

FINAL REPORT E.L. 4272

11th July, 1983
to
26th July, 1984

OPEN FILE

Licensee:	A.O.G. Minerals Limited
Operator:	Ashton Mining Limited
Sheet Reference:	Daly Waters (SE 53-1) 1:250,000
Submitted to:	Department of Mines & Energy

ASHTON MINING LIMITED
444 Queen Street
Brisbane. 4000

December, 1984

ABSTRACT

During the period 11th July, 1983 to 26th July, 1984, Ashton Mining Limited on behalf of the A.D.E. Joint Venture undertook a loam and gravel sampling program within E.L. 4272. The licence formed part of a larger area which was tested for the presence of diamonds in regional gravel or loam samples.

Although two small diamonds were recovered from the sampling, the licence area was not regarded as holding as much potential for kimberlites as ground held elsewhere in the Territory by the Joint Venture.

It was therefore decided that E.L. 4272 should be surrendered.

TABLE OF CONTENTS

		page
	ABSTRACT	
1.00	INTRODUCTION	1
2.00	REGIONAL SAMPLING PROGRAM	2
	2.10 Field Phase	2
	2.20 Laboratory Phase	3
3.00	CONCLUSIONS	4

LIST OF FIGURES

		opposite page
1.	Location Map	1

LIST OF APPENDICES

1. Results of Laboratory Examinations
2. Statement of Expenditure

LIST OF PLANS

1. Sample Locations back pocket

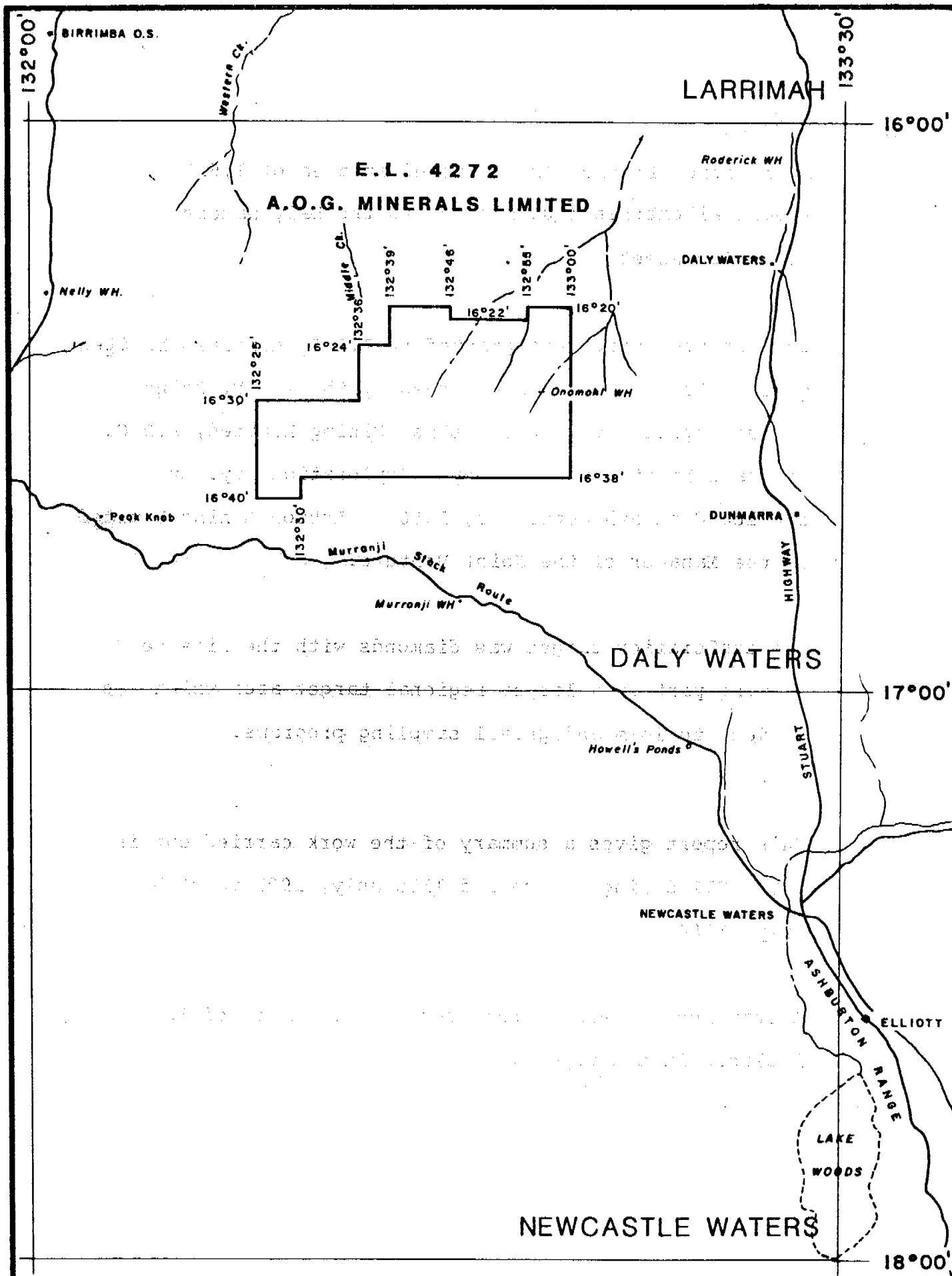


FIGURE 1
LOCATION MAP

1.00 INTRODUCTION

Exploration Licence 4272 covered an area of 1,610 square kilometres (500 blocks) on the Daly Waters 1:250,000 sheet.

The licence, which was granted to A.O.G. Minerals Limited on 11th July, 1983, was governed by the A.D.E. Joint Venture Agreement between Ashton Mining Limited, A.O.G. Minerals Limited and Aberfoyle Exploration Pty. Ltd., concluded on 9th September, 1980. Ashton Mining Limited is the Manager of the Joint Venture.

The exploration target was diamonds with the licence forming part of a larger regional target area which was subject to loam and gravel sampling programs.

This report gives a summary of the work carried out in E.L. 4272 during the period 11th July, 1983 to 26th July, 1984.

A statement of expenditure covering this period is included in the report.

2.00 REGIONAL SAMPLING PROGRAM

2.10 Field Phase

A loam and gravel sampling program was undertaken in E.L. 4272 as part of a larger regional program in the Daly Waters area.

As the drainage in E.L. 4272 is not well developed. it resulted in only 25 gravel samples being taken. An additional 25 loam samples were collected to help test this licence area.

During the field program, these gravel sample sites were selected on the basis of the quality of the available heavy mineral traps in the vicinity of the preselected site, care being taken to sample the most suitable trap site. Helicopter was the most practical mode of transport as it had the advantage of ease of access and navigation and enabled the geologist to scan the area for suitable trap sites.

Once a suitable gravel sample site was located, approximately 40kg of gravel were gathered, sieved and the minus 4mm fraction collected for laboratory examination. Generally the minus 4mm samples weighed 30 to 35 kg. The sample sites were then accurately plotted in the field on a prepared 1:100,000 base plan.

Due to poor drainage, loam samples were also taken. From

the five sampling stations. 5 loams. each weighing 15 to 20 kg were collected for laboratory examination.

Prior to the commencement of the sampling work, 1:50,000 scale enlargements of the available photography were secured both for navigation and to allow a photogeological scan of the area. No kimberlite or lamproite type intrusive features were discernable from the air photos.

All sample locations are given on Plan 1.

2.20 Laboratory Phase

The samples were processed at the Ashton Mining Limited laboratory in Perth where they were concentrated by Wilfley Table and heavy liquid separation techniques.

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

Of the 50 samples collected within the licence, 48 contained no detectable kimberlite indicator minerals. Two diamonds were recovered from the remaining samples.

A listing of laboratory results for all the samples is given in Appendix 1.

3.00 CONCLUSIONS

Laboratory testing has shown a low incidence of diamonds in E.L. 4272. This fact together with disappointing results in the Newcastle Waters - Daly Waters region in general, led the A.D.E. Joint Venture to conclude that work should be concentrated in more promising ground held elsewhere in the Territory. Consequently E.L. 4272 was surrendered with effect from 27th July, 1984.

APPENDIX 1.

RESULTS OF LABORATORY EXAMINATIONS

REGIONAL GRAVEL SAMPLES EL 4272

The following fractions of each sample were studied:

-1.0 mm +0.8 mm; denoted by +0.8
 -0.8 mm +0.5 mm; denoted by +0.5
 -0.5 mm +0.425 mm; denoted by +0.4

Sample No	Results	Comments
DAL 60	Nil	
DAL 82	Nil	
DAL 83	Nil	
DAL 84	Nil	
DAL 85	Nil	
DAL 86	Nil	
DAL 87	Nil	
DAL 88	Nil	
DAL 89	Nil	
DAL 90	1 -0.4 DIAMOND	1 +0.15 STONE olive green anhedral, very irregular, one heavily corroded cube face? remains.
DAL 91	Nil	

Sample No	Results	Comments
DAL 92	Nil	
DAL 93	Nil	
DAL 94	Nil	
DAL 95	1 -0.4 DIAMOND	1 +0.2 STONE part of distorted octahedron, very pale straw coloured, some inclusions, clear, yellowish on one end, growthlines on some surfaces.
DAL 259	Nil	
DAL 260	Nil	
DAL 261	Nil	
DAL 262	Nil	
DAL 263	Nil	
DAL 264	Nil	
DAL 265	Nil	
DAL 266	Nil	
DAL 267	Nil	
DAL 268	Nil	
DAL 269	Nil	
DAL 270	Nil	
DAL 271	Nil	

Sample No Results Comments

DAL 272	Nil	
DAL 273	Nil	
DAL 274	Nil	
DAL 275	Nil	
DAL 276	Nil	
DAL 277	Nil	
DAL 278	Nil	
DAL 279	Nil	
DAL 280	Nil	
DAL 281	Nil	
DAL 282	Nil	
DAL 283	Nil	
DAL 284	Nil	
DAL 285	Nil	
DAL 286	Nil	
DAL 287	Nil	
DAL 288	Nil	
DAL 289	Nil	
DAL 290	Nil	

Sample No Results Comments

DAL 291 Nil

DAL 292 Nil

DAL 293 Nil

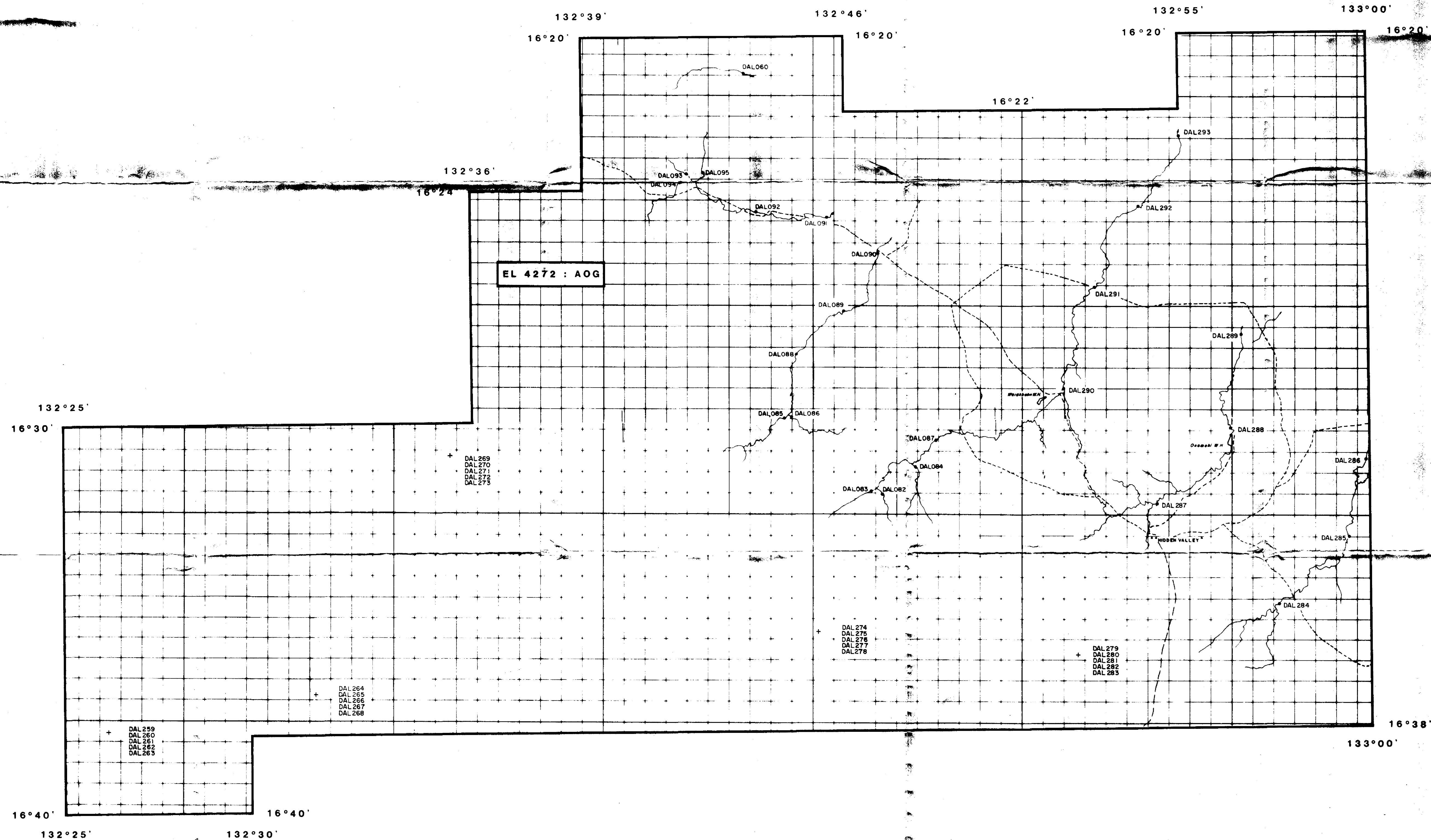
APPENDIX 2.

ADE JOINT VENTURE

EXPLORATION LICENCE NO. 4272

FINAL EXPENDITURE FOR THE PERIOD 11.7.83 TO 26.7.84

	\$
Salaries	3,707
Field & Laboratory Expenses	22,428
Miscellaneous	<u>4,758</u>
Expenditure for period	\$ <u>30,893</u>



CR84/267

NORTHERN TERRITORY
GEOLOGICAL SURVEY

A.O.G. MINERALS LIMITED
A.D.E. JOINT VENTURE

E.L. 4272
SAMPLE LOCATIONS
PLAN 1

0 1 2 3 4 5 KM
Scale 1:100 000
ASHTON MINING LIMITED DECEMBER 1984