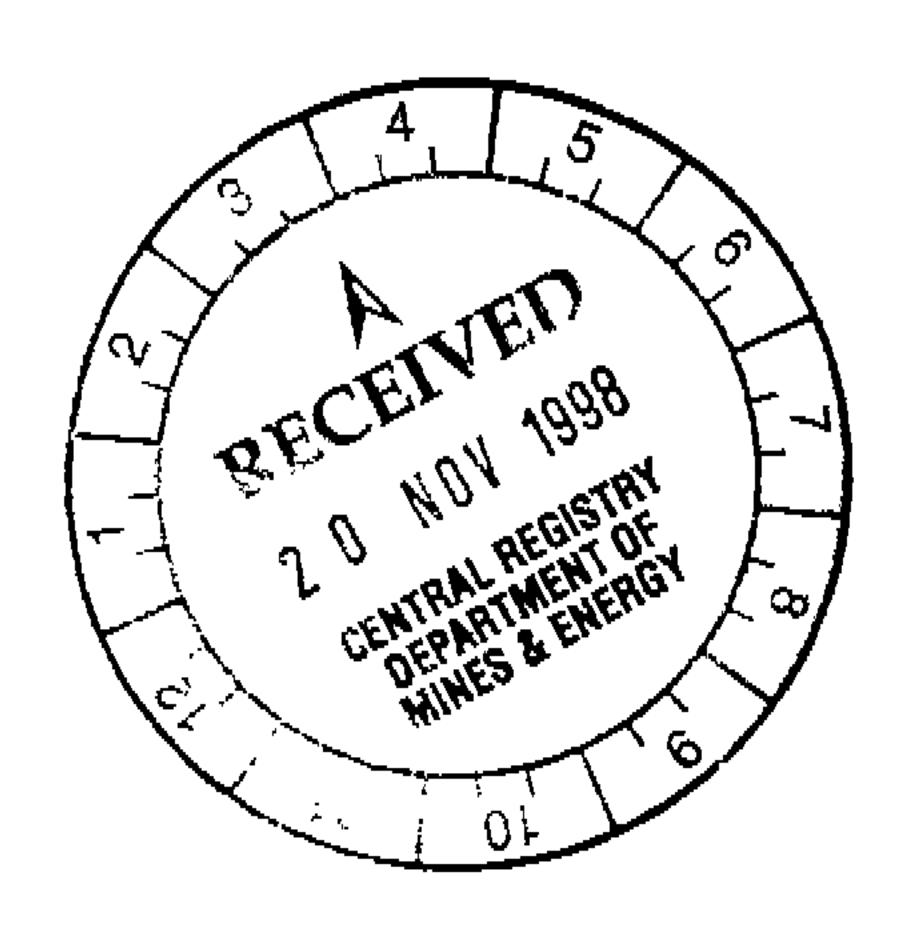
Aberfoyle Resources Limited

A.C.N. 004 664 108

Exploration Division



EXPLORATION LICENCE 9145

'TINARKIE BORE' (Napperby 1:250,000 Sheet)

PARTIAL RELINQUISHMENT REPORT FOR EXPLORATION ACTIVITIES ON THE AREA REDUCED AT THE YEAR ENDED 18 AUGUST 1998

Distribution:

Aberfoyle Resources Ltd, Perth (1

Dept Mines and Energy, Darwin (1)

Prepared By:

A T Jones Geologist

Issued By:

N Reynolds Exploration Manager

ARL Report No: NT Tinarkie Bore 3

November 1998

OPENFILE

CONTENTS

SUMMARY

- 1. INTRODUCTION
- 2. EXPLORATION ACTIVITIES COMPLETED
 - 2.1 AAPA Site Survey
 - 2.2 Airborne Magnetics & Radiometrics Survey
- 3. EXPENDITURE

FIGURES

 <u>Figure No</u>	<u>Description</u>	<u>Scale</u>
Figure 1	Location Plan	1:250,000
 Figure 2	Tenure Reduction - End Year 2	_
Figure 3	TMI Aeromagnetic Image	1:250,000
 Figure 4	Flight Line Map	1:250,000

<u>APPENDIX</u>

Appendix 1	AAPA Authority Certificate
Appendix 2	Airborne Magnetics & Radiometrics - Geophysicists Report

SUMMARY

Exploration Licence 9146 'Tinarkie Bore' was due for a 50% reduction at its 2nd year anniversary on 18 August 1998. A total of 170, one minute by one minute, graticular blocks were relinquished by Aberfoyle comprising a 50% reduction of land area.

Work done on the portion of EL 9145 relinquished from the grant date to 18 August 1998 has included an airborne magnetic and radiometric survey and an AAPA site survey. This work is documented within this report.

Ntgen, atj225

1. INTRODUCTION

Exploration Licence 9145 'Tinarkie Bore' was granted to Aberfoyle Resources Limited on 19 August 1996 for a period of six years. The licence is located to the north of the settlement of Aileron, approximately 160km north of Alice Springs (Figure 1).

In accordance with Northern Territory Department of Mines and Energy regulations, exploration licence 9145 was due for reduction on the second anniversary (19 August 1998). A total of 170 graticular blocks were relinquished by Aberfoyle comprising a 50% reduction of land area (Figure 2).

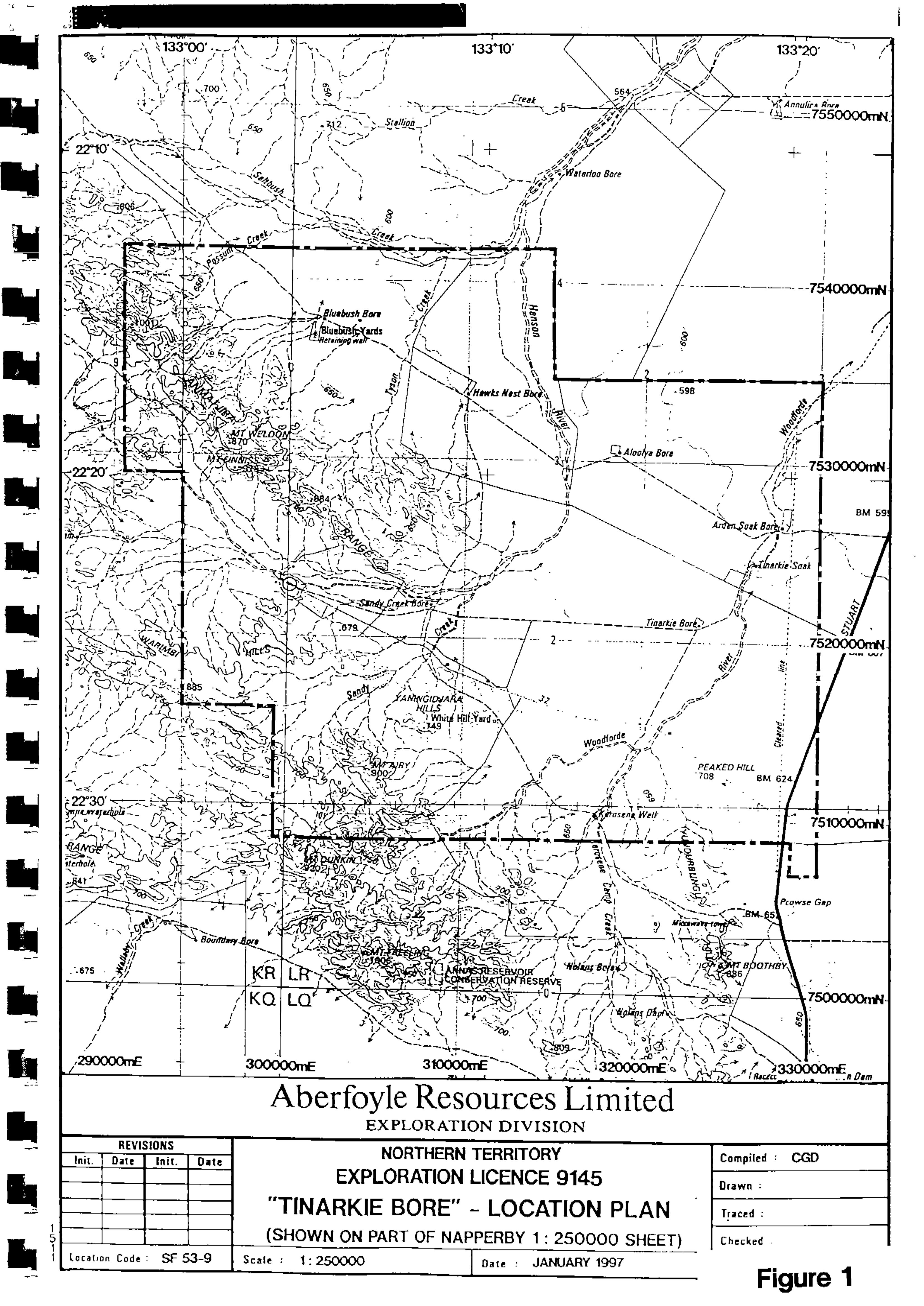
This report details exploration activities completed by Aberfoyle on the relinquished portion of EL 9145 from the grant date to 18 August 1998.

2. EXPLORATION ACTIVITIES COMPLETED

2.1. AAPA Site Survey

Aberfoyle Resources applied to the Aboriginal Areas Protection Authority (AAPA) for an Authority Certificate covering the entire area of EL 9145. The application was made on 16 January 1997 and the certificate was issued on the 23 June 1997.

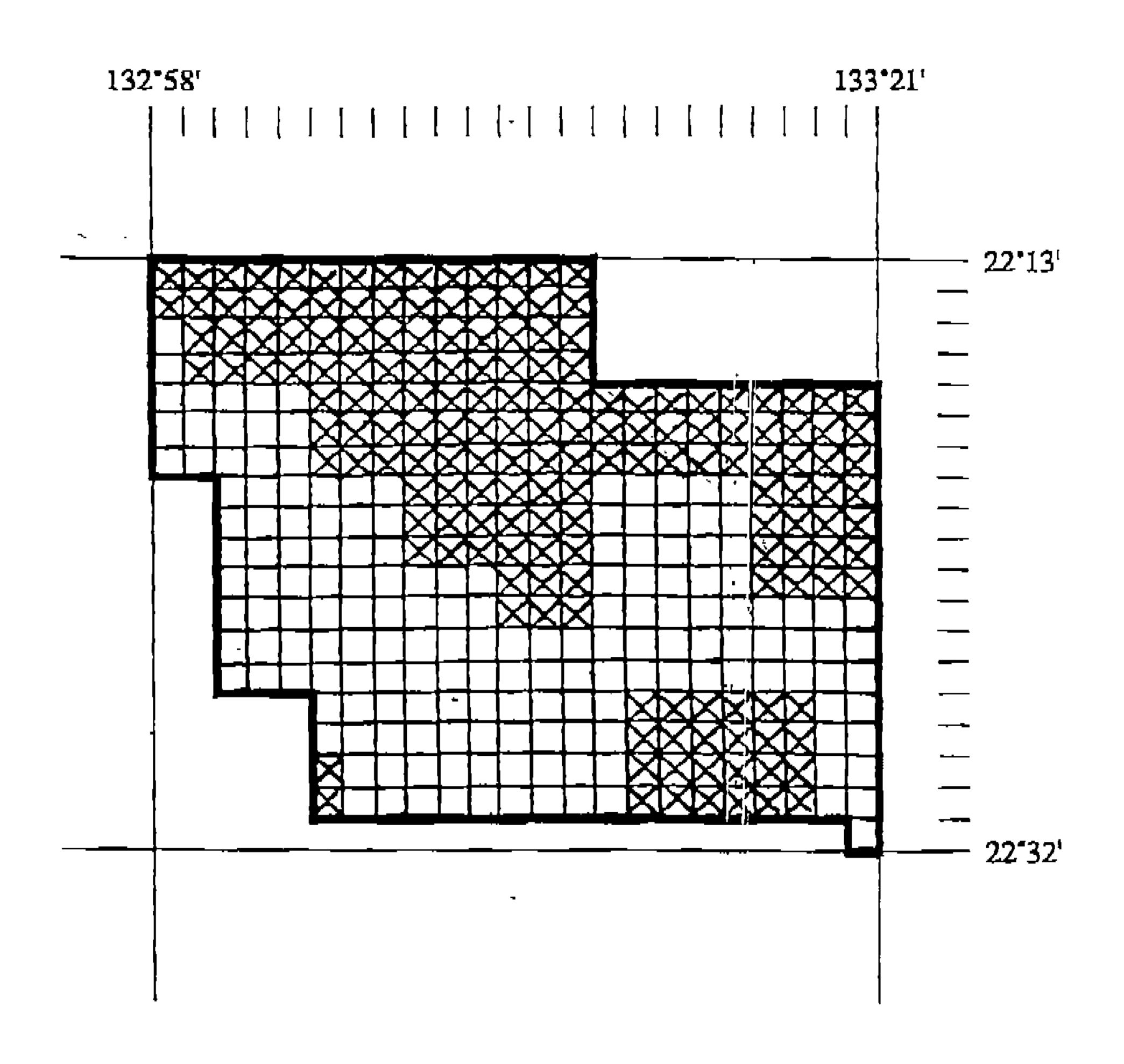
No places of significance to Aboriginal peoples were identified. A copy of the AAPA's correspondence (including a copy of the Authority Certificate) is included in this report as Appendix 1.



SECOND SCHEDULE (Plan of Area)

Area Reduction - End of Year 2

Tinarkie Bore



EL9145

341 BLOCKS

1098 sq kms

Area Retained (171 blocks)

🔀 Area Relinquished (170 blocks)

2.2. Airborne Magnetics & Radiometrics Survey

To enable accurate targeting of surface and sub-surface geochemical exploration programmes, Aberfoyle contracted World Geoscience Corporation in November 1996 to conduct a magnetic and radiometric survey of EL 9145 (and adjoining EL 9146).

A Logistic Report by an Aberfoyle Geophysicist is shown as Appendix 2. A flight line map, and a total magnetic intensity image are enclosed as Figures 3 & 4.

A series of large, highly complex magnetic anomalies exist in the southern part of the EL. Due to their complex nature, flight line spacing in this region was reduced from 500m to 250m. Folded and/or faulted, strongly magnetic anomalies within the southwest corner appear to be sourced from a cordierite granofels/felsic granulite within the Reynolds Range Group. Anomalies further to the east crosscut outcropping granitoids and may exist within alluvium, colluvium or an underlying source. A large WNW trending anomaly extends from the NW corner to the centre of the EL, appearing as a complex, moderate to highly magnetic body. Numerous anomalies of lesser intensity are noted within this region, cross-cutting the overall body with a more E-W trend. This structure correlates with the Atmatjira Range and may be sourced by a combination of mafic and felsic granulites.

A regional fault separating the north-eastern portion of the EL has been inferred. This area is comparatively subdued although the western edge of a highly magnetic anomaly extends into the eastern part of the EL. It appears as a large bullseye structure, possibly being faulted along its southern margin. A few, smaller magnetic anomalies lie within the NE area of the EL and are of moderate intensity. Thick Quaternary cover and the absence of outcrop prohibits any assumption as to the source of magnetic anomalies in this area.

3. EXPENDITURE

Excluding tenement rentals and the cost of the AAPA certificate, Aberfoyle Resources has expended a total of \$46,281 on exploration of EL 9145 to date.

APPENDIX 1 AAPA Authority Certificate

ABORIGINAI "IREAS PROTECTION AUTHORILI AUTHORITY CERTIFICATE

Issued in accordance with Section 22 of the Aboriginal Sacred Sites Act

E ERENCE:

D89/199:89/2044 (Doc:22614)

C97/084

APPLYING TO:

EL 9145 in the Pine Hill Station area of the NT and

EL 9535 in the Anningie Station area of the NT, as shown on the

attached maps.

PR POSED

WI RK OR USE:

Track clearing for acces, surface geochemical soil sampling, R.A.B./ vacuum drilling, surface geophysical surveys and percussion/diamond

drilling with a view to discovery of a mineable resource.

ISSUED TO:

Aberfoyle Resources Limited

Level 31 South, 525 Collins Street

MELBOURNE VIC 3000

CONDITIONS:

It is the responsibility of the recipient of this Certificate to:

Include the conditions of this Certificate in any subsequent contract or (i) tender document commissioning works described in this Certificate.

- Otherwise inform agents and employees of the conditions of this Certificate and obligations under the Aboriginal Sacred Sites (NT) Act 1989.
- The proposed use or works covered by this Certificate must commence within 24 months of the date of issue.
- The information on the maps relate specifically to the areas of the Certificate as marked and the fact that sites are not shown in other areas should not be taken as a definitive indication of the existence or lack of existence of sites in these areas.
- The maps attached to the Certificate form part of the Certificate. **.4**,
- No mining works permitted within the areas highlighted in red on the map plans attached to the Certificate.
- EL9145

Mining personnel wishing to access site area 5553-62 for mining purposes are required to first consult with custodian Don Campbell at his Pine Hill outstation/living area, adjacent to Pine Hill Station.

EL 9535

Personnel requiring access to EL 9535 via the west or south sides should be aware of conditions in force as per Authority Certificate C95/035 issued to Aberfoyle Resources on 28/3/95 ie. areas 2 and 3.

The COMMON SEAL of the

ABORIGINAL AREAS PROTECTION AUTHORITY

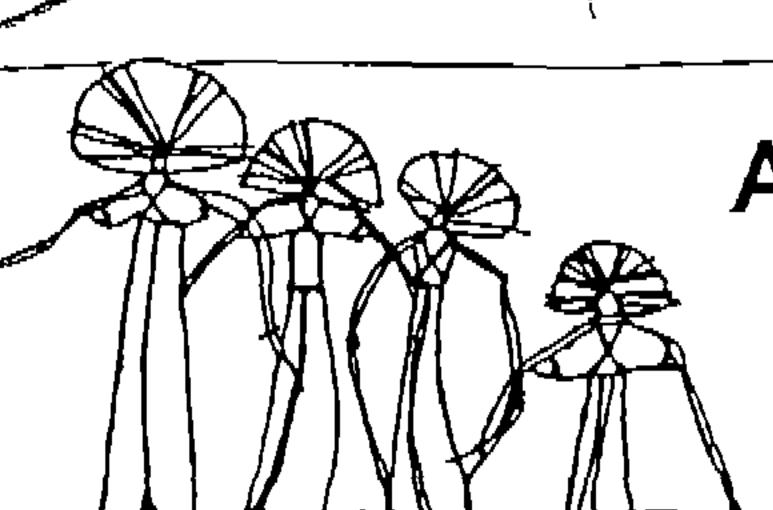
was hereto affixed on the

1997

DAVID RITCHIE

Chief Executive Officer

RMJ



ABORIGINAL AREAS PROTECTION AUTHORITY

GPO BOX 1890 DARWIN NT 0801 TELEPHONE: (089) 81 4700

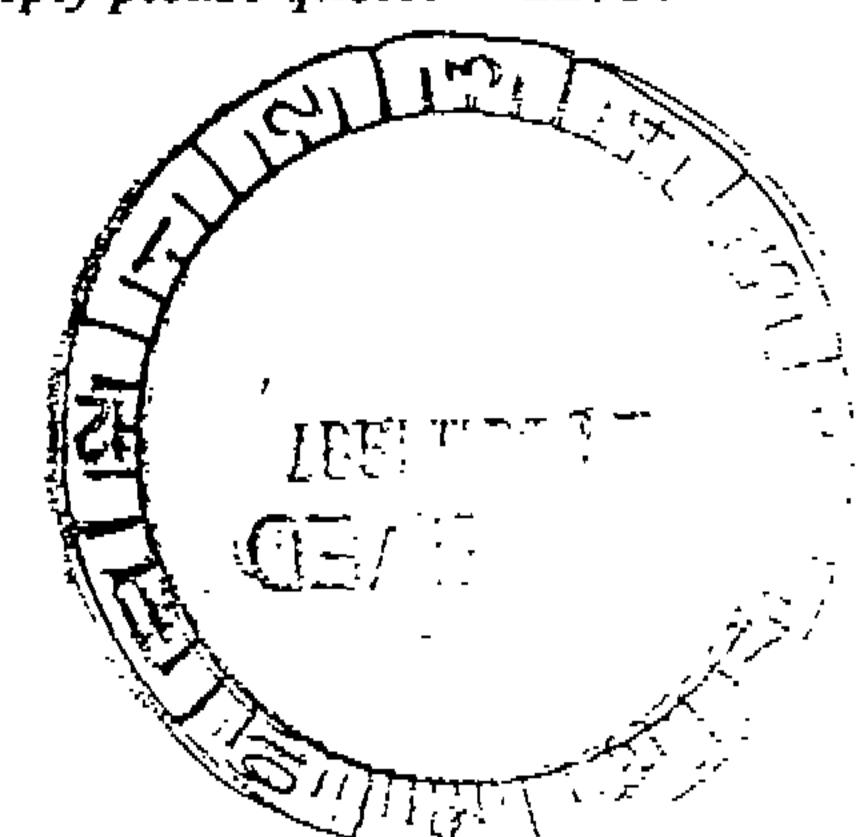
FACSIMILE: (089) 81 4169

File: D89/199;89/2044

₹~June 1997

Aberfoyle Resources Limited Level 31 South, 525 Collins Street MELBOURNE VIC 3000

ATTENTION: KENDYBALL In reply please quote: 22614



ISSUE OF AUTHORITY CERTIFICATE FOR EL 9145, PINE HILL RE: STATION AREA & EL 9535, ANNINGIE STATION AREA

I refer to your application for an Authority Certificate, received on the 20 January 1997, for the above location.

Accordingly, under the powers delegated to me under Section 19 of the Aboriginal Sacred Sites Act 1989 I am pleased to issue the attached Authority Certificate.

Please note carefully the conditions outlined in the Certificate. You should also note that the Authority has issued you with two identical copies of the digitized map attached. One copy should be retained with your original Certificate. The second is supplied for use by contractors to avoid unnecessary photocopying of a colour coded document. If you have any further queries regarding this Authority Certificate please contact Mr Anthony Gatti in our Alice Springs office on 89526366.

Yours faithfully

DAVID RITCHIE

Chief Executive Officer

APPENDIX 2

Airborne Magnetics & Radiometrics

Geophysicists Report

ABERFOYLE RESOURCES

"DESERT BORE - TIHARKIE BORE"

AIRBORNE MAGNETIC & RADIOMETRIC SURVEY

October-November 1996

Logistic Report

Prepared By:

A D Thompson Geophysicist

CONTENTS

		Page No.
l. INTR	ODUCTION	
2. DAT .	A COLLECTION	2
2.1	Instrumentation	2
2.2	Survey Specifications	2
2.3	Magnetic Base Station	3
3.0	Comments	3
	<u>FIGURES</u>	
Figure No.	Description	Page
Figure 1	Survey Area Location Map	•
Figure 2	Flight Line Map	
Figure 3	Total Magnetic Intensity Image	

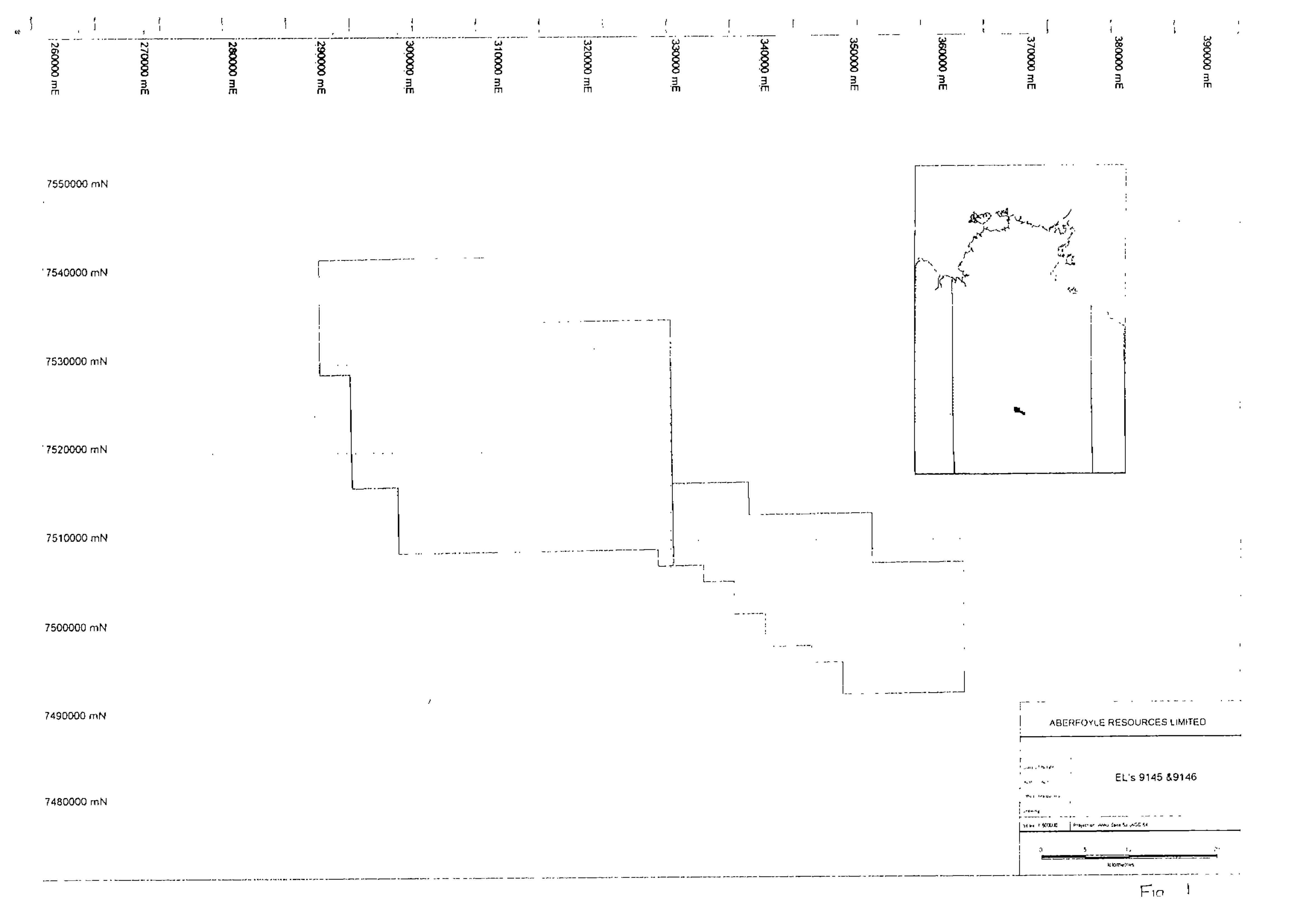
1. INTRODUCTION

An airborne magnetic and radiometric survey was conducted over EL9145 Tinarkie Bore and EL9146 Desert Bore in the Northern Territory near the town of Ti-Tree approximately 100 km North of Alice Springs (Fig. 1).

The survey took place in mid November over a period of 3-4 days and was conducted by World Geoscience Corporation for Aberfoyle Resources Limited.

A total of 5248 line kilometres of data were collected over approximately 275 North-South lines. The line spacing were 500m apart in the northern half of the survey however was closed up to 250m in the Southern half after it became apparent that a closer line spacing was required to resolve features in this location (Fig. 2).

The survey was designed as a first pass exploration tool to locate those areas with interesting magnetic characteristics and to determine those areas within the Els where the depth to magnetic basement is shallow enough to effectively explore for mineralisation.



2. <u>DATA COLLECTION</u>

2.1 <u>Instrumentation</u>

The Airborne Magnetic and Radiometric data were collected using the following equipment.

Aircraft -

Cessna 206

Magnetic Sensor -

Scintrex VIW2321/CS2 split beam cesium vapour sensor.

Magnetometer -

Picodas PDAS 1000 acquisition system.

Spectrometer -

Picodas PGAM 256 channel self calibrating spectrometer.

Spec Sensor -

Two 16.75 litre NaI crystal sensors.

Navigation -

Differential GPS satellite navigation system & Picodas

PNAV 2001 Navigation system.

Elevation -

Radar Altimeter & Barometric Altimeter

2.2 <u>Survey Specifications</u>

The following specifications were used for data acquisition.

Flight Line Spacing -

500 metres throughout the Northern half of the survey and 250 metres throughout most of the Southern half of the survey. The increased line density in the South was due to the increased complexity of the magnetic features.

Flight Line Direction -

N-S

Tie Line Spacing -

5000m.

Tie Line Direction -

E-W

Sensor Height -

80 metres. Which is fairly high due to the large line

spacing and several hills in the Western part of the survey

агеа.

Mag. Sample Interval -

6m

Mag. Cycle Rate -

0.1 seconds

Spec Sample Interval -

60 m

Spec Cycle Rate -

1 second

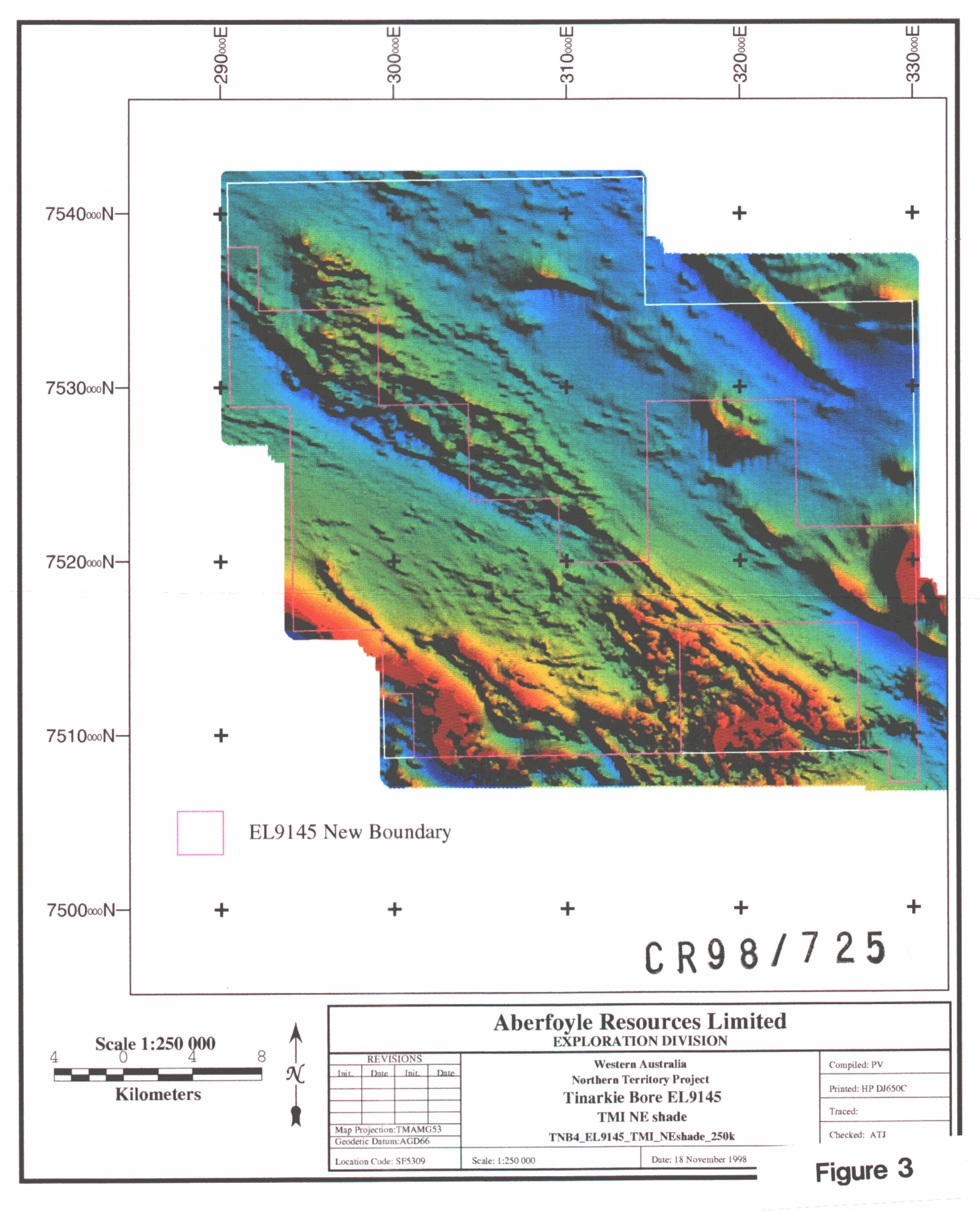
2.3 <u>Magnetic Base Station</u>


A Geometrics G856 proton precession magnetometer with 0.1 nT resolution, 0.5nT noise envelope cycling every 5 seconds was used. The Base station and mobile magnetometer clocks were synchronised daily.

3.0 Comments

The survey was completed within the specified time however a slight delay was necessary when part of the navigation system broke down making location of flight lines unreliable. No other problems were encountered.

An image of the Total Magnetic Intensity with a Northeast-Southwest sunshade is included in Figure 3.





ABERFOYLE RESOURCES LIMITED EXPLORATION DIVISION						
REVIS	<u> </u>		Northern Territory	Compiled: ADT		
Init. Date	e Init Date	Desert Bore - Tiharkie Bore Ti-Tree Block	Printed: DJ750			
		· · ···	Flight Line Map	Traced:		
Map Projection: TMAMG53 Geodetic Datum: AGD84		dbtb_tmi_flines_med5x5_100k		Checked:		
Location Code:		Scale: 1:100 000	Date: 15/01/97	Plate No: DSB 12		