

TCR. 98-4114 (RF)

274001

Aberfoyle Resources Limited

A.C.N. 004 664 108

Exploration Division



98-4114

THE MT CHARTER PROSPECT
SUPPORTING DOCUM.FOR A RETENTION
LICENCE APPLIC. RL9711(EL106/87)

A B E R F O Y L E

Aberfoyle Resources Limited

274002

EXPLORATION DIVISION

ACN 004 664 108

MINERAL RESOURCES	
FILE NO.	RL0711
20 JAN 1998	
See folio 3	

EXPLORATION LICENCE 106/87

LAKE MACKINTOSH

TASMANIA

The Mount Charter Prospect:
Supporting Documentation for a Retention licence application

MICROFILMED
FICHE No. D14493-96

VOLUME 1 OF 1

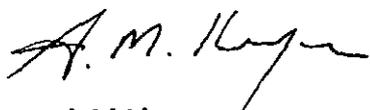
AMG REFERENCE POINTS ADDED

Prepared by:


Andrew W McNeill
Geologist


Richard de Bomford
Services officer

Issued by:


A M Hespe
MANAGER - BASE METALS

DISTRIBUTION

Aberfoyle - Burnie (1/4)
Aberfoyle - Townsville (2/4)
Aberfoyle - Melbourne (3/4)
Mineral Resources Tas (4/4)

APPENDICES

Appendix 1. Assessment of pre-resource mineralisation, Mount Charter Prospect, Tasmania.

Appendix 2. Additional Rock-chip analyses: Mt. Charter prospect.

Appendix 3. File note: Mt. Charter economics.

Appendix 4. Proposed RL: schedule of area.

PLATES

No.	Title	Scale
MAC342	Level Plan >800m	1:500
MAC343	Level Plan 750-800m	1:500
MAC344	Level Plan 700-750m	1:500
MAC345	Level Plan 650-700m	1:500
MAC345	Level Plan 600-650m	1:500
MAC347	Mount Charter Geology	1:2,500
MAC479	Rock-Chip/Channel samples	1:500

FIGURES

Figure 1. Property Location plan, North West Tasmania.

Figure 2. Mt. Charter Retention Licence; proposed boundaries.

Figure 3. Mt. Charter, syn-volcanic fault network

TABLE OF CONTENTS

274004

	Page No.
1.0 SUMMARY	1
2.0 INTRODUCTION	3
3.0 GEOLOGY AND RESOURCES	4
3.1 Geology	4
3.2 Work-completed	4
3.3 Resource Estimation	6
3.4 <i>Exploration potential</i>	7
4. FEASIBILITY	8
4.1 Metallurgy	8
4.2 Economics	8
4.3 Proposed Licence area	8
6. REFERENCES	10

1.0 Summary

274005

Exploration by Aberfoyle Resources Ltd. at the Mt. Charter prospect on EL 106/87, Lake Mackintosh, has identified significant precious metal anomalous mineralisation associated with vein and disseminated barite and base metal sulphides in sericite-pyrite altered dacite.

By Mid-1992 an estimated open-cut **inferred mineral resource** (previously classified as a pre-mineralisation resource), defined on the basis of surface rock-chip sampling and diamond drilling, for the Mt. Charter mineralisation was:

10 m.t. @ 0.3% Pb, 0.6% Zn, 19 g/t Ag, and 1.0 g/t Au (to a depth of 137m).

More recent drilling (post-1992) has been designed to test for deeply buried base metal-rich VHMS mineralisation and has not affected this resource estimate. There is still potential to increase the inferred mineral resource tonnage at a similar grade, however, potential for significantly higher grade resources is thought to be limited (best intersection to date; 7.9m @ 3.6 g/t Au).

Basic metallurgical testwork indicates moderately high (80%) recoveries of gold by flotation to a bulk sulphide concentrate but only low (50%) recoveries by cyanidation. Given these results, and current metal prices, the deposit cannot be treated economically as run of the mill ore using the current Hellyer circuit.

However, when Hellyer ore is exhausted in June 2000, it is planned to commence re-treatment of the Au-rich Hellyer tailings. Research on methods into re-treating the tailings is focussing on three processes:

1. Flotation of oxidised material to a bulk concentrate.
2. Bacterial or in-house leach technologies with solvent extraction/
electrowinning (which may make Au more amenable for recovery).
3. A proprietary MIM technique for Au extraction.

Processes 2 and 3 may provide feasible methods for treating the Mt. Charter ore in combination with the Hellyer tailings.

A 3 Sq. km retention licence, covering the Mt. Charter resource, potential reserves and land that may be required for site works and tailings disposal, is therefore sought to protect this resource until a decision can be made on the economic viability of further exploration and development.

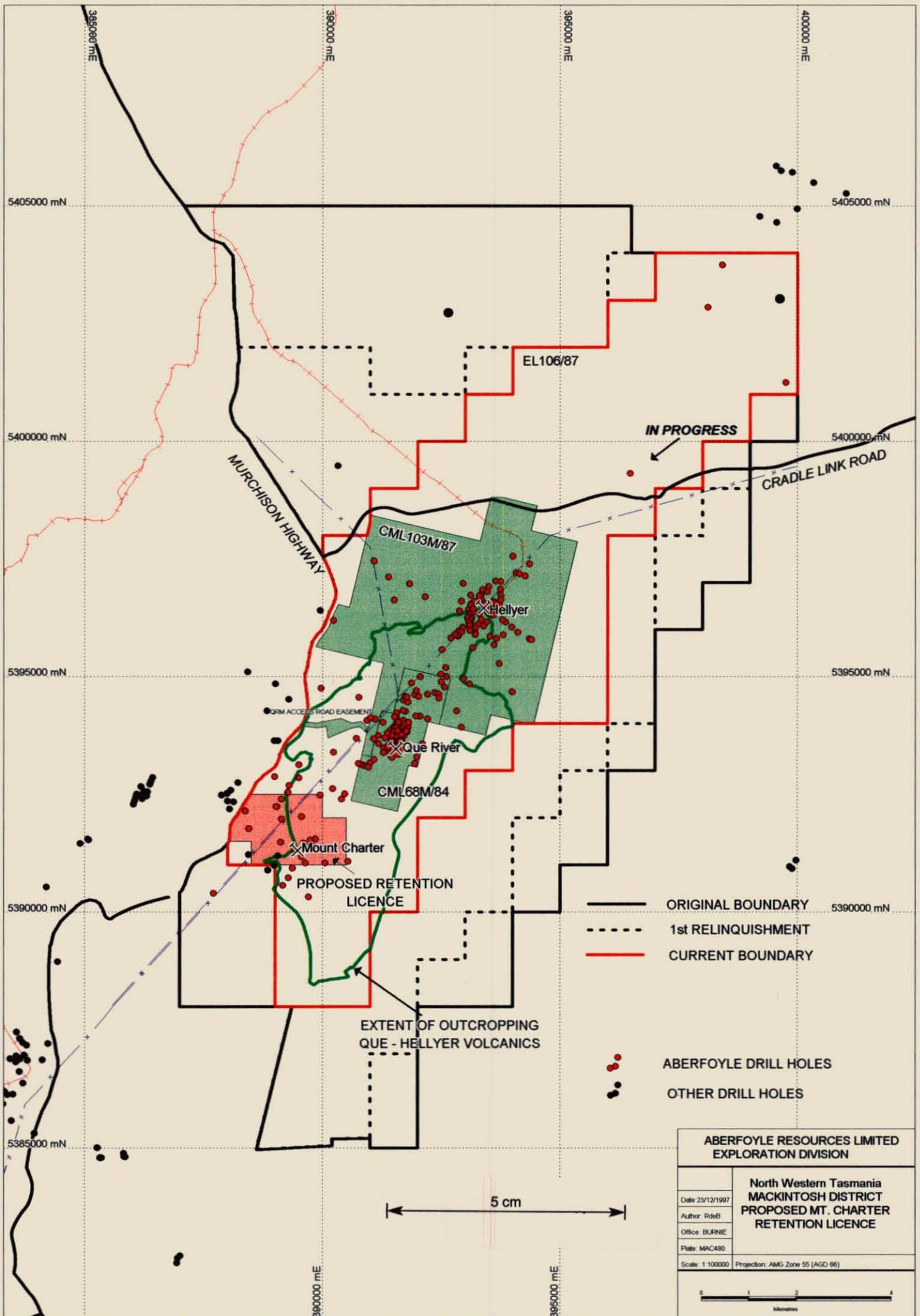
2.0 Introduction

274007

This report has been prepared to support an application for a Retention Licence to protect the precious-metal-rich mineralisation located by after several generations of mineral exploration at the Mt. Charter prospect.

The Mt. Charter prospect is located approximately 3 km SW of the Que River mine-site in NW Tasmania (Figure 1). The prospect is covered by the Lake Mackintosh Exploration Licence (EL106/87) that was granted to Aberfoyle Resources Limited on 5 February 1988 under the provisions of the Hellyer Mine Agreement Ratification Act 1987. The licence comprised 135 sq. km. previously covered by EL's 2/70 (Mackintosh) and 15/73 (Hatfield) and encloses CML's 68M/84 (Que River) and 103M/87 (Hellyer). Under the terms of the act the licence was issued for ten years with mandatory partial relinquishments completed on the second and fifth anniversaries. Final relinquishment is due on February 5th 1998.

Land tenure in the vicinity of Mt. Charter is Crown Land and mineral rights are held by the Crown. Part of the area is Multiple-use forest, administered by Forestry Tasmania. Currently there are no logging activities, apart from licensed firewood collection along the HEC powerlines. The Regional Forestry Agreement may result in part of the Mount Charter prospect becoming either a formal or informal reserve. However, as both reserve categories are required to have a mineral development tenure, and fall under the Mineral Resources Development Act, 1995, there should be no adverse consequences from this change in land classification. The only land excluded from the Current EL 106/87 is that vested in the HEC, forming a narrow corridor along the Farrell-Sheffield and Farrell-Waratah high-voltage transmission lines.



ABERFOYLE RESOURCES LIMITED EXPLORATION DIVISION	
North Western Tasmania MACKINTOSH DISTRICT PROPOSED MT. CHARTER RETENTION LICENCE	
Date: 23/12/1997	Author: RdeB
Office: BURIE	Plate: MAC480
Scale: 1:100000 Projection: AMG Zone 55 (AGD 66)	

3.0 Geology and resources

3.1 Geology:

The geology and mineralisation of the Mt. Charter prospect has been summarised by Wallace (1992; see Appendix 1 and plate MAC-347). More recent drilling, summarised below, has not led to significant changes in this interpretation, although syn-volcanic structures have been interpreted from helimag and gravity surveys (Fig. 3).

3.2 work completed:

Pre-1992

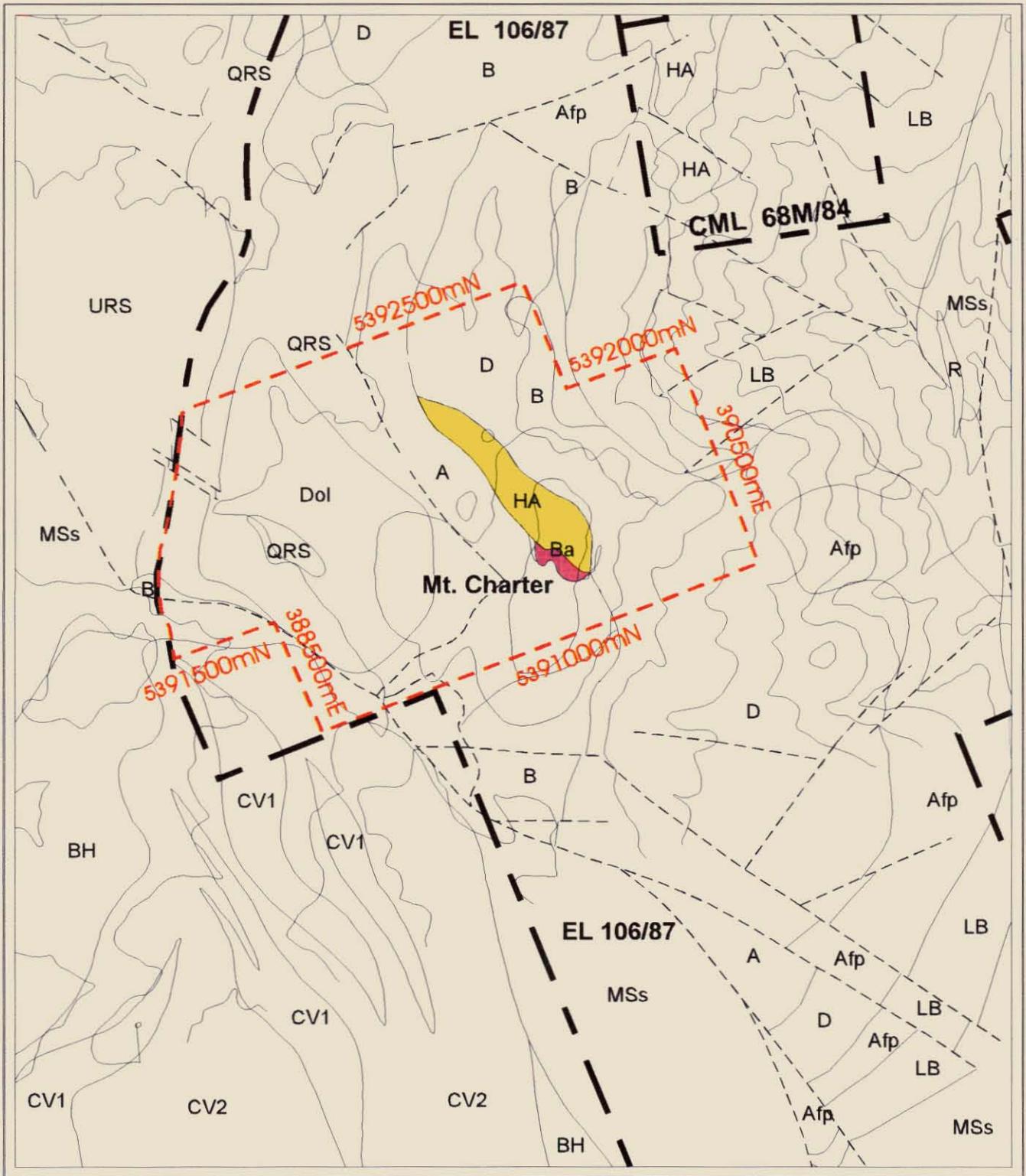
Results of exploration at the Mt. Charter prospect, prior to May 1992, are summarised by Wallace (1992) and are included in Appendix 1. This exploration was initially based on the model that the Mt. Charter barite was distal to a VHMS deposit (DDH's MC-1 to 5 and 8). However, with the re-analysis of core grind samples for Au, it was recognised that the Mt. Charter prospect had potential for a precious metal resource. DDH MAC-23 was the only hole drilled specifically to test for Au-mineralisation, and further drilling was targeted on deeply buried VHMS mineralisation in the Mt. Charter stringer zone (DDH MAC-26).

Post-1992

Results of drilling (3172m in 4 holes) at the Mt. Charter prospect since 1992 include:

MAC32 (278.4m) Mt. Charter - (Richardson 1993)

This hole was designed to test the Que-Hellyer ore position, at the base of the Mt. Charter dacite, in the Mt. Charter alteration zone near the intersection of the interpreted co-active Murchison Highway structure and the Barite Creek fault. The Hole was abandoned after strong azimuthal deviation, a result of drilling at 45° to the cleaved Mt. Charter alteration zone. The entire length of the hole was in the Mt. Charter alteration system and was anomalous in Au, with a best intersection of 32.2m @ 0.4 g/t Au (0-32.2m).



5 cm

Figure 2

Aberfoyle Resources Limited
EXPLORATION DIVISION

274010

REVISIONS			
Init.	Date	Init.	Date

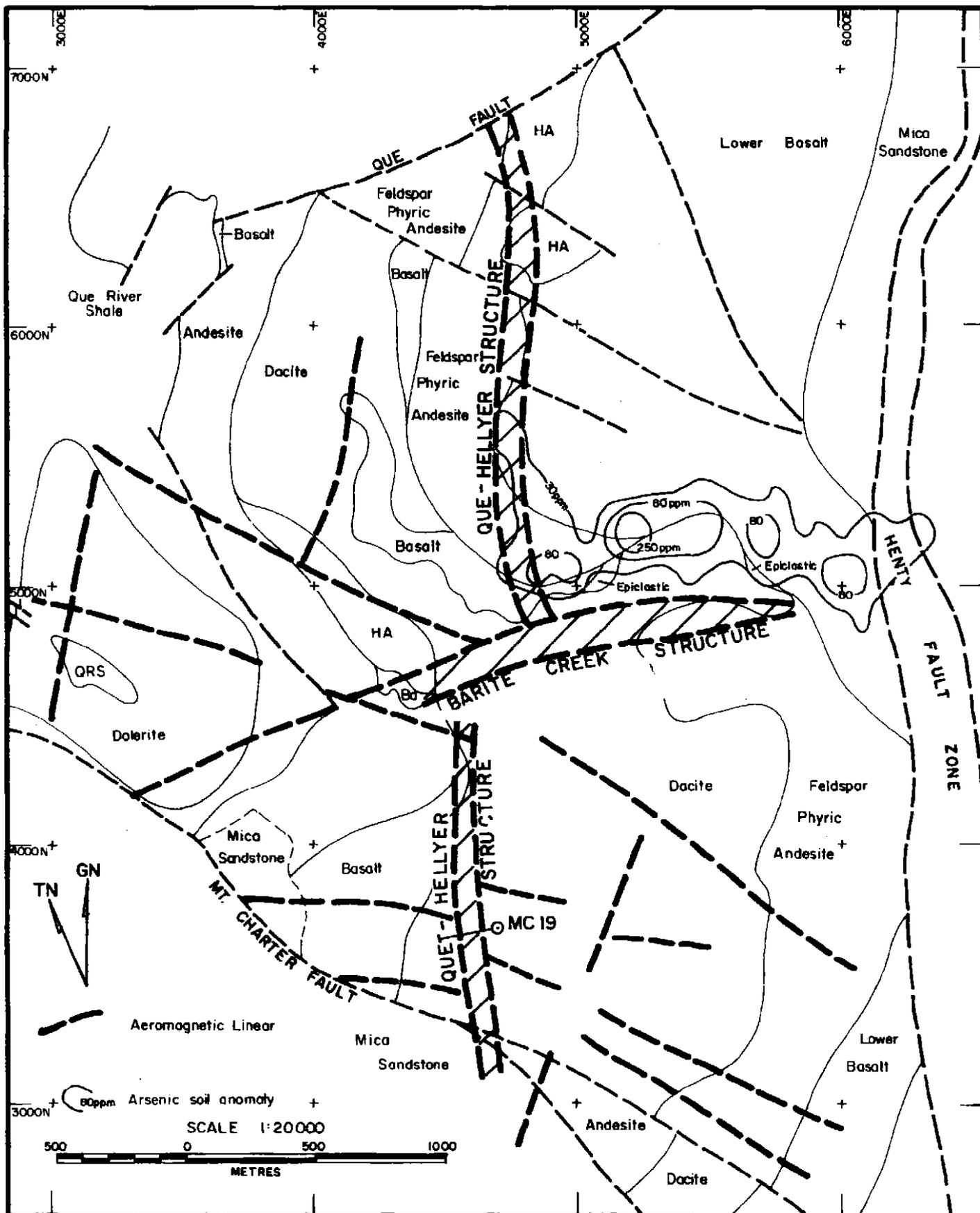
**PROPOSED MT. CHARTER
RETENTION LICENCE**

Compiled : SR/AMcN
 Drawn :
 Checked :
 File Name : c_mac14-2.cdr
 Plate No. : C MAC14(2)

Location Code :

Scale : 1 : 25,000

Date :



Aberfoyle Resources Limited
EXPLORATION DIVISION

Figure 3

REVISIONS				<p align="center">NORTH WEST TASMANIA EL 106/87 MACKINTOSH MT CHARTER AREA SUMMARY GEOLOGY AND MAGNETIC LINEARS</p>	Compiled :	SR
Init.	Date	Init.	Date		Drawn :	SR
					Traced :	NB
					Checked :	SR
					Plate No. :	MAC 376
Location Code :		Scale : 1:20 000		Date : MAY 1993		

5 cm

274011

MAC33 (910.7m) Mt. Charter - (Richardson 1993)

This hole was designed to test the same target as MAC32, but was drilled from the opposite direction in an attempt to minimise deviation. A complete QHV sequence was intersected, from the Que River Shale to the Animal Creek Greywacke.

Disseminated sphalerite (125m@ 0.2% Zn) was present in the Hellyer basalt correlates but the hole did not intersect the Murchison Highway structure and therefore remained in the less prospective footwall block. However, a DHEM survey coupled with DHEM in DDH MAC26 indicate that no large conductive bodies are present in the target position.

MAC36 (814.4m) Mt. Charter - (Richardson 1994)

This Hole was designed to test the base of the Mt. Charter dacites overlying the interpreted Que-Hellyer structure, along strike from the Mt Charter alteration zone, on section 4500N. The hole intersected dacite then footwall andesites before passing into Animal Creek greywacke, a sequence similar to that intersected by MAC33 and MAC37 (see below). There was no obvious ore position at the base of the dacite, but a 48m thick epiclastic dominated unit immediately above the greywacke is variably silica-sericite-pyrite (up to 5% Py) altered. Base metal values are generally low and no off-hole conductors were detected.

MAC40 (1168.7m) Mt. Charter - (Richardson 1996)

DDH MAC40 was designed to test two targets; the Mt. Charter position (?Hellyer ore position) down dip and plunge of the barite outcrops and the base of the Mt Charter dacite (the Que River ore position). The hole intersected these potential ore positions but both were un-mineralised and the lack of strong alteration suggests that the Mt Charter alteration zone does not focus on the Murchison highway structure on this section. As with many other holes in the Charter area disseminated sphalerite mineralisation on the Hellyer basalt yielded assays of 88.9m@ 0.22% Zn. No other significant assays were reported. An anomaly was recorded in the initial DHEM survey, but, was recognised as a "ferrite core" artefact by comparing data from air- and metal-cored probes.

All of these holes were designed to test for deeply buried VHMS mineralisation, but, they do provide controls on the depth extent of Au-mineralisation at Mt. Charter. DDH MAC-32 (32.2m @ 0.4 g/t Au; best intersection 1.7m (23.5-25.2m) @ 1.7 g/t Au, 64 g/t Ag) and continuous 10m channel sampling on the MAC-32 access track (not previously reported; included as Appendix 2) provide a north eastern boundary to the mineralisation. Additional rock-chip sampling on the MAC-36/37 access track returned a value of 3.9 g/t Au, 103 g/t Ag from a barite veined dacite (see Appendix 2) suggesting that mineralisation may extend east of Mt. Charter. This result has not been followed-up. These more recent results have not been incorporated into the resource estimate.

3.3 Resource Estimation:

A resource estimate for the Mount Charter mineralisation has been completed and is included in Appendix 1 (pages 23-32). The resource estimate, completed in 1992, was categorised using the then current AusIMM/AMIC code as **Pre- Resource Mineralisation** because the continuity of the +0.5 g/t Au mineralisation was not demonstrated by the existing data, with the exception perhaps of the 825 level, and the limits to the mineralisation were also poorly constrained. The Mount Charter Mineralisation would now be classified as an **"Inferred Mineral Resource"**, i.e., a mineral resource inferred from geoscientific evidence, drill holes, underground openings or other sampling procedures where the lack of data is such that continuity cannot be predicted with confidence and where geoscientific data may not be known to a reasonable level of reliability (JORC, 1996).

The inferred mineral resource at Mount Charter was estimated to be:

Approximately 13 m.t. at 0.3% Pb, 0.6% Zn, 16 g/t Ag and 0.9 g/t Au.

Given that any development of this mineralisation would be by open cut mining, it is reasonable to quote the inferred mineral resource to a likely pit depth say 700 RL (i.e., 137m below surface):

Approximately 10 m.t. at 0.3% Pb, 0.6% Zn, 19 g/t Ag and 1 g/t Au.

3.4 Exploration Potential

Significant potential is apparent at Mt. Charter to identify additional mineralisation of similar tenor. There is no evidence to suggest that potential exists for significant tonnages of higher grade and(or) metallurgically simple mineralisation.

Potential is identified in three areas which are listed in order of significance:

1. Extensions to known mineralisation.

The eastern limits of the mineralisation used for the resource assessment are not constrained by drilling. Potential exists to extend the pre-resource mineralisation by drill testing beyond these limits.

2. West Charter.

Coincident Au, Ag and Ba "c" Horizon soil anomalies west of the identified mineralisation overly hangingwall andesites with in-situ barite and pyrite mineralisation. Further costeaming is required to define the limits of in-situ anomalism prior to drill testing.

3. Mt. Charter alteration zone.

The Mt. Charter alteration zone extends NW from the known mineralisation for approximately 900m. The zone is 100-250m wide and dips to the SW below andesite. Variable intensity pyrite mineralisation is recorded in outcrop from this zone. DDH MC-4 drilled in the far NW of the zone intersected 10m @ 0.69 g/t Au indicating some potential particularly in the altered dacite near its contact with the hangingwall andesite.

4.0 Feasibility

4.1 Metallurgy

Basic metallurgical testwork has been completed on the Mt. Charter mineralisation. Results were presented in McNeill (1989) and are included in Appendix 1. Results were: 80% Au recovery by flotation, at a coarse grind (80% passing -95 µm), and 49% recovery by cyanidation. Higher recoveries, by flotation, would require finer grinding. A research program to assess the amenability of Hellyer mine tailings to further base and(or) precious metal has been initiated. Three methodologies are being, or will be, investigated:

1. Flotation of oxidised material to a bulk concentrate.
2. Bacterial or in-house leach technologies with solvent extraction/ electrowinning (which may make Au more amenable for recovery).
3. A proprietary MIM technique for Au extraction.

Processes 2 and 3 may provide feasible methods for treating the Mt. Charter mineralisation in combination with the Hellyer tailings.

4.2 Economics

Two basic economic models for Mount Charter mineralisation, included as Appendix 3, were considered by A. B. Mollinia, Technical manager, Aberfoyle Resources Ltd. Both models, assuming leaching and flotation, indicate that the mineralisation cannot be economically treated given current precious metal prices and extractive technologies.

4.3 Proposed Licence area

The extent of the proposed retention licence, with an area of approximately 3 sq. km, is shown on Figure 2, and defined in Appendix 4. This area is sought as:

It covers the known mineralisation and potential extensions, as discussed in section 3.4, to the east, north and west.

It provides for infrastructure development (stockpiles, settling ponds etc.) on the plateau immediately west of Mt. Charter.

If and when development proceeds a further easement may be sought for a haul road, generally following the line of the HEC powerlines, connecting the Mt. Charter area and existing infrastructure on CMLs 63M/84 and 103M/87.

References:

- McNeill, A. W., 1989. Lake Mackintosh EL 106/87, Tasmania. Technical Progress Report for the Period February, 1988 to February, 1989. Report to Department of Mines, Tasmania by Aberfoyle Resources Ltd. (TCR 89-2948)
- Richardson, S. M., 1993. Exploration Licence 106/87. Progress report for the Period April, 1992 to April, 1993. Aberfoyle Resources Ltd. Unpub. Report. (TCR 93-3441)
- Richardson, S. M., 1994. Exploration Licence 106/87. Progress Report for the Period April 1993 to February 1994. Aberfoyle Resources Ltd. Unpub. Report. (TCR 94-3537)
- Richardson, S. M., 1996. Exploration Licence 106/87, Lake Mackintosh, Tasmania. Progress Report for the Period February 1995 to February, 1996. Aberfoyle Resources Ltd. Technical report. (TCR 96-3839)
- Wallace, D.B., 1992. Assessment of pre-resource mineralisation. Mount Charter prospect, Tasmania. Internal Aberfoyle Resources Limited Report.

274018

APPENDIX 1
Assessment of pre-resource mineralisation
Mount Charter prospect
Tasmania

274019

Aberfoyle Resources Limited
EXPLORATION DIVISION

CONFIDENTIAL

ASSESSMENT OF PRE-RESOURCE MINERALISATION
MOUNT CHARTER PROSPECT, TASMANIA

MAY 1992

Copies

1 Hawthorn
2 Burnie
3 Spare

274020

Prepared by:

David Wallace 25/6/92

DAVID BRUCE WALLACE
Dip.App.Geol., Dip.
Min.Ec., M.Aus.IMM
Regional Manager

Assisted by:

R. Peter de Bomford 25/6/92

RICHARD PETER de BOMFORD

Endorsed by:

R. Gregor Paterson 26/6/92

RODNEY GREGOR PATERSON
B.Sc., M.Aus.IMM
Chief Geologist

C.H. Young 29.6.92

CHRISTOPHER HARRY YOUNG
B.Sc., Dip.Ed., M.Aus.IMM
Exploration Manager,
Project Development

Issued by:

David Wallace 25/6/92

DAVID BRUCE WALLACE

Acknowledged by:

E.H. Skey 29/6/92

EDWARD HUGH SKEY
B.Sc(Hons)., M.Aus.IMM
General Manager,
Exploration

CONTENTS

	<u>Page No:</u>
1. SUMMARY	1
2. INTRODUCTION	2
3. DEFINITIONS OF RESOURCE CATEGORIES	3
4. PREVIOUS MINING	5
5. ENVIRONMENTAL FACTORS	6
6. GEOLOGY	7
6.1 Regional Geological Setting	7
6.2 Que-Hellyer Volcanics	8
6.2.1 Lower Basalt	8
6.2.2 Lower Andesites and Basalts	9
6.2.3 Mixed Sequence (Host Horizon)	9
6.2.4 Hellyer Basalt	9
6.3 Mount Charter Area	10
6.3.1 Stratigraphy	10
6.3.2 Alteration	12
6.3.3 Structure	14
6.3.4 Mineralisation	14
6.3.5 Genesis	17
7. WORK COMPLETED	19
7.1 Geochemistry	19
7.2 Geophysics	19
7.3 Drilling	20
7.4 Research	22
8. ASSAYING	23
9. DATA ANALYSIS	26
10. RESOURCE ESTIMATION	29
10.1 Specific Gravity	29
10.2 Tonnage	30
10.3 Grade	30
10.4 Resource Category	31
10.5 Estimate Summary	31
11. METALLURGY	33
11.1 Flotation	33
11.2 Heavy Liquid Separation	34
11.3 Cyanidation	35
11.4 Summary	36

- 12. EXPLORATION POTENTIAL
- 13. RECOMMENDATION
- 14. REFERENCES

- 1. Proc
- 2. Req or
- 3. Ma l
- 4. Sc
- 5. Sc m
- 6. As
- 7. As ay

- 1.
- 2. l
- 3.
- 4. lc
- 5.
- 6. us

FIGURES

1. Property Location Plan North West Tasmania
2. Regional Geology Queenstown - Hellyer
3. Mackintosh District Summary Geology
4. Schematic Section - Que Hellyer Volcanics
5. Schematic Stratigraphic Column - Mount Charter
6. Assay checks Au. Analabs vs ALS
7. Assay checks Au. Analabs vs Comlabs

TABLES

1. Correlation Coefficient Matrix
2. Relative Mineral Abundance
3. Summary of Level Tonnes and Grades
4. Flotation Results
5. Heavy Liquid Separation Results
6. Cyanidation Results

PLATES

No.	Title	Scale
MAC342	Level Plan >800m	1:500
MAC343	Level Plan 750-800m	1:500
MAC344	Level Plan 700-750m	1:500
MAC345	Level Plan 650-700m	1:500
MAC346	Level Plan 600-650m	1:500
MAC347	Mount Charter Geology	1:2,500

APPENDICES

I	Mount Charter Data Set
II	Mount Charter Assay Histograms
III	DHS grade-tonnage printout

274025

1. SUMMARY

- Surface rock chip sampling and diamond drilling at Mount Charter, Tasmania has identified precious metal anomalous mineralisation associated with vein and disseminated baryte and base metal sulphides in sericite-pyrite altered dacites.
- The estimate of Pre-Resource Mineralisation at Mount Charter is

13Mt at 0.3% Pb, 0.6% Zn, 16 g/t Ag and 0.9 g/t Au
- Basic metallurgical testwork indicates moderately high (80%) recoveries of gold by flotation to a bulk sulphide concentrate but only low (50%) recoveries by cyanidation.
- There is potential to increase the Pre-Resource Mineralisation tonnage at a similar grade. High grade resources are not apparent.
- The best intersection on the prospect is 7.9m at 3.6 g/t Au.
- Further work on the prospect is not recommended unless an increase in metal prices, improved extractive technologies or an improved geological model, justify re-assessment.
- Security of tenure over the prospect can be maintained for at least 5.5 years (i.e. to 24 February, 1998).

2. INTRODUCTION

The object of this report is to quantify the tenor of precious metal mineralisation at Mount Charter. This will allow informed decisions to be made about further investment in the prospect, should increases in metal prices, improved geological concepts or improved extractive technologies justify re-evaluation.

The Mount Charter gold prospect is located 3km south of the Que River mine in western Tasmania (Figure 1) in the vicinity of the topographic feature of the same name.

The area is designated Crown Land and mineral rights are held by the Crown. Tenure is secured by exploration licence 106/87 (100% Aberfoyle Resources Ltd.) issued under authority of the Hellyer Mine Agreement Ratification Act 1987. Under the terms of the licence the area must be further reduced from 95 to 54 sq. km. by 24, February 1993.

The Mount Charter prospect area will be retained within the reduced licence area.

EL 106/87 is due to expire on 24 February, 1998.

The area is not subject to any other land tenure classification apart from forestry logging rights.

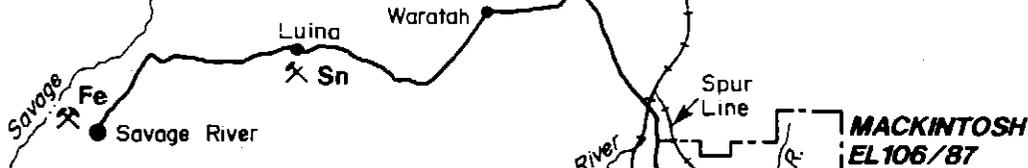
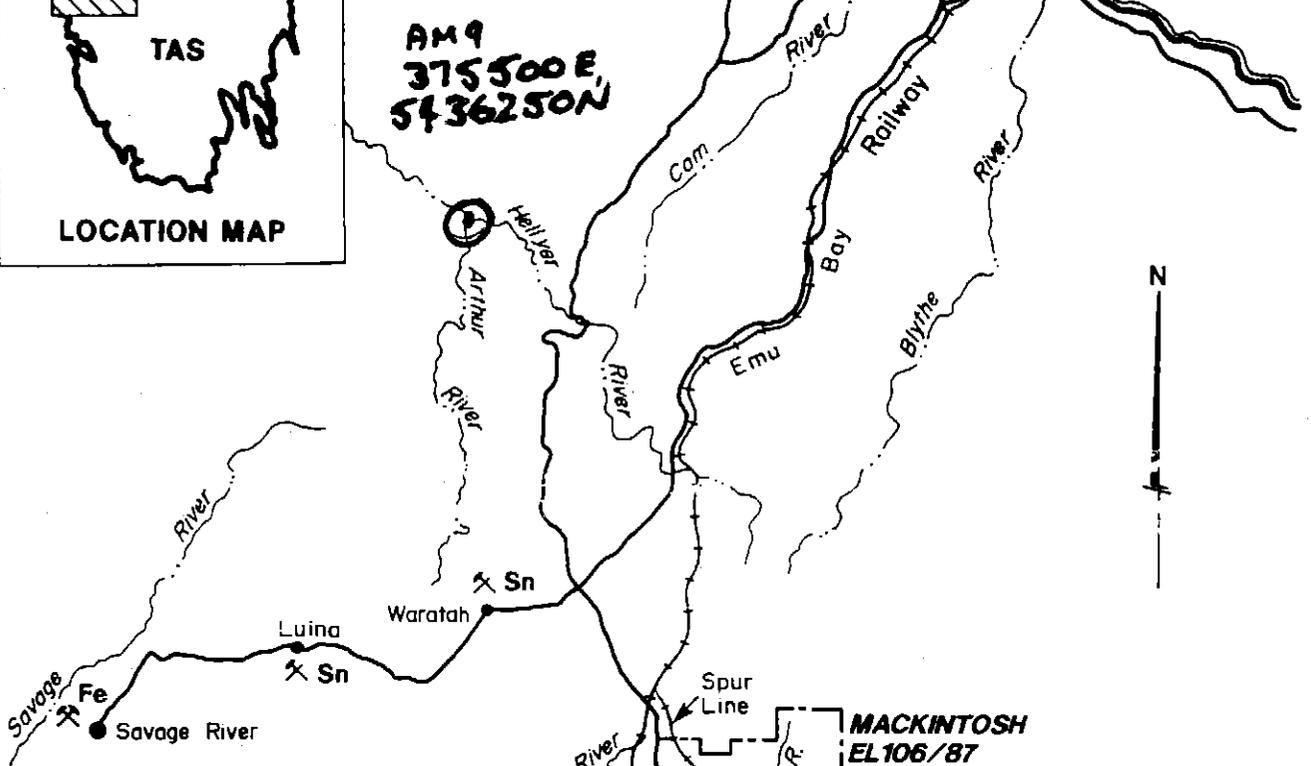
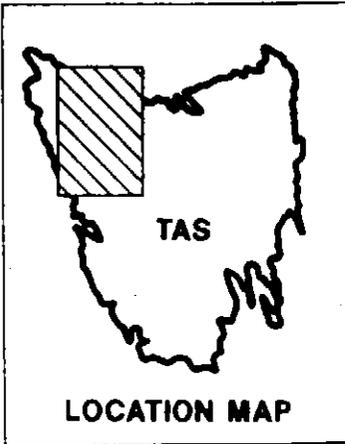
BASS STRAIT

WYNYARD
(Airport)

(Major port and
ship loading
facilities for
base metal
concentrates)

BURNIE

AM9
375500E,
5436250N



AM9
375700E,
5392900N

MACKINTOSH
EL106/87

HELLYER
QUE
RIVER



Lake
Pieman

Lake
Rosebery

Lake
Mackintosh

- Operating mine
- Defunct mine or prospect
- Major road
- Railway
- Power station

RENISON

Rosebery
Pb,Zn
HERCULES

Au
HENRY

Pb,Ag,Sn
Zeehan

Cu

Queenstown

PROPERTY LOCATION PLAN NORTH WEST TASMANIA

274027

0 20Km

5 cm

AMG REFERENCE POINTS ADDED

3. DEFINITIONS OF RESOURCE CATEGORIES

The term Mineral Resource is gaining wide acceptance as the reference term for an identified in-situ mineral occurrence from which valuable or useful minerals may be recovered.

The critical criteria for the use of the term *Resource* are:

1. Several correlatable drill intersections (minimum 10?).
2. An understanding of the relationship of thickness and grade to the geological control of mineralisation.
3. There is an implication that there are reasonable prospects for eventual economic exploitation.

The Code provides the following definitions for an *Identified Mineral Resource*:

Inferred Resource - is an estimate, inferred from geoscientific evidence, drill holes, underground openings, or other sampling procedures, before the testing and sampling information is sufficient to allow a more reliable systematic estimation. The sampling sites are too widely or are inappropriately spaced for grade and geometric continuity to be assumed or to indicate continuity. It may be possible to determine an acceptable reliable tonnage but not a grade.

Indicated Resource - means a Resource sampled by drill holes, underground openings, or other sampling procedures at locations too widely spaced to ensure continuity, but close enough to give a reasonable indication of continuity and where geoscientific data are known with a reasonable level of reliability.

Measured Resource - means a Resource intersected and tested by drill holes, underground openings, or other sampling and procedures at locations which are spaced closely enough to confirm continuity and where geoscientific data are reliably known. In this case shape and mineral content are well established.

Where significant mineralisation has been identified but which does not meet the conditions specified for the reporting of Identified Mineral Resources the code provides the term *Pre-Resource Mineralisation*. If a report uses this term then it is necessary that sufficient information is provided to enable the informed layman to make a reasonable judgement about the prospect. The code provides a list of resource assessment criteria which, if available, should be disclosed when reporting *Pre-Resource Mineralisation* (Table 1 of the code is provided in Section 3 of Young & Paterson, 1992).

4. PREVIOUS MINING

Previous mining is limited to pits, trenches and a small adit sunk by early prospectors (circa 1930) into massive baryte mineralisation.

No production records have been sighted.

5. ENVIRONMENTAL FACTORS

The prospect area occurs on a topographic high (~830m ASL) which is vegetated by mature myrtle rain forest.

At the time of writing there were no competing land use claims over the area. The proposed Mount Charter Recommended Area for Protection (RAP number 177) has been withdrawn.

It is likely that any development at Mount Charter would involve open cut operations with significant stockpile development. As the area is visible from the Cradle Mountain National Park it is probable that screening and/or camouflage would be required to reduce visual impact.

Discharge regulations are likely to be similar to those in force at the Que River and Hellyer mine sites.

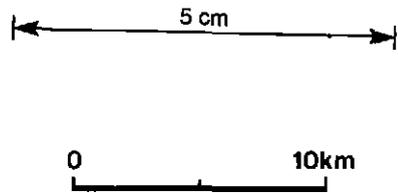
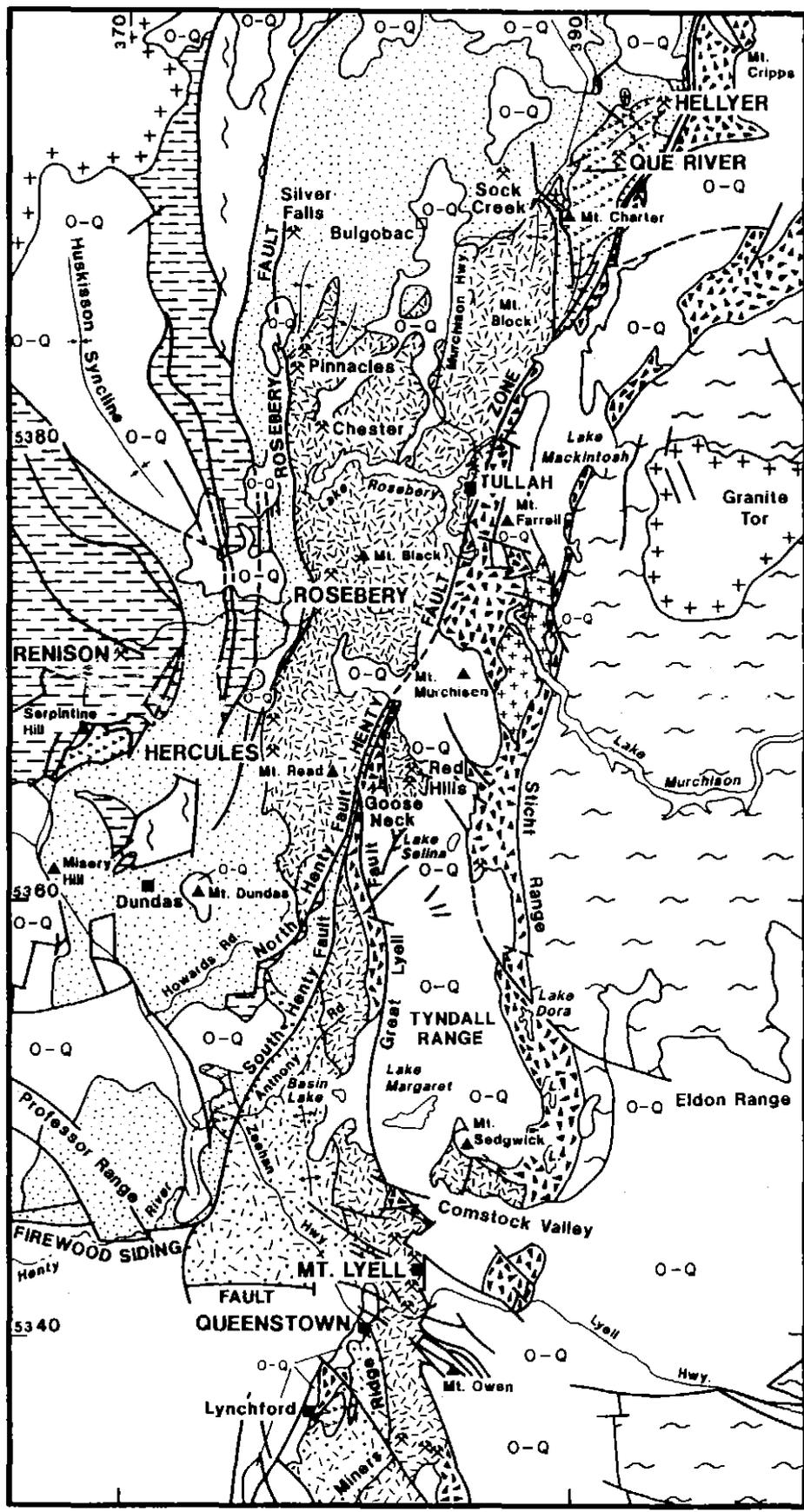
6. GEOLOGY

6.1 Regional Geological Setting

The Cambrian Mount Read Volcanics form a 200km. long, 10 to 15km. wide belt dominated by calc-alkaline volcanics and volcanoclastics (Figure 2). They are bound to the east by Pre-Cambrian metamorphics, and on the west are faulted or interfingered with basin or trough sediments of the Dundas Group.

The Mount Read Volcanics belt is a significant base metal province which hosts numerous small to major massive sulphide deposits. A good description of the stratigraphic setting is available in Corbett, 1992.

Unconformably overlying the Central Volcanic Complex within the Mount Read Volcanics are the Dundas and Mount Charter Groups. These consist of volcanoclastics, greywackes, siltstones and shales, of Middle to Late Cambrian age. A suite of intermediate to mafic volcanics and volcanoclastics, known as the Que-Hellyer Volcanics, lie toward the base of the Mount Charter Group at the northern end of the main belt of Mount Read Volcanics. These volcanics are separated from the volcanics of the Central Volcanic Complex by a thin unit of greywackes, shales, and tuffaceous sediments known as the Animal Creek Greywacke. Locally, in the Que-Hellyer area, this contact between the Mount Charter Group and the Central Volcanic Complex is interpreted as a faulted erosional disconformity.



LEGEND

- O-Q Post Cambrian Cover
- + + Post Cambrian Intrusives
- CAMBRIAN-NW OF HENTY FAULT ZONE**
- DUNDAS GROUP & CORRELATES**
- [Dotted pattern] Sediments & Volcanic-Sedimentary Sequences
- [Diagonal lines pattern] Basaltic-Andesitic Sequences
- "CENTRAL VOLCANIC COMPLEX"**
- [Cross-hatch pattern] Volcanics
- SE OF HENTY FAULT ZONE**
- TYNDALL GROUP & CORRELATES**
- [Star pattern] Granite
- [Irregular pattern] Volcanics, Minor Sediments
- "WESTERN VOLCANO-SEDIMENTARY SEQUENCE"**
- [Horizontal lines pattern] Sediments
- [Vertical lines pattern] Unassigned Cambrian Sediments & Volcanics
- PRECAMBRIAN**
- [Wavy lines pattern] Quartzwacke-Quartzite-slate Sequences of Dundas, Ramsey River Area
- [Wavy lines pattern] Metasedimentary Sequences of Tyennan Region

**REGIONAL GEOLOGY
QUEENSTOWN-HELLYER**

Figure 2

A sequence of black shales and minor sandstones known as the Que River Shale conformably overlies the Que-Hellyer Volcanics.

The age of the Que River Shale from faunal evidence is late Middle Cambrian.

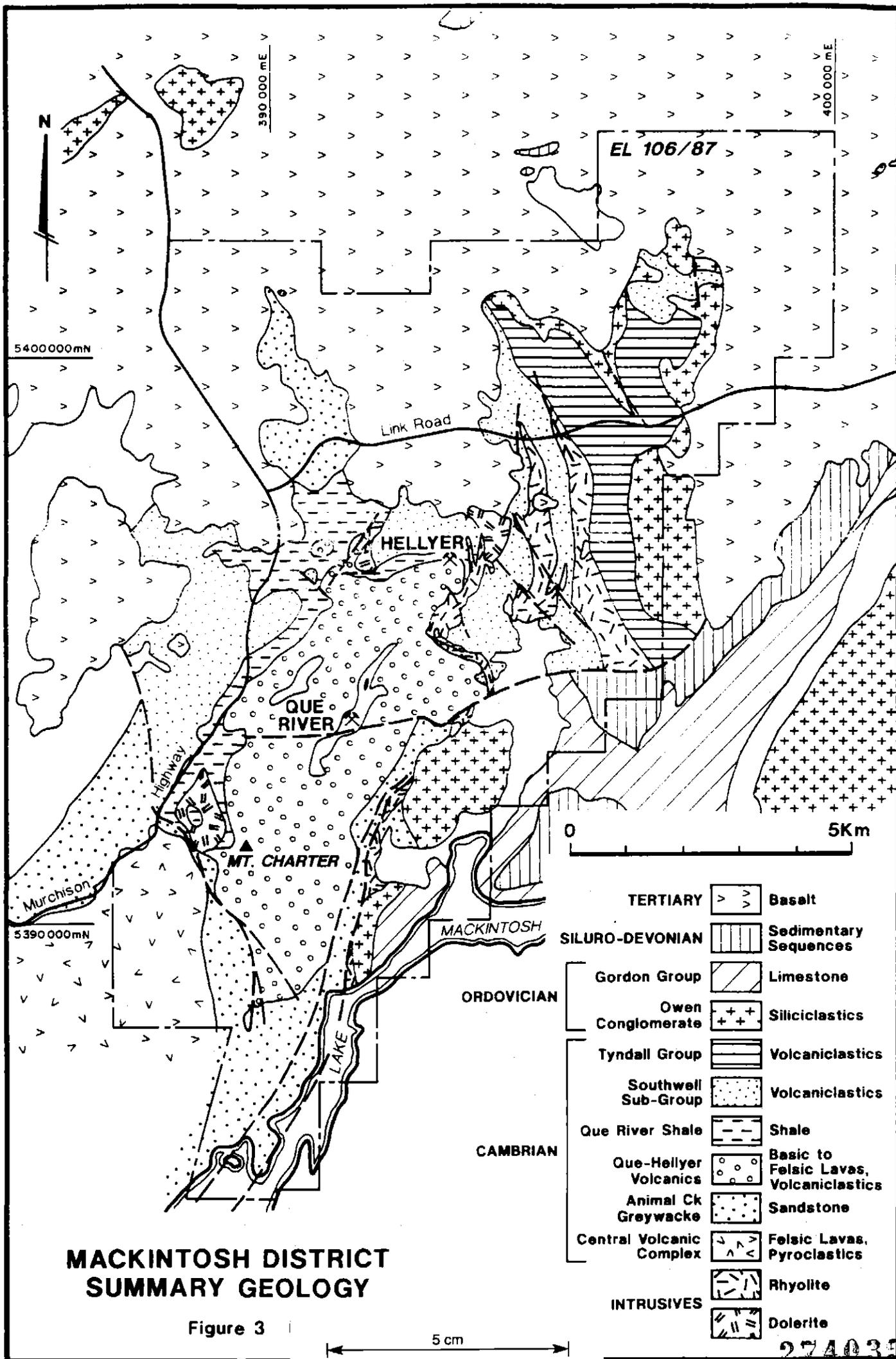
6.2 Que-Hellyer Volcanics

The Que-Hellyer Volcanics form a 5km. wide and an 18 to 20km. long belt consisting of mafic to felsic volcanics and volcanoclastics approximately 1km thick. These volcanics only crop out at the southern end of the belt in the vicinity of the Que River and Hellyer deposits; elsewhere they are concealed by younger Cambrian sequences and Tertiary basalts (Figure 3). Massive sulphide mineralisation within the sequence occurs at Que River and Hellyer, with sub-economic sulphide and baryte mineralisation at Mount Charter (Figure 3). All known mineralisation in this sequence occurs at roughly the same stratigraphic position, or host horizon.

The Que-Hellyer volcanics have been informally subdivided into four units, with the stratigraphic relationships between these units shown in Figure 4. A detailed description is available in Waters and Wallace, 1992.

6.2.1 Lower Basalt

The basal unit of the Que-Hellyer Volcanics is known as the lower basalt and lies conformably on, and interfingers with, the Animal Creek Greywacke (Figure 4). The unit is comprised of massive to pillowed porphyritic basaltic lavas, hyaloclastites, and minor thin, medium to coarse epiclastic volcanic sandstone horizons.



EL 106/87

5400000mN

390 000 mE

400 000 mE

Link Road

HELLYER

QUE RIVER

MT. CHARTER

Murchison

Highway

MACKINTOSH

LAKE

0 5Km

TERTIARY



Basalt

SILURO-DEVONIAN



Sedimentary Sequences

Gordon Group



Limestone

Owen Conglomerate



Siliciclastics

Tyndall Group



Volcaniclastics

Southwell Sub-Group



Volcaniclastics

Que River Shale



Shale

Que-Hellyer Volcanics



Basic to Felsic Lavas, Volcaniclastics

Animal Ck Greywacke



Sandstone

Central Volcanic Complex



Felsic Lavas, Pyroclastics

INTRUSIVES



Rhyolite



Dolerite

ORDOVICIAN

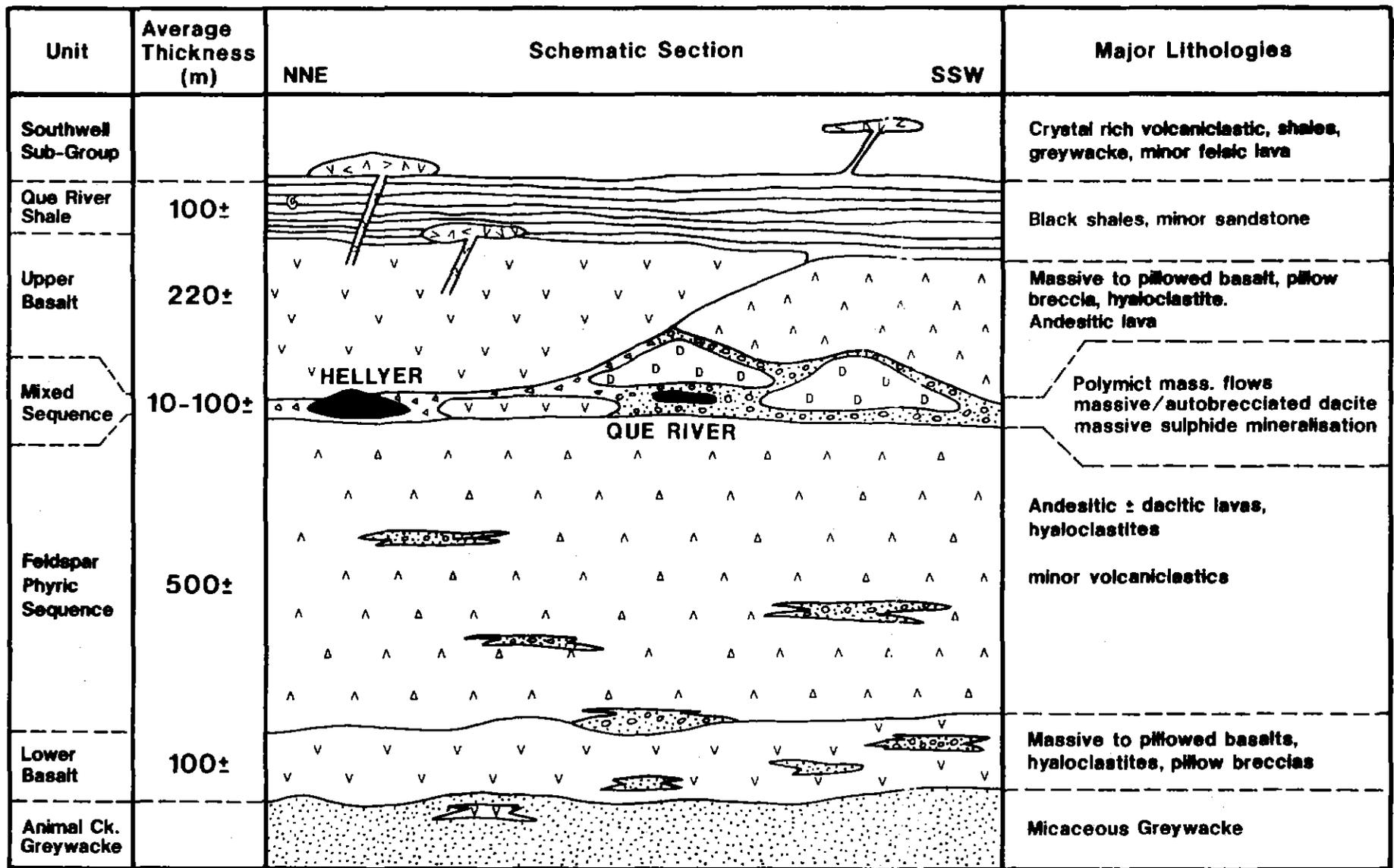
CAMBRIAN

**MACKINTOSH DISTRICT
SUMMARY GEOLOGY**

Figure 3

5 cm

274035



QUE HELLYER VOLCANICS
SCHEMATIC STRATIGRAPHIC COLUMN

274036
Figure 4

6.2.2 Lower Andesites and Basalts

This unit conformably overlies the lower basalt and consists of up to 500m of dominantly andesitic to dacitic lavas, autoclastic breccias, and minor epiclastics which represent the footwall to mineralisation. Lavas and autoclastic breccias within this sequence are typically plagioclase-phyric with minor amounts of feldspar-quartz phyric dacites being recorded from the southern half of the area.

6.2.3 Mixed Sequence (Host Horizon)

Mineralisation in the Que-Hellyer Volcanics is confined to a sequence of volcanics and volcanoclastics conformably overlying the lower andesites and basalts (Figure 4).

This unit is lithologically complex and contains a wide variety of chaotic volcanoclastic breccias, volcanic sandstones, dacitic volcanics, and minor shales.

6.2.4 Hellyer Basalt

The Hellyer basalt is the uppermost unit in the Que-Hellyer volcanics (Figure 4), consisting of a sequence of pillowed to massive basaltic lavas, hyaloclastites, peperites, and minor interbedded fine-grained sediments up to 220m thick.

At the Hellyer deposit the basalts lie in direct contact with the mineralisation over the central area of the orebody.

6.3 Mount Charter Area

6.3.1 Stratigraphy

The stratigraphy at Mount Charter is generally consistent with that of the Que-Hellyer Volcanics and is shown as figure 5.

The oldest rocks intersected in drilling are andesites of the Lower Andesite and Basalt sequence. These occur as lavas and volcanoclastics with minor interbeds of polymict volcanoclastics ranging from ash to lapilli sized. The only drill hole to intersect this unit (MAC26) terminated in this unit so no thickness estimates can be made.

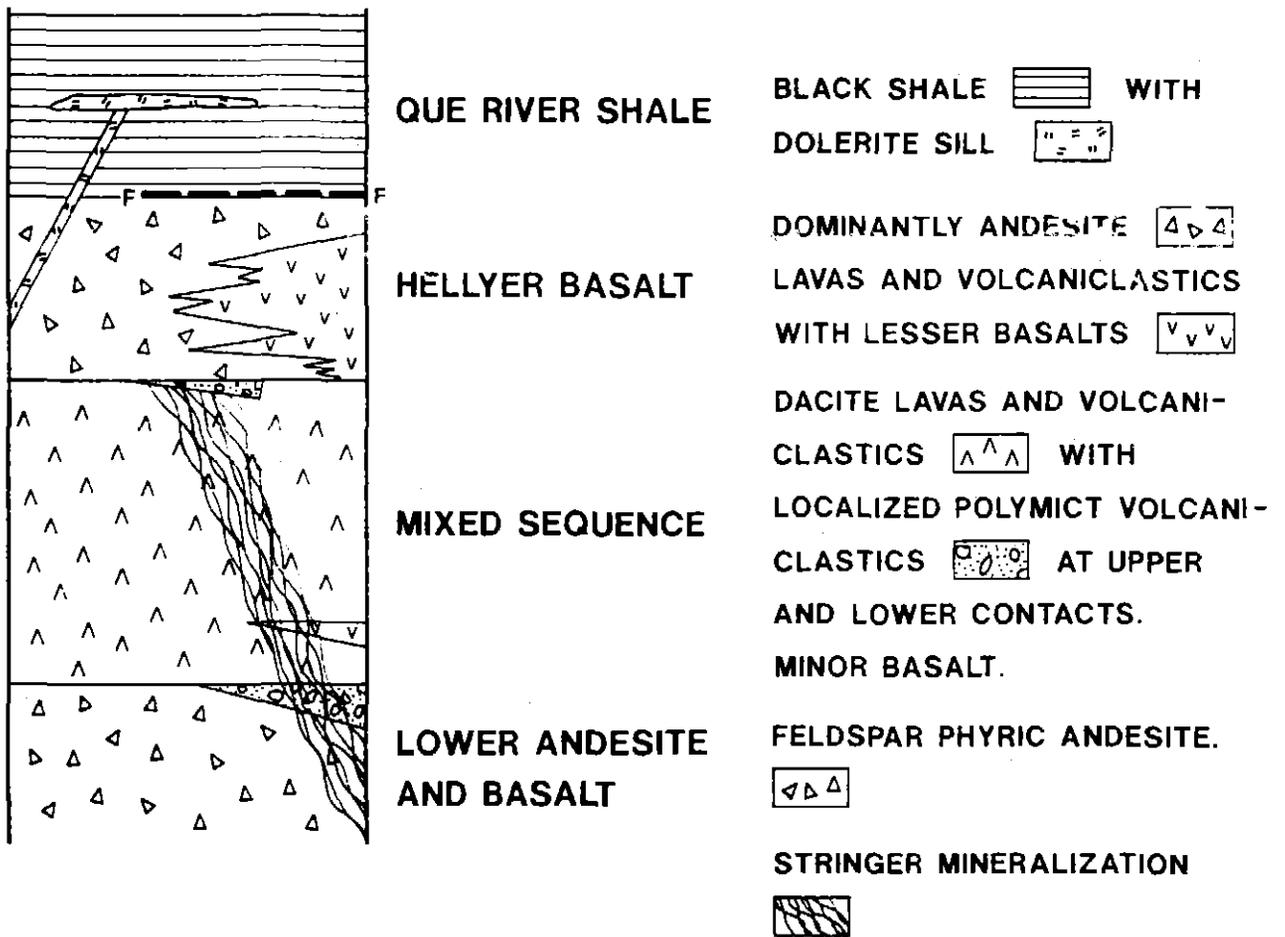
Intercalated with the andesite and overlying dacite unit are interbeds of polymict volcanoclastics. These polymict volcanoclastics are generally lapilli sized but clasts are noted to 10cm, as are bedded ashy units. Individual polymict units reach a maximum thickness of 8m in DDH MAC26.

As indicated, a dacite sequence comprising lavas with a lesser clastic component, overlies the lower andesitic sequence.

The dacites are typically buff to orange brown, massive and weakly porphyritic lavas with occasional flow boundary textures. In thin sections they are composed of common plagioclase phenocrysts with rare euhedral quartz phenocrysts within a fine grained matrix. Clastic equivalents are common as autoclastic and hyaloclastic varieties.

FIGURE 5.

SCHEMATIC STRATIGRAPHIC COLUMN - MT. CHARTER



Apparent breccia textures are common throughout the lavas where fracturing of the massive lavas has enabled migration of hydrothermal fluids and subsequent filling and replacement by mineralisation. There has been little or no rotation of the breccia fragments.

In MAC26 several units of intercalated basalt occur just below the core and near the base of the dacite. This association of basalt within dacite near or at its base is known at Que River and near the Switchback.

From MAC26, the dacite unit is seen to exceed 600m in thickness.

Immediately overlying the dacite unit but intersected in one hole only (MAC23), is a 12m thick unit of ash to lapilli sized polymict volcanoclastic where some of the finer units are well bedded.

The package of rocks which is dominated by dacite but includes the polymict volcanoclastic units and basaltic units is correlated with the Mixed Sequence, host to the Que River and Hellyer deposits.

Overlying the dacite unit are andesite lavas and minor volcanoclastics. These rocks are generally green, due to a weak pervasive chlorite alteration, and are feldspar porphyritic. In thin section the andesites comprise plagioclase and clinopyroxene phenocrysts in a fine feldspathic groundmass, typical of the Que River andesites. These rocks correlate in stratigraphic terms with the Hellyer basalt unit, which south of the Que Fault is dominated by andesite.

In faulted contact with the andesite at Mount Charter but conformable elsewhere at Mackintosh is the overlying Que River Shale. This unit is a sequence of black shales with minor sandstones that hosts Upper Middle Cambrian fossil fauna. In the vicinity of Mount Charter the QRS is 250+m thick and hosts a dolerite sill of at least Devonian age.

6.3.2 Alteration

The most intensely altered rocks at Mount Charter are the dacites. Alteration within these rocks comprises predominantly sericite-pyrite-silica with minor carbonate-chlorite alteration. Hydrothermal alteration also occurs in the overlying andesite but decreases in intensity away from the contact with dacite.

Sericite is the most abundant and widespread alteration mineral, occurring as laths throughout the groundmass in all dacitic rocks and extending into the overlying andesite.

Pyrite is also widespread within dacitic rocks but is generally associated with the moderately to intensely sericite altered rocks. Pyrite generally occurs as fine euhedra disseminated throughout the dacite groundmass and as veins, often associated with base metal mineralisation.

The sericite-pyrite alteration is considered by Rand (1988) to predate the silica alteration which occurs as fine grained quartz in the groundmass and as veins and veinlets.

The silica alteration is interpreted on limited drilling data, to form a core zone, spatially associated with the strongest mineralisation.

Lesser alteration styles include carbonate, which occurs as calcite veins and patchy disseminations in the moderately altered dacitic rocks, and hydrothermal chlorite which is commonly associated with the calcite. The carbonate chlorite alteration does not occur in the most intensely altered rocks and is considered to form an outer halo around the core zone.

Other minor alteration includes the "white" K-feldspar alteration which occurs as cloudy white patches throughout the rock. This alteration is similar to that observed in the precious metal zone at Que River. The K-feldspar alteration in the groundmass is observed in thin section to be replacing plagioclase and is itself extensively altered to sericite.

Albite occurs as irregular veins in the groundmass of dacitic rocks and is a late hydrothermal phase. It generally occurs in weakly sericite pyrite altered rocks.

Weak pervasive chlorite alteration is common in the andesites and is a very late alteration phase.

The hydrothermal alteration in the dacitic unit at Mount Charter is similar to footwall alteration at both Que River and Hellyer. The most intense alteration comprises sericite-pyrite-silica in a central core surrounded by weak chlorite carbonate alteration. The most significant mineralisation is associated with the core alteration.

6.3.3 Structure

The rocks in the Mount Charter area strike at around 135° grid and dip (-55°) moderately to the south west. The only significant structure in the area is the faulted contact between the shale and andesite which is strike parallel. The sericite-pyrite altered dacite forms an outcropping body (see Plate MAC347) approximately 1km long and varying from 100 to 250m in width and extends down dip under andesite cover to the south west.

6.3.4 Mineralisation

Mineralisation associated with the Mount Charter hydrothermal system occurs dominantly as stringer veins and disseminations of pyrite and baryte with minor base metals. In addition, a zone of semi-massive to massive baryte occurs at the top of the main mineralising system and appears to be conformable with the enclosing rocks.

Where mineralisation becomes most intense, sulphide-baryte veins up to 10cm thick occur at spacings of 20-30cm. These veins commonly host base metal mineralisation which in order of abundance comprise sphalerite, galena, tennantite and minor chalcopyrite.

Sphalerite is the second most abundant sulphide at Mount Charter and generally occurs as coarse grains up to several centimetres associated with pyrite-baryte veins. It also occurs as minor disseminations in the altered host rock.

Significant mineralogical features include mauve alteration rims and very low iron contents of the sphalerite.

The mauve alteration rims common on sphalerite grains and apparent in transmitted light, are the result of very fine blebs (<1mm) of chalcopyrite forming the classic "chalcopyrite disease".

The iron content of sphalerite at Mount Charter has been determined by microprobe and averages around 0.4 wt %. This contrasts with around 3.0 wt % for sphalerite at Que River and Hellyer. Low iron sphalerites indicate low temperature and high fS_2 hydrothermal conditions, conducive to the deposition of gold (Hannington & Scott, 1989).

Galena is widespread in the Mount Charter mineralised zone but is subordinate to sphalerite. It occurs as anhedral grains on sphalerite margins, as crack filling in pyrite and as intergrowths with chalcopyrite in tennantite.

The tetrahedrite-tennantite series minerals are common at Mount Charter and have a similar abundance to galena. The arsenic end member tennantite is by far the most abundant and considering the absence of arsenopyrite, undoubtedly accounts for the arsenic assayed in the mineralisation. Microprobe analyses of tennantite give silver contents in the range 0.12 to 1.5 wt % and logically account for the silver grades at Mount Charter.

Gold, observed in polished section from Mount Charter, occurs as electrum in a range from sub-micron to 120 X 40 micron. The average grain diameter is around 13 microns.

Electrum occurs as either free grains, usually on the boundary of pyrite and galena, sphalerite, chalcopyrite or tennantite grains or as blebs, wholly enclosed within pyrite grains. The free grains are usually larger than the enclosed grains.

Microprobe analysis of selected gold grains gives a range of fineness from 723 to 784 with values around 750 common.

Metallurgical testwork (see section 11) indicates that around 50% of the gold is not cyanide available and is probably locked in pyrite as submicroscopic grains or in solid solution.

Baryte is found throughout the strongly mineralised zones and occurs as large grains to 2cm associated with fine grained quartz in veins and also disseminated in the groundmass.

Baryte is a late stage mineral and commonly occurs in the centre of veins surrounding brecciated pyrite veins and also occurs in cracks in most ore minerals. Veins with fine grained quartz margins and large baryte grains in the core can be seen cross cutting most other mineralisation styles.

The area mapped on surface as baryte (Plate MAC347) comprises patches of massive baryte but is predominantly an altered volcanic rock with strong baryte veining and vugh fill. The massive baryte in outcrop is iron-stained and coarsely crystalline. The rock is strongly cleaved (dip 80° to 252° grid) with limonitic banding highlighting the cleavage. No non-equivocal bedding has been observed.

The only intersection of massive baryte in diamond drilling is in MAC26 where an interval of 17.6m at a shallow depth averaged 43% Ba or 73% baryte. This intercept is in the stratigraphic footwall to the surface baryte zone and cannot be correlated with it. The best gold intersection on the prospect, 7.9m at 3.6 g/t Au, occurs within this zone.

6.3.5 Genesis

Base and precious metal mineralisation at Mount Charter has formed by the precipitation of metals from seawater dominated hydrothermal fluids into veins and disseminations. The seawater character of these fluids is demonstrated by the sulphur isotope values of the sulphide species minerals which generally have a ^{34}S range of 8 to 18.

The low iron content of sphalerite at Mount Charter is indicative of low temperature conditions and along with the abundance of baryte in the system may indicate dilution of the hydrothermal fluid by seawater within the near sea floor footwall domain of the system. This would imply a greater permeability of the footwall rocks at Mount Charter than those at either Que River or Hellyer and may be accounted for by quench fracturing of the relatively massive and silic dacite lava. These fractures, now vein filled would provide ideal conduits for invasion by seawater and are likely the dominant control on gold mineralisation.

This model would account for the lack of a massive sulphide lens at the water rock interface capping such a significant hydrothermal system because the metals had precipitated within the footwall rocks prior to venting of the fluids on the sea floor.

Equally plausible is a model whereby a massive sulphide lens had formed at the Que River position capping the underlying andesite. Eruption of the dacite buried this sulphide lens but convection of the hydrothermal cell continued with fluid flow through the massive sulphide lens. Work by Eldridge shows that the elements more amenable to redissolution and mobilisation are Ba, Au and Ag. This would account for the high Ba, Au, Ag content relative to Pb, Zn for the Mount Charter system. It is interesting to note that Cu, which is the least mobile element occurs at half the abundance, relative to Pb-Zn at Mount Charter, compared to Que River and Hellyer.

Any sulphide lens occurring at the lower dacite-andesite contact is likely to be depleted in Au and Ag but enriched in Cu, relative to Pb-Zn.

The baryte pod, capping the Mount Charter mineralisation is interpreted by Rand (1988) to be a replacement body whereby baryte was preferentially deposited at the contact, between overlying impermeable andesite lavas and underlying permeable dacitic rocks. This model can account for the sericite pyrite alteration evident along the stratigraphic contact.

The VMS model where baryte forms as a semi-massive to massive lens on or near the sea floor cannot be discounted.

7. WORK COMPLETED

Systematic exploration of the Mount Charter prospect has been in progress since the discovery of Que River in the early 1970's. Previous workings in the area had exposed baryte outcrops which were associated with pyrite-sericite-silica altered volcanics.

Exploration has been primarily oriented toward discovery of massive sulphide deposits.

7.1 Geochemistry

The Mount Charter prospect area has been extensively C horizon soil sampled. Samples were collected at 25m spacings on 100m spaced lines and analysed for Cu, Pb, Zn, Ag, Au, Ba, As, Cr, Ti and Zr. Colour image plots at 1:2500 scale for the first seven elements are held on file as Plates MAC 238A-G.

Metal anomalies are evident near or over the Mount Charter mineralisation for Pb, Ag, Au, As and Ba with Ag and Au showing the closest correlation with known mineralisation.

7.2 Geophysics

The prospect area was surveyed in 1976 with 25m dipole-dipole IP on 100m spaced lines. This survey identified a north south trending frequency effect anomaly, now known to be related to the stringer sulphide zone at Mount Charter.

In 1979 a deep penetrating EM system (UTEM) was trialled as a regional survey technique over the Mount Charter prospect area. This survey detected two north-south trending low-resistivity zones, one of which coincides with the known mineralisation while the other lies just west of the current drilling.

No anomalies attributable to massive sulphides were detected.

7.3 Drilling

Eight diamond drill holes have been drilled at Mount Charter for a total of 2,628.2 metres.

Drilling has tested various geophysical and geological targets in five phases of drilling. All but one drill hole (MAC23) were designed to test for massive sulphide deposits.

Drilling commenced at Mount Charter in 1976 when MC1 (195.5m) and MC2 (187.4m) were drilled to test a north-south trending frequency effect anomaly. Both holes intersected alteration and mineralisation similar to that in the footwall at Que River.

Diamond drill hole MC3 (260.4m) was drilled in 1978 to test the down dip extension of the massive baryte-pyrite mineralisation exposed by costeaning at Mount Charter. Drilling intersected similar alteration and mineralisation to that in MC1 and MC2.

Re-interpretation of the geology at Mount Charter (Hespe, 1984) indicated that the stratigraphy was striking north-west, south-east and dipping moderately to the south west. The implication of this interpretation was that down dip potential along the interpreted host horizon (andesite-dacite contact) existed to the south west. Three diamond drill holes MC5 (299.8m), MC6 (319.1m) and MC8 (235.3m) were drilled in a north easterly direction to test this position during 1984. MC5 and MC8 intersected the interpreted host horizon which contained no significant mineralisation and were terminated in sericite-pyrite altered dacite. MC8 failed to reach the andesite-dacite contact and stopped in andesite.

Recognition of the potential of the Mount Charter mineralised system to host a large tonnage low grade gold resource encouraged the drilling of MAC23 (280.0m) to test variations in gold grade with stratigraphic level in the mineralised system. The hole was drilled in 1989 and intersected similar mineralisation to that encountered in previous MC1, 2 and 3.

A further hole, MAC26 (850.7m), was drilled in 1990, to test the concept that base metal mineralisation in stringer veins at Mount Charter may have been remobilised from a massive sulphide deposit at depth beneath the dacite. This position would be stratigraphically closer to the Que River and possibly Hellyer host positions.

The hole was successful in intersecting host type lithologies, i.e. epiclastics and basalt, near the base of the dacite but no massive sulphides were intersected. Precious metal mineralisation was intersected in the dacite as in previous drill holes.

7.4 Research

The Mount Charter prospect was subject to study by honours student Sven Rand and formed the basis of his thesis (Rand, 1988). The major part of the alteration and mineralisation mineralogy described in this report is based on that work.

A small research project undertaken by R. W. Henley (Henley, 1990, 1991a and 1991b) investigated potential geochemical indicators of metal mobilisation from a deep massive sulphide source at Mount Charter. Results are equivocal and further work has been recommended.

8. ASSAYING

The data set used in this assessment is attached as Appendix I.

Assays have been determined on three sample types, being 1. continuous rock chips from outcrops/costeans, 2. ground drill core and 3. half sawn core.

The continuous rock chip samples have been entered in the data base as individual drill holes with the prefix RO. These samples have been used in the 825 level estimate only.

The majority of the samples used in this assessment are core grinds. This technique uses a diamond studded wheel to grind off a fillet of core to produce a ground subsample. While the ground subsample is much smaller than sawn core it is not thought to introduce any bias in the sample method.

Sawn core samples are simply samples cut in half by a core saw. Small intervals that would not produce enough sample by a single core grind pass, are generally sawn, DDH MAC23 which was drilled as a precious metal resource test, was entirely sawn.

All assaying was carried out by the commercial laboratory Analabs in Burnie.

Cu, Pb, Zn and Ag were determined by method 101 which is a perchloric acid digestion followed by an AAS finish. Where Pb exceeded 5000 ppm, Zn 1% and Ag 20 ppm then method 104 (total acid digestion) was used. Au was determined by method 309, a fire assay fusion of a 30g charge followed by an AAS finish.

Ba was determined by a pressed powder XRF technique (method 401), except where concentrations exceeded 4000 ppm and glass fusion XRF was used.

As a matter of course a blind standard sample was submitted to the laboratory, on average every 25 samples. Unfortunately this sample contained below detection limit gold and could not therefore be used as an assay check for gold. It did however indicate that gold contamination was not a problem.

To check confidence in Analabs assaying technique, 14 samples were sent to ALS and Classic Comlabs for Au determination.

Results are given as x y plots in Figures 6 and 7, for ALS compared to Analabs, and Classic Comlabs compared to Analabs respectively. In general there appears to be good agreement between Analabs and ALS and the variance of the sample pairs is calculated to be 0.066. The variance of the Analabs-Classic Comlabs pairs is 1.597, reflecting the divergence of the x y plots away from the 45° line.

The fact that the Analabs-Classic Comlabs plot is defined by a relatively tight straight line however, indicates good correlation of the data quantified by a correlation co-efficient of 0.987. It is apparent that there is a constant negative bias in the Classic Comlabs determinations that can be corrected by applying a constant of $k=2.5$.

In summary the small variance between the Analabs and ALS data gives a high level of confidence in the gold assays used in the estimate.

Figure 6
ANALABS vs ALS

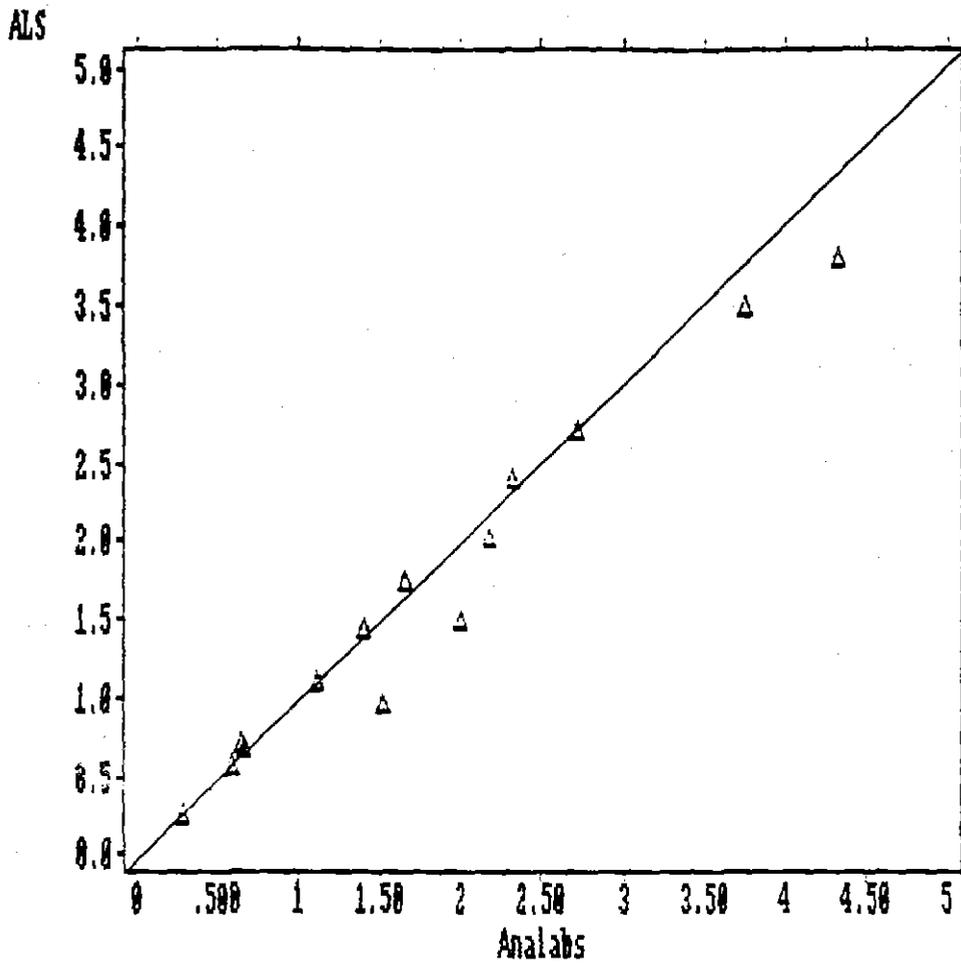
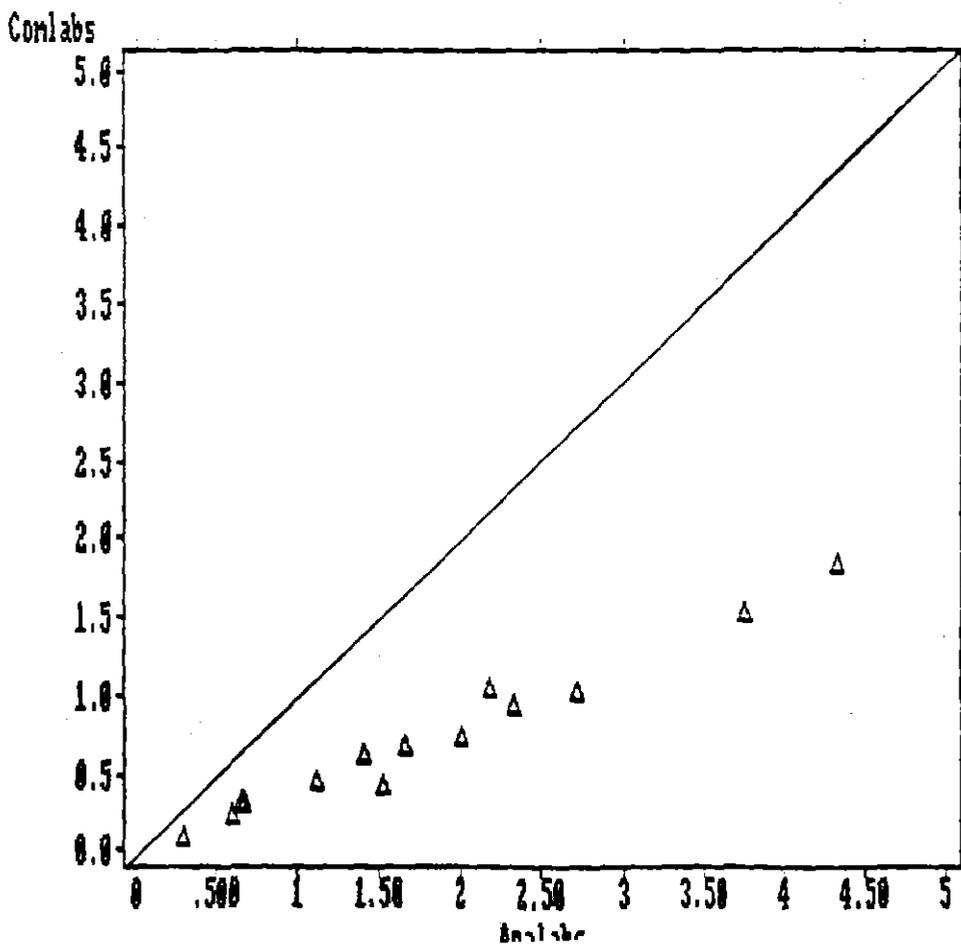


Figure 7
ANALABS vs CONLABS



9. DATA ANALYSIS

A total of 231 samples comprises the data set used in this assessment. Of these 57 are core grinds, 80 are sawn core and 94 are continuous rock chips (Appendix I).

A statistical analysis of the data set has been undertaken using the programmes PROBPLOT, for examining frequency distributions, and MVREG to calculate correlation co-efficients.

Histograms showing the frequency distributions of the arithmetic and natural logarithm transformed data are attached as Appendix II.

The data for Cu, Pb, Zn and Ag show highly positively skewed distributions for the arithmetic data and reasonable approximations of a normal distribution for the natural logarithm transformed data, particularly, for Cu.

Barium however shows a similar pattern for the lower 50% of the population (i.e. up to 9% Ba) but appears to be randomly distributed from 9 to the stoichiometric maximum of 58%. The log transformed data has a significantly negatively skewed distribution.

Gold is the only element to exhibit anything like a normal distribution for the arithmetic data. A tail from 2.5 g/t to 4.4 g/t gives the distribution a quantified skewness of 1.6 but this tail is relatively insignificant when compared to the populations of other gold deposits where outliers of several hundreds of g/t are common. This distribution gives confidence that the Au grade estimate using the arithmetic mean of length weighted samples is not significantly biased.

The log transformed data also gives a reasonable normal distribution but with a negative skewness.

A probability plot of this log transformed Au cumulative frequency distribution is closely matched by a single population theoretical cumulative frequency distribution model as shown in Appendix II.

A correlation coefficient matrix for the six elements is shown in Table 1 below:

Table 1
Correlation Coefficient Matrix

	Cu	Pb	Zn	Ag	Au	Ba
Cu	1.0000	0.5782	0.6782	-0.0746	0.1714	0.0247
Pb	0.5782	1.0000	0.7879	0.0296	0.0889	0.0530
Zn	0.6782	0.7879	1.0000	-0.0519	0.0640	-0.0098
Ag	-0.0746	0.0296	-0.0519	1.0000	0.4493	0.5642
Au	0.1714	0.0889	0.0640	0.4493	1.0000	0.5831
Ba	0.0247	0.0530	-0.0098	0.5642	0.5831	1.0000

The base metal elements Cu, Pb and Zn demonstrate reasonable correlation with each other, with correlation coefficients ranging from 0.58 for Cu-Pb to 0.79 for Pb-Zn. These elements showed no correlation with the remaining elements Ag, Au and Ba.

The precious metals and Ba as a group, also demonstrate reasonable correlation with coefficients ranging from 0.45 for Ag-Au to 0.58 for Ba-Au. As expected from mineralogical associations there is an association between baryte (and therefore pyrite) and gold, quantified by the statistics.

As an exploration guide, Ba and Ag soil anomalies would be better Au indicators than Pb or Zn anomalies.

It is apparent from the level grade estimates in Section 10, that gold grades decrease with depth. The maximum grade is 1.3 g/t in the uppermost level while the minimum grade of 0.6 g/t comes from the lowest level estimated.

The rate of grade decrease however, decreases with depth. This would suggest that significant volumes of +0.5 g/t mineralisation exist below the level of estimation.

Barium has a similar distribution to gold.

Lead and zinc have no discernible distribution patterns.

10. RESOURCE ESTIMATION

The tonnes and grades were estimated using the ore resources option in Aberfoyle's DHS data management system.

10.1 Specific Gravity

No density measurements have been made on the Mount Charter mineralisation. The specific gravity used in tonnage calculations has been estimated by weighting the density of constituent minerals by their relative abundance as shown in Table 2. This technique is best applied to massive sulphides where there is little or no gangue but will suffice for the purposes of this assessment.

Table 2
Relative Mineral Abundance

Element	wt%	Mineral	wt% (M)	SG	Volume (V)
Cu	0.03	CuFeS ₂	0.09	4.2	.0214
Pb	0.32	PbS	0.37	7.5	.0493
Zn	0.58	ZnS	0.86	4.1	.2098
Ba	13.45	BaSO ₄	22.86	4.5	5.0800
Fe		FeS ₂	10.00 ¹	4.9	2.0408
		Gangue	65.82	2.7 ²	24.3778
			100.00		31.7791

$$\begin{aligned}
 \text{SG} &= \frac{\text{M}}{\text{V}} \\
 &= \frac{100}{31.7791} \\
 &= 3.15 \text{ t/m}^3
 \end{aligned}$$

1. Estimated from Fe assay in metallurgical head.
2. Gangue assumed to be sericite, silica.

In the event that further work is justified on this property, physical S.G. determination will be necessary. A small negative bias in the S.G. estimation is possible by the assumption of a lower end S.G. from the sericite range of 2.7 to 3. Any bias would be well within the errors of drawing mineralisation boundaries.

10.2 Tonneage

The estimation technique used in this assessment is a level plan method.

A 0.5 g/t Au limit was drawn manually around the mineralisation on level plans at 50m vertical intervals (Plates MAC342-346). A polygon was digitised to approximate the +0.5 g/t Au boundary of the mineralisation.

The tonnage was then calculated for each level by multiplying the polygon area by the thickness (50m, except for level 825, 37m) and the SG (3.15).

10.3 Grade

The average grade for each level volume is simply estimated by averaging all assays within the polygon boundary, weighted for sample length. No assays have been cut as the assay distribution for Au has no significantly erratic highs. The overall grade is calculated by weighting the grade of each level volume by the tonnes then dividing by the total tonnes.

Because a global S.G. was used in calculating the tonnage, levels with a high Ba content will have their tonnages underestimated and vice versa for low Ba levels. As high Ba is associated with high Au a negative bias is apparent in the overall gold grade. This is not considered significant in the context of this assessment.

10.4 Resource Category

Although significant mineralisation has been identified at Mount Charter, the data available does not meet the conditions specified in the AusIMM and AMIC code for the reporting of identified mineral resources. As is apparent in the appended plans, continuity of +0.5 g/t Au mineralisation is not demonstrated by the existing data, with the exception perhaps of the 825 level which includes the surface rock chip sampling. Limits to the mineralisation are also poorly constrained especially on the interpreted eastern margins.

It is because of this low sample density that the mineralisation has been categorised as Pre-Resource Mineralisation.

The uncertainty of estimation is related more to tonnes than grade. Because continuity between holes cannot be demonstrated below 825 level, pre-resource mineralisation tonnage is in the inferred category. The unconstrained northern and eastern margins of the mineralisation do not provide an upper limit.

The grade estimate is expected to be a reasonable approximation of the true grade.

10.5 Estimate Summary

A summary of the tonnes and grade by level is given in Table 3.

Table 3
Summary of Level Tonnes & Grades

Level	Tonnes	Number of Samples	Grade				
			Pb %	Zn %	Ag g/t	Au g/t	Ba %
825	3,630,000	109	0.3	0.4	35	1.3	25.1
775	3,610,000	23	0.5	0.8	7	1.0	8.8
725	3,030,000	39	0.1	0.5	13	0.7	5.1
Sub Tot	10,270,000	171	0.3	0.6	19	1.0	13.5
675	1,830,000	27	0.1	0.2	5	0.7	3.4
625	1,250,000	33	0.3	0.9	10	0.6	6.2
Sub Tot	3,080,000	60	0.2	0.5	7	0.7	4.5
Total	13,350,000	231	0.3	0.56	16	0.9	11.4

The estimate of pre-resource mineralisation at Mount Charter is:

13 Mt at 0.3% Pb, 0.6% Zn, 16 g/t Ag and 0.9 g/t Au.

Given that any development of this mineralisation would be by open cut mining, it is reasonable to quote the pre-resource mineralisation down to a likely pit depth say 700RL (137m below surface).

10 Mt at 0.3% Pb, 0.6% Zn, 19 g/t Ag and 1 g/t Au.

11. METALLURGY

A fifty metre section of drill core from MC1 (81-131m) was subjected to indicative gold and base metal recovery tests in the Burnie laboratory of Aberfoyle's Technical Services Division. The results of this work are reported in Glen, 1988.

The section tested contained 0.02% Cu, 0.18% Pb, 0.35% Zn, 9.0 g/t Ag, 0.8 g/t Au, 330 ppm As, 3.25% Fe and 5.7% Ba.

Three 2.0 kg lots of crushed core composite were subjected to flotation, heavy liquid separation and cyanidation tests to determine the basic metallurgical characteristics of Mount Charter type mineralisation.

11.1 Flotation

Testwork procedures and parameters are;

Preparation: 2.0kg feedstock ground 30 minutes
with a standard rod charge

Flotation: 5 litre cell impelled at 700 rpm

Reagents: Staged additions of CuSO_4 , PIAX and
MIBC. Lime was used for pH adjustment.

Flotation results shown in Table 4, indicate good amenability to sulphide separation into a gold rich dominantly pyritic concentrate.

TABLE 4
Flotation Results

Element	Concentrate Grade % (ppm)	Concentrate Recovery %	Upgrade Ratio
Cu	0.2	66	7.8
Pb	1.6	72	9.2
Zn	3.5	81	9.7
Ag	(55)	70	8.3
Au	(7.5)	81	9.6
Fe	23	61	7.2

These results at a grind of 80% passing -95 microns indicates good liberation of sulphides from gangue at a comparatively coarse size.

11.2 Heavy Liquid Separation

Sized fractions were separated in Tetrabromoethane (S.G. 2.96) and prepared by routine procedures. Sinks and floats for each fraction were weighed and analysed. Results are summarised in Table 5.

TABLE 5

Product	Distribution (%)								
	Wt	Cu	Pb	Zn	Fe	Ba	Ag	Au	As
Total Sinks	7.14	37.1	16.4	35.6	35.9	34.2	31.3	44.1	34.6
Total Floats	50.72	6.2	16.1	13.9	17.8	8.7	14.5	13.7	13.4
Fines (-38)	44.14	56.7	67.5	50.5	46.3	57.1	54.2	42.2	52.0

Heavy liquid analyses by size indicate substantial liberation of sulphides at the selected grind ($P_{80} = 95$ microns).

11.3 Cyanidation

Cyanidation tests were undertaken by the following method:

Charge: 500g (ground stock)
 Lixivant: 1000ml, 0.10% NaCN
 pH: 11-11.5, adjusted with lime
 Vessel: 1.8 litre agitated pachuca
 Agitation: Single blade, 180 rpm, 24 hours
 CN availability: Ag NO_3 titration

Results are given in Table 6.

TABLE 6

Test	Liquor Au ppm*	Final Vol. (ml)	Residue Au ppm	Calc Head Au ppm	Assay Head Au ppm	Recovery Au (%)
1	0.231	985	0.450	0.904	0.781	50.2
2	0.210	975	0.413	0.823	0.840	49.8
3	0.205	980	0.455	0.857	0.840	46.9
4	0.060	990	0.095	0.214	0.189	55.6

Tests 1, 2 and 3 were ground feed. Test 4 was Flotation Test 1 tailing.

Cyanidation results indicate reasonable amenability to gold uptake with an average gold recovery of 49% to liquor from ground feed stock. Separation by flotation into pyritic concentrate and tailing (with 22.3% and 25.6% of gold and arsenic to tail) and subsequent leaching of tail yielding some 56% to liquor.

11.4 Summary

The metallurgical testwork indicates the gold to be associated with sulphides, possibly arsenopyrite.

Gold recovery by flotation to a bulk sulphide concentrate is relatively high although fine grinding would be required for recoveries over 90%.

Only half the gold is cyanide available at a coarse grind indicating the presence of very fine occluded gold.

274067

12. EXPLORATION POTENTIAL

Significant potential is apparent at Mount Charter to identify additional mineralisation of similar tenor. There is no evidence to suggest that potential exists for significant tonnages of higher grade and/or metallurgically simple mineralisation.

Potential is identified in three areas which are listed in order of significance:

1. Extensions to known mineralisation

The northern and eastern limits of the mineralisation drawn for this assessment are not constrained by drilling. Potential exists to extend the pre-resource mineralisation by drill testing beyond these limits.

2. West Charter

Analysis of "C" horizon soil samples at Mount Charter indicate co-incident Au, Ag, Ba anomalies west of the identified mineralisation. These anomalies are located within hangingwall andesite rocks and alluvial boulders of baryte are known in this area. Costeaning has identified insitu baryte pyrite mineralisation within the andesites so at least some of the anomalism must be attributed to bedrock sources. Further costeaning is required to define the limits of insitu anomalism prior to drill testing.

274068

3. Mount Charter Alteration Zone

The Mount Charter alteration zone extends north west from the known mineralisation for approximately 900m. The zone is 100 to 250m wide and dips to the south west below andesite. Pyrite mineralisation is variably recorded in outcrop within this zone.

Potential for additional gold mineralisation is greatest down dip within the altered dacite near the contact with overlying andesite. DDH MC4 drilled in the far north west of the zone intersected 10m at 0.69 g/t Au indicating some potential in the stratigraphic footwall.

274069

13. RECOMMENDATIONS

The Pre-Resource Mineralisation identified is clearly uneconomic at current metal prices and with known extractive technologies. Potential to locate higher grade mineralisation appears limited.

It is recommended that no further work be carried out on the precious metal potential of the prospect unless economics and/or technologies improve sufficiently to justify further evaluation.

14. REFERENCES

- Corbett, K. D., 1992. Stratigraphic-Volcanic Setting of Massive Sulfide Deposits in the Cambrian Mount Read Volcanics Economic Geology Vol 87 in press.
- Glen, J. R., 1988. Preliminary Metallurgical Testing of Mount Charter Prospect. Aberfoyle Resources Ltd., Technical Services Division.
- Hannington, M. D., and Scott, S. D., 1989. Sulfidation Equilibria as Guides to Gold Mineralisation in Volcanogenic Massive Sulfides : Evidence from Sulfide Mineralogy and the Composition of Sphalerite. Economic Geology Vol. 84 No 7 p. 1978-1995.
- Henley, R. W., 1990. Pt. 1. Exploration Research in the Mount Read Volcanics, Tasmania. Epithermex International report for Aberfoyle Resources Ltd.
- Henley, R. W., 1991a. Pt. 2. Exploration Research in the Mount Read Volcanics, Tasmania. Epithermex International report for Aberfoyle Resources Ltd.
- Henley, R. W., 1991b. Pt. 3. Exploration Research in the Mount Read Volcanics, Tasmania. Epithermex International report for Aberfoyle Resources Ltd.
- Rand, S. W., 1988. Geology and Mineralisation at Mount Charter. Unpublished Honours Thesis. University of Tasmania.
- Hespe, A. M., 1984. Hatfield Exploration Licence 15/73 Tasmania. Internal Progress Report for the Period 28 May 1984 - 25 December 1984. Aberfoyle Resources Ltd. Report No HATFIELD 5A.

Waters, J. C. and Wallace, D. B., 1992. Volcanology and Sedimentology of the Host Succession to the Hellyer and Que River Volcanogenic Massive Sulfide Deposits, Northwestern Tasmania. Economic Geology Vol 87 in press.

Young, C. H. and Paterson, R. G., 1992. Guidelines for the Preparation of a Resource Report for an Identified Mineral Resource. Unpublished report Aberfoyle Resources Ltd., Exploration Division.

APPENDIX 1

Mount Charter Data Set

274073

Hole No.	From	To	Number	Type	Cu	Pb	Zn	Ag	Au	Ba
DDMA0023	.00	3.00	515489	SCOR	125	1325	2450	18.00	.733	3.70
DDMA0023	3.00	6.00	515490	SCOR	160	1750	3400	23.00	1.110	5.93
DDMA0023	6.00	9.00	515491	SCOR	190	1075	1800	20.00	.854	2.66
DDMA0023	9.00	12.00	515492	SCOR	85	375	1350	15.00	.624	3.91
DDMA0023	12.00	14.80	515493	SCOR	75	150	535	10.00	.726	1.44
DDMA0023	14.80	15.80	515494	SCOR	220	11500	425	26.00	1.250	3.96
DDMA0023	15.80	16.80	515495	SCOR	155	17500	190	15.00	.525	3.20
DDMA0023	16.80	19.90	515496	SCOR	205	625	530	10.00	1.120	5.92
DDMA0023	19.90	22.90	515497	SCOR	100	50	560	6.00	.596	2.94
DDMA0023	22.90	25.90	515498	SCOR	90	125	780	6.00	.293	2.05
DDMA0023	59.00	61.00	515511	SCOR	370	30	1250	2.00	.420	5.64
DDMA0023	61.00	62.00	515512	SCOR	225	<5	185	1.50	.342	16.90
DDMA0023	62.00	63.00	515513	SCOR	3650	13500	24600	12.00	.854	38.10
DDMA0023	63.00	64.00	515514	SCOR	1350	11000	23600	6.00	.538	33.40
DDMA0023	64.00	65.00	515515	SCOR	470	55	8400	6.00	.755	16.20
DDMA0023	65.00	68.00	515516	SCOR	170	40	355	5.50	.373	2.21
DDMA0023	68.00	70.00	515517	SCOR	90	<5	75	6.00	1.000	2.93
DDMA0023	70.00	72.00	515518	SCOR	75	<5	125	2.50	.435	2.75
DDMA0023	72.00	73.00	515519	SCOR	40	5	95	3.00	.509	1.12
DDMA0023	73.00	76.00	515521	SCOR	80	15	390	2.50	.412	2.56
DDMA0023	76.00	78.00	515522	SCOR	485	1175	2550	18.00	.578	4.30
DDMA0023	78.00	81.00	515523	SCOR	130	80	3450	7.50	.495	2.76
DDMA0023	102.00	105.00	515532	SCOR	90	15	215	2.00	.315	.86
DDMA0023	105.00	108.00	515533	SCOR	95	15	1000	2.00	.394	1.44
DDMA0023	108.00	110.00	515534	SCOR	170	10	760	2.50	.483	1.32
DDMA0023	110.00	112.00	515535	SCOR	120	20	410	4.00	.468	3.60
DDMA0023	112.00	115.00	515536	SCOR	455	75	2550	6.00	.713	2.66
DDMA0023	115.00	118.00	515537	SCOR	70	160	690	3.00	.173	1.87
DDMA0023	118.00	121.00	515538	SCOR	80	60	530	2.50	.260	2.17
DDMA0023	121.00	124.00	515539	SCOR	85	245	830	4.00	.414	.91
DDMA0023	124.00	127.70	515540	SCOR	95	25	195	3.50	.284	1.33
DDMA0023	127.70	129.00	515541	SCOR	160	20	285	5.00	.255	5.41
DDMA0023	129.00	132.00	515542	SCOR	50	55	235	6.00	.527	.86
DDMA0023	132.00	134.00	515544	SCOR	55	55	160	4.00	.503	.75
DDMA0023	134.00	135.00	515545	SCOR	50	30	180	2.50	.437	.79
DDMA0023	135.00	136.00	515546	SCOR	1300	150	270	13.00	1.670	.95
DDMA0023	136.00	137.00	515547	SCOR	1950	375	225	12.00	1.630	.73
DDMA0023	137.00	138.00	515548	SCOR	2950	550	780	12.00	2.720	12.10
DDMA0023	138.00	139.00	515549	SCOR	1450	775	2450	13.00	1.650	54.20
DDMA0023	139.00	140.00	515550	SCOR	1850	250	1300	10.00	3.750	56.80
DDMA0023	140.00	141.00	515551	SCOR	380	425	270	13.00	2.320	19.20
DDMA0023	141.00	142.00	515552	SCOR	205	20	2150	5.50	.658	19.20
DDMA0023	142.00	143.00	515553	SCOR	115	20	590	4.50	.839	2.43
DDMA0023	143.00	145.00	515554	SCOR	65	30	185	2.50	.476	3.84
DDMA0023	145.00	148.00	515555	SCOR	45	15	125	4.00	.584	6.39
DDMA0023	148.00	150.00	515556	SCOR	30	15	150	2.00	.236	1.27
DDMA0023	174.70	178.00	515567	SCOR	100	65	1450	7.50	.450	2.82
DDMA0023	178.00	181.00	515568	SCOR	140	1125	2650	15.00	.492	1.49
DDMA0023	181.00	184.00	515569	SCOR	105	150	2350	7.00	.574	2.93
DDMA0023	184.00	186.00	515570	SCOR	145	40	2150	8.50	.895	2.75
DDMA0023	186.00	188.20	515571	SCOR	115	55	3000	7.50	.735	4.94
DDMA0023	188.20	190.00	515572	SCOR	120	100	345	4.00	.499	2.59
DDMA0023	190.00	193.00	515573	SCOR	105	50	1300	4.00	.508	2.66
DDMA0023	193.00	196.00	515574	SCOR	110	125	315	2.50	.276	1.29
DDMA0023	196.00	197.00	515575	SCOR	650	7600	14200	15.00	2.000	26.30
DDMA0023	197.00	198.00	515576	SCOR	585	19500	37400	25.00	2.180	35.40
DDMA0023	198.00	199.00	515577	SCOR	335	4100	9450	10.00	1.400	18.30
DDMA0023	199.00	202.00	515578	SCOR	170	60	630	2.00	.717	1.44
DDMA0023	202.00	205.00	515579	SCOR	100	110	295	2.00	.305	.45
DDMA0023	205.00	208.00	515580	SCOR	80	35	320	1.50	.338	1.55
DDMA0023	208.00	210.00	515581	SCOR	165	60	570	1.50	.416	.14
DDMA0023	210.00	213.00	515582	SCOR	405	60	225	1.50	.755	.15
DDMA0023	213.00	216.00	515584	SCOR	255	80	285	1.50	.680	.23
DDMA0023	216.00	219.00	515585	SCOR	375	40	3950	3.00	4.320	3.18
DDMA0023	219.00	222.00	515586	SCOR	400	80	155	2.50	1.520	.13
DDMA0023	259.00	262.00	515603	SCOR	90	205	3400	4.00	.238	1.64
DDMA0023	262.00	263.00	515604	SCOR	195	85	7450	6.50	.384	9.62
DDMA0023	263.00	268.00	515605	SCOR	385	3700	10500	7.00	.731	6.84
DDMA0023	268.00	271.00	515606	SCOR	265	280	6650	4.50	.502	2.17
DDMA0023	271.00	274.00	515607	SCOR	105	195	2650	2.00	.155	1.13
DDMA0023	274.00	277.00	515608	SCOR	215	170	6250	4.00	.390	4.56
DDMA0023	277.00	280.00	515609	SCOR	130	115	3400	2.50	.280	2.69
DDMA0026	.00	14.20	562416	cgri	295	4300	7050	38.00	1.408	21.90
DDMA0026	14.20	23.50	562417	cgri	215	3800	8800	28.50	1.380	17.00
DDMA0026	23.50	25.60	562418	cgri	610	7400	16400	29.00	1.460	40.70
DDMA0026	25.60	29.40	562419	cgri	435	6000	15200	51.50	1.850	20.80
DDMA0026	29.40	43.00	562420	cgri	805	9500	18400	32.50	1.508	42.50
DDMA0026	43.00	50.90	562421	cgri	525	10300	10100	26.00	3.560	44.00
DDMA0026	50.90	58.40	562422	cgri	795	8400	9000	18.50	1.450	6.20
DDMA0026	58.40	68.20	562423	cgri	45	75	815	2.50	.438	2.12
DDMA0026	68.20	73.30	562424	cgri	415	4400	8700	9.00	.690	6.93
DDMA0026	73.30	76.20	562425	cgri	3400	48500	71800	25.00	1.098	17.30
DDMA0026	76.20	85.20	562426	cgri	690	12700	19000	8.50	.595	6.48
DDMA0026	85.20	96.00	562427	cgri	510	8800	15600	7.00	.899	3.18
DDMA0026	96.00	98.50	562428	cgri	1800	19900	57800	13.50	2.300	2.80
DDMA0026	98.50	103.60	562429	cgri	515	8900	27700	6.50	.780	5.96
DDMA0026	103.60	106.20	562430	cgri	385	13100	10800	7.50	.634	6.49
DDMA0026	106.20	114.20	562431	cgri	230	895	2250	1.50	.432	.35
DDMA0026	114.20	124.40	562432	cgri	840	1550	6400	6.50	.704	3.68
DDMA0026	124.40	130.60	562433	cgri	290	12200	19500	4.00	.449	4.55

274074

DDMA0026	130.60	139.80	562434	cgri	95	145	2500	1.50	.319	2.58
DDMA0026	139.80	142.40	562435	cgri	230	25	1650	3.00	.449	4.41
DDMA0026	142.40	150.00	562436	cgri	565	400	2700	1.50	.330	1.34
DDMA0026	150.00	156.00	562437	cgri	180	655	1350	<.50	.210	.68
DDMA0026	156.00	169.70	562438	cgri	280	35	2300	1.50	.438	5.04
DDMA0026	197.40	202.30	562445	cgri	440	6800	15100	7.00	.949	4.85
DDMA0026	202.30	206.50	562446	cgri	570	3200	8500	6.50	.654	17.90
DDMA0026	206.50	209.80	562447	cgri	125	540	1800	1.00	.255	1.43
DDMA0026	209.80	212.20	562448	cgri	1005	4547	16200	22.00	.681	24.90
DDMA0026	212.20	215.80	562449	cgri	247	4538	5508	8.00	.399	.25
DDMA0026	215.80	217.00	562450	scor	1150	9700	30600	26.00	.996	7.70
DDMA0026	217.00	218.40	431363	scor	1950	12300	34500	9.50	.980	28.10
DDMA0026	218.40	220.00	431387	scor	1150	8000	17600	11.00	.706	3.30
DDMA0026	220.00	221.00	431388	scor	1300	9000	22400	5.50	.944	4.28
DDMA0026	221.00	222.00	431398	scor	2200	17100	26400	19.50	.625	2.24
DDMA0026	222.00	223.00	431399	scor	1150	17600	16000	25.00	1.065	10.80
DDMA0026	223.00	224.00	431400	scor	1250	19600	34400	22.50	1.463	13.20
DDMA0026	224.00	225.30	562460	scor	1150	17800	33100	21.00	.651	10.10
DDMC0001	71.00	81.00	427961	CGRI	170	250	1600	<.50	.772	3.74
DDMC0001	81.00	91.00	427962	CGRI	155	85	1450	<.50	.998	5.25
DDMC0001	91.00	101.00	427963	CGRI	275	215	5050	2.00	1.088	10.50
DDMC0001	101.00	111.00	427964	CGRI	165	280	5100	2.00	.834	6.40
DDMC0001	111.00	121.00	427965	CGRI	340	695	6750	9.00	.970	7.40
DDMC0001	121.00	131.00	427966	CGRI	170	445	3600	22.00	1.070	7.13
DDMC0001	131.00	141.00	427967	CGRI	190	170	5900	21.00	.747	6.71
DDMC0001	141.00	151.00	427969	CGRI	40	60	355	2.00	.365	1.44
DDMC0001	151.00	161.00	427970	CGRI	50	15	500	8.00	.517	2.41
DDMC0001	161.00	171.00	427971	CGRI	95	285	2075	59.00	1.177	9.32
DDMC0001	171.00	181.00	427972	CGRI	80	275	1600	54.00	.986	8.21
DDMC0003	173.10	178.10	427221	CGRI	615	<5	4750	35.00	.508	7.60
DDMC0003	178.10	183.10	427222	CGRI	435	<5	3650	3.50	.762	9.69
DDMC0003	183.10	188.10	427223	CGRI	200	<5	405	4.50	.838	1.15
DDMC0003	188.10	193.10	427224	CGRI	350	<5	640	2.00	.575	1.26
DDMC0003	193.10	198.10	427225	CGRI	300	<5	430	4.00	.451	1.12
DDMC0003	198.10	203.10	427226	CGRI	220	<5	2300	9.50	.500	5.55
DDMC0003	203.10	208.10	427227	CGRI	185	<5	2550	10.00	.600	7.94
DDMC0003	208.10	213.10	427228	CGRI	236	6000	13000	33.00	.547	11.56
DDMC0003	213.10	218.10	427229	CGRI	200	<5	5150	9.00	.166	5.59
DDMC0003	218.10	223.10	427230	CGRI	355	<5	4600	11.00	.639	7.60
DDMC0003	223.10	228.10	427231	CGRI	1400	15000	23500	20.00	.831	7.27
DDMC0003	228.10	233.10	427232	CGRI	580	10000	17000	9.00	.983	11.10
DDMC0003	233.10	238.10	427233	CGRI	400	350	6900	11.00	.617	2.10
DDMC0003	238.10	243.10	427234	CGRI	270	<5	400	6.00	.614	.71
DDMC0003	243.10	248.10	427235	CGRI	1000	<5	620	7.00	.802	1.02
DDMC0003	248.10	253.10	427236	CGRI	175	<5	1350	3.00	.449	3.68
DDMC0003	253.10	258.10	427237	CGRI	250	<5	2650	6.50	.503	2.62
DDMC0003	258.10	260.40	427238	CGRI	265	<5	1700	7.00	.785	5.22
ROMC2225	.00	1.00	562225	rock	80	2100	925	22.00	.695	29.90
ROMC2226	.00	1.00	562226	rock	55	1850	500	21.00	.915	19.60
ROMC2233	.00	1.00	562233	rock	80	2950	2200	50.00	1.035	15.70
ROMC2234	.00	1.00	562234	rock	150	2300	1800	63.00	.658	25.30
ROMC2235	.00	1.00	562235	rock	135	1275	1625	82.00	1.159	28.20
ROMC5157	.00	1.00	515157	rock	60	855	145	7.50	.635	10.00
ROMC5158	.00	1.00	515158	rock	20	60	960	176.00	2.110	49.80
ROMC5159	.00	1.00	515159	rock	355	80	3450	41.00	3.310	45.20
ROMC5160	.00	1.00	515160	rock	160	50	840	65.50	1.950	36.60
ROMC5161	.00	1.00	515161	rock	125	280	540	84.50	1.580	41.10
ROMC5166	.00	1.00	515166	rock	70	265	2750	133.00	1.010	36.70
ROMC5167	.00	1.00	515167	rock	80	290	140	66.00	1.225	26.90
ROMC5168	.00	1.00	515168	rock	235	8500	185	23.00	.741	22.20
ROMC5169	.00	1.00	515169	rock	185	9600	1300	45.00	1.470	30.20
ROMC5170	.00	1.00	515170	rock	45	30	670	18.50	.509	54.00
ROMC5171	.00	1.00	515171	rock	160	510	215	68.50	1.600	32.40
ROMC5172	.00	1.00	515172	rock	150	620	295	66.00	1.730	17.70
ROMC5173	.00	1.00	515173	rock	40	215	780	48.00	.545	27.50
ROMC5174	.00	1.00	515174	rock	110	1200	175	35.50	1.120	34.80
ROMC5175	.00	1.00	515175	rock	150	330	195	58.50	3.370	43.00
ROMC5176	.00	1.00	515176	rock	145	465	1400	39.00	1.100	46.70
ROMC5177	.00	1.00	515177	rock	430	505	3800	77.50	3.800	43.90
ROMC5178	.00	1.00	515178	rock	170	190	690	150.00	2.010	36.30
ROMC5179	.00	1.00	515179	rock	240	225	240	135.00	2.280	19.10
ROMC5180	.00	1.00	515180	rock	130	560	1400	17.50	1.340	10.00
ROMC5181	.00	1.00	515181	rock	205	185	490	46.00	.911	34.30
ROMC5182	.00	1.00	515182	rock	90	725	295	74.00	2.910	45.00
ROMC5183	.00	1.00	515183	rock	170	620	115	52.00	1.440	44.30
ROMC5184	.00	1.00	515184	rock	215	1200	75	49.00	2.000	28.20
ROMC5192	.00	1.00	515192	rock	85	455	145	24.50	2.000	13.40
ROMC5193	.00	1.00	515193	rock	65	350	125	1.00	.030	.40
ROMC5194	.00	1.00	515194	rock	150	470	95	5.50	.082	13.00
ROMC5195	.00	1.00	515195	rock	50	170	50	23.40	1.370	38.60
ROMC5201	.00	1.00	515201	rock	425	335	1700	10.00	1.210	4.50
ROMC5202	.00	1.00	515202	rock	525	215	5400	33.00	1.330	14.00
ROMC5203	.00	1.00	515203	rock	600	265	6550	29.00	1.260	22.50
ROMC5204	.00	1.00	515204	rock	15	25	45	10.00	.884	52.60
ROMC5205	.00	1.00	515205	rock	260	22500	250	15.00	1.490	14.50
ROMC5250	.00	1.00	515250	rock	150	2600	250	6.00	.924	15.80
ROMC5253	.00	1.00	515253	rock	100	350	2100	34.00	.925	49.10
ROMC5254	.00	1.00	515254	rock	450	3300	3650	24.00	1.090	23.20
ROMC5255	.00	1.00	515255	rock	50	1525	750	32.00	1.160	55.40
ROMC5256	.00	1.00	515256	rock	125	1825	1200	23.00	.783	7.30
ROMC5257	.00	1.00	515257	rock	80	1475	125	56.00	1.140	46.20
ROMC5262	.00	1.00	515262	rock	210	2375	3800	89.00	2.650	48.40

ROMC5263	.00	1.00	515263	rock	280	2700	3250	37.00	1.760	34.50
ROMC5264	.00	1.00	515264	rock	185	2050	2400	40.00	1.250	26.60
ROMC5265	.00	1.00	515265	rock	400	4275	5800	73.00	2.400	32.70
ROMC5266	.00	1.00	515266	rock	310	3500	2700	38.00	1.330	27.30
ROMC5267	.00	1.00	515267	rock	330	4250	3100	35.00	2.400	25.70
ROMC5268	.00	1.00	515268	rock	225	3675	5050	78.00	1.400	23.00
ROMC5269	.00	1.00	515269	rock	750	2575	1600	69.00	3.260	39.20
ROMC5301	.00	1.00	515301	rock	40	475	75	3.00	1.400	3.90
ROMC5302	.00	1.00	515302	rock	65	290	125	2.50	.348	3.30
ROMC5303	.00	1.00	515303	rock	<5	45	25	1.60	.308	1.60
ROMC5304	.00	1.00	515304	rock	120	4050	3050	160.00	2.090	50.00
ROMC5305	.00	1.00	515305	rock	190	22750	4200	39.00	1.090	27.60
ROMC5306	.00	1.00	515306	rock	45	1925	215	20.00	.926	25.90
ROMC5307	.00	1.00	515307	rock	65	1300	90	13.00	.745	41.50
ROMC5308	.00	1.00	515308	rock	170	3275	2400	20.00	.845	45.00
ROMC5309	.00	1.00	515309	rock	305	15100	170	76.00	1.080	30.40
ROMC5310	.00	1.00	515310	rock	85	1425	70	7.00	3.270	43.70
ROMC5315	.00	1.00	515315	rock	125	1775	75	81.00	1.890	43.20
ROMC5316	.00	1.00	515316	rock	5	150	150	3.00	.240	2.95
ROMC5317	.00	1.00	515317	rock	105	1575	595	11.00	.659	14.40
ROMC5318	.00	1.00	515318	rock	80	1700	1800	46.00	3.180	8.10
ROMC5319	.00	1.00	515319	rock	30	500	95	12.00	1.520	44.70
ROMC5320	.00	1.00	515320	rock	75	1025	850	31.00	.708	28.80
ROMC5321	.00	1.00	515321	rock	210	440	120	1.50	.045	.72
ROMC5328	.00	1.00	515328	rock	55	675	70	9.00	1.760	48.50
ROMC5329	.00	1.00	515329	rock	60	2150	310	11.00	1.480	26.90
ROMC5330	.00	1.00	515330	rock	210	5000	3750	14.00	1.890	57.10
ROMC5331	.00	1.00	515331	rock	10	1050	905	30.00	.750	14.60
ROMC5332	.00	1.00	515332	rock	60	440	65	1.00	.420	4.50
ROMC5333	.00	1.00	515333	rock	25	1950	65	12.00	3.700	31.40
ROMC5334	.00	1.00	515334	rock	285	130	1350	8.50	2.230	15.00
ROMC5335	.00	1.00	515335	rock	135	720	100	6.00	1.050	6.20
ROMC5336	.00	1.00	515336	rock	160	1200	1550	9.00	3.160	50.20
ROMC5337	.00	1.00	515337	rock	45	25	45	2.00	.481	35.80
ROMC5338	.00	1.00	515338	rock	350	3375	7750	14.00	2.740	46.20
ROMC5401	.00	1.00	515401	rock	115	1700	145	40.00	2.080	35.40
ROMC5402	.00	1.00	515402	rock	5	<5	35	67.00	1.280	46.70
ROMC5403	.00	1.00	515403	rock	40	20	80	21.00	1.420	47.70
ROMC5404	.00	1.00	515404	rock	430	80	2200	74.00	2.280	51.30
ROMC5405	.00	1.00	515405	rock	185	670	1500	70.00	1.070	19.70
ROMC5406	.00	1.00	515406	rock	45	190	85	43.00	.795	49.60
ROMC5407	.00	1.00	515407	rock	460	180	2500	51.00	1.350	30.70
ROMC5408	.00	1.00	515408	rock	25	450	50	73.00	1.530	48.90
ROMC5615	.00	1.00	265615	rock	75	1525	245	49.00	.681	13.80
ROMC5616	.00	1.00	265616	rock	90	2000	165	43.00	1.080	14.70
ROMC5617	.00	1.00	265617	rock	50	1325	125	22.00	1.010	28.70
ROMC5618	.00	1.00	265618	rock	95	1575	115	21.00	.795	17.40
ROMC5619	.00	1.00	265619	rock	50	925	125	15.00	.657	24.20
ROMC7846	.00	1.00	427846	rock	360	500	24000	30.00	1.850	38.96

274075

274076

APPENDIX 2

Mount Charter Assay Histograms

274077

SUMMARY STATISTICS and HISTOGRAM ARITHMETIC VALUES

Variable = Cu Unit = na N = 231
 Mean = 339.814 Min = 5.000 1st Quartile = 86.250
 Std. Dev. = 509.088 Max = 3650.000 Median = 170.000
 CV % = 149.814 Skewness = 3.673 3rd Quartile = 367.500

%	cum %	cls int	(# of bins = 24 - bin size = 158.478)
0.00	0.22	-74.239	
22.94	23.06	84.239	
41.56	64.44	242.717	*****
13.85	78.23	401.196	***** --> 55
7.36	85.56	559.674	*****
3.90	89.44	718.152	*****
1.73	91.16	876.630	**
0.87	92.03	1035.109	*
1.73	93.75	1193.587	**
1.73	95.47	1352.065	**
0.87	96.34	1510.543	*
0.00	96.34	1669.022	
0.43	96.77	1827.500	*
1.30	98.06	1985.978	**
0.00	98.06	2144.457	
0.43	98.49	2302.935	*
0.00	98.49	2461.413	
0.00	98.49	2619.891	
0.00	98.49	2778.370	
0.00	98.49	2936.848	
0.43	98.92	3095.326	*
0.00	98.92	3253.804	
0.43	99.35	3412.283	*
0.00	99.35	3570.761	
0.43	99.78	3729.239	*

0 1 2 3 4

Each "*" represents approximately 1.7 observations.

SUMMARY STATISTICS and HISTOGRAM LOGARITHMIC VALUES

Variable = Cu Unit = na N = 231
 Mean = 2.2541 Min = 0.6990 1st Quartile = 1.9356
 Std. Dev. = 0.4867 Max = 3.5623 Median = 2.2304
 CV % = 21.5903 Skewness = -0.0406 3rd Quartile = 2.5652

Anti-Log Mean = 179.532 Anti-Log Std. Dev. : (-) 58.542
 (+) 550.578

%	cum %	antilog	cls int	(# of bins = 24 - bin size = 0.1245)
0.00	0.22	4.332	0.6367	
1.30	1.51	5.771	0.7612	**
0.00	1.51	7.686	0.8857	
0.43	1.94	10.238	1.0102	*
0.00	1.94	13.636	1.1347	
0.43	2.37	18.163	1.2592	*
0.43	2.80	24.192	1.3837	*
1.73	4.53	32.223	1.5082	**
2.16	6.68	42.920	1.6327	***
6.93	13.58	57.168	1.7572	*****
5.63	19.18	76.146	1.8816	*****
12.12	31.25	101.424	2.0061	*****
9.52	40.73	135.093	2.1306	*****
11.26	51.94	179.938	2.2551	*****
12.12	64.01	239.671	2.3796	*****
7.36	71.34	319.233	2.5041	*****
8.23	79.53	425.207	2.6286	*****
6.49	85.99	566.360	2.7531	*****
3.90	89.87	754.371	2.8776	*****
1.73	91.59	1004.795	3.0021	**
3.46	95.04	1338.350	3.1266	*****
1.30	96.34	1782.634	3.2511	**
2.16	98.49	2374.403	3.3756	***
0.43	98.92	3162.618	3.5000	*
0.87	99.78	4212.491	3.6245	*

0 1 2 3 4

Each "*" represents approximately 1.7 observations.

SUMMARY STATISTICS and HISTOGRAM ARITHMETIC VALUES

274078

Variable = Pb Unit = na N = 231
 Mean = 2743.896 Min = 5.000 1st Quartile = 60.000
 Std. Dev. = 5557.350 Max = 48500.000 Median = 440.000
 CV % = 202.535 Skewness = 3.797 3rd Quartile = 2262.500

 % cum % cls int (# of bins = 24 - bin size = 2108.478)

 0.00 0.22 -1049.239
 62.34 62.28 1059.239 ***** --> 83
 15.15 77.37 3167.717 *****
 7.36 84.70 5276.196 *****
 1.30 85.99 7384.674 **
 3.46 89.44 9493.152 *****
 3.03 92.46 11601.630 *****
 2.16 94.61 13710.109 *****
 0.87 95.47 15818.587 *
 1.73 97.20 17927.065 **
 1.30 98.49 20035.543 **
 0.00 98.49 22144.022
 0.87 99.35 24252.500 *
 0.00 99.35 26360.978
 0.00 99.35 28469.457
 0.00 99.35 30577.935
 0.00 99.35 32686.413
 0.00 99.35 34794.891
 0.00 99.35 36903.370
 0.00 99.35 39011.848
 0.00 99.35 41120.326
 0.00 99.35 43228.804
 0.00 99.35 45337.283
 0.00 99.35 47445.761
 0.43 99.78 49554.239 *

 0 1 2 3 4

Each "*" represents approximately 1.7 observations.

SUMMARY STATISTICS and HISTOGRAM LOGARITHMIC VALUES

Variable = Pb Unit = na N = 231
 Mean = 2.5906 Min = 0.6990 1st Quartile = 1.7782
 Std. Dev. = 1.0181 Max = 4.6857 Median = 2.6435
 CV % = 39.3003 Skewness = -0.1706 3rd Quartile = 3.3544
 Anti-Log Mean = 389.570 Anti-Log Std. Dev. : (-) 37.366
 (+) 4061.562

 % cum % antilog cls int (# of bins = 24 - bin size = 0.1733)

 0.00 0.22 4.095 0.6123
 8.23 8.41 6.104 0.7856 *****
 0.00 8.41 9.099 0.9590
 0.43 8.84 13.562 1.1323 *
 4.76 13.58 20.214 1.3057 *****
 3.46 17.03 30.129 1.4790 *****
 2.16 19.18 44.908 1.6523 ***
 6.49 25.65 66.937 1.8257 *****
 3.90 29.53 99.771 1.9990 *****
 3.03 32.54 148.711 2.1723 *****
 7.36 39.87 221.656 2.3457 *****
 6.06 45.91 330.383 2.5190 *****
 6.93 52.80 492.443 2.6924 *****
 6.93 59.70 733.996 2.8657 *****
 3.03 62.72 1094.036 3.0390 *****
 6.93 69.61 1630.683 3.2124 *****
 6.06 75.65 2430.566 3.3857 *****
 3.90 79.53 3622.809 3.5590 *****
 5.19 84.70 5399.870 3.7324 *****
 2.60 87.28 8048.616 3.9057 ***
 5.19 92.46 11996.625 4.0791 *****
 4.76 97.20 17881.213 4.2524 *****
 2.16 99.35 26652.312 4.4257 ***
 0.00 99.35 39725.812 4.5991
 0.43 99.78 59212.131 4.7724 *

 0 1 2 3 4

Each "*" represents approximately 1.7 observations.

SUMMARY STATISTICS and HISTOGRAM ARITHMETIC VALUES

274079

Variable = Zn Unit = na N = 231
Mean = 4667.675 Min = 25.000 1st Quartile = 246.250
Std. Dev. = 9088.418 Max = 71800.000 Median = 1350.000
CV % = 194.710 Skewness = 3.771 3rd Quartile = 3800.000

Table with columns: %, cum %, c/s int, (# of bins = 24 - bin size = 3120.652). Rows show cumulative distribution data for Zn concentration.

0 1 2 3 4

Each "*" represents approximately 1.7 observations.

SUMMARY STATISTICS and HISTOGRAM LOGARITHMIC VALUES

Variable = Zn Unit = na N = 231
Mean = 3.0658 Min = 1.3979 1st Quartile = 2.3914
Std. Dev. = 0.7749 Max = 4.8561 Median = 3.1303
CV % = 25.2753 Skewness = 0.0796 3rd Quartile = 3.5798
Anti-Log Mean = 1163.521 Anti-Log Std. Dev. : (-) 195.385 (+) 6928.775

Table with columns: %, cum %, antilog, c/s int, (# of bins = 24 - bin size = 0.1504). Rows show cumulative distribution data for Zn concentration on a logarithmic scale.

0 1 2 3 4

Each "*" represents approximately 1.7 observations.

SUMMARY STATISTICS and HISTOGRAM ARITHMETIC VALUES

Variable = Ag Unit = na N = 231
Mean = 22.745 Min = 0.500 1st Quartile = 4.000
Std. Dev. = 28.671 Max = 176.000 Median = 11.000
CV % = 126.058 Skewness = 2.454 3rd Quartile = 30.000

274080

Table with columns: %, cum %, cls int, (# of bins = 24 - bin size = 7.630). Rows show cumulative distribution data for arithmetic values.

0 1 2 3 4

Each "*" represents approximately 1.7 observations.

SUMMARY STATISTICS and HISTOGRAM LOGARITHMIC VALUES

Variable = Ag Unit = na N = 231
Mean = 1.0480 Min = -0.3010 1st Quartile = 0.6021
Std. Dev. = 0.5508 Max = 2.2455 Median = 1.0414
CV % = 52.5592 Skewness = -0.0956 3rd Quartile = 1.4771
Anti-Log Mean = 11.169 Anti-Log Std. Dev. : (-) 3.142 (+) 39.704

Table with columns: %, cum %, antilog, cls int, (# of bins = 24 - bin size = 0.1107). Rows show cumulative distribution data for logarithmic values.

0 1 2 3 4

Each "*" represents approximately 1.7 observations.

SUMMARY STATISTICS and HISTOGRAM ARITHMETIC VALUES

274081

Variable = Au Unit = na N = 231
Mean = 1.072 Min = 0.030 1st Quartile = 0.504
Std. Dev. = 0.800 Max = 4.320 Median = 0.817
CV % = 74.638 Skewness = 1.603 3rd Quartile = 1.400

Table with columns: %, cum %, cls int, (# of bins = 24 - bin size = 0.187). Rows show cumulative distribution data for arithmetic values.

0 1 2 3 4

Each "*" represents approximately 1.7 observations.

SUMMARY STATISTICS and HISTOGRAM LOGARITHMIC VALUES

Variable = Au Unit = na N = 231
Mean = -0.0817 Min = -1.5229 1st Quartile = -0.2974
Std. Dev. = 0.3282 Max = 0.6355 Median = -0.0881
CV % = 401.8298 Skewness = -0.5664 3rd Quartile = 0.1461

Anti-Log Mean = 0.829 Anti-Log Std. Dev. : (-) 0.389 (+) 1.764

Table with columns: %, cum %, antilog, cls int, (# of bins = 24 - bin size = 0.0938). Rows show cumulative distribution data for logarithmic values.

0 1 2 3 4

Each "*" represents approximately 1.7 observations.

SUMMARY STATISTICS and HISTOGRAM ARITHMETIC VALUES

274082

Variable = Ba Unit = na N = 231
 Mean = 16.633 Min = 0.130 1st Quartile = 2.705
 Std. Dev. = 16.688 Max = 57.100 Median = 7.900
 CV % = 100.331 Skewness = 0.858 3rd Quartile = 28.200

 % cum % cls int (# of bins = 24 - bin size = 2.477)

 0.00 0.22 -1.108
 12.55 12.72 1.368 *****
 20.35 32.97 3.845 *****
 9.96 42.89 6.322 *****
 7.79 50.65 8.799 *****
 3.90 54.53 11.276 *****
 2.16 56.68 13.753 *****
 4.33 60.99 16.230 *****
 3.03 64.01 18.707 *****
 2.60 66.59 21.184 *****
 2.16 68.75 23.661 *****
 2.16 70.91 26.138 *****
 4.33 75.22 28.615 *****
 2.60 77.80 31.092 *****
 1.73 79.53 33.569 *****
 2.60 82.11 36.046 *****
 1.73 83.84 38.523 *****
 1.73 85.56 41.000 *****
 2.16 87.72 43.477 *****
 3.46 91.16 45.954 *****
 2.60 93.75 48.431 *****
 3.03 96.77 50.902 *****
 0.87 97.63 53.385 *****
 1.30 98.92 55.862 *****
 0.87 99.78 58.338 *****

0 1 2 3 4

Each "*" represents approximately 1.7 observations.

#####

SUMMARY STATISTICS and HISTOGRAM LOGARITHMIC VALUES

Variable = Ba Unit = na N = 231
 Mean = 0.8981 Min = -0.8861 1st Quartile = 0.4321
 Std. Dev. = 0.6191 Max = 1.7566 Median = 0.8975
 CV % = 68.9285 Skewness = -0.5106 3rd Quartile = 1.4502

Anti-Log Mean = 7.909 Anti-Log Std. Dev. : (-) 1.901
 (+) 32.901

 % cum % antilog cls int (# of bins = 24 - bin size = 0.1149)

 0.00 0.22 0.114 -0.9435
 0.87 1.08 0.148 -0.8286 *
 0.43 1.51 0.193 -0.7137 *
 0.87 2.37 0.252 -0.5988 *
 0.00 2.37 0.328 -0.4839
 0.87 3.23 0.428 -0.3690 *
 0.43 3.66 0.557 -0.2541 *
 1.30 4.96 0.726 -0.1392 **
 2.60 7.54 0.946 -0.0243 ***
 2.60 10.13 1.232 0.0906 ***
 6.06 16.16 1.605 0.2055 *****
 1.30 17.46 2.091 0.3204 **
 7.96 24.78 2.725 0.4353 *****
 5.63 30.39 3.550 0.5502 *****
 6.93 37.28 4.625 0.6651 *****
 4.76 42.03 6.025 0.7800 *****
 7.79 49.78 7.850 0.8949 *****
 3.46 53.23 10.228 1.0098 *****
 3.03 56.25 13.326 1.1247 *****
 6.06 62.28 17.362 1.2396 *****
 5.63 67.89 22.620 1.3545 *****
 8.23 76.08 29.470 1.4694 *****
 7.79 83.84 38.396 1.5843 *****
 12.55 96.34 50.025 1.6992 *****
 3.46 99.78 65.176 1.8141 *****

0 1 2 3 4

Each "*" represents approximately 1.7 observations.

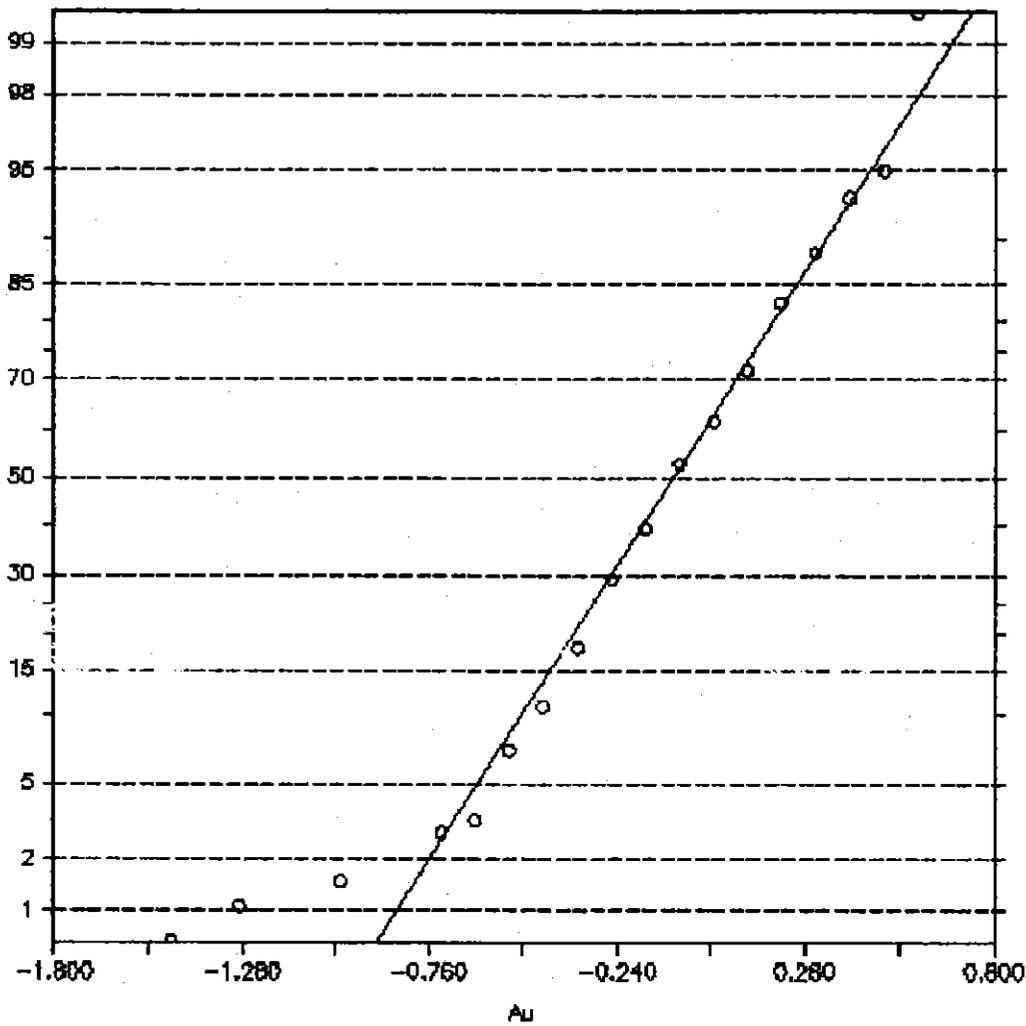
ML Charter Pre-Resource Estimate
 PROBABILITY PLOT

LOGARITHMIC VALUES

Variable = Au
 Units = na
 No. = 231
 Classes = 24

POPULATIONS

Pop.	Mean	Std.Dev.	%
1	-0.0817	0.3282	100.0



USERS VISUAL
 PARAMETER ESTIMATES

APPENDIX 3

DHS grade-tonnage printout

274085

Program DHS - ore reserves module

 area code: mac
 calculated on: 11:33 AM FRI.. 1 MAY . 1992
 user title: Mt. Charter Pre-Resource Estimate
 polygon calculation option is for GLOBAL average (g) base cutoff value: .00
 section name selection criteria: -----
 polygon group name selection criteria: -----
 Sg criteria: all polygons used
 assays will be weighted by hole interval lengths

section: 825RL thickness: 37.00 fwd ext: 35.00 bwd ext: 25.00

GROUP NAME	cutoff	UGDE	#intv	Sqval	area of polygon	tonnes.....	Cu	CUTCu	#assyPb	CUTPb	#assyZn	CUTZn	#assyAg	CUTAg	#assyAu	CUTAu	#assyBa	CUTBa	#assyCu	CUTCu					
925	.00	0	109	3.15	31150.4	3630575.4	237.82	237.82	109	3034.70	3034.70	109	4290.55	4290.55	109	35.18	35.18	109	1.34	1.34	109	25.09	25.09	109	237.82
section total =====																									
825RL	.00	0	109	3.15	31150.4	3630575.4	237.82	237.82	109	3034.70	3034.70	109	4290.55	4290.55	109	35.18	35.18	109	1.34	1.34	109	25.09	25.09	109	237.82

section: 775RL thickness: 50.00 fwd ext: 25.00 bwd ext: 25.00

GROUP NAME	cutoff	UGDE	#intv	Sqval	area of polygon	tonnes.....	Cu	CUTCu	#assyPb	CUTPb	#assyZn	CUTZn	#assyAg	CUTAg	#assyAu	CUTAu	#assyBa	CUTBa	#assyCu	CUTCu					
775	.00	0	23	3.15	22919.0	3609740.7	441.83	355.22	23	4810.74	4810.74	23	3320.10	3320.10	23	7.14	7.14	23	.99	.99	23	8.80	8.80	23	441.83
section total =====																									
775RL	.00	0	23	3.15	22919.0	3609740.7	441.83	355.22	23	4810.74	4810.74	23	3320.10	3320.10	23	7.14	7.14	23	.99	.99	23	8.80	8.80	23	441.83

section: 725 thickness: 50.00 fwd ext: 25.00 bwd ext: 25.00

GROUP NAME	cutoff	UGDE	#intv	Sqval	area of polygon	tonnes.....	Cu	CUTCu	#assyPb	CUTPb	#assyZn	CUTZn	#assyAg	CUTAg	#assyAu	CUTAu	#assyBa	CUTBa	#assyCu	CUTCu					
725	.00	0	39	3.15	19256.4	3032887.7	280.14	240.60	39	1542.29	1542.29	39	4770.57	4770.57	39	13.29	13.29	39	.72	.72	39	5.08	5.08	39	280.14
section total =====																									
725	.00	0	39	3.15	19256.4	3032887.7	280.14	240.60	39	1542.29	1542.29	39	4770.57	4770.57	39	13.29	13.29	39	.72	.72	39	5.08	5.08	39	280.14

274086

section: 675 thickness: 50.00 fwd ext: 25.00 bwd ext: 25.00

GROUP NAME	cutoff	UGDE	#intv	Sqval	area of polygon	tonnes.....	Cu	CUTCu	#assyPb	CUTPb	#assyZn	CUTZn	#assyAg	CUTAg	#assyAu	CUTAu	#assyBa	CUTBa	#assyCu	CUTCu					
675	.00	0	27	3.15	11588.4	1825167.1	285.48	285.48	27	454.17	454.17	27	2263.31	2263.31	27	5.28	5.28	27	.69	.69	27	3.44	3.44	27	285.48
section total =====																									
675	.00	0	27	3.15	11588.4	1825167.1	285.48	285.48	27	454.17	454.17	27	2263.31	2263.31	27	5.28	5.28	27	.69	.69	27	3.44	3.44	27	285.48

section: 625RL thickness: 50.00 fwd ext: 25.00 bwd ext: 25.00

GROUP NAME	cutoff	UGDE	#intv	Sqval	area of polygon	tonnes.....	Cu	CUTCu	#assyPb	CUTPb	#assyZn	CUTZn	#assyAg	CUTAg	#assyAu	CUTAu	#assyBa	CUTBa	#assyCu	CUTCu					
625	.00	0	33	3.15	7925.6	1248279.6	477.32	424.65	33	3438.25	3438.25	33	8639.92	8639.92	33	9.82	9.82	33	.60	.60	33	6.19	6.19	33	477.32
section total =====																									
625RL	.00	0	33	3.15	7925.6	1248279.6	477.32	424.65	33	3438.25	3438.25	33	8639.92	8639.92	33	9.82	9.82	33	.60	.60	33	6.19	6.19	33	477.32

grand total =====																									
OVERALL	cutoff	UGDE	#intv	Sqval	area of polygon	tonnes.....	Cu	CUTCu	#assyPb	CUTPb	#assyZn	CUTZn	#assyAg	CUTAg	#assyAu	CUTAu	#assyBa	CUTBa	#assyCu	CUTCu					
OVERALL	.00	0	231	3.15	92839.7	13346650.4	331.53	294.20	231	2860.77	2860.77	231	5619.02	5619.02	231	16.16	16.16	231	.95	.95	231	11.41	11.41	231	331.53

274087

APPENDIX 2
Additional rock-chip analyses
Mount Charter prospect
Tasmania



ANALABS

A Division of Incheape Inspection and
Testing Services Australia Pty. Ltd.
A.C.N. 004 991 664

274089

43

Phone (004) 316837

14 Thirkell St. COOEE TAS 7320

Fax (004) 318890

ANALYTICAL REPORT No.

100560.60.09572

THIS REPORT MUST BE READ IN CONJUNCTION WITH THE ACCOMPANYING ANALYTICAL DATA

INVOICE TO:

Aberfoyle Resources Limited
Exploration Division
P.O. Box 952
BURNIE TAS 7320

ORDER No.

4469

PROJECT

NAC

DATE RECEIVED

17/06/93

RESULTS REQUIRED

ASAP

No. OF PAGES
OF RESULTS

2

DATE
REPORTED

14/07/93

No.
OF COPIES

1

TOTAL No.
OF SAMPLES

18

SAMPLE NUMBERS	SAMPLE DESCRIPTION	ELEMENT/METHOD
622676/92,624407	RC Prep : GP033	Cu,Pb,Zn,Ag/GA101 Au,Au(R),Au(S)/G6309 Ba,As,Cr,Zr,Ti,P2D5/GX401 Ba,Ti/GX403

REMARKS

MAC32 ACCESS TRACK

ROCK CHIPS

1 x Basalt sample

RESULTS

TO

Mr R de Bonford
Aberfoyle Resources Limited
Exploration Division
P.O. Box 952
BURNIE TAS 7320

RESULTS

TO

RESULTS

TO

AUTHORISED OFFICER

ANALABSA Division of Inchoape Testing Services (Australia) Pty. Ltd.
A.C.N. 004 591 684

274000

ANALYTICAL DATA

SAMPLE PREFIX

REPORT No.

REPORT DATE

CLIENT ORDER No.

PAGE

100560.60.09572

14/07/93

4469

1 OF 2

TUBE No.	SAMPLE No.	Cu	Pb	Zn	Ag	Au	Au(R)	Au(S)	Ba	Ba
1	622676	43	73	136	4	0.270	-	-	-	1.399
2	622677	37	74	487	9	0.152	-	0.152	-	1.420
3	622678	54	70	26	3	0.218	-	-	2794	-
4	622679	29	34	27	<2	0.065	-	-	2399	-
5	622680	30	25	48	<2	0.011	-	-	1581	-
6	622681	39	22	49	<2	0.031	-	-	1849	-
7	622682	14	31	29	<2	0.055	-	-	-	1.761
8	622683	21	41	19	<2	0.068	-	-	-	0.982
9	622684	6	42	6	<2	0.046	-	-	3250	-
10	622685	8	55	20	<2	0.038	-	-	1250	-
11	622686	55	63	18	<2	0.024	-	-	1109	-
12	622687	24	42	12	<2	0.017	0.015	-	1238	-
13	622688	33	140	39	<2	0.021	-	-	878	-
14	622689	21	82	19	<2	0.015	-	-	859	-
15	622690	29	40	23	<2	<0.008	-	-	792	-
16	622691	25	233	164	<2	0.010	-	-	956	-
	622692	22	158	35	<2	0.013	-	-	883	-
18	624407	85	129	173	<2	<0.008	-	-	79	-
19	<i>HELLYER BASALT SAMPLE</i>									
20										
21										
22										
23	DETECTION	4	5	4	2	0.008	0.008	0.008	10	0.005
24	UNITS	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
25	METHOD	GA101	GA101	GA101	GA101	GG309	GG309	GG309	GX401	GX403

Results in ppm unless otherwise specified
 T = element present; but concentration too low to measure
 X = element concentration is below detection limit
 - = element not determined

AUTHORISED OFFICER Gary Lindberg

ANALABS

274091

A Division of Inchcape Testing Services (Australia) Pty. Ltd.
A.C.N. 004 591 684**ANALYTICAL DATA**

SAMPLE PREFIX REPORT No. REPORT DATE CLIENT ORDER No. PAGE

SAMPLE PREFIX		REPORT No.				REPORT DATE		CLIENT ORDER No.		PAGE	
		100560.60.09572				14/07/93		4469		2 OF 2	
TUBE No.	SAMPLE No.	As	Cr	Zr	Ti	Ti	P205				
1	622676	172	21	228	3504	-	0.084				
2	622677	220	23	200	3157	-	0.083				
3	622678	247	17	170	2748	-	0.100				
4	622679	180	14	214	3647	-	0.331				
5	622680	141	16	216	3627	-	0.260				
6	622681	222	20	250	4100	-	0.466				
7	622682	135	25	232	3658	-	0.230				
8	622683	164	23	217	3114	-	0.268				
9	622684	38	19	182	2217	-	0.141				
10	622685	81	18	180	2199	-	0.159				
11	622686	133	33	207	2448	-	0.172				
12	622687	135	74	187	2254	-	0.165				
13	622688	76	85	199	2584	-	0.288				
14	622689	80	24	186	2418	-	0.222				
15	622690	207	17	183	2465	-	0.295				
16	622691	235	16	161	2371	-	0.130				
	622692	176	16	160	2262	-	0.067				
18	624407	10	887	201	-	0.514	1.144				
19											
20											
21											
22											
23	DETECTION	2	5	5	50	0.005	0.007				
24	UNITS	ppm	ppm	ppm	ppm	%	%				
25	METHOD	GX401	GX401	GX401	GX401	GX403	GX401				

Results in ppm unless otherwise specified
 T = element present; but concentration too low to measure
 X = element concentration is below detection limit
 - = element not determined

AUTHORISED OFFICER Gary Lindberg

PROJECT MT CARTER	BSS SIEVE SIZE CODE - MESH NUMBER A 200 D 80 G 30 B 150 E 60 H 20 C 100 F 40 T = TOTAL	SAMPLE TYPE CODE <input type="checkbox"/> OXIDIZED PRODUCTS O <input type="checkbox"/> FRESH ROCK R <input type="checkbox"/> STREAM SEDIMENTS S <input type="checkbox"/> WEATHERED BEDROCK W <input type="checkbox"/> SURFACE TRANSPORTED T <input type="checkbox"/> RESIDUAL SOIL E <input type="checkbox"/> MINE DUMP M	CARD PUNCH PRINT YES <input type="checkbox"/> NO <input type="checkbox"/>	VERIFY YES <input type="checkbox"/> NO <input type="checkbox"/>	DATE 11/10/93	SHEET 161
-----------------------------	--	--	--	--	------------------	--------------

EASTINGS							NORTHINGS							SAMPLE NUMBER		DEPTH IN CMS		SIZE FRACTION		Sample Type	METAL VALUES PPM																GEOLOGICAL LOG																																										
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
4738E							4604N							622725																																																																	
ASSAY FOR: Cu, Pb, Zn, Ag, Au, Ba, As																																																																															

0364316896 ABERFOYLE BURNIE
 274092
 874 P02 DEC 22 '91 10:44
 (44)

274093



ANALABS
Division of Industrial Relations Services (Australia) Pty. Ltd.
 A.C.N. 004 591 684

44
 - 8 NOV 1993

Phone (004) 316837

14 Thirkell St. CODEE TAS 7320

Fax (004) 318890

ANALYTICAL REPORT No. 100560.60.09793

THIS REPORT MUST BE READ IN CONJUNCTION WITH THE ACCOMPANYING ANALYTICAL DATA

INVOICE TO:

Aberfoyle Resources Limited
 Exploration Division
 P.O. Box 952
 BURNIE TAS 7320

ORDER No.	PROJECT
4555	
DATE RECEIVED	RESULTS REQUIRED
11/10/93	ASAP

No. OF PAGES OF RESULTS	DATE REPORTED	No. OF COPIES
1	04/11/93	1

TOTAL No. OF SAMPLES
 1

SAMPLE NUMBERS	SAMPLE DESCRIPTION	ELEMENT/METHOD
522725	RC Prep : GP033	Cu,Pb,Zn,Ag/GA101,Ag/GA104 Au,Au(R)/GB309 Ba/OX406,As/GX401

REMARKS
BARYTE VEIN
MAC38 37 ACCESS TRACK

RESULTS TO

Mr R de Bonford
 Aberfoyle Resources Limited
 Exploration Division
 P.O. Box 952
 BURNIE TAS 7320

RESULTS TO

RESULTS TO

AUTHORISED OFFICER

274094

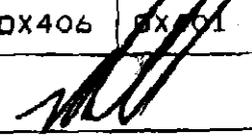
ANALABS

ANALYSIS OF METALS IN SOILS AND SLURRIES
A.C.N. 004 591 884

ANALYTICAL DATA

SAMPLE PREFIX		REPORT No.				REPORT DATE		CLIENT ORDER No.		PAGE	
		100560.60.09793				04/11/93		4555		1 OF 1	
TUBE No.	SAMPLE No.	Cu	Pb	Zn	Ag	Ag	Au	Au(R)	Ba	As	
1	622725	41	10	154	-	103	3.860	3.930	44.16	233	
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											
13											
14											
15											
16											
17											
18											
19											
20											
21											
22											
23	DETECTION	4	5	4	2	10	0.008	0.008	0.01	2	
24	UNITS	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	
25	METHOD	GA101	GA101	GA101	GA101	GA104	GG309	GG309	DX406	DX401	

Results in ppm unless otherwise specified
 T = element present; but concentration too low to measure
 X = element concentration is below detection limit
 - = element not determined

AUTHORISED OFFICER 

274095

APPENDIX 3

Filenote:

Mount Charter prospect economics

File Note: Mt Charter

274096

Alternative A: - Base Metal Concentrate

Forecast Metal Prices 1997/98					Insitu Value		Recovery	Rec. Value	
Deposit Grade					US\$/tonne	A\$/tonne	%	A\$/t	
Pb	%	0.3	30	US c/lb	6.61	1.98	2.65	60	1.59
Zn	%	0.6	60	US c/lb	13.23	7.94	10.58	80	8.47
Ag	g/t	19	4.5	US\$/oz	0.61	2.75	3.67	60	2.20
Au	g/t	1	320	US\$/oz	0.03	10.29	13.72	50	6.86
E/R					22.96		30.61	19.11	
Recovered Value								19	
Costs					Mining (5 to 1 open cut)			12	Minimum
					Milling			17	Minimum
					Other (inc. Freight)			5	
Total Costs								34	

Conclusion: Under all circumstances (even 100% recovery) it is impossible to achieve an economic outcome with a conventional Base Metal Flotation process.

Alternative B: - Gold extraction process (Leaching ?)

Forecast Metal Prices 1997/98					Insitu Value		Recovery	Rec. Value	
Deposit Grade					US\$/tonne	A\$/tonne	%	A\$/t	
Au	g/t	1	320	US\$/oz	0.03	10.29	13.72	90	12.35
Recovered Value								12	
Costs					Mining (5 to 1 open cut)			12	Minimum
					Milling			8	Minimum
					Other (inc. Freight)			2	
Total Costs								22	

Note: This an unlikely scenario as the gold is not easily liberated from the ore, but even if a process was found the economics are so poor that the gold price would have to be at unrealistic levels for the deposit to be economic.

A. B. Molina *A. B. Molina*
 Date: 24/7/97

274097

APPENDIX 4
Mount Charter prospect
Proposed RL:
Schedule of area.

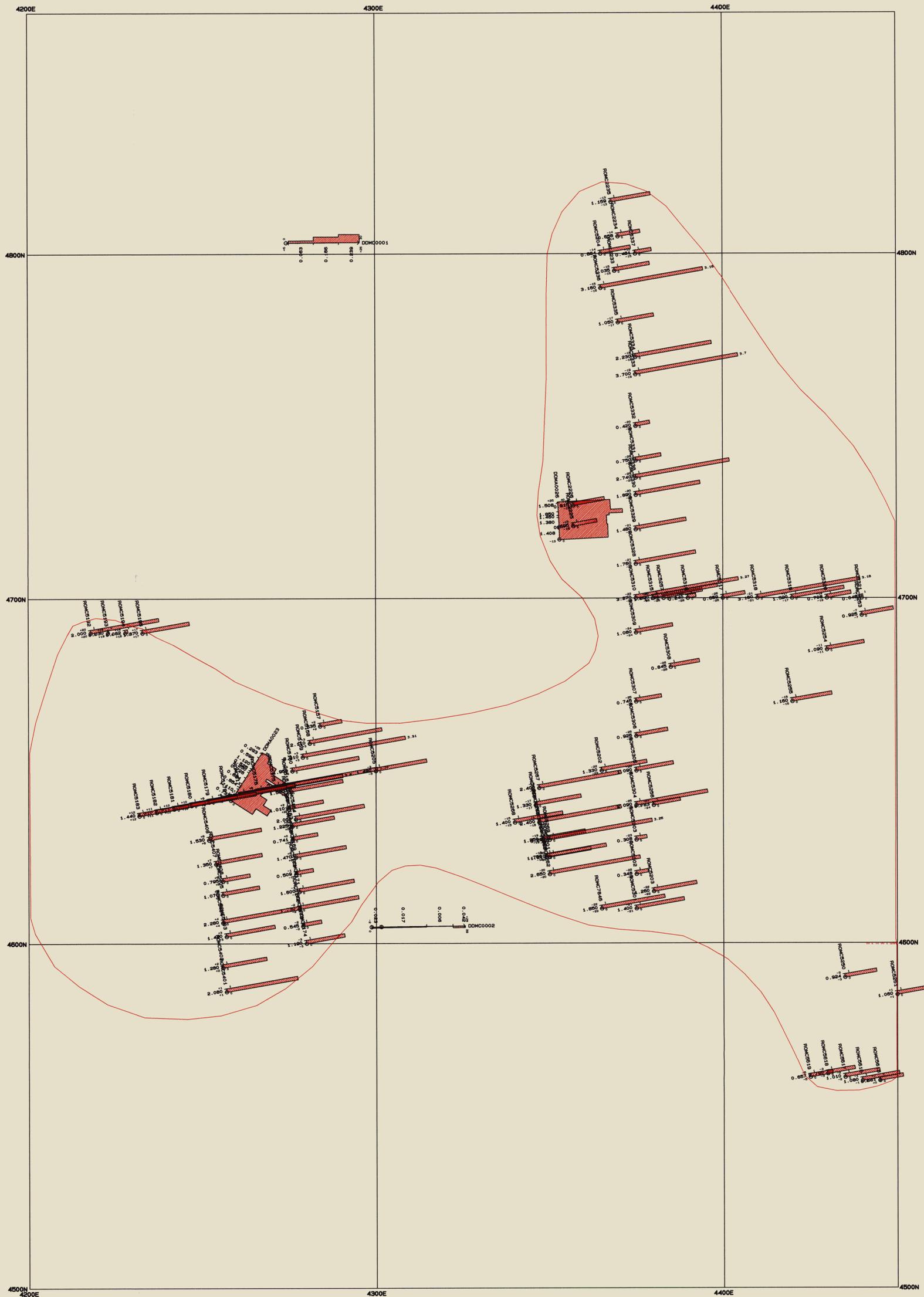
Proposed Mt. Charter Retention Licence:

The proposed licence occurs on the Charter 1:25,000 topographic map sheet (Sheet 3839).

From the origin at 388500mE, 5391000mN, east to 390500mE, 5391000mN, then north to 390500mE, 5392000mN, then west to 390000mE, 5392000mN, then north to 390000mE, 5392500mN, then west on 5392500mN to intersect the Murchison Highway, thence along the Highway to 5391500mN and east to 5391500mN, 388500mE and south to the origin at 388500mE, 5391000mN.

PROGRAM: dms
 PROJECT: mac
 PLAN: 98-4114
 GRID: 4200E 4800N
 E: 4200.0
 N: 4800.0
 UTM: 4200.0 4800.0
 FORWARD AXES: 300.0
 BACKWARD AXES: 300.0
 POP FILE: mac342.dwg
 PLOT FILE: mac342.plt
 SHEET: 1 of 1

LEGO - Right Size
 * HISTORAM *
 * ANNOTATION *
 * GIVE RESOURCES *
 * SHEET *
 * PLAN *
 * DATE *
 * USER *
 * TITLE *



98-4114

THE MT CHARTER PROSPECT
 SUPPORTING DOCUMENT FOR A RETENTION
 LICENCE APPLIC. RL9711(EL10687)

Aberfoyle Resources Limited EXPLORATION DIVISION		TASMANIA MACKINTOSH E.L. 106/87 Mt. Charter Au Zone Plan > 800m R.L.	Designer: DBK/RgeB Drafter: Checker: Date: 13/10/97 Plate No.: MAC342
REVISIONS DATE DATE DATE DATE _____ _____ _____ _____		Location Code:	Scale: 1 : 500 Date: 13/10/97 Plate No.: MAC342

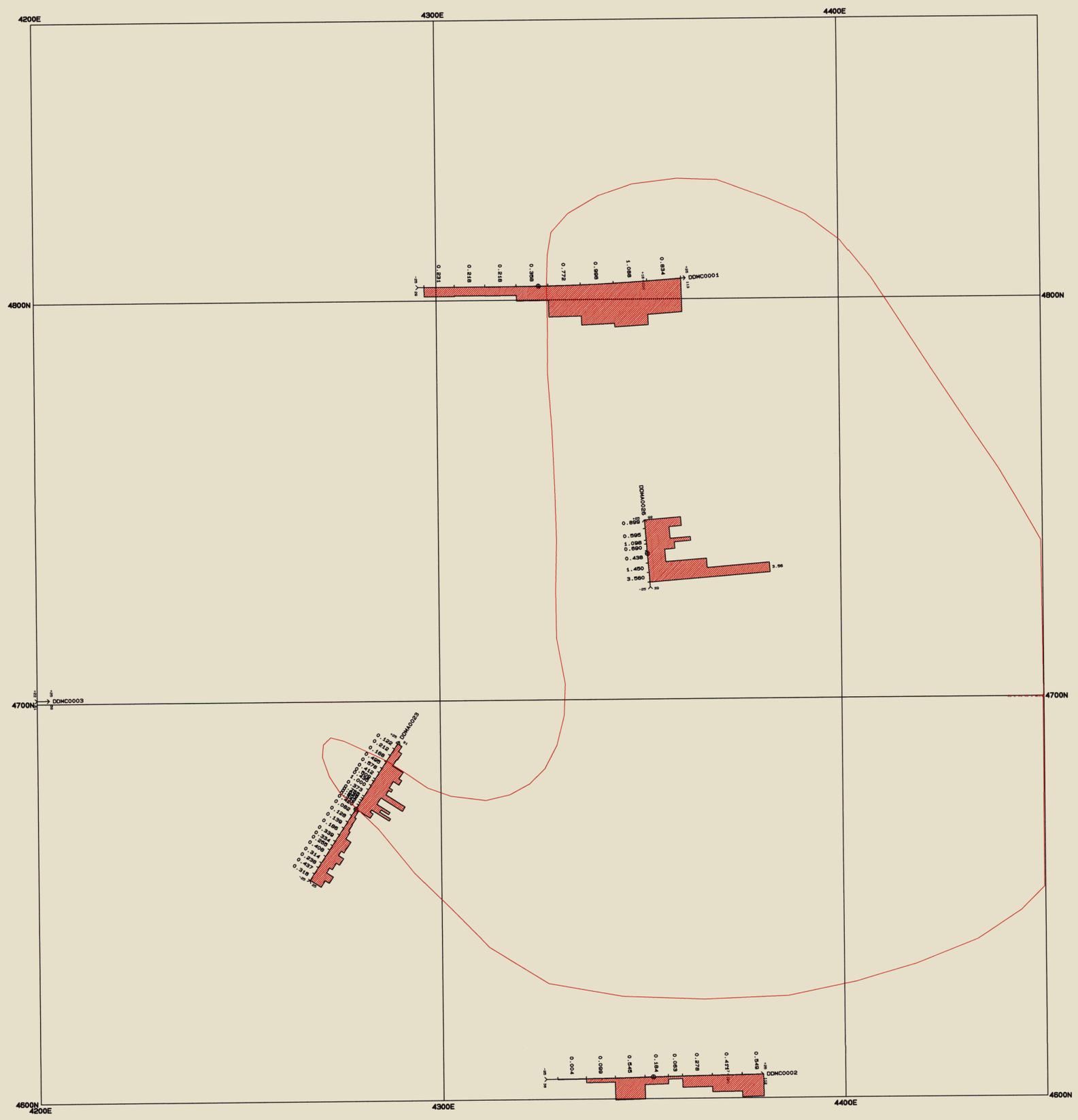
5 cm

PROGRAM: Dns
 PROJECT: 880
 PLAN DEFINITION:
 GRID: 4200 4400 0
 N: 4800 4870 0
 E: 750 0
 FORWARD EXTENT: 80 0
 BACKWARD EXTENT: 80 0
 PLAN FILE: D:\M7781\PLAN
 PLAN FILE: D:\M7781\PLAN
 PLAN FILE: D:\M7781\PLAN
 PLAN FILE: D:\M7781\PLAN

LESDO - Right Side
 * INTERPOLATE *
 Datasrc: Dns
 Data: Au: Signal
 Step Value: 0.000
 Top Value: 0.000
 Data Name: 0.000
 Max. Size: 80

LESDO - Left Side
 * INTERPOLATE *
 Datasrc: Dns
 Data: Au: Signal
 Step Value: 0.000
 Top Value: 0.000
 Data Name: 0.000
 Max. Size: 80

* USE RESOURCES *
 Resource: 7781
 Resource: 7781



98-4114

THE MT CHARTER PROSPECT
 SUPPORTING DOCUMENT FOR A RETENTION
 LICENCE APPLIC. RL9711(EL106/87)

Aberfoyle Resources Limited			
EXPLORATION DIVISION			
REVISIONS		TASMANIA	
Init	Date	Init	Date
Location Code:		Scale: 1 : 500	Date: 13/10/87
			Plate No.: HAC343

5 cm

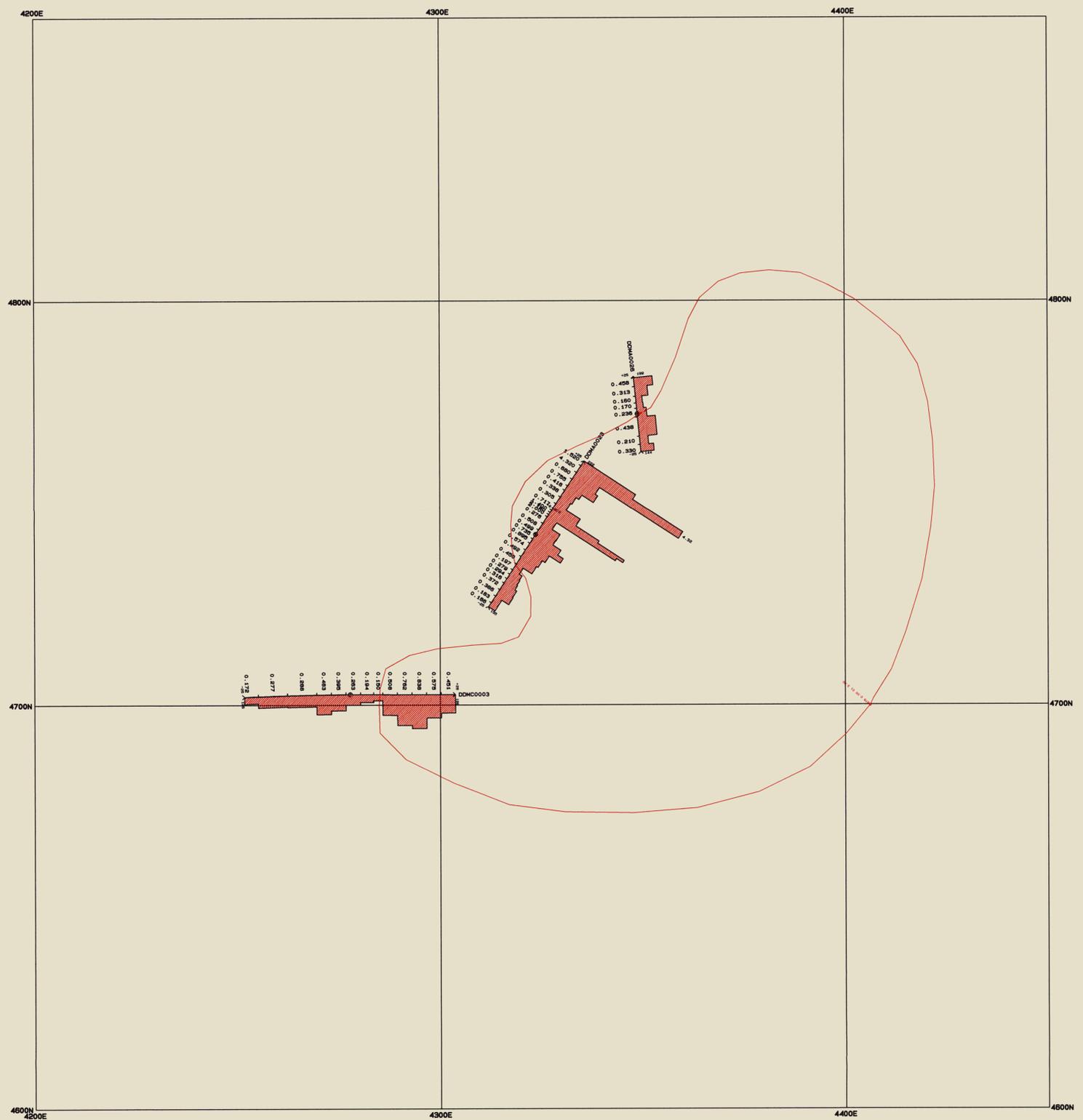
274100

PROGRAM: dms
 PROJECT: 98-4114
 PLAN DEFINITION:
 GRID: 5000
 I: 4200.0 4800.0
 J: 4700.0 4700.0
 K: 4200.0 4700.0
 Forward extent: 50.0
 Reverse extent: 50.0
 PDF file: dms98-4114.pdf
 PLOT file: dms98-4114.plt
 DWT file: dms98-4114.dwt

LEGENO - Right Side
 * HISTOGRAM =
 DENSITY: 0.01
 PLOT: Au (tonne)
 TON VALUE: 5.000
 DENSITY: 0.000
 MAX DIST IN MM: 50

LEGENO - Left Side
 * ANNOTATION =
 DENSITY: 0.01
 PLOT: Au (tonne)

* ONE RESOURCE =
 RESOURCE: 0.01
 PLOT: Au (tonne)



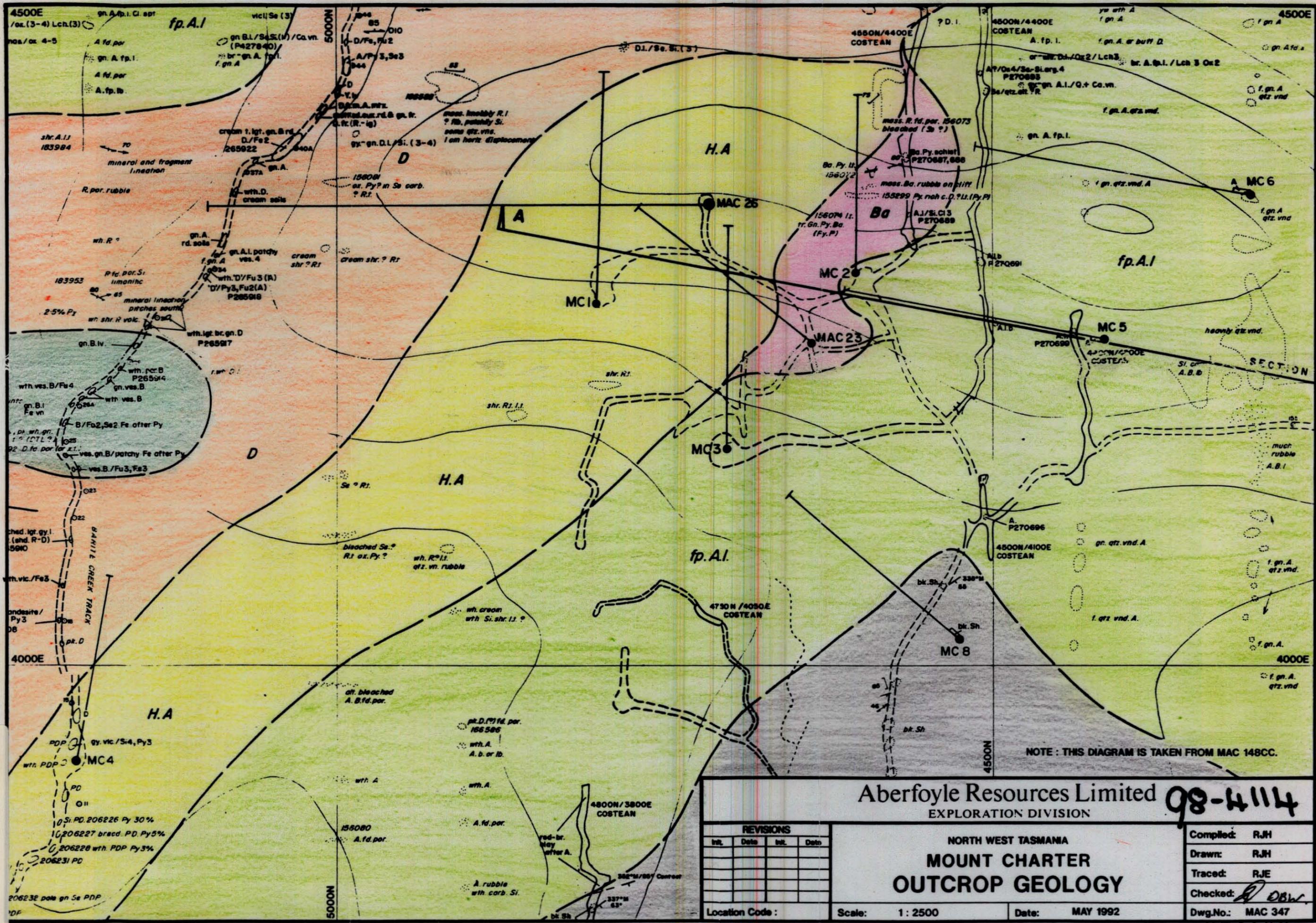
98-4114

THE MT CHARTER PROSPECT
 SUPPORTING DOCUMENT FOR A RETENTION
 LICENCE APPLIC. RL971(EL10687)

Aberfoyle Resources Limited EXPLORATION DIVISION		COMPILER: DM/R268 DRAWN: TRACKED: CHECKED: PLOT NO.: MAC345
TASMANIA MACKINTOSH E.L. 106/87 Mt. Charter Au Zone Plan 650m - 700m R.L.		
REVISIONS DATE DATE DATE DATE _____ _____ _____ _____	SCALE: 1: 500 DATE: 13/10/97	LOCATION:



274102



Aberfoyle Resources Limited **98-4114**
EXPLORATION DIVISION

NORTH WEST TASMANIA
**MOUNT CHARTER
OUTCROP GEOLOGY**

REVISIONS			
Int.	Date	Int.	Date

Compiled: R.J.H.
Drawn: R.J.H.
Traced: R.J.E.
Checked: *[Signature]* D.B.W.
Dwg.No.: MAC 347

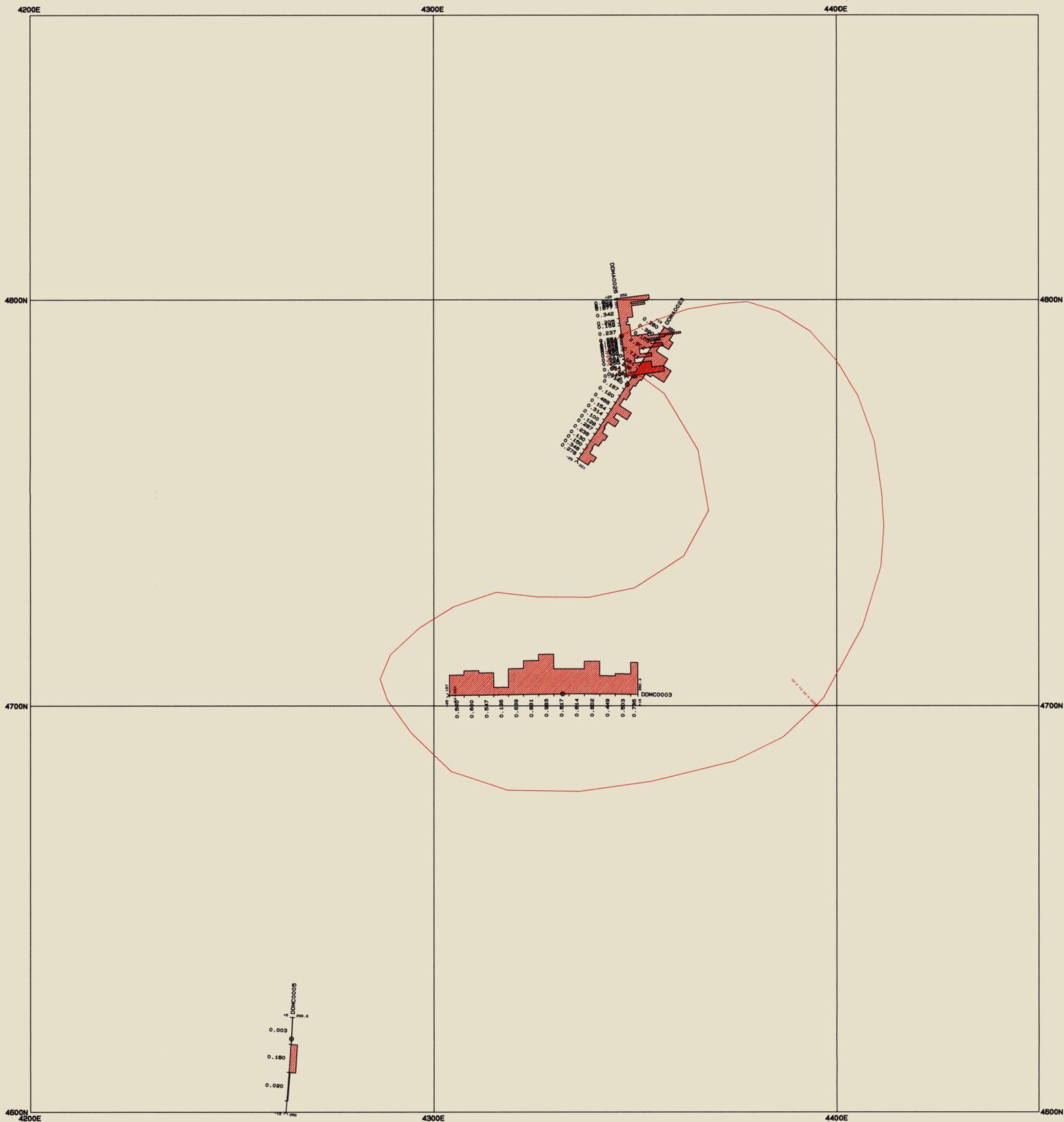
Location Code: Scale: 1:2500 Date: MAY 1992

274103

PROGRAM: dms
 PROJECT: mac
 PLAN DEFINITION:
 PLAN: mac
 E: 4200.0 4200.0
 N: 4800.0 4800.0
 UTM: 50
 Forward extent: 50.0
 Backward extent: 50.0
 POP File: D:\MACRO\1\POP
 POP File: D:\MACRO\1\POP
 POP File: D:\MACRO\1\POP
 POP File: D:\MACRO\1\POP

LEGEND - Right Side
 * DISTORTION *
 DISTORTION: 0.000
 DISTORTION: 0.000
 DISTORTION: 0.000
 DISTORTION: 0.000
 DISTORTION: 0.000
 DISTORTION: 0.000

LEGEND - Left Side
 * ANNOTATION *
 ANNOTATION: 0.000
 ANNOTATION: 0.000
 ANNOTATION: 0.000
 ANNOTATION: 0.000
 ANNOTATION: 0.000
 ANNOTATION: 0.000



98-4114

THE MT CHARTER PROSPECT
 SUPPORTING DOCUMENT FOR A RETENTION
 LICENCE APPLIC. RL9711(EL106/87)

Aberfoyle Resources Limited				EXPLORATION DIVISION	
TASMANIA				COMPILER: DBW/RSB	
MACKINTOSH E.L. 106/87				DRAWN:	
Mt. Charter Au Zone				TRACED:	
Plan 800m - 850m R.L.				CHECKED:	
Location Code:	Scale: 1: 500	Date: 13/10/87	Plate No.:	MAC345	

5 cm

274104

PROJECT: TCR
 PLAN: RL 9711
 DATE: 1/12/87
 SCALE: 1:500
 DRAWN BY: J.M.
 CHECKED BY: J.M.
 APPROVED BY: J.M.
 PROJECT NO.: 1000
 SHEET NO.: 1000
 TOTAL SHEETS: 1000



REVISIONS		Tasmania		Exploration Dept	
NO.	DATE	BY	CHKD	NO.	DATE

Mt. Charter Gold Zone
 Rock Chip/Channel Sample
 Locations and Values

Scale: 1:500 Date: 1/12/87 State No.: 1000