## ABERFOYLE RESOURCES LIMITED ACN 004 664 108 **Exploration Division**

## **EXPLORATION LICENCE 9063 (POLLYARA),**

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

ANNUAL AND FINAL EXPLORATION REPORT to 26th April, 1997

Title holder: ABERFOYLE RESOURCES LIMITED

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#### 1. **SUMMARY**:

Exploration Licence 9063 was granted to Aberfoyle Resources Ltd on April 27, 1995. The tenement was pegged to explore for Zn-Pb-Cu mineralisation in the Middle Proterozoic lithologies of the McArthur Basin. The proximity to other tenements, similar geological setting and proposed programs has led to all tenements in the McArthur Project 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 these tenements. 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 has been to explore high priority areas 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. EL 9063 does not rate as highly as other tenements within the project area, and therefore has not been included in the airborne EM program. No other work was completed during the reporting period. The tenement is recommended for complete relinquishment at the end of its second year.

#### 2. <u>INTRODUCTION:</u>

### 2.1 <u>Location and Access:</u>

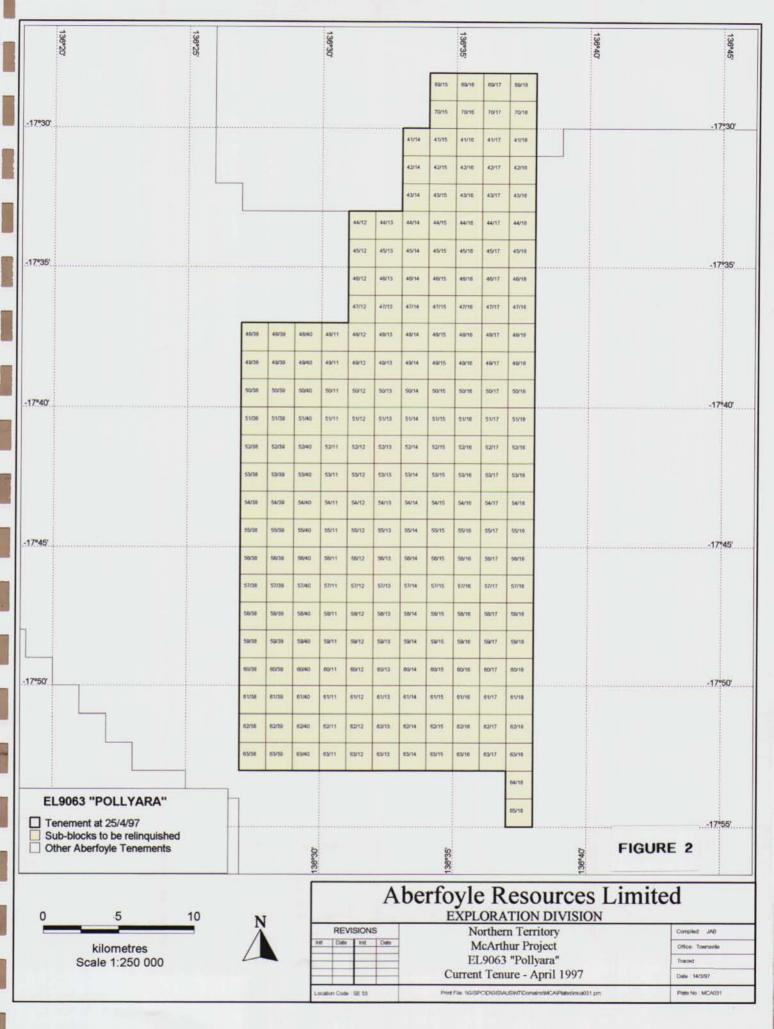
EL 9063 is located approximately 250 kilometres northeast of Tennant Creek in the Northern Territory (see Figure 1). Access to the tenement is by sealed road (Barkly or Carpentaria Highways then the Tablelands Highway) then by station dirt road through Creswell Downs and on to Calvert Hills homestead.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

#### 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, including proposed relinquishment's, are shown on Figure 2.

#### 2.3 Regional Geology

The tenement lies on covered portions of the southern McArthur Basin. Interpolations of mapped geology closest to the tenement suggest buried Proterozoic lithologies would probably be McArthur Group and some units of the Talwallah Group, but are most likely dominated by Talwallah Group lithologies for most of the tenement. 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 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 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. PREVIOUS EXPLORATION:

Work completed on EL 9063 during its first year of tenure (April 27, 1995 to April 26, 1996) is described in Hicks (1996). Delays in the arrival of the contracted aircraft to fly airborne EM over this and other tenements in the project prevented any fieldwork from being achieved during this period. Activities completed included a compilation of previous exploration, and a regional geopysical interpretation of the 1:250,000 sheet covering this licence. Details of this work are described in Hicks (1996).

## 4. WORK COMPLETED

No fieldwork has been completed on EL 9063 during the reporting period 27 April, 1996 to 26 April, 1997. Costs incurred are a result of planning and regional assessment of the tenement.

## 5. <u>INTERPRETATIONS</u> AND CONCLUSIONS

No exploration was completed during the reporting period in EL 9063 and it is recommended the licence be relinquished at the second anniversary.

## 6. <u>REFERENCES</u>

- Logan, R. G., Murray, W. J., and Williams, N. (1990). 'HYC Silver-Lead-Zinc Deposit, McArthur River.' in 'Geology of the Mineral Deposits of Australia and Papua New Guinea' Vol 1 (F. E. Hughes ed.). Aust. Inst. of Mining and Metallurgy, 907-911
- Shalley, M. J. & Harvey, T. V. (1992). 'Geophysical Responses of the HYC Deposit.' *Exploration Geophysics*. **23**, 299-304.
- Hicks, D.J. (1996): Exploration Licence 9063 (Pollyara) and Exploration Licence9065 (Matchbox Creek). Annual Exploration Report to 26 April, 1996.Unpublished Aberfoyle Report No. NT 0004 4/96.

# APPENDIX 1:

Expenditure Statements for EL 9063

# EXPENDITURE STATEMENT

# POLLYARA EL9063

## 12 Months to 26/04/97

Geology	4,554.88
Geophysics	1,721.46
Other Services	1,441.50
Administration	1,163.94
TOTAL	\$8,881.78

