ABERFOYLE RESOURCES LIMITED
ACN 004 664 108
Exploration Division

EXPLORATION LICENCE 9063 (POLLYARA)

AND

EXPLORATION LICENCE 9065 (MATCHBOX CREEK)

(Walhallow & Calvert Hills 1:250,000 sheets)

COMBINED ANNUAL EXPLORATION REPORT

to 26th April, 1996

TITLE HOLDER: ABERFOYLE RESOURCES LIMITED

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Compiled by:

D. J. Hicks

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A. M. HESPE

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1. **SUMMARY:**

Exploration Licences 9063 and 9065 were granted to Aberfoyle Resources Ltd on April 27, 1995. The tenements were pegged to explore for Zn-Pb-Cu mineralisation in the Middle Proterozoic lithologies of the McArthur Basin. Their proximity to each other, similar geological setting and proposed program has led to these two tenements (and others in the district) being explored as one block.

Areas targeted in EL 9063 are covered by Palaeozoic, Mesozoic and Cainozoic rocks of variable thickness, well to the south of the exposed portions of the McArthur Basin. Aeromagnetics (public domain data) interpretations suggest continuation of regionally important structures into this tenement. If these structures come into contact with favourable lithologies, such as sediments of the McArthur Group, the main ingredients for a SEDEX style base metal deposit are present. Aberfoyle’s strategy is to explore areas under cover where these ingredients are thought to occur by airborne EM. This method of exploration has the advantage of rapidly testing large portions of ground which previously were only explorable by expensive deep drilling.

Exposed bedrock in EL 9065 is limited to the far northern corner of the tenement only. Consequently, the first pass exploration tool to be applied to this ground is the same as for EL 9063. Airborne EM will be flown over this tenement where the same ingredients as mentioned above exist. Interpretation of existing aeromagnetics data suggests the presence of prospective structures similar to EL9063, and Government mapping suggests close proximity to favourable sediments for SEDEX mineralisation. If the depth of cover in this tenement is relatively shallow as expected, there may be scope for greater anomaly discrimination through the use of conventional surface techniques.

Work completed on the two tenements in the twelve months to April 26, 1996 has been limited due to the lack of availability of the aircraft contracted to fly the airborne EM survey. Developmental and technical problems have plagued the
aircraft since its construction (a second plane is planned for commissioning in 1997, to ease the backlog of jobs in Australia) resulting in recurring delays for all jobs scheduled for 1995 and 1996. Current estimates suggest the plane should be available to commence flying airborne EM over these two tenements in June or July 1996.

The only work actually completed on the two tenements in their first year of tenure has been a geophysical interpretation of the relevant 1:250,000 sheet areas, Walhallow, Bauhinia Downs and Calvert Hills; the compilation of open file records, especially in the vicinity of EL 9063. Airborne EM is still strongly recommended as the primary exploration tool for these two tenements.
2. **INTRODUCTION**

2.1 **Location and Access:**

EL 9063 is located approximately 250 kilometres northeast of Tennant Creek in the Northern Territory (see Figure 1). Access to the tenement is by sealed road (Barkly or Carpentaria Highways then the Tablelands Highway) then by station dirt road through Creswell Downs and on to Calvert Hills homestead. Wet weather prevents access once off the bitumen.

EL 9065 is located approximately 300 kilometres ENE of Tennant Creek in the Northern Territory (see Figure 1). Access to the tenement is easily achieved along the Tablelands Highway which transects the tenement in a N-S direction. Minor station tracks provide access off the bitumen in dry weather.

2.2 **Tenure**

Exploration Licence 9063 - Pollyara (229 sub-blocks) was granted to Aberfoyle Resources Ltd on April 27, 1995 for a period of six years. A reduction of 50% of sub-blocks is required at the end of the second year of tenure, and each and every year after that date. Sub-block details are shown on Figure 2.

Exploration Licence 9065 - Matchbox Creek (92 sub-blocks) was also granted to Aberfoyle Resources Ltd on April 27, 1995 for a period of six years. A reduction of 50% of sub-blocks is required at the end of the second year of tenure, and each and every year after that date. Sub-block details are shown on Figure 3.
2.3 Regional Geology

Both tenements lie on covered portions of the southern McArthur Basin. Interpolations of mapped geology to the immediate north and northeast of EL 9065 suggest buried Proterozoic lithologies would probably be McArthur Group and some units of the Talwallah Group. Proterozoic lithologies beneath EL 9063 are far more speculative, but are most likely dominated by Talwallah Group lithologies. Interpolations from nearest outcrop to this tenement are unreliable, and water bore data indicate a mix of sediments and volcanics, suggesting Talwallah Group is the dominant unit in this area.

2.4 Mineralisation

The McArthur Basin is host to numerous mineral occurrences both large and small. These range in style from replacement copper to vein-style lead-zinc to SEDEX style stratiform mineralisation. The best example of this latter style is the HYC deposit, situated approximately 100 kilometres northeast of EL 9065 and approximately 150 kilometres north-northwest of EL 9063. A number of papers have been published describing all aspects of HYC geology, genesis, mineralisation, sedimentology and so on, but the most pertinent reference for exploration in EL 9063 and 9065 is by Shalley and Harvey (1992).

This paper deals with the geophysical response of the HYC deposit, providing useful data to compare to what is expected to be generated from the delayed geophysically driven exploration program for these two tenements. A general reference to the HYC deposit is given in Logan, et al. (1990).
3. **WORK COMPLETED**

The amount of work completed on both tenements has fallen short of forecast levels due to the unavailability of the contracted aircraft booked to fly airborne EM over both tenements. The exploration program was dependant on this survey as the first-pass tool to explore covered regions, all further work being follow-up of targets generated by this survey. A revised starting date of mid-1996 has been offered by the contractor.

Work completed on both tenements has therefore consisted of a regional geophysical interpretation to highlight areas of greater prospectivity, and commissioning of an AAPA Authority Certificate over areas expected to require ground follow-up during the forthcoming year.

3.1 **Geophysical Interpretation**

A regional geophysical interpretation of the three 1:250,000 sheets affected by the two tenements was completed. The source of data was the BMR 1:1,000,000 aeromagnetic anomaly pixel map series for Newcastle Waters (E 53) total magnetic intensity, second generation compilation.

Results of this interpretation are presented on Plate NT42A, with the accompanying legend on Plate NT42B.
3.2 AAPA Authority Certificate

The Aboriginal Areas Protection Authority (Darwin Branch) was contacted to prepare a search of an area encompassed by EL's 9063 and 9065, as well as several other tenements in the district. This work resulted in the issuing of an Authority Certificate identifying all known sites of significance to the traditional owners of this area. Aberfoyle intends to explore this ground in full accordance with the conditions set out in the Authority Certificate. Details and maps of this work are contained in Appendix 2.

4. INTERPRETATIONS AND CONCLUSIONS

The amount of work completed on the two tenements this reporting period has not resulted in substantial changes to the strategy first proposed for the two tenements. Aeromagnetics interpretations have refined areas suspected of containing McArthur Group sediments under cover, while research into open file exploration reports have found areas suspected of hosting a thin layer of McArthur Group sediments to have only Talwallah Group units present. The majority of EL 9065 is still highly prospective for SEDEX mineralisation, while parts of EL 9063 are less prospective due to the absence of a suitable host lithology.

It is still proposed to fly these two tenements with airborne EM once the plane is available. The follow-up program will include detailing of anomalous responses by ground EM, mapping and soil geochemistry where possible, and drilling of the best targets. It is envisaged that large portions of these tenements will be relinquished after detailed examination of the airborne EM data.
5. PROPOSED PROGRAM AND BUDGET

5.1 EL 9063

Aberfoyle proposes to explore EL 9063 in its second year of tenure by essentially the same means as was planned for the first year of tenure. As documented elsewhere, this first year program was delayed due to the inability of the contracted airborne survey company to provide the plane (mechanical and developmental problems were cited as the cause).

Consequently the bulk of the second year program will involve the airborne EM coverage of most of this tenement. Once data is interpreted, ground follow-up is expected to commence, climactic conditions permitting. This would involve ground EM, soil and rock chip sampling, geological mapping and prospecting with a view to establishing drill targets at up to 5 sites chosen from the initial EM survey. It is unlikely that significant drilling will proceed during the forthcoming reporting period. An estimate of expenditure for the forthcoming year is detailed below:

<table>
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<th>Description</th>
<th>Cost</th>
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<td>Airborne EM survey (500 line kms)</td>
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<td>Interpretation of EM data</td>
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<td>Ground-EM follow-up</td>
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<td>Geological investigation</td>
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<td>Geochemistry</td>
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5.2 EL 9065

Aberfoyle proposes to explore EL 9065 in its second year of tenure by essentially the same means as was planned for the first year of tenure. As documented elsewhere, this first year program was delayed due to the
inability of the contracted airborne survey company to provide the plane (mechanical and developmental problems were cited as the cause).

Consequently the bulk of the second year program will involve the complete airborne EM coverage of this tenement. Once data is interpreted, ground follow-up is expected to commence, climactic conditions permitting. This would involve ground EM, soil and rock chip sampling, geological mapping and prospecting with a view to establishing drill targets at up to 10 sites chosen from the initial EM survey. It is unlikely that significant drilling will proceed during the forthcoming reporting period. An estimate of expenditure for the forthcoming year is detailed below:

Airborne EM survey (1000 line kms) $59,000
Interpretation of EM data $5,000
Ground-EM follow-up $4,000
Geological investigation $3,000
Geochemistry $2,500
Administration $1,500
$75,000

6. REFERENCES


APPENDIX 1:

Expenditure Statements for EL 9063, EL 9065
EXPENDITURE STATEMENT

POLLYARA EL9063
12 Months to 26/04/96

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<tr>
<th>Category</th>
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<td>Other Services</td>
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<td>Administration</td>
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EXPENDITURE STATEMENT

MATCHBOX EL9065
12 Months to 26/04/96

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<td><strong>TOTAL</strong></td>
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APPENDIX 2:

Located in map pocket at end of report
File: D89/199; 89/1203  
Ref: 17370  
5 February, 1996  

Aberfoyle Resources Ltd  
Level 31, 525 Collins Street  
MELBOURNE VIC 3000  

Dear Sir  

RE: ISSUE OF AUTHORITY CERTIFICATE FOR PROPOSED EL'S 9063, 9105, 7239, 8134 & EL(A) 9415  

I refer to your application for an Authority Certificate, received on the 16 November 1995, for the above works.  

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. If you have any further queries regarding the above, please do not hesitate to contact Mrs Lesley Mearns at this office.  

Yours faithfully  

DAVID RITCHIE  
Chief Executive Officer
ABORIGINAL AREAS PROTECTION AUTHORITY

AUTHORITY CERTIFICATE

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

REFERENCE: 89/1203 (Doc No 17370) C96/017

APPLYING TO: Exploration Licences EL 9063, 9065, 9105, 7239 & 8134 and EL(A) 9415 as shown on the attached Wallhallow (SE 53-7) and Calvert Hills (SE 53-8) 1:250,000 topographical sheets.


ISSUED TO: Aberfoyle Resources Ltd
Level 31, 525 Collins Street
MELBOURNE VIC 3000

CONDITIONS:

1. It is the responsibility of the recipient of this Certificate to:
   (i) Include the conditions of this Certificate in any subsequent contract or tender document commissioning works described in this Certificate.
   (ii) Otherwise inform agents and employees of the conditions of this Certificate and obligations under the Aboriginal Sacred Sites (NT) Act 1989.

2. The proposed use or works covered by this Certificate must commence within 24 months of the date of issue.

3. The information on the maps relates 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.

4. The two (2) maps attached to the Certificate form part of the Certificate.

5. No works may occur within areas highlighted in red on the maps attached to the Certificate.

6. No works may occur within areas highlighted in red on the maps attached to the Certificate.

7. Surface sampling ie. stream gravel/surface soil is permitted within areas delineated by hatching as indicated on the maps attached to the Certificate. For any additional sub surface work, ie. drilling, costeanning, mining etc., permission must first be obtained from custodians Bruce Joy and Gordon Lanson.

8. The mining company is required to ensure the following mature tree species are not damaged within the clear area (B) as shown highlighted in yellow on the maps attached to the Certificate: (i) Eucalyptus pruinosa or 'Smoke Tree'; (ii) Eucalyptus leucophloia or Snappy Gums.

The COMMON SEAL of the
ABORIGINAL AREAS PROTECTION AUTHORITY
was hereto affixed on the 5th day of
FEBRUARY 1996

DAVID RITCHIE
Chief Executive Officer