

CR 96/766

ANNUAL REPORT
EXPLORATION LICENCE 8131
"Lancewood River South"

12th July, 1995 to 11th July, 1996

Licensee: Ashton Mining Limited

Operator: Ashton Mining Limited

Sheet Reference: 1:250,000 Wallihallow (SE53-07)

Submitted to: Department of Mines and Energy, Darwin

Copies to: Ashton Mining Limited - Perth Office
Ashton Mining Library

CR 96/766
Author:

T. Rogers
ASHTON MINING LIMITED
21 Wynyard Street
BELMONT WA 6104

July, 1996
Report Number: 51390

CONTENTS

SUMMARY	(i)
1.0 INTRODUCTION	1
2.0 DIAMOND EXPLORATION PROGRAMME	2
2.1 Stream Gravel Sampling	2
2.2 Loam Sampling	2
2.3 Laboratory Procedure	2
3.0 BASE METAL EXPLORATION PROGRAMME	3
4.0 EXPLORATION EXPENDITURE	3
5.0 CONCLUSIONS AND RECOMMENDATIONS	3
6.0 PROPOSED PROGRAMME AND BUDGET	4
7.0 REFERENCES	5

FIGURES

- Figure 1. Tenement Location Plan
- Figure 2. Sample Location Plan
- Figure 3. GEOTEM Survey Area

APPENDICES

- Appendix 1. Sample Results
- Appendix 2. GEOTEM Survey Specifications
- Appendix 3. Statement of Expenditure

SUMMARY

During the period between 12th July, 1995 to 11th July, 1996, Ashton Mining Limited, through the Australian Diamond Exploration Joint Venture (ADE JV), and BHP Minerals, through the McArthur River (Metals) Joint Venture, carried out exploration activities on EL 8131. This report provides details of the work undertaken during this reporting period.

Ashton Mining undertook no field work during the reporting period. Outstanding results from the previous year's sampling became available. All results are negative. As a result, Ashton will not be undertaking any further diamond exploration work over this title.

BHP Minerals planned to fly an airborne TEM (GEOTEM) survey over the licence area during 1995 but it was not flown until May, 1996. The survey was delayed due to commitments to other programs in Queensland and once the system was available to fly, there were problems with excessive system noise due to poor atmospheric conditions and difficulties with the receiver bird. As the survey has only been recently completed, interpretation is not completed and no ground work has been undertaken, therefore, reporting has been delayed until the next reporting period.

Exploration expenditure for the reporting period amounted to \$5,601 against a covenant of \$44,000. An application for variation in expenditure has been lodged with the Department of Minerals and Energy.

KEYWORDS:

Diamond exploration; Base metal exploration, Gravel sampling; Loam sampling; Geophysical surveys; Aerial EM surveys

LOCATION:

Wallhallow (SE53-07); Lancewood (6163)

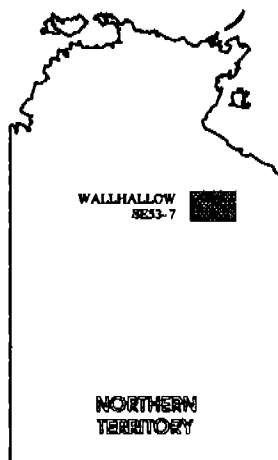
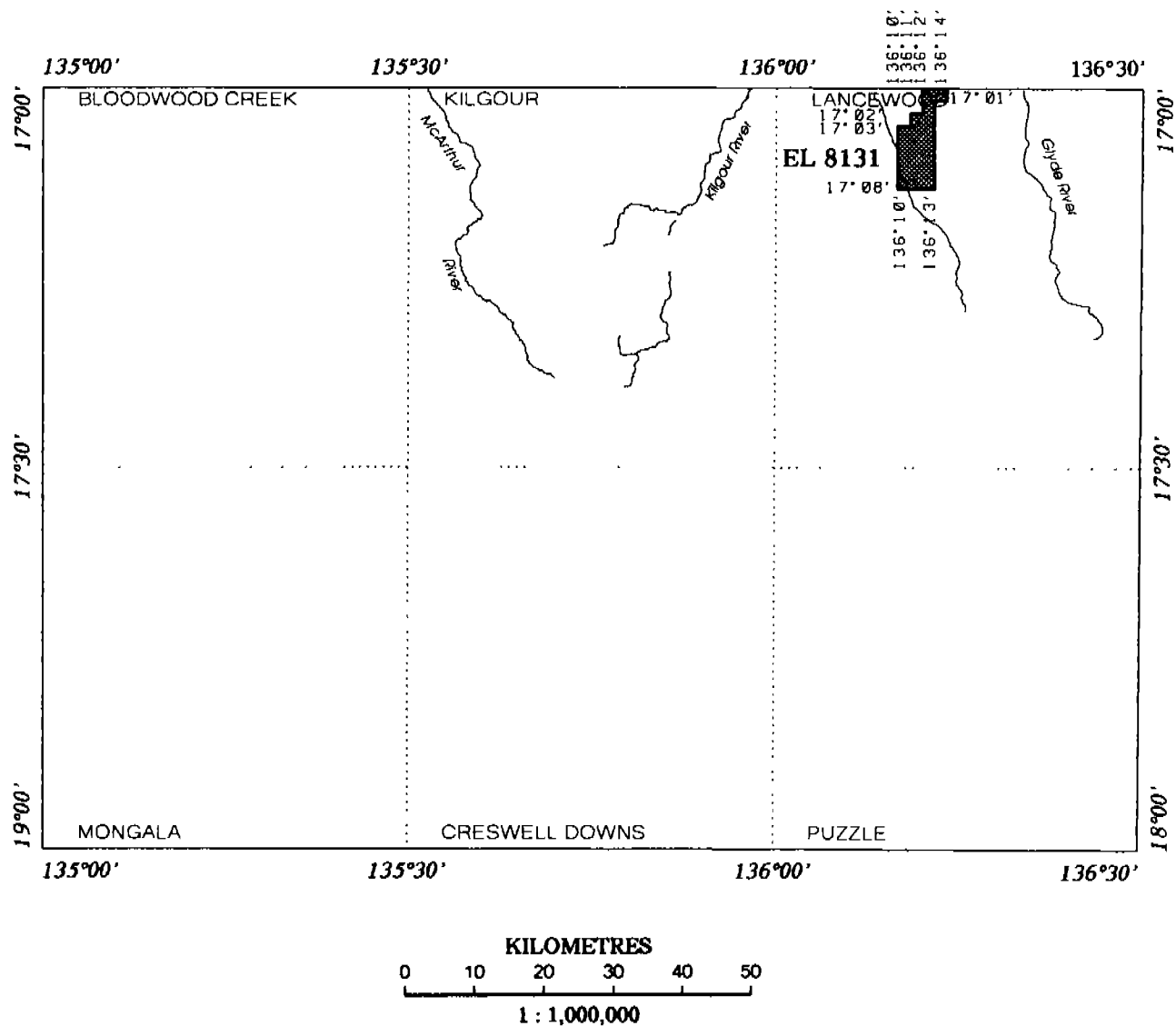
1.0 INTRODUCTION

This report details exploration activities carried out by the ADE Joint Venture over Exploration Licence 8131 for the period 12th July, 1995 to 11th July, 1996. Ashton Mining Limited is manager of the licences on behalf of the Australian Diamond Exploration Joint Venture (ADEJV). Participants of the ADE Joint Venture also include Aberfoyle Resources Ltd and Australian Diamond Exploration Pty Ltd (ADEX).

Exploration Licence 8131 was granted to Ashton Mining Ltd on the 12th July, 1993 for a period of 6 years. The original area of the licence was 40 blocks but after the first statutory relinquishment in 1995 the current area is 20 blocks (64.2 km²). The tenement is located on the Wallhallow 1:250,000 map sheet (Figure 1).

The target for exploration by the ADE JV within the licences is diamond bearing kimberlitic intrusives and the principal exploration technique employed has been regional stream gravel sampling.

As this area is in what is a recognised base metal province, a joint venture was negotiated with BHP Minerals Pty Ltd on the 24th January, 1992 which allowed them to earn up to 80% of the base metal rights to designated licences. This joint venture was known as the McArthur River Joint Venture. This agreement was renegotiated and all existing joint venture tenements became subject to the McArthur River (Metals) Joint Venture on the 1st July, 1995. Under the terms of this agreement BHP Minerals entered into EL 8131 on the 1st July, 1995.



**ASHTON MINING LIMITED
A.D.E. JOINT VENTURE**

**EXPLORATION LICENCE 8131
ANNUAL REPORT
FIGURE 1
LOCATION MAP**

JULY, 1996

A statement of expenditure for the licence is included in this report.

2.0 EXPLORATION PROGRAMME AND RESULTS

2.1 Stream Gravel Sampling

Outstanding results from samples taken in the previous reporting period became available. Both samples in the current area are negative. The remaining outstanding results are detailed in the 1995 relinquishment report. Sample locations are shown in Figure 2 and a listing appears in Appendix 1.

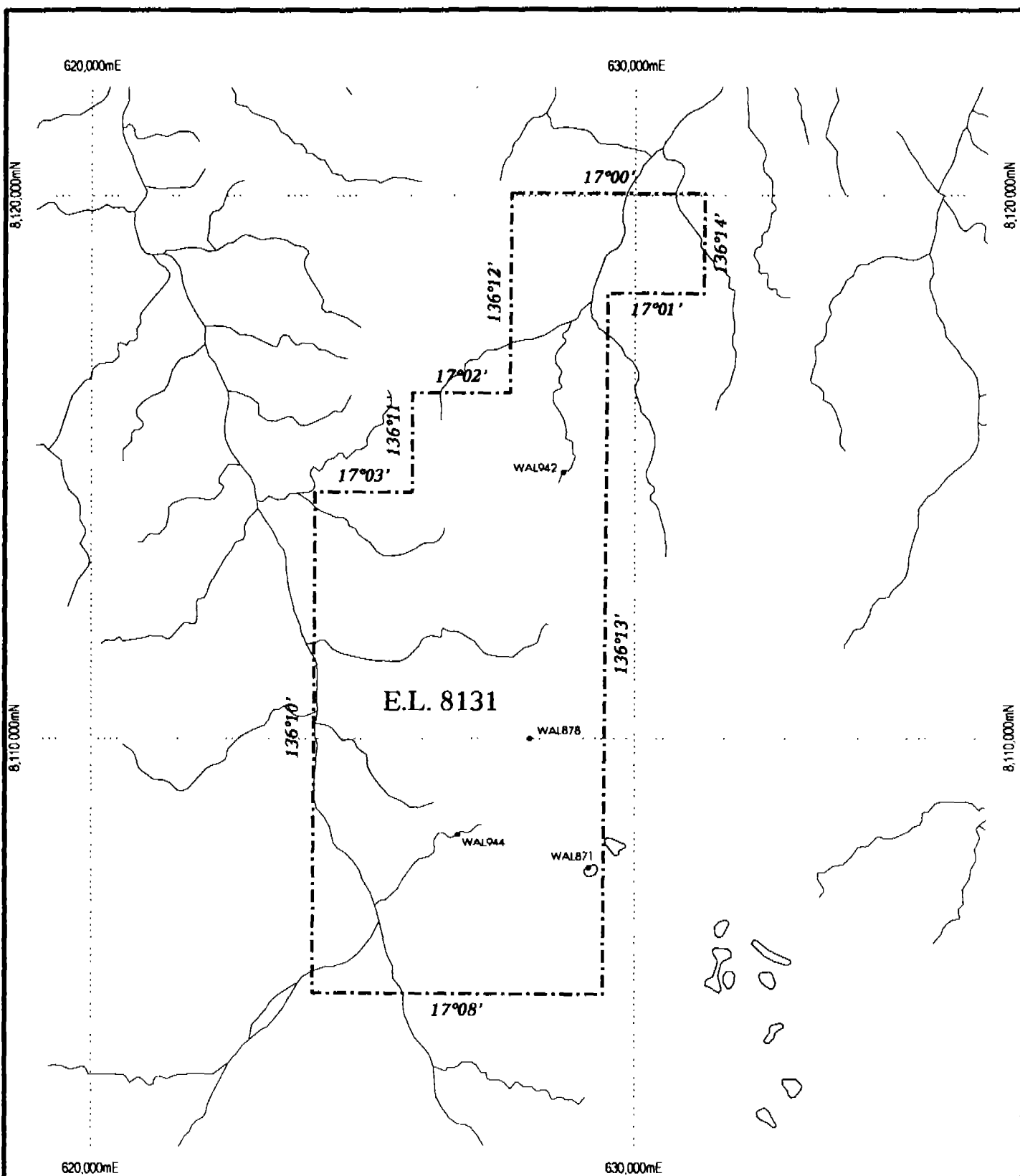
2.2 Loam Sampling

Two loam samples were incorrectly recorded as gravel samples in the previous annual report. These samples are WAL00871 and WAL00878 and are shown in Figure 2. Both samples are negative.

2.3 Laboratory Procedure

All samples are processed by the Ashton Mining Limited Laboratory in Perth, where they are concentrated by Wilfley table and heavy liquid separation techniques.

The heavy liquid used is tetrabromethane with a specific gravity of 2.96. The concentrates are then screened into various size fractions, further concentrated by magnetic and electrostatic separation techniques and a comprehensive grain by grain examination carried out on the minus 1.0mm plus 0.425mm fractions.



0 1 2 3 4 5
KILOMETRES
1 : 100,000

- Sample - not yet processed
- Sample - negative
- ◆ Sample - chromite positive
- ◇ Sample - diamond positive
- ⊕ Sample - other indicators
- ⊙ Drill hole location

**ASHTON MINING LIMITED
A.D.E. JOINT VENTURE**

**EXPLORATION LICENCE 8131
FIGURE 2
SAMPLE LOCATIONS
ANNUAL REPORT**

JULY, 1996

3.0 BASE METAL EXPLORATION

The planned airborne TEM (GEOTEM) survey was not flown until May, 1996 due to a delay because of commitments to other programs in Queensland, and once the system became available there were problems with excessive system noise due to poor atmospheric conditions and difficulties with the receiver bird. Interpretation has been commenced but is not complete and no ground work has been undertaken in the reporting period.

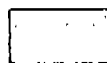
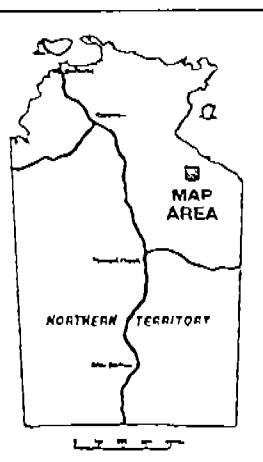
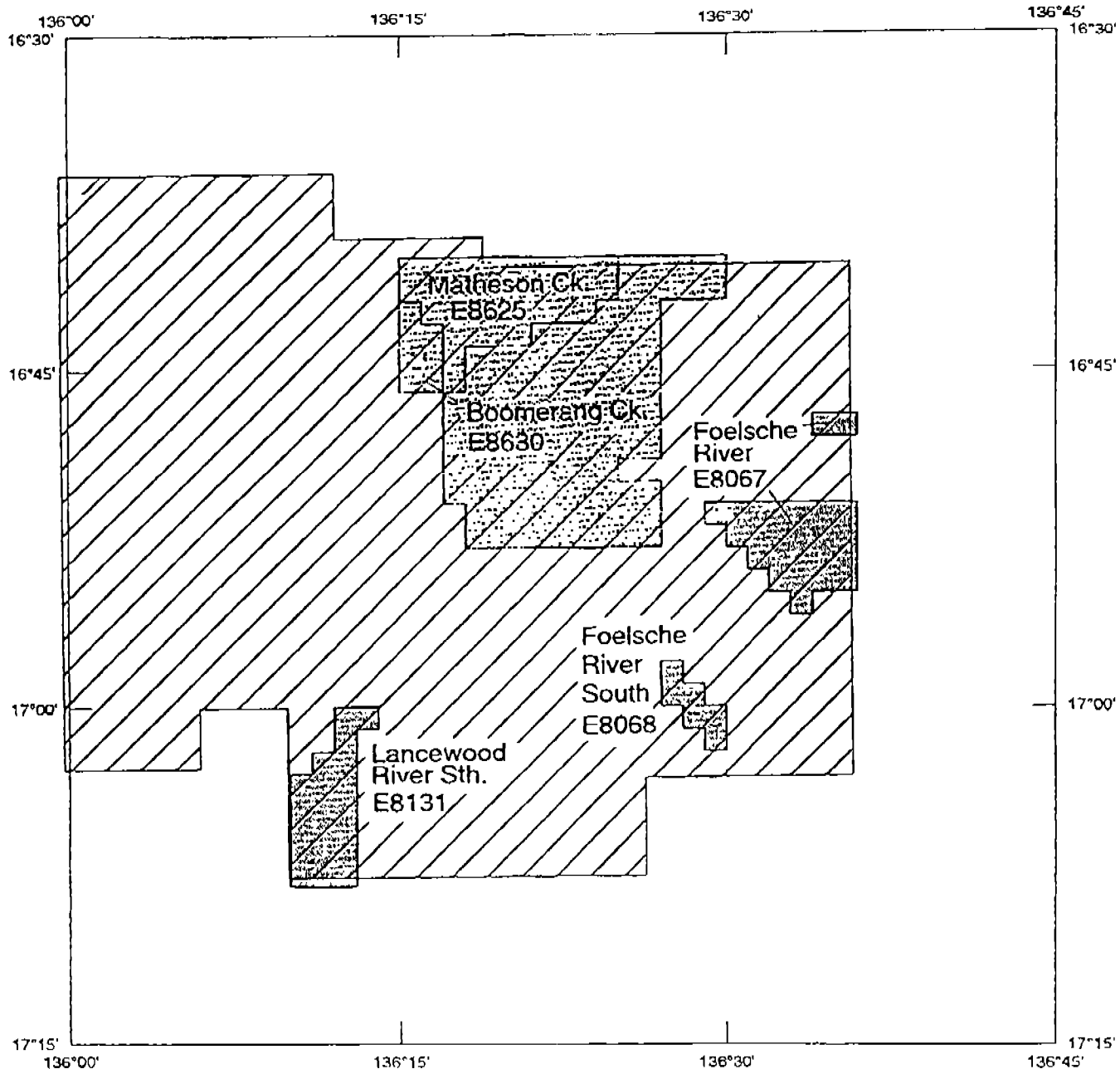
Survey specifications are listed in Appendix 2 and a map of the survey area is shown in Figure 3.

4.0 EXPLORATION EXPENDITURE

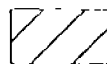
Exploration expenditure for the period 12th July, 1995 to 11th July, 1996 amounted to \$5,601. A detailed breakdown of expenditure is given in Appendix 3.

5.0 CONCLUSIONS AND RECOMMENDATIONS

Due to the negative results it is recommended that Ashton Mining undertake no further diamond exploration in this area. Future work programmes on this licence will be undertaken by BHP Minerals.



BHP/Ashton Tenement



Proposed GEOTEM Survey

Scale 1 : 500,000
0 5 10 15 20 km

Transverse Mercator Projection,
AMG Zone 53.

Prepared : T.Nunn

Drawn : R.J.Clark

Date : 19.7.96

Revised :



NORTHERN PLATFORMS PROGRAM
BOOMERANG CREEK AREA, NORTHERN TERRITORY
E8067, E8068, E8131, E8625, E8630

PROPOSED GEOTEM SURVEY

Exploration - BHP Minerals
BHP Minerals Pty Ltd, A.C.N. 008 694 782

Centre : Perth

Drawing No.: A4-6023

FIGURE 1

6.0 PROPOSED PROGRAMME AND BUDGET

The proposed programme and budget for the period 12th July, 1996 to 11th July, 1997 is given below.

Programme

Following the interpretation of the GEOTEM, ground TEM will be conducted to further define any GEOTEM anomalies, in conjunction with detailed soil sampling of these anomalies. Any anomalies produced out of this work will be drill tested.

Budget

GEOTEM 65.3 line km @ \$47.40/line km	3,115
Ground TEM follow-up of 1 anomaly, Geophysics crew for 2 days @\$1975/day	3,950
Soil sampling of 1 anomaly, 40 samples @ \$10/sample	400
Interpretation of geophysical data 3 days @ \$400/day	1,200
Report Writing	1,000
TOTAL:	\$ 9,665

7.0 REFERENCES

Reddicliffe, T H (Jul-1994) Annual report, Exploration Licence 8131, 12th July, 1993 to 11th July, 1994. Ashton Mining Ltd. Report No.50912

Ong, N (Aug-1995) Annual report, Exploration Licence, 8131, 12th July, 1994 to 11th July, 1995. Ashton Mining Ltd. Report No.51151

Ong, N (Dec-1995) Relinquishment report, Exploration Licence 8131, 12th July, 1993 to 11th June, 1995. Ashton Mining Ltd. Report No.51192

APPENDIX 1

Sample Results

EL 8131 RESULTS

1996 ANNUAL REPORT

Sample	Type	Result	Diamonds Macro	Micro	Chromite	Other
WAL00871	L	neg	-	-	-	-
WAL00878	L	neg	-	-	-	-
WAL00942	G	neg	-	-	-	-
WAL00944	G	neg	-	-	-	-

NOTE: G = Gravel sample; L = Loam sample

APPENDIX 2
GEOTEM Survey Specifications

SURVEY SPECIFICATIONS

Aircraft	-	Casa C212-200 Turbo Prop
Magnetometer	-	Scintrex Cesium Vapour Optical Absorption
Resolution	-	0.01nT
Cycle rate	-	1.0 second
Electromagnetic system	-	GEOTEM III Time Domain EM
Transmitter Base Frequency	-	25 Hz
Receiver	-	x and z, dual axis receiver coil in towed bird
Tx Pulse width	-	4 msec
Transmitter height	-	105m
Receiver height	-	54m
Tx - Rx separation	-	100m behind aircraft
Window mean delay times	em1: 0.4609 em2: 0.4766 em3: 0.4922 em4: 0.5156 em5: 0.5469 em6: 0.5859 em7: 0.6328 em8: 0.6875 em9: 0.7578 em10: 0.8438 em11: 0.9453 em12: 1.0625 em13: 1.2031 em14: 1.3750 em15: 1.5938 em16: 1.8594 em17: 0.0469 em18: 0.0781 em19: 0.1094 em20: 0.1406	
Data acquisition	-	GEOTERREX PTY LTD GEODAS, 486 computer, QIC 150 Mb cartridge tape drive, RMS GR33 Thermal Dot Matrix Printer
Flight line direction	-	E-W
Flight line spacing	-	1000m
Mean terrain clearance	-	105m
Navigation	-	GPS satellite positioning/Doppler

APPENDIX 3

Statement of Expenditure

STATEMENT OF EXPENDITURE

EXPLORATION LICENCE 8131

Annual Report

For the period
12th July, 1995 to 11th July, 1996

Geoscientist/Professional	848
Field Support/Office Staff	1,765
Freight/Storage	395
Helicopter Charter	957
Laboratory	864
Drafting/Computing	207
Office Expenses	56
Sub-Total	<hr/> 5,092
Overheads	509
Total:	<hr/> \$ 5,601 <hr/>