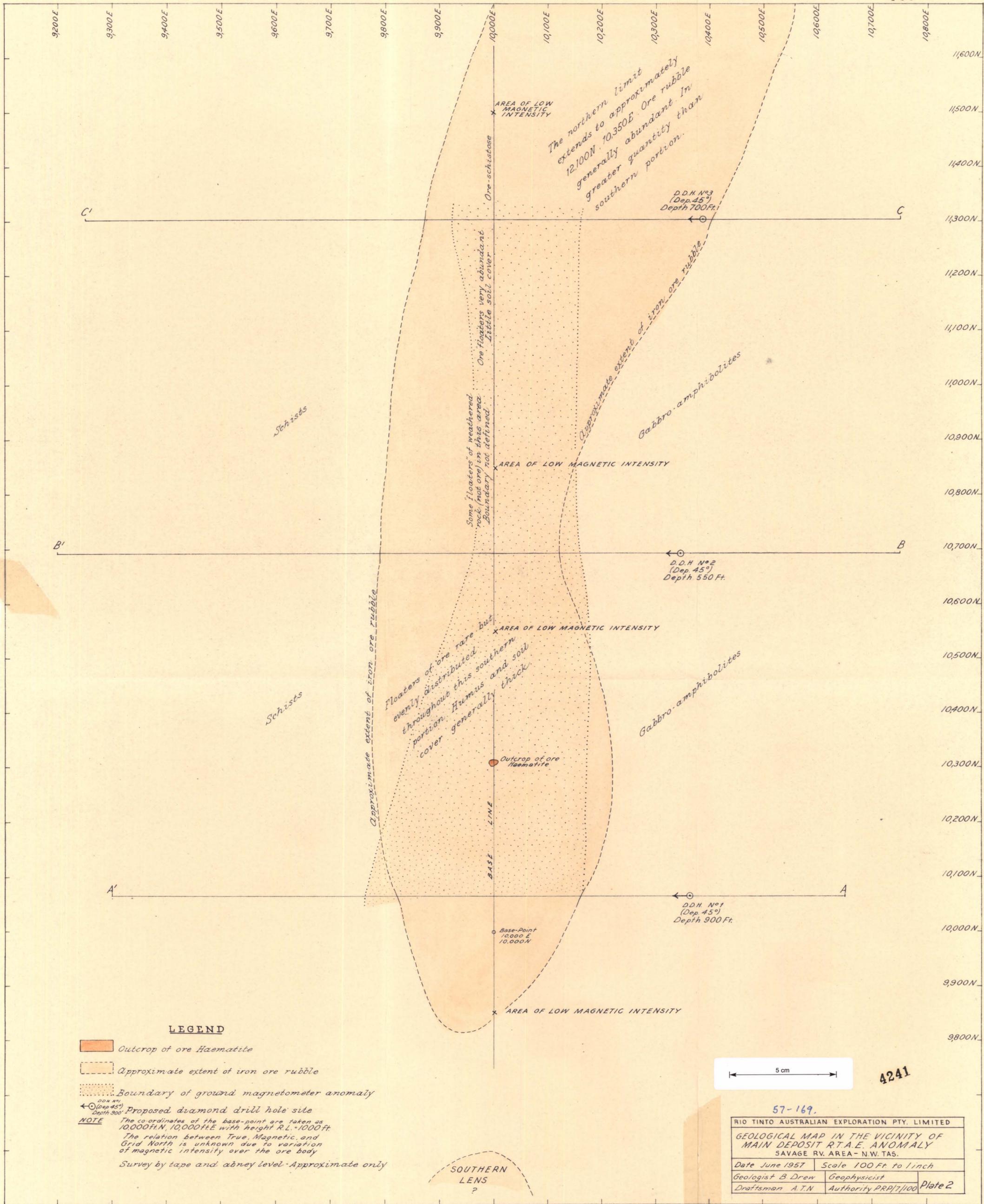
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**SAVAGE RIVER AREA LOCALITY PLAN  
SHOWING  
MAIN MAGNETIC ANOMALIES**

DATE	21.6.1957	SCALE	40 CHAINS TO 1 INCH
GEOLOGIST	B.J. Drew W.J. Arkison	GEOPHYSICIST	
DRAFTSMAN		AUTHORITY	PRP 7/100
		PLATE	1

AMG348850E  
S389800N



**LEGEND**

- Outcrop of ore Haematite
- Approximate extent of iron ore rubble
- Boundary of ground magnetometer anomaly
- Proposed diamond drill hole site

**NOTE**  
 The co-ordinates of the base-point are taken as 10,000ft.N, 10,000ft.E with height R.L. 1000ft.  
 The relation between True, Magnetic, and Grid North is unknown due to variation of magnetic intensity over the ore body  
 Survey by tape and abney level - Approximate only

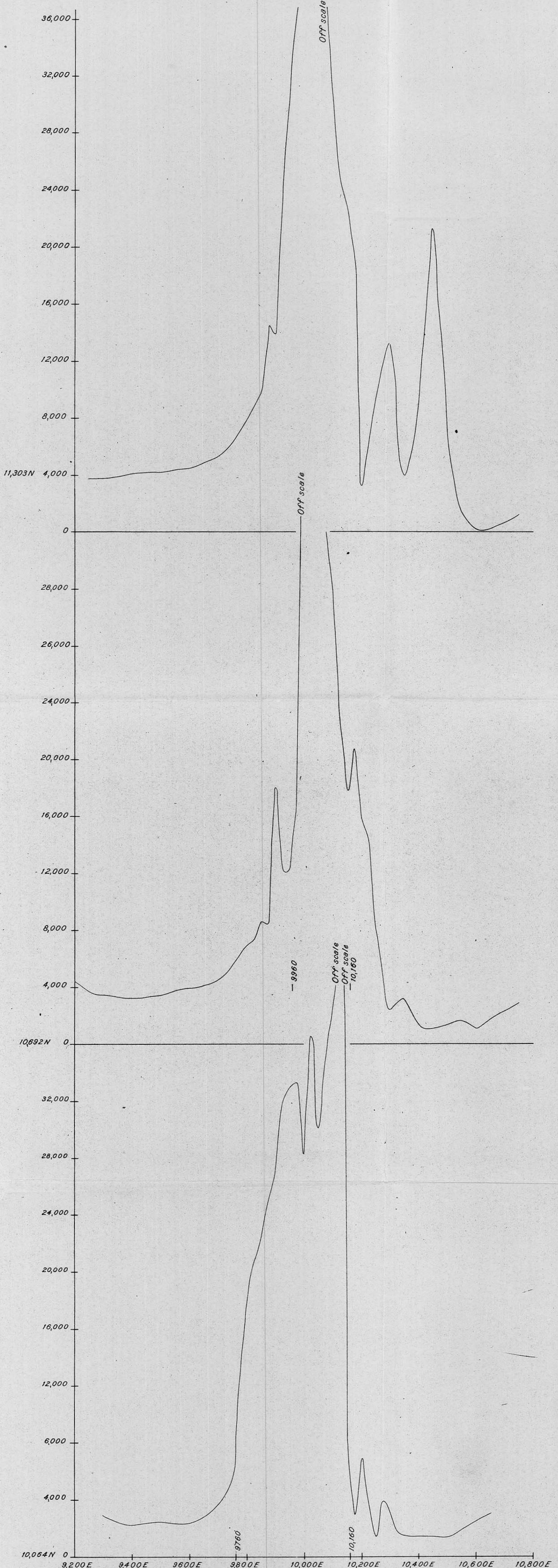


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RIO TINTO AUSTRALIAN EXPLORATION PTY. LIMITED			
GEOLOGICAL MAP IN THE VICINITY OF MAIN DEPOSIT R.T.A.E. ANOMALY SAVAGE RV. AREA - N.W. TAS.			
Date June 1957	Scale 100 Ft. to 1 inch		
Geologist B. Drew	Geophysicist	Authority PRP/7/100	
Draftsman A.T.N.			

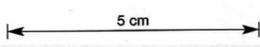
Plate 2



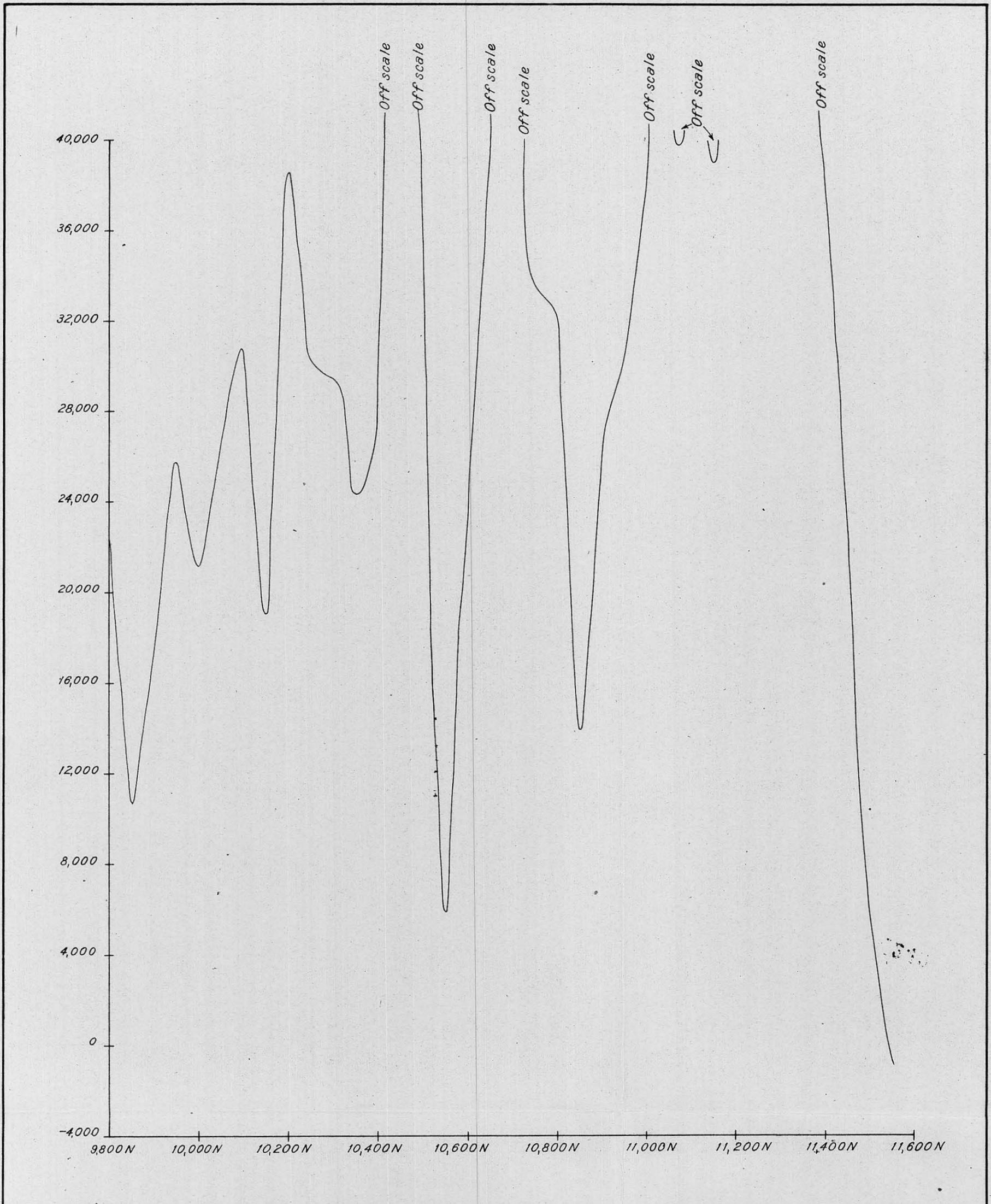
RIO TINTO AUSTRALIAN EXPLORATION PTY. LIMITED  
 PROFILES OF MAGNETIC VERTICAL INTENSITY  
 R.T.A.E. ANOMALY SAVAGE RIVER

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Vertical Scale 4,000 gammas to 1 inch. Horizontal Scale 200 feet to 1 inch.  
 PRP/7/100. Plate 3



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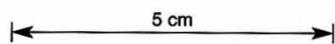


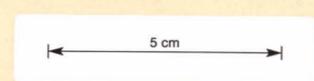
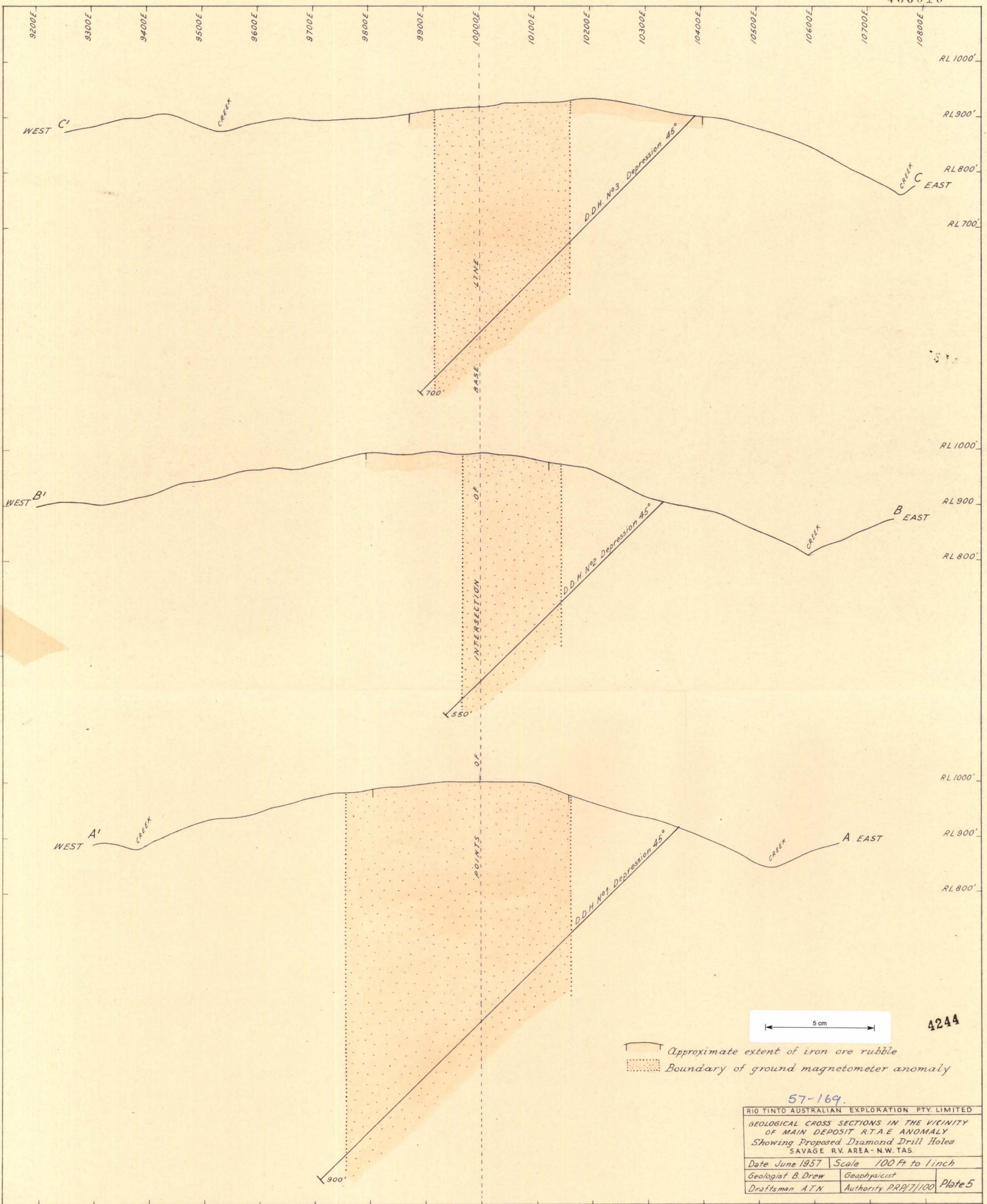
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PROFILES OF MAGNETIC VERTICAL INTENSITY  
R.T.A.E. ANOMALY SAVAGE RIVER

Vertical Scale 4000 gammas to 1 inch. Horizontal Scale 200 feet to 1 inch  
P.R.P./7/100 Plate 4

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 Approximate extent of iron ore rubble  
 Boundary of ground magnetometer anomaly

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RIO TINTO AUSTRALIAN EXPLORATION PTY. LIMITED		
GEOLOGICAL CROSS SECTIONS IN THE VICINITY OF MAIN DEPOSIT R.T.A.E ANOMALY		
Showing Proposed Diamond Drill Holes SAVAGE RV. AREA - N.W. TAS.		
Date June 1957	Scale 100 Ft to 1 inch	Plate 5
Geologist B. Drew	Geophysicist	
Draftsman A.T.N.	Authority PRP/7/100	

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