

OPEN FILE
ANNUAL REPORT 2295
7th May, 1980

to

6th May, 1981

Submitted to: Department of Mines and Energy,
Minerals House, Darwin.

On Behalf of: Aberfoyle Exploration Pty. Ltd.

Ashton Mining Limited,
83-89 Eagle Street,
Brisbane 4000

July, 1981.

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ABSTRACT

During the period 7th May, 1980 to 6th May, 1981, Ashton Mining Limited undertook a program of regional gravel sampling in Exploration Licence 2295. A total of fifty-seven gravel samples were collected and forwarded to the Company's laboratory in Perth.

The gravel samples were then processed and examined by the laboratory for kimberlite indicator minerals. All results were negative.

During the coming year, a comprehensive exploration program, including airborne geophysics, photogeology and stream sediment sampling, will be undertaken over the licence.

INTRODUCTION

Exploration Licence 2295 covers an area of 495.80 square miles (1284.19 square kilometres) and is located on the Waterloo 1:250,000 geological sheet.

The licence was granted to Aberfoyle Exploration Pty. Ltd. on 7th May, 1980 for a period of twelve months. An application for renewal for a further period of twelve months has been lodged with the Department of Mines and Energy.

Exploration Licence 2295 is subject of the A.D.E. Joint Venture Agreement between Ashton Mining Limited, Aberfoyle Exploration Pty. Ltd. and A.O.G. Minerals Pty. Ltd., concluded on 9th September, 1980. Ashton Mining Limited is the Manager of the Joint Venture.

Exploration procedures instigated within the licence were aimed at locating possible kimberlite bodies. The principal exploration technique employed was regional gravel sampling.

This report gives a summary of the work carried out in E.L. 2295 during the period 7th May, 1980 to 6th May, 1981. A statement of expenditure covering this period is included in the report.

E.L. 2295
ABERFOYLE EXPLORATION PTY. LTD.

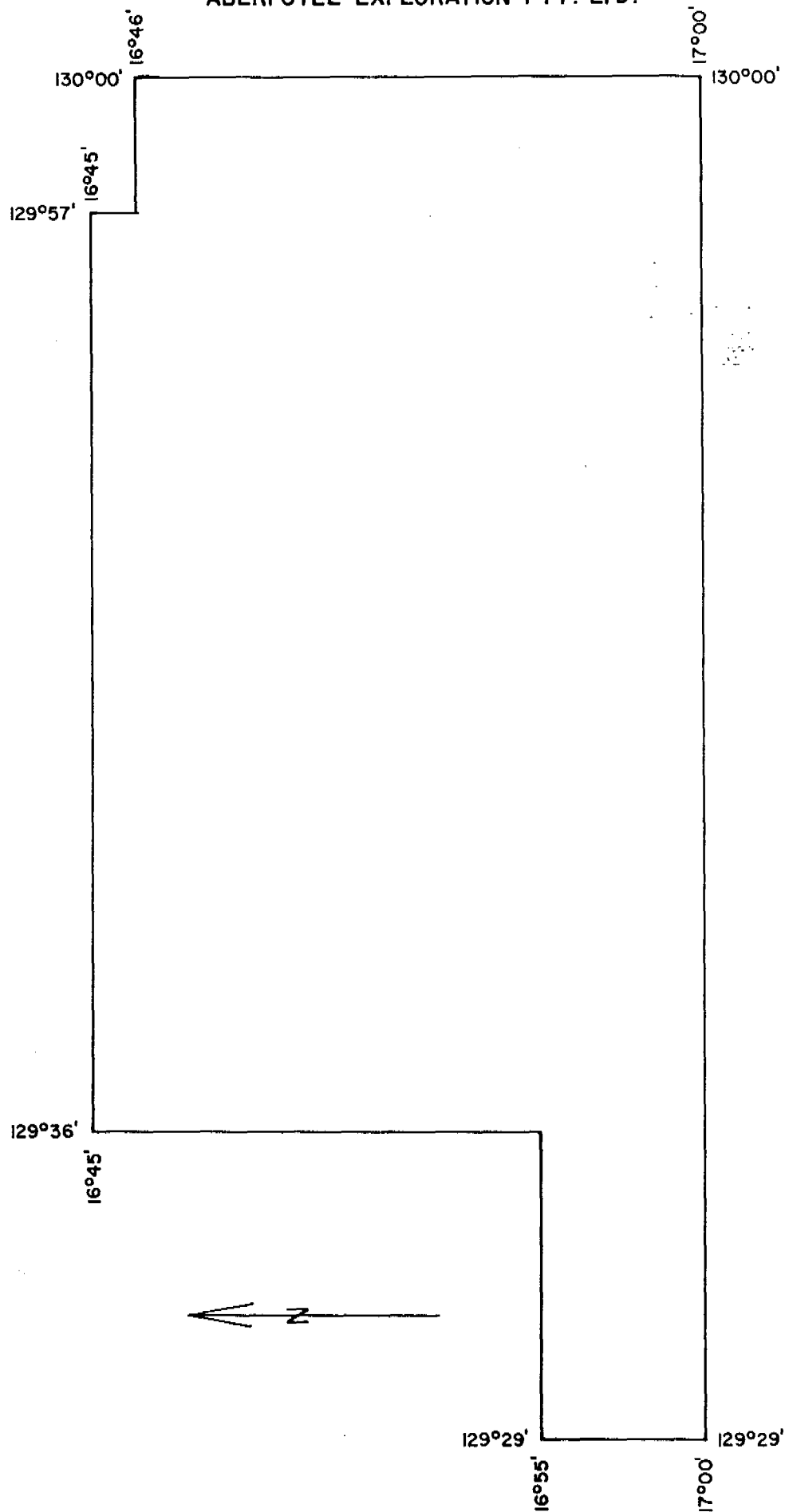


FIGURE 1

TENURE

During the period under review, E.L. 2295 was held on behalf of the A.D.E. Joint Venture by Aberfoyle Exploration Pty. Ltd. The licence covers 1284.19 square kilometres and is outlined in Figure 1 and described fully below:

Commencing at the intersection of latitude 16 degrees 45 minutes with longitude 129 degrees 36 minutes thence proceeding to the intersection of latitude 16 degrees 45 minutes with longitude 129 degrees 57 minutes thence proceeding to the intersection of latitude 16 degrees 46 minutes with longitude 129 degrees 57 minutes thence proceeding to the intersection of latitude 16 degrees 46 minutes with longitude 130 degrees 00 minutes thence proceeding to the intersection of latitude 17 degrees 00 minutes with longitude 130 degrees 00 minutes thence proceeding to the intersection of latitude 17 degrees 00 minutes with longitude 129 degrees 29 minutes thence proceeding to the intersection of latitude 16 degrees 55 minutes with longitude 129 degrees 29 minutes thence proceeding to the intersection of latitude 16 degrees 55 minutes with longitude 129 degrees 36 minutes thence proceeding to the intersection of latitude 16 degrees 45 minutes with longitude 129 degrees 36 minutes, subject to all applications for mining tenements and excluding therefrom all mining tenements granted or registered and all reserves included within the definition of "reserve" in section 7 of the *Mining Act*.

An application for renewal for a further twelve months has been lodged with the Department of Mines and Energy.

LOCATION AND ACCESS

Exploration Licence E.L. 2295 is located approximately twenty-six kilometres north of the Limbunya Homestead. The licence occurs on the south of the Kimon and Waterloo

1:100,000 topographic sheets, and on the Waterloo
1:250,000 geological sheet.

Vehicular access to the licence is very restricted,
with station tracks from Limbunya Homestead leading
into the southern and western parts of the licence.
Access to the remainder of the licence area is by means
of cross country driving.

FIELD INVESTIGATIONS

During the year under review, a field program involving
the collection of fifty-seven regional gravel samples
was undertaken.

Prior to the commencement of field work, gravel sample
locations were plotted in the office on the Kimon and
Waterloo 1:100,000 sheets so that sample sites were
approximately six kilometres apart and distributed
uniformly over the licence area.

During the field program, individual 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 advantages of ease of access and

navigation and enabled the geologist to scan the area for suitable trap sites.

Once a suitable sample site was located, approximately 40 kg of gravel were gathered, sieved and the minus 4 mm fraction collected for laboratory examination. Generally the minus 4 mm samples weighed 25 - 30 kg. The sample sites were accurately plotted in the field on a prepared 1:100,000 base plan. Within E.L. 2295, a total of 57 samples were collected corresponding to a sample density of one sample per 22.53 square kilometres. Sample locations are given in Plan 1.

LABORATORY PROCESSING

The samples collected within E.L. 2295 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 1.0 mm plus 0.425 mm fractions.

Of the fifty-seven samples collected within the licence, fifty-five contained no detectable kimberlite indicator minerals. Chromite grains and chalcopyrite were identified in the remaining samples, but these are considered to be non-kimberlite derived.

A complete listing of results of the laboratory examinations is shown in Appendix 1.

CONCLUSIONS

Routine laboratory testing showed that two of the samples found within E.L. 2295 contained kimberlitic indicator minerals. However, detailed examination of these grains indicated that they were not of kimberlitic origin.

Future work in E.L. 2295 will involve airborne geophysics and detailed photogeological and geochemical studies.

APPENDIX 1

RESULTS OF LABORATORY EXAMINATIONS

The following fractions of each sample were studied:

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

Sample No.	Results	Comments
WAT 673	Nil	
WAT 674	Nil	
WAT 675	Nil	
WAT 676	Nil	
WAT 677	Nil	
WAT 678	Nil	
WAT 679	Nil	
WAT 680	Nil	
WAT 681	Nil	
WAT 682	Nil	
WAT 683	Nil	
WAT 684	Nil	
WAT 685	Nil	
WAT 686	Nil	
WAT 687	Nil	
WAT 688	Nil	
WAT 689	Nil	
WAT 690	Nil	
WAT 691	Nil	

Sample No.	Results	Comments
WAT 692	Nil	
WAT 693	Nil	
WAT 694	Nil	
WAT 695	1 +0.425 chromite	Fresh/Worn, anhedral, irregular. Dull smooth surfaces over convex vitreous core.
WAT 702	Nil	
WAT 703	Nil	
WAT 704	Nil	
WAT 705	1 +0.425 chalcopyrite	
WAT 706	Nil	
WAT 707	Nil	
WAT 708	Nil	
WAT 709	Nil	
WAT 740	Nil	
WAT 741	Nil	
WAT 742	Nil	
WAT 743	Nil	
WAT 744	Nil	
WAT 745	Nil	
WAT 746	Nil	
WAT 747	Nil	
WAT 748	Nil	
WAT 749	Nil	
WAT 750	Nil	
WAT 751	Nil	

Sample No.	Results	Comments
WAT 752	Nil	
WAT 753	Nil	
WAT 754	Nil	
WAT 755	Nil	
WAT 756	Nil	
WAT 757	Nil	
WAT 758	Nil	
WAT 769	Nil	
WAT 770	Nil	
WAT 771	Nil	
WAT 772	Nil	
WAT 775	Nil	
WAT 776	Nil	
WAT 777	Nil	

APPENDIX 2.

A.D.E. JOINT VENTURE

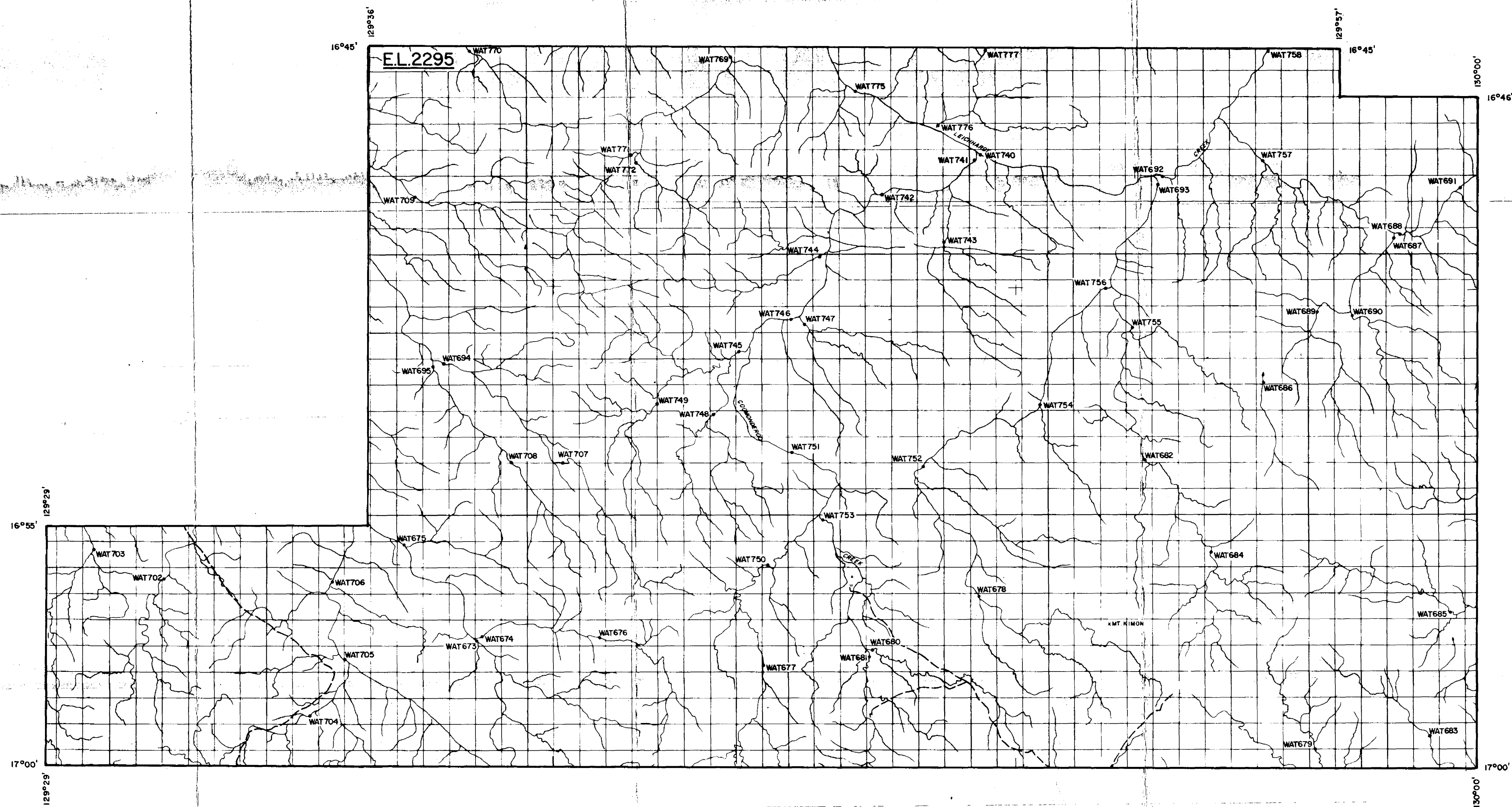
EXPIORATION LICENCE NO. 2295

EXPENDITURE for the year ended 6th May 1981

	\$
Salaries	3,202
Field & Laboratory Expenses	11,271
Miscellaneous	2,627
Expenditure for year	<u>17,100</u>

Date Licence Granted: 7.5.80

J.P.C: 6/7/81



ABERFOYLE EXPLORATION PTY. LTD.	
REGIONAL GRAVEL SAMPLING	
EL. 2295	
SAMPLE LOCATIONS	
PLAN 1	
SCALE 1:100 000 Date JULY, 1981	